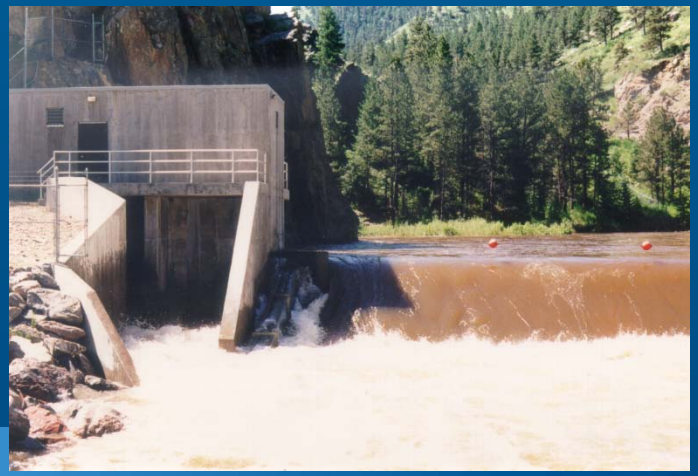
# Fort Collins Utilities Water Supplies & Demand Management

Poudre River Forum

January 31, 2015



City of Fort Collins

# Water Supply & Demand Management Policy

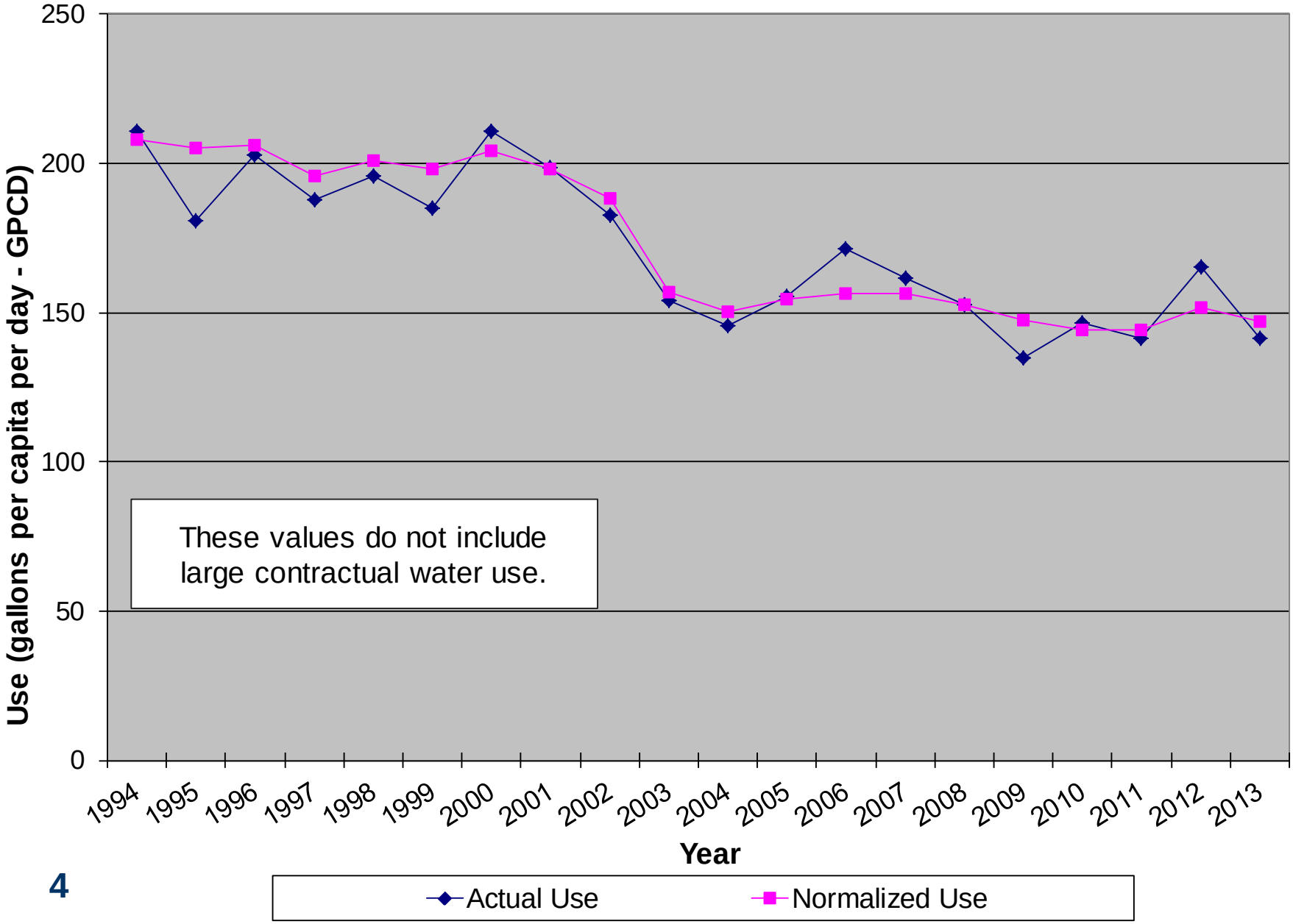
- Adopted in 2003, updated in 2012
- Guides the Utilities in balancing water supplies and demands
- Policy Objective
  - Ensure an adequate, safe and reliable supply of water for the beneficial use by customers and the community
  - Manage the level of demand and the efficient use of a scarce and valuable resource

# Current Water Demand (Use)

- Deliver about 26,000 acre-feet/year treated and 4,000 acre-feet/year of raw water

- Demand levels have declined significantly
  - ~230 gpcd early 1990s
  - ~200 gpcd before 2002
  - ~150 gpcd last several years

# Fort Collins Utilities - Per Capita Water Use



# Water Conservation

- Measures to reduce demands long-term
  - Restrictions used for short-term reductions
    - Water Supply Shortage Response Plan
- On-going conservation efforts
  - All customers metered in 2003
  - Tiered & seasonal rate structures
  - Educational programs
  - Rebates, sprinkler audits, etc.
  - Commercial audits and incentives

# Water Conservation

- Water Conservation Plan
  - Adopted by State in 2010
  - Conservation goal of 140 gpcd by 2020
  - Use most state/national BMPs


- Plan update starting in 2015



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# Future Water Demands/Supplies

- Depends on population and commercial growth
- Estimated Utility population ~165,100 by 2050 (~129,900 in 2010)
- Large contractual use increase of ~3,000 acre-feet/year by 2050
- Supplies needed depends on future demands (planning demand level)

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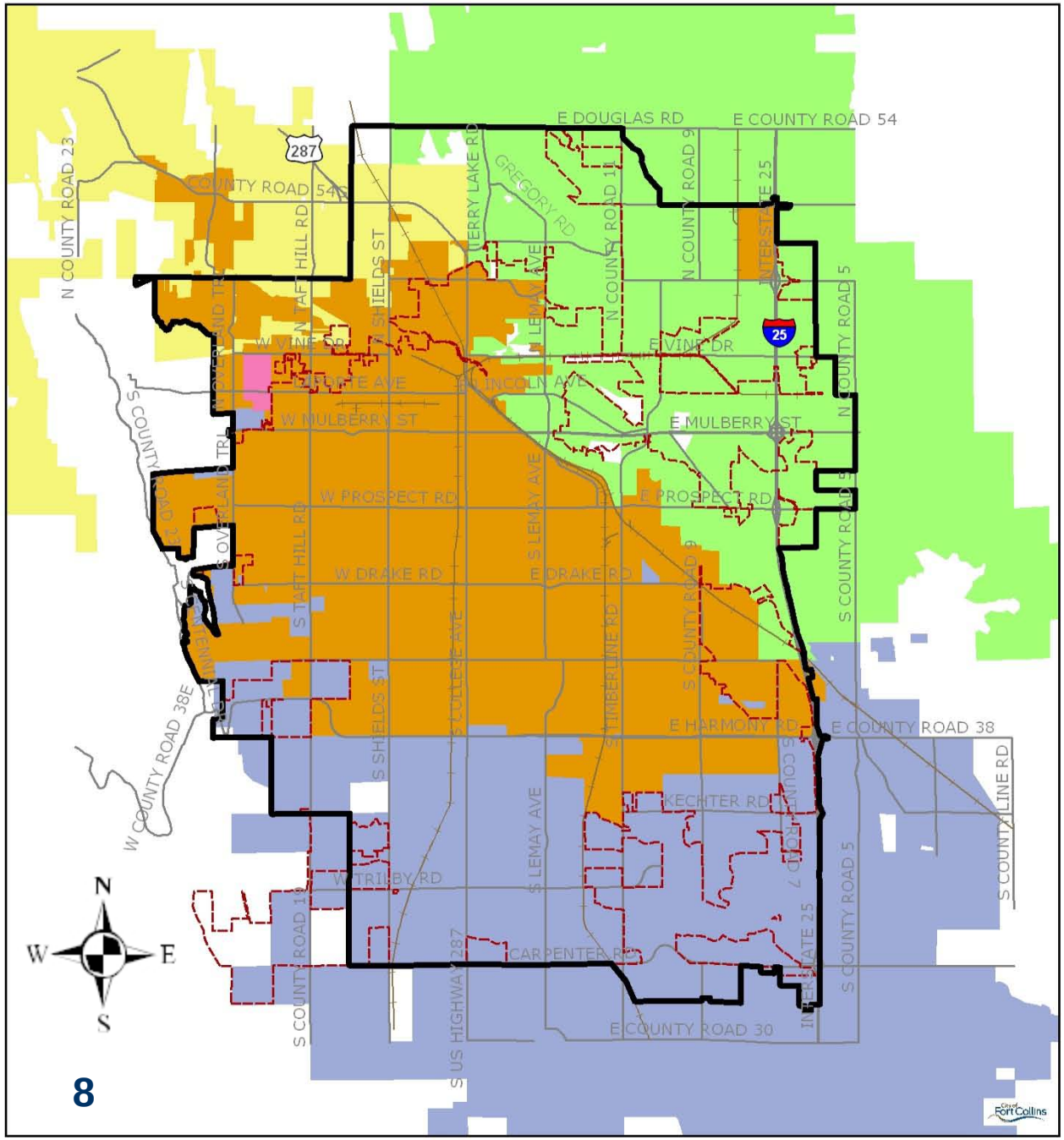
# Fort Collins Area Water Districts Map

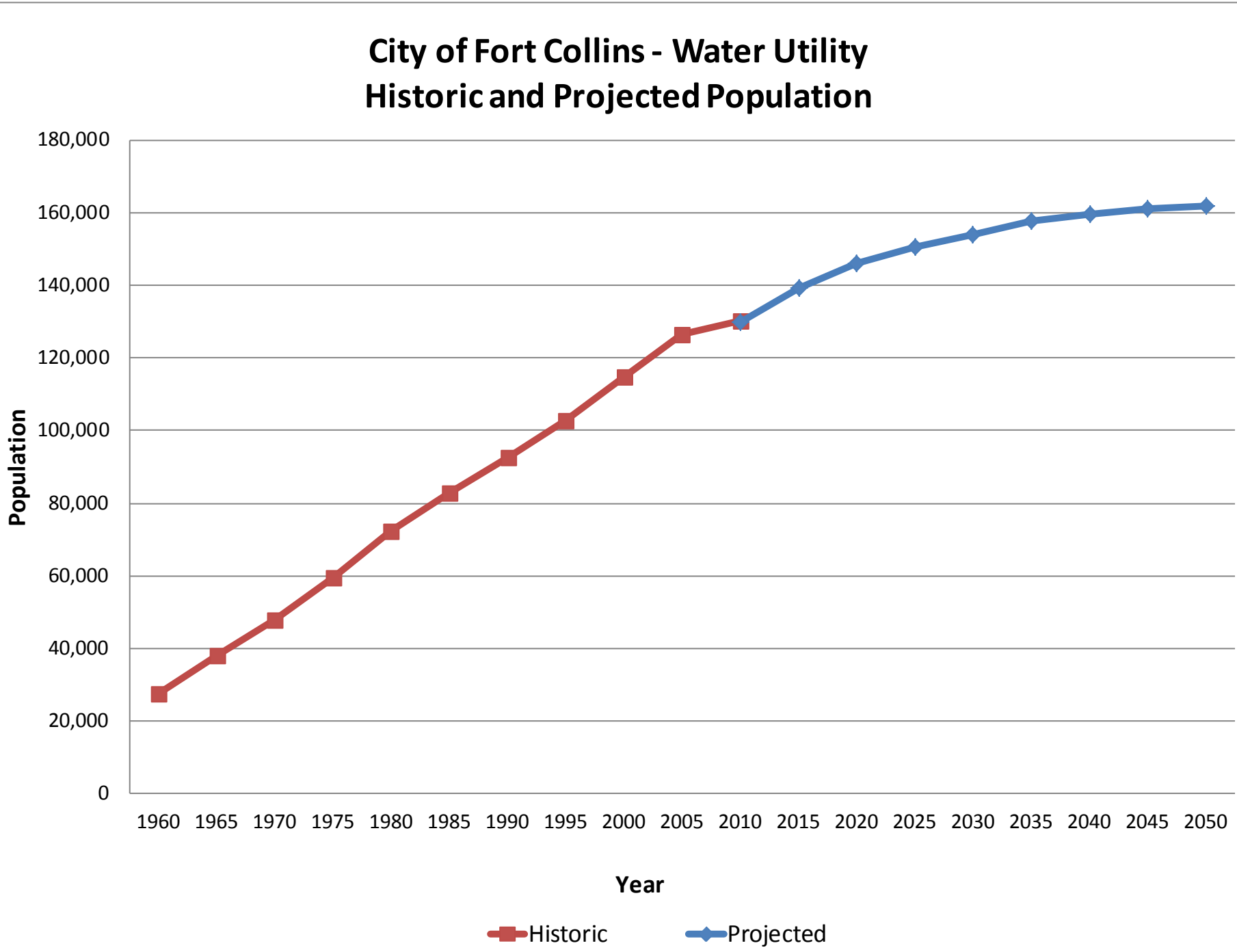



GMA
Major Streets
City Limits
Railroad

## Water Districts

- ELCO Water District
- Fort Collins Loveland Water District
- Fort Collins Utilities (Water)
- Sunset Water District
- West Fort Collins Water District

Feet
0 5,000 10,000 20,000

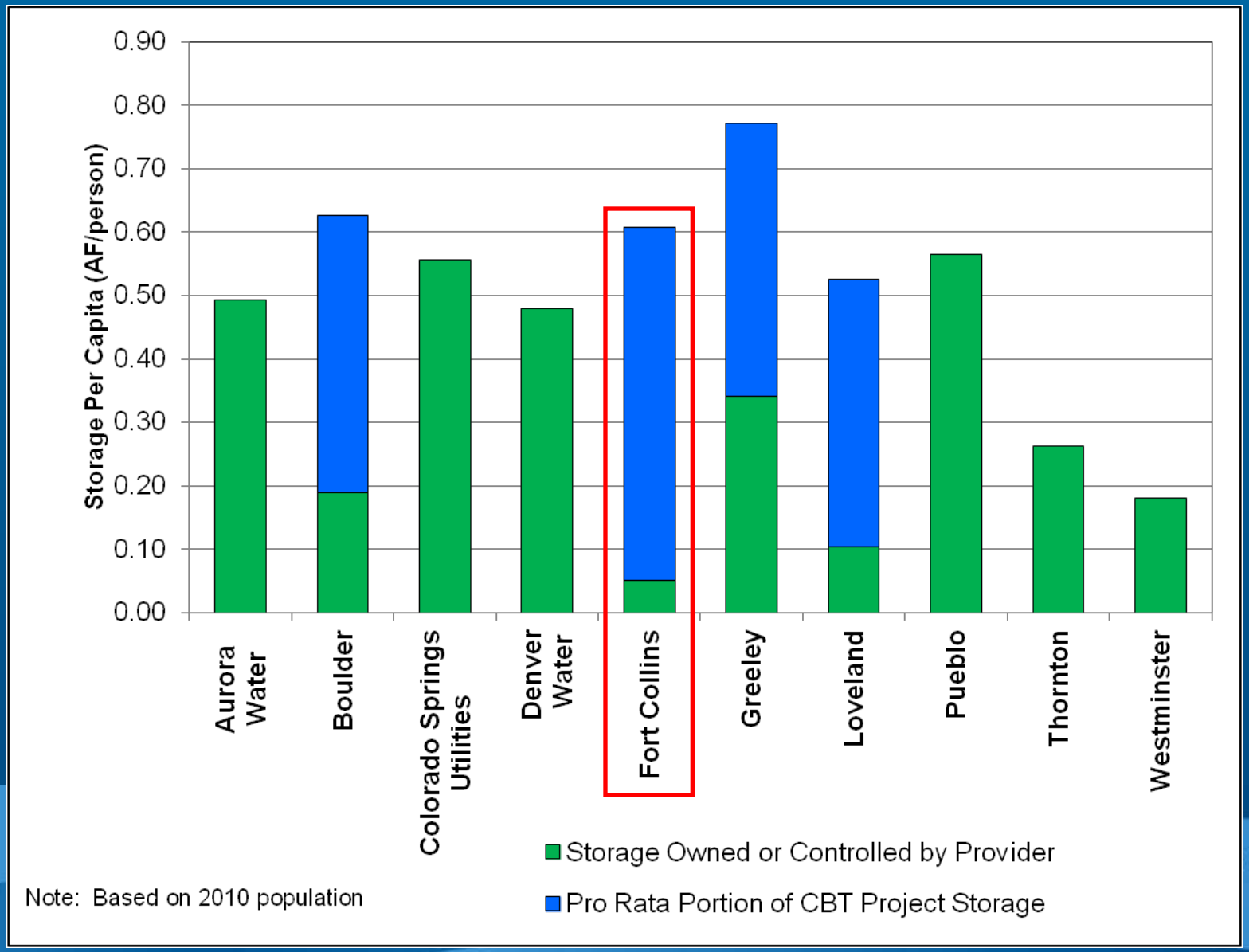

City of Fort Collins - Water Utility
Historic and Projected Population
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
Population
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
2025
2030
2035
2040
2045
2050
Year
Historic
Projected

# Future Supply Plans

- Acquire additional water rights and/or cash through Raw Water Requirements

- Acquire/develop storage capacity to help manage current and future water rights
  - Operational storage (gravel pits or similar)
  - Carryover and vulnerability protection storage (Halligan Res. or similar)

# Storage per Capita Comparison



# Potential Uncertainties???

- Modeling does not include:
  - Climate change
  - CBT curtailment
  - Reuse Plan issues
  - Water quality blending

- Supplies could be reduced by:
  - River administration changes
  - Competing water rights

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# Key Policy Elements

- Water Supply Reliability
  - Continue 1-in-50 year drought criterion and Water Supply Shortage Response Plan
  - Other key criteria
    - Storage reserve factor (20% of annual demand)
    - Planning demand level (150 gpcd)

- Demand management (140 gpcd goal by 2020)

# Closing Thoughts

- Conservation continues to be important
- Water Utility approaching buildout
- Advocate lower water use and increased storage to make effective use of conserved water
  - Provides uncertainty protection
  - Sustainable water supply future

# Thank You