

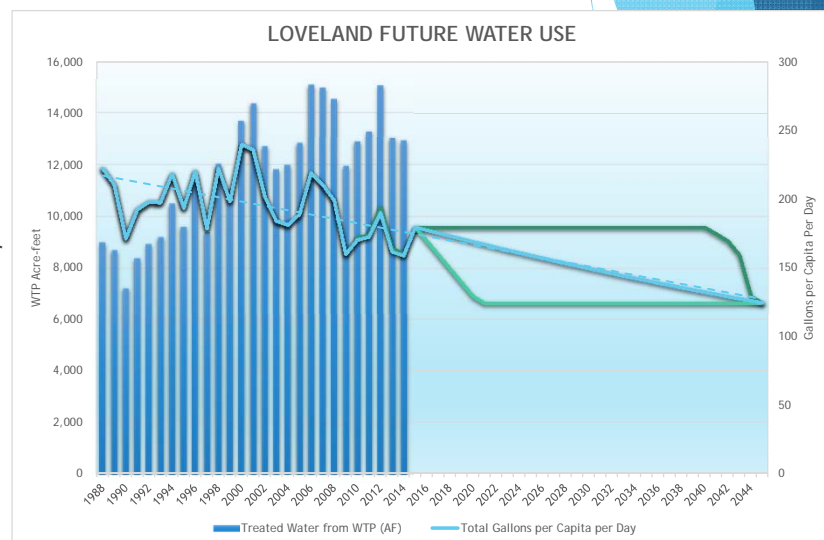
Setting a Path for the Future

Presented by Water Resources October 21, 2015



Recap of our last presentation

- ▶ Previously: GPCD (gallons per capita per day) usage trending down
- ▶ Impacts to future water supplies planning?
- ▶ How can this slope be controlled?



How does Loveland's GPCD Track with neighboring Utilities?

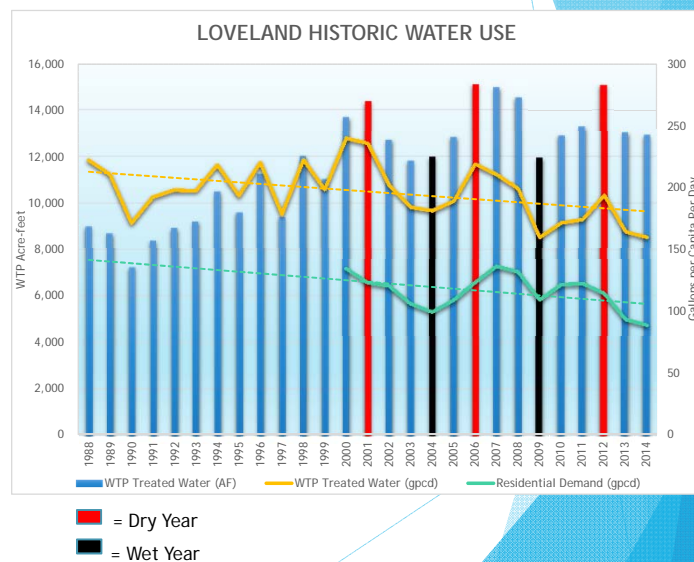
	City of Loveland	City of Fort Collins	City of Longmont
1990's	222	230	262
2015	160	150	165 (in 2010)

Note: GPCD numbers may not be apples to apples. The trends are important.



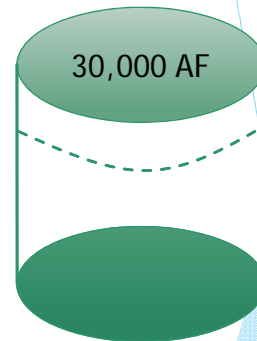
Loveland's Total Treated Water Use

- ▶ 222 gpcd in 1988
- ▶ 194 gpcd in 1995
- ▶ 240 gpcd in 2001 (high)
- ▶ 189 gpcd in 2005
- ▶ 160 gpcd in 2010
- ▶ 159 gpcd in 2014 (low)



Raw Water Planning Numbers

- ▶ Current Goal: 30,000 AF
 - ▶ From Raw Water Master Plan (build-out)
 - ▶ Service population of 127,000 @ 200 GPCD
 - ▶ Current water supplies ~ 27,440 AF including Windy Gap Firming
 - ▶ If GPCD continues to go down, demand will follow.
 - ▶ Ex. $160 \text{ GPCD} \times 127,000 = 23,000 \text{ AF}$
 - ▶ Future land use densities may lower GPCD even further meaning less water.
 - ▶ Look for a RWMP update in 2016...



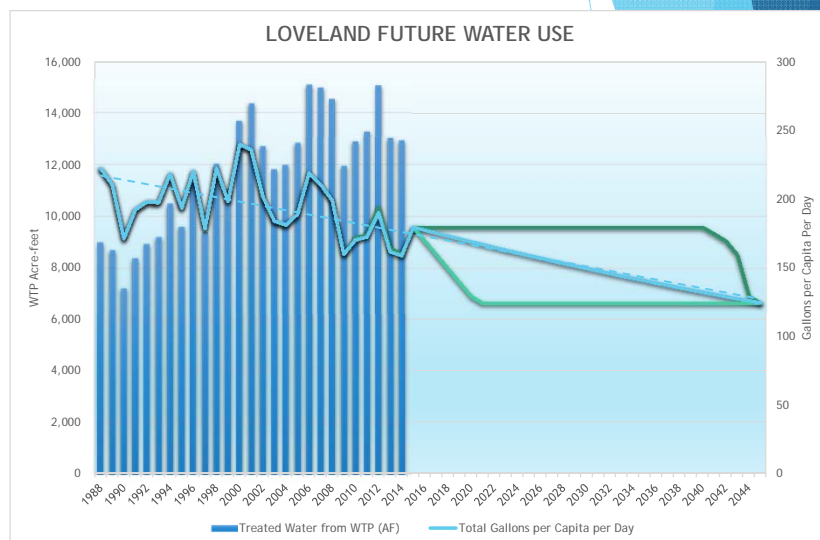
Future Water Supplies

- ▶ Flexibility, versatility and foresight in developing future water supplies provides many benefits:
 - ▶ Redundancy in the system to handle operational challenges
 - ▶ East slope vs. West slope: native direct, ditch shares, CBT, WG
 - ▶ Storage: GRGR, WGFP, and gravel pits
 - ▶ Flexibility and options during natural disasters that jeopardize water supplies
 - ▶ Protection from changing river conditions (climate change) affecting the ability to capture adequate water supplies
 - ▶ could need 12 to 15% more water

- ▶ Flexibility, versatility and foresight in developing future water supplies provides many benefits:
 - ▶ Enhance collaboration on regional supplies
 - ▶ Enhance assistance via emergency interconnects
 - ▶ Could support economic development such as breweries or manufacturing
 - ▶ Protect from increasingly rigorous state administration
 - ▶ Provide for populations in excess of planned numbers
 - ▶ Provide attractive recreational amenities
 - ▶ Provide water to lease out to Ag or others

Review of Future Water Supplies

- ▶ Currently supplies exceed demands, even in a drought.
- ▶ City annually leases out excess supplies to Ag, industry or other providers.
- ▶ Flexible supplies helps with administration, or during emergency situations, such as wildfire or transmountain disruptions.
- ▶ If we need to reduce use, we can implement watering restrictions



Water Resources Future Considerations

- ▶ The City will benefit from long term conservation and water savings. This is an important component of our long-term success.
- ▶ The City's current reduction in water use is meeting goals for conservation in its CWCB-approved Water Conservation Plan.
- ▶ The City has no pressing need to aggressively conserve water because of its robust water portfolio. It is growing into this future water supply.
- ▶ Implementing additional programs too aggressively will decrease revenue. This will inevitably lead to increased bills.
- ▶ Changed conditions, such as growth, fires, climate change, droughts exceeding our 100 year, missed conservation goals, and future regulations, would be considerations for implementing new programs
- ▶ The answer for customers that ask why their water rates are raising--it's the "cost of service" for the City to provide them with water.

Summary of Water Supply Outlook

- ▶ Demand numbers will be re-evaluated in our upcoming Raw Water Master Plan Update.
- ▶ Loveland has a versatile, flexible portfolio that allows it to react well to natural disaster situations.
- ▶ The only thing that you can be certain of is that the unexpected will happen.
- ▶ The next presentation is going to be about "Messaging" and will be presented by Customer Relations.



Bonus Slides

- ▶ Northern Water's CBT/WG Features of Interest

Dille Tunnel Diversion off Big Thompson River



Looking downstream



Looking upstream

Dille Tunnel

Point of connection for
downstream pipe



Loveland Turnout



Green Ridge Glade Reservoir is full!



Future Chimney Hollow Reservoir Site



Future Chimney Hollow Reservoir Site



You been farming long?

