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MEMORANDUM CWS File #17-160

To: Ben Wade, Colorado Water Conservation Board

From: Michelle Hatcher MH, Sira Sartori SS

cc: Leann Perino - City of Fort Lupton

Date: February 18, 2019

Subject: 50% Progress Report for City of Fort Lupton Municipal Water Efficiency Plan Update

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Clear Water Solutions (CWS) is assisting the City of Fort Lupton (City *or* Fort Lupton) 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 City 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 identifying 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. There is a revision to the schedule Scope of Work which if further discussed at the end of this document. Some of the preliminary findings[1] from Tasks 1 through 3 are outlined in the following paragraphs.

The City's treated potable water supply consists of Colorado-Big Thompson Project units and Windy Gap Project water. The non-potable supply is from a combination of surface water derived from Fulton Ditch shares and groundwater from alluvial wells. **Table 1** is a summary of the City's treated water supplies which provide 2,900 acre-feet per year (AF per year).

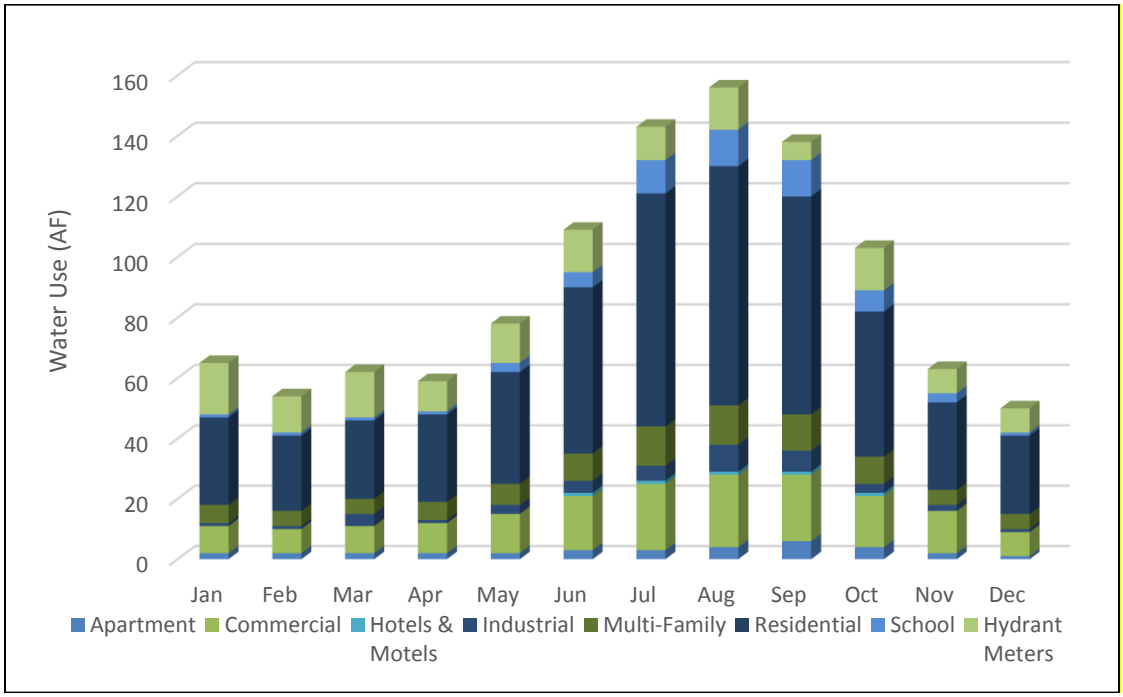
[1] Preliminary findings may be revised in the final Plan.

Table 1: Summary of Fort Lupton's Treated Water Supply

Water Source	No. of Shares or Units	Yield per Share or Unit (AF per year)	Total Yield (AF per year)
Colorado-Big Thompson Project	3,200	0.5	1,600
Windy Gap Project	13	100	1,300

The population of Fort Lupton in 2017 was approximately 8,000 residents. Since 2007, the City has grown at an average rate of 1.1% per year and can be expected to grow slightly faster at 2% in the coming years. Water delivery data for the years of 2010 – 2017 was analyzed for the City's Plan. Over this period, the average annual water use by all customer categories is 1,078 AF. Residential-related water uses (apartment, multi-family and residential categories) consist of 70% of the billed water uses (excludes hydrant meter usage). The monthly breakdown of water use by customer category is shown in **Figure 1**.

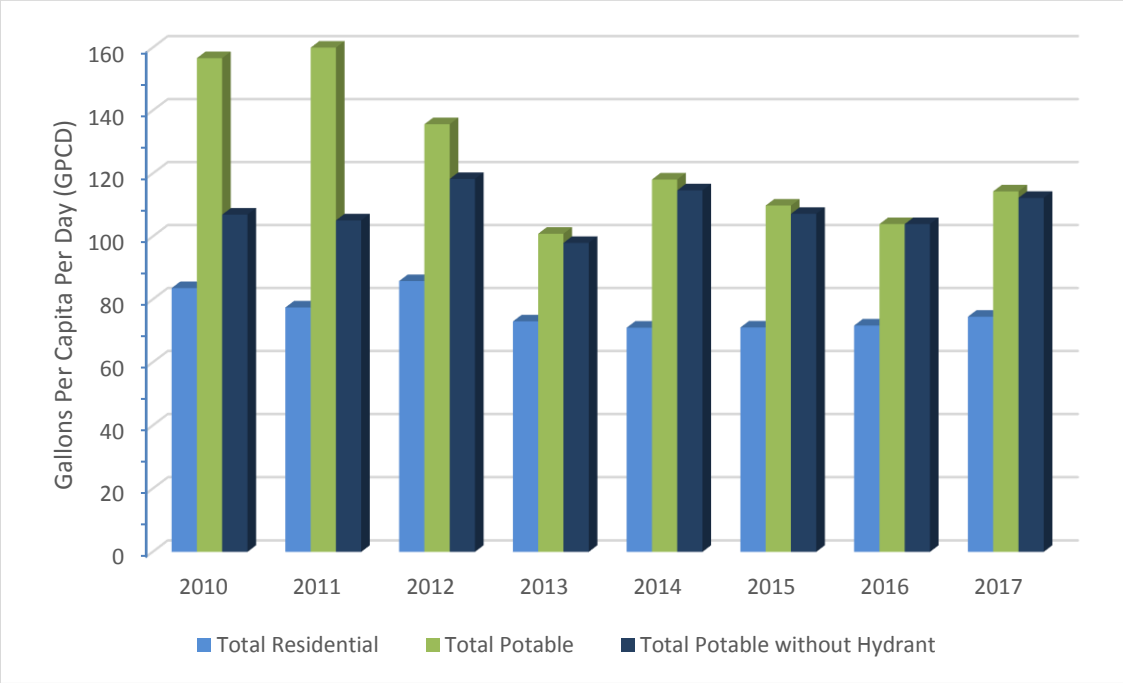
Figure 1: Average Monthly Water Use by Customer Category



From 2010 through 2017, Fort Lupton averaged 108 gallons per capita per day (GPCD) system-wide but excluding hydrant-meter usage. Hydrant meter usage during 2010 – 2012 was abnormally high compared to the rest of the years and was separated for clarity to understand the system-wide value. Total residential category used an average

of 76 GPCD. Single-family residential accounts for 81% of all residential use. Annual per capita usage is presented below in **Figure 2.**

Figure 2: Per Capita Water Use



Fort Lupton has an overall water savings goal in accordance with this Plan to reduce water use by 10% over the next ten years. The City and CWS completed an initial screening of water efficiency activities on November 13, 2018 and the City selected activities to evaluate in the cost-benefit analysis. Activities were organized using the CWCB's *Statewide Water Supply Initiative* 2010 Levels Framework into the following categories: Foundational, Targeted Technical Assistance and Incentives, Ordinances and Regulations, and Foundational Activities. To-date, the City has successfully implemented the following water efficiency activities:

- Meter Upgrades, Testing and Replacement
- Tap Fees with Water Use Efficiency Incentives (Lot-based water dedication)
- Irrigation Equipment Improvements at Parks, Schools, Open Space Areas and Golf
- Water Treatment Plant Facility Upgrade for Increased Efficiency
- Leak Detection and Repair Program
- Water Line Replacement Program
- General Monitoring and Verification Activities and General Water Rates and Billing
- Weekly and Time of Day Outdoor Watering Restrictions
- Water Waste Ordinance
- Water Facility Tours

The City and CWS are currently in the process of developing the cost-benefit analysis for the selected water efficiency activities. A second screening meeting is not scheduled at this time but will likely occur in early March. The City will select its final water efficiency activities for implementation and begin to develop the implementation and monitoring plans. The City Council is anticipated to review and discuss a draft of the Plan at the Council meeting on May 20, 2019. A revised Plan timeline is shown in **Table 3**. The timeline has shifted the 75% progress report and the final Plan submittal to March and August, respectively. The revised dates are both later than the dates described in the grant application. This provides the City and CWS sufficient time to complete the remaining tasks in the Scope of Work.

Table 2: Plan Timeline

Task	Date
Grant application submitted to CWCB	5/25/2018
CWCB approves grant and PO issued	7/12/2018
Kick-off meeting with staff	8/2/2018
2nd Meeting - Activities and mid-project update	11/13/2018
Submit 50% progress report to CWCB	2/18/2019
3rd Meeting (Review cost/benefit analysis, go over Guidance Document worksheet details, fill in gaps (data, information, etc.)	*TBD*
Submit 75% progress report to CWCB	*3/25/2019*
CWS submits final Plan to CWCB	*9/20/2019*
CWCB approves final Plan	*up to 90 days*