

Water Supply Alternatives
and the
Terry Ranch Water Project

October 13, 2020



Agenda

1. Background
2. Purchase Contract Status
3. Diligence Update
4. Communication & Next Steps

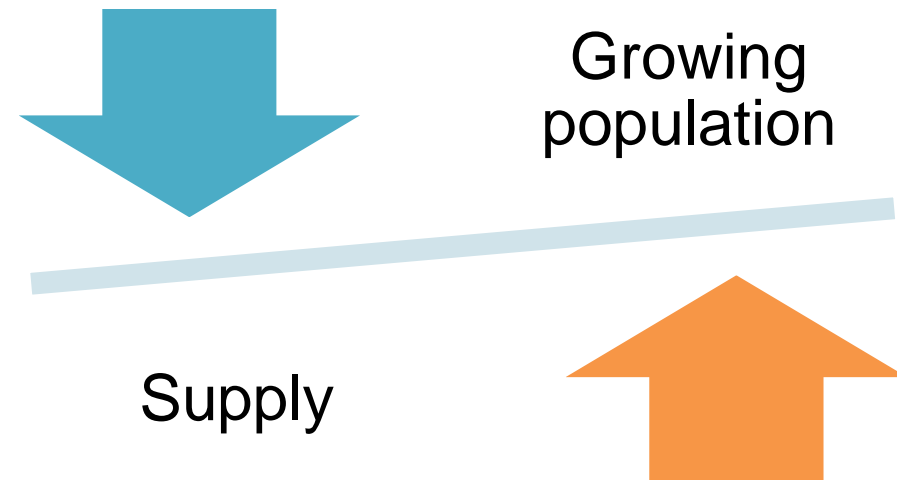




Background

Need for Project

- ✓ 260,900 people by 2065
- ✓ Current supply not enough to meet future needs
- ✓ Maintain affordable rates



Plan to Meet Needs

1

- Acquire New Water Supplies

2

- Demand Management & Water Conservation

3

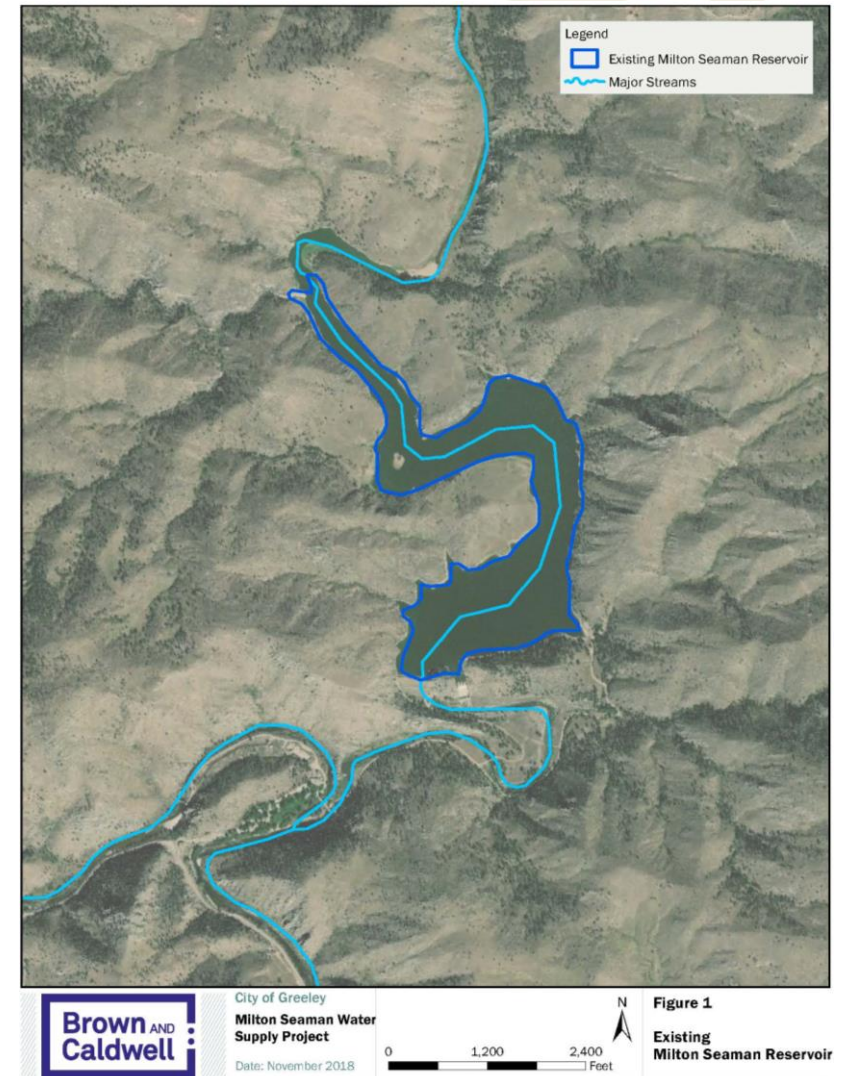
- Expand Non-Potable Water System

4

- New Storage

Storage

- ✓ 2003 – Milton Seaman Reservoir enlargement identified in planning
- ✓ 2006 – Began permitting
 - ✓ Numerous federal, state, & county permits required
 - ✓ Identify, quantify and mitigate environmental impacts
 - ✓ Evaluate alternative projects that would also meet Greeley's future need



Milton Seaman Project



- ✓ Permitting complications
 - ✓ Length and cost
 - ✓ Impacts to wetlands, stream channel, and critical habitat
 - ✓ Potential inundation of U.S. Forest Service, Larimer County, and City of Fort Collins properties
- ✓ Uncertain that Greeley would receive necessary permits

Milton Seaman Project

- ✓ Construction cost escalation
 - ✓ Originally estimated at roughly \$100M (2003)
 - ✓ After more detailed engineering, rose to between \$500M and \$1B (2019)
- ✓ Escalation similar to other regional water storage projects
- ✓ Increased water rates



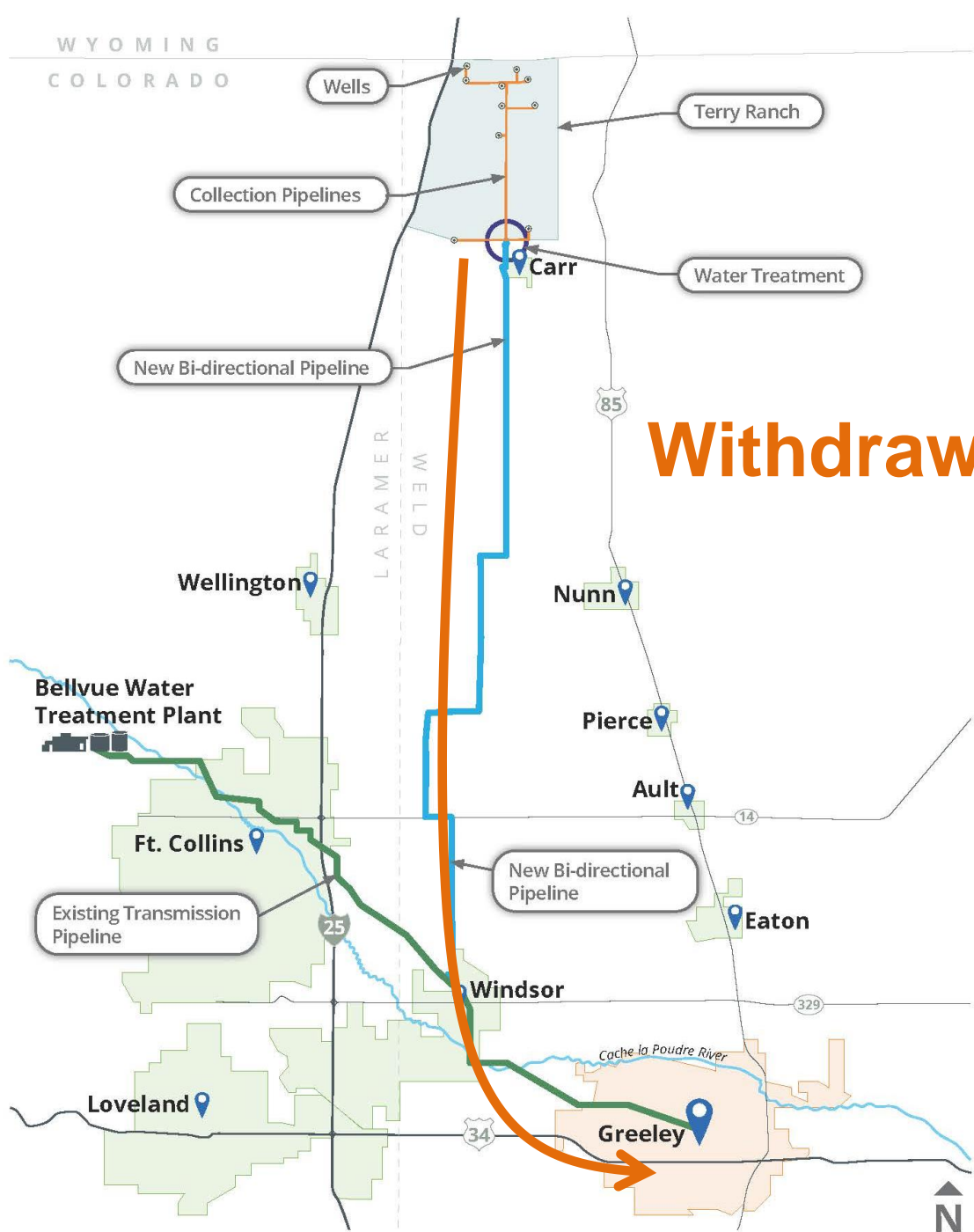
Storage Alternatives

- ✓ Well over 100 alternatives evaluated during federal permitting
- ✓ Army Corps mandated Greeley look harder at other less impactful alternatives (2018)
- ✓ W&S Board asked for “deep dive” in late 2018
 - ✓ Apart from federal permitting
 - ✓ Evaluated alternatives with fewer permitting challenges
- ✓ Identified Terry Ranch Project

Terry Ranch Overview

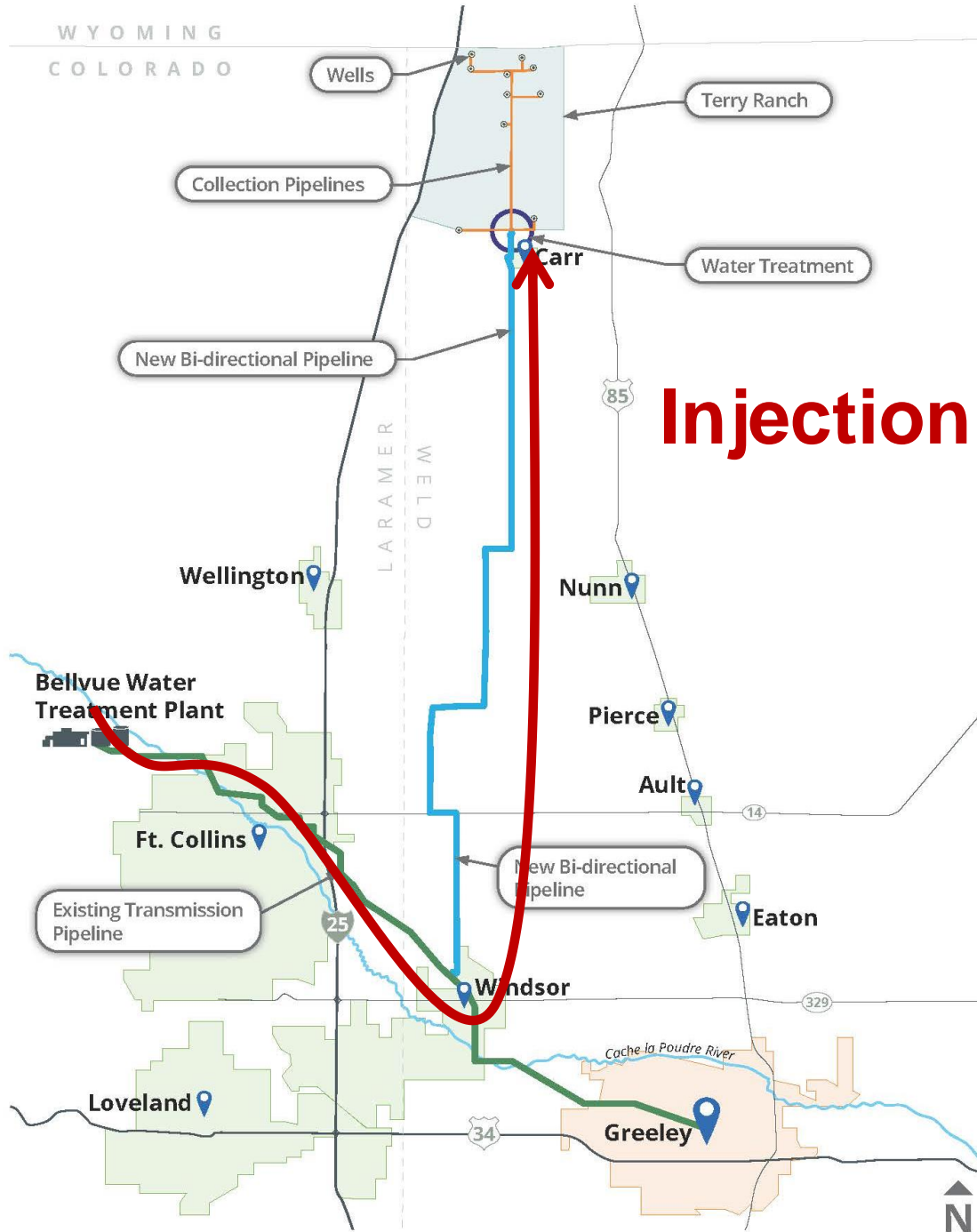
- ✓ Non-tributary Aquifer:
 - ✓ 1,200,000+ acre-feet, reusable
 - ✓ Private property right
- ✓ Suitable for underground water storage (“ASR”)
- ✓ Meets Greeley’s water needs for decades to come





How It Works

- ✓ Pump from wells
- ✓ Water treatment at ranch
- ✓ Connect to existing pipeline
- ✓ Potential for hydropower generation

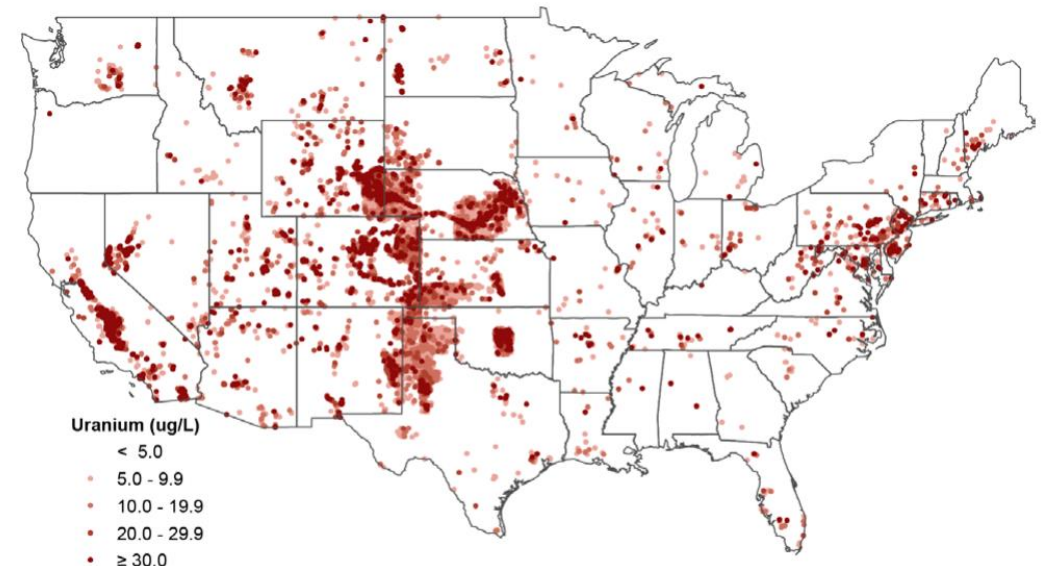


How It Works

- ✓ Treat at Bellvue Water Treatment Plant
- ✓ Use existing 60" pipeline
- ✓ Pump to treated water north to the ranch
- ✓ Inject
- ✓ Store for future use

Water Quality

- ✓ Preliminary testing
 - Overall, excellent water quality
 - Minimal treatment, but
 - Detection of uranium
- ✓ Uranium is a widespread, naturally occurring constituent
- ✓ Water quality and treatment is focus of inspection activities



Project Costs

- ✓ Construction cost: \$250M
- ✓ Seller financing: \$125M
- ✓ Operating expense similar to existing treatment costs
- ✓ Project buildout and costs can be phased
- ✓ *All costs are preliminary, approximate and subject to change*
- ✓ Refined cost estimates in process with consultants

Water Rights



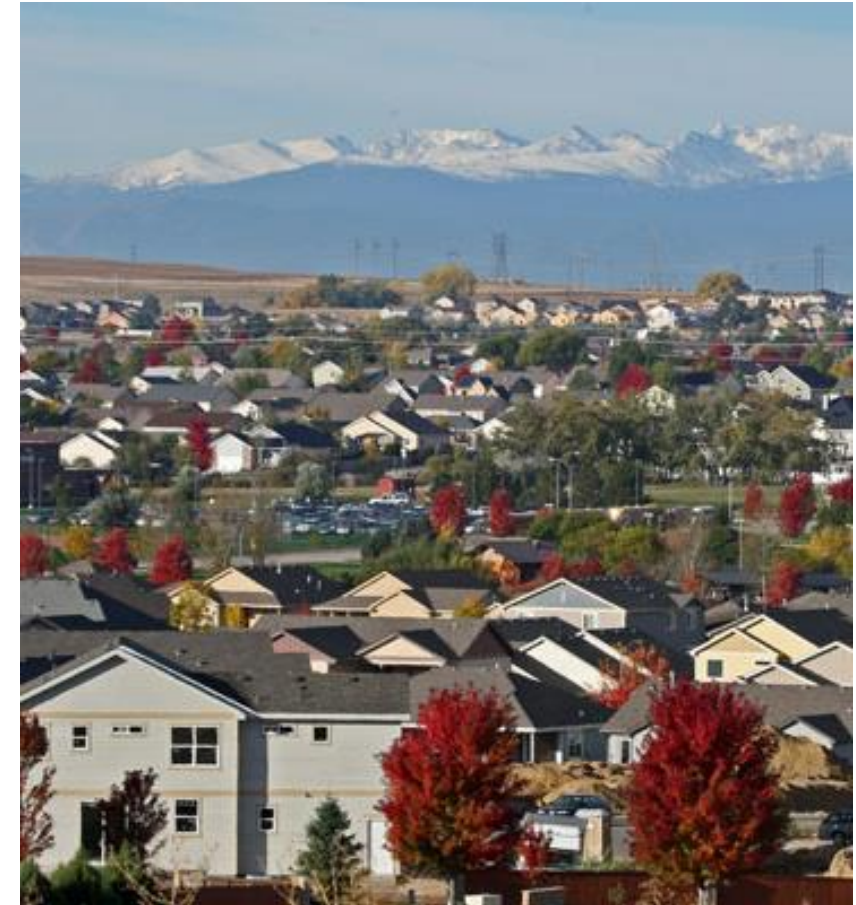
- ✓ Greeley is not abandoning any water rights
- ✓ May transfer junior conditional rights for Milton Seaman enlargement to alternative location



Contract Status

Unique Transaction

- ✓ Purchase with raw water “credits” rather than cash
 - ✓ Credits redeemable to meet Greeley’s water dedication requirements
 - ✓ Credit = 1 acre-foot of dedication
 - ✓ Greeley foregoes future water dedication (cash-in-lieu) revenue
- ✓ Shares financial risks with seller (Wingfoot)
 - ✓ Seller is making an investment in Greeley



Transaction Overview

Wingfoot Receives:

1. 12,121 Credits
2. Revenue sharing for water sold outside Greeley
3. Put Option to sell Credits back to Greeley

Greeley Receives:

1. Decree
2. Access easement
3. State Land Board lease
4. Five existing wells
5. \$125M towards infrastructure
6. Call Option to buy-back Credits

Restrictions

- ✓ Wingfoot's revenue depends on selling Credits
- ✓ City policies on raw water dedication greatly affect the Credit market
- ✓ Greeley defaults if it enacts policy changes that disadvantage credits
- ✓ Agreement does not prohibit additional acquisition of water



Ownership and Control

- ✓ Ownership transferred through tenancy in common (10-years)
- ✓ Greeley will solely and perpetually control and operate
- ✓ Greeley will solely own after credits are issued or 10-years



Purchase Timeline

Execute
Master
Agreement
(Jun 2020)

Conduct
Diligence
(Jun-Jan)

Present
Findings &
Public
Feedback
(Q1 2021)

Close
Purchase
(Q1 2021)



Diligence Update

Diligence Plan

1. Environmental
2. Hydrogeology
3. Water Quality
4. Design & Cost Estimate
5. Title, Permitting, Legal, Etc.



Environmental



- ✓ Inspections:
 - ✓ Endangered species
 - ✓ Wetlands & water
 - ✓ Hazardous materials
 - ✓ Cultural resources
- ✓ No significant issues found thus far

Hydrogeology

- ✓ Two exploratory bores drilled (in addition to five existing wells)
- ✓ Confirmed yields and feasibility to inject
- ✓ Mapped aquifer characteristics
- ✓ Findings peer reviewed



Water Quality



- ✓ Exhaustive studies
- ✓ Over 5,000 water quality data points thus far, with more to come
- ✓ Confirmed average uranium below regulated limit
 - ✓ Regardless, will treat uranium to non-detect
- ✓ No surprises thus far
- ✓ All results peer reviewed

Water Quality

- ✓ Outstanding issues:
 - ✓ Water quality changes from storing Bellvue water in the aquifer
 - ✓ Water quality changes from mixing treated groundwater with Bellvue water
- ✓ Additional testing, analysis, and pilot project underway to resolve

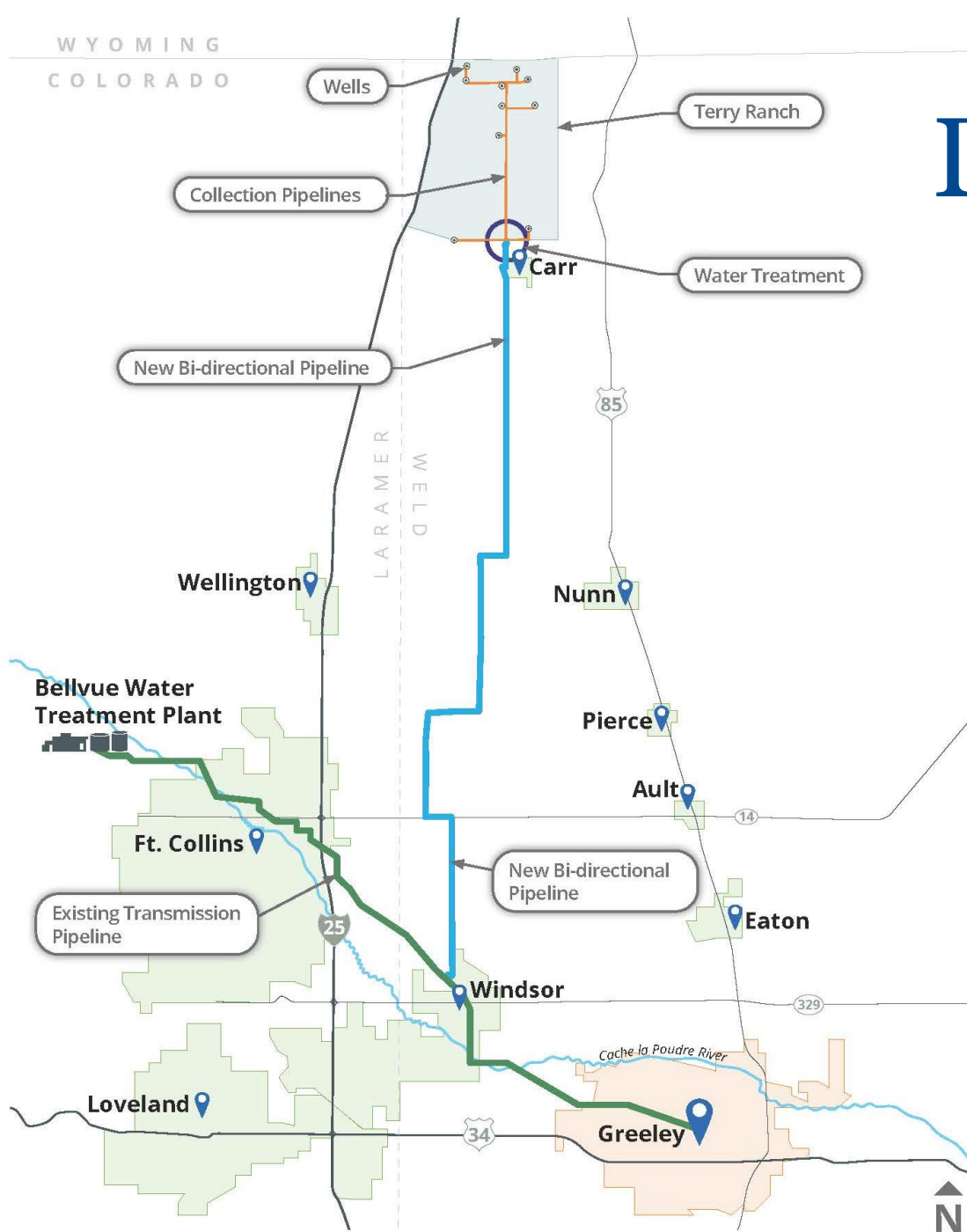


Water Quality

- ✓ Additional testing:
 - ✓ Geochemical modeling
 - ✓ Bench-scale testing (mix Bellvue water with groundwater and with aquifer material)
 - ✓ Short-term injection test (inject/store/recover Bellvue water)



Design & Cost Estimate



- ✓ Preliminary pipeline layout
- ✓ Hydraulics and instrumentation
- ✓ Power
- ✓ Treatment design
- ✓ Revised cost estimate



Communication & Next Steps

Public Engagement

- ✓ New project website

<https://greeleygov.com/services/ws/terry-ranch-project>

- ✓ Virtual open houses

- ✓ Online resources and social media



Next Steps



- Diligence and inspection
- Present diligence findings & collect public input
- W&S Board consideration of closing and recommendation to Council
- Council consideration of closing



Thank you.

