

Vulnerability of Urban Landscapes

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CALCP
Colorado Association of Lawn Care Professionals



Representing:

- 1,500 Companies
- 40,000 Employees
- \$1.8 Billion Annual Economic Impact

vulnerable

adjective

capable of or susceptible to being wounded or hurt,

Implies -

Victim **Lack of Control** **Weak**




risk

noun

exposure to the chance of injury or loss; a hazard or dangerous chance

Implies –

Understanding Control Opportunity

- 
- 1) Identify what is at risk
 - 2) Identify the risk
 - 3) Identify Actions GreenCo Members are doing to Reduce and Prevent Risk
 - 4) Identify Actions Communities and Water Providers can do to Reduce and Prevent Risk



What is at Risk?



57.9 Million Visitors in 2011

According to Office of Economic Development and International Trade

Colorado Is a Fitness State

- According to a 2010 study conducted by Trust for America's Health and the Robert Wood Johnson Foundation, Colorado is the only state whose Obesity rate was less than 20%



The Urban Landscape is a Key Component of Our Outdoor Lifestyle

- Soccer
- Baseball
- Biking
- Hiking/Walking
- Entertaining

What is the Urban Landscape?

- Parks and Open Space
- Greenbelts and Boulevards
- Business Public Spaces
- Private Residences and Yards



In Communities

Trees &
Shrubs



Annual &
Perennial
Color



Lawns
& Turf

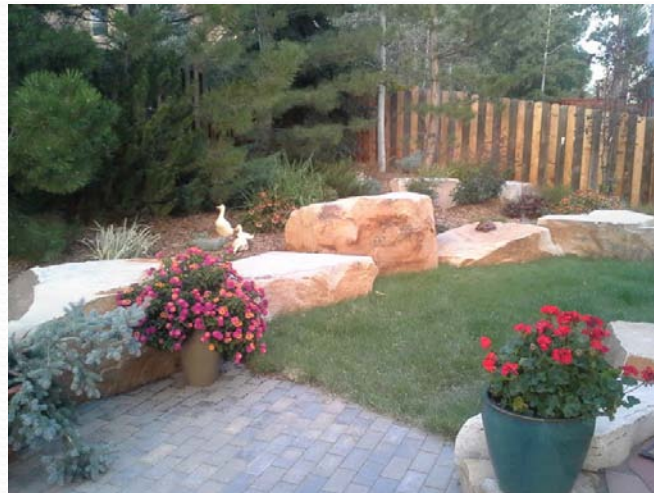
At Home

Trees &
Shrubs



Annual &
Perennial
Color

Lawns
& Turf



Drought Kills the Urban Landscape

- First by Desiccation
 - Those at Highest Risk
 - Recent Plantings
 - Annuals and Perennials
 - Lawns and Turf

Drought Kills the Urban Landscape

- Second by Weakening



Insects



Disease



Weather
Damage

What is at Risk?

- Beauty of our cities, communities and homes



What is the Economic Impact of the loss of the Urban Landscape?

- Loss of Property Value
- Slower Property Appreciation
- Decreased Property Taxes

The Value of Landscape

- According to a 2009 Study Published in the Journal of Environmental Horticulture – A \$1.00 Investment in Landscape Yielded a \$1.35 Return!
- Landscape was a better investment than new kitchens or bathrooms

A. Stigarli & E. Elam Department of Agriculture and Applied Economics Texas Tech University

The Urban Landscape is an Important Piece in Colorado's Sustainable Practices



Sustainability of Urban Landscape

With our beautiful, natural resources, Colorado is a poster child for sustainable practices

- Reduces Carbon Footprint
 - "One acre of trees annually consumes the amount of carbon dioxide equivalent to that produced by driving an average car for 26,000 miles.
- New York Times
 - Average sized lawn produces enough oxygen for daily needs of 18 people
2011 Blue Grass Enterprises, Inc

Sustainability of Urban Landscape

- Reduces Noise Pollution
 - Green plants are a reliable means of protection against noise, reducing noise levels by 5-10%
- Reduces Dust
 - The air in green areas in spring and summer contains 42%, and in winter 37% less dust than the air above the open constructed spaces.

thetomorrowcompany.com 2011 posting

Sustainability of Urban Landscape

- Controls Temperature

- Winter heating bills may be reduced as much as 25 percent and summer cooling bills 50 percent or more.

CSU Extension by L. Walker & S. Newman

- Controls Crime

- A 10 percent increase in trees roughly equaled a 12 percent decrease in crime

Austin Troy, director of the University of Vermont's Transportation Research Center published in the June issue of the journal Landscape and Urban Planning

Sustainability of Urban Landscape

- Improves mental health and wellbeing
 - Helps to restore the mind from the mental fatigue of work or studies, improving productivity and creativity
 - Helps children to develop cognitive, emotional, and behavioral connections
 - Symptoms of ADD in children can be reduced through activity in green settings
 - Outdoor activities can help alleviate symptoms of Alzheimers, dementia, stress, and depression

Urban Forestry/Urban Greening Research – University of Washington

Colorado Business

- Drought affects the 1,500 GreenCo Businesses and their 40,000 Employees
- Additional Downward Effect on our Fragile Economy

What is GreenCo Doing to Reduce/Prevent Drought Risk?



Reducing Water Usage in Production



Identifying More Drought Resistant/Tolerant Plant Species

- Working with Plant Breeders
- Trials at CSU
 - CSU Hort Department has conducted numerous trials to identify the correct amount of water to apply to turf, flowering plants, shrub trees
 - These studies include: trials with differing water quantities, delivery techniques and plant species
 - CSU should be the first resource for science based decisions regarding water management (restrictions)
- Using Native Plants



Working to Educate the Public

- Seminars and workshops at Garden Centers
- Submitting articles to newspapers and e-bulletins
- Improved signage and labeling at retail
- Increased options for home owners, HOAs and communities to consider
- Supporting scholarship and research – at CSU

BMPs (Best Management Practices)

- Developed BMPs in cooperation with CSU, CSU Cooperative Extension, Denver Water, Wright Engineers and Northern Colorado Water Conservancy District along with broad input from conservation, education, engineering, landscape, plant and water experts from around the state

BMPs (Best Management Practices)

- GreenCo's BMPs provide guidelines on how to reduce water consumption and protect water quality while producing, designing, installing and maintaining healthy, beautiful landscapes.



BMPs (Best Management Practices)

- These BMPs are the basis for many municipal codes, state laws and state mandated water conservation plans
- The BMPs and its web site were made possible in part by the Colorado Water Conservation Board.



BMPs (Best Management Practices)

- In 2005, Colorado Governor Bill Owens issued a proclamation that declared a state wide “BMP Awareness Week” and encouraged statewide policy makers to use GreenCO BMPs in their outdoor water conservation standards.
- In 2008, The Colorado Water Conservation Board issued recommendations to all state wide water agencies to integrate the GreenCO BMPs into their general water conservation plans.

GreenCo as a Resource

- www.greenco.org
 - A resource for information and contacts when making water decisions



What can Communities and Water Providers Do to Reduce/Prevent Risk to the Urban Landscape?

- Use the BMPs
- Use CSU as a resource for science based decision making
- Invest in new technologies that monitor precipitation, temperature and adjust watering schedules based on actual need – rather than a day and time

What can Communities and Water Providers Do to Reduce/Prevent Risk to the Urban Landscape?

- Invest in irrigation systems that deliver water very accurately both in quantity and direction
- Monitor public watered areas to make sure sprinkler heads are flowing correctly and pointed in the right direction
- Work with GreenCo Associations to develop water management strategies that will protect the landscape



What can Communities and Water Providers Do to Reduce/Prevent Risk to the Urban Landscape?

- Recognize that we live in a state where we only receive about 15-17 inches of precipitation annually – therefore water management is an every year responsibility, not just when less precipitation falls
- Support development of water storage to capture any “free” water available for the dry years

What can Communities and Water Providers Do to Reduce/Prevent Risk to the Urban Landscape?

- Avoid thinking of Landscape as a discretionary use of water



Is the Urban Landscape at Risk or Vulnerable?

- Not if we work together to do what is best for protecting the beauty of our community and homes
- Not if we work together to recognize the value of landscape
- Not if we work together to keep this sustainable natural resource healthy
- Not if we work together using GreenCo and CSU as a resource in water management decisions