Town of Erie
Application for Water Conservation Plan
CWCB Grant Program

The Town of Erie (Erie) is located north of Denver in Weld and Boulder counties between Interstate I-25 and US Highway 287. The northern boundary extends north of Highway 52 with State Highway 7 serving as its southern boundary. Erie was incorporated in 1874. Attachment A provides a copy of Erie's Notice of Incorporation. Erie currently provides water and wastewater services to about 6,000 homes, in addition to commercial users and other municipal needs.

This document is an application for grant monies offered by the Colorado Water Conservation Board (CWCB) for the update to Erie's 2008 Water Conservation Plan. The application was developed in accordance with the CWCB's Grant Guidelines for Water Conservation Planning Projects. Erie has contracted with AMEC Environment and Infrastructure, Inc (AMEC) to develop this grant application. Contact information for both Erie and AMEC is provided below.

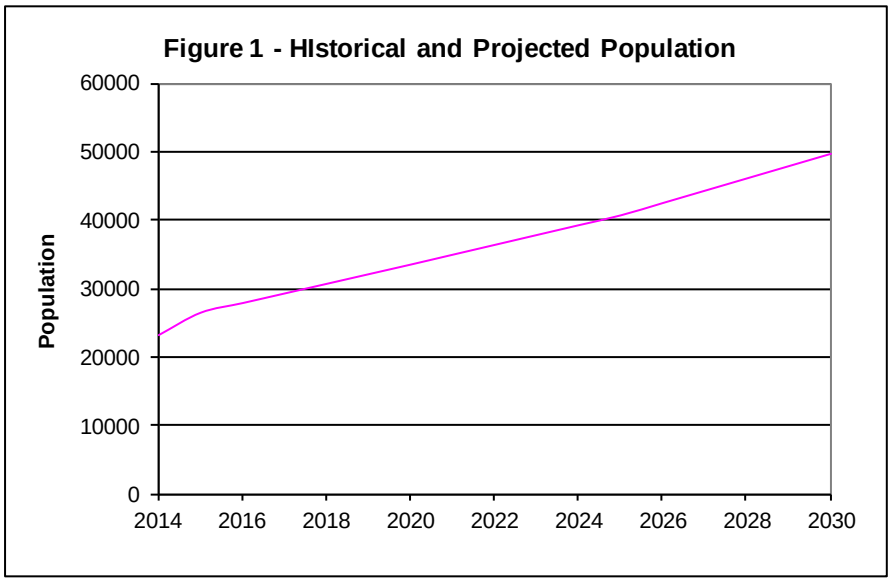
Applicant: Town of Erie
645 Holbrook Street
Erie Colorado 80516
Contact: Russell Pennington
Deputy Director of Public Works
303-926-2878
rpennington@erieco.gov

Contractor: AMEC, Environment and Infrastructure
1002 Walnut St. Suite 200
Boulder, CO 80302
Contact: Courtney Black, PE
Senior 1 Water Resources Engineer
303-443-7839
courtney.black@amec.com

1.0 Population and Expected Growth Rate

Erie's population has doubled within this decade and rapid development is anticipated for the next ten years. Approximately two thirds of Erie's planning area could ultimately be developed for residential and commercial uses with the remainder of the planning area consisting of open space and other regional facilities based on Erie's 2005 Comprehensive Master Plan which included goals, guiding principles and policies, and a proposed land use map addressing specific types of future land use development.

Erie has a current population of approximately 20,000 people. As shown in Figure 1, this population is expected to continue to increase as Erie develops and it is projected that Erie will serve over 49,600 people by 2030. The projected population at buildout is 68,820. Current and historical estimates are based on the number of Certificates of Occupancy issued by the Town of Erie while future population projections were recently developed in 2012 for Erie's updated Wastewater Utility Plan.



2.0 Historical Water Use Projected Water Demands

This section summarizes Erie's historical water use. Figure 2 and Figure 3 respectively show Erie's total annual and average daily per capita water uses for calendar years 2002 through 2012[1]. Erie's recent water accounting data were used to provide the water use information presented in Figure 2. Per capita use for the service area was estimated by dividing total system water use by the total residential population, as shown in the equation below. Total system water use includes non-potable supplies such as irrigation of Vista Ridge Golf Course and the Erie Commons development.

$$Per\ capita\ water\ use = \frac{Total\ water\ use\ (gal/day)}{Total\ \ population\ x\ 365\ days}$$

Erie's total annual water use has generally trended upward this decade reflecting Erie's increasing service area population[2]. However, Erie's per capita water use is significantly less than per capita water use during the 2002 drought and has generally declined over the past ten years. This may be attributed to the following:

- Long-term community response to regional drought awareness campaigns and Erie's mandatory water restrictions during the 2002 drought

[1] Erie began to provide untreated ditch water and reuse water for irrigation of the Vista Ridge Golf Course in 2002.
[2] Erie's water use exceeds the 2,000 AFY requirement to qualify as a covered entity for CWCB's Water Conservation Planning Grant. Annual water usage since 2001 has consistently been greater than 2,000 AFY.

- Larger proportion of new homes being constructed within the service area which tend to be more water efficient than older homes (i.e. homes within the Old Town portion of Erie)
- Increased water efficiency among customers in response to Erie's water conservation outreach efforts

Per capita use water trends will be further evaluated during development of the Water Conservation Plan update.

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Figure 2 - Historical Water Use

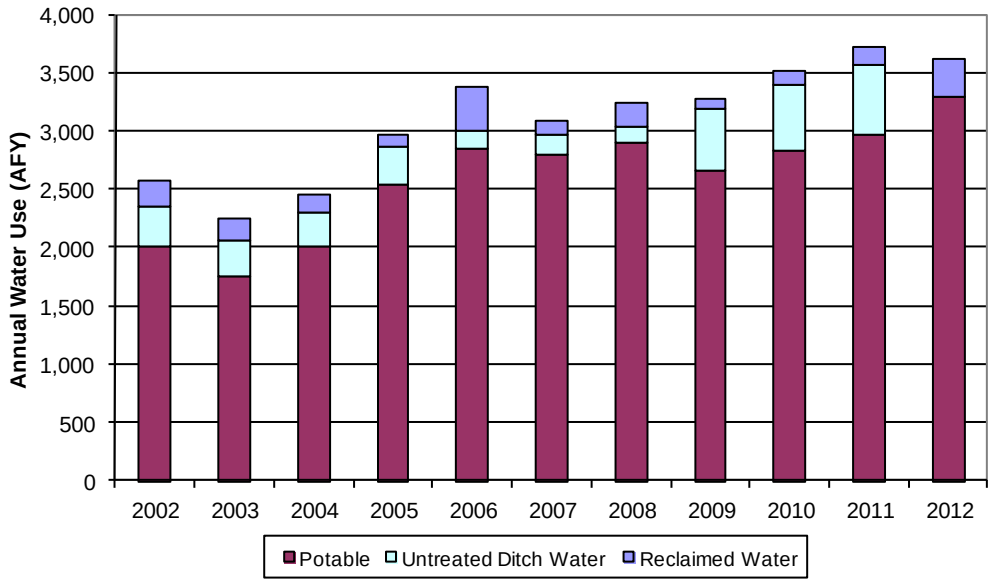


Figure 3 - Historical Per Capita Water Use

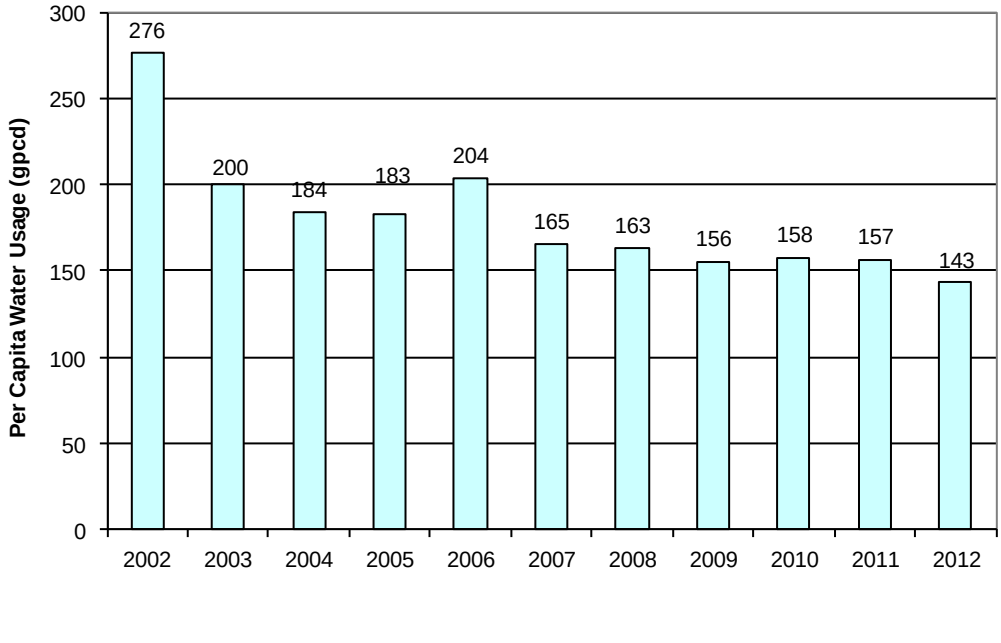


Table 1 shows the potable water use by customer sector from 2002 to 2012. These data indicate that residential use on average comprised 77 percent of Erie's total water consumption (metered end use) from 2002 to 20012. The residential sector includes both single-family and multi-family housing. The irrigation accounts in Table 1 were the next highest user for the years when irrigation account data are available (from 2009 to 2012). The irrigation accounts include outdoor watering on parks, open spaces and commercial parcels. The commercial sector in Table 1 includes schools, municipal property and commercial businesses while the construction sector entails potable water used for construction purposes.

Table 1: Potable Water Use by Customer Sector (AFY)

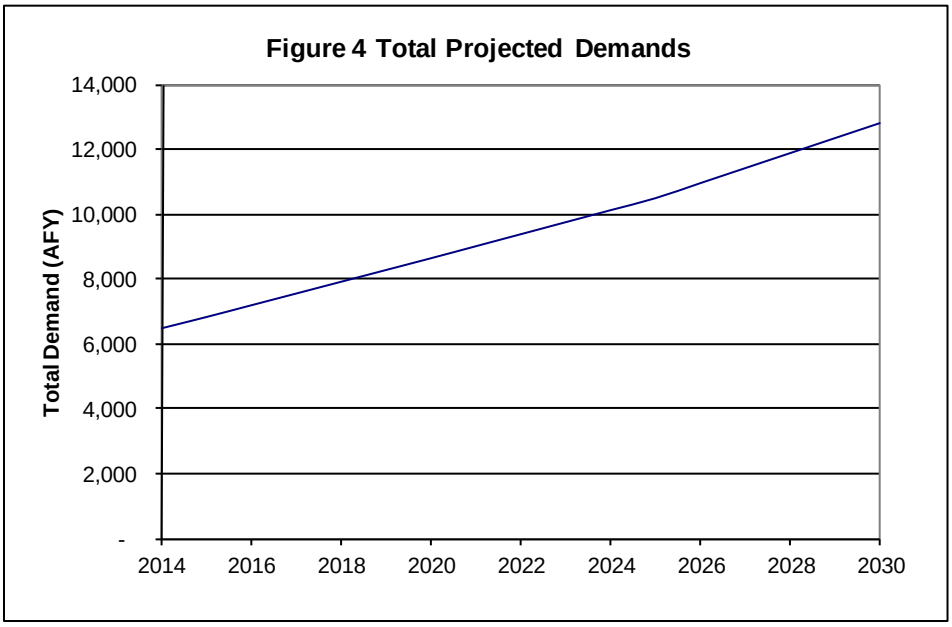
	Commercial	Irrigation	Residential	Construction	Total Metered End Use
2002	99	*	1,278	302	1,679
2003	229	*	1,209	56	1,494
2004	269	*	1,269	448	1,986
2005	401	*	1,788	76	2,265
2006	489	*	2,224	30	2,743
2007	458	*	2,167	80	2,705
2008	461	*	2,181	50	2,692
2009	113	372	1,589	139	2,213
2010	111	432	2,087	67	2,697
2011	342	293	2,139	109	2,883
2012	113	539	2,408	36	3,096
Average	280	409	1,849	127	2,405

*The finance department did not distinguish between irrigation and commercial accounts.
In 2008, the commercial use was modified to account for apparent errors.

3.0 Projected Water Demands

As Erie develops, its water demands will continue to increase. Demand projections in Figure 4 show Erie's projected total demands (including potable, reclaimed water, and raw water) presented in Erie's 2008 Water Conservation Plan. These demand projections were developed by multiplying the population projections shown in Figure 1 by a per capita water use of 230 gpcd.[3] This provides a reasonably conservative estimate of projected demands. The 230 gpcd is less than the 2002 per capita water usage (which was abnormally high), yet greater than the per capita water use from 2003 – 2012. Projected demands will be revisited during the Water Conservation Plan update.

[3] The per capita value of 230 gpcd was used to develop projected demands for Erie's 2008 Water Conservation Plan. This value will be reassessed during the development of the updated Water Conservation Plan along with Erie's current efforts in developing a Water Supply Master Plan. The projected demands may be updated as a result of these planning efforts.



4.0 Water Supplies

Erie's water supply consists of a variety of surface water sources. Sources include ditch shares, reservoir shares and Colorado Big Thompson (CBT) and Windy Gap supplies with a total average year yield of 8,274 AFY. Erie's current water supplies, shown in Table 2, provide an adequate amount of water to meet existing needs although additional water will be needed to meet future demands.

Erie is located in the northern area identified by the Statewide Water Supply Initiative (SWSI), which comprises the northwest portion of the South Platte River Basin. The SWSI 2010 Report indicates that the northern area of the South Platte Basin will need an additional 25,500 to 137,700 AFY of water by 2050 to meet an additional 131,200 to 184,900 AFY of M&I and self supplied industrial demands.[4] There are a variety of regional projects that are currently undergoing environmental review to bring supplies to the area.

In order to meet its needs, Erie is anticipating the acquisition of additional Windy Gap shares and is also a participant in the Windy Gap Firming Project. This project could firm Windy Gap supplies enabling Erie to receive its full Windy Gap allotment during dry years. Erie is also a participant in the Northern Integrated Water Supply Plan (NISP) and has requested 6,000 AFY of firm yield. If needed Erie could increase its NISP request to 6,500 AFY. Erie also plans to purchase additional CBT shares, ditch water rights, and further extend its supplies by using additional untreated ditch water and reclaimed water.

[4] Source: CWCB. 2011. SWSI 2010 Report Appendix J – Technical Memorandum 2050 M&I Gap Analysis. These ranges were developed by assuming high and low water demand scenarios in addition to a 100% and 40% success rates for identified projects and processes.

Table 2 Erie's Existing Water Supplies

Water Right	No. of Shares or Units Owned	Average Annual Yield (AF/share)	Average Annual Yield (AF)	Dry Year Annual Yield (AF/share)	Dry Year Annual Yield (AF)	Firm Annual Yield (AF/share)	Firm Annual Yield (AF)
Transbasin Sources							
CBT[1]	7,380	0.7	5,166	1	7,380	0.5	3,690
Windy Gap Project	14	100	1,400	0	0	0	0
Subtotal	**7,394**	100.7	**6,566**	n/a	**7,380**	n/a	**3,690**
Reservoir Storage							
Erie Reservoir	239	1	239	0.3	71.7	0	0[3]
Prince Reservoir	80	1	80	0.3	24	0	0[3]
Thomas Reservoir	148	1	148	0	0	0	0
Subtotal	**467**	n/a	**467**	n/a	**96**	n/a	**0**
Mutual Irrigation Company Ownership[2]							
Leyner Cottonwood Ditch	311.5	0.54	168.21	0.21	65.4	0.21	65.4[4]
South Boulder Canyon Ditch[2]	205	2.9	594.5	0	0	0	0
Erie Coal Creek Ditch and Reservoir Co.	98	4.9	480.2	0.56	54.9	0.56	54.9[4]
FRICO- Marshall Lake Div.	8.24	4	32.96	0.5	4.12	0.5	4.1[4]
Subtotal		n/a	**1,276**	n/a	**124**	n/a	**0**
Total		**n/a**	**8,309**	**n/a**	**7,600**	**n/a**	**3,814**

[1]This includes 3,900 Units under Lease/Purchase Agreement with Erie Finance Corporation

[2] Two shares are owned by Town of Erie Renewal Authority

[3] Based on the 2012 Water Year

[4] These water rights are decreed for irrigation use, except 155 shares in the Leyner Cottonwood Ditch. However, that water needs to be diverted through the South Boulder Canon Ditch to be used for potable purposes, which is not possible in years when that ditch is not diverting under its own priorities

5.0 Work Plan

Erie anticipates that implementation of the updated Water Conservation Plan could achieve an average annual water savings of 5%. During the development of the Plan, Erie will evaluate the effectiveness of its 2008 Water Conservation Plan and customer water use trends. This preliminary 5% average annual water savings is subject to changing following the analysis.

AMEC will be working closely with Erie staff in updating the Water Conservation Plan. Erie will provide AMEC with the data/information necessary to develop the Plan. The Plan will be developed in accordance to CWCB's Water Efficiency Plan Guidance Document and to the Scope of Work provided as Attachment B. Table 3 below lists the anticipated roles and contributions of each Erie staff member. The Scope of Work in Attachment B provides a more detailed description of the work plan.

Table 3 Role of Erie Staff Members in Development of Plan			
Staff Member	**Rate**	**Position**	**Role**
Gary Behlen	$65.84	Public Works Director	Facilitate data transfer to Amec Meetings/correspondence with Amec to discuss development of the Plan Review of all draft documents
Russell Pennington	$65.08	Deputy Director of Public Works	Facilitate data transfer to Amec Meetings/correspondence with Amec to discuss development of the Plan Review of all draft documents
Wendy Palmer	$50.40	Civil Engineer	Provide data and technical support to Amec
Deb Jenkins	$32.85	GIS/AutoCad Technician	Provide data and technical support to Amec
Kris McDaniel	$30.49	Public Works Administrative Assistant	Coordinate public review and stakeholder process including the following: Arrange open house meeting facility Advertise open house to the public
Bethany Peer	$20.11	Admin	Organize information for the plan development
Jody Lambert	$53.63	Operations & Maintenance Manager	Collect data for the plan development and provide feedback
Jon Mays	$48.47	Water & Wastewater Operations Manager	Review draft of plan and provide feedback

6.0 Project Schedule

The preliminary project schedule identifying key activities and milestones is presented in Table 4. These dates are contingent on receipt of the grant funds at the beginning of February.

Table 4 Project Schedule Erie Water Conservation Plan	**2014**															
	Feb		Mar		Apri		May		June		July		Aug		Sept	
Task 1: Preparation and Facilitation of Workshops																
Workshop #1																
Workshop #2																
Task 2: Development of First Draft of Plan																
Profile of Existing Water Supply System																
Water Demands & Historical Demand Management																
Planning & Water Efficiency Benefits & Goals																
Selection of Water Efficiency Activities																
Implementation and Monitoring Plan																
Adoption of Policy, Public Review & Approval																
Task 3: Review Process																
First Draft for Erie Staff Review																
Second Draft for Public Review and Fact Sheet																
Third Draft for Erie Board Review, summary presentation and board meeting attendance																
Fourth Draft for CWCB Review																
Final Draft																
Task 4: Project Management and Grant Related Administration																
Monthly Invoices to Erie																
50% and 75% Progress Reports																

* Assumes the CWCB grant is approved at the end of February or beginning of March and project work commences on March 10.

Workshop with Erie Staff

Board Meeting

7.0 Budget Cost Estimate

The budget cost estimate is provided in Table 5. This estimate provides information on consultant costs, Erie's in kind contributions (i.e. staff time), and anticipated allocation of costs based on anticipated grant funding from CWCB. Table 6 provides a detailed breakdown of the consultant (AMEC) hours, rates and costs by task.

Table 5 Estimate of Costs and Cost-Sharing Allocation

Task	Description	Project Costs															Funding Sources			
		Amec Costs (Consultant)				Erie Staff Costs														
		Amec Hours	Total Labor	Other Direct Costs	Total	Public Works Director	Deputy Director of Public Works	Civil Engineer	GIS/AutoCad Technician	Public Works Administrative Assistant	Admin	Operations & Maintenance Manager	Water & Wastewater Operations Manager	Total Staff Hours	Staff Labor Costs	Total Project Cost	Erie Match (In-kind Services)	Erie Match (Cash Funds)	CWCB Grant	Total
	Hourly Rates	-	$134	-	-	$66	$65	$50	$33	$30	$20	$54	$48	-	-	-	-	-	-	-
Task 1: Preparation and Facilitation of Workshops																				
	Coordination and debrief on two workshops	10	$1,396	$66	$1,462	4	4	4	0	4	4	4	4	28	$1,336	$2,798	$1,336	$165	$1,297	$2,798
	Workshop #1	48	$6,584	$110	$6,694	2	4	2	0	1	1	2	2	14	$748	$7,442	$748	$165	$6,529	$7,442
	Workshop #2	48	$6,584	$110	$6,694	2	4	2	0	1	1	2	2	14	$748	$7,442	$748	$165	$6,529	$7,442
Task 2: Development of First Draft of Plan																				
2.1	Profile of Existing Water Supply System	10	$1,022	$0	$1,022	1	2	0	0	0	0	0	0	3	$196	$1,218	$196	$165	$857	$1,218
2.2	Water Demands & Historical Demand Management	6	$750	$0	$750	0	2	2	2	2	0	2	2	12	$562	$1,312	$562	$165	$585	$1,312
2.3	Planning & Water Efficiency Benefits & Goals	6	$750	$0	$750	0	2	2	2	2	0	2	2	12	$562	$1,312	$562	$165	$585	$1,312
2.4	Selection of Water Efficiency Activities	8	$1,000	$0	$1,000	0	2	2	2	2	0	2	2	12	$562	$1,562	$562	$165	$835	$1,562
2.5	Implementation and Monitoring Plan	20	$3,522	$66	$3,588	0	4	4	4	4	1	1	1	19	$837	$4,425	$837	$165	$3,423	$4,425
2.6	Adoption of Policy, Public Review & Approval	2	$250	$0	$250	0	4	4	4	4	1	1	1	19	$837	$1,087	$837	$165	$85	$1,087
Task 3: Review Process																				
	Second Draft for Public Review and Fact Sheet	27	$3,106	$33	$3,139	2	4	2	2	2	2	0	0	14	$660	$3,799	$660	$165	$2,974	$3,799
	Third Draft for Erie Board Review, summary presentation and board meeting attendance	22	$2,766	$33	$2,799	2	4	0	0	0	0	0	0	6	$392	$3,191	$392	$165	$2,634	$3,191
	Fourth Draft for CWCB Review	8	$1,000	$0	$1,000	1	2	0	0	0	0	0	0	3	$196	$1,196	$196	$165	$835	$1,196
	Final Draft	12	$1,500	$110	$1,610	1	2	0	0	0	0	0	0	3	$196	$1,806	$196	$165	$1,445	$1,806
Task 4: Project Management and Grant Related Administration																				
	Monthly Invoices to Erie	26	$2,908	$0	$2,908	0	6	0	0	0	6	0	0	12	$511	$3,419	$511	$165	$2,743	$3,419
	50% and 75% Progress Reports	14	$1,896	$0	$1,896	0	4	0	0	0	0	0	0	4	$260	$2,156	$260	$165	$1,731	$2,156
Total of Tasks		**267**	**$35,034**	**$528**	**$35,562**	**15**	**50**	**24**	**16**	**22**	**16**	**16**	**16**	**175**	**$8,603**	**$44,165**	**$8,603**	**$2,475**	**$33,087**	**$44,165**

Cost Share Allocation

Total Cost to Prepare Plan (Erie and Amec)	$44,165
Erie in-kind contribution	$8,603
Erie monetary expenditure (cash funds)	$2,475
Total Erie contribution as percent of total	25.1%
Total CWCB Grant contribution	$33,087

Table 6 AMEC Costs (Consultant)

STAFFING	Rozaklis Professional Level 25 $198	Black & Sloan Professional Level 15 $125	Chambers Technician Level 13 $68	Pedrick Administrative Level 8 $68	McAmis Administrative Level 8 $68	Direct Expenses	Total
Task 1: Preparation and Facilitation of Workshops							
Coordination and debrief on two workshops	2	8	0	0	0	$66	$1,462
Workshop #1	8	40	0	0	0	$110	$6,694
Workshop #2	8	40	0	0	0	$110	$6,694
Phase Total	18	88	0	0	0	$286	$14,850
Task 2: Development of First Draft of Plan							
2.1 Profile of Existing Water Supply System	0	6	4	0	0	$0	$1,022
2.2 Water Demands & Historical Demand Manageme	0	6	0	0	0	$0	$750
2.3 Planning & Water Efficiency Benefits & Goals	0	6	0	0	0	$0	$750
2.4 Selection of Water Efficiency Activities	0	8	0	0	0	$0	$1,000
2.5 Implementation and Monitoring Plan	14	6	0	0	0	$66	$3,588
2.6 Adoption of Policy, Public Review & Approval	0	2	0	0	0	$0	$250
Phase Total	14	34	4	0	0	$66	$7,360
Task 3: Review Process							
Second Draft for Public Review, Fact Sheet and Attendance at Meeting	1	20	2	0	4	$33	$3,139
Third Draft for Erie Board Review, summary presentation and board meeting attendance	1	20	1	0	0	$33	$2,799
Fourth Draft for CWCB Review	0	8	0	0	0	$0	$1,000
Final Draft	0	12	0	0	0	$110	$1,610
Phase Total	2	60	3	0	4	$176	$8,548
Task 4: Project Management and Grant Related Administration							
Monthly Invoices to Erie	0	20	0	6	0	$0	$2,908
50% and 75% Progress Reports	2	12	0	0	0	$0	$1,896
Phase Total	2	32	0	6	0	$0	$4,804
Total Hours	36	214	7	6	4		267
Total Cost	$7,128	$26,750	$476	$408	$272	$528	$35,562

8.0 Authorization

The Town of Erie commits the resources necessary to perform the tasks itemized in this grant application.

Gary Behlen, Public Works Director

2/27/14

Date

Attachment A

VRANESH AND RAISCH, LLP
ATTORNEYS AT LAW

1720 14th Street, Suite 200
P.O. Box 871
Boulder, Colorado 80306-0871

Telephone 303/443-6151
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Jerry W. Raisch
Michael D. Shimmin
Eugene J. Riordan
Paul J. Zilis
Lisa Ledet

Stuart B. Corbridge

George Vranesh (1926 - 1997)

January 22, 2007

Gary Behlen, P.E.
Town of Erie
645 Holbrook
P.O. Box 750
Erie, CO 80516

Re: Erie Conservation Plan/Incorporation Documentation

Dear Gary:

Enclosed is the Notice of Incorporation of the Town of Erie which I am sending for the documentation required by CWCB for the Town's conservation plan. Please let me know if you need any additional documentation.

Sincerely,

VRANESH AND RAISCH, LLP

Paul J. Zilis

PJZ:kek
Enclosure

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Notice of Incorporation of the Town of Erie in County of Weld in Territory of Colorado

Territory of Colorado }
County of Weld } ss

11-16-1874

Be it Remembered, that on Monday the sixteenth day of November A D 1874 the Board of County Commissioners in and for the County of Weld in the Territory of Colorado, met pursuant to adjournment, at Greeley the County seat of Weld County and Territory aforesaid.

Present

Hon S. J. Plumb chairman of the Board Mr J. L. Brush and Mr J. M. Woolaver members of the Board.

Hon F B A Haynes County attorney and W. C. Sanders County Clerk

When the following business "among other things" was had and entered of Record, to wit:

The Petition to "incorporate the Town of Erie" under the name of "The Incorporation of the Town of Erie" said Town to be bounded as follows to wit:

The East half (½) of the North West quarter (¼) and the East half (½) of the South West quarter (¼) of Section Eighteen (18) Township One (1) North of Range Sixty Eight (68) West, was received; and on motion of Mr J L Brush, the Prayer of said Petition were ordered granted: and the Town of Erie as hereinbefore described, be, and the same is hereby declared Incorporate according to section One (1) Article One (1) Chapter Eighty Four (84) of the Revised Statutes of Colorado and the following named persons were and they are hereby appointed Trustees of said Town of Erie, to serve as such until the first Monday in April A D 1875; according to Section One (1) Article Two (2) of Chapter Eighty Four (84) of the Revised Statutes of Colorado viz:

John T Williams, John A Rowe, Joseph J. Wheaton R. J. Van Valkenburg, and George Mellor

Territory of Colorado }
County of Weld } ss

I, W. C. Sanders County Clerk in and for said County in the Territory aforesaid

do hereby certify the above and foregoing to be a true and correct statement of the proceedings of the Board of County Commissioners in and for said County of Weld and Territory of Colorado pertaining to the Incorporation of the Town of Erie

Given under my hand and official seal at Greeley this twenty third day of November A D 1874

(Seal)

signed W C Sanders

County Clerk

Territory of Colorado }
County of Weld } ss
Town of Erie }

I Samuel N Southard Town Clerk of said Town of Erie in the County and Territory aforesaid do hereby certify the above and foregoing to be a true and correct copy of the "Notice of Incorporation" to the above named Board of Trustees of the Town of Erie

Given under my hand and the corporate seal of said Town of Erie this third day of December A D 1874

Samuel N Southard

Town Clerk

Attachment B
Erie Water Conservation Plan
Scope of Work

This scope of work outlines the work to be performed by the Town of Erie (Erie) and AMEC Environment and Infrastructure, Inc (AMEC) to update Erie's 2008 Water Conservation Plan (Plan). AMEC plans to work closely with Erie in developing a Plan that provides an appropriate level of guidance for Erie implement its water conservation program.

AMEC will approach this project according to the Project Tasks identified below. These tasks correspond with the Colorado Water Conservation Board (CWCB) *Municipal Water Efficiency Plan Guidance Document (Guidance Document).*

Task 1: Preparation and Facilitation of Workshops

Purpose: Two workshops will be held during the water conservation plan development process to obtain stakeholder feedback necessary to develop an effective Plan. The workshops will provide an efficient mechanism for incorporating the diverse operational and managerial knowledge of Erie staff responsible for implementing and monitoring the Plan.

Approach: AMEC will work with Erie to organize and facilitate the following two workshops:

- Workshop #1: The first workshop will focus on historical water demand trends, the 2008 Water Conservation Plan goals and how well Erie achieved the goals, overall effectiveness of the 2008 Plan, demand forecasts, and potential future water demands based on water conservation scenarios.
- Workshop #2: The second workshop will focus on water conservation goals, screening and selection of new water conservation activities and implementation and monitoring of the Plan.

This task also includes preparation for the workshops which will entail analyses of historical water demands and conservation goals, development of projected water demands, estimation of water conservation savings from historical and future water conservation activities. This task also includes correspondence with one Erie staff member to coordinate the workshops and debrief on each meeting.

Assumptions:

- AMEC will develop the workshop materials and Powerpoint presentations, will present those materials at the workshops, and will act as a technical facilitator at the workshops.
- Erie will be responsible identifying and inviting the workshop attendees, scheduling the time and location of the workshop and hosting the workshop.
- The workshop attendees will consist of employees within the Town of Erie who will be responsible for implementing and monitoring the water conservation plan.
- The workshops will be three to four hours
- Erie will be responsible for correspondence with CWCB in regards to grant monies

Deliverables:

- Agendas, Powerpoint presentations and handouts developed for the workshops

Task 2: Development of First Draft of Water Conservation Plan

Purpose: AMEC will work closely with Erie staff to develop an effective Plan that meets the needs of the community while also improving water efficiency.

Approach: The Plan will be developed according to the template provided in CWCB's Guidance Document which provides a conservation plan framework and content. The specific format of Erie's Plan and content items to be included are identified in the CWCB template checklist included as Attachment C. This includes the following sections:

- Introduction
- Profile of Existing Water Supply System
- Profile of Water Demands and Historical Demand Management
- Integrated Planning and Water Efficiency Benefits and Goals
- Selection of Water Efficiency Activities
- Implementation and Monitoring Plan
- Adoption of New Policy, Public Review and Formal Approval

Assumptions:

- AMEC will coordinate planning efforts with one Erie staff member during Plan development.
- AMEC will organize and content of the plan according to the checked items in the CWCB template checklist in Attachment C.
- Erie will provide available data necessary for the Plan development in a consolidated electronic format.

Deliverables:

- First draft of the Plan for review by Erie staff

Task 3: Review Process

Purpose: Several draft reviews of the Plan are necessary for Erie to officially adopt a Final Plan and receive Plan approval from CWCB. This includes a 30-day public review period for the public to review and provide feedback on the draft Plan.[5] This is required for all CWCB grant recipients

Approach: AMEC will develop a single page fact sheet in support of the public review process. The 30-day public review period will consist of advertisement of the Plan on Erie's website. The Plan and fact sheet will be posted on Erie's website and the public will be encouraged to provide comments.

Additionally AMEC will develop a brief Powerpoint presentation (approximately five slides) summarizing the Water Conservation Plan for presentation to the Board and attend one Board

[5] Erie adopted an ordinance during the development of their previous Water Conservation Plan requiring a 30-day public review period for the development of water conservation plans.

meeting. Five drafts of the plan will be developed to address applicable comments from the following reviews:

- First Draft for Erie Staff Review
- Second Draft for the Public Review
- Third Draft for the Erie Board Review
- Fourth Draft for the CWCB Review
- Final Report

Assumptions:

- AMEC will attend one Board meeting to answer questions during the Board review period and provide up to ten Powerpoint slides that may be used to present the Plan to the Board.
- Erie will be responsible for all coordination of the public review period include advertising, collection of public comments, and making the Plan publicly available.
- A single set of comments will be consolidated by Erie staff following each review and provided to AMEC for incorporation in the draft Plan document.
- Erie staff will be responsible for authoring and adopting all applicable ordinances and formal agreements with other entities to facilitate implementation of the Plan.
- Erie will be responsible for initiating and conducting the periodic Plan review and updates.

Deliverables:

- Draft Plan following the Erie staff review for public review
- Electronic copy of one-page Fact Sheet for Erie's distribution during the public review period
- Draft Plan following the public review for Board review
- Short Powerpoint presentation (around 6 slides) for the Board Meeting
- Draft Plan following the Board review for CWCB review
- Final Plan following CWCB review electronically submitted to Erie and CWCB

Task 4: Project Management and Grant Related Administration

Purpose: AMEC will conduct project management activities and administrative support activities required under CWCB's Water Conservation Plan grant program.

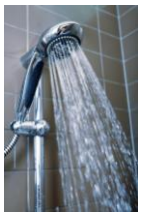
Approach: This task includes the following activities:

- AMEC will submit monthly invoices to Erie including brief progress reports and initiate start-up and close out activities.
- Progress reports at 50% and 75% completion are required by CWCB for Water Conservation Plan recipients. These reports will be submitted electronically to CWCB and Erie, providing the status of each task in the Plan development.
- AMEC will communication regularly with the CWCB to ensure that the final Plan will meet CWCB approval.
- Development of the 50% and 75% progress reports will be limited to a single draft

Deliverables:

- Monthly invoices with brief progress reports.
- Submit electronic copies of the 50% and 75% progress reports to Erie and the CWCB.

Attachment C
CWCB Water Efficiency Plan Guidance Document Template



Required	Beneficial	Public	Document

Introduction

This section introduces the general approach used to develop the water efficiency plan and describes the entities involved with the Plan development.

- Approach to the development of the plan. These are the five steps outlined in Guidance Document Section **Error! Reference source not found.**; 1) profile of existing water supply system, 2) profile of water demands and historical demand management, 3) integrated planning and water efficiency benefits and goals, 4) selection of water efficiency activities, and 5) implementation and monitoring plan.
- Provide general context/overview of plan.
- Overview of the provider's historical conservation/water efficiency plans. This may include a brief history on the conservation/water efficiency plan(s) to date and when the plan(s) were developed.
- Entities involved with development of the plan (e.g. public works, planning department, parks department, water board, public stakeholder group, etc).
- Describe the stakeholder process or alternative outreach efforts discussed in Guidance Document Section **Error! Reference source not found.**, and incorporated into the development of the plan.
- General description of how the conservation plan is compatible and coordinated with other local plans (e.g. integrated water resources plans, raw and treated water master plans, drought plans, county hazard mitigation plans, etc).
- List of resources used to develop the water efficiency plan. This may be included in an appendix or separate references section.

1.0 Profile of Existing Water Supply System

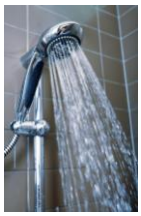
This section provides an overview of the provider's existing water supply system, supply reliability, system limitations and challenges and historical supply-side water efficiency efforts.

1.1 Overview of Existing Water Supply System

Objective: Provide a description of the existing water supply system and service area.

Δ □ ☒ Geographic area served and/or map of service area.

Δ □ ☒ Raw non-potable water, treated water and reclaimed water supply sources.



Required	Beneficial	Public	Document	
	Δ	□		☐ Key existing facilities. This may include descriptions of the following: – Reservoirs – general location, acre-feet of storage. – Groundwater wells – general location of well(s), source aquifers. – Water treatment plant(s) – general location, capacity, type of treatment. – Wastewater treatment plants(s) – general location, capacity, type of treatment. – Water distribution system – miles of pipeline, number of pressure zones.

1.2 Water Supply Reliability

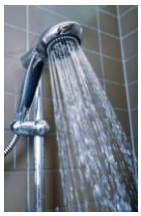
Objective: Provide an overview of the existing water supply reliability.

√				☒ Provider's location with respect to areas of current and future water needs as identified by the Statewide Water Supply Initiative (SWSI) and other regional planning efforts.
				Summary of water supply system reliability. Consideration may be given to each of the following:
	Δ	□		☒ – Overview of how the provider determines reliability (water supply modeling).
	Δ	□		☐ – Firm yield (if applicable).
	Δ	□		☐ – Reliability or drought criteria (if applicable).
	Δ	□		☐ – Safety factors.
	Δ	□		☐ – Whether climate change is included in the planning and if so, how?
	Δ			☐ If the provider has excess supplies after meeting its municipal demands (this may occur in normal and/or wet years), describe how this water is used (e.g. agricultural leases, drought reserves, instream flows, etc).

1.3 Supply-Side Limitations and Future Needs

Objective: Identify water supply system limitations, future needs and planned actions to address these limitations and needs. This information will be useful in determining how water efficiency efforts could further address some of these limitations and future needs in Step 3.

√				☒ Summary of water supply system limitations and future challenges water managers have for planning and operating their systems. Worksheet A provides a template that may be used to furnish this information.



Required	Beneficial	Public	Document	
√				☒ Description of how the provider intends to address its water supply system limitations and future challenges. This may include a description of specific facility enhancements, water acquisition, water efficiency efforts, necessary to meet the limitations/needs described above. Worksheet A provides a template that may be used to furnish this information.

2.0 Profile of Water Demands and Historical Demand Management

This section provides an overview of the historical water demand trends as well as the influence of historical water demand management on water use and forecasted future water demands. This is a data intensive section where graphs and charts are encouraged in addition to discussion summarizing the data and observed trends. Specific examples of graphs are provided in Guidance Document Section **Error! Reference source not found.**. Note: This information may be provided directly in the plan or referenced from other planning documents. All referenced documents must be included in an appendix and the reference must include the chapter and page number.

2.1 Demographics and Key Characteristics of the Service Area

Objective: Provide information on descriptions of customer categories, on service area population and other information such as demographics and housing stock age.

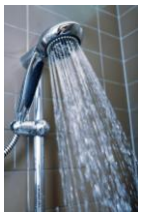
√				☒ Description of customer categories (e.g. single-family, multi-family, commercial, municipal, irrigation). These categories are often defined in the provider's billing system.
	Δ			☒ Service area population.
	Δ			☒ Other pertinent information (e.g. demographics, age of housing stock, etc). See Guidance Document Section **Error! Reference source not found.** for details.

2.2 Historical Water Demands

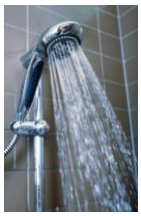
Objective: Provide an overview on historical water demand data.

It is recommended that, at a minimum, demand data include the past five years. Demand data may be presented in graphical or tabular format. Examples of each of the demand data types listed below are provided in Guidance Document Section **Error! Reference source not found.**. In addition to the data itself, an appropriate level of discussion including observed trends, patterns and significant findings should be included. Information specific to the demand data in relation to historical demand management activities may be reserved for Template Section 2.3.

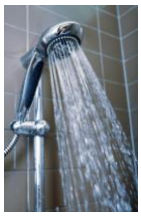
√				☒ Describe any limitations associated with the availability of the demand data.



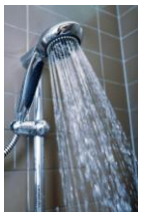
Required	Beneficial	Public	Document		
					Examples of challenges are discussed in Guidance Document Section **Error! Reference source not found.**.
					Consideration should be given to the following total system-wide demand data:
√				☒	– Total annual distributed treated water; C.R.S. 37-60-126 (4.5).
√				☒	– Total annual raw distributed non-potable water and reclaimed water; C.R.S. 37-60-126 (4.5).
√				☒	– Annual non-revenue water; C.R.S. 37-60-126 (4.5).
√					Water demand by customer categories:`
√				☒	– Monthly and Annual treated metered water use by customer category; C.R.S. 37-60-126 (4.5).
	Δ			☒	– Monthly and Annual raw water/reclaimed metered water use by customer category; C.R.S. 37-60-126 (4.5).
	Δ			☐	Largest water user groups and any observed water use trends. Include whether these water user(s) are implementing water efficiency activities and if reductions in water usage can be observed over time. Large water user groups may include: – Industrial/commercial users (e.g. breweries, factories). – Residential homes (e.g. number of homes in the highest tier of residential water use). – University campuses. – Other large users.
					Some additional ways to analyze system wide demand are:
	Δ			☒	– Per capita water demands and description of calculation.
	Δ			☒	– Indoor and outdoor water usage and description of calculation.
	Δ			☐	– Peak day demands.



Required	Beneficial	Public	Document	
				2.3 Past and Current Demand Management Activities and Impact to Demands
				Objective: Summarize past and current demand management activities, goals and projected savings. Discuss how demand management activities and other factors have impacted historical water use.
√				☒ According to C.R.S. 37-60-126 (4), all State approved plans must include an estimate of the amount of water saved through previous demand management efforts as a percentage or in acre-foot increments. These data can be drawn from various literature resources and/or by assessing historical demand trends. See Guidance Document Section **Error! Reference source not found.** for additional information. These estimates should represent annual savings of each individual activity for at least the past five years or at a minimum, the savings of each relevant SWSI Levels Framework category level introduced in Guidance Document Section **Error! Reference source not found.** (e.g. Ordinances and Regulations). Worksheet B provides a format to record water savings by individual activity.
√				☒ List of demand management activities implemented prior to adoption of this plan and the date of initial implementation. Worksheet B provides a template based on the SWSI Level Framework; C.R.S. 37-60-126 (4.5).
√				☒ Projected water savings/goals developed from previous efforts. Discuss whether these projected water savings were achieved.
	Δ			☒ Summary and results of analysis to identify how demand management activities impacted historical demands. This could include: – Significant efforts that influenced demands and when they were initiated (e.g. implementation of a water efficiency plan, metering and/or metering upgrades, changes to water rates and/or the billing rate structure). – Other factors that affected water demands. These may include drought, water restrictions, economic conditions or rainfall.
	Δ			☒ Discussion of passive vs. active demand management savings and quantitative data that supports passive demand reductions. See Guidance Document Section **Error! Reference source not found.** for information on how to estimate passive water efficiency savings.
		□	+	☒ Lessons learned on the implementation, monitoring and overall effectiveness of the historical demand management activities.



Required	Beneficial	Public	Document	
				2.4 Demand Forecasts
				Objective: Provide demand forecasts assuming no modifications to the currently implemented demand management activities.
√				☒ Identify planning horizon for this plan. Guidance Document Section **Error! Reference source not found.** discusses reasonable planning horizons.
√				☒ Unmodified forecasted water demands based on the provider's existing water efficiency program (without the new water efficiency activities selected in Step 4) through the planning horizon. This is often presented in bar or line charts. See Guidance Document Section **Error! Reference source not found.** for more information.
	Δ		+	☒ Summary of method(s) and any assumptions used to develop the demand forecast.
				3.0 Integrated Planning and Water Efficiency Benefits and Goals
				This section focuses on the role that water efficiency plays in the water provider's water supply planning efforts. Information is presented on the provider's water supply planning efforts, future capital improvements, the anticipated benefits of the water efficiency plan and water efficiency goals.
				3.1 Water Efficiency and Water Supply Planning
				Objective: Summarize water supply system challenges/limitations and introduce current water supply planning efforts such as future water acquisitions and capital improvements. Describe how water acquisitions and/or capital improvement modifications could be made as a result of demand reductions through enhanced water efficiency activities.
				It is recognized that water right and infrastructure information can be sensitive and, consequently, it may not be appropriate for some providers to include details in their plans. In these cases, the challenges and limitations may be addressed in general terms to preserve confidentiality. Regardless of how this information is included, it is highly recommended that the provider go through the process of identifying system limitations and challenges in order to determine how water efficiency could be a beneficial component to future planning efforts in Step 3.
√				☒ According to C.R.S. 37-60-126 (4), a description of how long-term water savings garnered through water efficiency activities are incorporated into water supply planning and decision making.



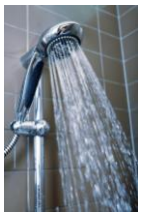
Required	Beneficial	Public	Document	
√				☒ Modified forecasted water demands through the planning horizon incorporating the provider's projected water savings identified in Template Section 4.0. (This item will need to be completed following Step 4). These data may be presented in bar or line charts.
	Δ	□		☐ If appropriate and logical, discussion of how water savings achieved through the new water efficiency plan could or could not result in the elimination, downsizing and/or postponement of certain capital improvements/water acquisitions. Worksheet C provides a template for presenting this information
	Δ			☐ – Estimated costs of the facility needs and water right acquisitions, dates of when construction/acquisition is anticipated and dates of when financing is anticipated. Worksheet C provides a template for presenting this information.
	Δ			☐ – Provide estimates of cost savings for the capital/water acquisition modifications discussed above. Worksheet C provides a template for presenting this information.
	Δ			☐ – Comparison of costs to implement the water efficiency activities selected in Step 4 to the estimated costs savings associated with the changes made to future capital improvements/water acquisitions.
	Δ	□		☐ State how the saved water will be used (e.g. drought reserves, instream flows and/or new demands).
	Δ	□		☒ List additional water efficiency benefits. Guidance Document Section **Error! Reference source not found.** provides examples of water efficiency benefits.

3.2 Water Efficiency Goals

Objective: Develop a set of qualitative and quantitative water efficiency goals that are appropriate for the provider's water supply system and designed to achieve the water efficiency benefits illustrated in Template Section 3.1. These goals will be used in the screening and evaluation processes outlined in Step 4 and development of the goals can be an iterative process between Steps 3 and 4.

√				☒ List of water efficiency goals for this plan and methods by which the success of the goals will be measured. Guidance Document Section **Error! Reference source not found.** provides useful examples and information on how these goals may be developed. These goals should incorporate the following:

- Targeted total water savings.
- Targeted water savings by customer class.
- Targeted water savings from system water loss control management.



Required	Beneficial	Public	Document	
	Δ		+	☒ Explanation of how these goals were developed and designed to achieve the water efficiency benefits in Template Section 3.1.
	Δ		+	☐ Explanation of how these goals compare to the goals in the provider's former water efficiency plan and describe why goals remained the same or were changed.

4.0 Selection of Water Efficiency Activities

This section presents the water efficiency activities selected for implementation and describes the processes used to identify, screen, and evaluate each of these activities. As discussed in Guidance Document Section **Error! Reference source not found.**, the water efficiency activities are organized into the SWSI Levels Framework to assist providers in prioritizing individual activities.

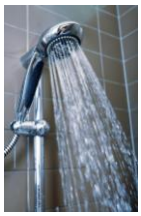
4.1 Summary of Selection Process

The following subsections include the elements/activities required to be fully considered and evaluated for implementation per C.R.S. 37-60-126 (4). However, after fully evaluating all of the required elements/activities, a provider may determine that a specific element/activity is not feasible for their service area or water system. **If a provider does not implement a C.R.S. 37-60-126 (4) required element/activity, documentation and supporting materials shall be provided in either the main body of the plan or in an appendix demonstrating that the element/activity was fully considered and evaluated during the selection and/or evaluation process, and the justification for why it will not be implemented.**

√				☒ List of final selected water efficiency activities included in the new water efficiency plan.
√		□	+	☒ Summary of the identification, screening and evaluation processes used to select the final activities and that demonstrate full evaluation. These processes are described in Guidance Document Section **Error! Reference source not found.**.
	Δ			☒ These worksheets provided in the guidance document may be included in an appendix: – Worksheets D, E, F and G may be used as a tool to identify and screen the demand-side SWSI levels of activities. – Worksheet H may be used to evaluate the supply and demand-side water efficiency activities carried forward into the evaluation process.

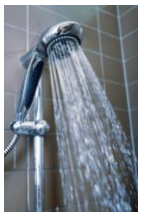
4.2 Demand Management Activities

Objective: Present the demand management activities selected for implementation. This section focuses on the screening and evaluation results; not the process. Documentation on the screening and evaluation process for each water efficiency activity should be included in tabular format in an appendix. Worksheets D, E, F, G

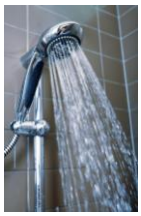


Required	Beneficial	Public	Document	
				and H may be used to develop these tables. See Guidance Document Section **Error! Reference source not found.** for additional information on the screening and evaluation process.
√				☒ According to C.R.S. 37-60-126(4), the plan shall include either as a percentage or in acre-feet increments, an estimate of the amount of water that will be saved through water efficiency when the plan is implemented. These estimates should represent, at a minimum, the annual projected savings of each relevant SWSI Levels Framework category introduced in Guidance Document Section **Error! Reference source not found.** or the annual projected savings of each individual activity.[1] Worksheet I provides a template that may be used to present this information for both the historical and new water efficiency activities.
				4.2.1 Foundational Activities
√				☒ Estimated water savings. This may also be provided in a summary table listing the savings of all activities selected for implementation. See Statute requirement in Guidance Document Section **Error! Reference source not found.**.
√				**Metering**
√		□	+	☒ Description of current and planned metering programs. Examples of metering programs include: meter replacement/upgrade; meter testing; and submetering programs. This includes a description of activities performed in the past, relevant costs, estimated water savings, lessons learned, and any other information used during the selection and evaluation processes that could be beneficial for future implementation.
√				☒ Modifications and/or new metering programs selected as a result of this water efficiency planning effort. This should include anticipated implementation costs, estimated water savings and any additional information beneficial to refer to during implementation.
	Δ			☐ Number of metered and unmetered accounts for treated water customers and non-potable water customers. Include type of meter (e.g. manual read, AMR, AMR with telemetry). See Guidance Document Appendix C for the HB 10-1051 Guidelines; C.R.S. 37-60-126 (4.5).
		□	+	☐ Discussion on any significant unmetered uses and lessons learned from past metering programs.
				Demand Data Collection and Billing Systems
√				☒ According to C.R.S. 37-60-126 (4), billing systems designed to encourage water efficiency in a fiscally responsible manner shall be fully evaluated. This may include improvements/upgrades to the existing billing system to improve data

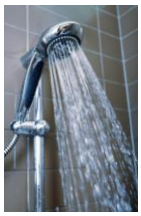
[1] These total savings should be used to develop the modified demands presented in Template Section 3.1.



Required	Beneficial	Public	Document		
					collection. (See Worksheets D and H).
					Billing systems often dictate the type of demand data available for monitoring purposes. Describe the billing system and available demand data. Consideration should be given to:
√		□	+	☒	– Description of demand data available through the billing system. This may include water usage by customer category (residential, commercial, etc).
√		□	+	☒	– Frequency of billing.
√				☒	Describe modifications to the data collection and billing systems as a result of this water efficiency planning effort.
		□	+	☐	Discussion of any past lesson(s) learned.
					Water Efficiency Oriented Rates and Tap Fees
√				☒	According to C.R.S. 37-60-126 (4), water rate structures designed to encourage water efficiency in a fiscally responsible manner shall be fully evaluated. This may be included in the main body of the report or in an appendix.
√		□	+	☒	Detailed description of the proposed or existing water rate structure and frequency of billing (e.g. inclining block rate structure on a monthly basis). (See Worksheets D and H); C.R.S. 37-60-126 (4.5).
√				☒	Description of proposed adjustments to water rate structure and/or rates. This may include changes to the water rate structure, frequency of billing and/or a qualitative discussion on anticipated rate increases. Specific rate adjustments may also be provided.
√				☒	Existing water rate structures by customer category (e.g. $3.21 per 1,000 gallons for Tier 1 residential customers); C.R.S. 37-60-126 (4.5)
		□	+	☐	Description of any past lesson(s) learned.
					System Water Loss Management and Control
√				☒	According to C.R.S. 37-60-126 (4), distribution system leak identification and repair designed to encourage water efficiency in a fiscally responsible manner shall be fully evaluated. (See Worksheets D and H).
√		□	+	☒	Description of current and planned system water loss management and control programs. Examples of system water loss management and control programs include: system-wide water audits; investigation of apparent losses; leak detection and repair programs; and water line replacement programs. This description may also include implementation costs and water savings.
		□	+	☐	Description of any past lesson(s) learned and any other information used during the selection and evaluation processes that could be beneficial for future



Required	Beneficial	Public	Document	
				implementation.
				4.2.2 Targeted Technical Assistance and Incentives
				Objective: Detail the Targeted Technical Assistance and Incentive activities selected for implementation. Targeted Technical Assistance and Incentives cover various actions providers and customers can do to improve water efficiency. This can include the installation of water efficient fixtures and appliances, low water use landscapes, water efficient commercial and industrial water using processes, water efficiency incentives and re-use systems. This template organizes the content of this section according to the SWSI Levels Framework.
√				☒ According to C.R.S. 37-60-126 (4), water-efficient fixtures and appliances (including toilets, urinals, clothes washers, showerheads, and faucet aerators); incentives to implement water efficiency techniques (including rebates to customers to encourage the installation of water efficiency activities); low water use landscapes, drought resistant vegetation, and efficient irrigation; and water-efficient industrial & commercial water-using processes; and re-use systems shall be fully evaluated. (See Worksheets E and H).
√				☒ Estimated water savings. This may also be provided in a summary table listing the savings of all activities selected for implementation. See Statute requirement in Guidance Document Section **Error! Reference source not found.**.
				Level 1 Utility/Municipal Facility Water Efficiency
				Description of the water efficiency activities that the water provider has selected for implementation and has direct control over. Include the following information for each activity:
√				☒ Description of the implementation plan for each activity within the targeted customer category. – For example, number of audits to be performed at water provider facilities, number of high efficiency fixtures to be installed at recreation centers, number of irrigation zones to be audited at parks along with actions to be performed as a result of the audits.
	Δ			☐ Potential implementation costs.
	Δ			☐ Benefits of each activity including social, economic and institutional benefits.
		□	+	☐ If implemented prior to this plan, provide past performance indicators and any lessons learned from past implementation.
				Level 2 Management of Largest Customer Demands
				Description of the selected water efficiency activities focused on the largest water users. Include the following information for each activity:



Required	Beneficial	Public	Document	
√				☒ Description of the implementation plan for each activity within the targeted customer category. – For example, description of the method for identifying largest users, number of largest users who will be reached during the activity, nature of water use addressed by the activity (outdoor, indoor, peak).
	Δ			☐ Potential implementation costs.
	Δ			☐ Benefits of each activity including social, economic and institutional benefits.
		□	+	☐ If implemented prior to this plan, provide past performance indicators and any lessons learned from past implementation.

Level 3 Management of Remaining Customer Demands

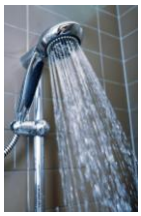
Description of the selected water efficiency activities that focus on the remainder of the service area and/or on specific customer categories (e.g. toilet rebates for residential homes). Include the following information for each activity:

√				☒ Description of the implementation plan for each activity within the targeted customer category. – For example, description of the method for prioritizing customer categories for inclusion, estimated number of customers who will be reached during the activity, nature of water use and customer category addressed by the activity (e.g. toilet rebates for residential homes).
	Δ			☐ Potential implementation costs.
	Δ			☐ Benefits of each activity including social, economic and institutional benefits.
		□	+	☐ If implemented prior to this plan, provide past performance indicators and any lessons learned from past implementation.

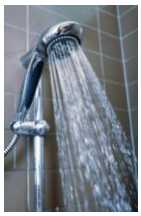
4.2.3 Ordinances and Regulations

Objective: Detail the regulatory activities selected for implementation. Ordinances and Regulations consist of locally adopted policies that encourage water efficiency. Common ordinances and regulations include water wasting policies and water restrictions. This template organizes the content of this section according to the SWSI Levels Framework.

√				☒ According to the C.R.S. 37-60-126 (4), regulatory activities designed to encourage water efficiency shall be fully evaluated. (See Worksheets F and H).
√				☒ Estimated water savings. This may also be provided in a summary table listing the savings of all activities selected for implementation. See Statute requirement in Guidance Document Section **Error! Reference source not found.**.



Required	Beneficial	Public	Document	
				Level 1 Existing Service Area
				Description of the regulation(s) selected to target the general service area and/or specific customer categories (e.g. residential). The following information should be included for each regulation:
√				☒ Description of the implementation plan for the regulation(s) selected and targeted customer categories. This may include: – Agency/entity that the provider must work with to enforce the regulation. – Level of enforcement that is anticipated. – What does the regulation focus on? – Who will the regulation affect?
	Δ			☐ Anticipated costs for administration and enforcement.
	Δ			☐ Benefits of each activity including social, economic and institutional benefits
	Δ		+	☐ Any challenges encountered to adopt the regulation.
		□	+	☐ If the regulation(s) were enacted in the past, provide information and any lessons learned.
				Level 2 New Construction Regulations
				Description of the regulation(s) selected for new construction. The following information should be included for each regulation:
√				☒ Description of the implementation plan for the regulation(s) selected and associated targeted customer categories. – Agency/entity that the provider must work with to enforce the regulation. – Level of enforcement that is anticipated. – What does the regulation focus on (irrigation systems, landscape, soil amendment)? – Who will the regulation affect?
	Δ			☐ Anticipated costs for administration and enforcement.
	Δ			☐ Benefits of each activity including social, economic and institutional benefits.
	Δ		+	☐ Any challenges encountered to adopt the regulation.
		□	+	☐ If the regulation(s) were enacted in the past, provide information and any lessons learned.
				Level 3 Point of Sales Ordinances on Existing Building Stock
				Description of the regulation(s) selected for existing building stock (e.g. point of sales ordinance). The following information should be included for each regulation:



Required	Beneficial	Public	Document	
√				☒ Description of the implementation plan for the regulation(s) selected and associated targeted customer categories: – Agency/entity that the provider must work with to enforce the regulation. – Level of enforcement that is anticipated. – What types of water efficient fixtures and level of efficiency are required? – Who will the regulation affect?
	Δ			☐ Anticipated costs for administration and enforcement.
	Δ			☐ Benefits of each activity including social, economic and institutional benefits.
	Δ		+	☐ Any challenges encountered to adopt the regulation.
		□	+	☐ If the regulation(s) were enacted in the past, provide information and any lessons learned.

4.2.4 Education Activities

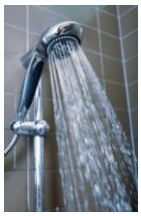
Objective: Detail the education and outreach programs selected for implementation. Education activities primarily educate the public on the benefits of water efficiency, inform customers on how they can reduce water usage, and publicize water efficiency activities the provider is implementing. This template organizes the content of this section according to the SWSI Levels Framework.

√				☒ According to C.R.S 37-60-126 (4), dissemination of information regarding water efficiency activities (including by public education, customer water use audits, and water-saving demonstrations) shall be fully evaluated. (See Worksheets G and H).
√				☒ Estimated water savings. This may also be provided in a summary table listing the savings of all activities selected for implementation. See Statute requirement in Guidance Document Section **Error! Reference source not found.**.

Level 1 One-Way Education Activities

Description of the selected Education Activities. The following information should be included for each activity:

√				☒ Description of the implementation plan for each activity within the targeted customer category.
	Δ			☐ Potential implementation costs.
		□	+	☐ Benefits of each activity and targeted customer(s).
	Δ			☐ If the activity was implemented in the past, provide information and any lessons learned from past implementation.



Required	Beneficial	Public	Document	
				Level 2 One-Way Education with Feedback
				Description of the selected Education Activities. The following information should be included for each activity:
√				☒ Description of the implementation plan for each activity within the targeted customer category.
	Δ			☐ Potential implementation costs.
		□	+	☐ Benefits of each activity and targeted customer(s).
	Δ			☐ If the activity was implemented in the past, provide information and any lessons learned from past implementation.
				Level 3 Two-Way Education
				Description of the selected Education Activities. The following information should be included for each activity:
√				☒ Description of the implementation plan for each activity within the targeted customer category.
	Δ			☐ Potential implementation costs.
		□	+	☐ Benefits of each activity and targeted customer(s).
	Δ			☐ If the activity was implemented in the past, provide information and any lessons learned from past implementation.

5.0 Implementation and Monitoring Plan

This section addresses the activities and coordination necessary to implement the water efficiency plan and monitor the overall effectiveness of the water efficiency plan.

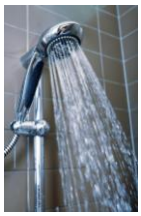
5.1 Implementation Plan

Objective: Discuss the actions, timeline and coordination necessary to implement the selected water efficiency activities.

√ ☒ C.R.S. 37-60-126(4) requires an implementation plan for all State approved plans. This includes a description and details of the steps the provider will use for implementing each of the water efficiency activities. Worksheet J provides a template that may be used to present the implementation plan.

The following components of an implementation plan should be considered:

√ ☒ – List of selected water efficiency activities.



Required	Beneficial	Public	Document	
√				☒ – Anticipated period of implementation and timeline.
√				☒ – Actions necessary to implement each activity and milestone goals.
√				☒ – Estimated water provider costs and avoided costs - Detail per SWSI Level Framework or by individual activity.
	Δ			☐ – Entities/staff responsible for implementation.
	Δ			☐ – Necessary coordination among staff/other entities and public involvement.
	Δ			☐ – List of funding sources.
√		□		☒ Discussion on how reductions in water use could impact revenue and actions taken to help mitigate negative impacts. See Guidance Document Section **Error! Reference source not found.** for more details.

5.2 Monitoring Plan

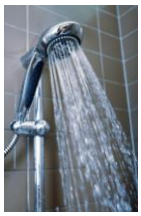
Objective: Describe the data collection and assessment activities necessary to monitor the effectiveness of the water efficiency plan. See Guidance Document Section **Error! Reference source not found.** for additional information.

√ ☒ C.R.S. 37-60-126 (4) requires the steps used to monitor the water efficiency plan be included in all State approved plans.

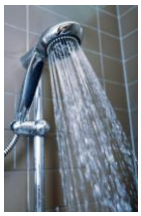
Monitoring plans should include the following components:

√ ☒ List of demand data to be collected during the monitoring period/ process. Worksheet K provides a list of demand data which may be selected for monitoring water savings garnered through the demand management activities. Demand data may include:

- Total water use tracking such as total treated water distributed, system per capita water use, total indoor/outdoor water use, and/or system peak day water use.
- Water use by customer category such as treated metered water use, per capita water use and/or indoor/outdoor metered use.
- Demand data specifically required per C.R.S. 37-60-126 (4.5) for annual reporting to the state is specified in Worksheet K. It is recommended that at a minimum, these data are incorporated into monitoring plans.



Required	Beneficial	Public	Document	
√				☒ List of other relevant data specific to the implementation of the activities. Worksheet L provides a template to record the demand data selected for implementation as well as a means to specify other data specific to the implementation of the water efficiency activities. At a minimum, monitoring data for each water efficiency activity should include: – Annual costs and avoided costs. – Lessons learned. – Water saving estimates. – Water efficiency activity tracking data (e.g. number of annual rebates, number of infractions, etc). – Weather data. – Public feedback. – Records of significant changes in water efficiency programming or other variables affecting water consumption.
√				☒ Summary of the process to communicate monitoring and evaluation results to decision-makers, including the frequency of communication. It is recommended that this occurs at least every two years.
√				☒ Frequency of data collection should be specified. Worksheets K and L provides a means to record this.
	Δ			☐ Entity/staff responsible for data collection should be specified. Worksheets K and L provides a means to record this.
	Δ			☐ Worksheets M and N may be used by the provider for monitoring. Worksheet M provides a template to record monthly water demands on an annual basis and Worksheet N provides a means to record information on the other monitoring data.



Required	Beneficial	Public	Document

6.0 Adoption of New Policy, Public Review and Formal Approval

This section addresses the public review and formal adoption process. See Guidance Document Section **Error! Reference source not found.** for information on the general procedures necessary for State approval. Information is also provided on the maintenance and anticipated update of the Plan.

6.1 Adoption of New Policy

Objective: This section identifies proposed policy as a result of the new water efficiency plan. This may include new ordinances and regulations as well as the mechanism of enforcement. If a plan does not include the development of any new policy, this section does not need to be included in the plan.

	Δ			☐ Summary of any new policies.
		□	+	☐ Description of any challenges in the adoption of the policy.
			+	☐ Include the new policy documents in an appendix.

6.2 Public Review Process

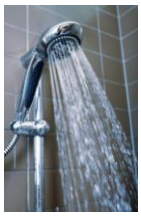
Objective: This section summarizes the public's role in development of the Plan. A public review process is required for all State approved plans per C.R.S. 37-60-126 (5). See Guidance Document Section **Error! Reference source not found.** for additional information.

√				☒ Public review process to ensure that the public had an opportunity to review and comment on the Water Efficiency Plan.
√				☒ Description of the public review process and how the public accessed the plan.
√		□	+	☒ Summary of public comments along with how the comments were addressed and details of the meetings held during the Plan development process. This can either be addressed in the plan body or in an appendix.

6.3 Local Adoption and State Approval Processes

Objective: Briefly summarize the formal process for Plan adoption.

√				☒ C.R.S. 37-60-126 (2) requires that a water efficiency plan be officially adopted. This process can be summarized in the plan by providing the following items: – Government body that adopted the plan. – Date of adoption. – Copy of the official adoption document in an appendix.
		□	+	☐ Any challenges with adoption of the plan.



Required	Beneficial	Public	Document

6.4 Periodic Review and Update

Objective: Summarize the processes that will occur to facilitate the update of the Plan and the anticipated timing of Plan updates.

√				☒ Steps used to review and revise the water efficiency plan. C.R.S. 37-60-126 (4) requires that all plans include the steps necessary to review and revise plans.
√				☒ Process of how monitoring results will be incorporated into updated plans.
		□	+	☐ Department/staff responsible for taking the lead in initiating the Plan update and collecting appropriate data.
√				☒ Anticipated date of next water efficiency plan update. Per C.R.S. 37-60-126 (4), the anticipated date of the next update, not to exceed seven years, must be included in the Plan.