

CASTLE PINES

METROPOLITAN DISTRICT

Memorandum

To: Ben Wade CWCB
From: Emily Coll, Castle Pines Metropolitan District
Date: April 4, 2013
Subject: Advanced Meter Infrastructure (AMI) Grant Project 75% Completion Report, C154200

Castle Pines Metropolitan District (CPMD) received a grant totaling \$115,752.00 from the CWCB which was a little over half of the estimated cost of purchase and installation of the AMI fixed base system. However, the AMI system installation costs were higher than anticipated and CPMD ended up contributing well over half the total project cost. In only five months since the installation of the AMI system began, more than five acre-feet (AF) of loss has been prevented. In nine months of collecting usage data on a decreased latency time scale prior to the installation of the AMI system, over 12 AF of water loss was prevented. CPMD staff estimates a prevented loss of almost 18 AF since the program inception 12/06/2011. Savings at this level are projected to be realized annually due to the aging infrastructure. The avoided cost over 15 months of program implementation is estimated to be \$264,250.00 using only \$15,000.00/AF in this calculation.

CPMD has attained great success with its Advanced Demand Side Leak Detection and Irrigation Efficiency (ALDIE) Program which is the conservation program that encompasses the AMI system and the data analytics and customer engagement tool called AquaHawk Alerting™. CPMD staff has found numerous accounts with abnormal usage and has enhanced its level of customer service with regard to water conservation. One customer said, "I appreciate Metro's proactive nature in regard to helping customers find leaks inside the house and in the irrigation system." This customer had a leaky toilet that was not picked up on the AMI system software (Flexnet) but was found in the high level data analytics program AquaHawk Alerting™.

All of the equipment was delivered between the end of August and middle of September. Ms. Coll emailed the packing slips to Ben Wade at the CWCB. A necessary component to the system that was not itemized in the grant is the handheld programming device that was delivered but was not an extra expense to the District.

1652 endpoint radios have been installed and are communicating with the TGB or repeater. The remainder of the 41 radios to be upgraded are those that are in homes that CPMD staff has not been able to enter yet or similar scenario and will be upgraded as soon as possible.

Staff communicated installation activities to residents via weekly CPHA e-blasts, Village Reporter articles, one bill insert, gate signs and roadside signage.

The timeline for the project took three months longer than anticipated to complete and the timeline follows:

- 8/27/2012 – AMI equipment shipped
- 9/06/2012 – AMI equipment delivered
- 9/18/2012 – Sensus installed first TGB
- 9/25/2012 – Sensus programs first TGB
- 9/25/2012 – Staff prepares 1st CWCB grant report
- 10/1/2012 – Sensus, staff, and installer training sessions
- 10/3/2012 - Contractor begins installation of endpoint radios (radios at each meter)
- 10/15/2012 – Sensus Project Manager and staff ensure billing software correctly integrated with AMI software
- 10/22/2012 – Sensus installs second TGB and repeater.
- 10/25/2012 - Sensus and staff confirm Metro's and repeaters properly communicating to endpoints and Metro office
- 02/28/2013 – Contractor completes installation of endpoint radios
- 04/01/2013 – Endpoints communicating with CPMD

As per Task 2 in the grant Statement of Work (SOW), CPMD ensures "instruments are put in place and are in good working order which means that the system is working as planned and the data is being transmitted and recorded properly." The table below details the funding as per the grant request. CPMD has paid for all of the equipment and installation costs. The invoice associated with this progress report is for the amount outlined in the grant SOW, \$46,879.56.