City of Greeley
Water Conservation Plan

“Dripping water hollows out stone, not through force but through persistence.”

— Ovid

January 2015
Greeley’s 2060 Comprehensive Plan

• The 2060 Plan was adopted in 2009
  - Reviewed key community indicators, trends, projections to assess growth and development

• Population and Growth - Population will Increase - Water Demands will Double

• To Meet Citizen Water Needs - Water Master Plan
Current Population
93,000

2050 Population
Over 240,000
Water Master Plan
Four Point Plan

• Maintain what you have
  - Cement mortar lining of water lines
  - Fiberglass lining of sewer lines

• Secure supply stay ahead of demand

• Build storage for the lean times
  - Milton Seaman Project

• Conserve what you have
  - State approved water conservation plan
Long-Term Conservation Plan

• State law requires water providers to develop a state-approved conservation plan

• Greeley’s Plan documents our commitment
  - Began in 1907 with water restrictions
  - Fully metered 1996
  - Comprehensive program by 2006

• Plan commits to additional 10% water demand reduction by 2035
Comprehensive Conservation Program

- Fully metered since 1996
- Leak detection: less than 5% system losses
- Continual watering restrictions since 1907
- Free irrigation & commercial audits, rain sensors
- Rebates for high-efficiency washers and toilets
- Required soil amendments; grants for xeric
- Water Insight Pilot
- Water Budget Program
- Continual Education
Conservation Program 2014

- Water Budget Pilot Program - City Wide
  - A water budget defines the amount of water each customer needs when used efficiently

- Focus on Landscape - Work With Planning
  - Landscape and Species

- Converting Parks to Xeric - Work With Parks
  - New Parks 15% - 20% xeric
  - Existing parks convert 5% - 10%
What is a “water budget”? 

The image shows an aerial view of a neighborhood with a pop-up window displaying the Irrigable Area & Average Monthly Water Budget (in gallons) for a specific address: 1407 60TH AV, GREELEY. The details of the water budget are as follows:

- Address: 1407 60TH AV, GREELEY
- Nov.-March Monthly: 6,000 gallons
- Water Budget: 6,000 gallons
- Irrigable Area (sq. ft.): 3,897
- April: 11,000 gallons
- May: 17,000 gallons
- June: 21,000 gallons
- July: 23,000 gallons
- August: 20,000 gallons
- September: 16,000 gallons
- October: 10,000 gallons
- Total: 148,000 gallons
Water Budget - City Wide

- A water budget defines the amount of water each customer needs when used efficiently.

Indoor use is based on # people...
Outdoor use is based on lot size.
Landscape - Working with Planners

Alternative Irrigation Demand
Landscape Design Based on Water Budget

Water use at water budget
Full  
4,781 s. f.  19 g/ s. f.  90,839 g/ yr.

Water Use Zones

<table>
<thead>
<tr>
<th>Description</th>
<th>Irrigation gallons/ s.f.</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Water Use</td>
<td>17 to 19</td>
</tr>
<tr>
<td>Medium High Water Use</td>
<td>14 to 17</td>
</tr>
<tr>
<td>Moderate Water Use</td>
<td>10 to 14</td>
</tr>
<tr>
<td>Low Water Use</td>
<td>5 to 10</td>
</tr>
<tr>
<td>Very Low Water Use</td>
<td>0 to 5</td>
</tr>
</tbody>
</table>
Updated Conservation Program
Plan 2014

Water Sense Subdivision - Pilot

- Water Budget Pilot Program - City Wide
- Focus on Landscape - Work With Planning
- Converting Parks to Xeric - Work With Parks
Because of universal metering and water conservation, water demand will no longer match population growth:

- Water Master Plan Demand Projection
- 2008 Water Conservation Plan
- And 2014 Update Demand Projection
- Demand Projection with Additional 10% drop due to Price Elasticity
Questions?