

South Metro Water Supply Authority

Regional Landscape Certification Program

Administrative and Pilot Program Implementation Plans

Grant Application

July 2016

Prepared for

Colorado Water Conservation Board
Office of Water Conservation & Drought Planning
1313 Sherman St., Room 721
Denver, CO 80203

Grant Applicant

South Metro Water Supply Authority
8400 East Prentice Avenue, Suite 315
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I. INTRODUCTION

South Metro Water Supply Authority (SMWSA) stemmed from the Douglas County Water Resource Authority, which started in 1992, and the South Metro Water Supply Study Board, formed in January 2000, when other larger water providers requested to work with one regional entity. Today, our 13 water provider members represent about half of Douglas County and 10% of Arapahoe County, based on land area. Together we are executing a plan to provide a secure and sustainable water future for the region.

SMWSA currently manages a regional education program called Water Ambassadors. The purpose of this program is to educate and train groups of high school students about regional water issues and solutions to those issues. The trained high school students, or “Water Ambassadors” then visit elementary school classes for activities and demonstrations related to regional water issues and solutions. The SMWSA and our members all believe that the more we can educate our water users through as many outlets as possible, the more sustainable and flourishing our communities will be.

Based on CWCB Grant Guidelines for Water Conservation Implementation and Public Education and Outreach Projects, SMWSA qualifies as a public entity. The project implemented under this grant will be managed by Logan Burba, Water Resources Engineer for SMWSA; contact information is provided below.

Logan Burba, Water Resources Engineer
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A. Participant Groups

The following water providers are currently members of SMWSA and will be direct benefactors of the proposed landscape certification program. As described further below in *Section IV. Project Budget and Proposed Funding*, staff from several member organizations actively participate in the SMWSA Water Conservation and Efficiency Subcommittee and will contribute to the development of the Regional Landscape Certification Program.

Table 1. SMWSA Members.

Arapahoe County Water and Wastewater Authority
Castle Pines North Metropolitan District
Centennial Water & Sanitation District (Serving Highlands Ranch)
Cottonwood Water & Sanitation District
Dominion Water & Sanitation District
East Cherry Creek Valley Water & Sanitation District
Inverness Water & Sanitation District
Meridian Metropolitan District
Parker Water & Sanitation District
Pinery Water & Wastewater District
Rangeview Metropolitan District
Stonegate Village Metropolitan District
Town of Castle Rock

B. Organizations Assisting with the Project

Element Water Consulting has provided services to the South Metro Water Supply Authority (SMWSA) staff and its Water Conservation and Efficiency Subcommittee since 2015, providing comprehensive experience in local-level water demand planning and water resources management as well as in regional and state-wide applications. ELEMENT's expertise includes surface and ground water rights, water supply analyses, water efficiency and conservation planning, and the management of complex water issues. ELEMENT also has unique experience working with water providers and stakeholders to integrate water demand management, land use regulations, and policies to incentivize water efficiency. ELEMENT will assist SMWSA in preparing technical information for the administrative and pilot program implementation plans; contact information is provided below.

Element Water Consulting, Inc.
P.O. Box 140785
Denver, Colorado 80214
303-481-2365
Attention: Beorn Courtney

II. BACKGROUND

In 2014, SMWSA began investigating what a regional water conservation effort may look like within its membership. SMWSA staff met with each member individually to discuss regional conservation and what that could optimally entail. Resoundingly, individual members stressed the importance of local, independently operated water conservation plans and systems. However, there was also a strong desire for regional collaboration on larger-scale conservation projects, sharing of information and experience, potential for funding opportunities, and benefits from economies of scale through partnering.

From this feedback, a Conservation and Efficiency Subcommittee comprised of SMWSA members' staff and led by SMWSA was developed. The group meets every other month to discuss individual accomplishments, experiences, and lessons, and to discuss opportunities to pursue regional programs and efforts. Criteria to evaluate the benefit of a presented regional effort were developed through the group. The project described herein was evaluated using these criteria and selected as a program the group recommends moving forward.

A. Project Goals

In 2015, SMWSA partnered with Douglas County to identify outdoor water conservation and water efficiency efforts that can benefit the region as a whole and promote regional partnering, and to better understand the nexus between water and land use planning. The concept of developing a landscape and irrigation contractor certification program was broadly recommended by SMWSA as well as Douglas County and the Town of Parker, with the directive to focus the program on education and training to implement a standardization of agreed-upon best management practices. Water providers indicated that a statewide or at least regional program would be preferable over utility-specific programs in order to yield standardized messaging and reduce utilities' administrative requirements to maintain the program. A standardized certification program may also provide opportunities to leverage enforcement and/or compliance across the region regarding proper installation and maintenance.

The SMWSA Conservation and Efficiency Subcommittee further evaluated benefits of various existing certification programs, as well as the potential to develop an entirely new program. After carefully considering the options, they recommended moving forward with the Qualified Water Efficient Landscaper (QWEL) program, as further described below. The goal of the project for which these grant monies are being requested is to develop an Administrative Plan and Pilot Program Implementation, Evaluation, and Monitoring Plan to support initiation of a certification pilot program starting in 2017.

B. Statewide Implications

As described above, the recommendation for this project resulted from SMWSA and Douglas County partnering in a study to better understand the relationship between water and land use planning as it pertains to water use efficiency; further investigation of this topic was also included in the Metro Basin Implementation Plan recommendations. As described in Colorado's Water Plan, the Interbasin Compact Committee's No-and-Low-Regrets Action Plan for water conservation has also identified this type of program as an important action toward incentivizing conservation. Furthermore, implementing a landscape contractor certification program can provide statewide benefits beyond the region, to the extent that contractors who are certified may do business outside of the south metro area. The SMWSA certification program may also spur development of certification programs in other locations outside of the south metro area.

III. PROJECT SCOPE

SMWSA is seeking grant funds to assist with developing an implementation plan for a regional landscape professional certification program, as further detailed below.

A. Purpose and Primary Features

SMWSA has identified landscaping professional certification as a key conservation and water efficiency effort that can result in water savings benefiting the region. SMWSA members prefer a regional landscaping professional certification program over utility-specific programs in order to yield standardized messaging and reduce utilities' administrative requirements to maintain the program. A standardized certification program may also provide opportunities to leverage enforcement and/or compliance across the region regarding proper installation and maintenance.

Initially, this program will focus on contractors doing business in the south metro Denver area, through implementation across SMWSA member organizations. Once established, SMWSA may consider expanding the program to offer certification for contractors working beyond the region. The program implementation plan developed by SMWSA could also be used to assist others in developing a similar program for other locations throughout Colorado.

Several existing programs were evaluated by the SMWSA Conservation and Efficiency Subcommittee. Through research and communication across the SMWSA members, who are under varying land-use authority situations, it was determined that the QWEL certification program best fits the goals of the SMWSA members. The QWEL program provides landscape professionals with approximately 20 hours of education on principles of landscape water management including proper plant selection for the local climate, irrigation system design and maintenance, and irrigation system programming and operation. In order to obtain the QWEL certification, an individual must demonstrate their ability to perform an irrigation system audit as well as pass the QWEL exam. The QWEL program is recognized as a WaterSense labeled Professional Certification Program for Irrigation System Audits and upon certification, graduates receive the WaterSense Certified Professional designation, providing a nationally-recognized level of certification.

The Sonoma-Marín Saving Water Partnership in California sponsors the QWEL program and certification is currently offered in six states across the nation; this would be the first for Colorado. The QWEL curriculum is well established, however certain sections of the program (including the first class "Where Your Water Comes From") and potentially the testing will need to be updated to reflect local conditions. As allowable, SMWSA would also like to integrate aspects of a regional landscape regulation that it is currently developing into the local aspects of the QWEL training.

The Conservation and Efficiency Subcommittee has recommended implementing a pilot certification program initially, and phasing into a full-scale program. The purpose of this grant request is to support the preliminary program development and efforts necessary to develop the program structure and implementation plan.

B. Tasks

Following is a list of Tasks that will be performed:

TASK 1 – CERTIFICATION PROGRAM ADMINISTRATION, MONITORING, & EVALUATION PLAN

1.1 Develop Program Structure and Administration Plan

- 1.1.1 Investigate existing QWEL training program structures including different approaches to providing training classes through staff trainers versus contracting relationships, frequency of classes and testing, associated costs, etc. (*ELEMENT Lead*)

- 1.1.2 Work with Sonoma-Marín Saving Water Partnership to identify any anticipated upcoming changes to the program. *(ELEMENT Lead)*
- 1.1.3 Work with SMWSA Conservation and Efficiency Subcommittee to determine enforcement mechanisms (e.g. voluntary or local jurisdictions requiring proof of certification through the building permit process, etc.). *(ELEMENT Lead, SMWSA Support)*
- 1.1.4 Identify operations needs and staff/management requirements to provide the class training, testing, and maintain certification records. *(ELEMENT Lead, SMWSA Support)*
- 1.1.5 Work with the SMWSA Conservation and Efficiency Subcommittee to develop a recommended program structure and Administrative Plan for developing and implementing the QWEL program on a regional level for SMWSA members.

1.2 Develop Pilot Program Implementation, Monitoring and Evaluation Plan

- 1.2.1 Develop logistics of a pilot program (e.g. Train the Trainers), initial phasing concepts, training schedules, etc. *(ELEMENT Lead)*
- 1.2.2 Identify additional efforts needed for full, long-term implementation. *(ELEMENT Lead, SMWSA Support)*
- 1.2.3 Develop metrics for estimating how much water could be saved from training and methods for quantifying savings associated with the program. *(ELEMENT Lead, SMWSA Support)*

1.3 Develop Program Budget and Fee Schedule

- 1.3.1 Identify cost for program operation. *(SMWSA Lead, ELEMENT Support)*
- 1.3.2 Determine fee schedule for SMWSA member sponsorship and landscape professional training/testing. *(SMWSA Lead, ELEMENT Support)*

1.4 Obtain SMWSA Conservation and Efficiency Subcommittee & Board Approval

- 1.4.1 Provide draft Administrative Plan, Implementation, Monitoring, and Evaluation Plan, and Budget and Fee Schedule to Conservation and Efficiency Subcommittee and incorporate feedback. *(ELEMENT Lead, SMWSA Support)*
- 1.4.2 Provide updated draft Administrative Plan, Implementation, Monitoring, and Evaluation Plan, and Budget and Fee Schedule to SMWSA Board and incorporate feedback. *(SMWSA Lead, ELEMENT Support)*
- 1.4.3 Produce the final Administrative Plan, Implementation, Monitoring, and Evaluation Plan, and Budget and Fee Schedule. *(ELEMENT Lead)*

Task 2 – MODIFY QWEL TRAINING CONTENT

2.1 Modify QWEL Curriculum Content for Local Training

- 2.1.1 Identify training and testing content, including Class 1 training module, that needs to be updated for local conditions. *(ELEMENT Lead)*
- 2.1.2 Develop updated training content and testing material as needed. *(ELEMENT Lead, SMWSA Support)*
- 2.1.3 Work with Sonoma-Marín Saving Water Partnership to ensure consistency with QWEL and WaterSense programs. *(ELEMENT Lead)*

2.2 Obtain QWEL and EPA WaterSense Approval

- 2.2.1 Submit application to Sonoma-Marín Saving Water Partnership (Parent Professional Certifying Organization, PCO) to become a PCO. *(ELEMENT Lead, SMWSA Support)*
- 2.2.2 Submit Application to U.S. Environmental Protection Agency's WaterSense program to adopt an existing WaterSense labeled program. *(ELEMENT Lead, SMWSA Support)*

Task 3 – PROJECT MANAGEMENT AND REPORTING

3.1 Scheduling and Coordination

3.2 Grant Payment Requests and Written Progress Reports.

- 3.2.1 Progress reports submitted at 50% and 75% of project completion will include an update on the status of the project, success of meeting previously identified goals and objectives, obstacles encountered, preliminary findings/accomplishments, and potential need for revisions to scope of work and timelines. A final report will include a review of the activities completed, an estimate of actual water savings realized, and other relevant information.

C. Deliverables

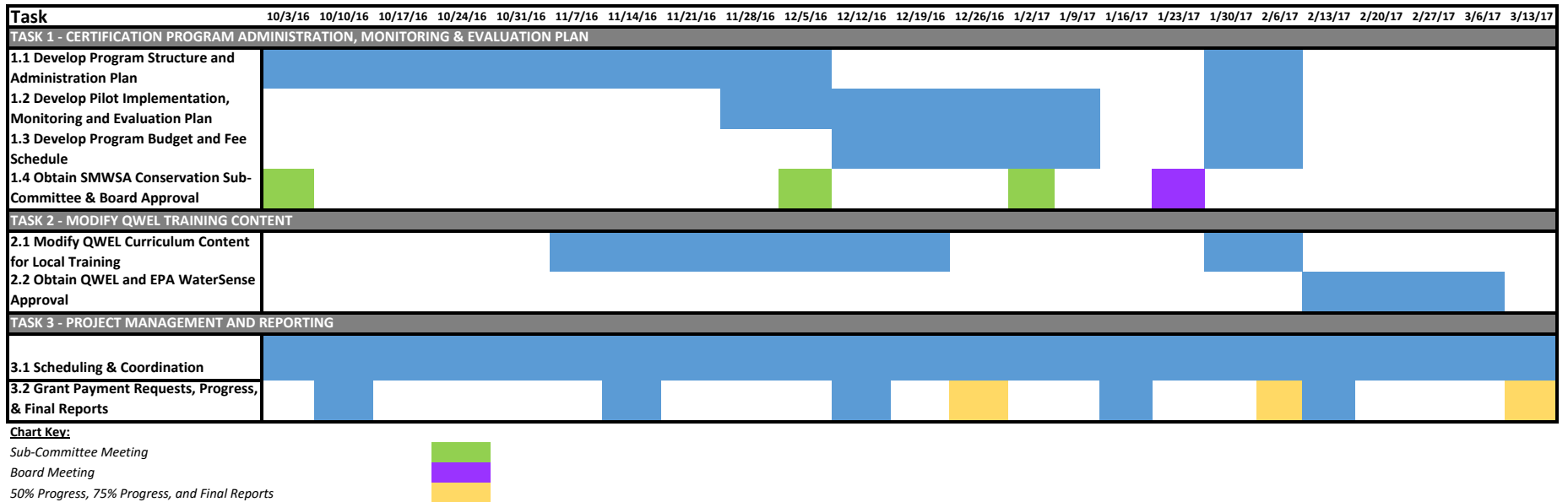
The following list describes the primary deliverables for the proposed projects:

- Program Administrative Plan
- Pilot Implementation, Monitoring, and Evaluation Plan
- Program Budget and Fee Schedule
- Content for QWEL Curriculum on Local Conditions
- QWEL and EPA WaterSense Authorization
- Memorandum to SMWSA Board

D. Timeline:

The proposed project timeline, including estimated dates of key meetings and progress reporting, is provided in **Table 2** below.

TABLE 2. Proposed Project Timeline.



IV. PROJECT BUDGET AND PROPOSED FUNDING

Logan Burba, P.E., SMWSA Water Resources Engineer, will be the primary contact for this grant. Ms. Burba is responsible for managing SMWSA's Water Conservation and Efficiency Subcommittee and Water Ambassador's program. Following is a list of key SMWSA staff and member representatives who will contribute to the project through participation in the Conservation and Efficiency Subcommittee and providing information to develop the certification program local content and implementation plan.

- Eric Hecox, SMWSA Executive Director
- Mikal Martinez, SMWSA Administrative & Accounting Assistant
- Angie Ellenwood, SMWSA Engineering Assistant
- Heather Beasley, Pinery Water and Wastewater District
- Rebecca Bellamy, East Cherry Creek Valley Water and Sanitation District
- Rick Clark, East Cherry Creek Valley Water and Sanitation District
- Jon Klassen, Centennial Water and Sanitation District
- Craig Miller, Castle Pines North Metropolitan District
- Tim Murrell, Douglas County
- Billie Owens, Parker Water and Sanitation District
- Rick Schultz, Town of Castle Rock
- Linda Gould, Town of Castle Rock
- Katie Spahr, Arapahoe County Water and Wastewater Authority
- Luis Tovar, Cottonwood Water and Sanitation District

ELEMENT Water Consulting staff will assist SMWSA with this project as follows:

- Beorn Courtney, P.E. will work directly with Logan Burba on overall coordination of the project, including allocation of resources to manage the project schedule and budget. In addition to project management, Ms. Courtney will work directly on the program structure, administrative, monitoring, and evaluation plans.
- Matt Welsh, P.H. will support the project through developing information for the implementation, monitoring, and evaluation plan and local content for the QWEL training and testing.

The proposed labor hours and project budget are provided in **Tables 3** below.

Table 3. Project Budget and Proposed Funding.

TASK	LABOR HOURS							BUDGET	PROJECT FUNDING	
	Mikal Martinez/ Angie Ellenwood [SMWSA Staff @ \$55/hour]	Logan Burba/ Sheila Giusti [SMWSA Staff @ \$65/hour]	Eric Hecox [SMWSA Staff @ \$75/hour]	Total SMWSA	Conservation Subcommittee @ \$65/hour	ELEMENT PM @ \$170/hour	ELEMENT Hydrologist @ 130/hour	Total Project Labor	SMWSA In- Kind	CWCB Grant Request
	(hours)	(hours)	(hours)	(hours)	(hours)	(hours)	(hours)	(\$)	(\$)	(\$)
TASK 1 - CERTIFICATION PROGRAM ADMINISTRATION, MONITORING & EVALUATION PLAN										
1.1 Develop Program Structure and Administration Plan		12	5	17	6	60	30	\$15,595.00	\$1,495.00	\$14,100.00
1.2 Develop Pilot Implementation, Monitoring and Evaluation Plan		8	2	10	4	10	20	\$5,210.00	\$910.00	\$4,300.00
1.3 Develop Program Budget and Fee Schedule	3	8	5	16	4	12	6	\$4,120.00	\$1,300.00	\$2,820.00
1.4 Obtain SMWSA Conservation Sub-Committee	14	14	8	36	74	29	8	\$13,120.00	\$7,150.00	\$5,970.00
TASK 2 - MODIFY QWEL TRAINING CONTENT										
2.1 Modify QWEL Curriculum Content for Local Training	1	12	3	16	14	20	40	\$10,550.00	\$1,950.00	\$8,600.00
2.2 Obtain QWEL and EPA WaterSense Approval		4		4		8	4	\$2,140.00	\$260.00	\$1,880.00
TASK 3 - PROJECT MANAGEMENT AND REPORTING										
3.1 Scheduling & Coordination	2	10		12		8	2	\$2,400.00	\$780.00	\$1,620.00
3.2 Grant Payment Requests, Progress, & Final Reports	3	3		6		18	0	\$3,450.00	\$390.00	\$3,060.00
TOTAL HOURS	23	71	23	117	102	165	110			
TOTAL LABOR \$	\$1,265.00	\$4,615.00	\$1,725.00	\$7,605.00	\$6,630.00	\$28,050.00	\$14,300.00	\$56,585.00	\$14,235.00	\$42,350.00