CWCB Grant Application
Water Efficiency Plan

City Monte Vista

March 2017

Prepared by

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CWCB Grant Application
Water Efficiency Plan

City of Monte Vista

SGM Project # 136.09.05

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1.0 Utility Background Information

1.1 Name and Contact Information

The entity seeking the grant is the City of Monte Vista, Colorado.
The primary contact at the City for this project is:

Forrest Neuerburg
City Manager
City of Monte Vista
95 West First Avenue
Monte Vista, Colorado 81144
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E-mail: ctymgr@ci.monte-vista.co.us

1.2 Water Efficiency Plan Development Team

The City of Monte Vista (City or Monte Vista) has a Colorado Water Conservation Board (CWCB) approved Water Conservation Plan that was completed in 2011 in accordance with the Water Conservation Act of 2004 and meets the provisions of the Colorado Revised Statute § 37-60-126. Monte Vista is interested in updating its existing Water Conservation Plan by reevaluating the effectiveness of the 2011 progress and goals and realign with the current water supply planning efforts and Basin Implementation Plan goals by completing a Water Efficiency Plan (WEP) under the updated Colorado Water Conservation Board (CWCB) guidance.

It is anticipated that SGM will support the City with this effort, working closely with City staff on obtaining and collecting data, supporting with identification of strategies and measures, acting as the WEP's liaison to City Council, and reviewing the document. The WEP will also be updated with the help of the City's attorney to prepare and inform council measures related to the city code.

Table 1 summarizes the anticipated team members, their role, and anticipated contribution to the WEP update effort.

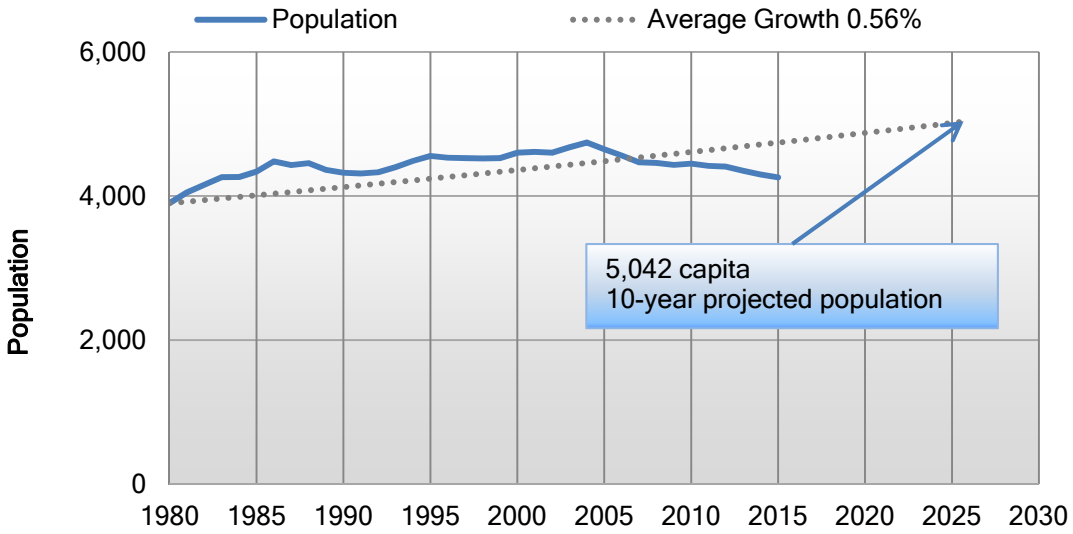
Table 1. Team Summary

Name	Title/Role	Expected Contribution
City of Monte Vista Team Members		
Forrest Neuerburg	City Manager	Project champion for the City's WEP; responsible for key project decisions and engaging the City Council; and advising WEP development related to land use planning issues
Robert Vance	Public Works Director	Support City Manager during the development of the WEP; coordinate with City departments and personnel; review plan document; ensure SGM receives resources needed from the City to complete the WEP; advise WEP development related to evaluation of water use inside/outside City limits; and attend project meetings, and review plan documents
Bob Abeyta	Utility Supervisor	Advise WEP development related to water production and treatment issues; collect relevant water system operations information
Robert Vance	Distribution Crew Leader	Advise WEP development related to water meter update tasks; identify largest water users for each type of water user; and advise WEP development related to water meter update tasks
Tony Felix (Lead Utility Operator) Andrew Valenzuela Mike Sanchez Michael Ross	Meter Readers	
Jaime Hurtado	Recreation Coordinator	Advise WEP development related to park irrigation water use, and bring lessons learned from previous water conservation implementation efforts
Randy Kern (Rio Grande County Planning Department)	Building Inspector	Advise WEP development related to water efficiency inspection tasks
Christy Fletcher	Utility Billing Clerk	Advise WEP development related to customer query tasks, and estimate level of effort to update meter reading software
Karen Lintott, Esq.	Attorney (City Attorney)	Review WEP document; give input into municipal code revision or land use planning changes; and support liaison to City Council
Consultant Team Members		
Kate Ryan, Esq. Peter Nichols	Attorney (Berg Hill Greenleaf Ruscitti, LLP)	Review WEP document; and advise WEP development related to water rights
Jordan Dimick, P.E.	Consultant/Project Manager (SGM)	Lead overall project, direct consultant team, and perform project work. Ultimately responsible for all managerial and technical facets of the project.
David Schiowitz Kelly Haun Ryan Mullen Diana Chumney	Consultant/ Technician (SGM)	Complete significant portions of the WEP including profiling the City's system, profiling the historical water demands, and supporting the Project Manager and City throughout the WEP project.
Eric Bikis, P.G.	Consultant / Senior Water Resources (SGM)	Provide QA/QC review; ensure SGM team has organizational resources needed to successfully and efficiently complete the project

1.3 Historical Population[1]

Population data presented in this document were collected from DOLA for 1980 to 2015. Historically, the population in the City of Monte Vista has increased at an annual average rate of 0.24 percent. Individual annual growth rates have been as high as 3.65 percent in the 1980s and as low as -2.17 percent in the 2000s. Recently, annual rates have declined, but the City anticipates that population rates will increase in the next ten-year period at a rate of 1.5 percent. The projected population increase over the next ten-year period represents an average growth rate of 0.56 percent, since 1980, which is comparable to the average growth rate observed between 1980 and 2006. Figure 1 shows historical and projected population for the City.

Figure 1. Historical, Average, and Projected Population (DOLA[1])



1.4 5-Year Retail Water Delivery

Table 2 summarizes the City of Monte Vista's retail water deliveries for water years 2012 through 2016. Figure 2 shows a comparison of metered water deliveries to customers, as compared to its produced water from wells. Potable water production records are compiled based on the City's metered well pumping records. Raw water deliveries were calculated based on the City's metered well pumping records for the irrigation of Chapman Park. Other parks are irrigated using potable water and water usage is metered. Metered water deliveries are based on annual billing records.

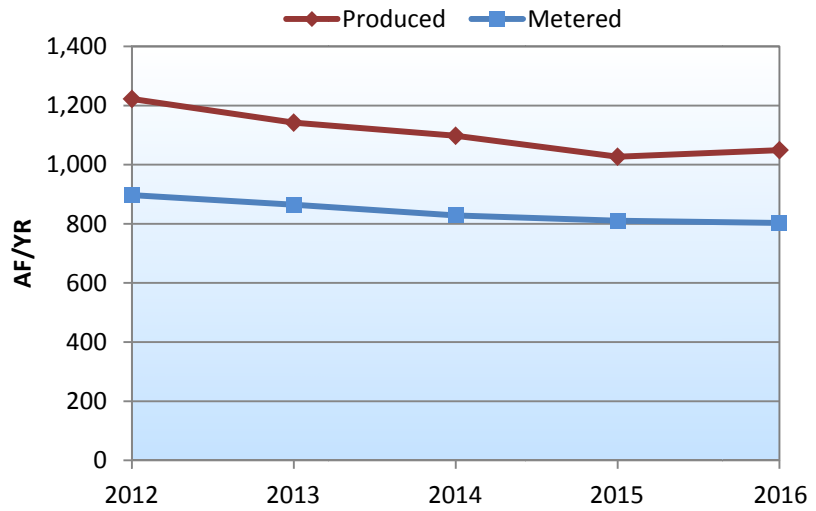
1. [1] DOLA https://dola.colorado.gov/demog_webapps/peParameters.jsf

Table 2. Historical Water Delivery

Year	Annual Potable Water Production (AF)						Unconfined Well Production for Raw Water Irrigation (AF)	Total Water Production (AF)	Metered Water Delivery					
									Metered Water Delivery (AF)	Non-Revenue Water (%)	Potable Water Delivery Distribution by Customer Type (%)			
	Well 1	Well 2	Well 3	Well 4	Well 8	Total					Res.[1]	Comm.[2]	Zero Bill.[3]	Gov.[4]
2012	29.1	33.8	0.2	568.3	560.3	1,191.7	30.6	1,222	897	26.6%	79.9%	7.8%	10.8%	1.4%
2013	0.6	84.6	0.4	416.4	601.7	1,103.7	38.3	1,142	864	24.3%	81.6%	8.2%	9.6%	0.5%
2014	83.4	122.5	0.1	287.8	581.0	1,074.6	23.1	1,098	828	24.6%	81.3%	7.8%	10.4%	0.4%
2015	0.0	18.6	0.0	386.5	590.2	995.4	31.7	1,027	810	21.1%	81.3%	7.7%	10.4%	0.5%
2016	0.1	15.4	0.1	364.5	645.9	1,025.9	23.1	1,049	803	23.5%	80.7%	8.3%	10.5%	0.5%

1. Includes: Single-family, duplexes, multi-family, and mobile home residential indoor and outdoor demands
2. Includes: Restaurants, retail, professional offices, hotels, and other commercial/business facilities
3. Includes: Outdoor irrigation of City parks and golf courses
4. Includes: Government facilities, schools, BLM office, library, and indoor golf course demands

Figure 2. Total Annual Water Delivered Metered vs. Produced



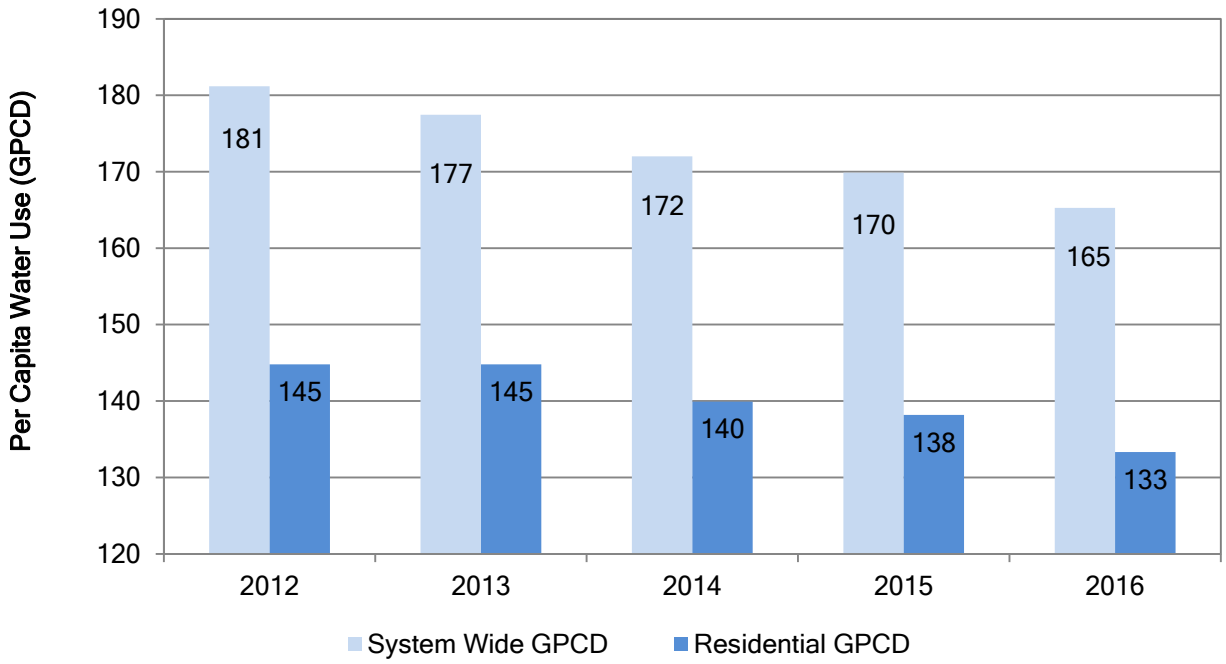
The City's highest annual water delivery of 897 acre-feet (AF) during the past five years occurred in 2012. However, annual deliveries prior to installation of residential meters between 2000 and 2005 exceeded 2,400 AF per year. The City's 2011 Water Conservation Plan reported the installation of meters on its system taps resulted in a 51 percent decrease in overall water demands. The recent decline in annual water deliveries are partially due to the short-term decline in the City's population.

Based on the available data, the City of Monte Vista had an estimated water loss percentage ranging between 21.1 percent and 26.6 percent with an average of 24.0 percent between 2012 and 2016. The City's 2011 Water Conservation Plan noted that the average system loss was approximately 20 percent. Therefore, the recent observed system losses are greater than the losses identified in the City's 2011 Water Conservation Plan. The City's WEP will identify the metrics used going forward to evaluate water loss and the WEP implementation success.

1.5 Historical Per Capita Water Use

Figure 3 shows system wide and residential potable water deliveries as gallons per capita per day (GPCD). Potable water production on a per capita basis to meet the City's demands has decreased since 2012. The observed system wide GPCD has decreased from 181 GPCD to 165 GPCD over the past five years, with the residential GPCD values decreased from 145 GPCD to 133 GPCD over the past five years, as shown in Figure 3.

Figure 3. Historical Per Capita Water Use



The above ranges are similar to those presented in the City's 2011 Water Conservation Plan, which averaged 170 and 142 GPDC, respectively, for the system wide and residential sectors between 2005 and 2009.

1.6 Projected Water Demand

The projected population increase over the next ten-year period represents an average growth rate of 0.56 percent, since 1980, which is comparable to the average growth rate observed between 1980 and 2006. The projected average growth rate of 1.5 percent over the next five years is

estimated based on historical population data published by the Colorado Department of Local Affairs (DOLA) along with the City's anticipated increase in population. Based on this rate, the estimated projected future water demand for the City of Monte Vista in 2021 is 1,136 AF. Table 3 summarizes the 5-year future population projection and demand.

Table 3. Projected 5-Year Future Population and Water Delivery[1][2]

Year	Population	Potable Water Delivery (AF/YR)	Raw Water Delivery[7,8] (AF/YR)	Total Delivery (AF/YR)
2014	4,298[3]	1,075 [5]	23.11 [7]	1,098
2015	4,259[3]	995 [5]	31.70 [7]	1,027
2016	*4,325*[4]	1,026 [5]	23.13 [7]	1,049
2017	*4,392*[4]	*1,042* [6]	*29.37* [8]	*1,071*
2018	*4,460*[4]	*1,057* [6]	*29.37* [8]	*1,087*
2019	*4,529*[4]	*1,073* [6]	*29.37* [8]	*1,103*
2020	*4,599*[4]	*1,090* [6]	*29.37* [8]	*1,119*
2021	*4,670*[4]	*1,106* [6]	*29.37* [8]	*1,136*

Notes:
AF/YR = acre-feet per year
Footnotes:
1. *Italicized text represents an estimated value.*
2. Standard text represents a historically measured value.
3. DOLA <https://dola.colorado.gov/demog_webapps/peParameters.jsf>
4. Estimated as previous year's population with a 1.5 percent growth rate.
5. Historical production records from Wells 1, 2, 3, 4, and 8.
6. Estimated production as previous year's production with a 1.5 percent growth rate.
7. Historical production record of Well 5 for irrigation of Chapman park.
8. Estimated as the average raw water delivery from Well 5 between 2012 and 2016.

1.7 Estimated Water Savings Goals

Estimating water savings at this stage of water efficiency planning is difficult given that the measures have not yet been selected and water savings associated with various water efficiency measures can be broad. However, the City's 2011 Water Conservation Plan provided an estimation of water efficiency for the water conservation measures selected. An estimated savings goal of 20 percent (1,895 AF) over the ten-year planning period for the upcoming WEP will likely include the following components:

- Category: Foundational
  City wide existing leak detection program (5 percent savings).
- Category: Foundational
  Advanced Metering Infrastructure (AMI) program that measures, collects, and analyzes water usage (5 percent savings).
- Category: Foundational
  Rate study to determine if an inclining block water rate structure would encourage efficient water use within the City (2 percent savings).
- Category: Foundational
  High efficiency fixture replacements for toilets, showerheads, and faucet aerators within City buildings (30 percent savings).

- Category: Foundational
  Installation of irrigation system efficiency devices for public outdoor areas irrigated by the City such as City parks (5 percent savings).
- Category: Technical Assistance/Incentives
  Distribution of toilet retrofit devices to owners of high-volume flush toilets (1 to 4 percent reduction for 60 residential customers per year).
- Category: Technical Assistance/Incentives
  Residential and commercial low-flow toilet rebate program (2 to 12 percent reduction for 60 residential customers per year and 8 percent reduction for 10 commercial customers per year).
- Category: Technical Assistance/Incentives
  Residential high efficiency clothes washer rebate program (1 to 5 percent reduction for 15 residential customers per year).
- Category: Technical Assistance/Incentives
  Residential low flow faucet and showerhead rebate programs (1 to 7 percent reduction for 60 residential customers per year).
- Category: Technical Assistance/Incentives
  Provide low income households with low flow toilet, showerhead, and faucet aerators (Combined 6 percent reduction for 25 residential customers per year).
- Category: Technical Assistance/Incentives
  Irrigation system efficiency device rebate program (5 percent reduction for 20 residential and 20 commercial customers per year).
- Category: Technical Assistance/Incentives
  Xeriscape incentives program (50 percent reduction for 10 residential customers per year).
- Category: Technical Assistance/Incentives
  Self-guided residential water audit kits that could include leak detection tablets, surveys, and sprinkler testing cones (50 percent reduction for 30 residential customers per year).
- Category: Ordinance & Regulation
  Consider turf and landscape standards as well as irrigation system standards for new development within this WEP (combined 10 percent savings for new construction).
- Category: Ordinance & Regulation
  Continue to enforce existing water savings policies and ordinances (such as waste water and phreatophyte removal), and evaluate policies and ordinances that would encourage water savings (1 percent saving).
- Category: Education Activities
  Consider customer outreach campaign that might include a children's water festival, school educational programs (K-12), xeriscape demonstration garden, and water conservation website upgrades (Combined 2.5 percent savings with heightened customer awareness of water efficiency as a result).
- Category: Education Activities
  Consider partnering with the local extension service or master gardeners to provide Xeriscape education classes (10 percent savings for 20 participants per year).

1.8 Water System Adequacy, Stability and Reliability

The City's main potable system supply consists of ground water pumped from five wells developed within the confined aquifer in the Rio Grande Basin. The City also owns three wells developed within the unconfined (alluvial) aquifer in the Rio Grande Basin, and currently operates one of them to supply irrigation water to Chapman Park. The City disinfects its raw water supplies at the respective wells, which are then regulated in series to meet its customers' water demands. Monte Vista does not currently have any storage for its treated water supplies.

In addition, the City owns portions of senior water rights that were historically used for irrigation. The City's ownership of water rights in four ditches were included in a 2016 water court application for a change of water rights, appropriative rights of exchange, and approval for a plan of augmentation. The primary purpose of the 2016 water court application is to allow the City of Monte Vista to meet the requirement of the proposed Rules Governing the Withdrawal of Groundwater in Water Division No. 3 (Rio Grande Basin). Table 4 summarizes the City's water rights.

Table 4. Water Rights Summary

Structure	Case Numbers	Diligence Decrees	Original Decree Date	Approp. Date	Amount
Confined Aquifer Wells					
Well No. 1 (Batterson Well)	W-847	N/A	7/3/1975	09/30/1950	2.45 cfs absolute
Well No. 2 (Jackson Well)	W-847	N/A	7/3/1975	09/30/1950	4.01 cfs absolute
Well No. 3 (Broadway Well)	W-847	N/A	7/3/1975	04/30/1957	2.67 cfs absolute
Well No. 4 (Sherman Well)	W-847	N/A	7/3/1975	09/23/1968	5.12 cfs absolute
Well No. 8[1] (Prospect Well)	88CW13	N/A	4/24/1989	09/30/1950; 04/30/1957;& 09/23/1968	4.46 cfs absolute
				Subtotal (absolute)	14.25 cfs
Unconfined Aquifer Wells					
Well No. 5 (Chapman Park Well)	W-847	N/A	7/3/1975	04/30/1965	1.34 cfs absolute
Well No. 6 (Ball Park Well)	W-847	N/A	7/3/1975	06/30/1949	0.423 cfs absolute
Well No. 7 (Golf Course Well)	W-847	N/A	7/3/1975	01/02/1954	4.23 cfs absolute
				Subtotal (absolute)	5.993 cfs
Senior Irrigation Water Rights[2]					
McDonald Ditch	05/01/1896	N/A	05/01/1896	05/01/1872	1.40 cfs absolute
Anderson Ditch	05/01/1896	N/A	05/01/1896	06/15/1874 05/31/1875 05/31/1877	4.23 cfs absolute
Rio Grande Lariat Ditch	04/09/1903	N/A	04/09/1903	Many between 10/13/1881 - 06/30/1899	2.51 cfs absolute
Ben Ogle Ditch	04/09/1903	N/A	04/09/1903	04/01/1877	1.00 cfs absolute
				Subtotal (absolute)	9.14 cfs
				Total (absolute)	**29.383 cfs**

Notes:
cfs = cubic feet per second
Footnotes:

1. Well 8 is decreed as an alternate point of diversion for Well Nos. 1, 2, 3, and 4 and is therefore not included in the Confined Aquifer Wells subtotal.
2. Reported amount is the City of Monte Vista's portion of the decreed river headgate diversion rates

1.9 2010 Statewide Water Supply Initiative (SWSI) Information

The City of Monte Vista is located in the Rio Grande Basin with the primary land use consisting of agricultural operations. The primary water sources consist of ground water supplies and surface water diversions from the Rio Grande. The 2010 SWSI report identified that numerous interstate compacts and international treaties combined with sustained drought have made the objective of sustainable water use difficult. Further, agricultural ground water use is currently at unsustainable levels. The 2010 SWSI report anticipated population growth within this basin to be 36 percent from 2008 to 2035. Total anticipated Municipal and Industrial (M&I) and Self-supplied Industrial (SSI) gaps in 2050 were estimated to be between 7,700 and 13,000 AF depending on the level of (Identified Projects and Processes (IPP) success. Water conservation is one method the 2010 SWSI report identified for meeting the projected water supply gap for the City and users in the Rio Grande Basin.

Non-consumptive water needs within the Rio Grande Basin were also identified in the 2010 SWSI report. The Rio Grande Basin contains ample wetlands, critical habitat for six threatened or endangered (T&E) species of animals, has riparian areas with rare or imperiled plant communities, and has waters with CWCB instream flow rights and natural lake level water rights. Recreational uses within the Rio Grande Basin include boating, fishing, and waterfowl hunting. Non consumptive needs applicable to the Rio Grande near the City of Monte Vista include boating, waterfowl hunting, critical habitat for T&E species, and wetlands.

2.0 Water Efficiency Plan Development

CWCB's 2012 Municipal Water Efficiency Plan Guidance Document will provide the basis for the City's updated 2017 Water Efficiency Plan. The document identifies the following five steps for water efficiency planning:

1. Profile of Existing Water Supply System
2. Profile of Water Demands and Historical Demand Management
3. Integrate Planning and Water Efficiency Benefits and Goals
4. Selection of Water Efficiency Activities
5. Implementation and Monitoring Plan

The City's WEP will draw from its previous water conservation efforts through development of these five steps. The following scope of work has been prepared with these steps as the basis for the WEP.

2.1 Scope of Work

The City's WEP will be structured based on CWCB's 2012 Municipal Water Efficiency Plan Guidance Document in order to prepare a plan that will be accepted and filed with the State. The following tasks are structured around developing a WEP that will adhere to this guidance document format and include, at a minimum, the CWCB-required elements.

Task 0. Project Management

This task will include work to conduct general project management. This includes holding a kickoff meeting, performing monthly budget reviews, submitting CWCB pay application submittals and general project management correspondence with the City staff and project manager.

Task 1. Profile Existing Water Supply System

This task will include summarizing the City's existing water supply system, water supply reliability, and limitations. It will also include a summary of the City's 2016 water court application, near-term water system capital improvement projects, and their relevance to the City's water efficiency effort. For much of this task, sources of information will include work already performed as part of this grant application as well as review and update from the City's 2011 Water Conservation Plan. The WEP update will also include completion of **Worksheet A**, provided in the guidance document and identification of the City's approach to meeting water supply challenges.

Task 2. Profile Water Demands and Historical Demands

As with Task 1, much of the information needed for this task has been completed as part of this grant application and/or will be reviewed and updated from the City's 2011 Water Conservation Plan. This includes compilation of the City's demographics and service area, summary of historical potable and non-potable water demands, summary of previous demand management activities and their impact. These items will be included in the City's WEP with modifications as needed to reflect current system understanding and conditions. Additional work to be performed as part of this task that has not been previously conducted includes:

- Non-revenue analysis for the years presented in this grant application.
- Identification of the City's largest water-use customer by customer type.
- Complete **Worksheet B**.
- Determine planning horizon.

Task 3. Integrated Planning and Water Efficiency Benefits and Goals

The benefits of water efficiency are numerous. One benefit is that of reducing or extending the phasing of capital infrastructure such as water treatment plants or water storage. This task will evaluate the current and upcoming capital projects in light of recent water efficiency activities, and results will be summarized in **Worksheet C**. Work associated with this task will also include a review the goals identified as part of the 2011 Water Conservation Plan and modify them as needed. This section will include results of the anticipated water savings for the selected measures and from potential water loss control management, if applicable.

Task 4. Selection of Water Efficiency Activities

This task will represent the bulk of the water efficiency plan work. First, a list of screening criteria will be developed by which all measures will be evaluated. Using those screening criteria, **Worksheets D-I** will be completed, addressing each category of water efficiency measures, including: foundational activities, targeted technical assistance and incentives, ordinances and regulations and education activities. For each category, the selected measures (based on application of the screening criteria) will then be evaluated for:

- Select implementation measure
- Estimated implementation cost
- Estimated water savings (where applicable)

Task 5. Implementation and Monitoring Plan

Task 5 will include the development of the Implementation Plans and Monitoring Plans for the selected measures.

Implementation Plan: **Worksheet J** will be completed as part of the implementation plan development, which will include each selected activity, anticipated implementation schedule (by year), dependent measures, actions, individual in charge of implementation and public involvement.

Monitoring Plan: **Worksheets K and L** will be completed as part of the monitoring plan development. These items will include a summary of:

- What data to collect (potable system discharges, per capita water use, etc.)
- How often to collect the data (annually, monthly, daily, etc.)
- Who will collect the data
- Lessons learned
- Savings achieved

Task 6. Adoption of New Policy, Public Review, and Formal Approval

Task 6 includes anticipated work associated with getting the WEP approved. Approval entities include the Monte Vista City Council and CWCB. Steps to obtaining approval from CWCB will include a preliminary review by CWCB staff to determine if the plan meets all of the state's criteria for acceptance. Once complete, a public review process will be initiated. Public review process will include posting the DRAFT WEP on the City of Monte Vista's website. City of Monte Vista will solicit and accept comments on the plan for 60 days. Following the public review process, comments will be incorporated into the document and approval will be solicited from CWCB and City Council.

2.2 Project Deliverables

Deliverables associated with this project include the WEP Report as well as project status memoranda.

2.2.1 Water Efficiency Plan Update

The WEP document will guide the City of Monte Vista as it continues to incorporate water efficiency into its daily water distribution system and water use activities. The plan will include history of the City's water conservation efforts, as well as its demand history and characteristics. The plan will outline selected water efficiency measures and the anticipated costs associated with implementing those measures and expected water savings. The plan will also provide documentation as to how those measures were selected.

2.2.2 Progress Reports

Two progress reports will be completed and submitted to CWCB as part of the WEP process, including 50 percent and 75 percent. It is expected that those progress reports will include information regarding preliminary findings, milestones achieved, obstacles or concerns and summary of revisions to scope or schedule as needed.

2.3 Budget

The estimated cost to develop the City of Monte Vista's WEP is $61,680. This includes consultant fee estimates and the City's staff in-kind labor.

The City of Monte Vista is requesting a grant for 50.3 percent of this cost, $31,000, with the City's match at 49.7 percent.

A detailed breakdown of the anticipated tasks and their associated cost is provided in Attachment 1. Table 5 provides a summary of the budget and grant request.

Table 5. Budget Summary

Task	City In-Kind[2]	Legal Consult. Fees[1]	Engineering Consult. Fees[1]	Total Budget Amount	CWCB Grant Request[1]	Additional City Funding Required[2]
Task 00 – Project Management	$1,267	$1,100	$2,339	**$4,706**	**$2,365**	$1,073
Task 01 – Profile Existing Water Supply System	$1,162	$500	$2,494	**$4,156**	**$2,089**	$905
Task 02 – Profile Water Demands and Historical Demands	$991	$200	$3,212	**$4,403**	**$2,213**	$1,199
Task 03 – Integrated Planning and Water Efficiency Benefits and Goals	$834	$200	$4,349	**$5,382**	**$2,705**	$1,843
Task 04 – Selection of Water Efficiency Activities	$3,766	$1,500	$16,439	**$21,705**	**$10,909**	$7,030
Task 05 – Implementation and Monitoring Plan	$319	$0	$2,087	**$2,406**	**$1,209**	$878
Task 06 – Adoption of New Policy, Public Review and Formal Approval	$1,105	$1,000	$4,767	**$6,872**	**$3,454**	$2,313
Task 07 – Deliverables	$569	$800	$10,680	**$12,049**	**$6,056**	$5,424
Total Planning Cost Estimate	**$10,015**	**$5,300**	**$46,365**	**$61,680**	**$31,000**	**$20,665**

1. Grant funded
2. City of Monte Vista funded

2.4 Schedule

The proposed schedule to complete the City of Monte Vista's WEP is provided in Attachment 2.

Attachment 1. Budget

CITY OF MONTE VISTA
WATER EFFICIENCY PLAN

		CITY OF MONTE VISTA										LEGAL CONSULTANT			ENGINEERING CONSULTANT					TOTAL			MONTE VISTA
Task #	TASK DESCRIPTION	CITY MNGR *F. Neuerburg* $42	PUB WORKS DIR *R. Vance* $37	UTILITY SUPER *B. Abeyta* $28	DIST. CREW LDR *R. Vance* $37	METER RDR *T. Felix* $20	REC DIR *J. Hurtado* $15	BUILDING INSPCT *R. Kern* $25	BILLING CLERK *L.Miller* $14	CITY ATTORNEY *K. Lintott* PC $19	TOTAL CITY OF MONTE VISTA IN-KIND	WATER ATTORNEY *P. Nichols* PC $200	WATER ATTORNEY *K. Ryan* PC $200	TOTAL LEGAL CONSULT. FEES	PROJECT MNGR *J.Dimick* PE $138	PRINCIPAL CONSULT *E.Bikis* PG $179	CONSULT III *D. Schiowitz* $107	TECH I, II, and III *Haun, Mullen, Chumney* $71	TOTAL ENGR CONSULT. FEES	LABOR HOURS	TOTAL COST	CWCB GRANT REQUEST	ADDITIONAL CITY FUNDING REQUIRED
00	**Project Management**																						
	Task Subtotals	**19.0**	**3.5**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**3.5**	**$ 1,267**	**0.0**	**5.5**	**$ 1,100**	**15.0**	**1.5**	**0.0**	**0.0**	**$ 2,339**	**60**	**$4,706**	**$ 2,365**	**$ 1,073**
01	**Profile Existing Water Supply System**																						
1.1	Overview of Existing Water Supply System	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	$ 149	0.5	1.0	$ 300	1.5	0.0	2.0	6.0	$ 847	15	$1,296		
1.2	Water Supply Reliability	1.0	2.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	$ 131	0.0	0.0	$ -	0.5	0.0	0.0	2.0	$ 211	7	$342		
1.3	Water Supply Limitations	7.0	8.0	3.0	2.0	2.0	2.0	0.0	2.0	2.0	$ 883	0.0	1.0	$ 200	5.5	1.0	2.0	4.0	$ 1,436	42	$2,519		
	Task Subtotals	**8.0**	**14.0**	**3.0**	**2.0**	**2.0**	**3.0**	**0.0**	**2.0**	**2.0**	**$ 1,162**	**0.5**	**2.0**	**$ 500**	**7.5**	**1.0**	**4.0**	**12.0**	**$ 2,494**	**63**	**$4,156**	**$ 2,089**	**$ 905**
02	**Profile Water Demands and Historical Demands**																						
	Compile MV Demographics	0.5	4.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0	$ 216	0.0	0.0	$ -	0.5	0.0	1.0	0.0	$ 176	9	$392		
2.1	Historical System-Wide Demands	1.5	3.0	0.0	0.0	0.0	1.0	0.0	5.0	0.0	$ 261	0.0	0.0	$ -	2.0	0.0	0.5	6.0	$ 756	19	$1,016		
2.2	Water Demand By Customer Category	0.5	1.5	0.0	0.0	0.5	0.0	0.0	3.0	0.0	$ 130	0.0	0.0	$ -	1.0	0.0	4.0	1.0	$ 637	12	$767		
2.3	Past and Current Demand Management Activities and Impact to Demands	3.0	1.5	2.0	0.0	0.0	0.0	0.0	0.0	0.5	$ 246	0.0	0.0	$ -	2.0	0.5	6.0	4.0	$ 1,292	20	$1,537		
2.4	Demand Forecasts	2.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	$ 139	0.5	0.5	$ 200	1.0	0.0	2.0	0.0	$ 352	8	$691		
	Task Subtotals	**7.5**	**8.5**	**4.0**	**2.0**	**0.5**	**1.0**	**0.0**	**10.0**	**0.5**	**$ 991**	**0.5**	**0.5**	**$ 200**	**6.5**	**0.5**	**13.5**	**11.0**	**$ 3,212**	**67**	**$4,403**	**$ 2,213**	**$ 1,199**
03	**Integrated Planning and Water Efficiency Benefits and Goals**																						
3.1	Water Efficiency and Water Supply Planning	4.0	5.5	3.0	0.0	0.0	1.0	0.0	0.0	0.5	$ 478	0.0	0.0	$ -	6.5	0.5	12.0	4.0	$ 2,555	37	$0		
3.2	Water Efficiency Goals	3.0	3.5	2.5	0.0	0.0	1.5	0.0	0.0	0.5	$ 356	0.5	0.5	$ 200	5.5	1.0	8.0	0.0	$ 1,794	27	$2,350		
	Task Subtotals	**7.0**	**9.0**	**5.5**	**0.0**	**0.0**	**2.5**	**0.0**	**0.0**	**1.0**	**$ 834**	**0.5**	**0.5**	**$ 200**	**12.0**	**1.5**	**20.0**	**4.0**	**$ 4,349**	**64**	**$5,382**	**$ 2,705**	**$ 1,843**
04	**Selection of Water Efficiency Activities**																						
4.1	Summary of Selection Process	4.5	4.0	4.0	0.0	0.0	1.0	0.0	0.0	1.5	$ 490	1.0	1.0	$ 400	10.0	2.0	2.0	2.0	$ 2,094	33	$2,984		
4.2	Demand Management Activities	32.5	19.5	17.0	2.5	2.5	6.0	3.0	2.5	8.0	$ 3,044	2.5	3.0	$ 1,100	37.5	4.0	55.0	17.0	$ 12,983	213	$17,127		
4.3	Summary of Selected Measures	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	1.0	$ 232	0.0	0.0	$ -	2.0	0.5	4.0	8.0	$ 1,362	22	$1,594		
	Task Subtotals	**39.0**	**25.5**	**23.0**	**2.5**	**2.5**	**7.0**	**3.0**	**2.5**	**10.5**	**$ 3,766**	**3.5**	**4.0**	**$ 1,500**	**49.5**	**6.5**	**61.0**	**27.0**	**$ 16,439**	**267**	**$21,705**	**$ 10,909**	**$ 7,030**
05	**Implementation and Monitoring Plan**																						
5.1	Implementation Plan	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	$ 106	0.0	0.0	$ -	1.0	0.5	2.0	4.0	$ 726	11	$832		
5.2	Monitoring Plan	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	$ 213	0.0	0.0	$ -	2.0	0.5	4.0	8.0	$ 1,362	21	$1,574		
	Task Subtotals	**3.0**	**3.0**	**3.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**$ 319**	**0.0**	**0.0**	**$ -**	**3.0**	**1.0**	**6.0**	**12.0**	**$ 2,087**	**31**	**$2,406**	**$ 1,209**	**$ 878**
06	**Adoption of New Policy, Public Review and Formal Approval**																						
6.1	Adoption of New Policy	2.0	2.0	1.5	0.0	0.0	0.0	0.0	0.0	2.5	$ 247	0.5	0.5	$ 200	5.0	0.5	0.0	0.0	$ 780	15	$1,227		
6.2	Public Review Process	1.5	2.0	1.0	0.0	0.0	1.0	0.0	0.0	1.5	$ 208	0.0	0.0	$ -	6.0	0.5	0.0	0.0	$ 918	14	$1,125		
6.3	Local Adoption and State Approval	4.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	4.5	$ 436	2.0	2.0	$ 800	11.0	2.5	0.0	0.0	$ 1,966	32	$3,202		
6.4	Periodic Review and Update	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	$ 214	0.0	0.0	$ -	8.0	0.0	0.0	0.0	$ 1,104	14	$1,318		
	Task Subtotals	**10.0**	**9.5**	**5.0**	**0.0**	**0.0**	**1.0**	**0.0**	**0.0**	**9.5**	**$ 1,105**	**2.5**	**2.5**	**$ 1,000**	**30.0**	**3.5**	**0.0**	**0.0**	**$ 4,767**	**74**	**$6,872**	**$ 3,454**	**$ 2,313**
07	**Deliverables**																						
7.1	Water Efficiency Plan	4.0	4.0	2.0	1.0	0.5	1.0	0.5	0.5	2.0	$ 491	2.0	2.0	$ 800	26.0	5.0	30.0	24.0	$ 9,397	105	$10,688		
7.2	Progress Status Reports	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	$ 79	0.0	0.0	$ -	8.0	1.0	0.0	0.0	$ 1,283	11	$1,362		
	Task Subtotals	**5.0**	**5.0**	**2.0**	**1.0**	**0.5**	**1.0**	**0.5**	**0.5**	**2.0**	**$ 569**	**2.0**	**2.0**	**$ 800**	**34.0**	**6.0**	**30.0**	**24.0**	**$ 10,680**	**116**	**$12,049**	**$ 6,056**	**$ 5,424**
	TOTAL LABOR HOURS	**98.5**	**78.0**	**47.5**	**9.5**	**7.5**	**17.5**	**5.5**	**17.0**	**29.0**		**9.5**	**17.0**		**157.5**	**21.5**	**134.5**	**90.0**		**740.0**			
	TOTAL LABOR COST	**$4,108**	**$2,898**	**$1,309**	**$353**	**$151**	**$256**	**$138**	**$244**	**$558**	**$ 10,015**	**$1,900**	**$3,400**	**$ 5,300**	**$21,735**	**$3,849**	**$14,392**	**$6,390**	**$ 46,365**	**$0**	**$61,680**	**$ 31,000**	**$ 20,665**

Attachment 2. Schedule

SCHEDULE

City of Monte Vista
Water Efficiency Plan

Task #	TASK DESCRIPTION & MAJOR MILESTONES	Jun 2017				Jul 2017				Aug 2017				Sep 2017				Oct 2017				Nov 2017			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
01	**Project Management**																								
02	**Profile Existing Water Supply System**																								
03	**Profile Water Demands and Historcial Water Demand**																								
04	**Integrated Water Planning Water Efficiency Benefits and Goals**																								
05	**Selection of Water Efficiency Activities**																								
06	**Implementation and Monitoring Plan**																								
07	**Adoption of New Policy, Public Review and Formal Approval**																								
	60-Day Public Review Process																								
08	**Deliverables**																								
	50% Progress Report to CWCB																								
	75% Progress Report to CWCB																								
	WEP Report to CWCB																								