



Residential Water Audit Kit Program

Final Report

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Project Overview

The Town of Windsor adopted a Water Conservation Plan in February, 2009 after a 60-day public review period. The goal of the plan is to save 2,876 acre feet or 12% of overall water use in a ten year period from 2008-2017. The plan created an implementation schedule for 2009-2011 that included several water saving measures and programs. The implementation schedule was put together contingent on available resources including staff time, budget constraints, and grant availability. Since the adoption of the water conservation plan, several water saving measures have been implemented including residential and park meter replacements, a leak detection and repair program, water rate changes, a xeriscape demonstration garden and classes, and inserting educational pamphlets in customer water bills.

Residential customers are the highest-users in the approximate 25 square mile service area of the Town so it was determined that a focus on residential water savings will have a greater impact on the overall water savings goal. The residential water audit kit program was made available to residential water customers in Windsor and helped them become more conscientious when it comes to inside and outside water use. The water audit kits contained several appliances to retrofit outdated home and garden water appliances such as spray nozzles for the yard, aerators for both kitchen and bathroom sinks, and water saving showerheads. They also contained water educational tools such as moisture meters for the yard or garden, leak detection tablets, and other resources that educate residents on how to conserve water and save money on their water bills.

The Town targeted the top 1,000 highest residential water users who had the opportunity to request a kit by filling out and returning a request form before other Windsor residents. The remaining kits were then marketed to the entire community including Windsor residents served by Fort Collins-Loveland Water District. When residents picked up their water kits they were required to provide their utility billing account number and allow staff to monitor their water usage over a 15 month period to track any savings and evaluate the effectiveness of the program. Staff chose a 15-month period to give time for the program to start up and to give time to residents to install the appliances, test for leaks, and make any repairs.

Education and Monitoring of Project

The education and outreach efforts were conducted by several Town employees. The project was started by Lindsey Blomberg, Management Assistant with the assistance of Terry Walker, Director of Public Works, who has been involved in water conservation planning and implementation since 2008. Ms. Blomberg resigned in January, 2013 and the project was picked up by Patti Garcia, Assistant to Town Manager/Town Clerk who took responsibility for oversight of the residential water audit kit program.

The Windsor Town Hall and the Community Recreation Center served as pick up locations for the audit kits. The creation and printing of materials was carried out by staff and resident questions/concerns were referred to Patti Garcia, Assistant to Town Manager/Town Clerk. Fort Collins-Loveland Water District customers were also able to participate in the program. Pamphlets were sent out in water bills of all customers that live in Windsor (after the 1000 top water users were targeted).

The customers who received an audit kit provided their utility bill account number so that staff could track and monitor the savings throughout the 15 month period. In October, 2014, staff will send the consumption trend to the individual customers indicating any savings that may have been attributed to the audit kit contents. It is the intent that customers who chose to receive an audit kit will also become more educated on the benefits of water conservation and in turn become more conscientious of water use in general producing further savings.

Project Costs

The total cost of the program was \$18,744 which included purchase of the audit kits and in-kind contributions related to administration of the program. The cost for each kit was \$16.50 for a total cost of \$16,950 including shipping and handling; in-kind contributions totaled \$1,794.

The program was managed in house by Patti Garcia. One utility billing employee assisted with the high user targeting, account tracking and the evaluation information.

The majority of the grant program money was spent on the purchase of 1,000 residential audit kits from AM Conservation Group. The cost of each kit included customized labeling, packaging and water savings appliances/resources. The items included in the kits along with water savings information are as follows:

Item	Savings Estimate (amconservationgroup.com and home-water-works.org)
Water Saving Hose Nozzle	Stops running hoses automatically. Unrestricted hoses can run up to 12 gal/minute
Chrome Showerhead (2.0 gpm)	Avg household saves 2,300/day with efficient showerheads (epa.gov/watersense)
1 Bath Faucet Aerator (1.5 gpm)	Up to 3,000 gallons per year (replacing a 2.5 gpm aerator with a 1.5 gpm aerator)
1 Kitchen Faucet Aerator (1.5 gpm)	
Dish Squeegee	Pre-rinsing dishes prior to putting them in the dishwasher can waste up to 6500 gallons of water a year
Toilet Tummy	80-160 oz. savings per flush
Leak Detection Tablets	Replacing leaking toilets can save up to 500gal/year
Outdoor Moisture Meters	Prevents overwatering

Outcomes from Residential Water Audit Kit program

The Town of Windsor 2008 Water Conservation Plan provided a savings estimate of the Residential Water Audit Kit program. The annual water use per residential tap was 182,477 gallons and Clearwater Solutions estimated that customers using the audit kits would save 5,474 gallons per year. The overall goal of the conservation plan is to save 12% of water by 2017 and the audit kits were projected to save about 37.6 million gallons of water over the planning period or about 4% of the total savings goal. The estimate assumes that by 2017 20% of residential customers would be using the residential audit kits.

The Town of Windsor distributed 341 Water Audit Kits beginning April 1, 2013; of the kits distributed, 274 customers participated for the entire project period of May 2012 to April 2014 which is 8.5% of the in-town residential customers. A comparison of consumption per household was created based on usage from May 2012 to April 2013 and compared to usage from May 2013 to April 2014. Consumption savings by the 274 participating customers was 5,377,169 gallons which is an average of 19,624.70 gallons per account over a 12 month period.

	May 2012-April 2013	May 2013-April 2014	Savings
Water consumption – 274 participants	26,982,834 gallons	21,605,665 gallons	5,377,169 gallons

Final Timeline and Detailed Budget

Date	Action	Funding Source		
		In-Kind Contribution		CWCB Grant
9/7/2012	Purchase Audit Kits (AM Conservation quote-1000 kits = \$16,500; 2 week shipping = \$450)	Cash Contribution- \$2,892		\$14,058
3/25/2013 – 4/8/2013	Send information regarding Residential Water Audit Kit Program to customers through water bills. Also promote program on Town website.	Staff hours – 12	\$273	
		Printing	\$25	
		Total	\$298	
4/8/2013 – 4/30/2013	Kits available for pick up at Town Hall & Community Recreation Center.	Staff hours - 3	\$51	
		Printing	\$25	
		Total	\$76	
5/2013 – 5/2014	Monthly tracking of water usage for program participants Send reminder in water bills to those customers who signed up to install appliances.	Staff hours – 41	\$658	
		Printing	\$25	
		Total	\$683	
9/2013	50% progress report Monthly tracking of water usage for program participants	Staff hours – 4	\$100	
		Total	\$100	

8/2013	75% progress report	Staff hours – 4	\$100	
		Total	\$100	
10/2013	Evaluation of program. Follow up with program participants. Report to CWCB.	Staff hours – 19	\$487	
		Printing	\$50	
		Total	\$537	
		Town of Windsor Cash Contribution	\$2,892	
		25% Match total	\$4,686	
		Grant Request Total	\$14,058	
		Project Total	\$18,744	