East Larimer County Water District

April 4, 2013

Ms. Taryn Hutchins-Cabibi
Colorado Water Conservation Board
Office of Water Conservation and Drought Planning
1313 Sherman St., Room 721
Denver, CO 80203

RE: Water-Efficiency Grant Application for East Larimer County Water District
2013 Water Rate Study

Dear Ms. Hutchins-Cabibi,

The East Larimer County (ELCO) Water District is pleased to submit the enclosed water efficiency grant application for your review. The District completed a CWCB approved water conservation plan in 2007. One of the goals outlined in the 2007 plan is to periodically review the District's current rate structure.

ELCO is requesting a $24,775 grant to cover the cost of hiring a consultant to perform a water rate and cost of service study. The total project cost is projected to be $36,545. The District will satisfy it's share of the cost with both an in-kind and a monetary contribution. The District will contribute $11,770 total, $3,000 of which will be cash and $8,770 in-kind.

We truly appreciate your consideration.

Respectfully,
East Larimer County Water District

Mike Scheid
General Manager

232 South Link Lane, P.O. Box 2044 • Fort Collins, Colorado 80522 • Phone (970) 493-2044 • Fax (970) 493-1801

CWCB WATER-EFFICIENCY GRANT APPLICATION SUBMITTAL REQUIREMENTS

PROJECT: 2013 Water Rate Study

1. Contact Information of entity seeking grant

East Larimer County Water District
Attn: Melissa Tremelling, Administrative Manager
PO Box 2044
232 S. Link Ln.
Fort Collins, CO 80524

2. Selected firm (Consultant) and individuals (District Staff) to assist in development of the Project

Water Consulting Group, LLC
Webster Jones, P.E.
P.O. Box 883235
Steamboat Springs, CO 80488
T: (970) 219-1109
F: (970) 223-6046

East Larimer County Water District completed a Water Conservation Plan in 2007. A goal outlined in the plan is to review the District's current rate structure. This will be completed by contracting with a consultant to provide a water rate study to review the projected revenue needed to fund projected expenses and determine a rate adjustment.

Webster Jones, Manager of the Water Consulting Group, LLC, has been selected by the District to perform the water rate cost of service study. He was previously the rate analyst for the City of Fort Collins Water Utilities and served as the General Manager of East Larimer County Water District for 15 years. His experience with water rates and cost of service studies will be critical to the Project. Mr. Jones will assist with determining revenue requirements, the cost of service analysis and rate design. He will develop a spreadsheet model that will be specific to the Project, which the District can use in the future. Mr. Jones will be attending the meetings as necessary.

Mike Scheid, East Larimer County Water District's General Manager, will serve as the primary contact for the consultant. He will provide input on the District's planned capital improvements. He will also provide general direction on all aspects of the project and ensure the project is consistent with the District's overall goals.

Melissa Tremelling is the District's Administrative Manager and is very familiar with the District's revenue requirements and will provide a financial perspective as the plan is developed. Melissa has complete knowledge and access to information such as use per customer category and revenues generated from each category and will be responsible for providing this information to the Consultant.

3. a) Identification of retail water delivery by covered entity for the past six years

Table 1 – Past Six Years Water Use by Customer Category

Category (acre feet)	2007	2008	2009	2010	2011	2012
Residential	2,126	2,025	1,713	2,037	1,949	2,322
Non-Residential	644	555	478	535	546	582
Mobile Home	230	205	200	203	196	170
Multi-Family	99	93	89	103	98	109
Wholesale Customers	436	505	463	349	352	409
Total Billed Consumption	3,535	3,383	2,943	3,227	3,141	3,592
Population*	16,659	16,974	17,095	17,314	17,614	18,094
GPCD**	132	122	105	121	114	128

*Census data indicating average household size in census tracts within ELCO service area = 2.58

**Excludes Wholesale and Commercial Demands.

The District currently relies on the Colorado – Big Thompson, or C-BT project where water is diverted from the western slope of Colorado to the Front Range to supplement the region's native water supply. It is the largest transmountain water diversion project in Colorado.

Table 2 lists only the water rights owned or available by contract to the District. ELCO's two wholesale customers have their own water rights and are required by contract to transfer a portion of the water they own each year to satisfy their annual treated water demand.

Table 2 -Summary of Water Supplies Owned or Available to ELCO Water District (12/31/2012)

Water Rights	ELCO (no. of shares)	Avg Delivery (AF)	Dry-Year Delivery (AF)
Colorado Big Thompson Project	3,426	2,398	1,713
North Poudre Irrigation Company	575	1,506	1,150
Divide Canal Company Class A*	22	41	25
New Cache La Reservoir Company	24	72	72
Water Supply and Storage Company	16.55	1,432	1,217
WSSC (inactive or unchanged)	8	692	588
Jackson WSSC unchanged	0.2552	22	19
John R Brown (Case No 05W264)	0.25	72	72
JR Brown (unchanged)	0.25	51	51
Divide Canal Company Class B (Sand Creek)	0.25	65	36
Jackson Ditch	0.62	129	113
Coy Ditch (35% interest)	100%	118	118
Future Coy Ditch (15% interest)	100%	51	51
98CW435 PVP water right	0.25	144	-
Lake Canal Reservoir	3		
New Mercer Ditch	0.063	2	2
Larimer County No. 2	0.25	11	8
TOTAL (does not include NP Ag):		**6,806**	**5,235**

b) Background characterizing the local water system, potential growth and other pertinent issues

i) Water use for the last six years

Table 1 includes water use from billing software and population data from the Census Bureau.

ii) Past, current and projected population served

Table 3 shows the past and projected population served by the District.

Table 3 – Population within District Boundaries

Year	Population	Annual Growth Rate
2000	11,850	
2001	12,668	6.5%
2002	14,193	12%
2003	15,080	6.3%
2004	15,550	3.1%
2005	16,089	3.5%
2006	16,344	1.6%
2007	16,659	2.0%
2008	16,974	2.0%
2009	17,095	1.0%
2010	17,314	1.3%
2011	17,614	1.7%
2012	18,094	2.7%
2013	18,635	3.0%
2014	19,120	2.6%
2015	19,617	2.6%
2016	20,088	2.4%
2017	20,570	2.4%
2018	21,064	2.4%
2019	21,570	2.4%
2020	22,088	2.4%

The District's average household occupancy was determined by weighting the 2000 Census data by the number of services in each County. The average of 2.58 per household was calculated and used as a representation of the customer characteristics within the District's service area.

iii) Estimated water-savings goals to be achieved

Estimated water-savings goals from the District's 2007 Water Conservation Plan through the year 2016 are as follows:

Residential Water Usage: Reduce by 5%
Commercial Water Usage: Reduce by 5%
Mobile Home Park Usage: Reduce by 5%
Distribution System Losses: Reduce to below 5%

We anticipate this rate study will help the District achieve a combined 4.5% savings in the residential and commercial categories. This equates to 312 acre-feet of total water savings through the year 2016. This rate study, if completed properly, could have significant impact on ELCO's water conservation efforts. The District continues to monitor and measure the potential savings through tracking residential per tap use and analyzing individual non-residential accounts.

iv) Estimate of water savings realized through water conservation efforts

ELCO Water District has historically encouraged water conservation through its rates and development policies. Since the drought of 2001-2002, the District has taken a more aggressive approach toward water conservation. Conservation programs currently promoted along with the quantified savings are described below in Table 4.

Table 4 – Water Conservation efforts

Conservation Measure	Year Started	Total Number Provided	Water Savings
Indoor Conservation Kits-Contains a low-flow showerhead massager, faucet aerator, kitchen swivel aerator and leak detection dye tablets. *The District depleted the supply of these kits in 2008.	2003	487	0%
Irrigation Sprinkler System Audit-Homeowners request an audit and receive recommendations to improve their irrigation efficiency and an irrigation schedule designed to accommodate their irrigation system and lawn water needs.	2002	274	1.3%
Hotel Conservation Cards-ELCO provided all hotels in the District laminated card sets to display in each room. Sets contained three types of cards; one card was to be hung on the towel bar asking customers to hang up the towel if they did not need a clean towel for the day. The second card instructed the hotel customers to put the card on the bed if they wanted their linens changed and the third card made customers aware of the hotel participation in the conservation program and requested their help in conserving water.	2008	9 hotels received 3 cards per room	1%

Soil Amendment or Conditioner

The majority of new customers served by ELCO are located within the City of Fort Collins. The City requires all homes and businesses to incorporate three (3) cubic yards of soil amendment per 1,000 square feet of area to be planted, to improve plant growth and health.

Tap Fee Structure

ELCO's residential tap fees are based on lot square footage for residential customers. Irrigation only taps typically used to irrigate common areas in developments are based on square footage of turf and square footage of mulched planting areas. Tap fees for mulched planting areas are one-half that of turf. The tap fees are very effective at encouraging developers to reduce the turf in common areas.

Leak Detection

Locating and repairing leaks within its transmission and distribution system is a priority for the District. Leak detection has historically been performed by technicians working for Utility Services Associates. The District budgets for this service to be completed annually. Between the years of 2010 - 2012, 47 of the total 224 miles of ELCO's waterline were surveyed, and based upon estimates prepared by the leak detection technicians; 1.6 million gallons of water have been saved due to leak detection. As a result of repairs initiated after leak surveys, the percentage of unaccounted water use has continued to decline due to leak detection efforts.

In 2010, CWCB assisted in funding leak detection in mobile home parks in the District. Providing leak detection service assisted the parks in reducing the overall consumption of 203 acre feet in 2010 to 170 acre feet in 2012, a 19% reduction.

Conservation Charge

In addition to the monthly charge for water service, ELCO imposes a conservation charge when customers use more water than the amount provided at the time their water service was purchased and the District's raw water requirements were satisfied. The amount of raw water dedicated at the time of development establishes the "annual allotment" for each customer account. Each customer's annual allotment is permanent and non-transferable.

If a customer's annual allotment is exceeded during the calendar year, a conservation charge is assessed. Currently, the conservation charge is an additional $1.93 per 1,000 gallons used in excess of the annual allotment. All ELCO customers are subject to the conservation charge.

Each customer's year-to-date water usage and annual allotment are shown on their monthly bill. In addition, their bill shows the percentage of their annual allotment they have used to date. This information allows ELCO customers to quickly compare cumulative water use to annual allotment and encourages them to reduce consumption when possible. Customers who keep their cumulative water use below their annual allotment are not subject to the conservation charge.

v) Adequacy, stability, and reliability of water system

c) Description of the Project

East Larimer County Water District's current rate structure is shown on Table 5.

Table 5 – Current Water Rates Charged by District

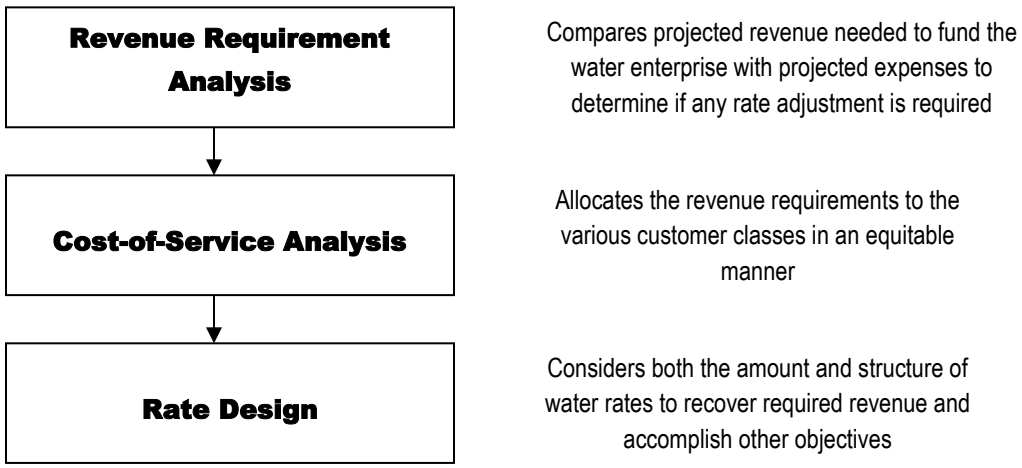
Size of Water Meter	Minimum Charge Per Month	Monthly Minimum
3/4"	$18.69	4,000 gallons
1"	$19.57	4,000 gallons
1-1/2"	$20.44	4,000 gallons
2"	$22.85	4,000 gallons
3"	$40.61	4,000 gallons
Mobile Home Park Master Metered	$9.34 per space (occupied or vacant)	2,000 gallons per space
All water use over the Monthly Minimum will be billed at: **$2.53 per thousand gallons**		

The District completed a rate study in 2009 and increased rates accordingly based on meter size. The District intends to examine its current cost of service, anticipated project needs, and water conservation goals to establish new rates appropriate and equitable for District customers.

The planned cost-of-service analysis is intended to insure any new rate structure adopted by the District continues to generate sufficient revenues while preventing any class of customer from subsidizing any other class of customer. Rates developed in the cost-of-service analysis shall be relatively easy to administer, understood by customers, encourage water conservation and insure revenue stability.

The consultant will develop cost-based water rates through a comprehensive analysis using methodology outlined in American Water Works Association (AWWA) Manuals of Practice M1, "Principles of Water Rates, Fees, and Charges," and M54, "Developing Rates for Small Systems." The steps required in the analysis include: (1) revenue requirements, (2) cost-of-service, and (3) rate design.

These steps are summarized below:



The tasks associated with the Project are summarized as follows:

Task 1.1 – Data Collection and Development
The consultant will meet with District staff to review and discuss data requirements. The existing Ten-Year Financial Forecast and water use data maintained by District staff will be examined for suitability. Data on customer accounts, meter sizes, monthly and annual consumption, total rate revenue, system capacity and peaking characteristics will be collected. Any outstanding data requirements will be identified and if necessary, alternative sources will be developed.

Existing customer categories will be examined to identify customers with similar demand characteristics. If existing categories include customers with dissimilar demand patterns, new classifications will be recommended.

Task 1.2 – Evaluation of Current Policies, Goals and Objectives
The consultant will review and evaluate current rate-related policies and discuss possible changes that may be worth considering. Identification of specific policy issues and objectives early in the process will prevent problems once the analysis is underway.

Task 1.3 – Cost-of-Service Analysis
The cost-of-service analysis will determine costs associated with providing water service to specific customer categories based upon their demands for service. The base-extra capacity method will be followed. Specific tasks followed in the base-extra method are discussed in more detail in following sections.

1.3.1 – Analysis of Revenue Requirements and Financial Plan
A projection of revenues, expenditures, capital costs, debt service obligations, and reserve requirements will be required to determine net revenue requirements from retail water customers.

1.3.2 – Calculation of Cost-of-Service
In the cost-of-service analysis, revenue requirements will be equitably allocated to the different types of customers. As a basis for allocating costs among customer categories, costs are first allocated to functional cost components, then allocated to cost categories, and

finally distributed to customer classes. In this analysis, there will be four primary cost components:
(1) base flow, or costs associated with supplying annual demand, (2) maximum day costs, or costs associated with supplying average daily demand during the peak month, (3) peak hour costs and (4) customer costs associated with billing, customer service, meter reading and meter maintenance.

To functionalize costs, expenditures are identified by purpose. In this analysis, costs will be assigned to one of the following functions: (1) source of supply, (2) treatment, (3) transmission, (4) distribution and, (5) meters.

1.3.3 – Rate Design

Once the cost-of-service analysis identifies revenue requirements by customer category, rates will be designed to equitably charge customers for service. The current rate structure will be compared to other alternatives. At a minimum, seasonal rates, tiered rates, and uniform rates for non-residential customers will be evaluated.

The cost of alternative rates to a customer that uses water at the 10^{th} and 90^{th} percentile level will be summarized along with the cost to a customer at the median level of water use.

1.3.4 – Comparison of Rates

The consultant will prepare a comparison of annual charges assessed by the District with charges assessed for the same amount of water use in nearby communities and districts.

1.3.5 – Rate Model

The consultant will develop a rate model that documents data used, data sources, basis of calculations and step-by-step progression of the three study components (revenue requirements, cost-of-service calculations, and rate design analysis). The model will be developed using non-proprietary Microsoft Excel spreadsheets. Calculations will be transparent and relatively easy to follow. Sufficient training will be provided to District staff to allow future modifications without involvement by the consultant.

1.4 – Prepare Draft and Final Reports

The consultant will prepare a draft and final report that includes all relevant charts, graphs and tables. The final report will include an executive summary and an emphasis on providing a clear, concise and understandable analysis that addresses:

- Background information on District operations, water demands, water supply, customer categories and revenue sources.
- Overview of Cost-of-Service methodology.
- Revenue requirements, cost-of-service calculations and rate design.
- Impact analysis of rate alternatives on certain customers.
- Comparison of charges with other water providers.
- Water conservation achieved with rate alternatives.

1.5 – Meetings with Staff, Reporting to CWCB and Presentations to Board

At least three meetings are anticipated with District staff during the analysis. An initial meeting will establish mutual understanding of the overall study objectives, appropriate categorization of customers and suitable rate alternatives. Numerous phone and electronic exchanges will be required during data development, cost-of-service calculations, rate design and review of work products.

Status reports required by the CWCB at different phases of the project will be prepared and submitted by the consultant

Two presentations to the District Board are planned. One meeting or work session will be conducted to present a draft of the report. The draft report will be posted on the District's website for public review and comment. A final draft will be presented at a regularly scheduled Board meeting during which a public hearing will be conducted. A sixty day comment period will be scheduled prior to the public hearing.

Any revisions resulting from Board comments at the final meeting or public hearing will be incorporated into a final report. Ten (10) copies will be provided to the District.

4. Proposed project schedule

The following schedule is proposed for completion of the cost-of-service analysis.

Table 6 – Proposed Project Schedule

Task	Date Completed
Approval for CWCB Grant Funding	**May 6, 2013**
1.1 Data Collection and Development	**June 3**
1.2 Evaluation of Current Policies, Goals and Objectives	**June 21**
Submit 50% Progress Report to CWCB	**July 15**
1.3 Cost-of-Service Analysis	**August 19**
Submit 75% Progress Report to CWCB	**August 26**
1.4 Prepare Draft Report and Present to Board	**September 17**
Public Comment Period (60 days)	**November 17**
1.5 Presentation of Final Report and Public Hearing	**November 19, 2013**

5. Project budget

See Table 7attached.

6. List of all funding sources

See Table 7 attached.

7. The District intends to use the grant money for completion of the 2013 Water Rate Cost of Service Study. The study will help the District achieve water-savings goals outlined in its 2007 Water Conservation Plan through an adjustment of water rates.

The District is committed to water resource sustainability and water conservation. The District intends to do its part to preserve water for both future generations and the state's nonconsumptive needs. District staff and the Board of Directors understand the needs and benefits of implementing long-term water conservation measures. This 2013 Water Rate Cost of Service Study is a large step for the District toward water conservation. The District is committed to complete a 2013 Water Rate Cost of Service Study, which will evaluate conservation rates, for the grant money requested.

Table 7 – Project Budget and Source of Funding

Tasks	Water Consulting Group (WCG)				East Larimer County Water District (In-Kind)					WCG + ELCO Total	Cash from ELCO	CWCB Grant Request
					Mike Scheid		Melissa Tremelling		In-Kind ELCO Total			
	Hours @ $125	Subtotal	Direct Costs	WCG Total	Hours @ $125	Subtotal	Hours @ $90	Subtotal				
1.1 Data Collection and Development	16	$2,000		$2,000	4	$500	12	$1,080	$1,080	$3,080		$2,000
1.2 Evaluation of Current Policies, Goals and Objectives	10	$1,250		$1,250	8	$1,000	4	$360	$1,360	$2,610		$1,250
1.3 Cost-of-Service Analysis	80	$10,000		$10,000	12	$1,500	6	$540	$2,040	$12,040	$1,000	$9,000
1.4 Prepare Draft Report and Present to Board (10 copies @ $65)	60	$7,500	$650	$8,150	8	$1,000			$1,000	$9,150		$8,150
1.5 Presentation of Final Report and Public Hearing	16	$2,000		$2,000	10	$1,250			$1,250	$3,250	$1,000	$1,000
Progress Reports to CWCB	3	$375		$375						$375		$375
Project Meetings	18	$2,250		$2,250	8	$1,000	4	$360	$1,360	$3,610	$1,000	$1,250
Project Management and Invoicing	6	$750		$750	4	$500	2	$180	$680	$1,430		$750
Reproduction of Final Reports (10 copies @ $75)	2	$250	$750	$1,000						$1,000		$1,000
TOTAL	211	$26,375	$1,400	$27,775	54	$6,750	28	$2,520	$8,770	$36,545	$3,000	$24,775