Water Wise
Landscape Design
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Water Wise
Landscape Design

CMG GardenNotes #411-413
Design ≠ Gardening
7 Principles of Water-Wise Landscaping
Planning and designing for water conservation, beauty, and utility
Hydrozoning

Selecting plant appropriate for our climate...

Grouping them according to water need...

Watering according to need
Watering efficiently with appropriate irrigation methods
Creating practical turf and non-turf areas
Improving the soil
Mulching to reduce evaporation
Maintaining with good horticultural practices
7 Principles of Water-Wise Landscaping

- Planning…
- Hydrozoning…
- Watering efficiently..
- Practical turf…
- Improving soil
- Mulching
- Maintaining…
Planning and designing for water conservation, beauty, and utility
A process
More than plunking down some plants
Creating practical and pleasing outdoor space
What do you want and need from the landscape?
Colorado’s High Plains Prairie
Investment in time and dollars
A process
More than plunking down some plants
Watering efficiently with appropriate irrigation methods
On a community wide basis

Apply twice the amount of water needed by landscape plants

Due to poor irrigation system

- Design
- Maintenance
- Management
Watering efficiently

Irrigation efficiency has greatest water savings potential for most home gardeners.
Drip irrigation with mulch reduces water use by 50%.

- Flower & shrub beds
- Vegetables
- Small fruits
Sprinkler Design Criteria
for Uniform Water Distribution
Hydrozoning

Selecting plant appropriate for our climate...

Grouping them according to water need...

Watering according to need
Hydrozoning

Grouping plants according to water need
AND
Irrigating according to need

- routine irrigation
- reduced irrigation
- limited irrigation
- non irrigated
Hydrozones

- **Lawn areas**
  - ✓ Routine irrigation
  - ✓ Reduced irrigation
  - ✓ Minimal irrigation
Hydrozones

- **Lawn areas**
  - Routine irrigation
  - Reduced irrigation
  - Limited irrigation

- **Mixed shrub and flower beds**
  - Routine irrigation
  - Reduced irrigation
  - Limited irrigation
Hydrozones

- **Lawn areas**
  - Routine irrigation
  - Reduced irrigation
  - Limited irrigation

- **Mixed shrub and flower beds**
  - Routine irrigation
  - Reduced irrigation
  - Limited irrigation

- **Non-irrigated areas**
Hydrozones

- **Lawn areas**
  - Routine irrigation
  - Reduced irrigation
  - Limited irrigation

- **Mixed shrub and flower beds**
  - Routine irrigation
  - Reduced irrigation
  - Limited irrigation

- **Non-irrigated areas**
Hydrozone Bubble Drawings

- Routine Irrigation
- Reduced Irrigation
- Limited irrigation
- Non-irrigated
Hydrozones Bubble Drawings

- Routine Irrigation
- Reduced Irrigation
- Limited irrigation
- Non-irrigated

- garden
Hydrozones Bubble Drawings

- Routine Irrigation
- Reduced Irrigation
- Limited irrigation
- Non-irrigated
Hydrozone bubble drawings

Defining space
Defining irrigation need

flowers reduces
vegies routine
lawn reduced
patio
Hydrozone bubble drawings

Defining space
Defining irrigation need
Hydrozone bubble drawings

Defining space
Defining irrigation need
Hydrozone bubble drawings

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Hydrozone bubble drawings

Defining space
Defining irrigation need
Creating practical turf and non-turf areas
Comparative Annual Water Requirements
including rain and irrigation

Turf quality KBG at 100% ET 34"
Comparative Annual Water Requirements
including rain and irrigation

- Turf quality KBG at 100% ET: 34”
- “Drought tolerant” KBG cultivars at 75% ET: 26”
- Reduced irrigation KBG and Tall Fescue at 80% ET: 28”
Comparative Annual Water Requirements
including rain and irrigation

- Turf quality KBG at 100% ET: 34”
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- Summer dormant (June-August) KBG: 14”
Comparative Annual Water Requirements
including rain and irrigation

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- Turf quality Tall Fescue at 90% ET 31”
- "Drought tolerant" KBG cultivars at 75% ET 26”
- Reduced irrigation KBG and Tall Fescue at 80% ET 28”
- Limited irrigation–KBG and Tall Fescue at 60% ET (grass will thin) 20”
- Summer dormant (June-August) KBG 14”
- Turf quality Buffalo grass 17”
Creating **practical** and **pleasing** outdoor living space

**Plant consideration lists based on hydrozones**

1. 
2. 
3. 
4. 
5. 
6.
Extension Fact Sheets

- Deciduous shrubs, #7.415
- Evergreen shrubs, #7.414
- Evergreen trees, #7.403
- Hedges, #7.208
- Large deciduous trees for street and shade, #7.419
- Native shrubs for Colorado landscapes, #7.422
- Native trees for Colorado landscapes, #7.421
- Shrubs for mountain communities, #7.407
- Small deciduous trees for privacy and color, #7.418
- Trees for mountain communities, #7.408
- Xeriscaping trees and shrubs #7.229
Colorado’s semi-arid climate

Suggested references

✓ *Xeriscape Plant Guide*
  by Denver Water,
  Fulcrum Publishing
www.xratedgardening.com
Colorado’s semi-arid climate

- On sites where landscape irrigation is not desirable or possible, focus on natural growth.
Xeriscaping is NOT a rock pile.
Even xeric plants need rain and/or irrigation during establishment.
Gardens with limited to no irrigation will thrive some years and decline other years.
Create effective plant combinations by paring opposites

- Paired opposites!
  - Fine / Course
  - Round / Upright
  - Small / Large
  - Short / Tall
  - Thug / Dainty

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