WHAT VALUES DRIVE OUR LANDSCAPE CHOICES?

Rocky Mountain Land Use Institute Conference, March 2019
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Outline for Today

• How do landscapes and water use intersect?

• How do our values shape the landscapes we live in?

• How do we at Denver Water track the way these values shift?

• What issues are we really trying to address with landscapes?
Municipalities and counties served

Within our service district:
Denver Population: 750,000
Outside City Population: 750,000
Outside City Distributors: 65

✓ Diverse growth patterns/preferences
✓ Varied politics
✓ Range of development guidelines

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Municipalities

<table>
<thead>
<tr>
<th>Bow Mar</th>
<th>Lakeside</th>
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<tr>
<td>Centennial</td>
<td>Lakewood</td>
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<tr>
<td>Cherry Hills Village</td>
<td>Littleton</td>
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<tr>
<td>Columbine Valley</td>
<td>Lone Tree</td>
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<tr>
<td>Denver</td>
<td>Mountain View</td>
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<tr>
<td>Edgewater</td>
<td>Sheridan</td>
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<tr>
<td>Glendale</td>
<td>Wheat Ridge</td>
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<td>Greenwood Village</td>
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Landscape Irrigation Drives Bulk of Summer Water Use

2019 Water Use and Weather Conditions

- Precipitation Event - Metro Avg.
- Water Use*
- Daily High Temperature*
- Long-Term Avg. Daily High Temperature*

* Rolling 5-Day Avg.
Water Use is About Behavior

*Water use depends largely on socially-driven variables:*

- Growth
- Price
- Technology
- Climate
- Values and perspectives
Benefits of Green Space

Time spent in and around tree-lined streets, gardens, parks, and forested and agricultural lands is linked to objective, long-term health outcomes – both physical and psychological.

Neighborhood greenness has been consistently tied to life expectancy!
Which ONE of the following best describes how you expect water supply conditions in the Denver area to change over the next 5-10 years?
Values Driving Water Conservation

- To Save Money, 26%
- To Improve Your Property, 5%
- To Help The Environment, 65%

“We” Matters More than “Me”!

Which ONE of the following best describes your PRIMARY motivation for taking the action(s) to reduce the amount of water your household uses?
Where is Bluegrass Most Valuable?

Average ranking from 1-4

1=Highest value
4=Lowest value

- Public rights-of-way: 3.4
- Private properties: 2.6
- Athletic fields and school properties: 2.3
- Public parks: 1.6

Rank 1-4
Key Survey Findings

Water Supply Perceptions & Concerns
- Our customers get it
- Growing concern about future scarcity
- Growth and environmental factors are driving concern

Water Use & Influencing Factors
- Customers are increasingly willing to make changes to their water use
- Greater good is a strong motivator

Bluegrass & Lawn Opinions
- Aesthetics are the primary use for residential bluegrass
- Willingness to reduce bluegrass
- Bluegrass is most valued in parks and public spaces

Our customers are primed to remove a significant amount of bluegrass in the next drought
Monitoring how customer values are manifested in the physical landscape over time.

- Rate of change
- Type of change
- Impacts
Multi-year Survey Trends

- Longitudinal study
- Tracks attitudes over time
- Helps understand customer attitudes and views on:
  - Scarcity
  - Bluegrass
  - Drought
  - Conservation
Denver Water monitors mentions of drought in Colorado media and searches on Google Trends for drought, to better understand how our customers are receiving and understanding scarcity messaging in the media.

Water Scarcity in the Media

1. Fire danger remains high in Colorado as strong winds whip a dry landscape – The Denver Post
2. Colorado's parched landscapes beg for water relief; prompt burn restrictions, fire watch – The Denver Post
3. Denver-area weather forecast: Higher humidity and a chance for rain Saturday – The Denver Post
4. Firefighters battle blaze on South Table Mountain near Golden
5. Denver-area weather forecast: Expect lots of sunshine, wind and spring-like temperatures

Total Mentions

<table>
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<tr>
<th>Day</th>
<th>Week</th>
<th>Month</th>
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<tr>
<td>8,390</td>
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Social Amplification

- 11%
- 47%
- 42%

Drought Salience (Planning) Apr 1, 2015 - Sep 24, 2019

Total Shares 449,522

SEO Impact

Drought Salience (Planning) Apr 1, 2015 - Sep 24, 2019

Average SEO Impact for 14,157 mentions 62
Rapid land-use change

Before

Current
What Role Should Landscapes Play?

- Psychological and physical benefits
- Stormwater Management
- Cooling / Shade

- Aesthetic benefits
- Restorative space
- Reflection of self
- Habitat