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## MEMORANDUM

CWS File #18-100

To: Ben Wade, Colorado Water Conservation Board

From: Michelle Hatcher *mdh*, Sira Sartori *ss*

cc: Jeff Schreier – Town of Eaton

Date: December 4, 2018

Subject: 50% Progress Report for Town of Eaton Municipal Water Efficiency Plan Update

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Clear Water Solutions (CWS) is assisting the Town of Eaton (Town of Eaton) with its Municipal Water Efficiency Plan Update (Plan) in accordance with State regulations following the Guidance Document (dated July 2012) produced by the Colorado Water Conservation Board (CWCB). As discussed in the Scope of Work, this 50% Progress Report includes the following elements:

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

The Guidance Document outlines six tasks in the water conservation planning process. To date, CWS and the Town have made strong progress towards the completion of the goals and objectives outlined in Tasks 1 through 3. This includes profiling the existing water supply system, analyzing water demands and initiating discussions with Town Staff regarding historical and future water efficiency activities. The budget estimates for each step have been fairly accurate. No major obstacles have been identified in the development of this Plan and there are no revisions to the Scope of Work. Some of the preliminary findings<sup>1</sup> from Tasks 1 through 3 are outlined in the following paragraphs.

The Town's treated water supply is derived from surface water from the Colorado-Big Thompson Project (C-BT) and the North Poudre Irrigation Company (NPIC), providing an average yield of over 1,600 acre-feet per year, as shown in **Table 1**.

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<sup>1</sup> Preliminary findings may be revised in the final Plan.

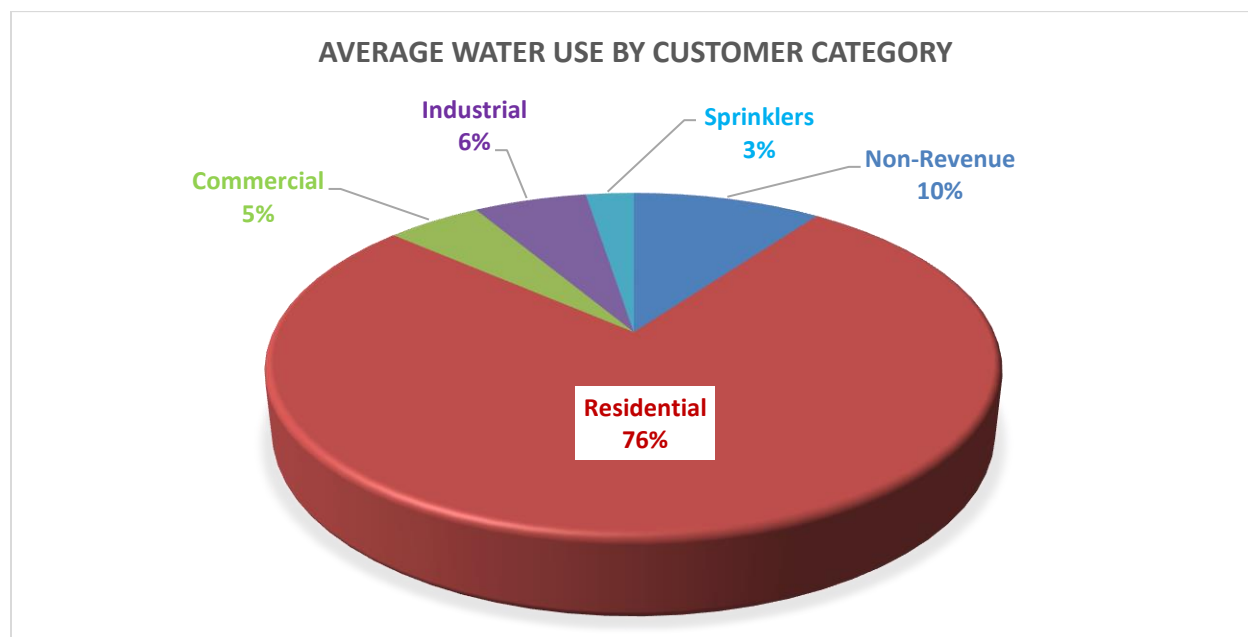
**Table 1: Summary of Eaton's Potable Water Supply**

Water Right Name or Source	No. of Shares or Units Owned	Yield per Share or Unit (acre-feet per year)		Eaton's Total Yield (acre-feet per year)	
		Average Year Yield	Firm or Dry-Year Yield	Average Year Yield	Firm or Dry-Year Yield
C-BT	936	0.7	0.5	655	468
NPIC - C-BT Component	182	0.7	0.5	510	364
NPIC - Agricultural Component	182	2.5	0.5	455	91
<b>Potable Total =</b>				<b>1,620</b>	<b>923</b>

*\*Note: Each share of NPIC has four shares of C-BT; therefore, the yield per share is multiplied by four.*

In 2017, Eaton delivered 774 acre-feet of treated water to an estimated service area population of approximately 5,197 residents. The Town also has a non-potable groundwater supply from wells used to irrigate community parks and open space areas. The Town's billing system does not break down water use into customer categories; however, the Town maintains a record of the number of taps per customer category. The tap types are categorized into Residential, Commercial, Industrial, Country and Sprinkler. The Country category is wrapped into the Residential category for the purpose of this Plan. The water use per customer category was estimated using the number of taps per category and the total treated water use.

**Figure 1**, on the following page, illustrates the average water usage from 2012 through 2017 for each customer category as well as non-revenue water. Non-revenue water covers non-billable uses by the Town, unaccounted for water in the system from metering errors, and/or losses such as leaks or unauthorized use in the system. The Residential category is by far the largest water demand in the Town, representing 76% of total average water use or nearly 600 acre-feet per year. The Town has seen an increase in industrial water use in the past three years due to its bulk water station and oil and gas development in the area.



**Figure 1. Eaton's Customer Categories and Percentage of Total Water Use**

Eaton completed a *2011 Water Conservation Plan* and has implemented the water efficiency activities listed in **Table 2**. The Town Staff have also been working closely with the Northern Colorado Water Conservancy District Staff to partner on future water efficiency projects. This list below may be updated and clarified as further discussions occur with the Town Staff.

**Table 2: Historical and Current Water Efficiency Activities**

Historical and Current Water Efficiency Activities	
Foundational Activities	
Frequency of Meter Reading (monthly)	
Tracking Customer Tap Types	
Frequency of Billing (monthly)	
Water Rate Study (completed in 2014)	
Leak Detection and Repair (3 <sup>rd</sup> party consultant completes every 4 years)	
Installation of Non-Potable Well Meters (in-progress)	
Ordinances and Regulations	
Time of Day Watering Restriction	
Waste Water Ordinance	
Targeted Technical Assistance and Incentives	
Outdoor Residential Irrigation Audits – Resource Central's "Slow the flow" Program	
Xeriscape Incentives – Resource Central's "Garden in a Box" Program	
Educational Activities	
Website Upgrades – Conservation Webpage	

CWS and the Town's Staff are currently working to estimate the water savings from implementation of the current activities. Based on the preliminary analysis completed, the per-capita treated water use has decreased since Eaton's previous Plan in 2011 by approximately 12 gallons per person per day.

Eaton has an overall goal of a 10% water savings over the next ten years from water efficiency activities. The Town and CWS have done an initial screening of water efficiency activities to evaluate in this Plan during a meeting on September 25<sup>th</sup>. The next task is to perform a feasibility and cost/benefit analysis of the selected activities for further evaluation by the Town's Staff.

Currently, the Plan is on-schedule as shown in **Table 3**. The next meeting between the Town and CWS will likely be in January to complete the second screening of water efficiency activities and select the final activities for implementation in the Plan.

**Table 3: Plan Timeline**

Task	Date
Grant application submitted to CWCB	3/12/2018
CWCB approves grant and PO issued	4/24/2018
Kick-off meeting with staff	6/14/2018
2 <sup>nd</sup> Meeting - Activities and mid-project update	9/25/2018
Submit 50% progress report to CWCB	12/4/2018
3 <sup>rd</sup> Meeting (Review cost/benefit analysis, go over Guidance Document worksheet details, fill in gaps (data, information, etc.))	TBD
Submit 75% progress report to CWCB	2/26/2019
CWS submits final Plan to CWCB	4/25/2018
CWCB approves final Plan	up to 90 days