



August 22, 2011

Colorado Water Conservation Board
Attn: Deborah Burrell
Grant Coordinator
1313 Sherman St. Room 721
Denver, CO 80203

Re: Water Efficiency Grant to Implement 3 Conservation Measures
PO# OE PDA 11000000105
50% Progress Report

Dear Ms. Burrell,

The Left Hand Water District has been progressing with three of the new conservation measures identified in our 2007 Water Conservation Plan. Although there are three different measures being implemented, progress reporting will take place in this single report. The purpose of this report is to summarize the activities that have taken place and activities that remain to be completed.

WORK COMPLETED

The District is approximately half way complete with the implementation of the new water conservation programs identified in the grant application. As you may remember, the grant covers three new programs being implemented in order to determine effectiveness. This report will be broken into the tasks required for the successful implementation of the three programs for clarity.

Residential Indoor Water Audit Program

- Development of Indoor Water Audit Program Promotional Materials – Task 1.1 was completed in April, 2011 ahead of schedule. A Memorandum of Understanding between the Left Hand Water District and Center for ReSource Conservation was entered into on May 4, 2011. The brochure was created and printed in-house with assistance from

Center for Resource Conservation (CRC) and copies of both have been attached to this report for your records. Since this was a targeted approach to 550 customers residing in older subdivisions more likely to have been built with higher-usage appliances and fixtures, it was decided not to add information onto the web-site until we determine the demand for the audit services. If there are fewer than 100 homes signed up by the end of 2011, we will add a notice to our web page and fill up the audits at a first-come, first-served basis until all of the 100 slots are filled.

- Mailing to Selected Subdivisions – The brochures were mailed out to approximately 550 homes in the selected subdivisions 8/11/2011.
- Pre-Audit Meeting with CRC – A meeting was held with representatives from both LHWD and CRC on August 10, 2011.
- Assemble Participation Packets & Purchase Aerators & Showerheads – CRC will provide the participation packets at each audit per our MOU. The faucet aerators (300) and showerheads (100) were purchased jointly with Great Western Institute for use with the Commercial Audits. The fixtures were provided to CRC at the 8/10/11 meeting.

Currently, the Residential Indoor Water Audit Program is ahead of the schedule listed in Table 4 of the grant application. CRC is just at the beginning of the scheduling process for indoor audits due to the heavy workload that is involved with their *Slow the Flow* outdoor irrigation audit program, which LHWD also participates in providing free outdoor audits to District customers. Over the next several months, we will receive lists of participants from CRC and begin the water user data tracking and analysis.

Improved Leak Detection and Repair Program

- Complete pre-survey meeting, contract with ALD, and provide ALD with info – LHWD held a meeting with American Leak Detection owner Mike Parish on July 20, 2011 in order to provide the information on which subdivisions would be surveyed and the type of assistance that ALD would require from LHWD prior to and during the survey.
- Complete Leak Detection Survey – The Leak Detection Survey began on July 20th with LHWD personnel locating all of the meter pits, valves and hydrants in the areas that would be included in the survey. Mike Parish has conducted six days of survey on LHWD mains and 2 days at River Valley Mobile Home Community.
- Compile Leak Detection Survey Results and Determine Repair Schedule – Following the survey at RVV the report states that approximately 90% of the lots were tested with 10% unavailable to testing due to access issues. ALD identifying an estimated 35 gpm of continuous leakage at 16 locations, mostly at the service line risers below the mobile home sites that were tested. The management at RVV has been quick to begin the

repairs and has contacted the District by email to let us know that all 16 leaks that were identified by ALD will be repaired by the date of this report. Two days were spent at RVV Park which left 8 days within the approved grant for inspection of District mains. To date, ALD has spent 6 days and has surveyed over 24 miles of main line, 97 fire hydrants and 1,133 meter pits. The survey completed so far indicates 10 leaks accounting for approximately 17 gpm. Four of the seven leaks have been repaired with 3 remaining to be scheduled since these will require digging up the service line at the street to repair. This will be done as time allows, likely before the end of this year. Three days of survey remain to be done to complete the grant for this program.

The final two days of survey are anticipated to be completed during the month of August putting this program also ahead of the schedule submitted in Table 4 along with the grant application. The leak repairs should be finished at RVV this week and we will begin to analyze the savings immediately. The mobile home community is served through a master meter and in turn each of the lots is sub-metered separately by the management company. This will allow us to see losses between our read and the aggregate of the separate meter reads at each lot. In addition to this measurement of loss, the District will analyze usage from previous years to determine if a substantial amount of savings is identified. For the survey of the District mains, the measurement of losses at the repaired leaks will rely on both the measurement made by ALD as well as a visual inspection at the time the leak is repaired.

Commercial Water Audit Program

- Obtain and Review Water Used Data – As part of the contract with Great Western Institute (GWI) on preparing the grant application, GWI was provided monthly water usage for the highest commercial users over the past several years. The initial target that was used to sort through the almost four hundred commercial accounts was to select all commercial users with over 50,000 gallons annual use. Through an analysis of the type of business and usage patterns, GWI selected 16 customers for contact including 5 hotels and 11 restaurants. Once the grant was received, GWI has further investigated the patterns of usage in order to insure that we were targeting the right customers. Additional information for 2010 was provided.
- Development of Indoor Water Audit Program Promotional Materials & Update Website – GWI developed promotional materials and put together a prepared phone notification for contacting the customers in order to gain access for performing the audits. Since we were targeting the 15 accounts identified through the first task, it was decided that updating the website would occur only if there were additional resources remaining to

be used on a first-come first-served basis. The site will also be updated for announcing results and for continuation of the program if it is deemed successful.

- Contact Commercial Water Customers and Schedule Site Visits - Beginning in August, GWI made site visits to the identified business and began scheduling the audits.
- Order High Efficiency Water Fixtures – The fixtures were ordered by GWI and delivered at the beginning of August. In order to receive the best quality and price, GWI ordered all of the fixtures for both the indoor residential audits and the commercial audits.
- Conduct Site Visits and Replace Fixtures – To date, most of the success in obtaining cooperation with access and replacement fixtures has been with locally owned business as opposed to corporate chains. In the restaurant category audits with fixture replacement was completed at 4 locations (Greenbriar Inn, Niwot Market, Colterra and Ajjua!! Mexican Restaurant) accounting for 26 faucet aerators and 2 shower heads. There have been two hotels completed (combined replacement of 110 shower heads and 151 faucet aerators). 1st Interstate Inn is scheduled for an audit and it is anticipated that they will require replacement of approximately 30 shower heads and faucet aerators.

We anticipate completing all of the audits and placing all of the remaining fixtures by the end of September. Having had difficulty with gaining access to many of the corporately owned business in the fast food category and a few of the hotels, we have been looking through the list of higher users and will determine with assistance from GWI where the greatest savings can be obtained.

Summary

We feel that our community is already benefitting from the implementation of these new water conservation programs and look forward to completing the remaining tasks over the next several months. Based on the implementation schedule submitted with the approved grant application we are running ahead of schedule in getting the initial field work done and now the monitoring and post-program analysis will begin to show us how successful each program will be. Please feel free to contact me with any questions or if you need any additional information included with the reporting.

Sincerely,



Left Hand Water District

Christopher Smith, P.E.

Engineering Manager