

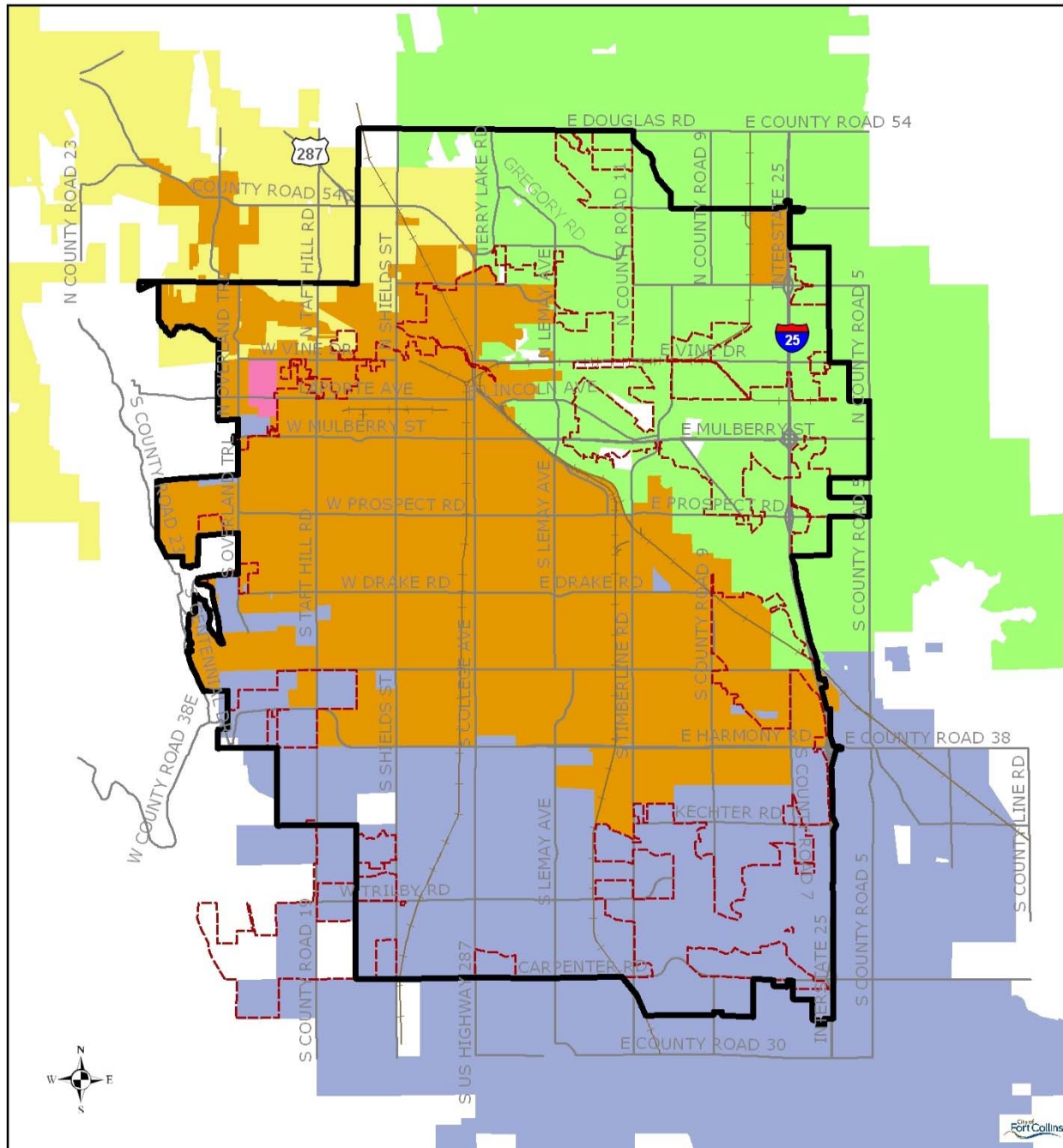
# Perspectives on the Poudre Our Urban Uses of the Poudre

City of Fort Collins  
November 18, 2014

# Urban Uses

- Quantity
- Quality
- Conservation

# Water Districts

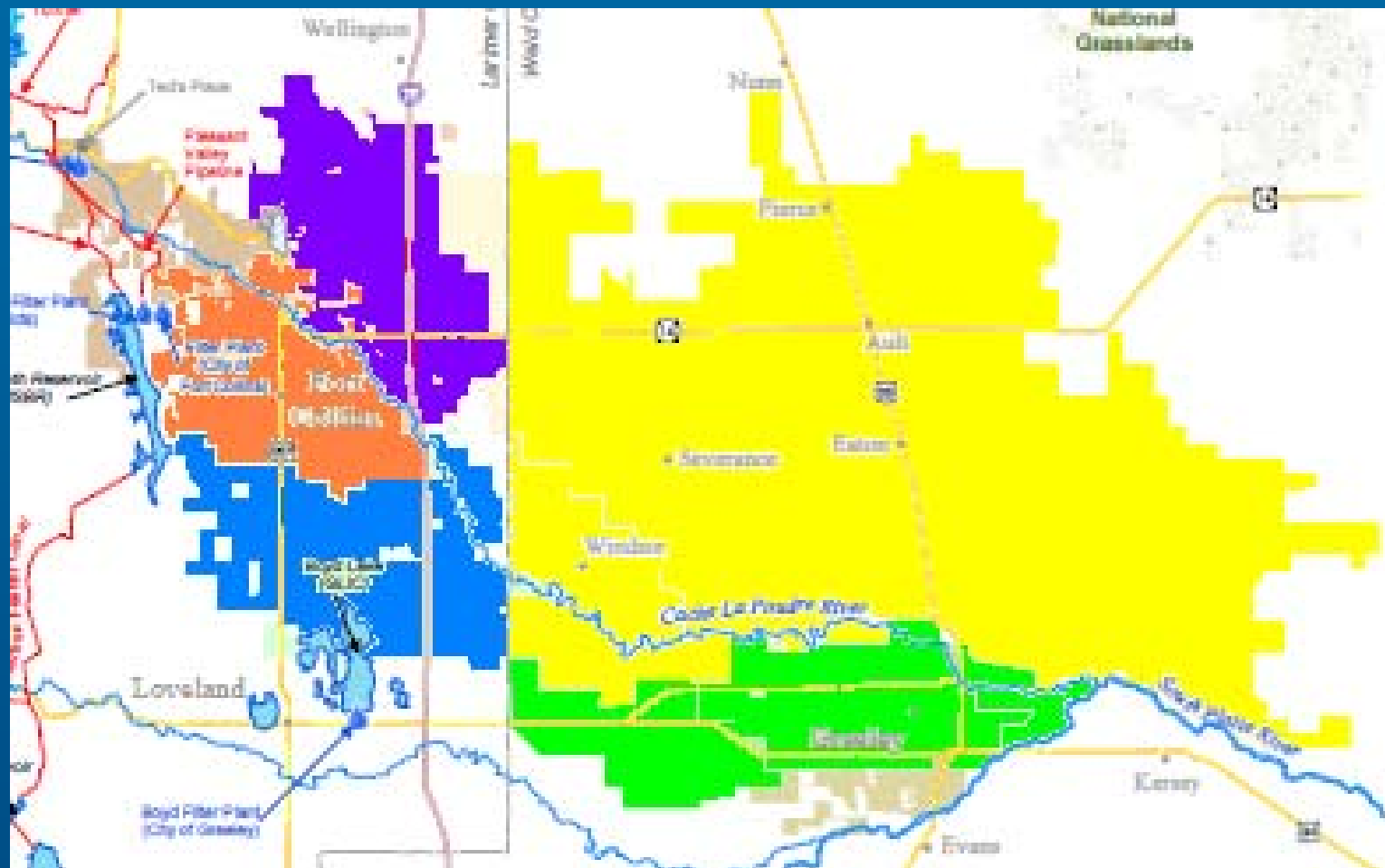


- Water Features
- GMA
- Major Streets
- City Limits
- Railroad

## Water Districts

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

0 5,000 10,000 20,000 Feet



# Quantity

# Quantity

- Present Supply
  - Based on 1-in-50 year drought criteria
  - 31,000 AF treated water firm yield through 1-in-50 year drought
- Present Demands
  - Currently deliver about 26,000 AF/yr treated and 4,000 AF/yr of raw water

# Quantity Water Supply - Sources

Poudre River



CBT Project



# Colorado-Big Thompson Project (CBT)



- Administered by the NCWCD
- Annual quota (dictates amount received per unit owned)
- City currently owns 18,855 units
- Additional ownership through NPIC shares
- On average 50% of our supplies from Horsetooth



# Poudre River

- Direct flow rights
- Converted irrigation rights
- Michigan Ditch & Joe Wright Reservoir
  - only reservoir owned and operated by the City
  - 6,500 AF active capacity
  - max. carryover ~3,500 AF



# Future Water Demands/Supplies

- Estimated Utility population ~165,100 by 2050 (~129,900 in 2010)
- Large contractual use increase of ~3,000 acre-feet/year by 2050



# Storage Projects

- 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. enlargement or similar)

# Gravel Pit Storage

- Pursuing around 2,000-2,500 acre-feet
- Rigden Reservoir
  - In construction; completion in early 2015
  - Approximately 1,900 acre-feet of storage
    - 1,700 for Utilities, 200 for Natural Areas






Drake Water  
Reclamation Facility



Horsetooth Road

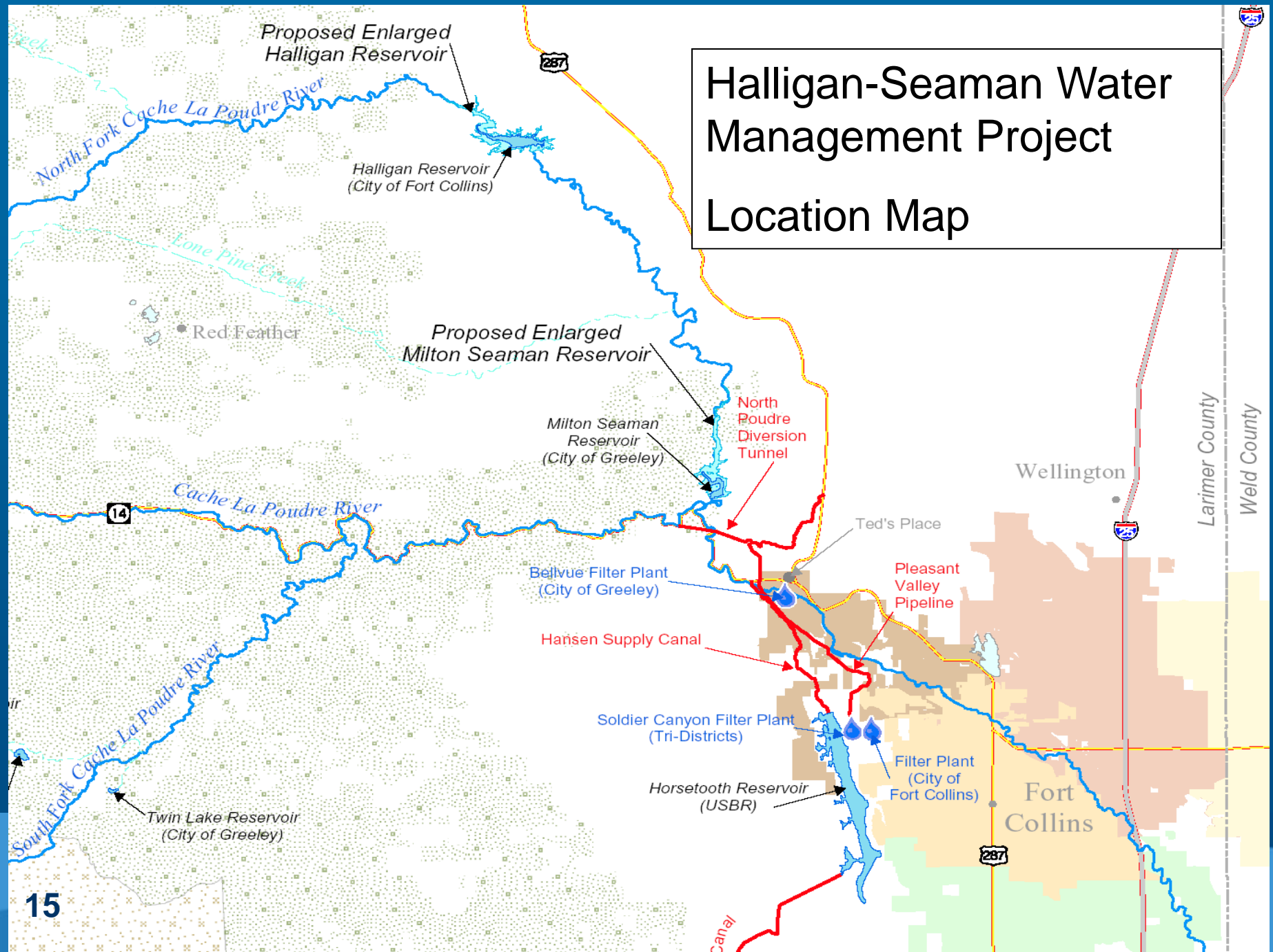
# Halligan Reservoir Enlargement

- Existing reservoir on the North Fork of the Poudre River
- 
- Enlarged from 6,500 to ~14,500 acre-feet
    - Existing size (NPIC) ~6,500 acre-feet
    - Fort Collins Enlarged ~8,100 acre-feet



# Halligan-Seaman Water Management Project

## Location Map





# Quality

# Quality

- Water Treatment Plant
  - Maintains high water quality
  - Blends supplies to meet water quality goals
  - Wins national awards





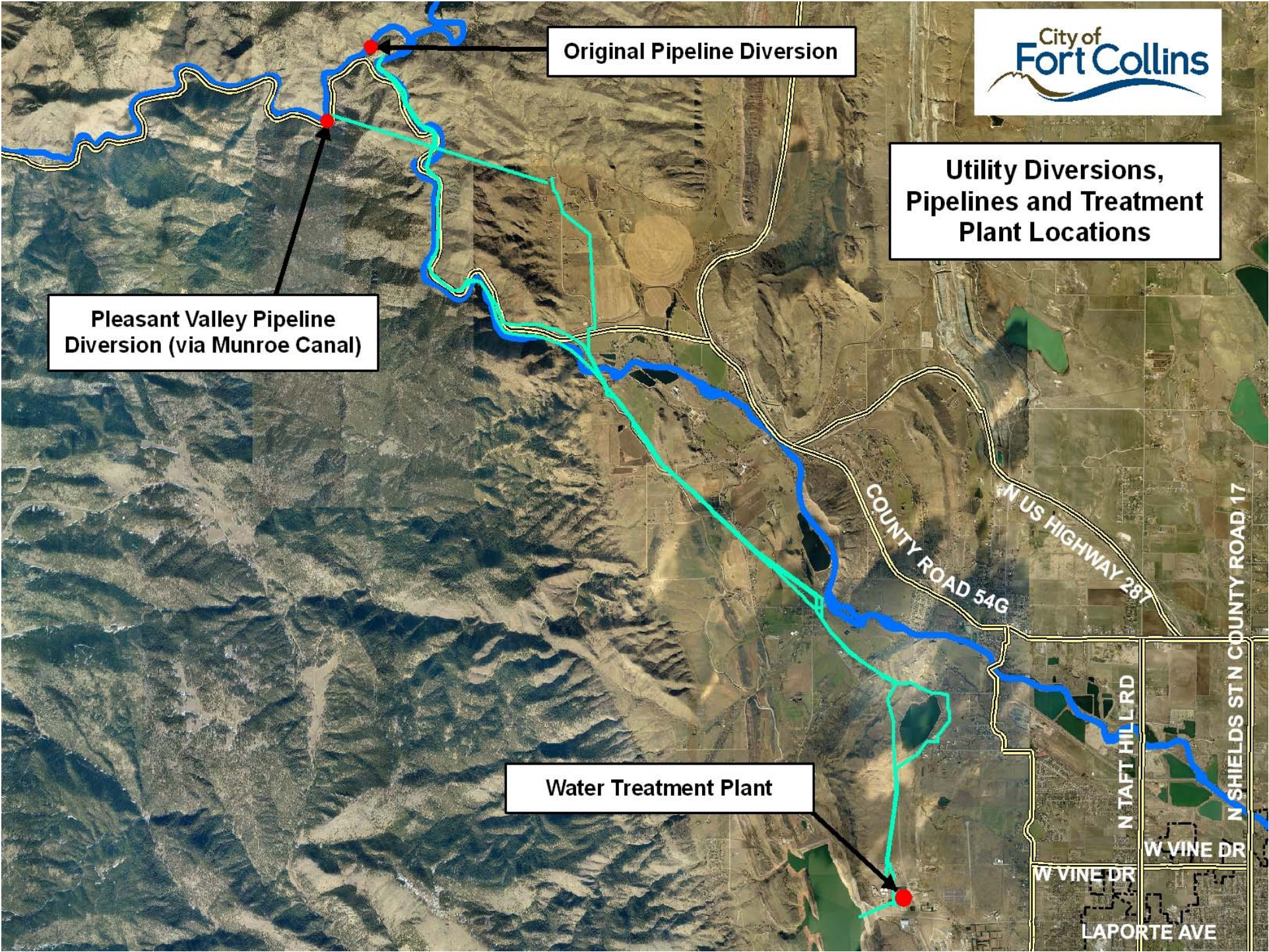


**Original Pipeline Diversion**

**Utility Diversions,  
Pipelines and Treatment  
Plant Locations**

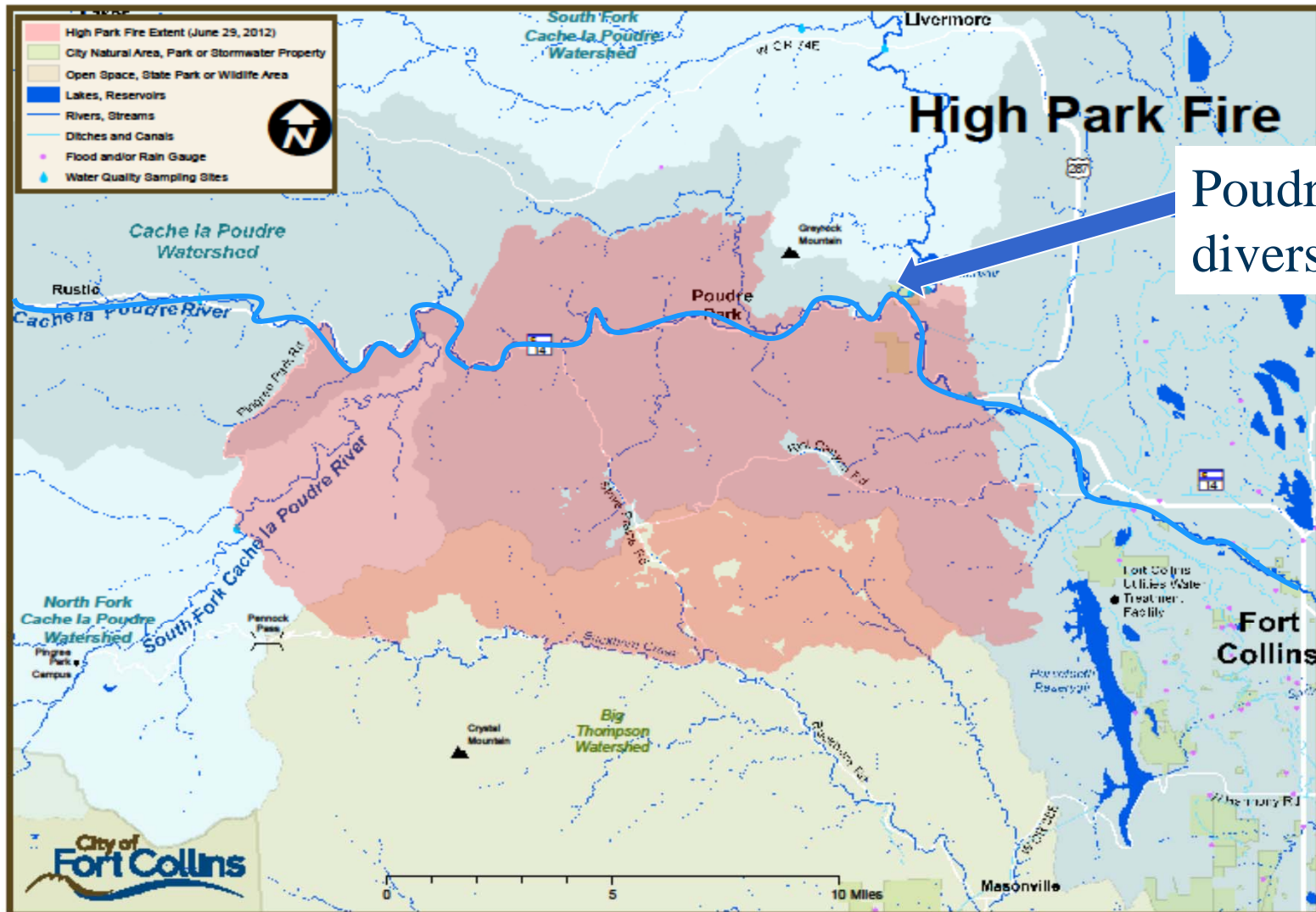
**Pleasant Valley Pipeline  
Diversion (via Munroe Canal)**

**Water Treatment Plant**





# Poudre Water Supply

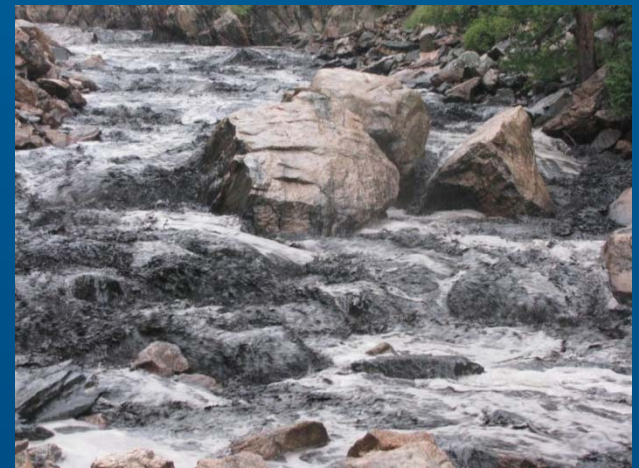


## Poudre diversion



# Quality

- Fire impacts impaired Poudre River
  - No river water for ~3 months
- Turbid water difficult/impossible to treat





# Quality

- Mitigation of burn area
  - Seed/mulch operations
  - NRCS funding
- Increase ability to treat Poudre
  - Monitoring systems
  - Pre-sedimentation basin
  - Process modification





# Quality

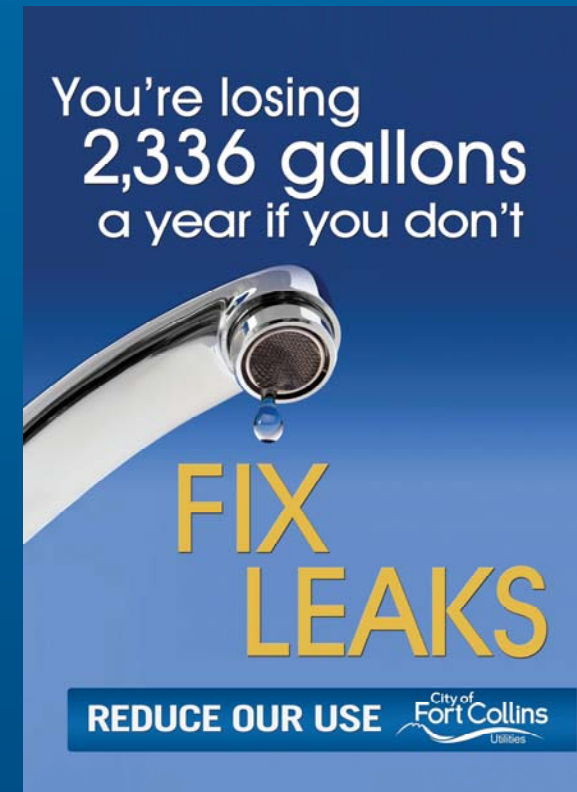
- Sep 2013 rain
- WY2014 snowpack
- Flushing flows
- Improved



# Conservation

# Water Conservation

- Normalized GPCD has dropped
  - Approx 25% lower since 2003



# Water Conservation Plan

- Approved by CWCB in 2010
- Water use efficiency goal: 140 gpcd by 2020
- Specific measures
- Council approved budget for new measures



**Water Conservation Plan**

February 12, 2009

Prepared by:  
Peter Mayer, Aquacraft, Inc.  
Laurie D'Audney & Dennis Bode, Fort Collins Utilities



# Rebates and Retrofits

- 2,294 residential rebates
- 56 commercial rebates
- 275 household retrofits by Larimer County Conservation Corps
- 74 Garden-in-a-Box sold
- Water & energy conservation kits distributed
- Hose nozzle giveaways



# Audits and Assessments

- 407 sprinkler system audits for homes and HOAs
- 683 home efficiency audits analyzed a home's energy and water use
- 268 commercial facility water and energy assessments
- 53 pre-rinse spray nozzles and 365 faucet aerators to commercial kitchens





# Education

- 3 all-day Poudre Watershed tours
- Xeriscape programs: High Plains Landscape Workshop, REPS, Garden Party
- Sprinkler system workshops, daily lawn watering guide





# Summary

- Monitor supplies, demands and plan for the future
- Fire impacts may persist for several years
- As always, advocate for the wise use of water by continuing community's conservation ethic

Questions?