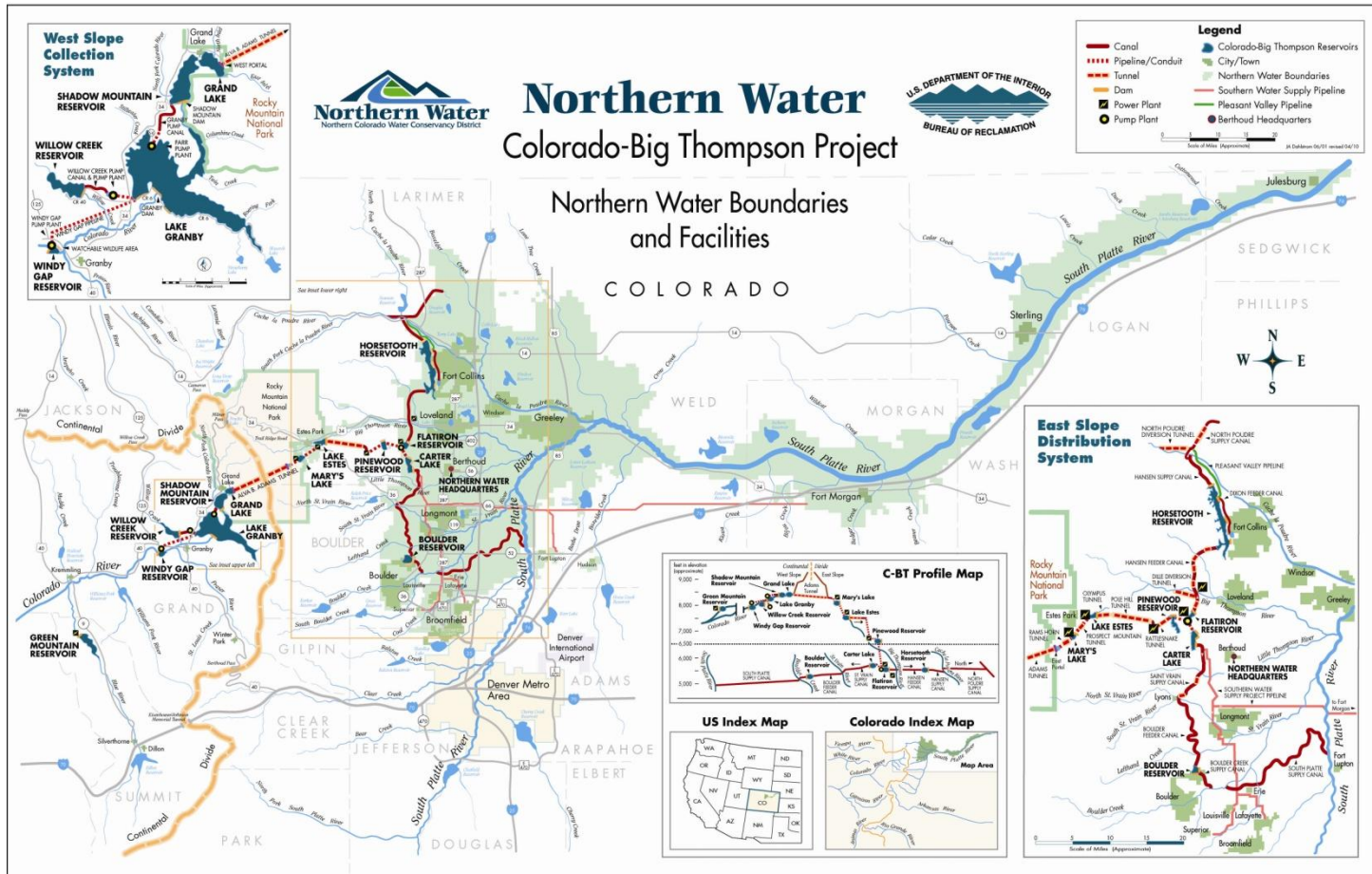


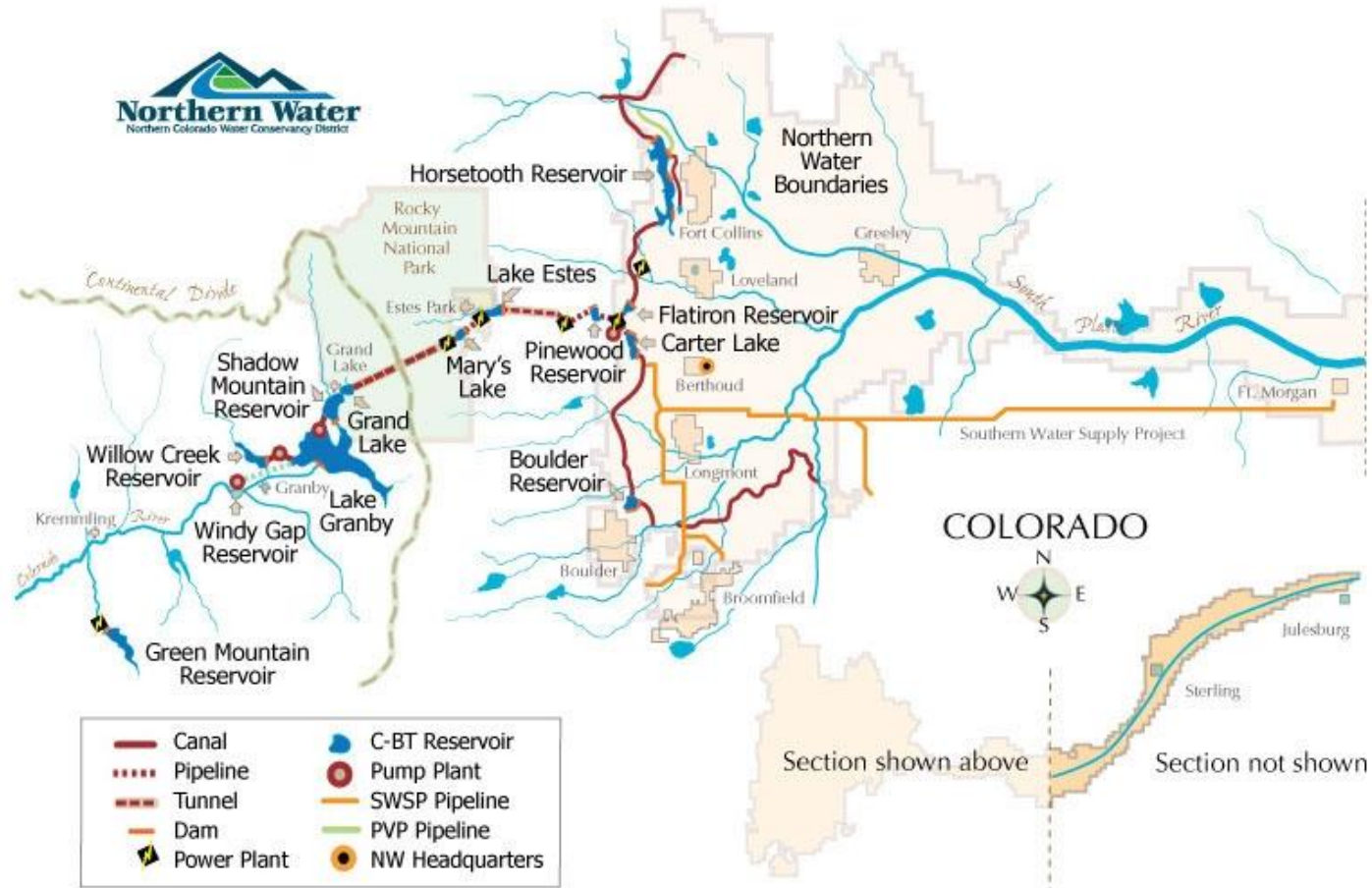
# NORTHERN WATER'S ROLE IN FUTURE WATER SUPPLY PLANNING

Colorado Environmental Health Association  
September 30, 2011

# Northern Water



# Northern Water: Colorado-Big Thompson Project



# Evolution of the Region

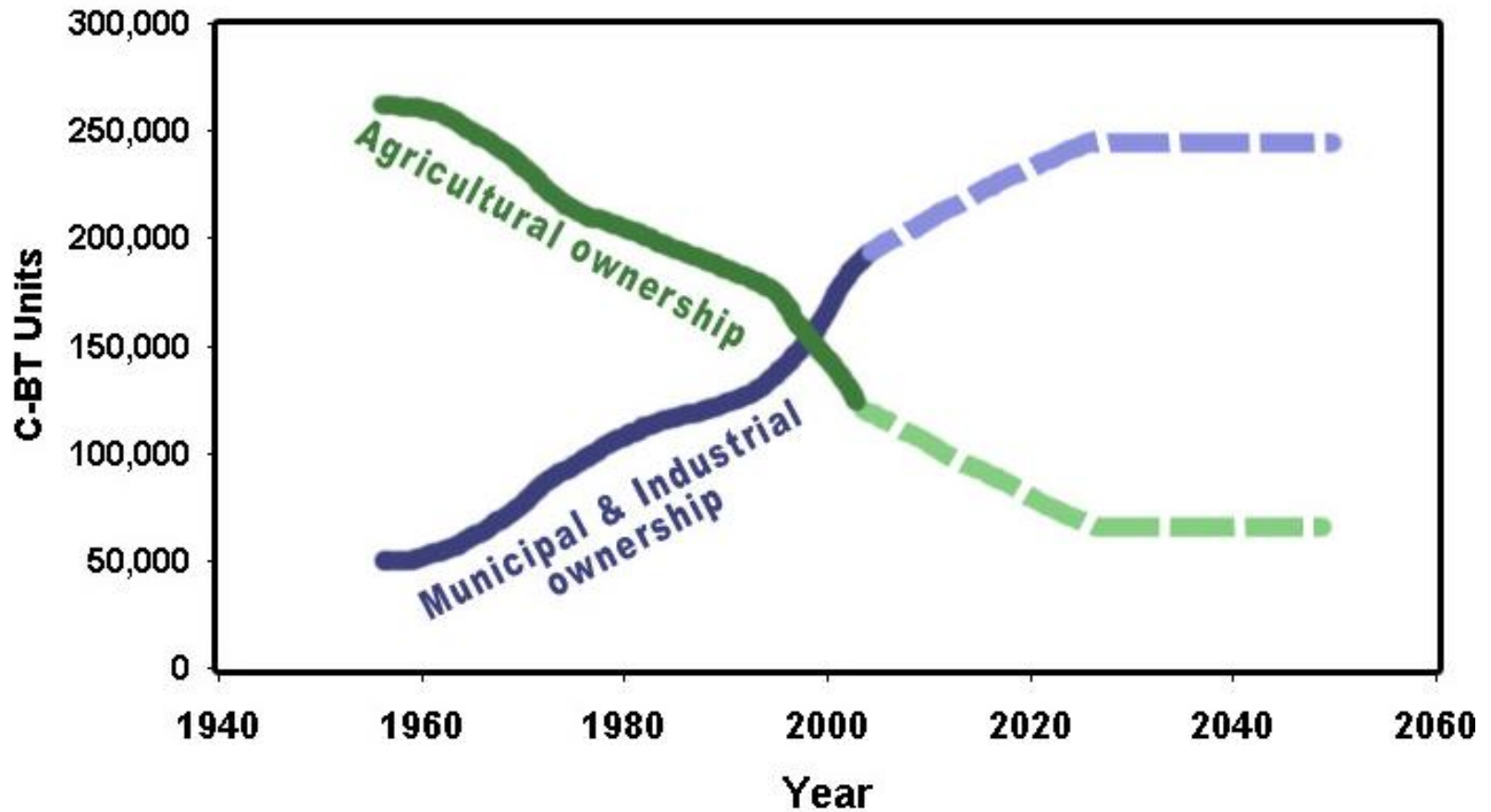
- 1957 population - 150,000
- 2011 population - 850,000
  
- C-BT deliveries
  - 1957 - 98% Ag, 2% M & I
  - 2011 - 67% Ag, 33% M & I

# Changes in C-BT water ownership

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- 1957 85% farmers, 15% cities/industry
- 2011 34% farmers, 66% cities/industry
- C-BT window is closing

# Colorado-Big Thompson Ownership



# Growth



- Region keeps growing
  - ▣ 3 of 5 fastest growing Colorado cities
  - ▣ Along northern Front Range

# Future water supplies

- Statewide Water Supply Investigation
  - 2004 - identified needs to 2030
  - 2010 - identified needs to 2050
  
- Significant gaps statewide and within S. Platte Basin
  - Statewide - 190,000 to 630,000 af
  - S. Platte Basin – 36,000 to 170,000 af

# Solutions



- No silver bullet
- Portfolio
  - ▣ Conservation
  - ▣ Ag transfers (dryup)
  - ▣ Colorado River Basin supplies
  - ▣ New projects

# Windy Gap Firming Project

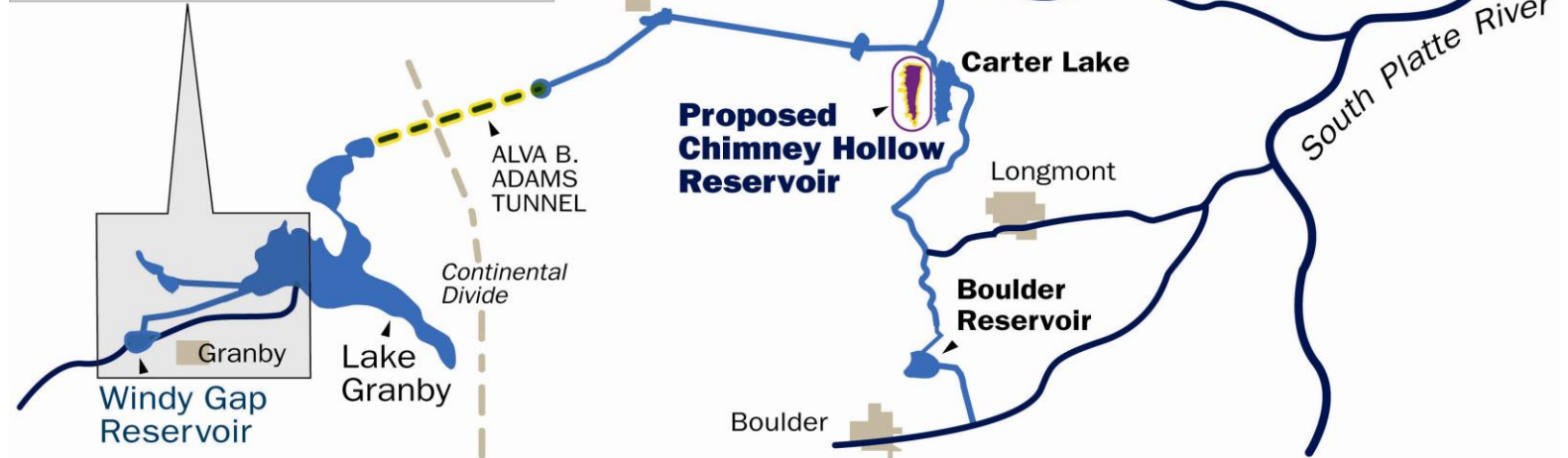
# Windy Gap Project

- Operational 1985; 1 reservoir, 1 pumping plant
- Reliable annual yield: Zero
  - ▣ Junior water right, lack of storage

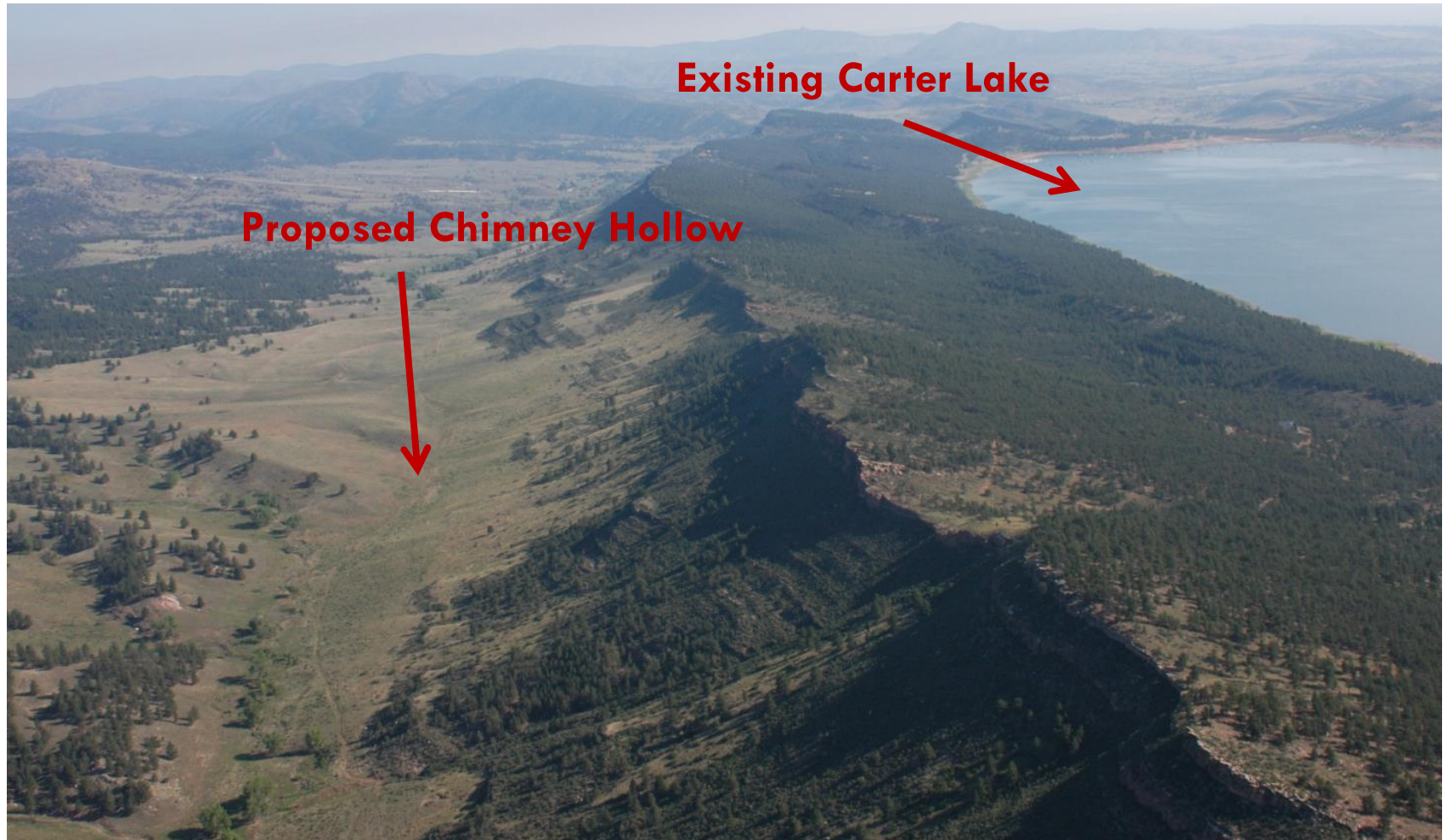


# Windy Gap FIRMING Project Proposal

## Windy Gap FIRMING Project

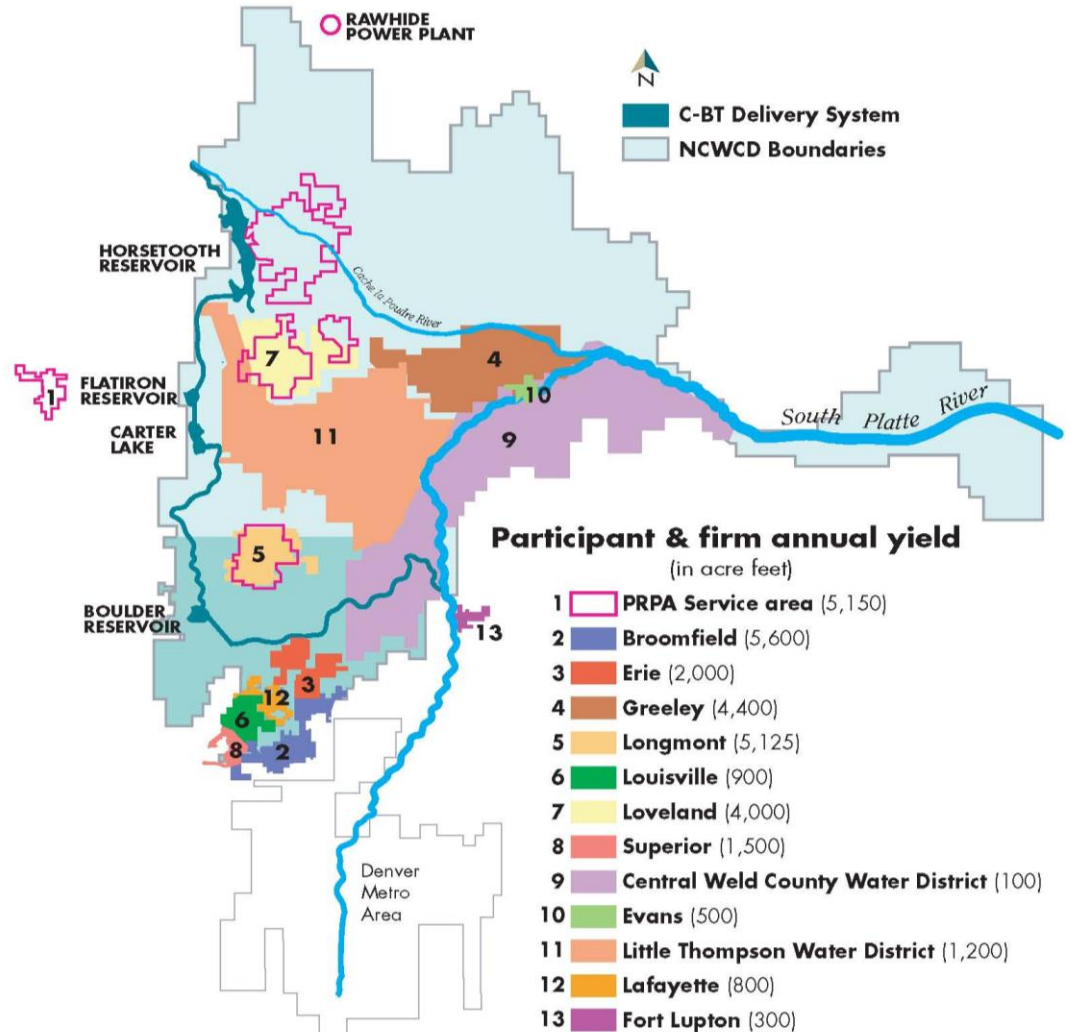


# Chimney Hollow Reservoir Site



# Windy Gap Firming Participants

- ▶ 10 cities/towns
- ▶ 2 water districts
- ▶ 1 power provider



# Windy Gap Firming Project

- 30,000 AF/yr yield
- Construction of Chimney Hollow Reservoir
  - ▣ Storage for Windy Gap water
    - 90,000 AF capacity, 740 surface acres
  - ▣ West of Carter Lake
- Estimated cost \$270 million
  - ▣ \$9 million spent so far

# Federal: NEPA

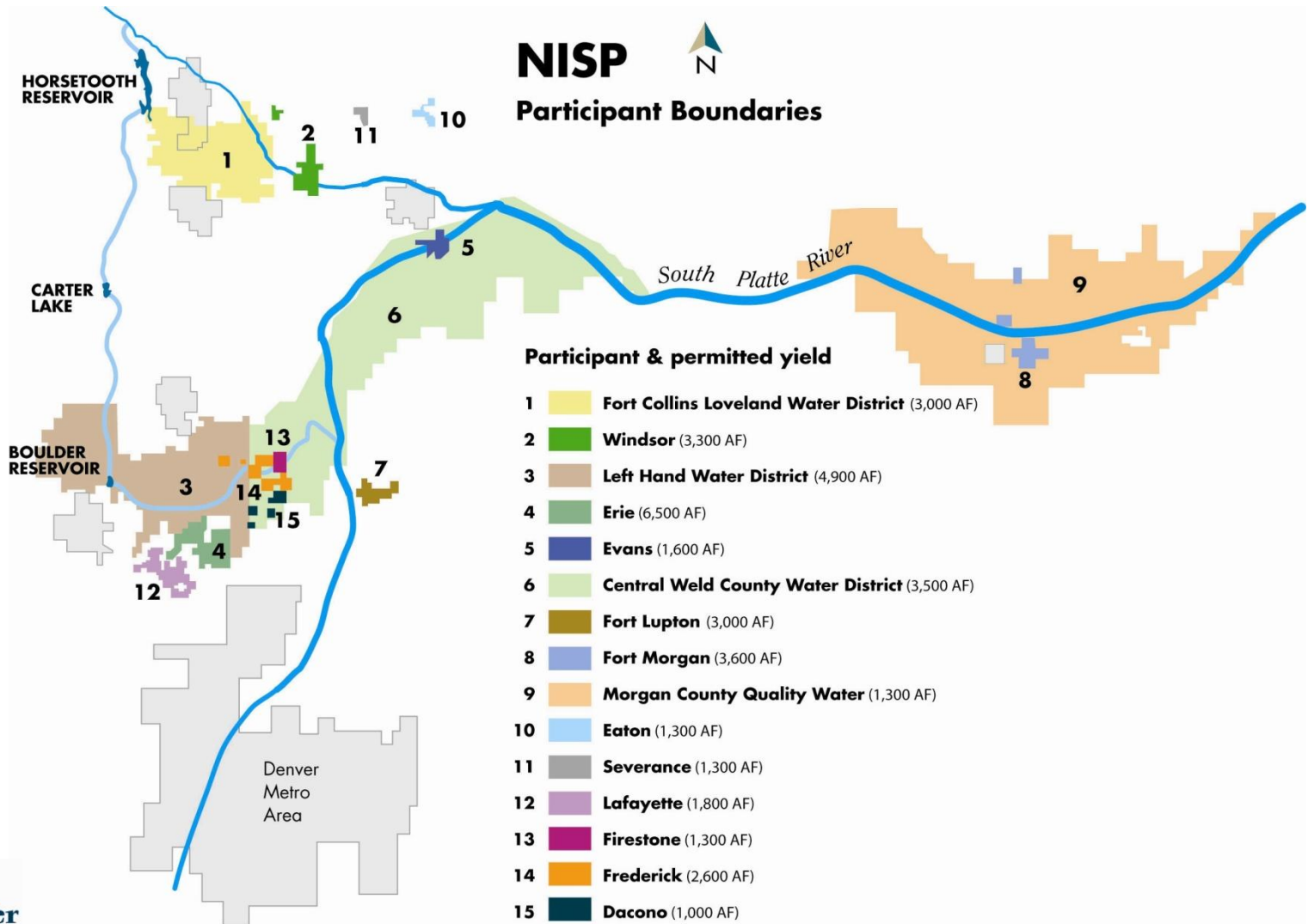
- Started: 2003
- Draft Environmental Impact Statement: 2008
- Anticipated
  - ▣ 2011: Final EIS release
  - ▣ 2012: Decision
  - ▣ 2017: Built, operational



# Northern Integrated Supply Project



# NISP: Participant-Driven

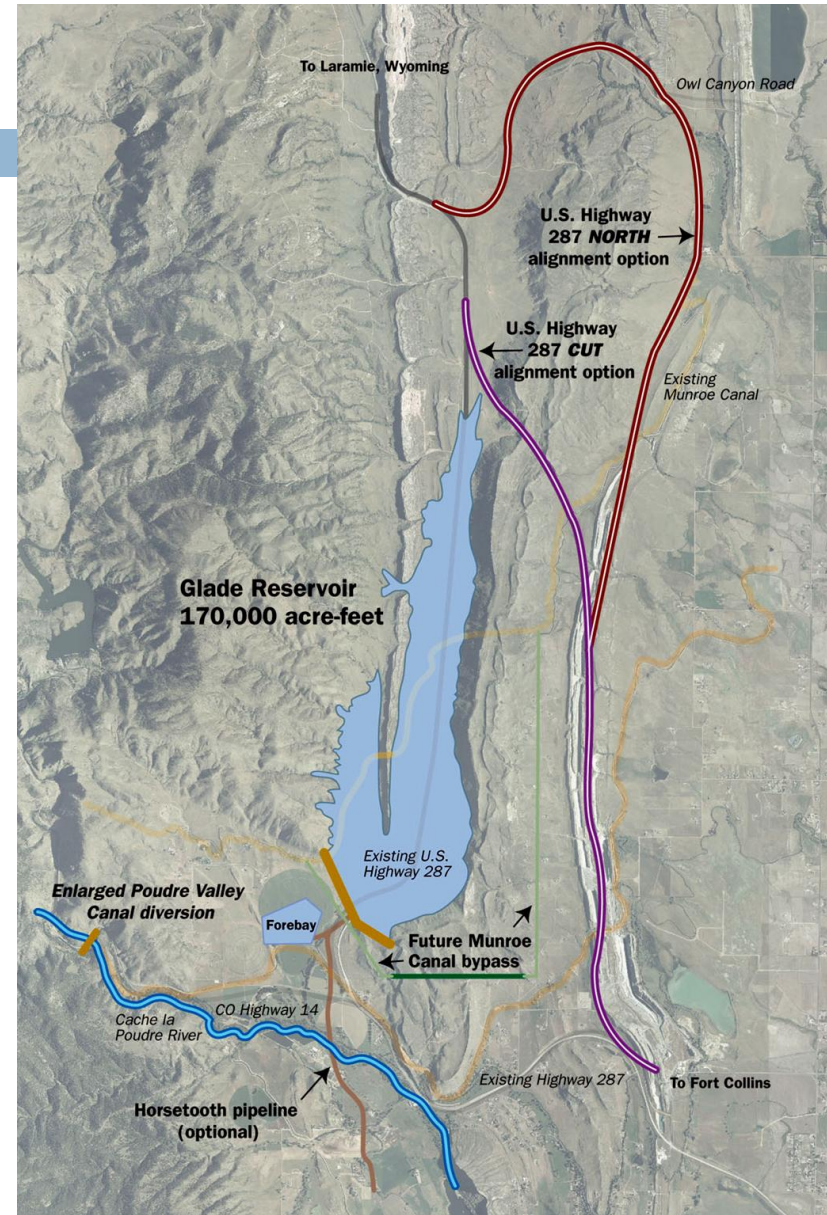


# NISP Proposal

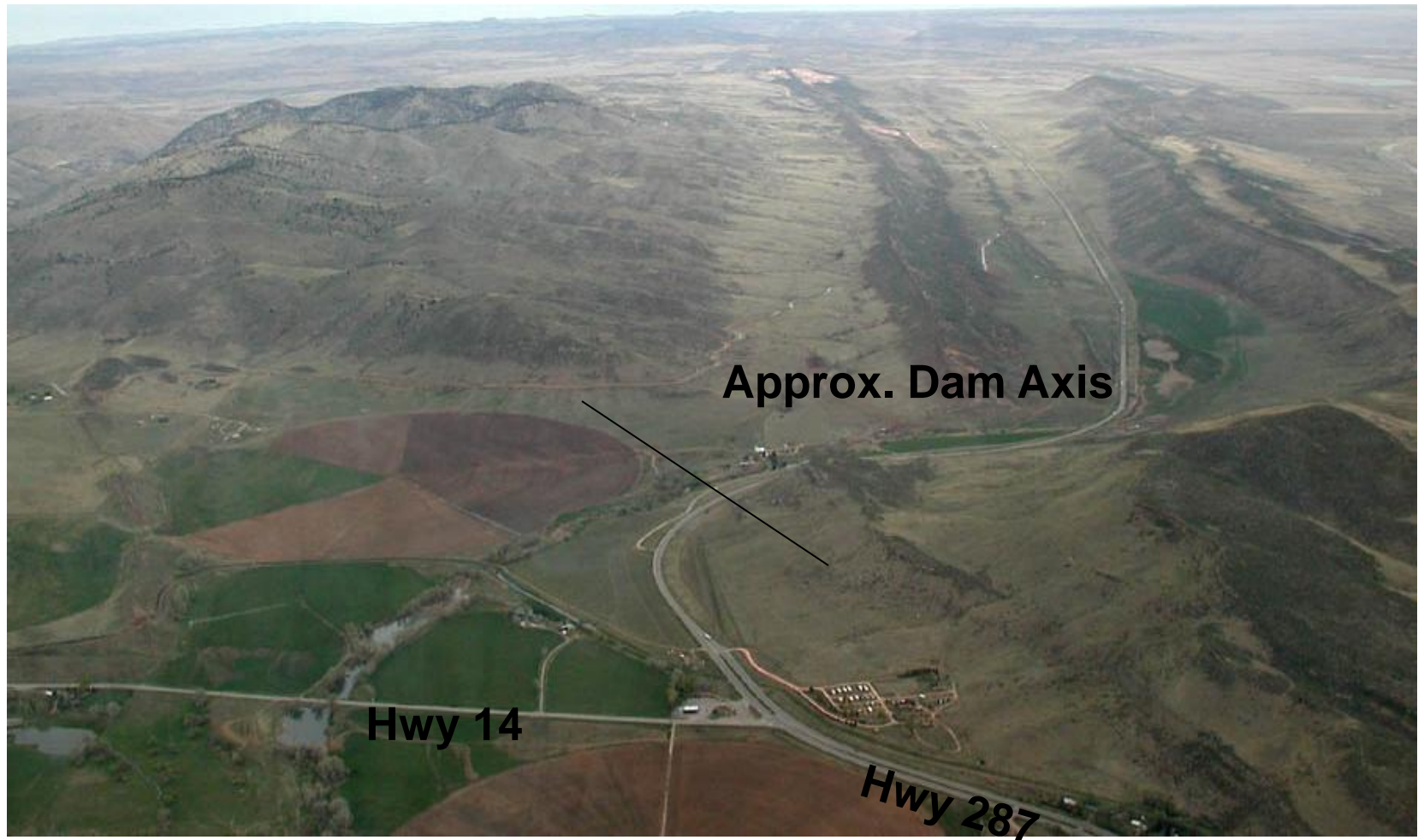
- 40,000 AF new yield
- Glade Reservoir complex
- South Platte Water Conservation Project (Galeton)
- Total Cost \$490 Million
  - ▣ \$10 million spent so far
- Junior water rights
  - ▣ Poudre & South Platte

# Glade Reservoir

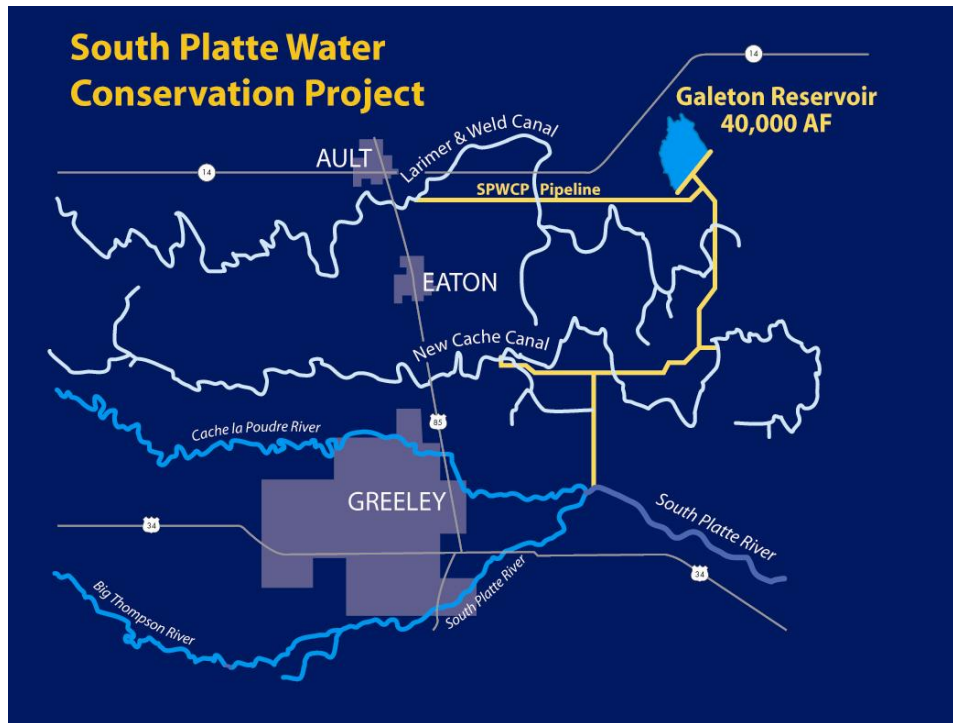
- 170,000 AF storage
- 1,700 AF surface acres
- 260 feet deep, 5 miles long
- 1,000 cfs Poudre River diversion using existing Poudre Valley Canal
- 30,000 hp pump station
- Relocate Munroe Canal
- Relocate Highway 287



# Glade Reservoir Site



# SPWCP Details



- 45,600 AF Galeton Reservoir
- 200 cfs diversion from South Platte
- 30 miles of pipeline
- 16,000 hp pumping
- Deliveries to New Cache, Larimer & Weld
- Average yield 27,000 AF/year

# NISP Goal

- Store a small portion of water currently leaving Colorado and the S. Platte basin in wet years
  - ▣ 2009: 300,000 AF
  - ▣ 2010: 680,000 AF
  - ▣ 2011: 300,000 AF



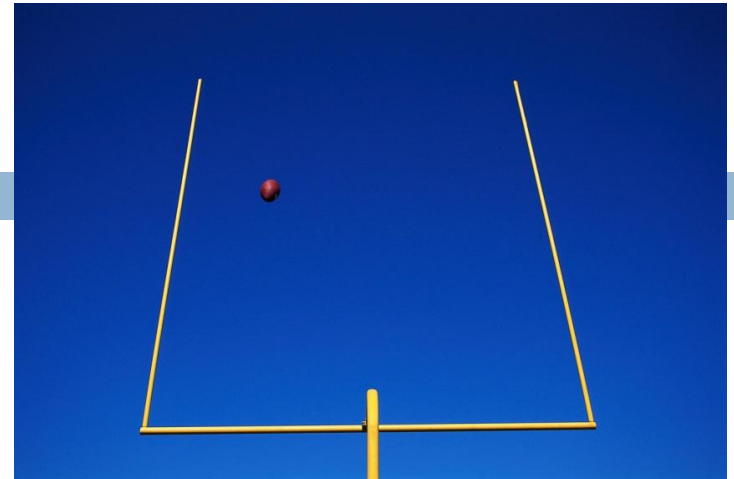
# Glade Diversions

- Glade could have diverted:
  - 2009: 36,000 AF
  - 2010: 80,000 AF
  - 2011: 77,000 AF
  
- Both reservoirs would be full



# NEPA

- Started: Feb. 2004
- Draft EIS: April 2008
- Started Supplemental DEIS: Feb. 2009
- Anticipated
  - ▣ Supplemental DEIS release: 2012
  - ▣ Decision: 2013



# Questions?

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(970) 622-2229

[www.northernwater.org](http://www.northernwater.org)

[www.gladereservoir.org](http://www.gladereservoir.org)

[www.chimneyhollow.org](http://www.chimneyhollow.org)