CWCB WATER-EFFICIENCY GRANT APPLICATION SUBMITTAL REQUIREMENTS

PROJECT: 2012 Water Rate Study

1. **Contact Information of entity seeking grant**

Little Thompson Water District
Attn: Erik Anglund, Water Resource Engineer
835 E. Highway 56
Berthoud, CO 80513
T: (970) 532-2096 x110
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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
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The Little Thompson Water District completed a Water Efficiency Management Plan in 2012 and a water rate cost of service study was selected as a water conservation measure and identified in the implementation plan as part of the water efficiency plan.

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.

Erik Anglund is the District Water Resource Engineer and will serve as the primary contact for the Consultant. He will provide general direction on all aspects of the Project and will serve as the primary liaison between District staff and the Consultant. He will insure this project is consistent with the District's overall goals.

Judy Dahl is the District Business Manager and will provide financial perspective and guidance as the plan is developed. She will provide input on the planned and needed expenditures for the development of the District's revenue requirements. Expenditures include capital improvements, operations, maintenance, repair and replacement costs for the foreseeable future.

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

Table 1 – Water Deliveries (2006-2011)

Water Deliveries (acre-feet)	2006	2007	2008	2009	2010	2011
Residential	4,070	3,690	3,729	3,064	3,582	3,677
Non-Residential	1,119	1,073	1,071	931	941	1,018
Wholesale Customers	899	887	941	857	936	1,850
Non-revenue Water [(1)]	362	110	417	738	951	474
Total Plant Production	6,450	5,760	6,158	5,590	6,410	7,019

[(1)] Non-revenue water use includes system flushing, main breaks, maintenance, fire flow, meter inaccuracies, unauthorized consumption, data errors, and construction water.

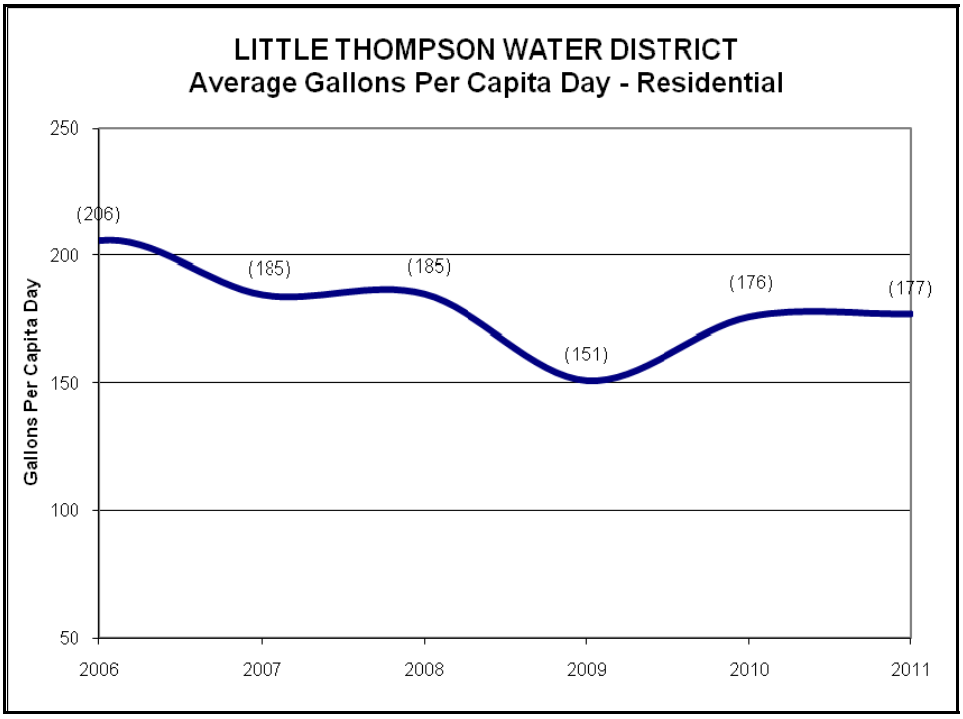
The District's raw water supply consists of Colorado-Big Thompson (C-BT) units that are treated at the District's jointly owned water treatment plant at Carter Lake. C-BT facilities divert water from the western slope of Colorado to the Front Range to supplement the region's native water supply. It is the largest transmountain water diversion project in Colorado. It was constructed by the Bureau of Reclamation between 1938 and 1957 and imports an average of 213,000 acre feet of water each year to northeastern Colorado for agricultural, municipal and industrial uses.

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

i) Water use for the last five years

Per capita water use by District customers from 2006-2011 is shown in Figure 1.

Figure 1 – Average Gallons per Capita per Day (2006-2011)



ii) Past, current and projected population served

Table 2 shows the past and projected population served by the District.

Table 2 – Population within District Boundaries

Year	Population	Annual Growth Rate
2006	18,359	2.49%
2007	18,572	1.15%
2008	18,725	0.82%
2009	18,881	0.83%
2010	18,923	0.22%
2011	19,169	1.28%
2012	19,418	1.28%
2013	19,670	1.28%
2014	19,926	1.28%
2015	20,185	1.28%
2016	20,589	1.96%
2017	21,001	1.96%
2018	21,421	1.96%
2019	21,849	1.96%
2020	22,286	1.96%

The District average household occupancy was determined by weighting the 2010 Census data by the number of services in each County. The average of 2.6 people 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 2012 Water Efficiency Master Plan over the seven-year planning horizon are as follows:

Residential Water Usage: Reduce by 5%
Commercial Water Usage: Reduce by 1%
Distribution System Losses: Reduce to below 10%

We anticipate this rate study will help the District achieve a combined 2% savings in the residential and commercial categories. This equates to 262 acre-feet of total water savings over the seven-year planning period. Rate studies, if completed properly, can have significant impact in water conservation. The District will target these savings and measure success through tracking residential per tap use and analyzing individual non-residential accounts over the next five years.

iv) Estimate of water savings realized in the past five years through water conservation

The District's 2012 Water Efficiency Management Plan is the District's first in depth plan involving tracking and accounting for changes in water use practices. Although the District has implemented a number of conservation measures in previous years, savings related to those measures were not accounted for. As proposed in the recently approved Water Efficiency Management Plan, the District will begin collecting the necessary data to measure the success of the implemented conservation measures.

v) Adequacy, stability, and reliability of water system

The District provides non-potable, potable and fire protection water to a service area that encompasses nearly 300 square miles. The District serves approximately 20,000 people in and around ten municipalities, nine fire districts and three counties.

The District's potable water supply comes from its jointly owned water treatment plant located at the base of Carter Lake. Currently, the District maintains over 536 miles of potable water pipeline. The District distribution system has 9 treated water storage tanks located throughout the service area with a total capacity of 13 million gallons. The system also maintains over 60 pressure reducing valves to regulate pressure in over 45 different pressure zones. Seven pump/booster stations are used in addition to gravity to distribute water through the system.

The District has 23 interconnections with adjacent water providers, eight with the City of Loveland, six with Central Water County Water District, two each with Fort Collins-Loveland Water District, Longs Peak Water District, Berthoud and Milliken, and one each with North Carter Lake Water District and Johnstown. Some of the interconnections are used for regular water supply and some are used for emergency purposes only.

c) Description of the Project

The Little Thompson Water District's current rate structure is shown on Table 3.

Table 3 – Current Water Rates Charged by District

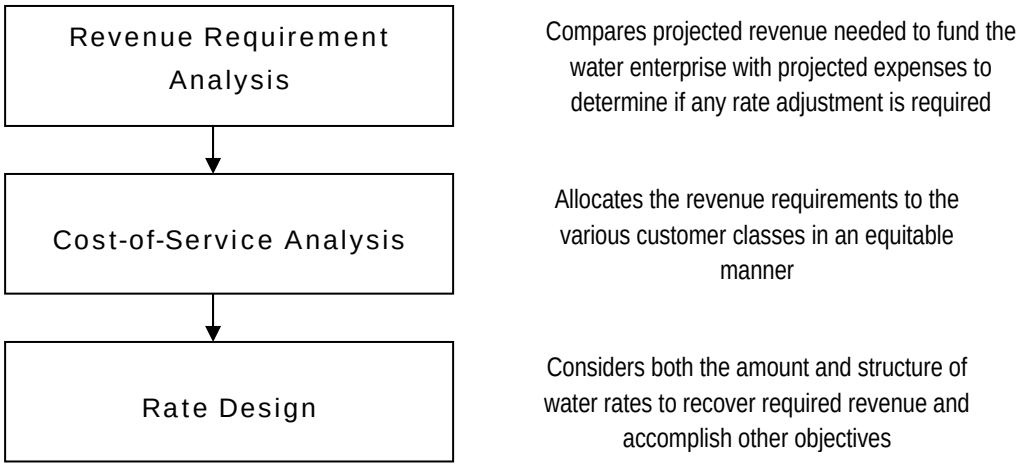
Tap Size	Monthly Base Charge	Gallons Used	Rate Per 1,000 Gallons
5/8" Conservation	$26.86	0 - 6,000 6,001 - 12,000 > 12,000 gallons	$2.24 $2.81 $11.22
5/8" Residential	$26.86	0 - 6,000 6,001 - 30,000 30,001 - 60,000 > 60,000 gallons	$2.24 $2.81 $3.09 $3.65
5/8" Non-Residential	$26.86	0 - 6,000 6,001 - 30,000 30,001 - 60,000 > 60,000 gallons	$2.24 $2.81 $3.09 $3.37
3/4" Non-Residential	$29.10	0 - 9,000 9,001 - 45,000 45,001 - 90,000 > 90,000 gallons	$2.24 $2.81 $3.09 $3.37
1" Non-Residential	$37.15	0 - 15,000 15,001 - 75,000 75,001 - 150,000 > 150,000 gallons	$2.24 $2.81 $3.09 $3.37
1.5" Non-Residential	$69.89	0 - 30,000 30,001 - 150,000 150,001 - 300,000 > 300,000 gallons	$2.24 $2.81 $3.09 $3.37
2" Non-Residential	$84.63	0 - 48,000 48,001 - 240,000 240,001 - 480,000 > 480,000 gallons	$2.24 $2.81 $3.09 $3.37

The District completed a formal rate study in 2002 and subsequently implemented a monthly, increasing block rate structure. The tiered rate structure was evaluated and updated in 2006. 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 Five Year Financial Forecast and water use data maintained by District staff will be examined for suitability. Data on customer accounts, meter sizes, monthly 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 two 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 4 – Proposed Project Schedule

Task	Completion Date
Application for CWCB Grant Funding	June 29
1.1 Data Collection and Development	August 20
1.2 Evaluation of Current Policies, Goals and Objectives	August 27
Submit 50% Progress Report to CWCB	September 7
1.3 Cost-of-Service Analysis	September 21
Submit 75% Progress Report to CWCB	September 28
1.4 Prepare Draft Report and Present to Board	October 11
Public Comment Period (60 days)	December 11
1.5 Presentation of Final Report and Public Hearing	December 13

5. **Project budget**
   See Table 5 attached.

6. **List of all funding sources**
   See Table 5 attached.

7. The District intends to use the grant money for completion of the 2012 Water Rate Cost of Service Study. The study will help the District achieve water-savings goals outlined in its 2012 Water Efficiency Management 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 2012 Water Rate Cost of Service Study is a large step for the District toward water conservation. The District is committed to complete a 2012 Water Rate Cost of Service Study, which will evaluate conservation rates, for the grant money requested.

Table 5 – Project Budget and Source of Funding

Tasks	Water Consulting Group (WCG)				Little Thompson Water District (In-Kind)					WCG + LTWD Total	Cash from LTWD	CWCB Grant Request
					Erik Anglund		Judy Dahl		In-Kind LTWD Total			
	Hours @ $125	Subtotal	Direct Costs	WCG Total	Hours @ $55	Subtotal	Hours @ $53	Subtotal				
1.1 Data Collection and Development	18	$2,250		$2,250	12	$660	4	$212	$872	$3,122		$2,250
1.2 Evaluation of Current Policies, Goals and Objectives	8	$1,000		$1,000	8	$440	6	$318	$758	$1,758		$1,000
1.3 Cost-of-Service Analysis	80	$10,000		$10,000	18	$990	4	$212	$1,202	$11,202	$1,000	$9,000
1.4 Prepare Draft Report and Present to Board (10 copies @ $65)	60	$7,500	$650	$8,150	12	$660			$660	$8,810		$8,150
1.5 Presentation of Final Report and Public Hearing	16	$2,000		$2,000	10	$550			$550	$2,550	$1,000	$1,000
Progress Reports to CWCB	4	$500		$500						$500		$500
Project Meetings	14	$1,750		$1,750	12	$660	2	$106	$766	$2,516	$1,000	$750
Project Management and Invoicing	4	$500		$500	4	$220	2	$106	$326	$826		$500
Reproduction of Final Reports (10 copies @ $75)	2	$250	$750	$1,000						$1,000		$1,000
TOTAL	206	$25,750	$1,400	$27,150	76	$4,180	18	$954	$5,134	$32,284	$3,000	$24,150