



Town of Erie
Water Rights and Water Supply Projects
Study Session
February 2025



- 
- Water Law – Basic Concepts
 - First in time is first in right
 - Priority System
 - Transmountain Water/Reuse

 - Units of Measure
 - Acre Foot (AF) = 325,851 gallons
 - Cubic Foot per second (cfs) = 448 gallons/minute
 - Single Family Equivalent (SFE)
 - Single Family Home on <math><7,000\text{ ft}^2\text{ Lot}</math> = 1 SFE.
 - Indoor Use = 0.5 SFE per dwelling unit
 - Outdoor Use = varies by lot size

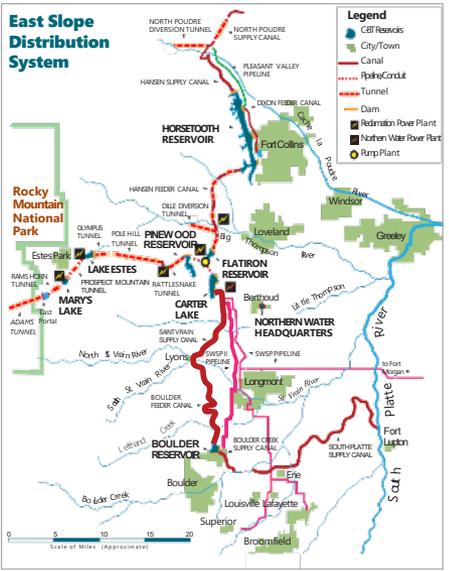
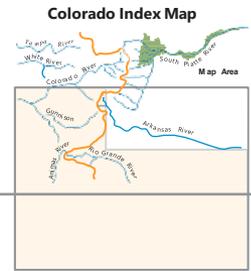
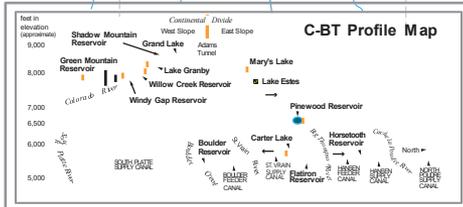
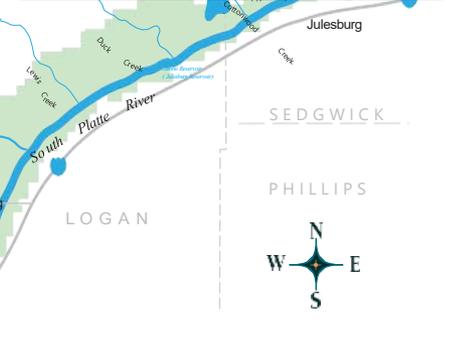
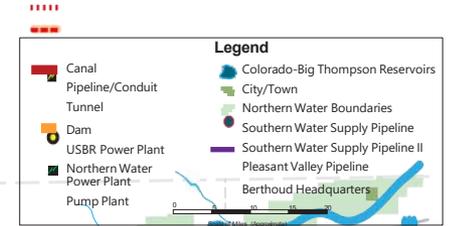
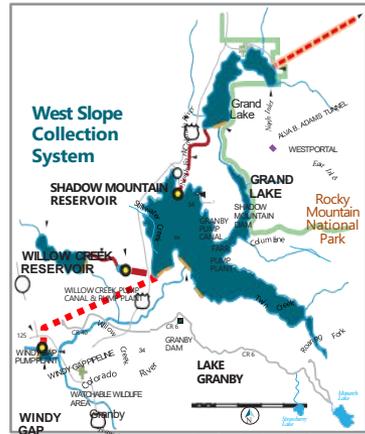


Northern Water

Colorado-Big Thompson Project



Northern Water Boundaries and Facilities



2024 Erie Water Use

- Water Service 2024
 - 13,228 Active Taps
 - Approximately 38,000 – 40,000 People
- Total Water Use 2024= 6,100 AF
 - Per Capita Usage has decreased with water conservation; Town has a State-approved Water Conservation Plan

Future Demand

- Total raw water demand depends on growth
- Town Growth Rate:
 - 2022: 6.7%
 - 2023: 5.8%
 - 2024: 9.1%
- Total Demand could be as high as:
 - 13,700 AF for population of 80,000
 - 17,100 AF for population of 100,000
- Approximately 500 AF will be met by re-use/ditch water for non-potable irrigation of parks, open space, etc.



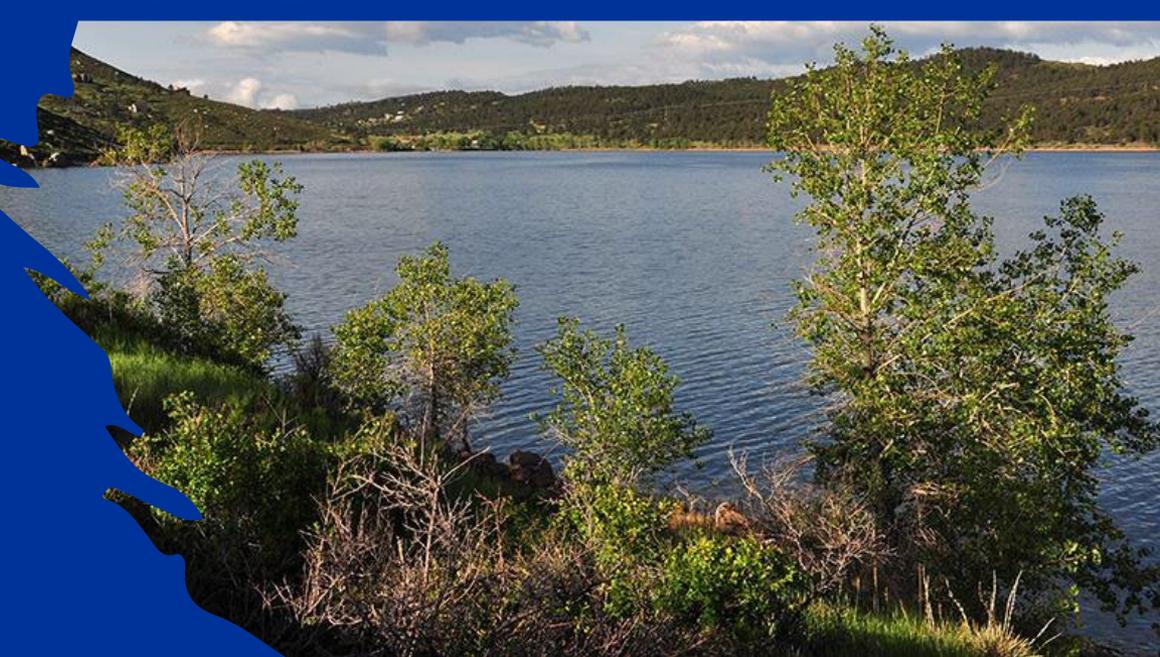
Current and Future Water Supply

- Current
 - CBT Water
 - Windy Gap Water
(not yet firm supply)
 - Native Water Rights
(Mostly nonpotable irrigation)
- Future
 - Windy Gap Firming Project
 - Boulder Creek Project
 - Filly Lake Project
 - Northern Integrated Supply Project (NISP)



CBT Water

- Town owns 7,382 CBT Units
- Town leases 955 CBT Units
- Average acquisition price of Town's CBT Water: \$8,680/Unit
 - \$64,075,760 Total
- Current price of CBT Water: \$70,000/Unit or \$116,667/AF
 - \$516,740,000 Current Value



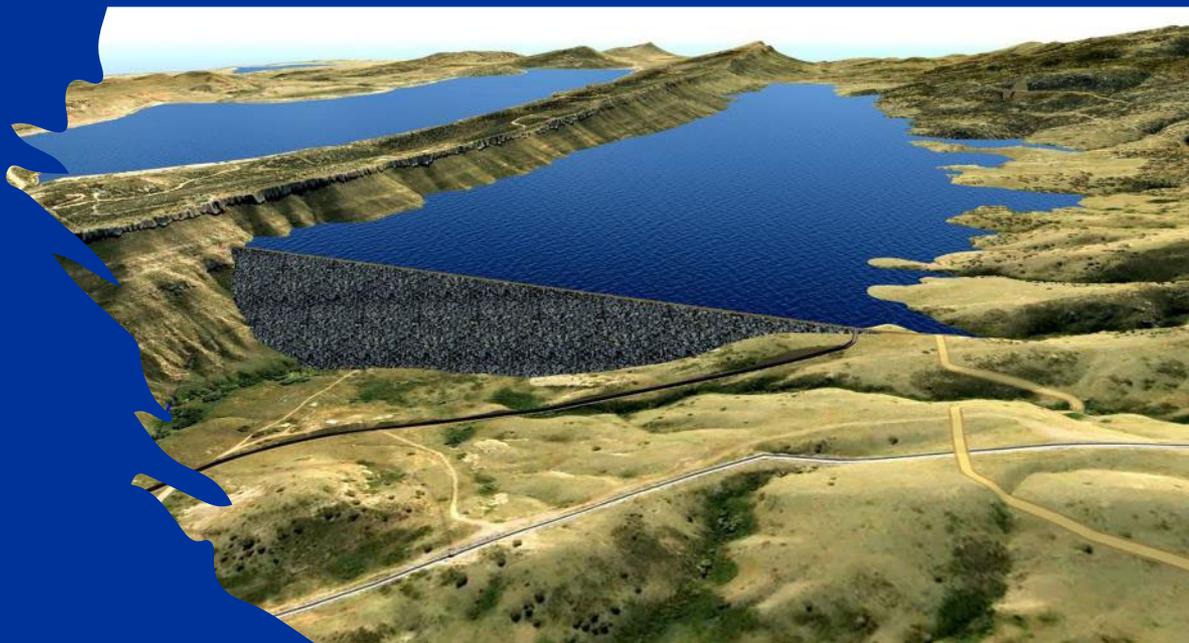
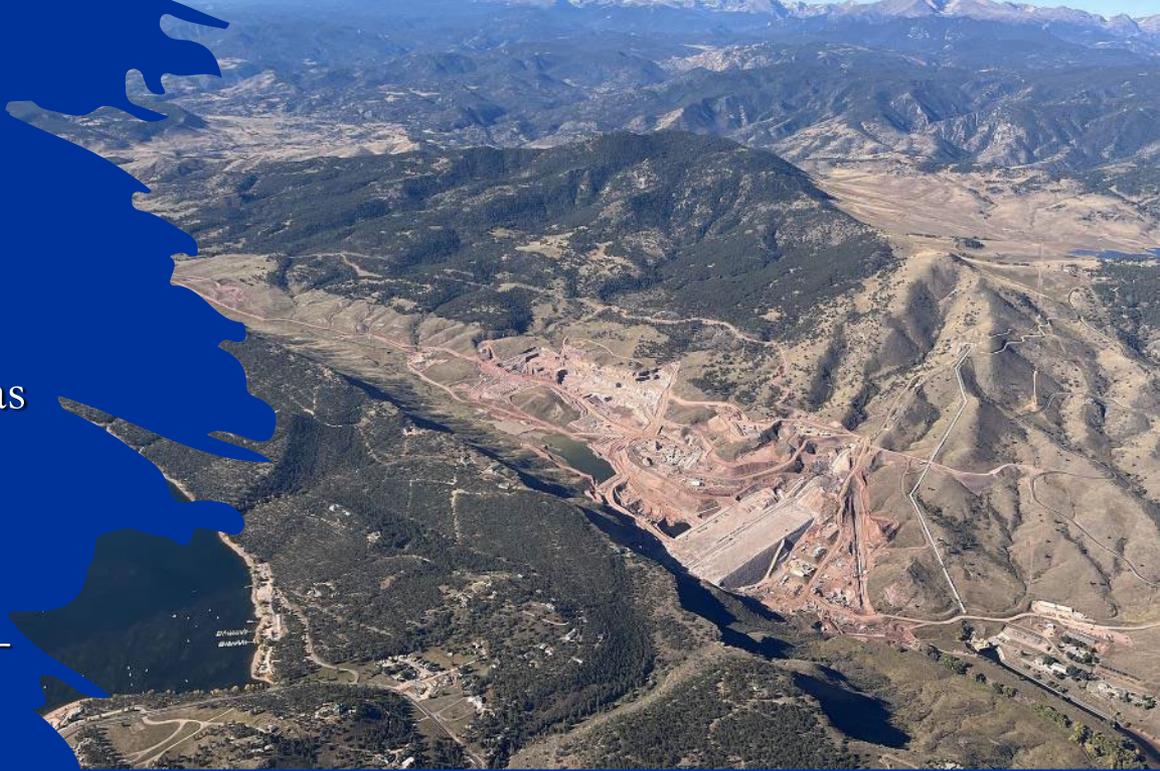


Windy Gap Project

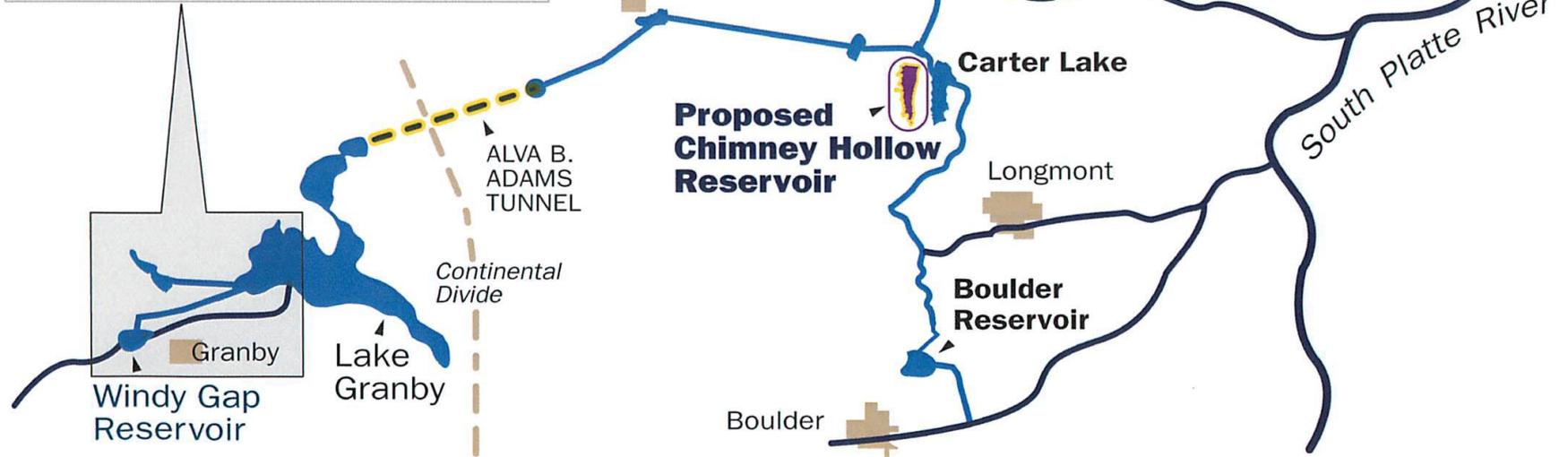
- Town owns 20 Windy Gap Units
- Windy Gap water is reusable; makes Boulder Creek Project possible
- Windy Gap yields have been unreliable
 - Limitations in dry years due to water rights priorities
 - Limitations in wet years based upon storage capacities in CBT system
- A project to firm the yield of the Windy Gap Project has always been contemplated

Windy Gap Firming Project

- Windy Gap Firming Project has been pursued since 2001
- Will be comprised of a large reservoir to store water in average and above average run-off years
- 12 participants:
 - Erie
 - Lafayette
 - Superior
 - Louisville
 - Longmont
 - Central Weld County Water District
 - Little Thompson Water District
 - Platte River Power Authority
 - Broomfield
 - Loveland
 - Greeley
 - Fort Lupton



Windy Gap Firming Project



Windy Gap Firming Project - Current Status

- Reservoir construction started in August 2021
- Construction is approx. 2 weeks ahead of schedule
- First reservoir fill planned for August 2025
 - 3 years for first fill



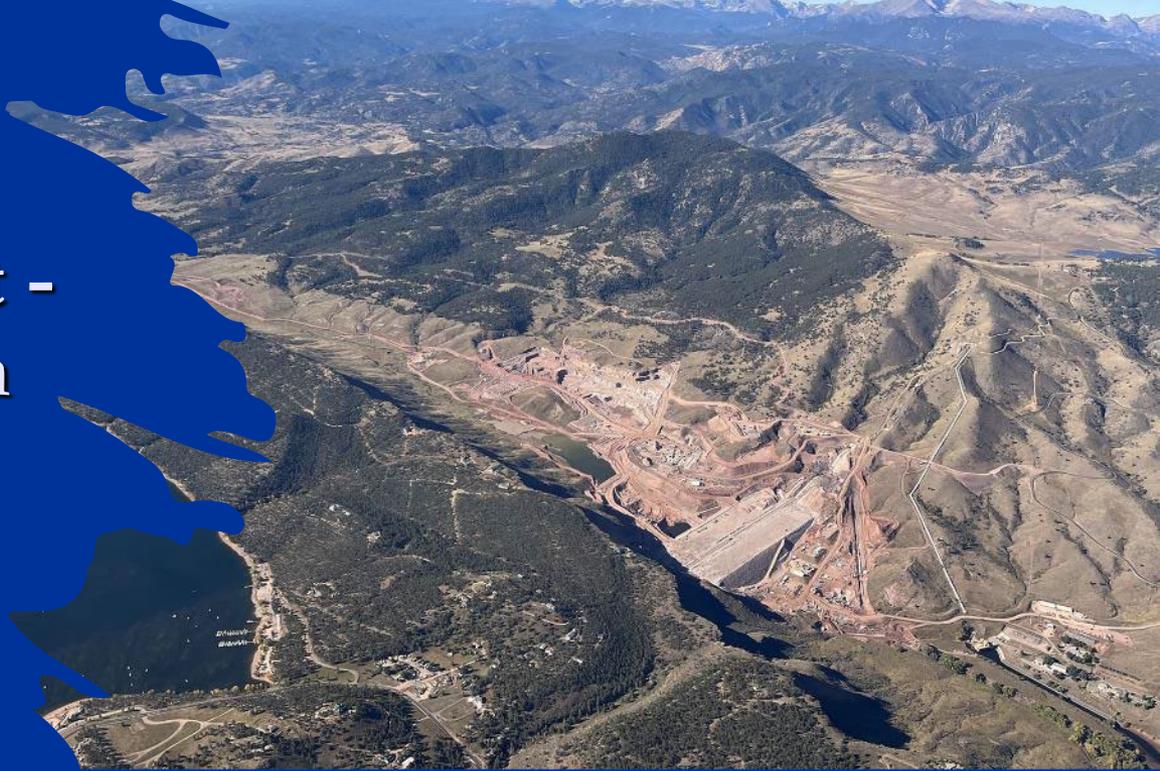


Windy Gap Firming Project - Environmental Mitigation

- Improvements at Fraser Wastewater Treatment Plant
- Guaranteed Minimum Streamflows
- Restrictions on Pumping Based on Temperature
- Connectivity Channel at Windy Gap Reservoir
- IGA with Larimer County for Recreation
- Stream Habitat Improvements
- Nutrient Reduction Measures
- Contributions to Endowment Fund of the Upper Colorado River Wild and Scenic Stakeholder Group
- RESULT: Support for the Project by Grand County, Colorado Water Conservation District, Environmental Groups, and others

Windy Gap Project - Erie Participation

- Town currently owns 20 Windy Gap Units
- Erie's Windy Gap Firming Project Participation Level of 6,000 AF will firm the yield of the Town's 20 Units
- Ultimate firm yield of 20 Units = 2,000 AF
 - Approx. 4,200 new water taps



Boulder Creek Project

- Comprised of up to 6 horizontal wells and the existing 1,000 AF NWRP Reservoir
- Water rights for and augmentation plan using the NWRP reservoir for storage
- Augmentation water sources are Windy Gap Reuse Water and in-priority diversions from the wells
- Plan has been approved by Water Court
- First wells are being completed
- NWRP Water Treatment Plant design is ongoing, pilot project in 2025



Boulder Creek Project Benefits

- New physical source of water for the Town
- Maximizes the use of Town's water rights
- Reduces diversions from stream systems-environmentally sound
- Relatively low cost
- Town controls the project
- Short time frame to complete the project





Filly Lake Well Project

- Horizontal Well adjacent to NWRP Site
- Water Rights
 - Junior water right for the Filly Lake Well
 - Augmentation plan
 - Change of senior water rights (to provide augmentation water for well depletions)



Filly Lake Well Project - Benefits

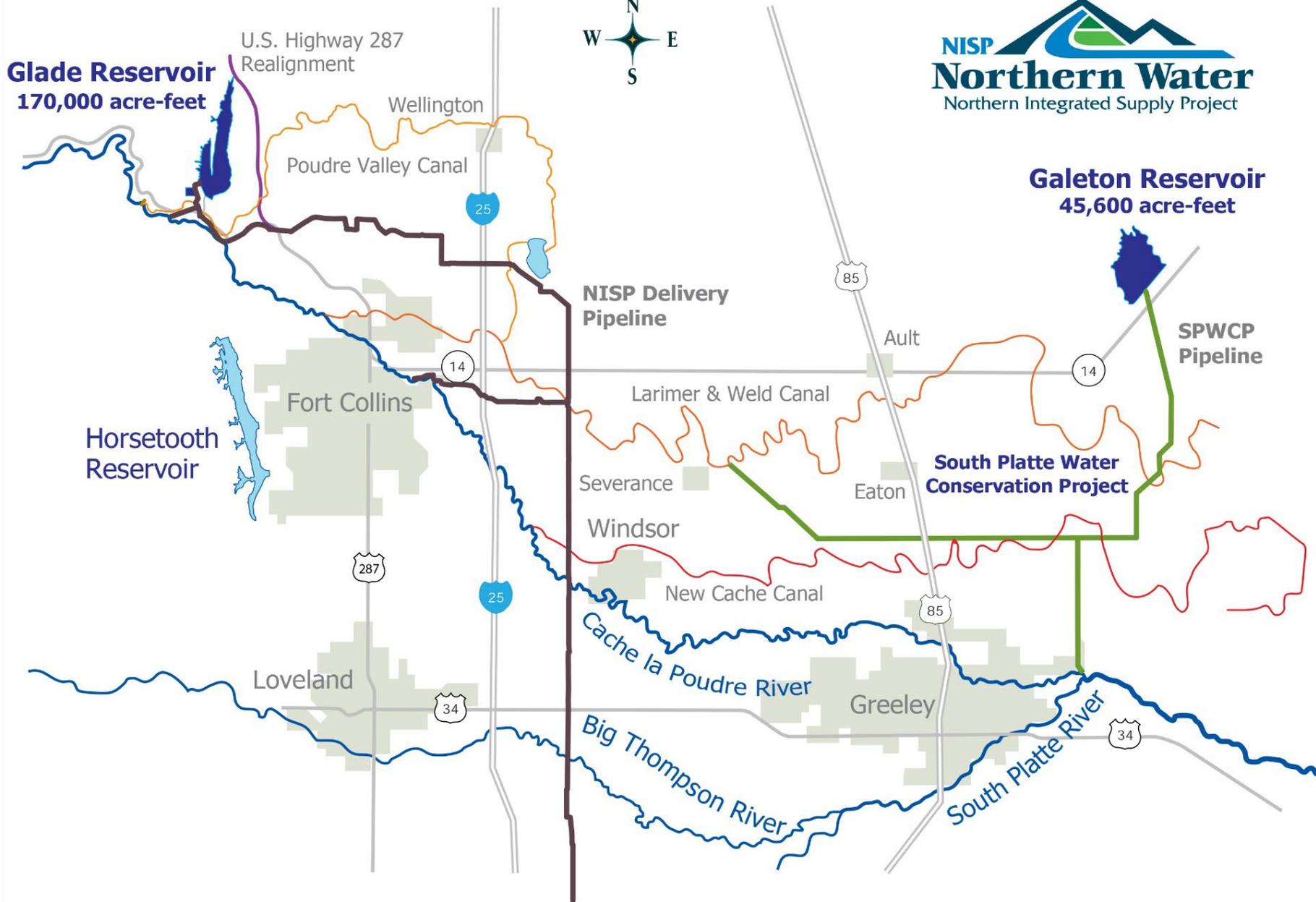
- New physical source of water for the Town
- Integrates well with NWRP facilities
- Reduces diversions from stream systems-
environmentally sound
- Relatively low cost
- Short time frame to complete the project

Glade Reservoir
170,000 acre-feet

U.S. Highway 287
Realignment



Galeton Reservoir
45,600 acre-feet



Horsetooth
Reservoir

**NISP Delivery
Pipeline**

**SPWCP
Pipeline**

**South Platte Water
Conservation Project**

Fort Collins

Larimer & Weld Canal

Severance

Windsor

New Cache Canal

Cache la Poudre River

Big Thompson River

South Platte River

Loveland

Greeley

Wellington

Poudre Valley Canal

Ault

85

25

14

14

287

25

85

34

34

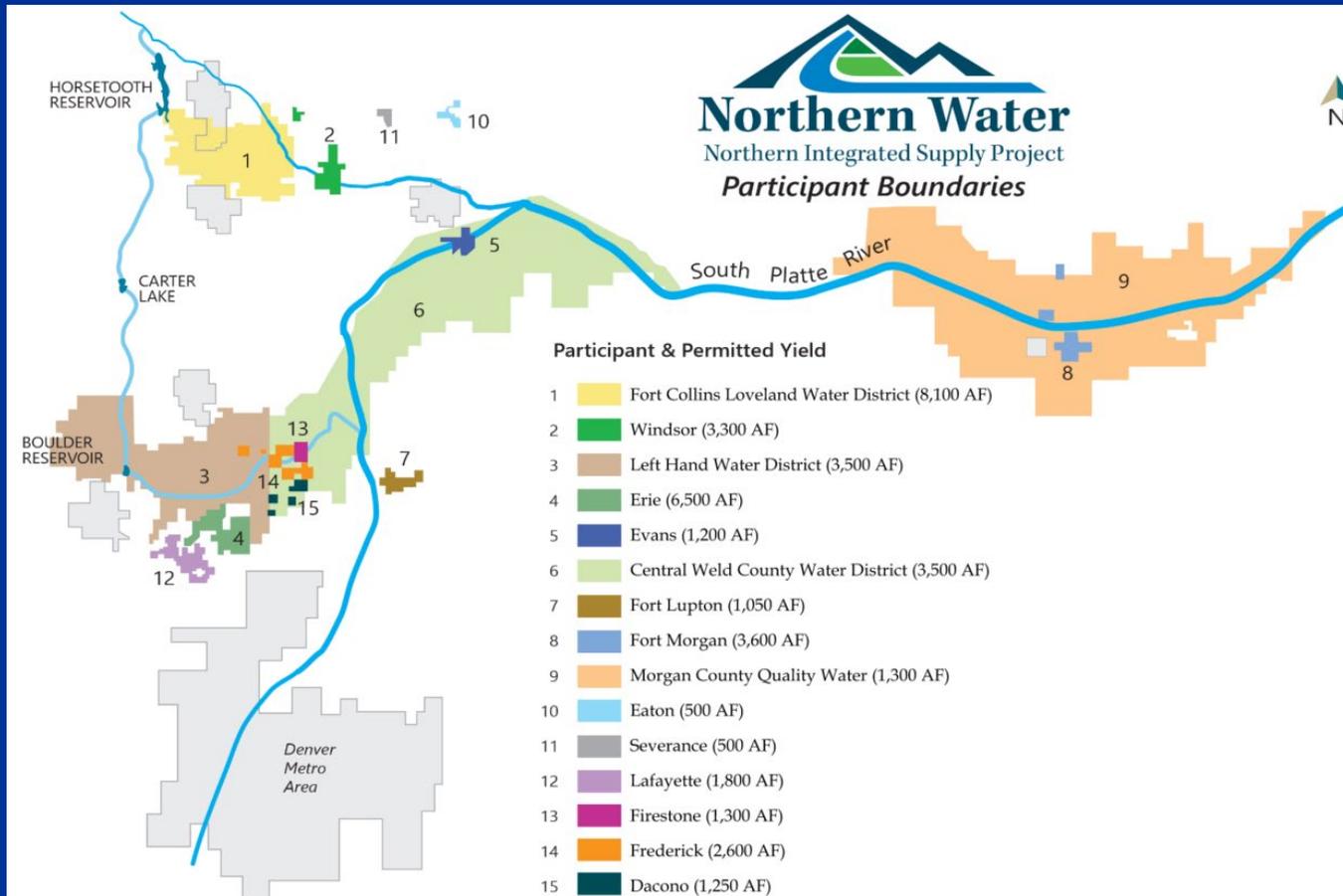
NISP at a Glance

- 40,000 AF of firm yield per Year
- 2 New Reservoirs (Glade and Galeton)
- 80 Miles of Pipelines
- 7 Miles of Highway 287 Relocation
- Paid for by 15 Participants
- Coordinated, managed, and eventually operated by Northern Colorado Water Conservancy District
- New recreational amenities – Larimer County Recreation Plan

Why NISP?

Final Environmental Impact Statement Purpose & Need

To provide the Project Participants with approximately 40,000 acre-feet of new reliable municipal water supply annually through a regional project coordinated by the District, which will meet a portion of the Participants' current and reasonably projected future additional water supply needs.



NISP

- NISP has been pursued since 2003
- Erie participation: 6,500 A.F.
- 15 Participants:
 - Erie Severance Ft. Lupton
 - Firestone Frederick Dacono
 - Eaton Lafayette Evans
 - Windsor Ft. Morgan
 - Left Hand Water District
 - Central Weld County Water District
 - Morgan County Quality Water
 - Ft. Collins/Loveland Water District



NISP - Current Status

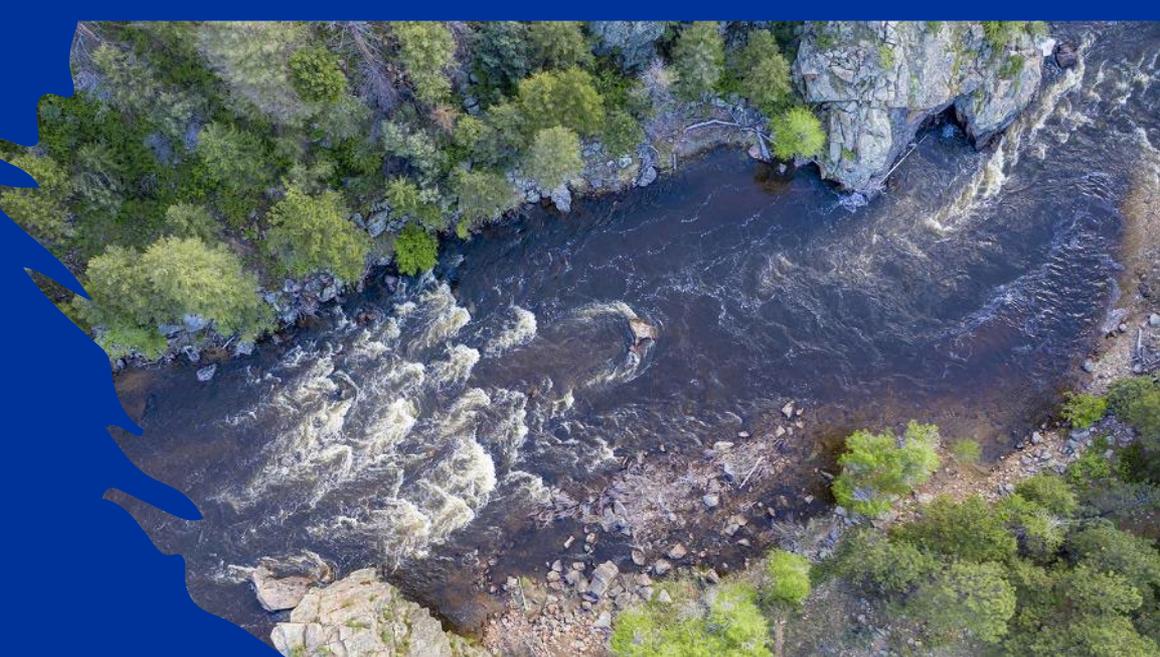
- Record of Decision for 404 Permit issued in December 2022
- Design work – nearing final
 - Monroe Canal bypass
 - Glade Reservoir dam
 - Hwy 287 relocation
- Preliminary geotechnical work
- Right-of-Way Acquisition
- Early pipeline construction: RFPs in Jan. with goal to contract in June and start construction in early Fall
- Federal Loan \$1.14B in Project Costs held until end of 2025
- CWCB Approved Loan of \$100M
- Allotment Contract Negotiation (paused)
- Jan. 2024: Save the Poudre federal lawsuit challenging NISP's federal permitting approvals
 - To be discussed further at 2/11 Executive Session
 - Expected to come online 2030 or 2032, depending on litigation



NISP

Environmental Mitigation and Enhancement

- \$59 Million committed for mitigation and enhancement through State-approved Fish and Wildlife Mitigation and Enhancement Plan
- Poudre River streamflow guarantees
- Stream channel and habitat improvements
- Wildlife habitat conservation
- Fishery and recreation benefits at Glade Reservoir
- Water quality measures, such as monitoring and stream temperature mitigation
- Fish passages



Water Supply and Demand Summary

| Water Supply (Average Yields)* | Amount (AF) |
|-----------------------------------|----------------|
| Current | |
| - CBT | 6,478 |
| - Native Water | 165 |
| Future | |
| - Windy Gap | 1,900 |
| - Boulder Creek Project | 500 |
| - Filly Lake Well Project | 350 |
| - NISP | 6,500 |
| Total | 15,993 |

| Water Demand | Amount (AF) |
|---------------------------------------|-------------|
| Current (40,000 population) | 6,100 |
| Future | |
| 80,000 population | 13,700 |
| 100,000 population | 17,100 |

*Yields are approximate, based on average hydrological conditions and best available planning information

Conclusions

- Erie has planned for many years to meet current and future water needs
- Erie is in a critical stage of future water supply development
- Additional water supply development will be needed for future demand, which has exceeded growth projections
- Local projects will provide additional water and resiliency against drought and Colorado River issues

