

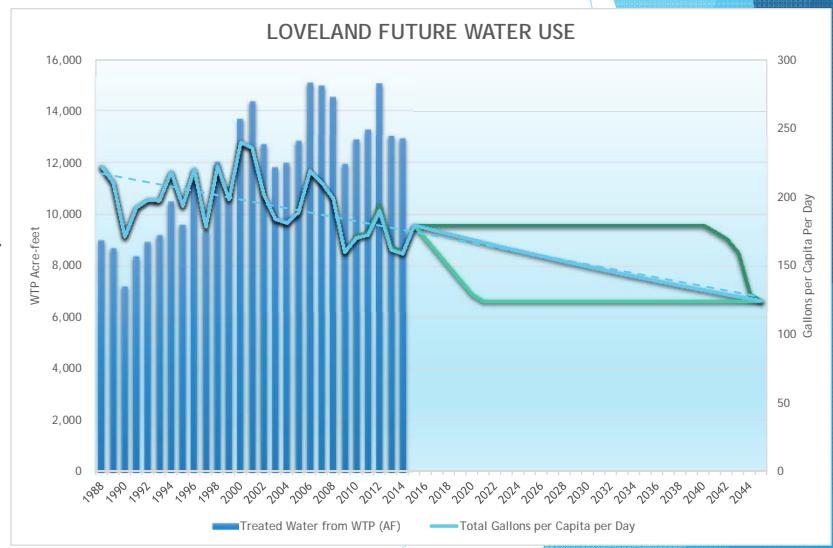
# Setting a Path for the Future

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?

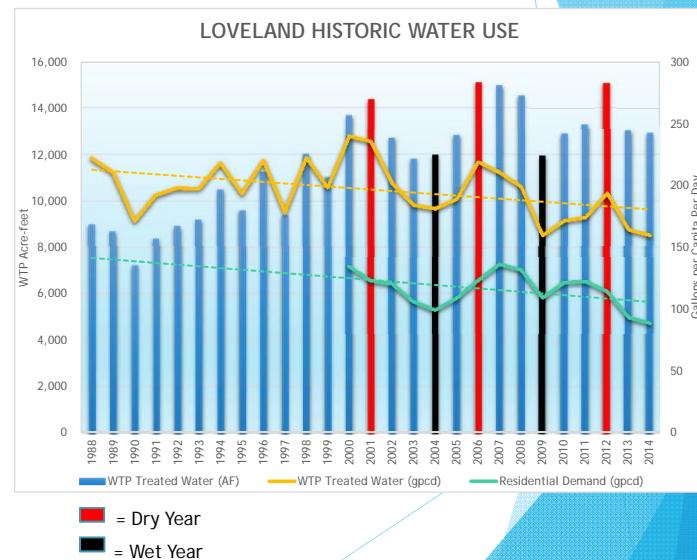
	City of Loveland	City of Fort Collins	City of Longmont
1990's	222	230	262
2015	160	150	165 (in 2010)

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



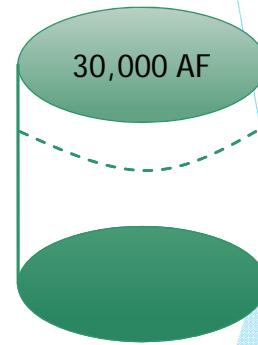
## Loveland's Total Treated Water Use

- ▶ 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 GPCD x 127,000 = 23,000 AF
  - ▶ Future land use densities may lower GPCD even further meaning less water.
  - ▶ Look for a RWMP update in 2016...



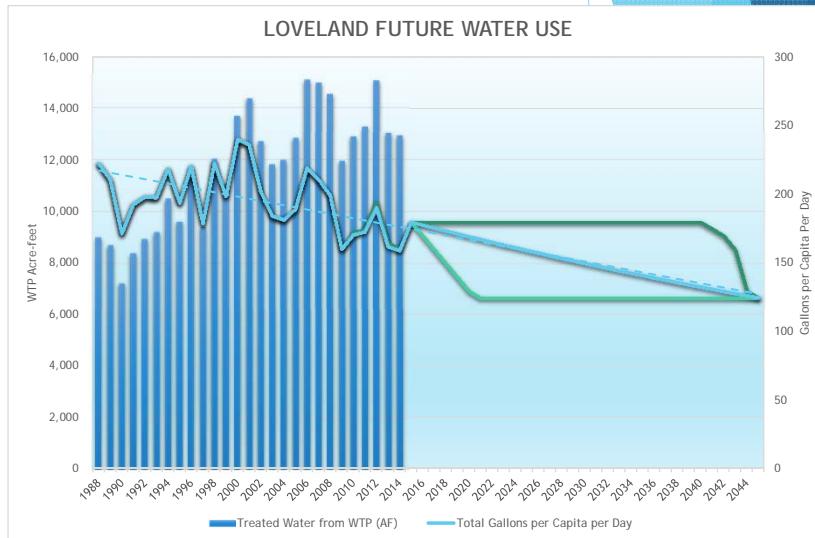
## Future Water Supplies

- ▶ 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.



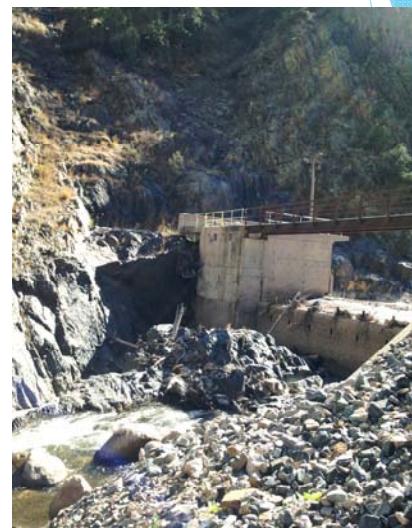
## Bonus Slides

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

### Dille Tunnel Diversion off Big Thompson River



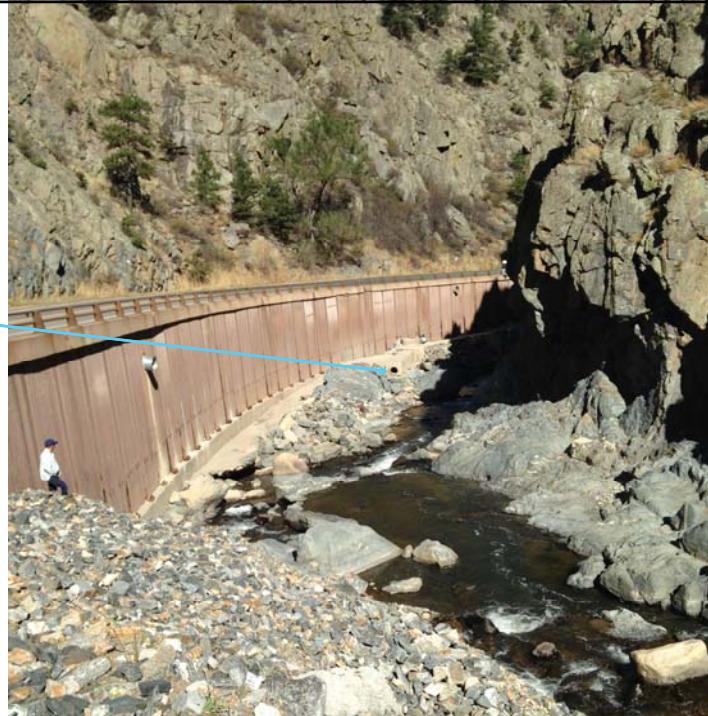
Looking downstream



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?

