

# Opportunities for Integrating the GreenCO BMP Training Program into CWCB Water Conservation Plans

## Introduction

As communities develop and implement Water Conservation Plans to meet the requirements of the Colorado Water Conservation Board (CWCB), significant opportunities for outdoor water conservation exist. The Green Industries of Colorado (GreenCO) is both a key partner and a key audience to help promote outdoor water conservation and efficiency, as well as overall protection of water resources. Green Industry professionals include those who grow and sell plants and equipment, those who design, install and maintain irrigation systems and landscapes, and those involved with managing golf courses and parks. CWCB has recognized that a valuable opportunity exists for water utilities to partner with Green Industry professionals and has supported GreenCO in development of Best Management Practices (BMPs) and an industry-wide training program intended to raise the bar for water conservation and sustainable landscaping practices. In 2008, the most recent version of the GreenCO manual and training program was released under support from CWCB, culminating in the expanded BMP manual titled “Green Industry Best Management Practices for the Conservation and Protection of Water Resources in Colorado – Moving Towards Sustainability.” CWCB encourages utilities to take advantage of the GreenCO training program as part of targeted educational efforts to promote landscape water conservation, as well as to use the BMP manual as a key reference when developing local landscape ordinances. This brief guidance provides an overview of the GreenCO program and identifies several ways that it can be integrated into Water Conservation Plans.

## About GreenCO and the GreenCO BMP Training Program

The Green Industries of Colorado (GreenCO) is an umbrella trade organization representing the common interests of eight landscape-related trades, including:

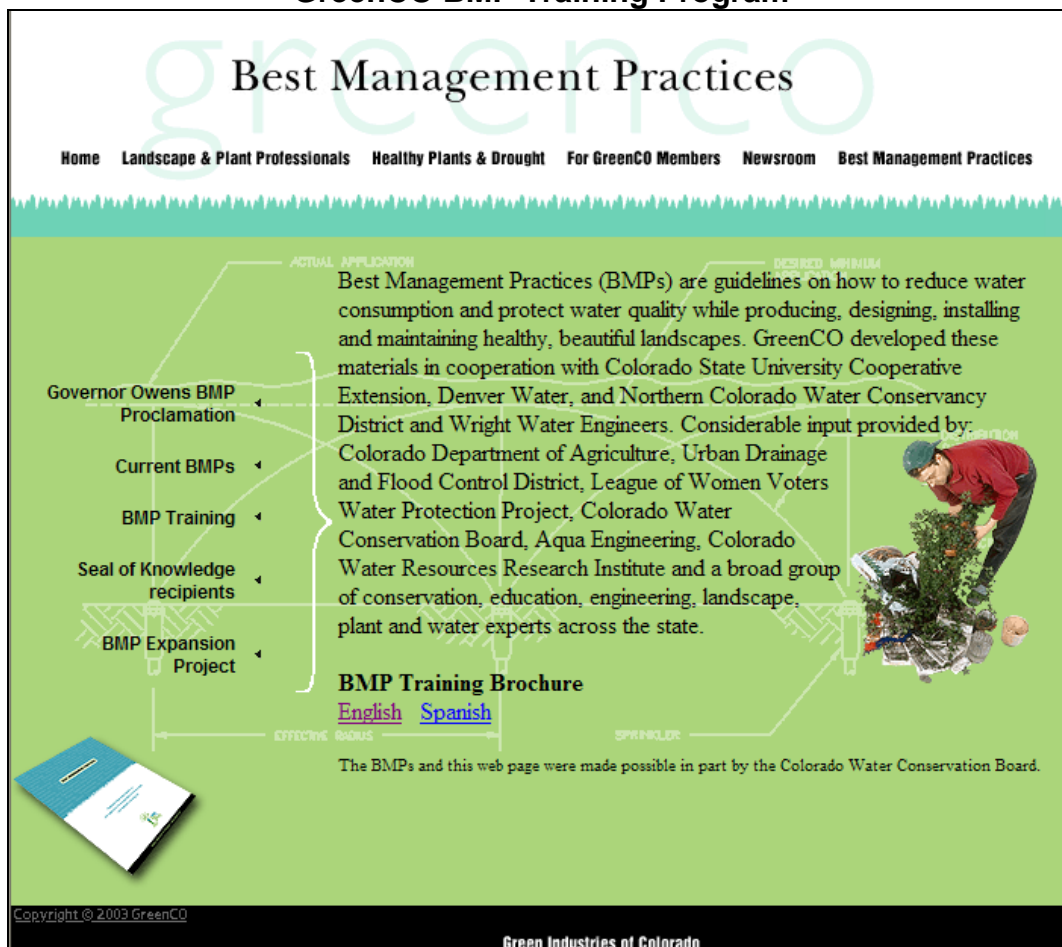
- Associated Landscape Contractors of Colorado (ALCC)
- Colorado Chapter of the American Society of Landscape Architects (ASLA)
- Colorado Association of Lawn Care Professionals (CALCP)
- Colorado Nursery and Greenhouse Association (CNGA)
- Garden Centers of Colorado (GCC)
- International Society of Arboriculture (ISA)
- Rocky Mountain Sod Growers Association (RMSGGA)
- Rocky Mountain Golf Course Superintendents Association (RMGCSA)

### What makes the GreenCO program unique?

The GreenCO BMP training program was created by the Green Industry for the Green Industry, creating a unique opportunity to raise the water conservation bar from the inside out. Each industry member trained has the potential to generate a multiplier effect for water conservation at each property the professional designs, installs, or maintains.

Volunteers from these member organizations and other leaders in water conservation such as Denver Water, Colorado State University Extension, Northern Colorado Water Conservancy District, the City of Westminster, the City of Aurora, the Irrigation Association, and the U.S. Bureau of Reclamation have partnered together over the last eight years to develop and expand industry-wide best management practices to promote landscape water conservation and water resources protection. The BMPs include a variety of design, installation, maintenance, grower and retail practices relevant to the Green Industry and the public that they serve (see Table 1 for a list of the BMPs). The manual is available in English and Spanish for free download on the GreenCO website ([www.greenco.org](http://www.greenco.org)), as well as in hard copy and on CD. GreenCO released the first edition of the BMP Manual in 2000, then released an update and developed a training program in 2004, and recently significantly expanded the manual and training program in 2008. GreenCO offers the BMP training at its annual industry trade show (Pro Green) and a variety of other venues on an as-requested basis by entities such as local water providers. Since 2004, over 500 landscape professionals have taken the GreenCO BMP Training Program. Both CWCB and GreenCO hope to increase the number of trained professionals in the near future by partnering with local water providers.

**GreenCO Website ([www.greenco.org](http://www.greenco.org)) Enables Free Download of the BMPs and Provides a List of Individuals Successfully Completing the GreenCO BMP Training Program**



# How Can the GreenCO BMPs and BMP Program Be Integrated into CWCB Water Conservation Plans?

CWCB recommends this nine-step planning process to develop Water Conservation Plans:

1. Profile existing water system
2. Characterize water use and forecast demand
3. Profile proposed facilities
4. Identify conservation goals
5. Identify conservation measures & programs
6. Evaluate & select conservation measures & programs
7. Integrate resources & modify forecasts
8. Develop implementation plan
9. Monitor, evaluate, & revise conservation activities & the conservation plan

Most communities in Colorado include outdoor water conservation as a goal in Step 4; therefore, the GreenCO BMPs and training program can be included as part of outdoor water conservation measures and programs in Steps 5 and 6. Excerpts of the CWCB guidance worksheets related to landscape/outdoor water conservation measures and programs are provided below.

## Worksheet 5-1: Conservation *Measures* Identified in Planning Process

<i>Measure</i>	Already Implemented?	Evaluated in this Plan (Step 6)?	Comments
<b>Landscape efficiency</b>			
Low water use landscapes			
Drought-resistant vegetation			
Efficient irrigation			
Equipment			
Scheduling			
Other [specify]			

## Worksheet 5-2: Conservation *Programs* Identified in the Planning Process

<i>Measure</i>	Already Implemented?	Evaluated in this Plan (Step 6)?	Comments
DEMAND-SIDE PROGRAMS			
<b>Education/information dissemination</b>			
Public education			
Water-saving demonstrations			
<b>Regulations/Ordinances</b>			
Addressing landscapes			
Turf restrictions			
Landscape design/layout			
Soil preparation			
Irrigation equipment			
Water waste prohibition			
Other [specify]			

With regard to conservation measures, Table 1 provides a cross-reference between the GreenCO BMPs and the conservation measures included in the CWCB guidance. The GreenCO BMPs are a technical resource that local communities can use as they select and implement conservation measures such as Xeriscape, water budgeting, soil amendment, turf selection and management, irrigation efficiency, and others. Additionally, technical resources such as estimated crop coefficients and historical reference evapotranspiration (ET<sub>o</sub>) rates are included as technical appendices to the BMP manual. In terms of relationship to the Metro Mayors' Caucus and Colorado WaterWise Council BMPs for Conservation and Stewardship, the GreenCO BMPs provide technical support for many of the general practices described under the categories of Residential Water Use Conservation Programs, Landscape Water Conservation Policies and Programs, Water Waste Prohibitions and Enforcement and Conservation Programs for Commercial, Industrial, Institutional and Multi-family Accounts (outdoor component).

With regard to conservation programs, to meet the requirements of §37-60-126, C.R.S., public education must be considered by a water supplier as part of the conservation program planning process related to demand-side water conservation. The GreenCO BMP training program is an obvious resource to help communities meet this requirement. Example language that a water utility might include that states public education goals “in terms that are measurable, achievable and reasonable and have a specific timeframe” with regard to the GreenCO BMP training program could be:

Targeted Public Education: Offer the GreenCO BMP training course [ ] times per year, with a goal of training [ ] landscape professionals. The GreenCO BMP training program provides an opportunity to involve the landscape community, working from the inside and moving outward to the water-using community.

An additional benefit of the GreenCO BMP Training program is that it covers many broad concepts that integrate a holistic view of water as an overall resource, addressing topics such as water quality protection, management of stormwater runoff, use of reclaimed water for irrigation, protection of natural drainageways, etc. In some communities, there may be opportunity to partner with other departments promoting practices such as Low Impact Development and control of stormwater and non-point source pollution.

## **Example Approaches to Integrating the GreenCO BMP Training Program into Water Conservation Plans**

The GreenCO BMP training program can be offered as an educational program, a regulatory program, or an incentive based program. A few examples include:

- **Educational Program:** The City of Fort Collins Utilities integrated the GreenCO BMP training program into its free community lecture series, the “2008 Business Environmental Program.” The City offered the training program at no cost to participants as part of general public education efforts. Participants who chose to take the exam to obtain the GreenCO certificate paid a testing fee. Over 50 individuals attended the program, which coincided with release of the city’s draft water conservation plan.

- **Regulatory Program:** City of Castle Rock requires that landscapers participate in the GreenCO BMP training program in combination with a course on Town landscape requirements in order to perform landscaping work in Castle Rock (see case study).
- **Incentive Program:** Although an incentive model of the GreenCO program is not currently in place at the water utility level, the City of Boulder offers a comparable model using its Partners for a Clean Environment (PACE) program. Under the “PACE” program, landscaping companies that participate in Boulder’s landscape training program are listed on Boulder’s website, providing potential marketing benefits to those who participate. Following Boulder’s PACE model, GreenCO strives to provide incentives within its own industry by posting a list of individuals who successfully complete the GreenCO training program on the GreenCO website, identifying these entities as “Seal of Knowledge” recipients.
- **Other Models:** The GreenCO BMP Training Program can also be combined with other water conservation education and training efforts sponsored by local governments. For example, the GreenCO course could be offered in combination with a more detailed topic-specific course on developing water budgets or a field trip to visit well designed water-efficient landscapes or demonstration gardens. The training program could be offered in the morning, with a field outing in the afternoon.

### **Town of Castle Rock Case Study**

Individuals or companies wishing to perform landscape design, installation or maintenance in the Town of Castle Rock must first attend a class and pass a test. This program helps to ensure contractors are designing, installing and maintaining landscapes in accordance with the Town Landscape Regulations, which were created to promote and protect water-conservation practices. The class consists of two parts: 1) the GreenCO BMP training program and 2) specific landscaping requirements within the town. Landscape contractors are required to register with the Town each year. A list of registered landscapers is then posted to the Town’s website. As of 2008, approximately 350 landscape professionals had completed the training program. The Town describes its relationship to GreenCO in the context of a Cooperative Organization under its public education program as follows:

*To maximize the impact of conservation communications and create a common message for water users up and down the front-range, cooperative conservation activities with other water suppliers, industry related organizations and waterwise agencies are beneficial. This includes membership and participation in Xeriscape organizations, State activities, and inter-governmental efforts. The Town currently works with GreenCO through their Best Management Practice (BMP) education and certification program to facilitate certification of all landscape design, irrigation design and maintenance professionals that do work in Castle Rock. The Town has a mandatory registration for the industry professionals related to new construction design and installation, as well as large Irrigated area maintenance. The cooperative BMP training has proved effective in providing Castle Rock customers with highly knowledgeable and skilled industry professionals.*

# Evaluating, Implementing, and Monitoring Outdoor Water Conservation Measures

As part of evaluating the costs and benefits of water conservation programs and measures, water providers need to address the degree to which measures and programs match the entity's water conservation goals and assess the general feasibility of the measures and programs, given the local setting and available resources. Given that improved landscape water conservation is a state-wide opportunity combined with the relatively low cost of implementing the "pre-packaged" GreenCO program, the GreenCO BMP training program is expected to be a cost-effective tool for many Colorado communities. Tracking/monitoring for the GreenCO training program is relatively straightforward and can be accomplished by recording the number of individuals taking the course and/or the exam.

## 2008-2009 GreenCO Training Program Costs

Training Course and Exam  
\$ 75 GreenCO Members  
\$150 Non-GreenCO Members  
Special group rates available  
BMP Manual  
\$50 Hard Copy  
\$ 5 CD  
Free Download from website

Due to many site-specific variables, conducting cost-benefit analysis of outdoor water conservation *measures* can be challenging. Measures dependent on behavioral change due to educational efforts inherently involve uncertainty, so a range of expected water conservation is typically appropriate for educational programs. In the near future, GreenCO, the Colorado WaterWise Council, CWCB and others plan to work toward an approach to better quantify the costs and benefits of various landscape water conservation practices. This information will be posted on the CWCB and GreenCO websites as it becomes available.

## For More Information

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## Attachments

GreenCO BMP Manual (hard copy or CD) and Training Program Brochure

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