

How Green Industry Best Management Practices (BMPs) Will Support SB 14-017

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Frank Kinder

Colorado WaterWise and
Colorado Springs Utilities

fkinder@csu.org

Brenda O' Brien

GreenCO / Colorado WaterWise

Brenda.obrien@comcast.net

Two Organizations, Similar Missions



“To inform, encourage, and instill the practice of sound water use across Colorado and ensure that built landscapes remain an essential foundation of Colorado’s quality of life, economic health and public image.”



“Connecting stakeholders, providing resources, and serving as the collaborative leader in the efficient use of urban water in Colorado.”

GreenCO Water Policy Positions

- Outdoor watering guidelines should be based on science and horticultural practices.
- Balanced consumption /billing approach known as water budgeting.
- Re-educate the public on how to reduce outdoor water use.
- Water conservation is important everywhere – indoors and out.

Long Term Water Policy Positions for Colorado

- It's imperative to re-educate the public on how to reduce outdoor use. Also of great importance is how to keep trees, plants and valuable landscapes alive during dry conditions. Thanks to solid science and best management (or xeric) practices, it's possible to do both.
- Water providers need thoughtful long-term policy that incentivizes conservation and uses a more balanced consumption/billing approach known as water budgeting. With water budgeting, a homeowner is allowed so much water and it's up to them to decide how to use it
- The use of gray water should be strongly considered for irrigation in more applications and areas in the state. The most current research on what types of gray water (recycled, reclaimed, gray) should be used when deciding how and what to irrigate.
- River compacts are extremely complicated and in many cases were based on apportioning water at levels that are no longer flowing in our rivers. This requires thoughtful discussion and collaboration among western states. Arizona has no water restrictions this year, despite a severe drought in the headwaters state where its water comes from.
- Water storage in Colorado is critical to make sure water to which we own the rights is not leaving the state. Several projects in planning stages would help us capture water in wet years to use in dry ones (e.g. NISP, Windy Gap, etc.) Additional storage could help mitigate long term problems caused by drought and should be investigated.
- Water conservation is important everywhere – indoors and out. Some water providers say that it's pointless to talk about indoor conservation during a summer drought, but we need citizens to shift their thinking. Focusing only on outdoor watering is not a balanced approach – indoor water consumption happens everyday for 12 months versus 6/7 months for outdoor water use. Indoor water saving messaging is also crucial to conservation and should be part of an ongoing, consistent focus on water conservation.
- Water restrictions need to be based on science and horticultural practices. You can attain required savings by using these guidelines. Arbitrary limits on how many minutes or prescribed watering days don't necessarily save water and it certainly doesn't educate consumers about how to water when the landscape needs it. We understand why water providers have to set the limits they do, but we don't agree with many of their policies because they don't follow horticultural practice nor do they teach sustainable practices and thinking.
- The economic impacts of drought are felt by everyone: water providers, property owners and the green industry. Keeping landscapes alive and maintaining property values should be a priority for policy makers.



Evolution of GreenCO's BMPs

➤ 2002:

- Worked together with many stakeholders to compile industry BMPs
- Developed initial GreenCO BMP Manual

➤ 2004:

- Updated BMP Manual
- Developed training/certificate program
- Spanish release

➤ 2008:

- Revised and expanded Manual
- Began development of broader sustainability focus

➤ 2010:

- Excerpts from GreenCO BMPs included in Colorado WaterWise Guidebook for Municipal Water Conservation

➤ 2013

- Produced informational Fact Sheets and "How-To" videos on how and when to water

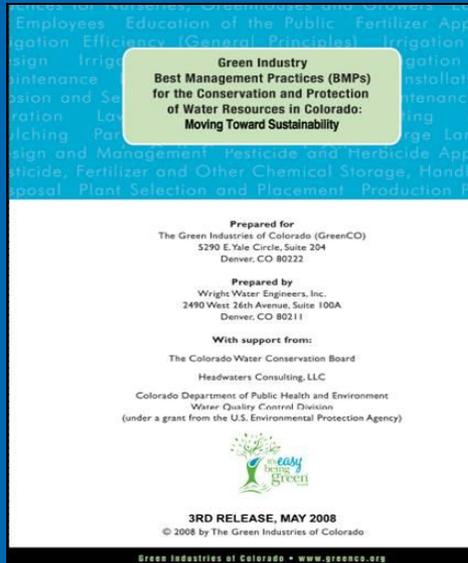


➤ 2014: *PENDING REQUEST*

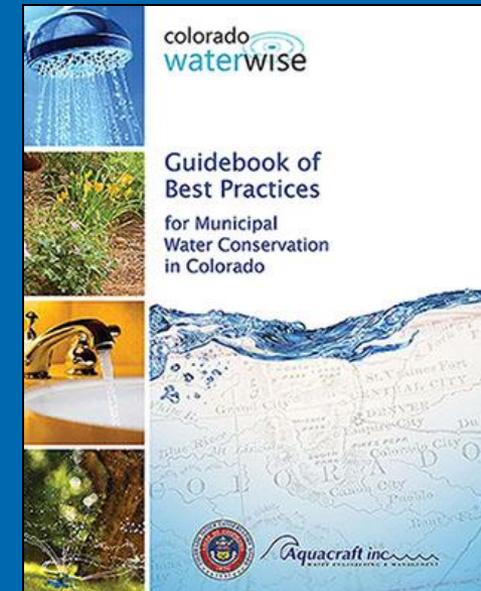
- *Awaiting approval from CWCB to submit Water Efficiency grant application in support of SB 14-017*
- *Quantification of Expected Benefits of Landscape Water Conservation*
- *Development of Landscape Model Framework*

Varying Documents, Same Message

Outdoor BMPs



Indoor / Outdoor BMPs



- 39 “Voluntary” practices to:
 - reduce landscape water use
 - protect water quality
 - promote sustainable landscaping
- GreenCO BMPs are standard for outdoor water use efficiency in Colorado
- Outdoor BMP excerpts promote:
 - landscape water budgets
 - rules and regulations for design, installation and certification of professionals
 - water efficient design, installation and maintenance
 - Irrigation efficiency evaluations

GreenCO BMPs

1. Sustainable Landscaping
2. Xeriscape
3. Water Budgeting
4. Landscape Design
5. Landscape Installation/Erosion and Sediment Control
6. Soil Amendment and Ground Preparation
7. Tree Protection
8. Tree Placement in the Urban Landscape
9. Tree Planting
10. Irrigation Efficiency
11. Irrigation System Design
12. Irrigation System Installation
13. Irrigation System Maintenance
14. Irrigation Efficiency Audits
15. Irrigation Technology and Scheduling
16. Irrigation Using Non-Potable Water
17. Landscape Maintenance
18. Trees and Other Woody Plant Care
19. Herbaceous Plant Care
20. Turf Management
21. Fertilizer Application
22. Pesticide and Herbicide Application
23. Pesticide, Fertilizer Storage, Handling, and Disposal
24. Lawn Aeration
25. Lawn Waste Disposal and Composting
26. Mowing
27. Mulching
28. Drought and General Water Conservation Practices for Landscapes
29. Snow Removal and Management
30. Production Practices for Nurseries, Greenhouses and Sod Growers
31. Water Management Practices for Nurseries, Greenhouses, Sod Growers & Holding Yards
32. Retail Practices for Nurseries, Greenhouses and Garden Centers

GreenCO BMPs and Appendices

BMPs - Continued

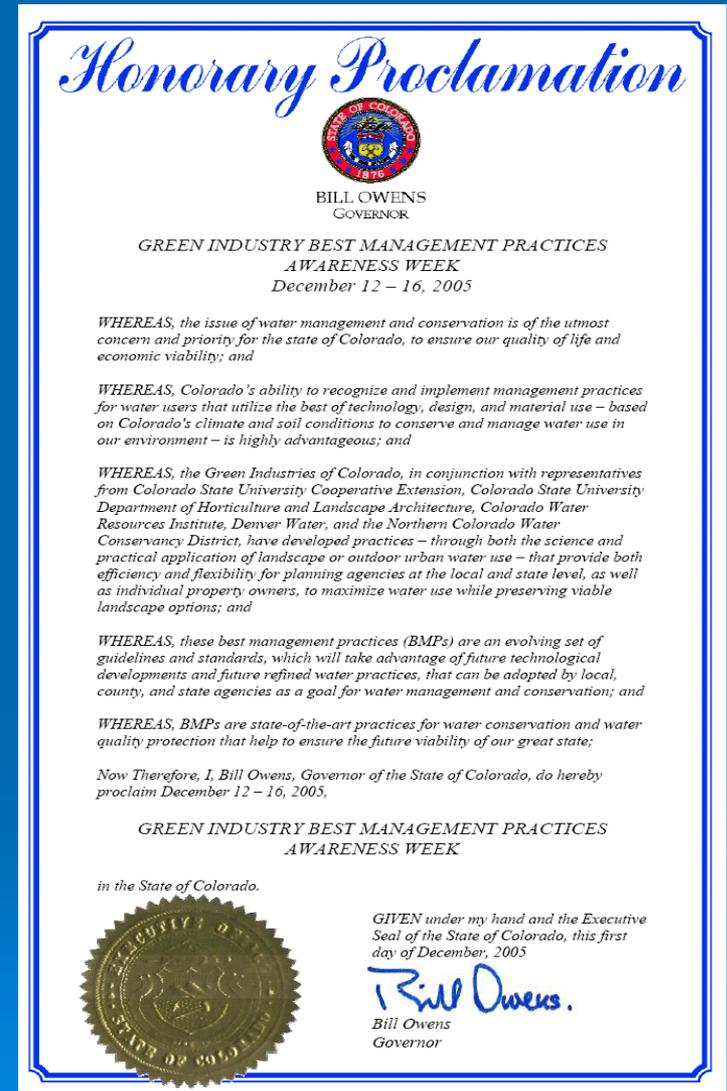
- 33. Park, Golf Course and Other Large Landscape Design and Management
- 34. Landscape Features in Low Impact Development
- 35. Revegetation of Drainageways
- 36. Riparian Buffer Zone Preservation
- 37. Education of Employees
- 38. Education of the Public
- 39. Regulatory Awareness

BMP Appendices

- A. Basic Erosion and Sediment Control Practices
- B. Basic Permanent Stormwater BMPs
- C. Summary of Potential Applicable Regulations
- D. Water Budget Calculator
- E. Plant Water Requirements (crop coefficient (Kc) Survey
- F. Historical Grass Reference ET Tables
- G. Irrigation Efficiency Audit: Pre-Audit Checklist
- H. Salt Tolerant Plant List
- I. Continuing Education
- J. Industry Checklists

BMP Effort Supported by Many Partners

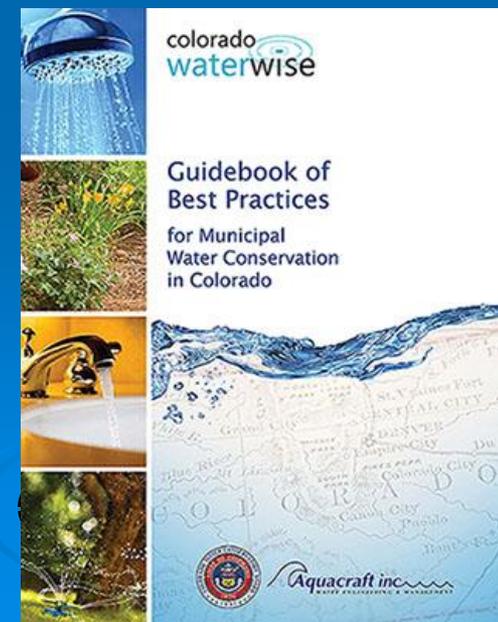
- Colorado Water Conservation Board
 - Funded 2008 release
- Governor's Office of Energy Management and Conservation
- Colorado State University
- Colorado State University Cooperative Extension
- Colorado Water Resources Research Institute
- Colorado WaterWise
- Colorado Foundation for Water Education
- CDPHE Non-Point Source Program
- CDPHE Pollution Prevention Partnership
- Irrigation Association
- EPA WaterSense
- Wright Water Engineers, Inc.
- Vetted by 100+ green/blue professionals



Governor Bill Owens
2005 Proclamation of Support

Integration of BMPs into Local Practice

- Adopted and funded by CWCB and CDPHE
- Documented in Statewide Water Supply Initiative (SWSI II)
- Included in Colorado WaterWise's Guidebook for Municipal Water Conservation in Colorado
- BMPs adopted in HB 10-1358, SB 13-183 and SB 14-017
- Adopted/integrated by many cities and municipalities
- GreenCO BMPs are the standard for outdoor water use in Colorado



Remedy in Support of SB 14-017

- **Senate Bill 14-017:**
BMP identification and quantification ...*holds greatest potential for reducing Colorado's projected water supply gap*
- **2009 GreenCO Literature Review - Findings and Recommendations**
- **Assist in Quantification of Expected Benefits of Landscape Water Conservation BMPs**
- **Develop Landscape Model Framework to include BMPs and quantitative water savings**

NOTE: This bill has been prepared for the signatures of the appropriate legislative officers and the Governor. To determine whether the Governor has signed the bill or taken other action on it, please consult the legislative status sheet, the legislative history, or the Session Laws.



SENATE BILL 14-017

BY SENATOR(S) Roberts and Hodge, Aguilar, Guzman, Johnston, Kefalas, Nicholson, Schwartz, Ulibarri, Carroll;
also REPRESENTATIVE(S) Vigil and Coram, Fischer, Becker, Fields, Garcia, Hamner, Hullinghorst, Labuda, McLachlan.

CONCERNING A LIMITATION ON THE APPROVAL OF REAL ESTATE DEVELOPMENTS THAT USE WATER RIGHTS DECREED FOR AGRICULTURAL PURPOSES TO IRRIGATE LAWN GRASS.

Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. Legislative declaration. (1) The general assembly hereby:

(a) Finds that:

(1) As part of the Colorado water conservation board's statewide water supply initiative and the interbasin compact committee and basin roundtable process, a "No/Low Regrets Action Plan" has been developed, an important element of which is to establish and implement conservation strategies to extend the ability of existing water supplies to meet increasing needs and thereby minimize agricultural dry-up; and

Literature Confirms That.....

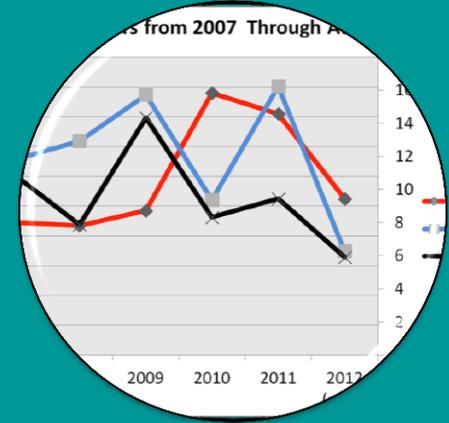


Landscape water conservation can play a meaningful role in demand management to stretch limited water supplies



Initial BMPs include:

- Xeriscape Principles
- Irrigation Audits
- Irrigation Technology & Retrofits
- Soils, Plant Selection and Turf Management



Further work is needed to normalize data for statewide landscape conservation projections

GreenCO is eager to identify and quantify the expected benefits of landscape water conservation



BMP cycle and savings when integrated into local practice

A Colorado Landscape Is / Is Not



Help Us, Help You!

- Meet desired outcomes of SB 14-017
- Support the development of a ***Landscape Model Framework and Quantification of Expected Benefits of Water Conservation***
- Asking for the Water Resources Review Committee to support and endorse this project
- Ask CWCB to support our request to submit a Water Efficiency Grant Application
- Let's collaborate to build landscapes that are water smart from the start!



Questions?

Brenda O' Brien
GreenCO & Colorado WaterWise
303.973.4026

Frank Kinder
Colorado WaterWise & Colorado Springs Utilities
719.668.3818



The logo for Colorado WaterWise features the text 'colorado' in a smaller, black font above 'waterwise' in a larger, bold, teal font. To the right of the text is a stylized graphic of a water drop creating concentric ripples.