



MEMORANDUM

Northern Integrated Supply Project
Glade Reservoir
Larimer County 1041 - Utility Descriptions

B&V Project Number 403758
B&V File 188754/34.3000
February 14, 2020

To: Larimer County Planning Department
From: Tim Engemoen and Mike Johnson, Black & Veatch

Introduction

This technical memorandum is written in support of Larimer County Planning Department's 1041 Permit for the Glade Unit construction and documents the existing and proposed utilities associated with the construction of the Glade Unit.

Project Background

The Northern Integrated Supply Project (NISP) will provide a new raw water supply to several municipal water providers in Northern Colorado. NISP includes the following facilities located in Larimer County: the Glade Unit; the Glade Pump Station; raw water distribution piping; and the relocation of U.S. Highway 287. The Glade Unit features the Glade Reservoir Dam, which is an earthen embankment that will impound an off-channel reservoir complete with the hydraulic structures required by the State Engineer's Office: the High Level Outlet Works (HLOW); Low Level Outlet Works (LLOW); and spillway. Glade Reservoir Dam is located just to the north of the junction of U.S Highway 287 and State Highway 14, about 10 miles northwest of Fort Collins. The Glade Unit includes an expansion of the existing Poudre Valley Canal (PVC) and a new forebay constructed downstream of the dam at an elevation that will allow delivery of water from the PVC by gravity. A Control Gate Structure will be constructed to control flow to the existing portion of the PVC downstream of the forebay. The existing PVC Diversion Structure will be demolished and rebuilt to allow increased diversion of flow from the Poudre River. A portion of the existing Munroe Gravity Canal alignment will be inundated by Glade Reservoir, this open canal will be replaced by the Munroe Canal Bypass (MCB), a conduit and several control structures that will convey flow beneath the reservoir. The Glade Unit also includes: the Glade Pump Station, which will pump water from the forebay into Glade Reservoir; the Electrical/Control building that will distribute power throughout the site and provide control of the various hydraulic features; the Surge Building that will house surge tanks to protect the pump station discharge conduit; and numerous buried conduits with control valve vaults that connect these facilities. Raw water will be conveyed off site via several buried conduits that are being constructed under different NISP contracts. The Glade Unit will include recreational amenities for the general public, including a Visitor Center, campgrounds, a boat ramp, trails and restroom facilities.

Glade Reservoir will submerge a portion of the existing U.S. Highway 287 alignment which will be relocated to the east of the reservoir. An existing power transmission line and several power

distribution lines will be inundated by the reservoir which will be relocated as part of the Glade Unit construction. A general location map of the Glade Unit facilities is presented on Figure 1.

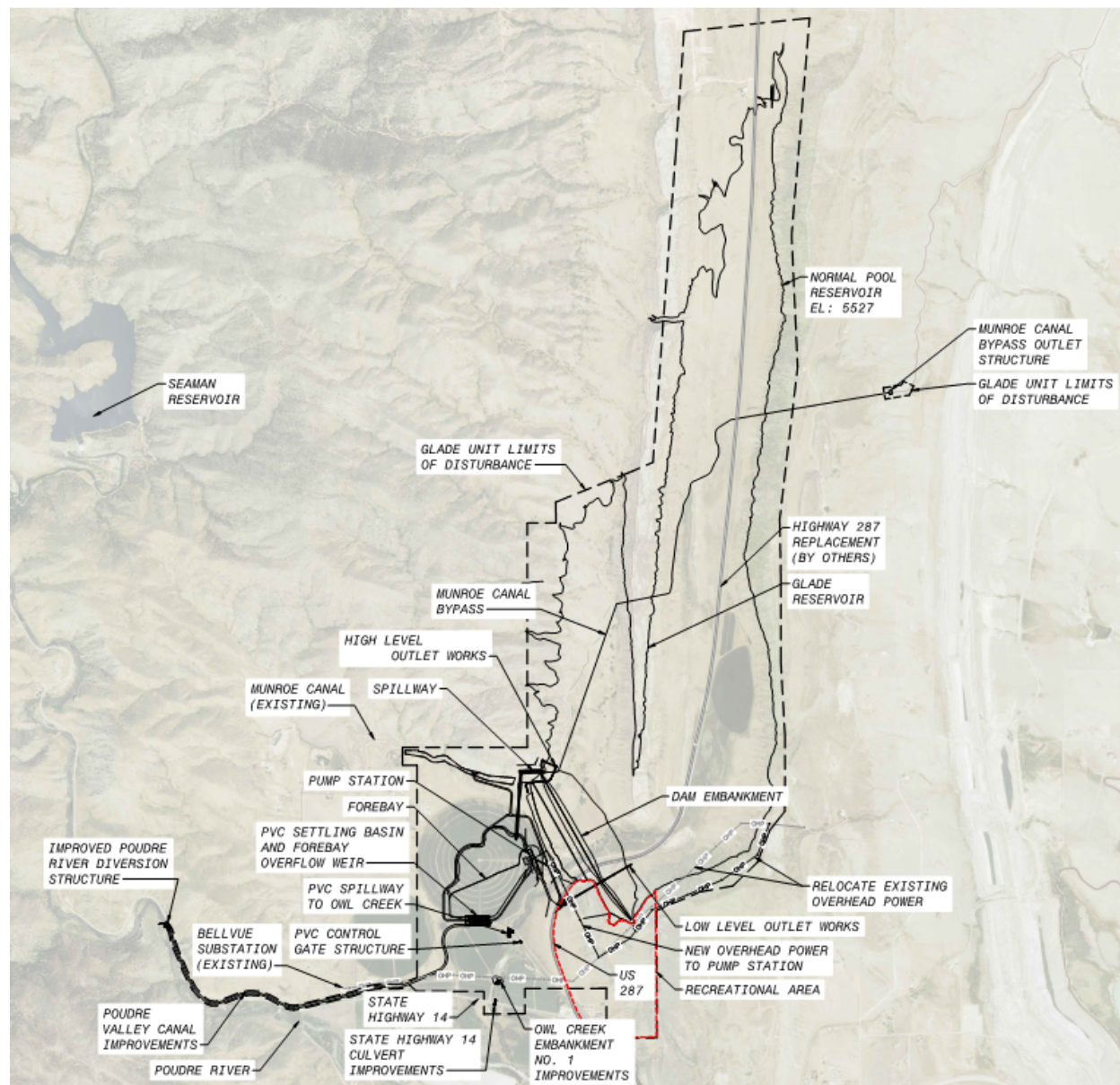


Figure 1 - Glade Unit Overview

The NISP Water Activity Enterprise (NISP Enterprise or Enterprise) assumes financial responsibility for construction of all infrastructure required for the project. The Enterprise is a permanent entity with access to adequate funds to cover project construction and maintenance. The Enterprise's budget will include routine and capital maintenance funds. Northern Water's past performance under other USACE permits demonstrates its commitment to assure that projects will be fully implemented and maintained by the Enterprise.

Existing Site Utilities

There are existing utilities located at the project site including electrical, communications, and water utilities. The water utilities include potable water lines in Highway 14 near the future dam embankment footprint and several irrigation lines that are connected to the Munroe Canal flowing through the project site delivering raw water to agricultural fields in the area. There is a group of electrical and communications utilities that run south to north, moving through the dam foundation area and up to the West Valley. These utilities are shown to feed power and communications to communities near Bellvue, Colorado. Additionally, there is a major fiber utility running along the side of U.S. Highway 287. Field surveying will be completed during detailed design to accurately locate each of these facilities, but that work has not yet been completed. All existing utilities impacted by Glade Unit infrastructure will be relocated with no permanent reduction to the types and amounts of service provided.

New Site Utilities

The Glade Unit will include numerous facilities that require utility services, including the Pump Station, Electrical/Control Building, Surge Building, HLOW Control House, LLOW gate chamber, MCB structures/vaults (inlet structure, outlet structure, transfer valve vault), Poudre River Diversion Structure, Forebay Inlet/Outlet Structure, PVC Delivery Structure, various site utility vaults that house raw water valves and meters, and the recreational facilities.

The new utilities required during and after completion of construction include electrical, communications, potable water, and sanitary facilities. The following sections describe the main utilities that will be provided. Detailed site plans depicting the locations and routing of all the new utilities will be developed as the design of these facilities progresses.

Potable Water

Potable water will be supplied to facilities that are planned to be accessible to the public or are regularly accessed by the staff who will maintain the Glade Unit. These facilities include the Pump Station, Electrical/Control Building and Surge Building that will be regularly accessed by staff maintaining the facility. Public access to facilities is described in the memo on recreational facilities, and is planned to include a Visitor's Center, campgrounds, and shower facilities. It is possible that other facilities will require potable water as well, but exact details have not yet been finalized and will be done so in detailed design. Potable water will be provided from the West Fort Collins Water District, which currently supplies four individual taps for different existing facilities that will be abandoned as part of this construction. Those taps will be consolidated into two separate taps, one for maintenance facilities and the other for recreational facilities. The static water pressure in this vicinity at the KOA campground is typically between 40 and 45 pounds per square inch (psi). That pressure should be adequate to serve those facilities which are located on the valley floor below the dam. Those facilities located above the valley floor at or near the elevation of the reservoir will be served with an on-site booster pumping system that will increase the water pressure to serve these higher elevations. All potable water systems will be installed in accordance with Colorado Department of Public Health and Environment (CDPHE) design criteria.

Raw Water

The purpose of the Glade Unit is to provide a raw water supply for the municipal water suppliers who are participants in the project. Therefore, the raw water system comprises the majority of the utilities on the site. Figure 2 is a schematic of the proposed raw water infrastructure at the Glade Unit. Under normal operating conditions, the system will function as follows:

- Raw water is diverted from the Poudre River via the Diversion Structure and routed to the forebay inlet via the enlarged portion of the PVC. Flow that is required to continue past the Glade Unit in the PVC is metered and controlled after the forebay.
- Raw water is pumped from the forebay into Glade Reservoir via the Low Level Outlet Works.
- Raw water is withdrawn from Glade Reservoir via the High Level Outlet Works.
- Raw water is distributed to the NISP participants directly and delivered back to the Poudre River for participant use via two separate raw water conduits.

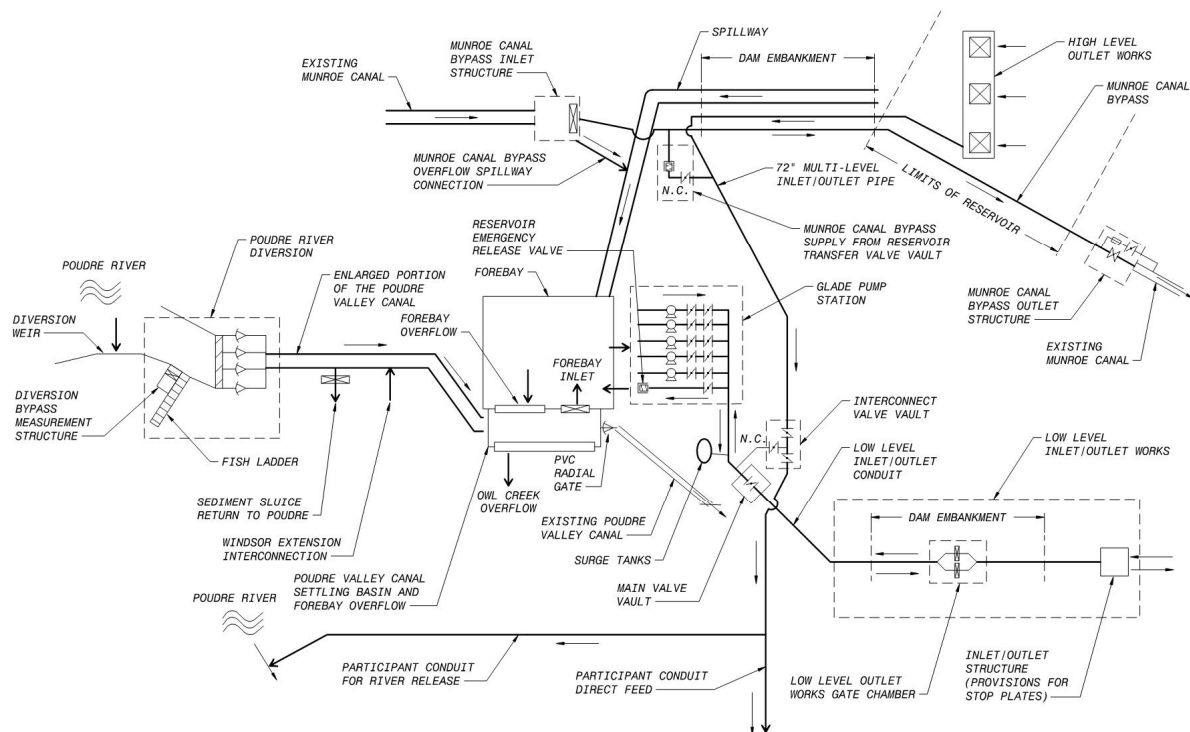


Figure 2 - Glade Unit Raw Water Schematic

That portion of the existing Munroe Gravity Canal that will be inundated by the reservoir is also shown schematically in Figure 2. This is also a raw water conveyance system but will generally be operated independently of the Glade Unit and continue to flow by gravity.

This system is also designed to accommodate a wide variety of flows within the raw water system that are not normal operation but might be necessary during rain events or abnormal operations at the Glade Unit. These include:

- Wasteway for the PVC. In the event that the Pump Station trips off-line while the PVC is running at capacity, there is an Owl Creek Overflow that will allow this flow to be routed back to the Poudre River under Highway 14.
- Reservoir Emergency Release. In the event that the level in Glade Reservoir has to be lowered for any reason, the Low Level Outlet Works can be used to release flow to the Forebay. If the forebay is full, there is a Forebay Overflow that directs excess flow to the Owl Creek Overflow and then the Poudre River.
- Glade Spillway Activation. If the drainage area upstream of Glade Reservoir experiences a significant storm event that causes the reservoir level to rise above the spillway crest, the spillway will activate and discharge into the Forebay. The Forebay Overflow will activate once the Forebay is full and discharge this flow into Owl Creek via the Owl Creek Overflow.

Sanitary Sewer

The NISP Participants are actively seeking to acquire the existing KOA Campground at the U.S. Highway 287 and State Highway 14 intersection for incorporation into the Recreation Concept Master Plan. There is an existing On-site Wastewater Treatment System (OWTS) consisting of a septic tank and leach field that serves the existing KOA Campground. This existing installation will be utilized for a possible semi-permanent construction camp that could be in place for the five-year period of construction on this site. After construction is complete, this existing facility will be utilized to serve a portion of the recreational facilities that will be located onsite. Additional septic tanks and leach fields will be installed to serve those facilities that have sanitary systems, with one system to serve the Pump Station, Electrical/Control Building and Surge Building and another system(s) to serve the Visitor Center and recreational facilities located at the elevation of the reservoir.

Electric

The largest power draw from the new facilities associated with this project will be for the pump station which will require an approximate 40 mega-volt ampere (MVA) power supply. The pump station is located within Xcel Energy's service area and they currently plan to serve the pump station and associated facilities. Currently, Xcel does not have any transmission assets that are located near the pump station, so they will likely submit an interconnection request to Tri-State Generation and Transmission (G&T) to allow Xcel to tap an existing Tri-State G&T 115 kV transmission line to provide service to the pump station.

A substation will be required at the pump station to reduce the power supply voltage from transmission voltage (likely 115 kV) to medium voltage (15 kV).

The existing Tri-State G&T 115 kV transmission line near the proposed dam's left abutment will need to be relocated to avoid the dam and reservoir inundation area.

In addition to the new pump station, this project includes the expansion of existing facilities (Munroe Canal Outlet, Poudre Valley Diversion Structure, and Owl Creek) and construction of new facilities which will require improvements to the current electrical service to accommodate new process mechanical loads.

Power distribution across the project site will be conducted with the utilization of distribution transformers, switchboards, motor control centers (MCCs), and panelboards as determined during detailed design. In addition, we anticipate utilization of existing services for the previously established facilities at the Munroe Canal Outlet, Poudre River Diversion Structure, and improvements along Owl Creek. The extent of the utilization or improvement of service and distribution will be determined during detailed design. It is anticipated that some of the ancillary structures including proposed recreation facilities will require separate, distribution level power supplies separately metered from the local utility. All power distribution will follow the National Electric Code (NEC).

Communications

It is anticipated that radio links will be used for most of the communication between the different structures associated with the Glade Unit and for communication back to Northern Water's operation center. It is possible that some control cable or fiber will be installed at the recreation area and between other select structures if radio communication will not be possible. These details will be finalized during detailed design.

Fire Protection

The local fire protection district is the Poudre Fire Authority. The nearest station is Station 7 located at 2817 N. Overland Trail in Laporte, which is approximately 4 miles southeast of the Glade recreational facilities.

The Livermore Fire Protection District (LFPD) also provides service to the northern portion of Glade Reservoir. The nearest station is Station 1 located at 311 W CR 74E in Livermore, which is approximately 4 miles north of the northern tip of Glade Reservoir. NISP staff have met with LFPD staff to discuss the project. As part of those conversations, NISP has committed to providing a water storage tank (up to 10,000 gallons in size) at a location determined by the LFPD for their use in staging water for fire-fighting purposes. This tank will be provided by the start of construction to increase LFPD's fire-fighting and emergency-response capabilities. LFPD staff also indicated that Glade Reservoir will provide a strategic water source for future aerial firefighting efforts.

Road Infrastructure

The Glade Unit recreational facilities will be accessed by the existing U.S. Highway 287, just north of Ted's Place. U.S. Highway 287 is being relocated to the east as part of the Glade Unit construction beginning near the intersection with West County Road 56. It is anticipated that the existing U.S.

Highway 287 north of this realignment point will be classified as State Highway 14 as this portion of the roadway will still provide access to State Highway 14 and will continue north of Ted's Place to provide access to the Glade recreational facilities. The classification of the portion of the road north of the intersection with the State Highway 14 is still to be determined. New paved roads will be constructed within the footprint of the recreational area to provide access to the camp grounds and other recreational facilities and it is anticipated those will be private roads.

Conclusion

The construction of the Glade Unit will require the relocation of some existing utilities and the installation of several new utilities that will be installed at different structures throughout the Glade Unit. Detailed site plans depicting the utilities will be completed during detailed design but have not yet been developed.



To: File
From: Carl Brouwer, Christie Coleman, Stephanie Cecil – Northern Water
Date: April 23, 2019
Subject: Northern Integrated Supply Project – Public Engagement History

The purpose of this memorandum is to document the public engagement history of the Northern Integrated Supply Project (NISP) through the NEPA process, Mitigation and Enhancement Plan development, other permitting procedures, and public events.

NEPA Process

Northern Water and/or the NISP Enterprise has applied to the U.S. Army Corps of Engineers (Corps) for a Clean Water Act Section 404 permit to build the proposed NISP. NISP is currently undergoing National Environmental Policy Act (NEPA) compliance and is the subject of federal and state permitting reviews. The NISP has been pursuing NEPA compliance since 2004. Larimer County has reviewed and commented on NEPA process deliverables while serving as a cooperating agency on the NISP since 2004.

Public Engagement History

Throughout the NISP history, public meetings and opportunities to solicit input on the project have been held. The following is a list of public engagement and involvement for the NISP to date.

Year	Month	Date(s)	Outreach Lead	Outreach Type	Description
2004	9	20-24	USACE	NISP Public Scoping Meeting	Description of alternatives and receipt of public comments on EIS scope
2008	5	5	Larimer County	County Commissioners Meeting	Discussion on NISP
2008	7	9	Larimer County	County Commissioners Meeting	Discussion on NISP
2008	5	13	Larimer County	Parks Advisory Board	Discussion on NISP
2008	5	14	Larimer County	Agricultural Advisory Board	Discussion on NISP
2008	5	22	Larimer County	Open Land Board Meeting	Discussion on NISP
2008		4/30 to 9/13	USACE	NISP Draft EIS Public Comment Period	Receipt of public written comments on Draft EIS

Year	Month	Date(s)	Outreach Lead	Outreach Type	Description
2008	6	17	USACE	NISP Draft EIS Public Hearing	Receipt of oral and written public comments on Draft EIS
2008	6	19	USACE	NISP Draft EIS Public Hearing	Receipt of oral and written public comments on Draft EIS
2009	4	9	Larimer County	County Commissioners Meeting	Discussion on NISP
2009	4	17	Northern Water	Fort Collins Chamber of Commerce Meeting	Presentation on NISP
2009	6	24	Northern Water	East Slope Tour	Public tour of, presentation of, and discussion on NISP
2009	8	12	Northern Water	East Slope Tour	Public tour of, presentation of, and discussion on NISP
2009	11	3	Northern Water	Fall Water Users Meeting	Presentation on NISP
2010	4	7	Northern Water	Spring Water Users Meeting	Presentation on NISP
2010	8	19	Northern Water	East Slope Tour	Public tour of, presentation of, and discussion on NISP
2010	9	15	Northern Water	East Slope Tour	Public tour of, presentation of, and discussion on NISP
2011	3	4	Northern Water	Fort Collins Chamber Legislative Affairs Committee Meeting	Presentation on NISP
2011	4	7	Northern Water	Spring Water Users Meeting	Presentation on NISP
2011	6	20	Larimer County	Agricultural Advisory Board	Discussion on NISP
2011	6	28	Northern Water	East Slope Tour	Public tour of, presentation of, and discussion on NISP
2011	8	2	Northern Water	Fort Collins Golden Kiwanis Club Meeting	Presentation on NISP
2011	9	21	Northern Water	East Slope Tour	Public tour of, presentation of, and discussion on NISP
2011	11	9	Northern Water	Fall Water Users Meeting	Presentation on NISP

Year	Month	Date(s)	Outreach Lead	Outreach Type	Description
2013	3	14	Northern Water	Fort Collins Morning Rotary Club Presentation	Presentation on NISP
2013	4	11	Northern Water	Spring Water Users Meeting	Presentation on NISP
2013	9	25	Northern Water	Fort Collins Staff Tour	Tour of, presentation of, and discussion on NISP
2014	6	16	Northern Water	East Slope Tour	Tour of, presentation of, and discussion on NISP
2014	7	24	Northern Water	Fort Collins Staff Tour	Tour of, presentation of, and discussion on NISP
2014	9	10	Northern Water	East Slope Tour	Tour of, presentation of, and discussion on NISP
2014	9	26	Northern Water	Fort Collins Staff Tour	Tour of, presentation of, and discussion on NISP
2014	10	31	Northern Water	Greeley Kiwanis Club Presentation	Presentation and discussion on NISP
2014	12	2	Northern Water	CU American West Class Presentation	Presentation and discussion on NISP
2015	6	5	Northern Water	East Slope Tour	Tour of, presentation of, and discussion on NISP
2015		6/19 to 9/3	USACE	NISP Supplemental Draft EIS Public Comment Period	Receipt of written public comments on Supplemental Draft EIS
2015	7	22	USACE	NISP Supplemental Draft EIS Public Hearings	Receipt of oral and written public comments on Supplemental Draft EIS
2016	4	12	Northern Water	Spring Water Users Meeting	Presentation and discussion on NISP
2016	5	25	Northern Water	East Slope Tour	Tour of, presentation of, and discussion on NISP
2016	8	18	Northern Water	East Slope Tour	Tour of, presentation of, and discussion on NISP
2016	11	9	Northern Water	Fall Water Users Meeting	Presentation and discussion on NISP
2017	3	28	Northern Water	Leadership Northern Colorado Meeting	Presentation and discussion on NISP
2017	4	11	Northern Water	Leadership Loveland Meeting	Presentation and discussion on NISP
2017	4	11	Northern Water	Spring Water Users Meeting	Presentation and discussion on NISP

Year	Month	Date(s)	Outreach Lead	Outreach Type	Description
2017	4	18	Northern Water	Larimer County Environmental and Science Advisory Board Meeting	Presentation and discussion on NISP
2017	4	27	Northern Water	Greeley Kiwanis Club Presentation	Presentation and discussion on NISP
2017	5	4 and 5	CPW	Commission Meeting	CPW staff presentation and acceptance of Public Comment on the NISP Fish and Wildlife Mitigation and Enhancement Plan
2017	5	11	Northern Water	ASCE Northern Colorado Branch Meeting	Presentation and discussion on NISP
2017	5	13	Northern Water	Livermore Women's Club	Presentation and discussion on NISP
2017	5	22	Northern Water	Larimer County Republican Breakfast Club	Presentation and discussion on NISP
2017	5	23	Northern Water	Longmont Rotary Club Meeting	Presentation and discussion on NISP
2017	6	6	Northern Water	North American Title Company Water 101 Class	Presentation and discussion on NISP
2017	6	8 and 9	CPW	Commission Meeting	Northern Water presentation of Fish and Wildlife Mitigation and Enhancement Plan Applicant Proposal to Commission
2017	6	9	Northern Water	Fish and Wildlife Mitigation and Enhancement Plan Release	Public release of applicant proposal to public via Northern Water/NISP website
2017	6	13	Northern Water	East Slope Tour	Tour of, presentation of, and discussion on NISP
2017	6	20	Northern Water	Windermere Real Estate Meeting	Presentation and discussion on NISP
2017	6	27	Northern Water	Fish and Wildlife Mitigation and Enhancement Plan Open House	Northern Water presentation of FWMEP Applicant Proposal to the public and receipt of comments in open house-style format

Year	Month	Date(s)	Outreach Lead	Outreach Type	Description
2017	6	29	Northern Water	Larimer County Pipelines Open House	Present information on possible NISP pipeline alignments and receipt of public comments in an open house-style format
2017	6	30	Northern Water	School of Mines Teacher Program Tour	Presentation and discussion on NISP
2017	7	11	Northern Water	Northern Colorado Geologic Group	Presentation and discussion on NISP
2017	7	23	Northern Water	Institute for Journalism and Natural Resources Tour	Tour of, presentation of, and discussion on NISP
2017	8	10 and 11	CPW	Commission Meeting	CPW staff comment to Commission on Fish and Wildlife Mitigation and Enhancement Plan Applicant Proposal
2017	8	22	Northern Water	Draft Final Fish and Wildlife Mitigation and Enhancement Plan Release	Release of applicant proposal to public via Northern Water/NISP website
2017	8	30	Northern Water	City of Fort Collins Staff Meeting	Presentation and discussion on NISP
2017	9	6	Northern Water	East Slope Tour	Tour of, presentation of, and discussion on NISP
2017	9	7 and 8	CPW	Commission Meeting	Public hearing and approval of Fish and Wildlife Mitigation and Enhancement Plan
2017	9	19, 20, 21	CWCB	Board Meeting	Northern Water presentation of Draft Final Fish and Wildlife Mitigation and Enhancement Plan to Board and Board approval of plan
2017	9	28	Northern Water	Colorado Water Officials Organization Meeting	Presentation and discussion on NISP
2017	10	10	Northern Water	Final Fish and Wildlife Mitigation and Enhancement Plan Release	Release of plan to public

Year	Month	Date(s)	Outreach Lead	Outreach Type	Description
2017	10	16	Northern Water	CSU Public Relations in Natural Resources Class Presentation	Presentation and discussion on NISP
2017	10	17	Northern Water	CSU Integrated Ecosystem Management Class Presentation	Presentation and discussion on NISP
2017	10	18	Northern Water	CSU Students Human Dimensions Class	Presentation and discussion on NISP
2017	10	23	Northern Water	CSU Sustainability Class Presentation	Presentation and discussion on NISP
2017	11	6	Northern Water	South Platte Valley Historical Society Meeting	Presentation and discussion on NISP
2017	11	7	Northern Water	School of Mines Water Policy Class Presentation	Presentation and discussion on NISP
2017	11	15	Northern Water	Fall Water Users Meeting	Presentation and discussion on NISP
2017	11	21	Northern Water	Loveland Fishing Club Meeting	Presentation and discussion on NISP
2017	12	14	Northern Water	Water Leaders of Northern Colorado Meeting	Presentation and discussion on NISP
2018	1	23, 24	Northern Water	Colorado Farm Show Booth	Colorado Farm Show, Greeley, open to the public
2018	2	3	Northern Water	Waverly Community Group Meeting	Presentation and discussion on NISP
2018	2	13	Northern Water	North American Title Company Meeting	Presentation and discussion on NISP
2018	3	2	Northern Water	Larimer County Conservation Corps Meeting	Presentation and discussion on NISP
2018	3	28	Northern Water	CSU NR400 Class Presentation	Presentation and discussion on NISP
2018	4	3	Northern Water	Regional Rafting Company invitational meeting	Meeting with raft company operators to talk about progress on the project and to answer questions.
2018	4	17	Northern Water	Keller Williams Employee Meeting	Presentation and discussion on NISP

Year	Month	Date(s)	Outreach Lead	Outreach Type	Description
2018	4	18	Northern Water	Spring Water Users Meeting	Presentation and discussion on NISP
2018	5	9	Northern Water	Northern Colorado Realtors Tour	Presentation and discussion on NISP
2018	5	10	Northern Water	Water Literate Leadership Class Presentation	Presentation and discussion on NISP
2018	5	21	Northern Water	Friends of Water Works Board Meeting	Presentation and discussion on NISP
2018	6	6	Firestone	Board of Trustees Meeting	Presentation and discussion on NISP
2018		6/20 to 10/4	USACE	Final EIS comment Period	Receipt of public written comments on the Final EIS
2018	6	28	Northern Water	East Slope Tour	Tour of, presentation of, and discussion on NISP
2018	6	18	Northern Water	Western Area Power Administration Meeting	Employee tour and discussion on NISP
2018	6	19	Northern Water	National Association for Ag Educations Meeting	NISP workshop and tour
2018	7	23	Town of Windsor	Town Board Meeting	Presentation and discussion on NISP
2018	8	29	Northern Water	Loveland Sertoma Club	Presentation and discussion on NISP
2018	9	18	Larimer County	Water Projects Working Group Meeting	Meeting to gather stakeholder input on NISP pipeline alignments
2018	9	21	Northern Water	North American Title Company	Presentation and discussion on NISP
2018	9	21	Northern Water	Meeting with Fort Collins For Progress	Presentation and discussion on NISP
2018	9	24	Northern Water	UNC Exploring Colorado Class	Presentation and discussion on NISP
2018	9	25	Northern Water	East Slope Tour	Tour of, presentation of, and discussion on NISP
2018	10	5	Northern Water	CSU Sustainability Class Presentation	Presentation and discussion on NISP
2018	10	8	Larimer County	Water Projects Community Open House	Presentation on possible NISP pipeline alignments and receipt of public comments in an open house-style format

Year	Month	Date(s)	Outreach Lead	Outreach Type	Description
2018	10	9	Larimer County	Water Projects Working Group Meeting	Meeting to gather stakeholder input on NISP pipeline alignments
2018	10	9	Northern Water	Fort Collins Employee Tour	Tour of, presentation of, and discussion on NISP
2018	10	10	Northern Water	Meeting with Fort Collins Sertoma	Northern Water was invited to make a presentation on NISP to the Fort Collins Sertoma
2018	10	24	Larimer County	Water Projects Working Group Meeting	Meeting to gather stakeholder input on NISP pipeline alignments
2018	11	13	Larimer County	Water Projects Working Group Meeting	Meeting to gather stakeholder input on NISP pipeline alignments
2018	11	14	Northern Water	Fall Water Users Meeting	Presentation and discussion on NISP
2018	11	15	Larimer County	Water Projects Community Open House	Presentation on possible NISP pipeline alignments and receipt of public comments in an open house-style format
2018	11	15	Larimer County	Water Project Webinar	Webinar to discuss pipeline constructability and geotechnical issues
2018	11	15	Larimer County	Water Project Webinar	Webinar to discuss water flow and quality
2018	11	16	Larimer County	Water Project Webinar	Webinar to discuss traffic issues associated with pipeline construction
2018	11	27	Larimer County	Water Projects Working Group Meeting	Meeting to gather stakeholder input on NISP pipeline alignments
2019	2	1	PRTI	Poudre River Community Forum	NISP outreach booth, presentation, and discussions
2019	1	9	Northern Water	4 States Irrigation Council Program Tour	Tour of, presentation of, and discussion on NISP
2019	2	26	Northern Water	Hewlett-Packard Young Employee Group	Presentation and discussion on NISP

Year	Month	Date(s)	Outreach Lead	Outreach Type	Description
2019	3	14	Northern Water	ASCE Meeting	Presentation and discussion on NISP
2019	3	15	Northern Water	CSU Sustainability Class Presentation	Presentation and discussion on NISP
2019		3/1 to 4/22	CDPHE	NISP 401 Certification Application Public Comment Period	Receipt of written comments on the 401 Certification Application

As demonstrated in the list, a substantial amount of public discussion, engagement, and involvement has occurred throughout the history of the NISP on the project overall, environmental permitting, pipeline routing, Fish and Wildlife mitigation plan, etc.



MEMORANDUM

To: Mr. Rob Helmick: Larimer County Development Planning
From: Carl Brouwer, Stephanie Cecil, Christie Coleman: Northern Water
Date: February 4, 2020
Subject: Northern Integrated Supply Project (NISP)
 Larimer County Intergovernmental Agreement NISPtalk.com Online Engagement

The Northern Colorado Water Conservancy District (Northern Water) launched the NISPtalk.com online engagement website on June 28, 2019 to garner public feedback on NISP as part of the intergovernmental agreement process with Larimer County. This online engagement platform is a way for Northern Water to garner public feedback in a manner that is convenient to today's world. While traditional public engagement usually involves attending a public meeting or providing written submissions to our Board of Directors, it can often be time consuming, inconvenient and maybe even intimidating. NISPtalk.com allows people to learn more about the project components and have their say on the issues supporting our permit, at a time and place of their choice.

In the seven months since we launched the website, we have had more than 1,900 visitors view the website to learn more about the project and the details of this intergovernmental agreement.

Within the NISPtalk.com website there are five project topics that provided information to the public and solicited feedback. Those topics included:

1. What is the Northern Integrated Supply Project?
2. Components of the Northern Water-Larimer County Agreement
3. Recreation at Glade Reservoir
4. Water Pipelines in Larimer County
5. U.S. Highway 287 Relocation

Of those five, the most popular for engagement was the recreation topic. Participants were able to take part in quick poll questions and surveys, as well as ask questions. Topics included fishery, trail usage and watercraft regulations for the proposed Glade Reservoir.

Marketing for the NISPtalk.com website was conducted through various channels, including Northern Water and Larimer County's social media accounts, the Glade Reservoir website at www.gladereservoir.org, postcard mailers, Northern Water's e-newsletters, poster distribution, radio spots, press releases and media publications.

Overall, NISPtalk.com provided relevant project documentation and an opportunity for the public to engage and provide feedback regarding this project.

Summary Report

04 June 2019 - 20 January 2020

NISP Talk

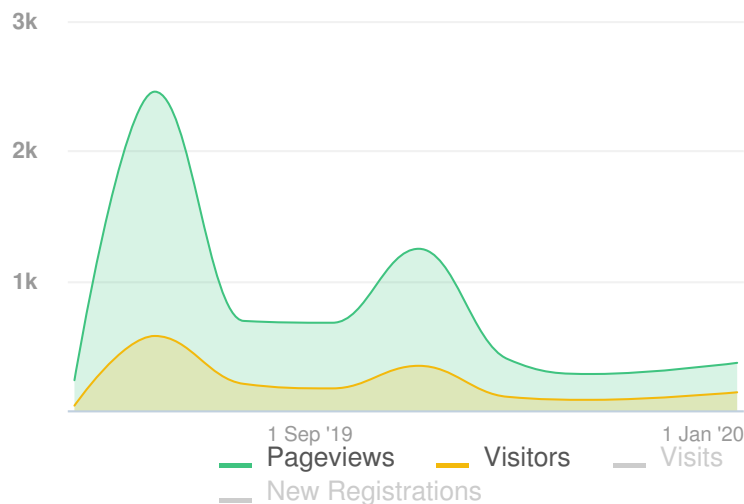
PROJECTS SELECTED: 6

Recreation at Glade Reservoir | Water Pipelines in Larimer County | Components of the 1041 Permit | What is the Northern Integrated Supply Project? | About the NISPtalk Site | U.S. Highway 287 Relocation

FULL LIST AT THE END OF THE REPORT



Visitors Summary



Highlights

TOTAL VISITS

1.8 k

MAX VISITORS PER DAY

71

NEW REGISTRATIONS

134

ENGAGED VISITORS

92

INFORMED VISITORS

805

AWARE VISITORS

1.3 k

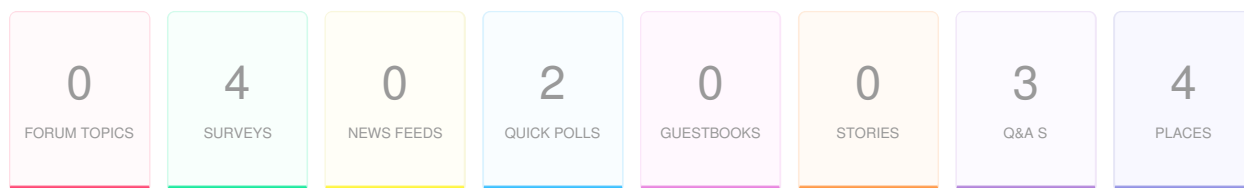
PARTICIPANT SUMMARY

ENGAGED	92 ENGAGED PARTICIPANTS				TOP PROJECTS	
INFORMED		Registered	Unverified	Anonymous		Participants (%)
	Contributed on Forums	0	0	0	Recreation at Glade Reservoir	79 (16.1%)
	Participated in Surveys	69	0	0	Water Pipelines in Larimer C...	8 (2.3%)
	Contributed to Newsfeeds	0	0	0	U.S. Highway 287 Relocation	6 (1.3%)
AWARE	Participated in Quick Polls	61	0	0	Components of the 1041 Per...	4 (1.9%)
	Posted on Guestbooks	0	0	0		
	Contributed to Stories	0	0	0		
	Asked Questions	13	0	0		
	Placed Pins on Places	5	0	0		
	Contributed to Ideas	0	0	0		
* A single engaged participant can perform multiple actions					* Calculated as a percentage of total visits to the Project	

ENGAGED	805 INFORMED PARTICIPANTS				TOP PROJECTS	
INFORMED				Participants		Participants (%)
	Viewed a video			1	Recreation at Glade Reservoir	303 (61.8%)
	Viewed a photo			456	U.S. Highway 287 Relocation	246 (53.4%)
	Downloaded a document			261	What is the Northern Integrat...	210 (59.8%)
AWARE	Visited the Key Dates page			49	Water Pipelines in Larimer C...	208 (59.4%)
	Visited an FAQ list Page			0	Components of the 1041 Per...	48 (22.9%)
	Visited Instagram Page			0	About the NISPtalk Site	0 (0.0%)
	Visited Multiple Project Pages			677		
	Contributed to a tool (engaged)			92		
* A single informed participant can perform multiple actions					* Calculated as a percentage of total visits to the Project	

ENGAGED	1,325 AWARE PARTICIPANTS				TOP PROJECTS	
INFORMED				Participants		Participants
	Visited at least one Page			1,325	Recreation at Glade Reservoir	490
AWARE					U.S. Highway 287 Relocation	461
					What is the Northern Integrat...	351
					Water Pipelines in Larimer C...	350
					Components of the 1041 Per...	210
					About the NISPtalk Site	125
* Aware user could have also performed an Informed or Engaged Action					* Total list of unique visitors to the project	

ENGAGEMENT TOOLS SUMMARY



SURVEYS SUMMARY	
4	Surveys
69	Contributors
83	Submissions

TOP 3 SURVEYS BASED ON CONTRIBUTORS		
58	19	4
Contributors to	Contributors to	Contributors to
Recreation Survey	We'd Like Your Feedback	We'd Like Your Feedback

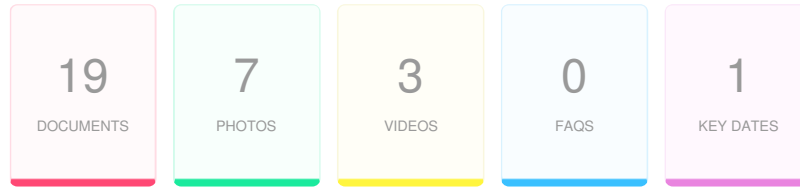
QUICK POLLS SUMMARY	
2	Quick Polls
61	Contributors
61	Responses

TOP 3 QUICK POLLS BASED ON CONTRIBUTORS	
61	0
Contributors to	Contributors to
Which recreation options at Glade Reservoir will you use the most?	Let us know which of the following recreational activities at Glade Reservoir are

PLACES SUMMARY	
4	Places
5	Contributors
5	Pins

TOP 3 PLACES BASED ON CONTRIBUTORS		
3	2	0
Contributors to	Contributors to	Contributors to
Pipeline Map	Highway 287 Map	Recreation Concept Map

INFORMATION WIDGET SUMMARY



DOCUMENTS	
19	Documents
261	Visitors
485	Downloads

TOP 3 DOCUMENTS BASED ON DOWNLOADS		
120 Downloads	58 Downloads	43 Downloads
Description of the Glade Reservoir Complex	Conveyance Refinement Map	Glade Reservoir Recreation Concept Plan

PHOTOS	
7	Photos
456	Visitors
610	Views

TOP 3 PHOTOS BASED ON VIEWS		
214 Views	174 Views	166 Views
deleted_photo	Recreation Concept Plan	NISP general map with logo (June 2019)

VIDEOS	
3	Videos
1	Visitors
1	Views

TOP 3 VIDEOS BASED ON VIEWS		
1 Views	0 Views	0 Views
NISP: Enhancing Flows on the Poudre River	NISP: Purpose & Need	NISP and Recreational Opportunities

KEY DATES	
1	Key Dates
49	Visitors
54	Views

TOP 3 KEY DATES BASED ON VIEWS		
54 Views		
Recreation at Glade Reservoir		

TRAFFIC SOURCES OVERVIEW

REFERRER URL	Visits
m.facebook.com	173
www.google.com	128
www.northernwater.org	76
www.facebook.com	60
www.larimer.org	49
links.govdelivery.com	44
www.coloradoan.com	37
www.bing.com	26
fclwd.com	20
android-app	14
northernwater.sharepoint.com	10
duckduckgo.com	9
l.facebook.com	9
coyotegulch.blog	7
search.yahoo.com	5

SELECTED PROJECTS - FULL LIST

PROJECT TITLE	AWARE	INFORMED	ENGAGED
Recreation at Glade Reservoir	490	303	79
U.S. Highway 287 Relocation	461	247	6
What is the Northern Integrated Supply Project?	351	210	0
Water Pipelines in Larimer County	350	208	8
Components of the 1041 Permit	210	48	4
About the NISPtalk Site	125	0	0

Project Report

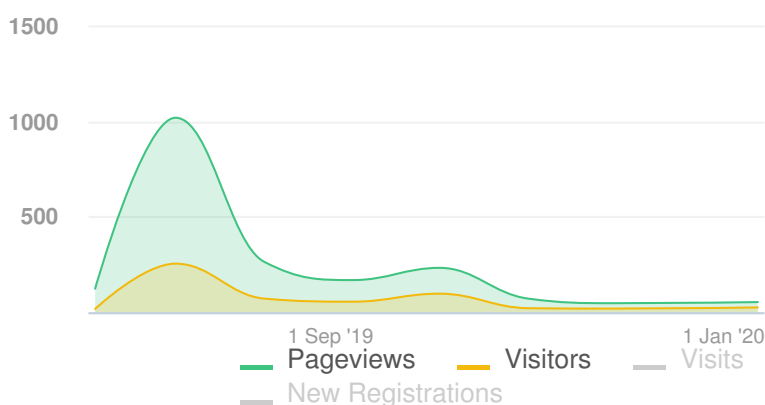
04 June 2019 - 20 January 2020

NISP Talk

Recreation at Glade Reservoir



Visitors Summary

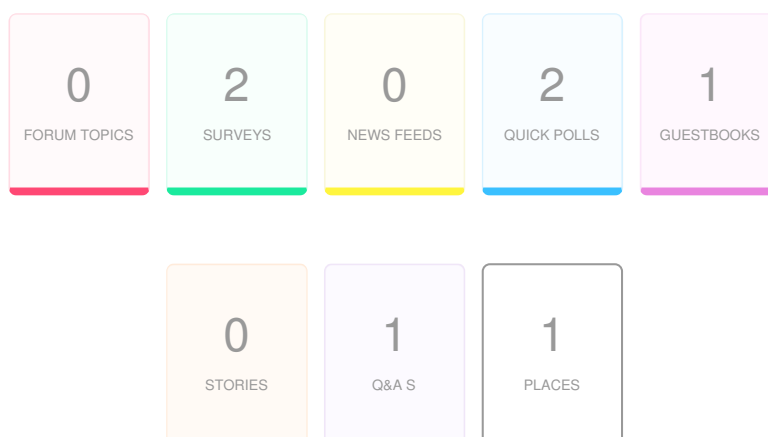


Highlights

TOTAL VISITS	600	MAX VISITORS PER DAY	40
NEW REGISTRATIONS	99		
ENGAGED VISITORS	79	INFORMED VISITORS	303
		AWARE VISITORS	490

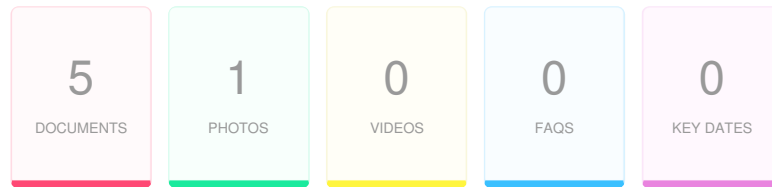
Aware Participants	490	Engaged Participants	79		
Aware Actions Performed	Participants	Engaged Actions Performed	Registered	Unverified	Anonymous
Visited a Project or Tool Page	490				
Informed Participants	303	Contributed on Forums	0	0	0
Informed Actions Performed	Participants	Participated in Surveys	65	0	0
Viewed a video	0	Contributed to Newsfeeds	0	0	0
Viewed a photo	165	Participated in Quick Polls	61	0	0
Downloaded a document	64	Posted on Guestbooks	0	0	0
Visited the Key Dates page	49	Contributed to Stories	0	0	0
Visited an FAQ list Page	0	Asked Questions	6	0	0
Visited Instagram Page	0	Placed Pins on Places	0	0	0
Visited Multiple Project Pages	219	Contributed to Ideas	0	0	0
Contributed to a tool (engaged)	79				

ENGAGEMENT TOOLS SUMMARY



Tool Type	Engagement Tool Name	Tool Status	Visitors	Contributors		
				Registered	Unverified	Anonymous
Qanda	What is your question regarding recreation at Glade Reser...	Published	106	6	0	0
Survey Tool	Recreation Survey	Published	179	58	0	0
Survey Tool	We'd Like Your Feedback	Published	74	19	0	0
Quick Poll	Which recreation options at Glade Reservoir will you use ...	Published	65	61	0	0
Quick Poll	Let us know which of the following recreational activitie...	Published	0	0	0	0

INFORMATION WIDGET SUMMARY



Widget Type	Engagement Tool Name	Visitors	Views/Downloads
Photo	Recreation Concept Plan	164	174
Photo	deleted photo from	1	1
Document	Glade Reservoir Recreation Concept Plan	42	43
Document	Recreation Memo for Larimer County Agreement	18	19
Document	Larimer County 2017 Reservoir Parks Master Plan	16	20
Document	NISP Final Environmental Impact Statement	3	3
Document	NISP Fish and Wildlife Mitigation and Enhancement Plan	1	1
Key Dates	Key Date	49	54

QANDA

What is your question regarding recreation at Glade Reservoir?

VISITORS	106	CONTRIBUTORS	6	CONTRIBUTIONS	6
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Q

Wilder Endeavors

18 July 19

As a life long bass angler, I've already heard rumors of how the lake is going to be restrictive to motorized boats and that fishing isn't being considered as much as, say even paddle boarding. Is this true? If so, why?

A

Publicly Answered

NISP has committed to developing Glade Reservoir as a cool-water fishery and is currently investigating types of boating access for the reservoir including allowing motorized boats. Additional information on the types of fish that will be stocked and the amount of funding that will be provided for the cool-water fishery can be found in Section 6.1.3.1 of the project's Fish and Wildlife Mitigation and Enhancement Plan.

Q

Dunbar

24 July 19

Why is it being considered as only a cool water fishery? We have enough "cool water fisheries" or "Trout fisheries" In Colorado, especially northern Colorado. Less trout, more bass!

A

Publicly Answered

Evaluations of glade reservoir indicate that it will have suitable aquatic habitat for cold and cool water fish species . Based on these assessments, Colorado Parks and Wildlife Aquatic Biologists developed a stocking plan for the reservoir that includes Walley, Smallmouth Bass, Saugeye, Black Crappie, Bluegill, Rainbow Trout, Yellow Perch and Tiger Muskie. We can pass your recommendations on stocking additional bass species on to Colorado Park s and Wildlife for their consideration when implementing the stocking plan.

QANDA

What is your question regarding recreation at Glade Reservoir?

Q

davidho

24 July 19

Will it be a state park?

A

Publicly Answered

Glade Reservoir will be owned by Northern Water. Northern Water will contract with an independent management agency to oversee and manage the recreation facilities associated with the reservoir. The decision on who that manager will be hasn't been made yet. Groups being considered include Larimer County, Colorado Parks and Wildlife, and a private concessionaire.

Q

Grealityguy

25 July 19

Would there be an opportunity for the Centennial Bass Club to partner in a Bass conservation and management program?

A

Publicly Answered

It sounds like there is a growing interest in bass fishing at Glade Reservoir including the interest in long-term management practices. We'd like to talk to you to get your feedback on that subject and discuss recreation at Glade Reservoir in general. Please call or email Christie Coleman at 970-622-2355 or ccoleman@northernwater.org at your convenience, and we can set up a time to talk.

QANDA

What is your question regarding recreation at Glade Reservoir?

Q

TomO

09 August 19

Good day, From the recreation concept plan it appears there won't be an above ground water outlet to Glade. Will the outflow be carried by a pipeline? I hope not as I'm a river fisherman and would enjoy having a tail water river to fish year round close to home. Thanks for the opportunity to submit some input. TomO

A

Publicly Answered

As part of a Conveyance Refinement Program, between 18 and 25 cubic feet of flow per second will be released from Glade Reservoir to the Poudre River year-round to eliminate locations on the river that have historically run dry, improve aquatic and terrestrial habitat, and create a healthy fishery near Fort Collins. Here's a map of the 12-mile river reach this flow will benefit. This flow will be added to the river at the canyon mouth and will be taken out of the river at approximately the Mulberry Street and Lemay Avenue intersection in Fort Collins right above the Mulberry water treatment facility discharge to help maintain water quality needed by project participants and maximize the length of river benefited by this flow.

QANDA

What is your question regarding recreation at Glade Reservoir?

Q

TheLaporterican

13 August 19

Is there a possibility for trails around the entire reservoir? Or, just the East side? NISP could receive more local support with better plans for recreation. What plans there are now, look worse than Horsetooth. To get the local community behind this project, I'd like to see better trail networks, shore access, and a hiking/mountain biking loop around Glade. The terrain and views are incredible, there's boundless opportunities for amazing trails. Look at Horsetooth / Lory as a benchmark, then do better. Connecting trails from the Poudre Trail, Watson Lake, to Glade would be a great start.

A

Publicly Answered

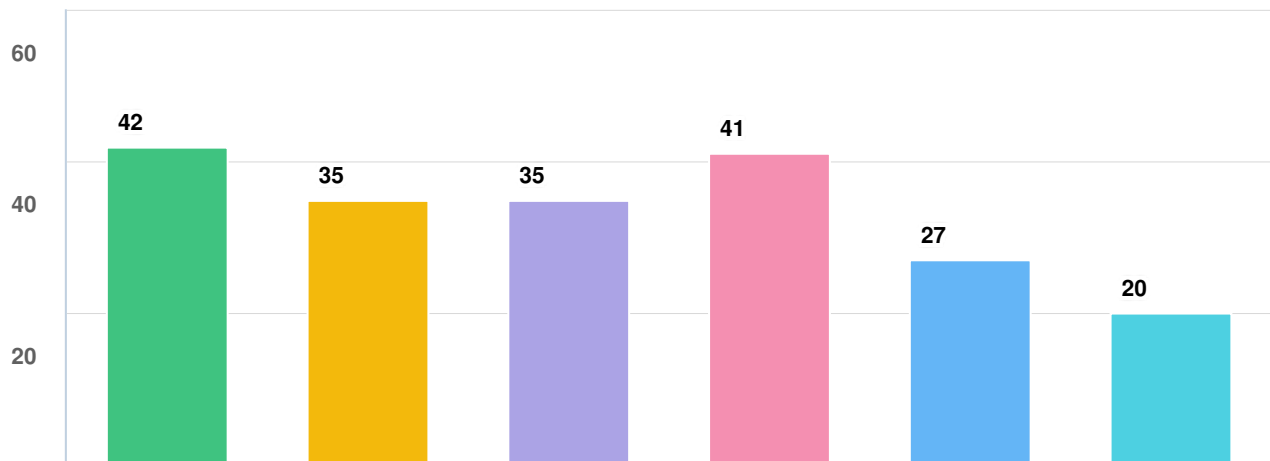
Land on the west and north side of the reservoir is being preserved as a wildlife habitat conservation area as required in the project's Fish and Wildlife Mitigation and Enhancement Plan. As part of this conservation area, one single trail on the west and north side of Glade Reservoir will be constructed within 50 meters of the high-water line to allow walk-in fishing access. Please see Sections 5.3.2.3 and 6.1.3.2 of the Fish and Wildlife Mitigation and Enhancement Plan for additional information on the trail and habitat conservation area goals, objectives, and locations. As shown on the recreation concept plan, a hiking trail is planned on the east side of the reservoir, and more hiking trails could be located in the 170-acre recreation area.

ENGAGEMENT TOOL: SURVEY TOOL

Recreation Survey

VISITORS	179	CONTRIBUTORS	58	CONTRIBUTIONS	58
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What types of watercraft activities should be included at Glade Reservoir? Select all that apply.

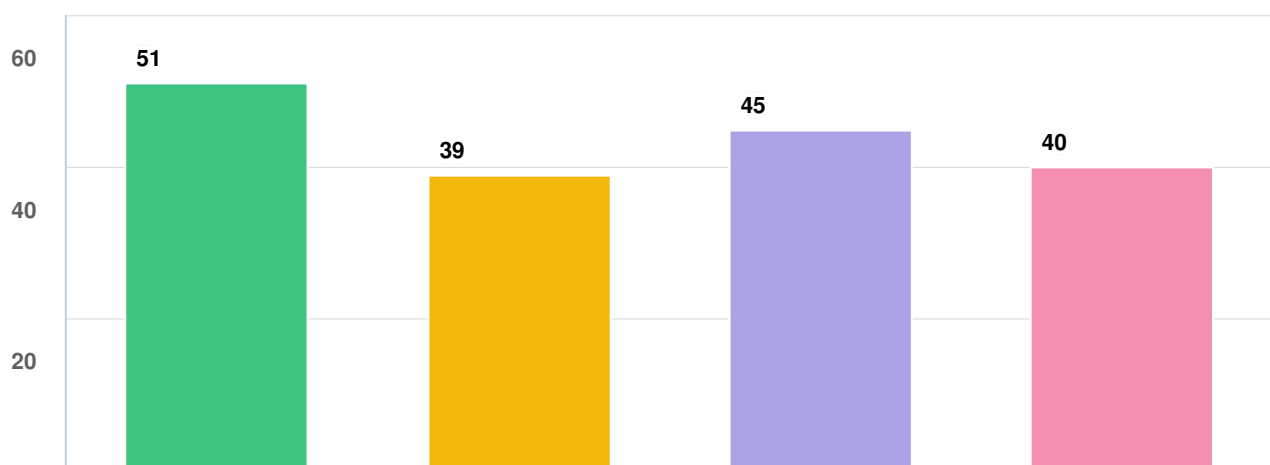


Question options

● Kayaking and canoeing
 ● Stand up paddle boarding
 ● Sailing
 ● Power boating
 ● Water skiing
 ● Jet skiing

Optional question (56 responses, 2 skipped)

What types of camping should be included at Glade Reservoir? Select all that apply.

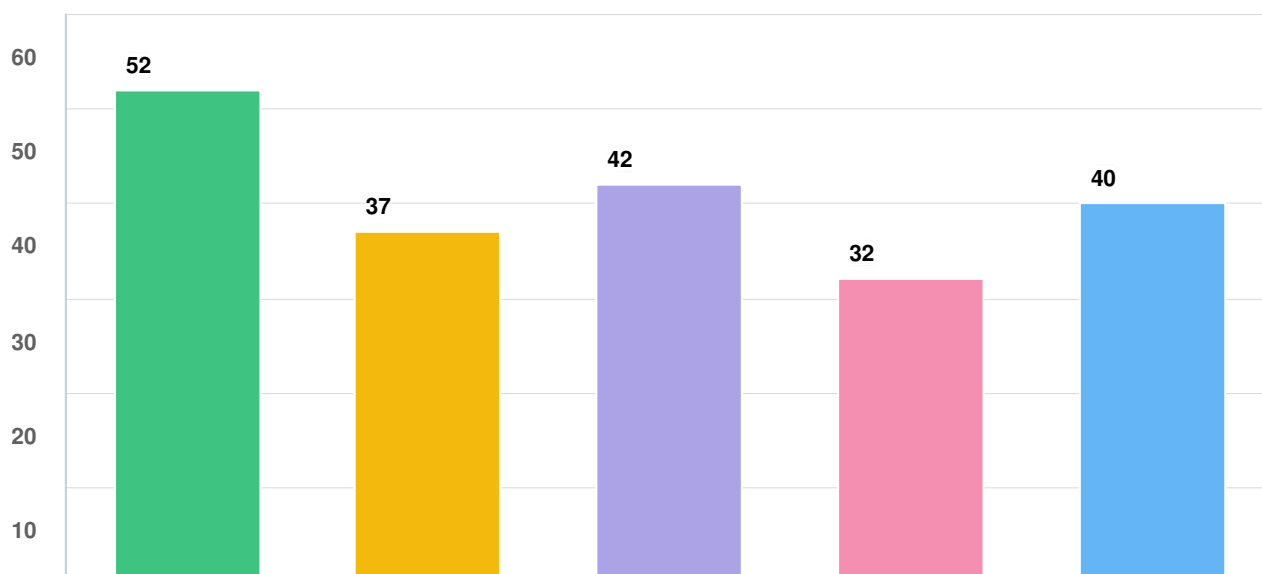


Question options

● Tent camping
 ● Walk-in camping
 ● Boat-in camping
 ● Developed/RV camping

Optional question (57 responses, 1 skipped)

What activities should be considered on a trail on the east side of the reservoir?
Select all that apply.

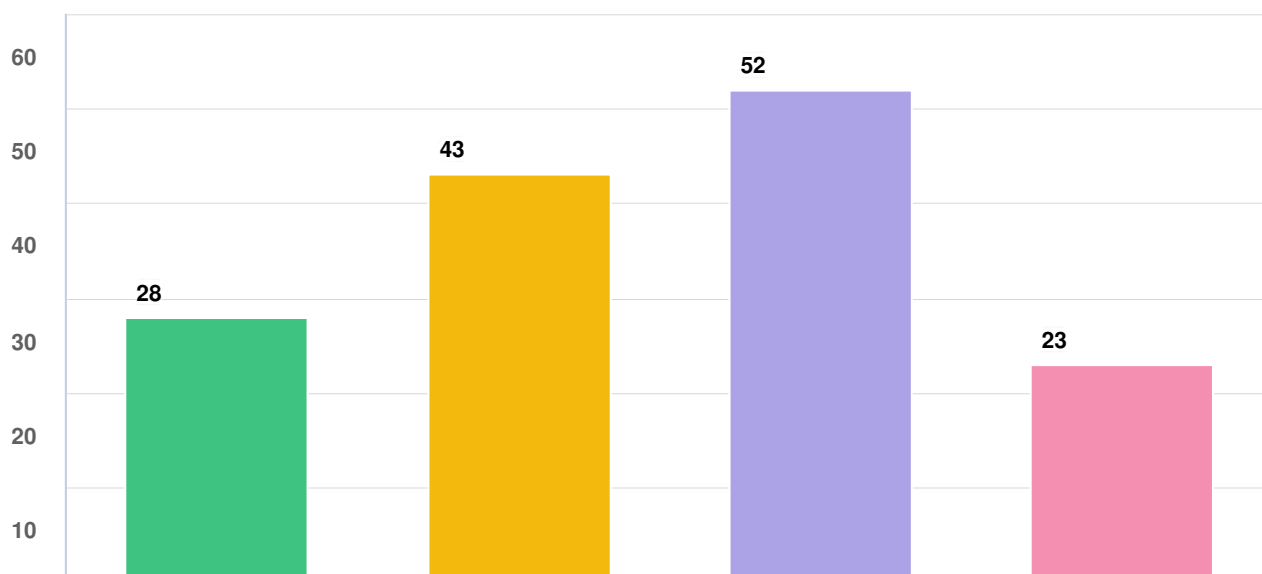


Question options

● Hiking ● Mountain biking ● Jogging/running ● Horseback riding ● Wildlife viewing

Optional question (57 responses, 1 skipped)

Which of these additional activities should be considered? Select all that apply.



Question options

● Large group picnicking ● Picnicking ● Fishing from the shore ● Scuba diving

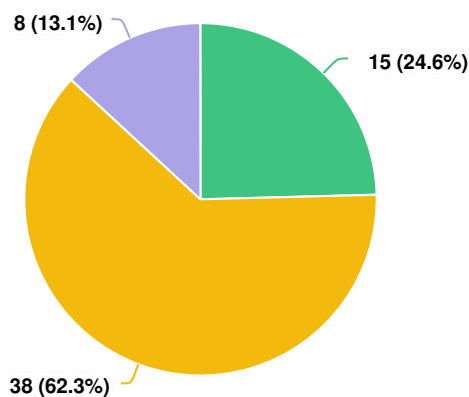
Optional question (55 responses, 3 skipped)

ENGAGEMENT TOOL: QUICK POLL

Which recreation options at Glade Reservoir will you use the most?

VISITORS 65	CONTRIBUTORS 61	CONTRIBUTIONS 61
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Which recreation options at Glade Reservoir will you use the most?



Question options

● Hiking (Walking, Running, or Biking)

● Boating (Motorized, Non-motorized, or Paddle Boarding)

● Camping (Tent, RV, or Walk-in)

(61 responses, 0 skipped)

Survey Report

04 June 2019 - 20 January 2020

We'd Like Your Feedback

PROJECT: Recreation at Glade Reservoir

NISP Talk



Q1 Feedback

Crotalis1

7/02/2019 05:42 AM

Hi, We border the new proposed reservoir directly. We believe with Horsetooth Reservoir already allowing power boats, that the proposed Glade Reservoir should cut a different and unique path by only allowing non-motorized boating. Wake creation, and noise and activity disruptions from power boats and jet skis will counter the shoreline conservation efforts, and increase shoreline erosion. Also it is a drinking water reservoir after all! Lead/toxics from gas and other organics gas engine effluents create counter the purity of the water. Jet skis and power boats detract dramatically from the other uses and create huge amounts of noise pollution! This stand may detract from our property values, but is worth it. Failing this, allowing only electric motors might be an intermediate step. Thanks for listening! Jeff Wimsatt and Kim Innes.

James

7/02/2019 07:33 AM

Good opportunity for more fishing, boating, remote camping and hiking. I don't like the idea of group campgrounds. It will be like that mess at Horsetooth. It will require a lot of people to maintain the campgrounds and police the area. I like the relocation of the highway as so many people have been killed from car and semi truck accidents near the intersection of the new Highway 287 and the old Highway 287.

James

7/02/2019 07:36 AM

I don't like the idea of group campgrounds. I will be directly impacted. The KOA campground has caused grass fires in the past and I think more campgrounds will add to the fire risk to residents in the area.

CMayer

7/02/2019 08:22 AM

Thank you for the opportunity to review the Glade Reservoir Recreation Concept Plan. As property owners on Arapaho Valley Road we are immediately adjacent to the NISP lands. While we are generally supportive of the Glade Reservoir Project, we are concerned about several proposals within Recreation Concept Plan: 1. No backcountry or boat-in camping should be allowed along the eastern shoreline. The entire shoreline is bordered by private lands and the noise, trash, and potential fire hazards of campsites would negatively affect these properties. The west side of the reservoir with its numerous coves and adjacent public lands is much better suited to backcountry camping. 2. Rock climbing should not be promoted as one of the activities accessible from the proposed Eastside Trail. All of the cliffs and escarpments are on private land and we do not want people trespassing to climb on the rocks. 3. If there is public access to the east shoreline, then the boundary of the NISP lands should be fenced and clearly marked to discourage people from trespassing on adjacent private lands. 4. We are concerned about the proposed number of campsites in the developed recreation area. The Concept Plan shows five campgrounds with at least 64 campsites. We think this is too high for an enjoyable camping experience and will negatively affect the surrounding environment. 5. The Recreation Concept Plan should discuss how to minimize the risk of wild fire as a result of camping and other activities. Local summer wind patterns tend to blow from the southwest and fire could easily spread from the campgrounds into

BPRresident

7/02/2019 05:29 PM

the flammable brush and rugged topography of the ridgeline to the north. There are and will be more homes in this neighborhood. Fire breaks, vegetation management, and burn bans during dry season should be integrated into the campground design. Again, thank you for the opportunity to comment. Craig Mayer and Richard Penland

Please no speed boats and jet skis on Glade. Let's keep the recreation focused on enjoying this beautiful foothills setting and the wildlife around it.

TAFaul

7/05/2019 01:40 PM

We think this will be a excellent addition to our growing area and it is an awesome enhancement to help the water, fish and wildlife. Plus it will relieve some of the traffic to Horsetooth. It's going to definitely be needed as our population keeps growing and help sustain through the drought times we have.

juliemb

7/15/2019 04:42 PM

Biking for kids and families. Fishing including boat rentals. An area for swimming.

M.Joseph

7/16/2019 07:58 PM

Please make a kmz file available showing the proposed Hwy 287 reroute alternatives.

Wilder Endeavors

7/18/2019 04:49 PM

There are only two lakes (Boyd & Horsetooth) of any respective size to pursue bass fishing. Carter was taken away as a viable option since it was turned into a trout fishery. Lonetree has been taken away. The point being, it sure would be nice if there were bass that we could catch from a bass boat in this lake.

SG

7/24/2019 07:15 AM

Please stock spotted bass as the dominant game fish

Rkelley0418

7/24/2019 07:44 AM

Would like to see a great fish management, bigger smallmouth.

Dunbar

7/24/2019 02:12 PM

I personally believe you should try to turn this into a bass fishery. Largemouth bass do surprisingly well in Horsetooth reservoir and they absolutely FLOURISHED in Carter lake before the county decided unilaterally to turn it into a cool water trout fishery. Smallmouth are a no brainer, they do well in warm and cool water... The water in glade wont be any colder than either of the previously mentioned lakes/reservoirs so I dont see why bass would not do well. There are plenty of cool water fisheries in Colorado, and tons in Larimer county alone. Not including Thousands of miles of rivers and streams that are literally FULL of trout.

Grealityguy

7/25/2019 02:50 PM

This could be a premier small mouth bass trophy lake, if kept to catch and release only, and partnered with the local Bass club for fish habitat, and conservation projects!

Gknack

7/26/2019 04:27 AM

The lake should ban wake board boats! They damage our water systems by throwing huge waves which the boat uses a water system to fill the boat to make a bigger wake, (good way to get zebra infestation) they also cause the shoreline to get washed away and cause the lakes to have up to 100 yards shallow shore, this I have witnessed in Michigan where they are banning these boats in some lakes, they also make up to 6' waves which rock every thing in the water past the no wake signs into the swim beaches. Keep the

SK

8/03/2019 06:43 AM

water peaceful.

Wouldn't it be cool if they added boat chutes and fish ladders in all the diversion dams so that filter plant connected to Watson lake? it would make a really nice, local, fishing trip. The shitty truth is, it will happen eventually. Might as well try and improve some habitat out of the deal.

Amy Jordan

10/18/2019 02:59 PM

More clear signage and "water etiquette" information for All visitors participating in water sports including kayaking, canoeing, and stand up paddle boarding. A "launching zone" or area designated to paddle boards, kayaks and canoes that does not interact with boat loading and unloading with boat ramps. A flat sandy surface for these types or "launching zones" instead of a rocky shoreline with boat ramps being the only clear space to access water.

northCR29ronnie

11/29/2019 08:31 AM

29Nov2019 NISP Ladies and Gentlemen, I am currently a resident living on N County Road 29 C and have so for approximately 11 years. My wife and I have worked and played here and bought this house/land because of the pristine nature of our surroundings and the peace and quiet this area brings into our lives. We are both retired and in love with the slow and quiet nature this valley brings to our golden years. I am writing to vehemently oppose any development (Glade Reservoir and proposed recreational facilities) that would bring environmental chaos to our area including many of our neighbors here on N 29 C, our neighbors in Bellvue and Laporte, and our neighbors to the north living in beautiful and bucolic Bonner Peak Ranch. What upsets me the most about this Glade proposal is that most of the people "benefiting" from this structure are living outside Larimer County while those living adjacent to the proposed reservoir will be bearing the personal costs and sacrificing our peaceful style of life that we hoped would last well into the future. There is a strong degree of social injustice that accompanies this entire proposal. I am concerned about the impact this project will have on the noise level of our valley (noise pollution), air pollution, the detrimental environmental effects on wildlife biodiversity, light pollution (the loss of our dark skies devoid of light so we can see starlit skies and constellations), possible contribution to wildfires by increased traffic in our surrounding hills and forests, the potential for trespassers straying away from the reservoir and on to contiguous private property, and the potential contribution to new development to this region and overcrowding. I am also concerned about the incredible pressure that will come to bear on our emergency response personnel who are already stretched to the limit in providing adequate coverage to our neighbors. As mentioned earlier, perhaps the most undesirable consequence is the noise pollution we can expect from this project not only during its 4-5 years period of construction, but from the traffic to and from the recreational facilities that are proposed. I don't want to think about the incredible disturbance to our peaceful valley motorboats and their occupants will bring. Most of my neighbors are older retirees and some suffer from heart and lung disease. The dust from the area and air pollution from fossil fueled engines of all kinds will likely trigger some difficult breathing issues for them. Building a reservoir for the purposes intended seems technologically 'old school'. Surely through better and more stringent

lemmule

11/29/2019 10:23 AM

conservation measures and access to aquifers through more advanced engineering techniques will better serve the needs of development far into the future with minimal impact to surrounding homes and villages. Please SCRAP this entire GLADE proposal and work on a more environmentally and personally satisfying solution for our future. Please do not let 'corporate America' once again shove their agenda in our lives! Greed and power are pushing this development which is SOP these days! Thank you for your time and consideration. Sincerely, Ronald M Bright, DVM MS DACVS Resident on N CR 29 C Bellvue, CO

Dear NISP Planners, I am a retired wildlife ecologist and local resident who lives north of Highway 14 and west of Ted's Place in Bellvue. I believe your "Conceptual Glade Recreation Facilities Plan" is incredibly short-sighted and seems to focus mainly on the economic benefits of recreation (estimated at \$13M to \$30M annually in your plan) and the exploitation of our valuable natural resources. In following through with your plan for Glade Reservoir and its associated recreation facilities, you will be completely destroying the relatively pristine valley northwest of Fort Collins in the name of fueling rapid, unsustainable regional population growth in smaller rural areas far away. You will also be permanently degrading the Poudre River riparian ecosystem which provides critically important habitat for many species of wildlife, including the threatened species, Preble's Meadow Jumping Mouse. Although you claim you will mitigate this degradation and destruction, I see nothing in your plans, or your EIS to assure me that this is even possible! Because of my proximity to your proposed recreation area and dam, I am quite concerned about the increase in foot traffic from hikers and campers in the surrounding hillsides, and the resulting loss of privacy. I also worry about noise from power boating and jet skiing. I moved here not only for the peace and quiet that this area provides, but also to be able to see an abundance of wildlife, birds, and beautiful star-lit skies at night. Your reservoir and planned recreation area will totally change the character of this valley and its surrounding foothills. Glade Reservoir and its planned recreation area will fragment and destroy wildlife habitat and also act as a barrier to migratory species, such as deer and elk. Your recreation plan offers many things for recreators, among them boating, jet skiing, water-skiing, cross-country skiing, and snowshoeing. With unpredictable water levels that may fluctuate as much as 35 feet, I seriously doubt that you will be providing great boating or water-skiing opportunities. And I'm guessing that there may only be one, or possibly two days a year when snow levels will be deep enough for any skiing or snowshoeing in your recreation area. In addition, by decreasing flows in the Poudre River when you pump water into your reservoir, you will be degrading the quality of trout fishing for anglers, as well as the quality of kayaking and rafting downstream. Communities nationwide are now recognizing that healthy free-flowing rivers are tremendous assets. In the past few years, many dams have either been torn down or blown up (72 in the United States last year alone!). Why not consider other real alternatives to Glade Reservoir, such as conservation, establishing a rotating fallow program, and/or aquifer storage and recovery? All of these alternatives

jmbright

12/01/2019 02:39 PM

prevent losing dramatic amounts of water to evaporation, and they would also keep all that land from being degraded and/or destroyed. You are asking our local community to sacrifice precious natural resources, the character of our neighborhood, and our quality of life so that other communities far away from us might benefit economically from expected, unsustainable growth. There are many, many valuable natural resources at stake here that could well be destroyed for future generations if we don't carefully plan ahead. Please rethink your outdated plan and come up with something better. Thanks for your time and consideration, Dr. Jan Rothe

NISP: I am writing to emphatically state that I oppose the Conceptual Glade Recreation Facilities Plan proposed by NISP. Although I consider the entire Glade Reservoir project a losing endeavor, I will focus this letter on reasons I believe the recreational plan is bad for both nearby residents and for Larimer County in general. The proposed recreational facilities will adversely affect the property value and the quality of life of residents owning property along the west side Highway 287. These residents will be in close proximity to the reservoir and its access roads, parking lots (cars and trailers), boat ramps, and camping grounds. Construction of these roads and sites will destroy the natural beauty surrounding our properties by turning untouched hillsides and gorgeous vistas into unsightly roads, parking lots, and expanses of tents and RVs. The proposed recreational facilities will result in nearby residents having to endure noise pollution (radios, voices, motor boats, generators, vehicles), air pollution (road dust, vehicle/boat exhaust, campfire smoke, etc.), and light pollution. Perhaps most important, presence of new roads, parking lots, and camp grounds will significantly increase the risk of wildfire - a HUGE concern in our already vulnerable area. The recreational facilities proposed will be visited by an estimated 379,000 visitors per year, more than 1,000 people per day. This presents a huge burden on Larimer County. The proposed facilities including roads, trails, parking areas, campgrounds, restrooms, entry station, visitor center will require significant county resources for patrol, management, and maintenance. In addition, the already overburdened emergency responders in the area will undoubtedly see calls for services increase greatly. Standing water in the proposed reservoir (particularly since Glade will have fluctuating water levels) along with presence of human food and waste, will undoubtedly result in increased spread of insect borne infectious diseases such as West Nile Virus, Pigeon Fever, and Vesicular Stomatitis Virus. We residents of Larimer County depend on our Planners and Commissioners to protect our interests; yet most County residents will not receive water benefits from the Glade Reservoir. Nor are the proposed recreational facilities likely to offer enjoyable water related activities since water quality and water levels are likely to be often inadequate. The proposed recreational benefits definitely do not outweigh the disadvantages. I implore you to reject the Glade Recreational Facilities Plan proposed by NISP, and, in fact, to work toward rejection of Glade Reservoir entirely in favor of a more up to date and efficient water use/storage plan that will not destroy the natural resources of our lovely County. Thank you for giving my thoughts and concerns your serious consideration. Sincerely, Janice. M. Bright

Certain tools on the NISPtalk.com website do not allow for public response via the platform, so NISPtalk.com managers crated email replies directly to the participant.

Response to Wilder Endeavors:

NISP has committed to developing Glade Reservoir as a cool-water fishery and is currently investigating types of boating access for the reservoir including allowing motorized boats. Additional information on the types of fish that will be stocked and the amount of funding that will be provided for the cool-water fishery can be found in Section 6.1.3.1 of the project's Fish and Wildlife Mitigation and Enhancement Plan.

Thanks,
Christie Coleman
Project Manager

Response to DavidHo:

Glade Reservoir will be owned by Northern Water. Northern Water will contract with an independent management agency to oversee and manage the recreation facilities associated with the reservoir. The decision on who that manager will be hasn't been made yet. Groups being considered include Larimer County, Colorado Parks and Wildlife, and a private concessioner.

Thanks,
Christie Coleman
Project Manager

Response to Dunbar:

Evaluations of glade reservoir indicate that it will have suitable aquatic habitat for cold and cool water fish species. Based on these assessments, Colorado Parks and Wildlife Aquatic Biologists developed a stocking plan for the reservoir that includes Walley, Smallmouth Bass, Saugeye, Black Crappie, Bluegill, Rainbow Trout, Yellow Perch and Tiger Muskie. We can pass your recommendations on stocking additional bass species on to Colorado Parks and Wildlife for their consideration when implementing the stocking plan.

Thanks,

Christie Coleman
Project Manager

Response to Grealityguy:

It sounds like there is a growing interest in bass fishing at Glade Reservoir including the interest in long-term management practices. We'd like to talk to you to get your feedback on that subject and discuss recreation at Glade Reservoir in general. Please call or email Christie Coleman at 970-622-2355 or ccoleman@northernwater.org at your conveyance, and we can set up a time to talk.

Thanks!

Christie Coleman
Project Manager

Response to TomO:

Question: Good day, From the recreation concept plan it appears there won't be an above ground water outlet to Glade. Will the outflow be carried by a pipeline? I hope not as I'm a river fisherman and would enjoy having a tail water river to fish year round close to home. Thanks for the opportunity to submit some input. TomO

Hello TomO,

As part of a Conveyance Refinement Program, between 18 and 25 cubic feet of flow per second will be released from Glade Reservoir to the Poudre River year round to eliminate locations on the river that have history run dry; improve aquatic and terrestrial habitat; and create a healthy fishery near Fort Collins. Here's a map of the 12-mile river reach this flow will benefit.

This flow will be added to the river at the canyon mouth and will be taken out of the river at approximately the Mulberry Street and Lemay Avenue intersection in Fort Collins right above the Mulberry water treatment facility discharge to maintain water quality needed by Project Participants and maximize the length of river benefited by this flow.

Thanks,
Christie Coleman
Project Manager

Survey Report

04 June 2019 - 20 January 2020

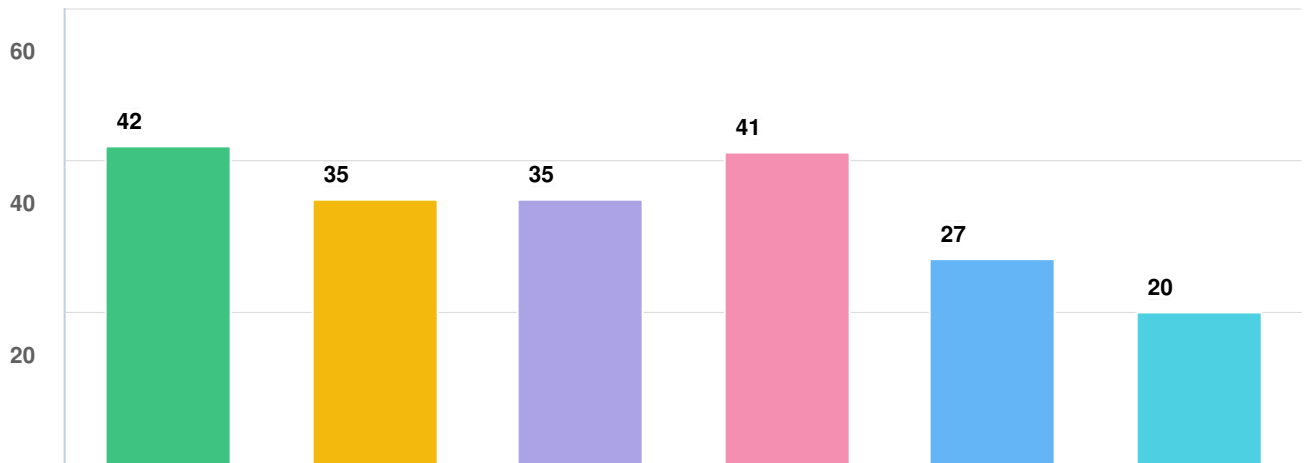
Recreation Survey

PROJECT: Recreation at Glade Reservoir

NISP Talk



Q1 What types of watercraft activities should be included at Glade Reservoir? Select all that apply.

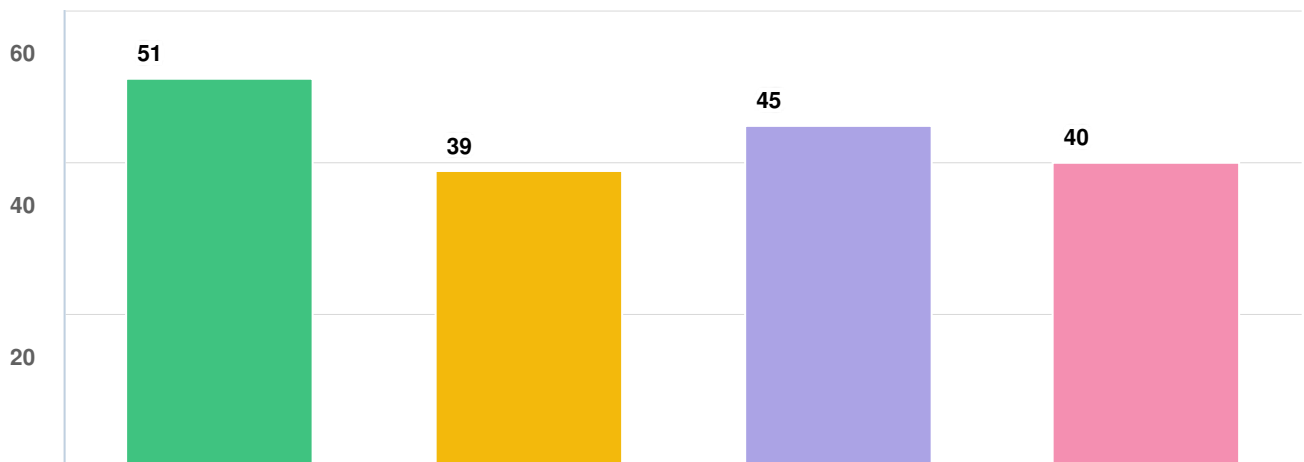


Question options

● Kayaking and canoeing ● Stand up paddle boarding ● Sailing ● Power boating ● Water skiing ● Jet skiing

Optional question (56 responses, 2 skipped)

Q2 What types of camping should be included at Glade Reservoir? Select all that apply.

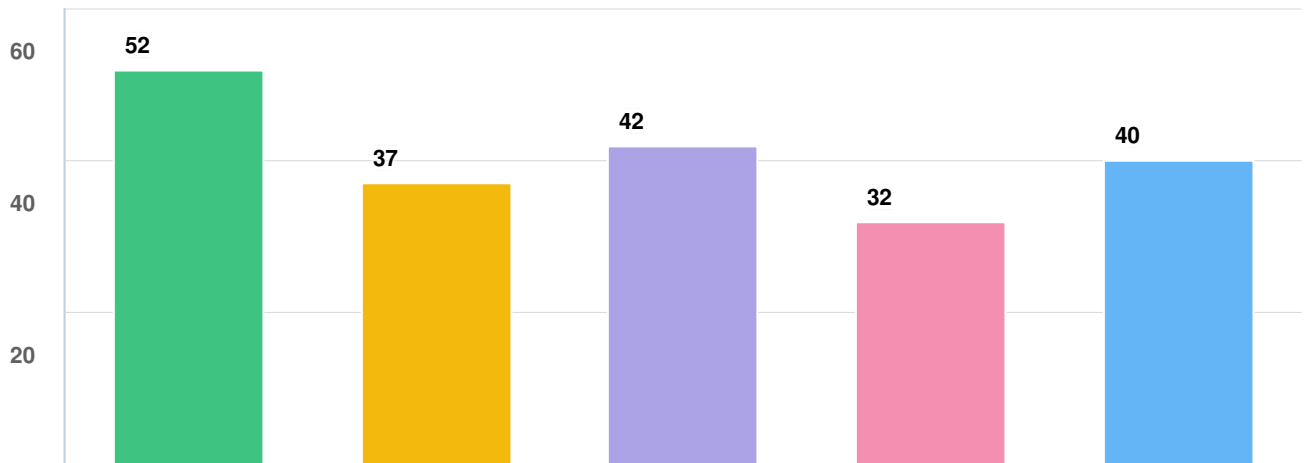


Question options

● Tent camping ● Walk-in camping ● Boat-in camping ● Developed/RV camping

Optional question (57 responses, 1 skipped)

Q3 What activities should be considered on a trail on the east side of the reservoir? Select all that apply.

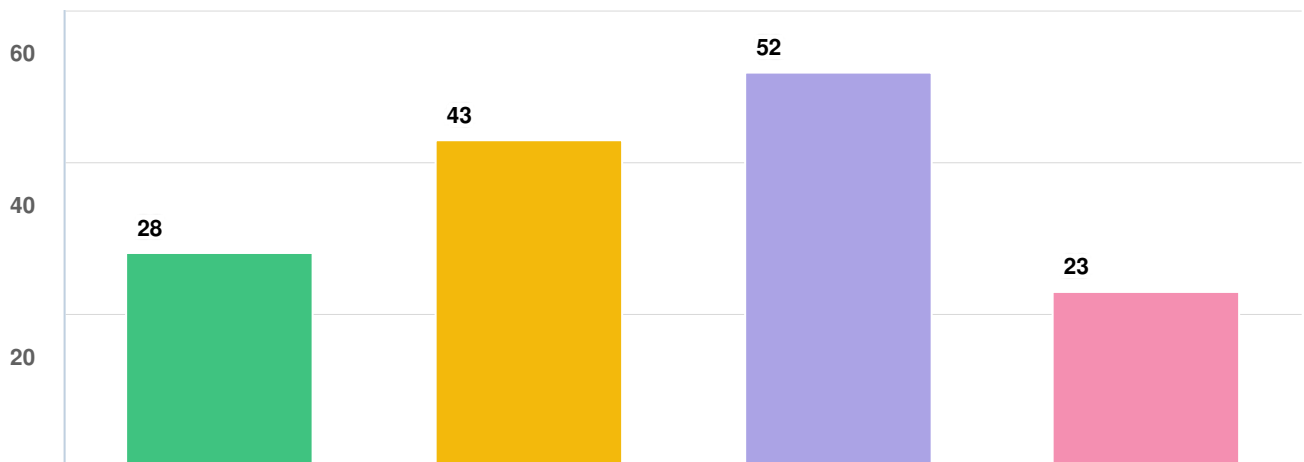


Question options

● Hiking ● Mountain biking ● Jogging/running ● Horseback riding ● Wildlife viewing

Optional question (57 responses, 1 skipped)

Q4 Which of these additional activities should be considered? Select all that apply.



Question options

● Large group picnicking ● Picnicking ● Fishing from the shore ● Scuba diving

Optional question (55 responses, 3 skipped)

Q5 What other types of recreation should be considered?

lydiathompson

7/02/2019 08:58 AM

unique area, don't make it a zoo like Horsetooth

MD19

7/08/2019 10:08 AM

General uses similar to those found on Horsetooth and Carter lakes.

TBondu

7/08/2019 01:03 PM

Mountain biking. More mountain biking. Even more mountain biking.

Kirk

7/18/2019 03:56 PM

Please stock with black bass.

Wilder Endeavors

7/18/2019 04:43 PM

Fishing. I'd highly recommend an initial stocking of all 3 species of black bass to see which one takes.

Peacemaker208

7/18/2019 05:17 PM

Hunting / Fishing

Joelcartier

7/18/2019 05:48 PM

Wakeboarding and wake surfing

Jpmurer

7/20/2019 04:40 PM

Wakeboarding/Wakesurfing

Gatorsmj

7/24/2019 07:09 AM

This is a great opportunity to have another great place to fish in Northern Colorado! It has great structure and could be a world class smallmouth bass reservoir!

Coyute

7/24/2019 07:43 AM

Bass fishing. Colorado has enough synthetic trout lakes.

Tcarwin

7/24/2019 08:55 AM

Trophy bass fishing- catch/ release only

macvee

7/24/2019 01:52 PM

I'm aware that it would be nearly impossible to avoid the presence of power boats on such a large reservoir, and thus jetskis and waterskiing, but personally I favor non-motorized boating, especially with the proximity of Horsetooth reservoir and Boyd Lake.

ckoldeway

7/24/2019 02:42 PM

Bass Fishing Walleye Fishing

davidho

7/24/2019 02:48 PM

Bass and walleye fishing

Chadrok

7/24/2019 05:04 PM

Keep the lake wake less

Hammy151

7/24/2019 06:56 PM

Fishing tournaments (boat and from shore)

Colorado Ranger

7/24/2019 08:04 PM

Fishing from boats

MPM

7/25/2019 05:53 AM

Colorado lakes are becoming very busy and we all need to work together weather you fish, water ski or pleasure boating etc. As it sits now we normally go out of state to fish due to the state and counties not willing to address the wave board boats. Some states have taken measures to not allow these boats on any lakes due to the high level threat of infesting lakes due to that you can't get all the water out of the ballast tanks. My recommendation would be if wave boats are allowed they have a part fo the lake that these boats are not allowed due to the high wave they create. Paddle boarders should be allowed to use the lake as well but rules must be enforced. Boats must have lights on at dusk and dawn as well should these boarders. I can say while fishing at night and going down the lake. You can't see these boarders and it is eventually going to happen and have a fatality on one of your lakes.

Sbirdman1

7/25/2019 10:57 AM

Catch and release Bass Fishing

Grealityguy

7/25/2019 02:32 PM

Tournament fishing.

Gknack

7/26/2019 04:29 AM

Bass and walleye fishing

Milehisnk

7/29/2019 08:16 AM

Warm water species fishing

jacksonmjcpo

7/29/2019 09:45 AM

Bass fishing

jcioneck

7/30/2019 08:02 AM

Fishing,hiking,& sight-seeing are the majors that should be included and possibly boating with a max capacity of 25-40 hp on any "motor boats"

turrialba

8/02/2019 01:30 PM

There should be mountain bike specific trails

JasonG

8/21/2019 05:44 PM

Swim beach

Hhissrich

8/23/2019 04:17 PM

Rowing!

Amy Jordan

10/18/2019 02:55 PM

As a current vendor working with Larimer County we need a "launching Area" designated to non-motorized vessels such as kayaks, canoes and standup paddle boards. An area that is not rocky and flat for easier launching and landing zone for these types of activities. More clear signage and "water etiquette" signage for rules and regulations for All watersport activities.

Optional question (28 responses, 30 skipped)

Project Report

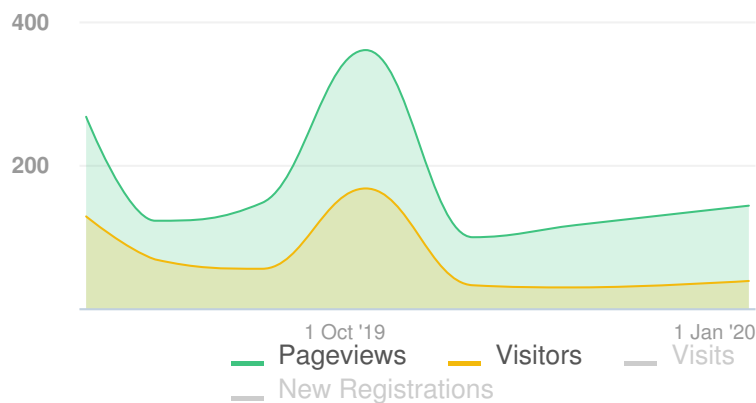
04 June 2019 - 20 January 2020

NISP Talk

U.S. Highway 287 Relocation



Visitors Summary

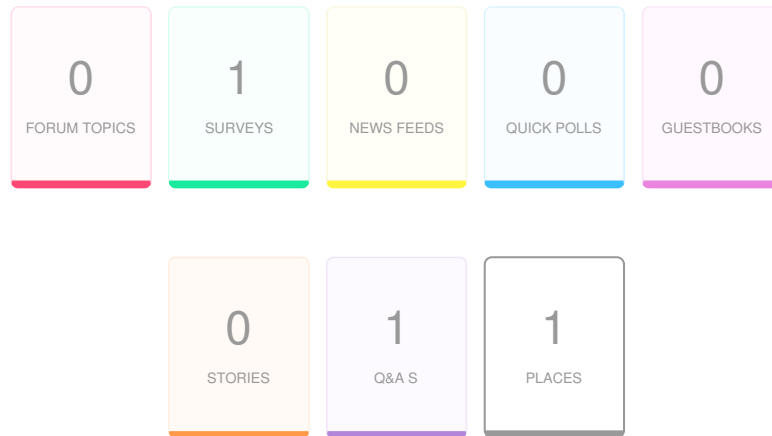


Highlights

TOTAL VISITS	MAX VISITORS PER DAY	
540	32	
NEW REGISTRATIONS		
9		
ENGAGED VISITORS	INFORMED VISITORS	AWARE VISITORS
6	247	461

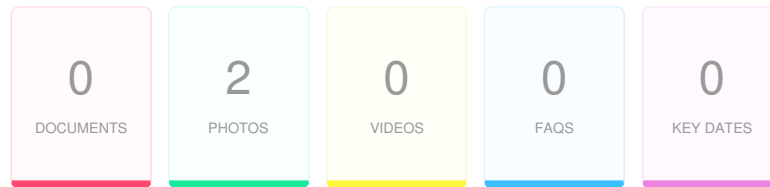
Aware Participants	461	Engaged Participants	6
Aware Actions Performed	Participants	Engaged Actions Performed	Registered Unverified Anonymous
Visited a Project or Tool Page	461	Contributed on Forums	0 0 0
Informed Participants	247	Participated in Surveys	4 0 0
Informed Actions Performed	Participants	Contributed to Newsfeeds	0 0 0
Viewed a video	0	Participated in Quick Polls	0 0 0
Viewed a photo	225	Posted on Guestbooks	0 0 0
Downloaded a document	0	Contributed to Stories	0 0 0
Visited the Key Dates page	0	Asked Questions	0 0 0
Visited an FAQ list Page	0	Placed Pins on Places	2 0 0
Visited Instagram Page	0	Contributed to Ideas	0 0 0
Visited Multiple Project Pages	238		
Contributed to a tool (engaged)	6		

ENGAGEMENT TOOLS SUMMARY



Tool Type	Engagement Tool Name	Tool Status	Visitors	Contributors		
				Registered	Unverified	Anonymous
Place	Highway 287 Map	Published	59	2	0	0
Survey Tool	We'd Like Your Feedback	Published	33	4	0	0

INFORMATION WIDGET SUMMARY



Widget Type	Engagement Tool Name	Visitors	Views/Downloads
Photo	deleted photo from	199	214
Photo	Highway Relocation and Glade Reservoir Exhibit	25	32
Photo	U.S. Hwy. 287 Realignment	20	22

ENGAGEMENT TOOL: PLACE

Highway 287 Map

VISITORS 59	CONTRIBUTORS 2	CONTRIBUTIONS 2
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2019-11-01 11:19:12 -0700	<p>Will the relocated US 287 be a divided 4 lane? If not, it should be. Drivers, especially those unfamiliar with the road, do not seem to know when to pass on US 287 & avoiding close calls is a way of life driving it. The relocation would be a great time to implement a divided roadway. Wyoming's solution works extremely well.</p> <p>Address: US Route 287, Laporte, Colorado 80535, United States</p> <p>http://www.nisptalk.com/us-highway-287-relocation/maps/highway-287-map?reporting=true#marker-18422</p>
cyberranger	
CATEGORY Pin	

2020-01-20 16:32:27 -0800	<p>Please explain the areas which appear to be on the mueller property and the Mellos property</p> <p>Address: US Route 287, Laporte, Colorado 80535, United States</p> <p>http://www.nisptalk.com/us-highway-287-relocation/maps/highway-287-map?reporting=true#marker-20027</p>
Ingleside1	
CATEGORY Pin	

Certain tools on the NISPTalk.com website do not allow for public response via the platform, so NISPTalk.com managers created email replies directly to the participant.

Response to cyberranger:

Hello:

Thanks for posting the following question regarding the road configuration of the proposed U.S. Hwy. 287 relocation on the NISPTalk.com site.

Question:

Will the relocated US 287 be a divided 4 lane? If not, it should be. Drivers, especially those unfamiliar with the road, do not seem to know when to pass on US 287 & avoiding close calls is a way of life driving it. The relocation would be a great time to implement a divided roadway. Wyoming's solution works extremely well.

In answer to your question, existing and future (2040) traffic volumes were analyzed to determine the appropriate number of lanes on the relocated portion of US 287. Accident history for the corridor was also reviewed, which predominantly consists of impacts with fixed objects and wild animals. Based on the analysis, and review and approval by CDOT, a two-lane section was proposed, which replaces the existing US 287 alignment in a similar nature while providing safety improvements where practical. The two-lane cross section was also what was cleared during the environmental planning and clearance phases of the project. Climbing and passing lanes will be provided on the relocated portion of US 287 as appropriate.

Please let us know if we can provide any additional assistance, and have a nice weekend.

Best regards,

Christie Coleman
Project Manager

In response to Ingelside1:

Hello,

In this area, the intersection of Big Ridge Way with US 287 is being moved approximately 600' to the south, so that the intersection will be perpendicular to the new alignment (red color). On the Mueller property, a temporary construction easement will likely be required at the tie-in of the realigned intersection with existing Big Ridge Way. For the Mellos property, the existing dirt road access (magenta color) will be extended to meet the realigned Big Ridge Way. A temporary construction easement may be required on the Mellos property to tie-in this extension. US 287 and Big Ridge Way will be within their own right-of-way.

Thanks a bunch, and feel free to call or email if you would like to discuss anything.

Best regards,

Christie Coleman
Project Manager

A separate email sent to NISPTalk@northernwater.org

Sir or Madam,

Would you please forward additional information as to how significant traffic disruptions will be avoided during the 7 mile Highway 287 relocation phase of the project.

Thank you,
Jan G.

Hello!

Thank you for your question. Construction of the relocated Highway 287 will be completed prior to the completion of Glade Reservoir to avoid any road closures and associated displacement of traffic onto other roads. There will be minor traffic impacts at both the North and South tie-in locations along Highway 287 for the new alignment, but these won't involve road closures.

We don't have the exact time frames nailed down, but the construction for the highway will likely take place in 2023-2024.

Please let me know if we can help answer any other questions.

Thank you and have a nice day,

Stephanie Cecil, P.E. | Water Resources Project Engineer

Survey Report

04 June 2019 - 20 January 2020

We'd Like Your Feedback

PROJECT: U.S. Highway 287 Relocation

NISP Talk



Q1 Feedback

Kevin Duffy

10/10/2019 04:02 AM

My wife and myself as well as many neighbors commute down to Fort Collins and other Tony range cities. The proposed relocation of 287 will add time to an already long commute. We do not want the program to move forward. We will vote against Glade Reservoir.

ftcav

11/11/2019 08:17 PM

Could you please post an accurate map of the entire 287 project? At the last Open House, I learned there is a roundabout and a frontage road. The maps on your website are woefully lacking detail about the road. It's hard to know what I should be asking about when you haven't provided adequate detail about significant aspects of this part of the project.

Norm S

12/18/2019 04:57 PM

There have been several accidents at the entrance of Bonner Peak Ranch . Would it be possible to put in a turn lane off of 287 at the entrance ? Thank you

Optional question (3 responses, 1 skipped)

Certain tools on the NISPtalk.com website do not allow for public response via the platform, so NISPtalk.com managers crated email replies directly to the participant.

Response to ftcav:

Thank you for your feedback! We've added an interactive map of the Highway 287 project to our website. Please go to the following web address to see the limits of the 287 highway realignment, including the frontage road and proposed round about location: <https://www.nisptalk.com/us-highway-287-relocation/maps/highway-287-map>

Thanks and have a great day,

Stephanie Cecil, P.E. | Water Resources Project Engineer

Response to Norm S.

Hello,

Thank you for your feedback on our project. In response, the US 287/Bonner Springs Ranch Road intersection is outside the limits of the NISP US 287 relocation and the scope of that relocation project. We have been in contact with CDOT sharing the neighborhood's concerns with that intersection, the Owl Canyon intersection, and the overall safety of US 287. We will continue to talk with CDOT during design regarding opportunities to address these concerns outside of this project.

Thanks,
Christie Coleman
Project Manager

Project Report

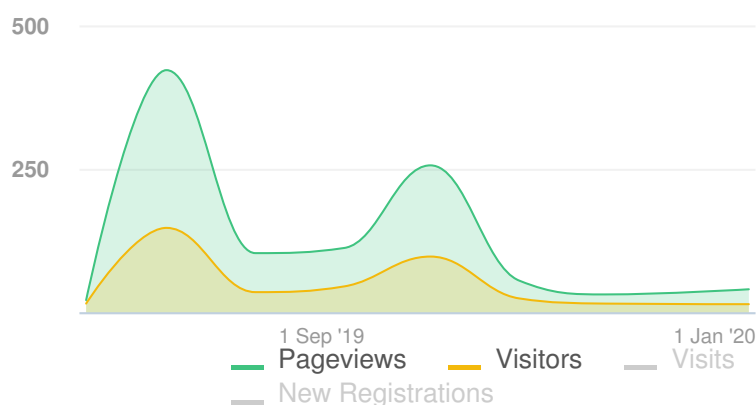
04 June 2019 - 20 January 2020

NISP Talk

What is the Northern Integrated Supply Project?



Visitors Summary

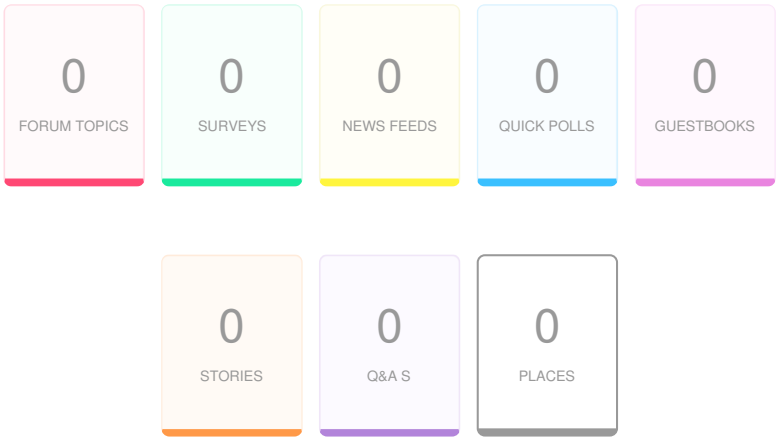


Highlights

TOTAL VISITS	MAX VISITORS PER DAY	
440	22	
NEW REGISTRATIONS		
4		
ENGAGED VISITORS	INFORMED VISITORS	AWARE VISITORS
0	210	351

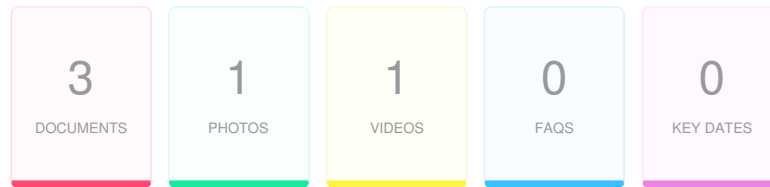
Aware Participants	351	Engaged Participants	0		
Aware Actions Performed	Participants	Engaged Actions Performed	Registered	Unverified	Anonymous
Visited a Project or Tool Page	351				
Informed Participants	210	Contributed on Forums	0	0	0
Informed Actions Performed	Participants	Participated in Surveys	0	0	0
Viewed a video	0	Contributed to Newsfeeds	0	0	0
Viewed a photo	146	Participated in Quick Polls	0	0	0
Downloaded a document	105	Posted on Guestbooks	0	0	0
Visited the Key Dates page	0	Contributed to Stories	0	0	0
Visited an FAQ list Page	0	Asked Questions	0	0	0
Visited Instagram Page	0	Placed Pins on Places	0	0	0
Visited Multiple Project Pages	179	Contributed to Ideas	0	0	0
Contributed to a tool (engaged)	0				

ENGAGEMENT TOOLS SUMMARY



Tool Type	Engagement Tool Name	Tool Status	Visitors	Contributors		
				Registered	Unverified	Anonymous

INFORMATION WIDGET SUMMARY



Widget Type	Engagement Tool Name	Visitors	Views/Downloads
Photo	NISP general map with logo (June 2019)	146	166
Photo	deleted photo from	1	1
Document	Description of the Glade Reservoir Complex	95	120
Document	NISP Final Environmental Impact Statement	19	20
Document	Description of the South Platte Water Conservation Project	16	18
Video	NISP: Purpose & Need	0	0

Project Report

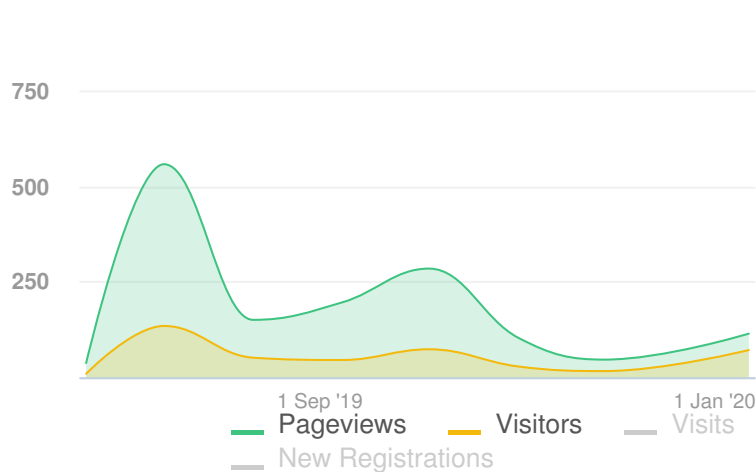
04 June 2019 - 20 January 2020

NISP Talk

Water Pipelines in Larimer County



Visitors Summary

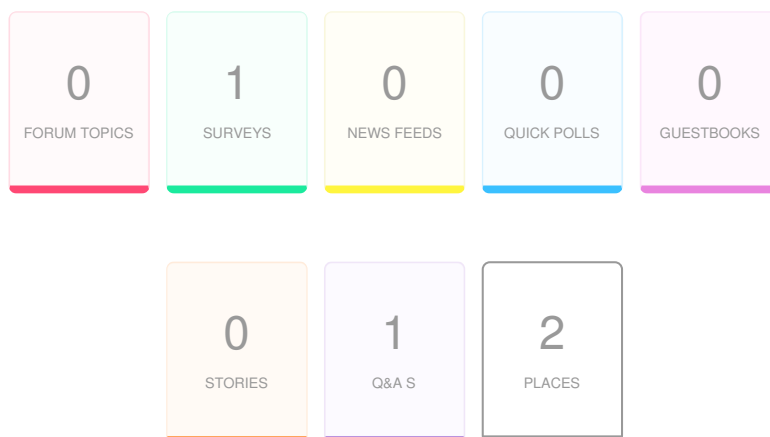


Highlights

TOTAL VISITS	459	MAX VISITORS PER DAY	51
NEW REGISTRATIONS	9		
ENGAGED VISITORS	8	INFORMED VISITORS	208
		AWARE VISITORS	350

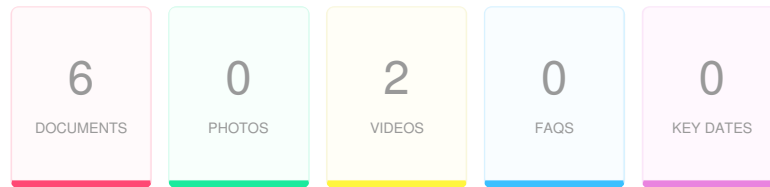
Aware Participants	350	Engaged Participants	8
Aware Actions Performed	Participants	Engaged Actions Performed	RegisteredUnverifiedAnonymous
Visited a Project or Tool Page	350		
Informed Participants	208	Contributed on Forums	000
Informed Actions Performed	Participants	Participated in Surveys	100
Viewed a video	1	Contributed to Newsfeeds	000
Viewed a photo	0	Participated in Quick Polls	000
Downloaded a document	80	Posted on Guestbooks	000
Visited the Key Dates page	0	Contributed to Stories	000
Visited an FAQ list Page	0	Asked Questions	400
Visited Instagram Page	0	Placed Pins on Places	300
Visited Multiple Project Pages	185	Contributed to Ideas	000
Contributed to a tool (engaged)	8		

ENGAGEMENT TOOLS SUMMARY



Tool Type	Engagement Tool Name	Tool Status	Visitors	Contributors		
				Registered	Unverified	Anonymous
Qanda	What is your question regarding the NISP Pipelines?	Published	16	4	0	0
Place	Pipeline Map	Published	236	3	0	0
Place	New map	Draft	0	0	0	0
Survey Tool	Request Follow Up	Published	4	1	0	0

INFORMATION WIDGET SUMMARY



Widget Type	Engagement Tool Name	Visitors	Views/Downloads
Document	Conveyance Refinement Map	53	58
Document	Technical Memo - Conveyance Routing	32	34
Document	Pipeline Construction and Restoration Overview	32	34
Document	Pipeline FAQs	30	32
Document	NISP Mitigation	4	5
Document	General Pipeline Construction Practices	2	2
Video	NISP: Enhancing Flows on the Poudre River	1	1
Video	NISP and Recreational Opportunities	0	0

QANDA

What is your question regarding the NISP Pipelines?

VISITORS 16	CONTRIBUTORS 4	CONTRIBUTIONS 5
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Prospectortom

15 July 19

I have adjudicated water gathering lines that your proposed pipe will sever on CR44, probably negatively affecting the groundwater reticulation. How are you dealing with those issues?



Publicly Answered

Thank you for your question! A detailed geotechnical investigation will be done to determine the existing groundwater levels and movement in the area. Depending on what is found, a variety of mitigation options are available to control and limit groundwater movement - low strength concrete material surrounding the pipe, clay collars to prevent groundwater movement along the pipeline trench, sand bedding to allow groundwater to move through the pipeline trench, etc.



Sandy Helzer

05 August 19

Is this pipeline going to be the same pipeline that the City of Thornton is proposing? The route looks the same in front of our property.



Publicly Answered

Thank you for your question! NISP is a completely separate project from the City of Thornton and being organized by a different entity – Northern Water. You can find more information about the project at www.nisptalk.com/what-is-the-northern-integrated-supply-project and www.gladereservoir.org.

QANDA

What is your question regarding the NISP Pipelines?

Q

Csondrup

08 August 19

Hello, we just heard from a neighbor you are planning on putting a pipeline on our property. We live at 34310 County Road 13. We would like to discuss this with a representative. The location appears to follow our irrigation ditch, which if torn up for a pipeline would destroy our ability to get water to our fields. Also this route is the exact location the City of Thornton is planning on placing their pipeline. ~Carole

A

Privately Answered

Thank you for your question! We would be happy to discuss the project in more detail with you in person or by phone. Please contact me at 970-622-2231 or scecil@northernwater.org. We are aware of the irrigation ditch in the area. We typically try to cross or parallel ditches during non-irrigation time to avoid negatively impacting your property during irrigation season. If the pipeline was constructed during irrigation season, the construction requirements would include provisions to provide for temporary piping in order to maintain irrigation flows. At the completion of the pipeline construction, it is anticipated that all surface features and irrigation facilities would be returned to their pre-construction conditions. Regarding Thornton's proposed pipeline, we are aware that the proposed City of Thornton pipeline is indicated at a similar location/alignment as the NISP pipeline. We are continuing to coordinate with the City of Thornton as the NISP pipeline project moves forward, although the City of Thornton's project has been delayed due to permitting issues with Larimer County.

QANDA

What is your question regarding the NISP Pipelines?

Q

Csondrup

08 August 19

Are you aware there is a rather large electrical line following the same route on our property? We live at 34310 County Road 13, Windsor

A

Privately Answered

We are aware of and have received general information from Poudre Valley Rural Electric Association (PVREA) in regards to their buried electric lines along the east side of County Road 13. As the design of the NISP project progresses, more detailed location and easement information will be obtained for the PVREA facilities and appropriate pipeline alignment adjustments implemented to avoid conflicts with these facilities.

A question from Donna Braginetz:

Q: It's not on the maps right now, but what guarantee do we have that, in a few years, there won't be a pipeline "needed" to run through Bellvue to connect Glade to Horsetooth?

Hello,

Thank you for your question! There is no planned pipeline between the proposed Glade Reservoir and the existing Horsetooth Reservoir. This pipeline was part of previous iterations of the project but is no longer included in any current or future plans. The federal, state, and Larimer County permitting processes do not include this pipeline. In the future, if it were determined that any other pipelines were needed in the project, applicants would have to go through all required permitting processes separately.

Thanks,
Stephanie Cecil
Project Engineer

ENGAGEMENT TOOL: PLACE

Pipeline Map

VISITORS 236	CONTRIBUTORS 3	CONTRIBUTIONS 3
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2019-07-17 10:08:38 -0700 j.eastman CATEGORY Comment Pin	I own Fort Collins Nursery, and this map shows the pipeline going directly through the center of my property. I have not been contacted by anyone requesting permission for this. Is this route accurate, or should it be revised? What will I be compensated for allowing this to pass through my property? Address: 2007 East Mulberry Street, Fort Collins, Colorado 80524, United States http://www.nisptalk.com/water-pipelines-in-larimer-county/maps/Pipeline-Map?reporting=true#marker-15595
2019-07-18 07:12:17 -0700 maxx1313 CATEGORY Comment Pin	i live at 5118 west County road 56 and run my cattle in front of my house lease from the state, just need to know if you will be impacting my pasture land since you say you need 100 feet to dig in the pipe you will be paralleling the pasture Address: Us Route 287, Laporte, Colorado 80535, United States http://www.nisptalk.com/water-pipelines-in-larimer-county/maps/Pipeline-Map?reporting=true#marker-15671
2019-07-20 08:12:23 -0700 John Jay CATEGORY Comment Pin	Just a question. We've received information from the City of Thornton about their water supply pipeline accessing the road in front of our home. Is this the same project, or is this an additional pipeline? Thanks. Address: 3993 North County Road 1, Windsor, Colorado 80550, United States http://www.nisptalk.com/water-pipelines-in-larimer-county/maps/Pipeline-Map?reporting=true#marker-15735

Certain tools on the NISPTalk.com website do not allow for public response via the platform, so NISPTalk.com managers created email replies directly to the participant.

Response to j.eastman:

Hello,

Thank you for your question: I own Fort Collins Nursery, and this map shows the pipeline going directly through the center of my property. I have not been contacted by anyone requesting permission for this. Is this route accurate, or should it be revised? What will I be compensated for allowing this to pass through my property?

The map does correctly show our preferred alignment, which is through your property. Our typical process would be to request an easement from you after the project is permitted by the federal government, and the Larimer County permitting that is ongoing. Neither of these processes is currently complete. We do negotiate with landowners, pay fair market value for easements, and try to better understand the current site usage to minimize impacts. We would be happy to meet with you to discuss the alignment, your concerns, what the typical process for acquiring easements is, etc. We'd also be happy to answer any additional questions you have.

Thanks!
 Stephanie Cecil
 Project Engineer

Hello, thank you for your question. At this time, we are currently working with the state to investigate the opportunity of using state ROW in this area. If this isn't feasible, the pipeline location would likely be into your pastureland. If we did request an easement from you, we would provide any sort of livestock fencing preference that you have during construction and work to minimize impacts to your pasture. We also pay for the easement and loss of pasture use while we are constructing the pipeline. Construction for this project is expected to begin in 2023 and we do not yet have final permitting approvals, so we are not yet to the point where we would be officially requesting an easement. If you'd like to discuss this in more detail or have any additional questions, feel free to call or email me to setup a meeting.

Thank you,
Stephanie Cecil
Project Engineer

In response to John Jay:

Hello, thank you for your question. This is a completely separate project from the City of Thornton and being organized by a different entity – Northern Water. You can find more information about the project at www.nisptalk.com/what-is-the-northern-integrated-supply-project and www.gladereservoir.org. The current plan for the alignment through this area is locating the pipeline on the east side of the county line. If you have any additional questions, please feel free to call or email me.

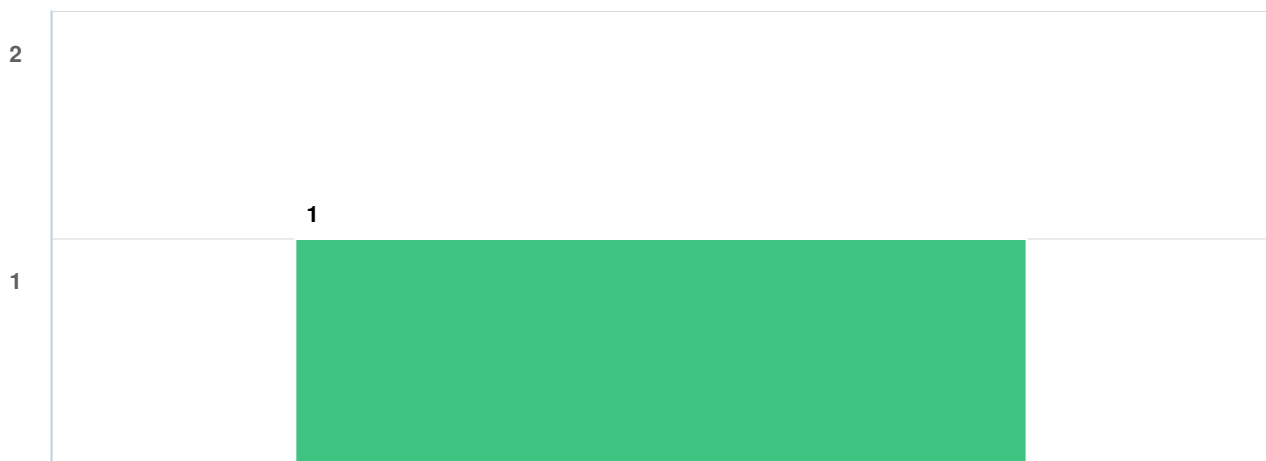
Thanks,
Stephanie Cecil
Project Engineer

ENGAGEMENT TOOL: SURVEY TOOL

Request Follow Up

VISITORS	4	CONTRIBUTORS	1	CONTRIBUTIONS	1
----------	---	--------------	---	---------------	---

How far away is your property from the proposed pipeline route?



Question options

● Less than 500 feet

(1 responses, 0 skipped)

Survey Report

04 June 2019 - 20 January 2020

Request Follow Up

PROJECT: Water Pipelines in Larimer County

NISP Talk



Q1	Name:
----	-------

Construction noise

Michael Lindsay

7/14/2019 10:42 AM

(1 responses, 0 skipped)

Q4 | What information are you interested in learning more about?

Construction noise

7/14/2019 10:42 AM

Truck and traffic noise on Weld county Rd 13 (Larimer county Rd 1) during construction. Ensure that all contractors performing work comply with Colorado revised statute CRS42-4-225 which requires trucks to have working muffler systems and working effective engine brake mufflers.

(1 responses, 0 skipped)

Certain tools on the NISPtalk.com website do not allow for public response via the platform, so NISPtalk.cm managers crafted email replies directly to the participant.

Response to Michael Lindsay from NISPtalk.com

Hello Michael,

Thank you for your request for feedback. There will be periodic increased traffic along Weld County Road 13/ Larimer County Road 1 during construction with delivery trucks bringing equipment and materials into the jobsite as well as construction equipment operating at the jobsite. All contractors performing work will be required to comply with Colorado statute CRS42-4-225 and any other revisions and requirements that could occur prior to work starting in 2023. Please let me know if you'd like to meet to discuss this concern further. Thanks and have a great day,

Stephanie Cecil, P.E.

Water Resources Project Engineer

970-622-2231

Q5 How far away is your property from the proposed pipeline route?



Question options

- Less than 500 feet
- More than 500 feet
- More than 1 mile
- Not sure

(1 responses, 0 skipped)

Project Report

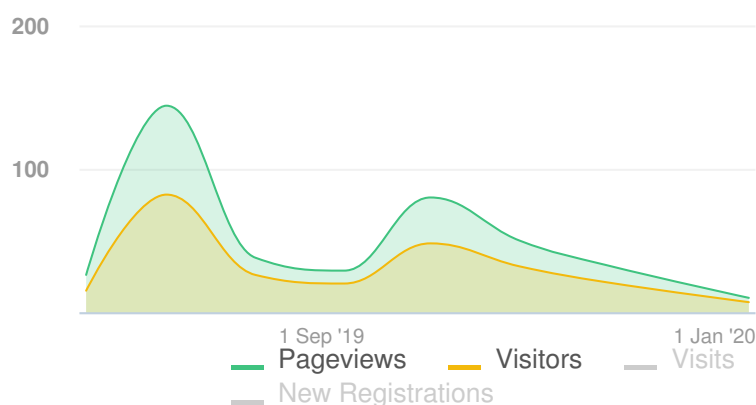
04 June 2019 - 20 January 2020

NISP Talk

Components of the 1041 Permit



Visitors Summary

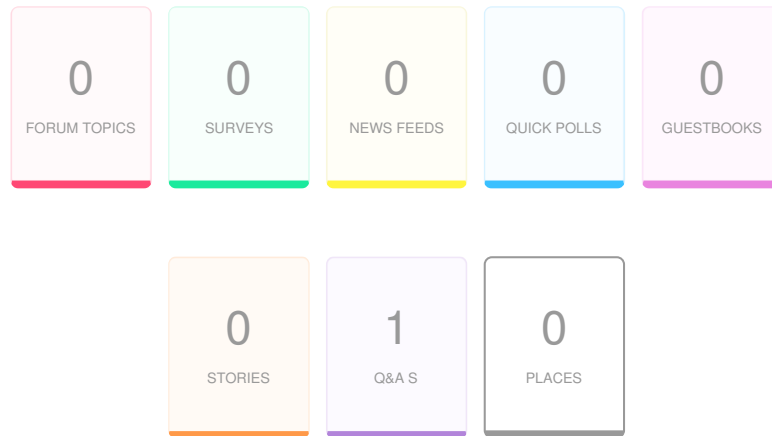


Highlights

TOTAL VISITS	275	MAX VISITORS PER DAY	12
NEW REGISTRATIONS	5	ENGAGED VISITORS	4
		INFORMED VISITORS	48
		AWARE VISITORS	210

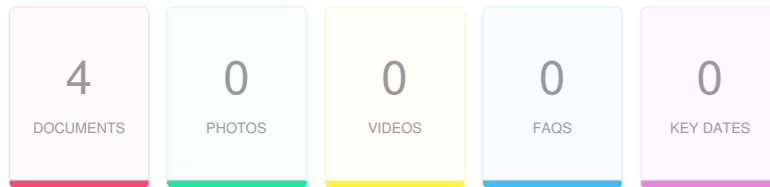
Aware Participants	210	Engaged Participants	4		
Aware Actions Performed	Participants	Engaged Actions Performed	Registered	Unverified	Anonymous
Visited a Project or Tool Page	210				
Informed Participants	48	Contributed on Forums	0	0	0
Informed Actions Performed	Participants	Participated in Surveys	0	0	0
Viewed a video	0	Contributed to Newsfeeds	0	0	0
Viewed a photo	0	Participated in Quick Polls	0	0	0
Downloaded a document	46	Posted on Guestbooks	0	0	0
Visited the Key Dates page	0	Contributed to Stories	0	0	0
Visited an FAQ list Page	0	Asked Questions	4	0	0
Visited Instagram Page	0	Placed Pins on Places	0	0	0
Visited Multiple Project Pages	36	Contributed to Ideas	0	0	0
Contributed to a tool (engaged)	4				

ENGAGEMENT TOOLS SUMMARY



Tool Type	Engagement Tool Name	Tool Status	Visitors	Contributors		
				Registered	Unverified	Anonymous
Qanda	Do you have a question regarding the 1041 permit with Lar...	Published	6	4	0	0

INFORMATION WIDGET SUMMARY



Widget Type	Engagement Tool Name	Visitors	Views/Downloads
Document	NISP Public Engagement History Memo	27	32
Document	Permitting Process Overview	15	16
Document	NISP Final Environmental Impact Statement	10	13
Document	Fish and Wildlife Mitigation and Enhancement Plan	4	14
Document	deleted document from	1	1

QANDA

Do you have a question regarding the 1041 permit with Larimer County?

VISITORS 6

CONTRIBUTORS 4

CONTRIBUTIONS 4

Q

ipachip

01 July 19

I must be the first person to log into this site. I don't see any other comments. No discussion? Seems like one of those black holes that meet legal requirements but prevent anyone else from seeing the feedback. "Why must I register?" That's a good question too. All that's actually required is a functioning email address. That doesn't really enforce accountability. I'm somewhat skeptical of this site. It looks like it's put here as self-service and not an actual community forum. LOL! Like we don't all know that. Anyway, I stand to make a ton of extra money when the site completes, so carry on.

A

Publicly Answered

Thank you for your question! This project site was just launched on June 28, 2019, so we appreciate you registering and being one of the first to ask questions. All feedback received on this site will be reviewed by Northern Water and Larimer County as part of the public record on the project. Please visit <https://www.nisptalk.com/about-the-nisptalk-site> to learn more about why we ask you to register to provide feedback.

Q

Joseybonner

03 July 19

what is the planned start date for this project and is there any possibility it can be moved to an earlier date?

A

Publicly Answered

Thank you for your question! The planned start date for the construction of the project is in approximately 2023. Northern Water has been going through an extensive permitting process with federal, state, and local entities. After the permitting processes are complete, final land acquisition and design will be done to get ready for construction in 2023. Learn more about the overall NISP project at www.gladereservoir.org.

QANDA

Do you have a question regarding the 1041 permit with Larimer County?

Q

poudre1

09 October 19

My biggest question would be, Why? Why do these communities need this amount of water in the future? Why can't water conservation be enough to supply these demands? Why do these communities need to grow their populations to this level? Why is growth prioritized over environmental needs? There are certainly easier, less costly, less controversial ways to supply water to these growing communities. Why aren't those other options being looked at?

A

Publicly Answered

Thanks for reaching out to us. To answer your questions, the NISP project participants anticipate that their communities will grow in the future, which will require the development of additional water supplies. The NISP project will supply a portion of those future water needs. The NISP participants are motivated to implement and have implemented water conservation measures. The Participants have reduced use by nearly 30% by implementing water-saving measures such as public education, watering restrictions, low-flow fixture requirements, and landscaping regulations for new construction. All of the NISP participants have water conservation plans. These conservation efforts, however, will not supply enough water to meet all future needs. A Draft, Supplemental Draft, and Final Environmental Impact Statement have been developed for the project over the past 15 years of study, which analyze the environmental impacts of the NISP project and alternatives to that project. The details and conclusions of those analyses can be found at the following link: [NISP Environmental Impact Statement](#)



Memorandum

Date: July 13, 2017
 To: Mr. Rob Helmick – Larimer County Development Planning
 From: Carl Brouwer, Stephanie Cecil – Northern Water
 Subject: Northern Integrated Supply Project (NISP)
 Larimer County Pipelines Open House

Northern Colorado Water Conservancy District (Northern Water) held an open house at the Larimer County Courthouse on June 29, 2017 from 4:30 p.m. to 7:30 p.m. Notifications for this open house were sent to all property owners within 500-feet of the proposed pipeline routes. A total of approximately 850 notifications regarding NISP and the Open House were sent out on June 8. Names, addresses, and property information was received directly from Larimer County for all pipeline routes within unincorporated Larimer County.

Prior to the open house, approximately 25 landowners contacted Northern Water personnel with questions regarding the pipeline location and impact. The primary question received was whether a person's individual property was being impacted by the project.

A total of 144 people signed in at the NISP Pipeline Open House. Most included some form of contact information. Others could have attended who did not sign in. Northern Water and Larimer County personnel were both in attendance at the open house to answer questions. Multiple handouts, posters, and large-scale maps of the pipeline areas were displayed at the open house. Northern Water received 27 comment cards from landowners at the open house. A breakdown of major areas of concern is included below:

Issue	No. of Comments*
Douglas Road Pipeline Concerns (Use Northern Route, not Douglas Road)	11
Douglas Road Traffic and Roadway Concerns	6
Northern Route Concerns (Use Douglas Road, not Northern Route)	5
Easement Width Issues	3
Safety Concerns	2
Opposed to NISP Entirely	2
Thanks for hosting open house	2
Terry Lake wetlands issues	1
Highway 14 impacts	1
Request additional NEPA Review	1

Issue	No. of Comments*
Water Quality Issues	1
Request more Public Meetings	1
Notify others, including all Terry Point residents	1

*Some cards contained multiple comments/ issues.

Overall, the comment cards generally reflected the views of the property owners at the open house. Most property owners were worried about either the impacts to their personal property or the impacts to roadways near them. The biggest point of contention for most property owners was the discussion of the Douglas Road and northern route. Since both routes were shown as options, anyone who was directly impacted by one route preferred the alternative option. A full sign-in list and comments received can be found in the attached **Exhibit A**.

Exhibit A

Northern Water NISP Pipeline Open House Larimer County Courthouse June 29, 2017

No.	Last Name	First	Phone	Address	City	State	Zip Code	Email
1	Albers	Gary						
2	Albers	Allyson						
3	Allen	Richard						
4	Anderson	Jim						
5	Armstead	Sue						
6	Armstead	Steve						
7	Asbrella	Lance						
8	Asbrella	Kimberley						
9	Bartlett	Don						
10	Baumgartner	Beth						
11	Becker	Alan						
12	Bent	Peggy						
13	Clegern	Nancy						
	Our subdivision has one entrance. Many of us who live there are getting up in years. We need access for emergency vehicles at all times. Douglas Road has way too much traffic on it, especially big trucks, already.							
14	Conant	Martha						
	Thank you for having this open house. We strongly encourage the northern route, not Douglas Road. We would like to see Douglas Road improved-bike lanes, etc. And we seriously want a weight limit on Douglas Road. There's way too much truck traffic, especially with construction on 287. All this noise & traffic impacts our property values as well as our enjoyment of the area- and we've been living there for 40 plus years. Please consider alternate truck routes. Thank you!							
15	Conant	Dale						
16	Contino	Erin						
17	Cos	Jesse						
18	Cos	Carol						
19	Cox	Betty						
	Safety and noise (truck traffic) is excessive. A traffic light needs to be installed a HWY 1 and Douglas Rd. The combination of heavy trucks exceeding the 35 mph speed limit between Shields and HWY 1 is a major problem. That stretch of road passes through neighborhoods and shouldn't be treated as a speedway. There should be weight restrictions in place to stop that kind of traffic.							
20	Croswell	Teresa						
21	Curtis	Doug						
22	Day	Vic						
23	Day	Christine						
24	Dye	Terence						
25	Eastman	Gary						

Exhibit A

No.	Last Name	First	Phone	Address	City	State	Zip Code	Email
26	Eastman	Jesse						
	Comment:	I would like to know the timeline for construction along the Hwy 14 frontage. My business is very seasonal, and a major disruption from March-June would have a significant impact. I also need help understanding how the pump station by Mulberry/Lemay will affect flood zones/water levels, as my property is significantly impacted by flood zones.						
27	Ed ??	Ed ??						
28	Feyen	John J.						
29	Feyen	John R.						
30	Fluegge	Chris						
31	Fluegge	Meg						
32	Forlenza	Patricia						
33	Gerek	Jim						
34	Giere	Molly						
	Comment:	Consider alternative routes from Glade Res. east to beyond I-25. Go farther north-north of ALL 4 Thornton Reservoirs (north of WSSC#3) Go farther south and parallel the new Greeley Pipeline route (south of Pourdre River through Laport) Need to do a full NEPA analysis on revised route (along Douglas Rd) as well as any other alts. considered. This needs to be made available for public comment (i.e.) this warrants a Suppl. EIS. What is your construction plan through 2 large wetlands on north end of Terry lake (southside of Douglas Rd)? HDD?						
35	Glick	Scott						
36	Gorder	Rosemary						
37	Goswick	Judy						
38	Hambler	Sam						
39	Hamilton	Doug						
40	Hardy	Pat						
41	Hardy	Chris						
42	Hebbeln	Jim						
43	Heinrich	John						
	Comment:	We live one house north of the proposed Northern Pipeline route through Eagle Lake. I certainly hope that the county, Thornton and NISP can align their interests and choose the southern route along Douglas Rd. If the northern route is chosen it will be over the violent objections and probable legal action from the residents of Eagle Lake who do not want to have their neighborhood disrupted to serve the interests of other cities.						
44	Higgins	Kathryn						
45	Howes	Mark						
	Comment:	Thank you for providing much needed info! Our home will be within 200' of line, not really opposed to said pipeline just want to know just what to look forward to.						
46	Howes	Linda						
47	Hulls	Ed						

Exhibit A

No.	Last Name	First	Phone	Address	City	State	Zip Code	Email
48	Hulls	Sharla						
49	Hupp	Tim						
50	Jewett	Red						
51	Johnson	Mark						
52	Johnson	Doreen						
53	Keeton	L						
54	Keller	J. David						
	Comment:	Gas/Petroleum pipe lines exist & a 50' easement (25' each side) I would strongly suggest NISP consider the same easement restriction-much more agreeable with property owners than 100, 60 ETC-Being bantered about at this time (06/29/17).						
55	Keller	Linda						
56	Kent	Sarah						
57	Kent	Thomas						
58	Kilkelly	Kathleen						
	Comment:	I feel that this entire project is inappropriate for our semi-arid environment. We must learn to respect limited recourse and find ways to live within those constraints, i.e.: conservation before exploitation.						
59	Kipperchull	Theresa						
60	Kline	Larry						
61	Kraft	Bob						
62	Kraft	Jason						
63	Kratt	Christine						
64	Kroemer	Claudia						
65	Kroemer	Rex						
66	Krygier	Maisha						
67	Lauh	Verna Jane						
68	Lewis	Neil						
69	Lewis	Jen						
	Comment:	Our house and front door sits 50' from Center Line Rd. Numerous utilities and an old adjudicated horizontal well run along the road and Right-of-way. Will call to make an appointment for your crew to take a look.						
70	Lowe	Beal						
71	Lundgren	Betty						
	Comment:	Please consider that many more people will be affected by pipeline installation down Douglas. Worried about "80-100'" easement encroaching on our homes & landscaping at Captains Ct. Ingress & egress also a concern- especially for emergencies.						
72	Mannon	Ken						
73	McCarty	Becca						
74	McCauley	James						

Exhibit A

No.	Last Name	First	Phone	Address	City	State	Zip Code	Email
75	McCluskey	Caroline						
76	Messana	Robert						
77	Mohr	Scott						
78	Morgan	Roger						
	Comment:	The proposed northern alignment through the Lockland Park Subdivision is absolutely unacceptable. Why involve a residential neighborhood when the City of Thornton has undeveloped land within 600 feet and the pipeline would impact none of the Lockland Park residences. Extremely short sighted proposal and alienates county folks that generally support the NISP project. Thanks for your consideration.						
79	Morris	Cyndi						
80	Morrison	Judy						
81	Nichols	Dave						
	Comment:	Douglas Rd will be developed over the next 10 years into a dense residential corridor. The Eagle Lake northern routing will both effect far fewer residence now and in the future. Once created this corridor could be used again for additional projects. Saving the county and few unknown improvement dollars at the price to so many current property owners is not a good deal. The truck traffic issue will be pulled into this process by some (us).						
82	Nicol	Elisabeth						
83	Nicol	Margaret						
84	Nooman	John						
85	Nooman	Roberta						
86	Norby	Ron						
87	Oberg	Paul						
88	Oberle	Matt						
89	Ownby	Carol						
90	Pault	Jerry						
	Comment:	The Hill HOA @ Cobb Lake - Homeowners will be impacted by pipeline and request a meeting with our HOA (60 homes) + 23 future.						
91	Poulster	David						
92	Pennington	Susan						
93	Price	Hugh						
	Comment:	I hope that if the Douglas Rd route is used that Northern Water, Larimer County Thornton can coordinate these projects to minimize impact on Terry Point and other neighborhoods which are totally dependent on Douglas Rd for access.						
94	Price	Lilly						
95	Rock	Charlie						
96	Rock	Sara						
97	Schafer	Jim						
98	Schafer	Allyson						

Exhibit A

No.	Last Name	First	Phone	Address	City	State	Zip Code	Email
99	Schlegel	Nate						
100	Schroyer	Steve						
101	Sheaman	Kerry						
	Comment:	Talking to representatives here their concern is water quality east of the interstate after it runs through town. The interruption of people lives and cost of construction will be very high for a pipeline compared to putting a water treatment plant in on the east side of I-25. The water will have to be treated anyways before human consumption. Compare this to what other states do to water and where they acquire it. It cannot be all that polluted after it runs through Fort Collins, consider this please.						
102	Shelley	Sean						
103	Sherwood	Grant						
104	Sherwood	Pat						
105	Shoette	Missy						
106	Siano	Pricilla						
107	Simonetti	Robert						
108	Simonetti	Deb						
109	Sjoberg	An						
110	Skurich	Darrell						
111	Smith	Jim						
112	Spauling	Dian						
	Comment:	Although I live outside of the pipeline route, I feel the impact (potential) on the property of many of my friends up north. I believe in the scientific studies which discuss the large impact on our whole community in a negative way.						
113	Stampfli	Wendell						
	Comment:	Safety is a major concern for Douglas Rd. between Shields and Highway One. Truck and general traffic is excessive! Noise is a major concern as is safety. Traffic light needs to be installed at Douglas Rd and Highway One. Numerous accidents occur. Very Dangerous for bicycle traffic huge gravel trucks should not be allowed between Shields and Highway One!						
114	Stampfli	Betty						
115	Stansbury	Rod						
116	Stavedahl	Charmaine						
117	Steadman	Richard						
118	Stuntz	Chip						
119	Stuntz	Patti						
120	Sullivan	Brian						
121	Sullivan	Munigre						
122	Sunness	Eric						
123	Swenson	Karl						
124	Tate	Cynthia						
	Comment:	Douglas Dr route is preferable-it appears this route would impact less residential land. Thank you for your consideration.						

Exhibit A

No.	Last Name	First	Phone	Address	City	State	Zip Code	Email
125	Tate	Scott						
		Comment: Prefer Douglas Rd plan.						
126	Terry	Nancy						
127	Terry	Kristofer T						
128	Terry	George						
129	Terry	Terry						
130	Tetter	Phil						
131	Utzman-Nichols	Lynn						
		I strongly encourage you to choose an alternate route rather than Douglas Rd. Douglas road is higher population density and with proposed housing projects at Douglas and Turnberry and elsewhere, it will be even more heavily traveled. Putting the pipeline there will cause major inconvenience for thousands of residents. We understand the advantages of the county saving \$ to piggy back road repairs/expansion on Douglas and we feel that it is very short sighted. Douglas is already carrying the load of unnecessary truck traffic and car traffic expanding it is basically co directly if CDOT funds are involved inviting a lot more traffic to use the road. It is a country road and not a highway and should not be used as one or upgraded to me! It is not the solution to heavier traffic up north. Cars, fine, out of state 18 wheelers and several dozen Martin Marietta trucks a day is not appropriate and highly undesirable. NO to Douglas all around!!						
132	Verstraeten	George						
133	Verstraeten	Cathy						
134	Wagie	Dave						
		Comment: We need to have a public meeting (multiple) as this process progresses, so we can be informed and ask questions. We thought this "open house" would include a presentation and Q & A. Many of my neighbors on Captain Ct and Point Dry did not receive the NISP letter and they are only 100'- 400' from Douglas Rd. All the folks living on Terry Point Dry, Swan Lane, and Canadian Parkway will be affected (even if more than 1000' from Douglas) because there is only ONE entrance to Douglas Rd. Send them a mailer please.						
135	Wagie							
		Comment: We thought this was a public meeting. It was not organized and no one made a statement. We need a public meeting to discuss this and be able to express our concerns. We have many senior citizen in our community and only one access to Douglas Rd. This needs to be put in further north where it won't effect so many people for such a long time. NOTE: Please address why many people (18 that we know of) were not notified of this open house and they were located within the 1,000 ft. What about all the people who's only access is a road that comes onto Douglas Road.						
136	Weiner	Daniel						
137	Weiner	Jesse						
138	Wensman	Pat						
139	Wittreid	Ken						
		Comment: Keep the pipeline north of Douglas Rd. There is less development in that area and less people would be affected. We would be worried to have such an impact in our neighborhood.						

Exhibit A

No.	Last Name	First	Phone	Address	City	State	Zip Code	Email
140	Wittreid	Yvonne						
	Comment:	The pipe should be placed as far north away from Douglas Rd. as possible. There is less density and not as many homes further north. We're afraid of it! Everytime a discussion comes up-you aim at Douglas Rd. (leave it alone!) Please do not put such a dangerous situation so close to people! Thank You!						
141	Womack	Lucinda						
	Comment:	Please continue to hold sessions to keep the public and landowners in the know. I have concerns about the Poudre River level continuing to lower and whether this will have impact on wildlife that depend on the ?? Corridor. I also have concerns on how much this will effect the wetland of "Riverbend Ponds", particular the migratory population. Please continue the work with county, city and State Wildlife officials in considerations of these concerns. Thank you.						
142	Zaloudek							
	Comment:	Our property borders Douglas Rd. Please keep us up to date on decisions as I expect it will seriously effect our home value and quality of life. We built our house 40 years ago but fear we will be forced to move to maintain the peace and quiet we chose this location for.						
143	Zapert	Jim						
144	Zigray	Ryan						



MEMORANDUM

To: Mr. Rob Helmick: Larimer County Development Planning
From: Carl Brouwer, Stephanie Cecil, Christie Coleman: Northern Water
Date: October 25, 2019
Subject: Northern Integrated Supply Project (NISP)
 Larimer County Intergovernmental Agreement October 9 Open House Feedback

The Northern Colorado Water Conservancy District (Northern Water) held an open house at the Drake Center in Fort Collins on October 9, 2019 from 6:00 p.m. to 9:00 p.m. Notifications for this open house were sent to:

- Properties and property owners within 500-feet of the proposed pipeline routes
- Properties and property owners within 500-feet of the proposed U.S. Highway 287 relocation
- Properties and property owners in the Bonner Peak Neighborhood
- Properties and property owners within 1 mile of either Glade Reservoir or the associated recreation area

A total of approximately 1,233 notifications regarding NISP and the Open House were sent out on September 19. Names, addresses, and property information for these notifications was taken from the Larimer County Accessor's Parcel Database. The Loveland Reporter Herald, Longmont Times Call, The Fence Post, and KUNC also had articles or segments advertising the open house. The Open House was also advertised on the project's on-line public engagement platform (NISPTalk.com), Northern Water social medial channels, and Northern Water's electronic newsletters.

A total of 95 people signed in at the NISP Open House. Most provided some form of contact information. It is believed that for most couples or families, only one person signed in, and others could have attended who choose not to sign in. Northern Water personnel staffed the open house to answer questions, and some Larimer County personnel attended as well. Multiple handouts, posters, and large-scale maps of the pipeline areas were displayed at the open house. Information explaining the NISP Project, the U.S. Highway 287 relocation, proposed pipeline alignments in Larimer County, proposed recreation options at Glade Reservoir, and the content and scope of the proposed Intergovernmental Agreement with Larimer County were presented.

Northern Water received 32 comment cards from the open house. A breakdown of major comment themes is included below:

Issue		No. of Comments*
U.S. Highway 287 Relocation	Requests for information on road alignment	2
	Suggested alternative U.S. Highway 287 configurations	3
Pipelines	Damage or impact to property from construction	2
	Opposition to pipelines entirely	1
	Suggested alternative pipeline alignments	3
Recreation	Support for camping	7
	Support for fishing	10
	Support for recreation plan	2
	Support for trails	15
	Support for picnic pavilion	3
	Support for boating	8
	Concerns regarding noise and impacts from motorized boating	10
	Suggested boat ramp locations and configuration	3
	Suggested trail and trail-head configurations	3

*Some cards contained multiple comments/ issues.

Overall, the comment cards generally reflected the views of the public at the open house. There was support for all proposed types of recreation at Glade Reservoir. However, multiple people expressed concern over noise associated with motorized boating and the desire to allow only wakeless or electric watercraft on the reservoir. U.S. Highway 287 relocation comments tended to be focused on the desire for more information on the location and extent of that portion of the project. The project's on-line public engagement platform (NISPTalk.com) will be updated to provide an interactive map showing that information. Finally, most pipeline comments reflected concern about impacts to personal property or impacts to nearby roadways.

The complete sign-in list and the comment cards from the open house can be found in attachments to this memo.

Public Comments
NISP Open House
Larimer County, October 9, 2019

287 Realignment

COMMENT CARD - U.S. HIGHWAY 287 REALIGNMENT
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



WOULD YOU LIKE US TO FOLLOW UP WITH YOU?
PLEASE LEAVE US YOUR CONTACT INFORMATION.

Name: Matt Oberle

Address: [REDACTED]

Phone Number: [REDACTED]

Email Address: [REDACTED]

Preferred Method of Communication: Email

Best Times to Reach You: _____

Northern Integrated Supply Project

Questions? Comments? Please visit the project website: www.nisptalk.com.
Project contact email: Christle Coleman – ccoleman@northernwater.org
Stephanie Cecil – scecil@northernwater.org

COMMENT CARD - U.S. HIGHWAY 287 REALIGNMENT
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



QUESTIONS OR COMMENTS

Hwy 287 Realignment: Would like to have ArcGIS or KML files provided to public, showing proposed route of Hwy 287 realignment. We would like to see how realigned 287 falls within the topography of the area. Concerned about noise and light pollution E. of hwy road.

Northern Integrated Supply Project

Questions? Comments? Please visit the project website: www.nisptalk.com

Project contact email: Christie Coleman – ccoleman@northernwater.org
Stephanie Cecil – scecil@northernwater.org

COMMENT CARD - U.S. HIGHWAY 287 REALIGNMENT
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



WOULD YOU LIKE US TO FOLLOW UP WITH YOU?
PLEASE LEAVE US YOUR CONTACT INFORMATION.

Name: Bob Schmid

Address: [REDACTED]

Phone Number: [REDACTED]

Email Address: [REDACTED]

Preferred Method of Communication: Phone

Best Times to Reach You: any

Northern Integrated Supply Project

Questions? Comments? Please visit the project website: www.nisptalk.com.

Project contact email: [Cristie Coleman - ccoleman@northernwater.org](mailto:CristieColeman@northernwater.org)
[Stephanie Cecil - scecil@northernwater.org](mailto:StephanieCecil@northernwater.org)

COMMENT CARD - U.S. HIGHWAY 287 REALIGNMENT
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



QUESTIONS OR COMMENTS

Would like to talk about
287 realignment with regard to
Kremers Indian Hills subdivision
(Kremers Lane)

Northern Integrated Supply Project

Questions? Comments? Please visit the
project website: www.nisptalk.com

Project contact email: Christie Coleman – ccoleman@northernwater.org
Stephanie Cecil – scecil@northernwater.org

COMMENT CARD - PIPELINE ROUTE
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



WOULD YOU LIKE US TO FOLLOW UP WITH YOU?
PLEASE LEAVE US YOUR CONTACT INFORMATION.

Name: Mike Rushing

Address: [REDACTED]

Phone Number: [REDACTED]

Email Address: [REDACTED]

Preferred Method of Communication: email

Best Times to Reach You: _____

Questions? Comments? Please visit the project website: www.nisptalk.com.
Project contact email: Christie Coleman – ccoleman@northernwater.org
Stephanie Cecil – scecil@northernwater.org

Northern Integrated Supply Project

287
 COMMENT CARD - PIPELINE ROUTE
 OPEN HOUSE - OCTOBER 9, 2019
 DRAKE CENTRE, FORT COLLINS, CO



QUESTIONS OR COMMENTS

Can you post a good map showing exactly where 287 will be relocated along with the frontage road and roundabout? Something with on a satellite/google earth map showing features/construction so I can see where it will be relative to my property?
 Thank you

Questions? Comments? Please visit the project website: www.nisptalk.com

Project contact email: Christie Coleman - ccoleman@northernwater.org
 Stephanie Cecil - sceci@northernwater.org

Northern Integrated Supply Project

COMMENT CARD - PIPELINE ROUTE
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



WOULD YOU LIKE US TO FOLLOW UP WITH YOU?
PLEASE LEAVE US YOUR CONTACT INFORMATION.

R. Frodin

Name: _____

Address: _____

Phone Number: _____

Email Address: _____

Preferred Method of Communication: *Email*

Best Times to Reach You: *Any time*

Northern Integrated Supply Project

Questions? Comments? Please visit the project website: www.nisptalk.com.
Project contact email: ccoleman@northernwater.org
stephaniececil@northernwater.org

COMMENT CARD - PIPELINE ROUTE
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



QUESTIONS OR COMMENTS

ROAD ALIGNMENT ON PROSPECT RD.

Northern Integrated Supply Project

Questions? Comments? Please visit the
project website: www.nisptalk.com

Project contact email: [Christie Coleman](mailto:Christie.Coleman@northernwater.org) – ccooleman@northernwater.org
[Stephanie Cecil](mailto:Stephanie.Cecil@northernwater.org) – scecil@northernwater.org

Lon Boehmer

Phone: [REDACTED]

Attended open house on 10/9 but did not get a chance to fill out comment card.

Comments taken by Stephanie Cecil by phone on 10/11/2019.

Comments on Roundabout 287 – Location of roundabout should be shifted southeast to Overland Trail area intersection. Benefits:

- 1) Tie-in Overland Trail Transition instead of having to do another project to reconfigure the Overland Trail intersection. This intersection is not safe and has had many accidents and deaths over the years.
- 2) Not as much change in topography – easier to design if located at the flatter location.

Public Comments
NISP Open House
Larimer County, October 9, 2019

Pipeline Route

COMMENT CARD - PIPELINE ROUTE
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



WOULD YOU LIKE US TO FOLLOW UP WITH YOU?
PLEASE LEAVE US YOUR CONTACT INFORMATION.

Name: Rob Phillips (Property owner: Tokata Ranch, LLC)

Address: [Redacted]

Phone Number: [Redacted]

Email Address: [Redacted]

Preferred Method of Communication: e-mail

Best Times to Reach You: Business hours

Questions? Comments? Please visit the project website: www.nisptalk.com.
Project contact email: ccoleman@northernwater.org
scecil@northernwater.org

Northern Integrated Supply Project

COMMENT CARD - PIPELINE ROUTE
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



QUESTIONS OR COMMENTS

I own a property directly East of
~~the~~ your property line. Roughly
middle of the lala (North to South).
I am concerned about land takings
as well as trespassers + "Lookie-lours"
on my land.

Northern Integrated Supply Project

Questions? Comments? Please visit the
project website: www.nisptalk.com

Project contact email: [Christie Coleman](mailto:Christie.Coleman@northernwater.org) - ccoleman@northernwater.org
[Stephanie Cecil](mailto:Stephanie.Cecil@northernwater.org) - scecil@northernwater.org

COMMENT CARD - PIPELINE ROUTE
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



WOULD YOU LIKE US TO FOLLOW UP WITH YOU?
PLEASE LEAVE US YOUR CONTACT INFORMATION.

Name: Zada Steidl

Address: _____

Phone Number: _____

Email Address: _____

Preferred Method of Communication: _____

Best Times to Reach You: _____

email, phone
any time.

Northern Integrated Supply Project

Questions? Comments? Please visit the project website: www.nisptalk.com.
Project contact email: [Christie Coleman - ccoleman@northernwater.org](mailto:ChristieColeman@northernwater.org)
[Stephanie Cecil - scecil@northernwater.org](mailto:StephanieCecil@northernwater.org)

COMMENT CARD - PIPELINE ROUTE
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



QUESTIONS OR COMMENTS

Location - We own the farm on CR 52
just east of the Mountain Vista Golf Course

pivot

Share easement w/Budweiser?

Y

Northern Integrated Supply Project

Questions? Comments? Please visit the
project website: www.nisptalk.com

Project contact email: Christie Coleman - ccoleman@northernwater.org
Stephanie Cecil - scecil@northernwater.org

COMMENT CARD - PIPELINE ROUTE
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



WOULD YOU LIKE US TO FOLLOW UP WITH YOU?
PLEASE LEAVE US YOUR CONTACT INFORMATION.

Name: Karl Swenson

Address: [REDACTED]

Phone Number: [REDACTED]

Email Address: [REDACTED]

Preferred Method of Communication: Face to Face - walk + show you my concerns

Best Times to Reach You: evenings To set appointments

Questions? Comments? Please visit the project website: www.nisptalk.com.
Project contact email: Christie Coleman - ccoleman@northernwater.org
Stephanie Cecil - scecil@northernwater.org

Northern Integrated Supply Project

COMMENT CARD - PIPELINE ROUTE
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



QUESTIONS OR COMMENTS

Concerns

concrete ditch, property fences
Damage to my road, utilities + wind break trees

Affect of ground water flow - cutting bed rock

that would change water flow under my property

Hidden irrigation pipe that was put in + not
recorded on Larimer Co utility plans

Re vegetation of property damaged by pipe installation
+ providing water to make grass grow.

Northern Integrated Supply Project

Questions? Comments? Please visit the
project website: www.nisptalk.com

Project contact email: [Christie Coleman](mailto:Christie.Coleman@northernwater.org) - ccoleman@northernwater.org
[Stephanie Cecil](mailto:Stephanie.Cecil@northernwater.org) - scecil@northernwater.org

COMMENT CARD - PIPELINE ROUTE
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



WOULD YOU LIKE US TO FOLLOW UP WITH YOU?
PLEASE LEAVE US YOUR CONTACT INFORMATION.

JEN + NEIL LEWIS

Name: _____
Address: _____
Phone Number: _____
Email Address: _____
Preferred Method of Communication: e-mail
Best Times to Reach You: before 8:00pm

Questions? Comments? Please visit the project website: www.nisptalk.com.
Project contact email: ccoleman@northernwater.org
Stephanie Cecil - scecil@northernwater.org

Northern Integrated Supply Project

COMMENT CARD - PIPELINE ROUTE
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



QUESTIONS OR COMMENTS

As a community, those of us living along
EHR 44 East of Deadman Lake would like
to be on record as in STANFORD OPPOSITION
to the pipeline threading through our
community. We feel () bullied & unheard.
The growth all around us is exponential as
we hold on to our way of life. We are an "endangered
species" → Rural ^{living} dwelling along the Front Range.

Questions? Comments? Please visit the
project website: www.nisptalk.com

Project contact email: ccoleman@northernwater.org
socell@northernwater.org

Northern Integrated Supply Project

COMMENT CARD - PIPELINE ROUTE
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



WOULD YOU LIKE US TO FOLLOW UP WITH YOU?
PLEASE LEAVE US YOUR CONTACT INFORMATION.

Name:

Tom Remington

Address:

Phone Number:

Email Address:

Preferred Method of Communication:

Best Times to Reach You:

phone
Anytime

Questions? Comments? Please visit the project website: www.nisptalk.com.

Project contact email: [Christie Coleman - ccoleman@northernwater.org](mailto:ccoleman@northernwater.org)
[Stephanie Cecil - scecli@northernwater.org](mailto:scecli@northernwater.org)

Northern Integrated Supply Project

COMMENT CARD - PIPELINE ROUTE
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



QUESTIONS OR COMMENTS

To discuss Pipeline alignment between
SR3 and County Road.

Northern Integrated Supply Project

Questions? Comments? Please visit the
project website: www.nisptalk.com

Project contact email: [Christie Coleman](mailto:Christie.Coleman@northernwater.org) – ccoleman@northernwater.org
[Stephanie Cecil](mailto:Stephanie.Cecil@northernwater.org) – scecil@northernwater.org

COMMENT CARD - PIPELINE ROUTE
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



WOULD YOU LIKE US TO FOLLOW UP WITH YOU?
PLEASE LEAVE US YOUR CONTACT INFORMATION.

Name: MIKE LONGMORE

Address: [REDACTED]

Phone Number: [REDACTED]

Email Address: _____

Preferred Method of Communication: _____

Best Times to Reach You: _____

Northern Integrated Supply Project

Questions? Comments? Please visit the project website: www.nisptalk.com.
Project contact email: Christle Coleman – ccoleman@northernwater.org
Stephanie Cecil – scecil@northernwater.org

COMMENT CARD - PIPELINE ROUTE
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



QUESTIONS OR COMMENTS

TRIPLE DIA METER OF PIPELINE - SKIP
RESERVOIR. SET HYDRO-ELECTRIC
GENERATORS EVER 1-?? MILES. ESTABLISH
NEW POWER COMPANY USE THAT PRODUCTION
TO PAY FOR PROTECT

Questions? Comments? Please visit the
project website: www.nisptalk.com

Northern Integrated Supply Project

Project contact email: ccoleman@northernwater.org
scecil@northernwater.org

COMMENT CARD - PIPELINE ROUTE
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



WOULD YOU LIKE US TO FOLLOW UP WITH YOU?
PLEASE LEAVE US YOUR CONTACT INFORMATION.

Name: Jim Parks

Address: [Redacted]

Phone Number: [Redacted]

Email Address: [Redacted]

Preferred Method of Communication: phone, text, or email

Best Times to Reach You: any

Questions? Comments? Please visit the project website: www.nisptalk.com.
Project contact email: ccoleman@northernwater.org
scecl@northernwater.org

Northern Integrated Supply Project

COMMENT CARD - PIPELINE ROUTE
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



QUESTIONS OR COMMENTS

Northern Integrated Supply Project

Questions? Comments? Please visit the
project website: www.nisptalk.com

Project contact email: [Christie Coleman](mailto:Christie.Coleman@northernwater.org) – ccoleman@northernwater.org
[Stephanie Cecil](mailto:Stephanie.Cecil@northernwater.org) – scecil@northernwater.org

Public Comments
NISP Open House
Larimer County, October 9, 2019
Recreation Area

Recreation

COMMENT CARD - U.S. HIGHWAY 207 REALIGNMENT
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



WOULD YOU LIKE US TO FOLLOW UP WITH YOU?
PLEASE LEAVE US YOUR CONTACT INFORMATION.

Name: Vanessa Stahla

Address: _____

Phone Number: _____

Email Address: [REDACTED]

Preferred Method of Communication: e-mail

Best Times to Reach You: _____

Northern Integrated Supply Project

Questions? Comments? Please visit the project website: www.nisptalk.com.
Project contact email: Christie Coleman – ccoleman@northernwater.org
Stephanie Cecil – scecil@northernwater.org

COMMENT CARD - U.S. HIGHWAY 287 REALIGNMENT
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



QUESTIONS OR COMMENTS

Beautiful Campsites for overnight camping with Full
hookups and close to the water. (Reservoir). Beautiful
water & mountain views for campsites.

Northern Integrated Supply Project

Questions? Comments? Please visit the
project website: www.nisptalk.com

Project contact email: Christie Coleman – ccoleman@northernwater.org
Stephanie Cecil – sceci@northernwater.org

Re-Post
COMMENT CARD - PIPELINE ROUTE
 OPEN HOUSE - OCTOBER 9, 2019
 DRAKE CENTRE, FORT COLLINS, CO



**WOULD YOU LIKE US TO FOLLOW UP WITH YOU?
 PLEASE LEAVE US YOUR CONTACT INFORMATION.**

Name: _____

Rex Stahl

Address: _____

Phone Number: _____

Email Address: _____

Preferred Method of Communication: _____

Best Times to Reach You: _____

Northern Integrated Supply Project

Questions? Comments? Please visit the project website: www.nisptalk.com.
 Project contact email: [Christie Coleman - ccoleman@northernwater.org](mailto:Christie.Coleman@northernwater.org)
[Stephanie Cecil - scecil@northernwater.org](mailto:Stephanie.Cecil@northernwater.org)

COMMENT CARD - PIPELINE ROUTE
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTRE, FORT COLLINS, CO



QUESTIONS OR COMMENTS

They should add a boat ramp to
the northern end.

Questions? Comments? Please visit the
project website: www.nisptalk.com

Project contact email: Christie Coleman – ccoleman@northernwater.org
Stephanie Cecil – scecil@northernwater.org

Northern Integrated Supply Project

COMMENT CARD - RECREATION AREA
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTER, FORT COLLINS, CO



STATION

COMMENTS

WELCOME DESK	
RECREATION AREA CONCEPT PLAN	Julie Sondra
BOATING	
FISHING	
CAMPING	Plan
TRAILS	
VISITOR CENTER	
RECREATIONAL OPPORTUNITIES	

GLADE RESERVOIR
Northern Integrated Supply Project

Questions? Comments? Please visit the project website:
<http://www.nisptalk.com>

Project contact email: Christie Coleman: ccoleman@northernwater.org
Stephanie Cecil: scecil@northernwater.org

**COMMENT CARD - RECREATION AREA
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTER, FORT COLLINS, CO**



RECREATION AREA PLANNING QUESTIONS

**PLEASE SCORE WITH 1 BEING
LOW AND 10 BEING HIGH**

HOW IMPORTANT IS BOATING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT IS CAMPING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT IS A GROUP PICNIC AREA AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT IS BOAT FISHING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT IS SHORELINE FISHING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT ARE TRAILS AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT IS A VISITOR CENTER AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

GLADE RESERVOIR
Northern Integrated Supply Project

Questions? Comments? Please visit the project website:
<http://www.nisptalk.com>

Project contact email: Christie Coleman: ccoleman@northernwater.org
Stephanie Cecil: scecil@northernwater.org

COMMENT CARD - RECREATION AREA
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTER, FORT COLLINS, CO



STATION

COMMENTS

WELCOME DESK	
RECREATION AREA CONCEPT PLAN	
BOATING	
FISHING	
CAMPING	
TRAILS	
VISITOR CENTER	
RECREATIONAL OPPORTUNITIES	

North Trailhead as far as possible from private property
 and a clear entrance/route for visitors of reservoir
 versus private landowners / residents

GLADE RESERVOIR
Northern Integrated Supply Project

**COMMENT CARD - RECREATION AREA
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTER, FORT COLLINS, CO**



AECOM

RECREATION AREA PLANNING QUESTIONS

**PLEASE SCORE WITH 1 BEING
LOW AND 10 BEING HIGH**

HOW IMPORTANT IS BOATING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT IS CAMPING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT IS A GROUP PICNIC AREA AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT IS BOAT FISHING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT IS SHORELINE FISHING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT ARE TRAILS AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT IS A VISITOR CENTER AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

**GLADE RESERVOIR
Northern Integrated Supply Project**

Questions? Comments? Please visit the project website:
<http://www.nisptalk.com>

Project contact email: Christie Coleman: ccoleman@northernwater.org
Stephanie Cecil: scecil@northernwater.org

COMMENT CARD - RECREATION AREA
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTER, FORT COLLINS, CO



STATION

COMMENTS

WELCOME DESK	Interpretive center - tell about Northern history of water history of the area
RECREATION AREA CONCEPT PLAN	have a cool playground area!
BOATING	how to accommodate / protect non-motorized? Hargetooth has coxes that make it easier to have no-wake areas, want to be able to paddle board
FISHING	
CAMPING	add boat-in camping - would be cool along the central ridge
TRAILS	create more trails than just a shoreline trail - trails that go up along ridges, and add loops! runners + bikers like loops
VISITOR CENTER	will this be reasonable for events? (e.g. weddings)
RECREATIONAL OPPORTUNITIES	paddle boarding, open swimming,

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Northern Integrated Supply Project

NISP

Questions? Comments? Please visit the project website:
<http://www.nisptalk.com>

Project contact email: Christie Coleman: ccoleman@northernwater.org
 Stephanie Cecil: scecil@northernwater.org

**COMMENT CARD - RECREATION AREA
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTER, FORT COLLINS, CO**



RECREATION AREA PLANNING QUESTIONS

**PLEASE SCORE WITH 1 BEING
LOW AND 10 BEING HIGH**

HOW IMPORTANT IS BOATING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT IS CAMPING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT IS A GROUP PICNIC AREA AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT IS BOAT FISHING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT IS SHORELINE FISHING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT ARE TRAILS AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT IS A VISITOR CENTER AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

**GLADE RESERVOIR
Northern Integrated Supply Project**

Questions? Comments? Please visit the project website:
<http://www.nisptalk.com>

Project contact email: Christie Coleman: ccoleman@northernwater.org
Stephanie Cecil: scecil@northernwater.org

COMMENT CARD - RECREATION AREA
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTER, FORT COLLINS, CO



STATION COMMENTS

WELCOME DESK	
RECREATION AREA CONCEPT PLAN	
BOATING	INTERESTED IN NON-MOTOR ONLY OR @ LEAST NO PERSONAL WATER CRAFT
FISHING	PLEASE
CAMPING	DISPERSED OPTIONS WOULD BE NICE, AS WELL AS BOAT FN
TRAILS	yes Can you create some loops IN ADDITION TO SHORELINE TRAIL
VISITOR CENTER	
RECREATIONAL OPPORTUNITIES	

GLADE RESERVOIR
Northern Integrated Supply Project

Questions? Comments? Please visit the project website:
<http://www.nisptalk.com>

Project contact email: Christie Coleman: ccoleman@northernwater.org
Stephanie Cecil: scecil@northernwater.org

COMMENT CARD - RECREATION AREA
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTER, FORT COLLINS, CO



RECREATION AREA PLANNING QUESTIONS

**PLEASE SCORE WITH 1 BEING
 LOW AND 10 BEING HIGH**

New - Motor

HOW IMPORTANT IS BOATING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 **10**

HOW IMPORTANT IS CAMPING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 **10**

HOW IMPORTANT IS A GROUP PICNIC AREA AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 **6** 7 8 9 10

HOW IMPORTANT IS BOAT FISHING AT GLADE RESERVOIR TO YOU?

1 2 **3** 4 5 6 7 8 9 **10**

HOW IMPORTANT IS SHORELINE FISHING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 **10**

HOW IMPORTANT ARE TRAILS AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 **10**

HOW IMPORTANT IS A VISITOR CENTER AT GLADE RESERVOIR TO YOU?

1 **2** 3 4 5 6 7 8 9 10

GLADE RESERVOIR
Northern Integrated Supply Project

Questions? Comments? Please visit the project website:
<http://www.nisptalk.com>

Project contact email: Christie Coleman: ccoleman@northernwater.org
 Stephanie Cecil: scecil@northernwater.org

COMMENT CARD - RECREATION AREA
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTER, FORT COLLINS, CO



STATION	COMMENTS
WELCOME DESK	
RECREATION AREA CONCEPT PLAN	
BOATING	<i>No motors or jet skis</i>
FISHING	
CAMPING	
TRAILS	
VISITOR CENTER	
RECREATIONAL OPPORTUNITIES	

GLADE RESERVOIR
Northern Integrated Supply Project

COMMENT CARD - RECREATION AREA
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTER, FORT COLLINS, CO



AECOM

RECREATION AREA PLANNING QUESTIONS

**PLEASE SCORE WITH 1 BEING
 LOW AND 10 BEING HIGH**

HOW IMPORTANT IS BOATING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10
 (1)

HOW IMPORTANT IS CAMPING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10
 (6)

HOW IMPORTANT IS A GROUP PICNIC AREA AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10
 (5)

HOW IMPORTANT IS BOAT FISHING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10
 (10)

HOW IMPORTANT IS SHORELINE FISHING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10
 (10)

HOW IMPORTANT ARE TRAILS AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10
 (5)

HOW IMPORTANT IS A VISITOR CENTER AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10
 (10)

GLADE RESERVOIR
Northern Integrated Supply Project

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 Stephanie Cecil: scecil@northernwater.org

COMMENT CARD - RECREATION AREA
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTER, FORT COLLINS, CO



STATION COMMENTS

WELCOME DESK	
RECREATION AREA CONCEPT PLAN	
BOATING	more than one Boat ramp. At least two different locations are needed.
FISHING	
CAMPING	Campsites with views of Reservoir + mountains. Please place some camping sites where you can enjoy being close to reservoir
TRAILS	
VISITOR CENTER	
RECREATIONAL OPPORTUNITIES	

COMMENT CARD - RECREATION AREA
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTER, FORT COLLINS, CO



AECOM

RECREATION AREA PLANNING QUESTIONS

**PLEASE SCORE WITH 1 BEING
LOW AND 10 BEING HIGH**

HOW IMPORTANT IS BOATING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT IS CAMPING AT GLADE RESERVOIR TO YOU?

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HOW IMPORTANT IS A GROUP PICNIC AREA AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT IS BOAT FISHING AT GLADE RESERVOIR TO YOU?

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HOW IMPORTANT ARE TRAILS AT GLADE RESERVOIR TO YOU?

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HOW IMPORTANT IS A VISITOR CENTER AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

GLADE RESERVOIR
Northern Integrated Supply Project

Questions? Comments? Please visit the project website:
<http://www.nisptalk.com>

Project contact email: Christie Coleman: ccoleman@northernwater.org
 Stephanie Cecil: scecil@northernwater.org

COMMENT CARD - RECREATION AREA
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTER, FORT COLLINS, CO



STATION **COMMENTS**

WELCOME DESK	
RECREATION AREA CONCEPT PLAN	
BOATING	I am a property owner on East Hogback Ridge. We are in support of a hiking & biking trail as well as fishing and recreation. However, we would prefer that the reservoir be limited to wakeless watercraft or that a horse power restriction be put in place. We are concerned about noise pollution and boat traffic.
FISHING	
CAMPING	Yay!
TRAILS	Yay!
VISITOR CENTER	
RECREATIONAL OPPORTUNITIES	

GLADE RESERVOIR
Northern Integrated Supply Project

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<http://www.nisptalk.com>

Project contact email: Christie Coleman: ccoleman@northernwater.org
 Stephanie Cecil: scecil@northernwater.org

COMMENT CARD - RECREATION AREA
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTER, FORT COLLINS, CO



RECREATION AREA PLANNING QUESTIONS

PLEASE SCORE WITH 1 BEING LOW AND 10 BEING HIGH

HOW IMPORTANT IS BOATING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT IS CAMPING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT IS A GROUP PICNIC AREA AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT IS BOAT FISHING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT IS SHORELINE FISHING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT ARE TRAILS AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT IS A VISITOR CENTER AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 10

GLADE RESERVOIR
Northern Integrated Supply Project

Questions? Comments? Please visit the project website:
<http://www.nisptalk.com>

Project contact email: Christie Coleman: ccoleman@northernwater.org
 Stephanie Cecil: scecil@northernwater.org

COMMENT CARD - RECREATION AREA
OPEN HOUSE - OCTOBER 9, 2019
DRAKE CENTER, FORT COLLINS, CO



STATION	COMMENTS
WELCOME DESK	
RECREATION AREA CONCEPT PLAN	
BOATING	PLEASE ADD MOTOR BOATS! HOW ABOUT A RESERVOIR DEDICATED TO FISHING, KAYAKING, CAN BOATING TO ENJOY THE BEAUTY & QUIET OF THE AREA
FISHING	
CAMPING	
TRAILS	
VISITOR CENTER	
RECREATIONAL OPPORTUNITIES	

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AECOM

RECREATION AREA PLANNING QUESTIONS

**PLEASE SCORE WITH 1 BEING
LOW AND 10 BEING HIGH**

HOW IMPORTANT IS BOATING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 **10**

NO MOTORIZED BOATS!

HOW IMPORTANT IS CAMPING AT GLADE RESERVOIR TO YOU?

1 2 3 4 **5** 6 7 8 9 10

HOW IMPORTANT IS A GROUP PICNIC AREA AT GLADE RESERVOIR TO YOU?

1 **2** 3 4 5 6 7 8 9 10

HOW IMPORTANT IS BOAT FISHING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 **10**

HOW IMPORTANT IS SHORELINE FISHING AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 **10**

HOW IMPORTANT ARE TRAILS AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 8 9 **10**

HOW IMPORTANT IS A VISITOR CENTER AT GLADE RESERVOIR TO YOU?

1 2 3 4 5 6 7 **8** 9 10

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STATION COMMENTS

Highway 267 WELCOME DESK ROUTING	DANGEROUS SITUATION ALREADY EXIST AT POWDER PEEK & OAK CANYON. NO YOU ARE CREATING A 3RD DANGEROUS CONDITION W/ THIS N. TRAILHEAD TRAFFIC. HOW ABOUT A SOLUTION BY CDOT, LARIMER CO + NISP?
RECREATION AREA CONCEPT PLAN	
BOATING	NO MOTOR BOATS
FISHING	
CAMPING	
TRAILS	
VISITOR CENTER	
RECREATIONAL OPPORTUNITIES	

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RECREATION AREA PLANNING QUESTIONS

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HOW IMPORTANT IS BOATING AT GLADE RESERVOIR TO YOU?

NO MOTOR BOATS!

1 2 3 4 5 6 7 8 9 10

HOW IMPORTANT IS CAMPING AT GLADE RESERVOIR TO YOU?

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BCC 08/17/20

**COMMENT CARD - RECREATION AREA
OPEN HOUSE - OCTOBER 9, 2019
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STATION

COMMENTS

WELCOME DESK

RECREATION AREA
CONCEPT PLAN

N70R

BOATING

FISHING

CAMPING

TRAILS

VISITOR CENTER

RECREATIONAL
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STATION **COMMENTS**

WELCOME DESK	
RECREATION AREA CONCEPT PLAN	
BOATING	! Know the steepness of the ramp is a concern. Please do what you can to minimize steepness. There are plenty of 'not good' drivers who don't need this extra challenge.
FISHING	
CAMPING	
TRAILS	Having a new set of trails close to town would be great
VISITOR CENTER	This would be a fun amenity
RECREATIONAL OPPORTUNITIES	

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STATION COMMENTS

WELCOME DESK	
RECREATION AREA CONCEPT PLAN	
BOATING	I DO NOT WANT POWER BOATS/SPEED BOATS ON THE RESERVOIR. I WANT BANNER PEAK LAUNCH & THE NOISE WOULD BE UNACCEPTABLE. PEOPLE CAN ALREADY USE THEIR POWER/SPEED BOATS @ MOUNTAIN OTTER FRONT RANGE LOCATIONS. WHEN IS THERE TOO MUCH DEVELOPMENT & NOT ENOUGH QUIET PLACES?
FISHING	
CAMPING	
TRAILS	
VISITOR CENTER	
RECREATIONAL OPPORTUNITIES	

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STATION **COMMENTS**

WELCOME DESK	
RECREATION AREA CONCEPT PLAN	
BOATING	
FISHING	
CAMPING	
TRAILS	<p>[MUST!] LOOK INTO FIT BIKE TRAILS AT WATKINS RES.</p> <p>DO NOT DELAY - MAKE THIS DAY ONE! ONLY GETS \$\$\$ MORE \$\$\$</p>
VISITOR CENTER	
RECREATIONAL OPPORTUNITIES	

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 Northern Water Northern Integrated Supply Project		NISP Open House Sign In Sheet October 9, 2019		
First Name	Last Name	Phone Number*	Email Address*	
1	melvin + Judy	TERREL	None	What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process
2	Quinta	Quinta		What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process
3	LINDA	CARLEGO		What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County IGA Process
4	CARL & JEROME	SMITH		What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process
5	Carl	Yendra		What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process


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	First Name	Last Name	Phone Number*	Email Address*	
6	Brian	Shaver			What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process
7	John	Crowder			What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process
8	Theresa	Kippeschul			What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process
9	Helmut	Ray			What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process
10	Anthony	Coltrane			What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process


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First Name	Last Name	Phone Number*	Email Address*		
11	DAN	SPEER		What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
12	JOHN	HUYLER		What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
13	TERRI	Thorburn		What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
14	Linda	Roselius		What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
15	JOAN	TALMAN		What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	


 Northern Water Northern Integrated Supply Project		NISP Open House Sign In Sheet October 9, 2019	
First Name	Last Name	Phone Number*	Email Address*
16	Pat	Wensman	[Redacted]
Address, City, Zip Code		What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
17	BILL	ROBERTS	[Redacted]
Address, City, Zip Code		What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
18	Andy	Pineda	[Redacted]
Address, City, Zip Code		What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County IGA Process	
19	Tachin	PPAWSKY	[Redacted]
Address, City, Zip Code		What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
20	John	Thompson	[Redacted]
Address, City, Zip Code		What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	


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First Name	Last Name	Phone Number*	Email Address*		
JAMES	Wade Wade			21	
Address, City, Zip Code					
					What topics are you most interested in? (Check all that apply)
					<input checked="" type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process
First Name	Last Name	Phone Number*	Email Address*		
Rob	Hubbard			22	
Address, City, Zip Code					
					What topics are you most interested in? (Check all that apply)
					<input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process
First Name	Last Name	Phone Number*	Email Address*		
Amelia	Tuttle			23	
Address, City, Zip Code					
					What topics are you most interested in? (Check all that apply)
					<input type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process
First Name	Last Name	Phone Number*	Email Address*		
Tom	Remington			24	
Address, City, Zip Code					
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First Name	Last Name	Phone Number*	Email Address*		
Pat	Proter			25	
Address, City, Zip Code					
					What topics are you most interested in? (Check all that apply)
					<input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process


 Northern Water Northern Integrated Supply Project				NISP Open House Sign In Sheet October 9, 2019	
First Name	Last Name	Phone Number*	Email Address*		
Eda	Sharda				
26					
Address, City, Zip Code				What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
First Name	Last Name	Phone Number*	Email Address*		
DUGLAS	GIBBS				
27					
Address, City, Zip Code				What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
First Name	Last Name	Phone Number*	Email Address*		
Jean	NEAL LEWIS				
28					
Address, City, Zip Code				What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
First Name	Last Name	Phone Number*	Email Address*		
Ron	PURKIN				
29					
Address, City, Zip Code				What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
First Name	Last Name	Phone Number*	Email Address*		
Lynn	STEVENS				
30					
Address, City, Zip Code				What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	


 Northern Water Northern Integrated Supply Project				NISP Open House Sign In Sheet October 9, 2019	
	First Name	Last Name	Phone Number*	Email Address*	
31	Brian	Laake			What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County IGA Process
32	Jim	Szidon			What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process
33	Gary	MASON			What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process
34	Chuck	Seest			What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process
35	Bryan	PERKINSON			What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process


 Northern Water Northern Integrated Supply Project				NISP Open House Sign In Sheet October 9, 2019	
First Name	Last Name	Phone Number*	Email Address*		
46	Diane	Schultz		What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
47	Rob	Phillips		What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
48	Zade	Steidl		What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
49	Shane	Mueller		What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
50	Ryan	Nelson		What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	


 Northern Water Northern Integrated Supply Project				NISP Open House Sign In Sheet October 9, 2019	
	First Name	Last Name	Phone Number*	Email Address*	
111	Charlie	Gulder	—		
Address, City, Zip Code					What topics are you most interested in? (Check all that apply)
					<input checked="" type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process
	First Name	Last Name	Phone Number*	Email Address*	
112	Scott	Ellis			
Address, City, Zip Code					What topics are you most interested in? (Check all that apply)
					<input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process
	First Name	Last Name	Phone Number*	Email Address*	
113	Mike	Rushing	9		
Address, City, Zip Code					What topics are you most interested in? (Check all that apply)
					<input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process
	First Name	Last Name	Phone Number*	Email Address*	
114	Alleagan	Smith			
Address, City, Zip Code					What topics are you most interested in? (Check all that apply)
					<input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process
	First Name	Last Name	Phone Number*	Email Address*	
115	Gary	Albers			
Address, City, Zip Code					What topics are you most interested in? (Check all that apply)
					<input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process


 Northern Water Northern Integrated Supply Project					NISP Open House Sign In Sheet October 9, 2019	
	First Name	Last Name	Phone Number*	Email Address*		
156	Yvonne and Ken	Wittreich				
	Address, City, Zip Code				What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
157	Christine	Klitzmann				
	Address, City, Zip Code				What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
158	Della	Gavelle				
	Address, City, Zip Code				What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
159	Terry	Francel				
	Address, City, Zip Code				What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
160	Wesley	Hans				
	Address, City, Zip Code				What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	


 Northern Water Northern Integrated Supply Project				NISP Open House Sign In Sheet October 9, 2019	
First Name	Last Name	Phone Number*	Email Address*		
161	Matt	Wittern			
Address, City, Zip Code					
				What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
First Name	Last Name	Phone Number*	Email Address*		
162	Tony	Wilkomm			
Address, City, Zip Code					
				What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
First Name	Last Name	Phone Number*	Email Address*		
163	Cheri	Kreesecker			
Address, City, Zip Code					
				What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
First Name	Last Name	Phone Number*	Email Address*		
164	Jordan	CABLE			
Address, City, Zip Code					
				What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County IGA Process	
First Name	Last Name	Phone Number*	Email Address*		
165	Charlie	Rock			
Address, City, Zip Code					
				What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	


 Northern Water Northern Integrated Supply Project				NISP Open House Sign In Sheet October 9, 2019	
166	First Name	Last Name	Phone Number*	Email Address*	What topics are you most interested in? (Check all that apply)
	Christina	Fallgren			<input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process
167	First Name	Last Name	Phone Number*	Email Address*	What topics are you most interested in? (Check all that apply)
	Kerli	Meyer			<input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process
168	First Name	Last Name	Phone Number*	Email Address*	What topics are you most interested in? (Check all that apply)
	Joe	Winkel			<input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County IGA Process
169	First Name	Last Name	Phone Number*	Email Address*	What topics are you most interested in? (Check all that apply)
	Brent	Nation			<input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process
170	First Name	Last Name	Phone Number*	Email Address*	What topics are you most interested in? (Check all that apply)
	Keely	Allbrandt			<input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process


 Northern Water Northern Integrated Supply Project				NISP Open House Sign In Sheet October 9, 2019	
	First Name	Last Name	Phone Number*	Email Address*	
171		Nada Peterson			
	Address, City, Zip Code				
	Larimer County				
	First Name	Last Name	Phone Number*	Email Address*	
	Karl	Svenson			
172	Address, City, Zip Code				
	First Name	Last Name	Phone Number*	Email Address*	
	Matt	Oberle			
173	Address, City, Zip Code				
	First Name	Last Name	Phone Number*	Email Address*	
	First Name	Last Name	Phone Number*	Email Address*	
	TRK	TRK			
174	Address, City, Zip Code				
	First Name	Last Name	Phone Number*	Email Address*	
	Nick	Hays			
175	Address, City, Zip Code				


 Northern Water Northern Integrated Supply Project				NISP Open House Sign In Sheet October 9, 2019	
First Name	Last Name	Phone Number*	Email Address*		
Brendon	Foster				
186					
Address, City, Zip Code [Redacted]					
What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County IGA Process					
First Name	Last Name	Phone Number*	Email Address*		
GEORGE	LATOR				
187					
Address, City, Zip Code [Redacted]					
What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process					
First Name	Last Name	Phone Number*	Email Address*		
Rex	Stahla				
188					
Address, City, Zip Code [Redacted]					
What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County IGA Process					
First Name	Last Name	Phone Number*	Email Address*		
Vanessa	Stahla				
189					
Address, City, Zip Code [Redacted]					
What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County IGA Process					
First Name	Last Name	Phone Number*	Email Address*		
MARC	GARLITSA				
190					
Address, City, Zip Code [Redacted]					
What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process					

 Northern Water Northern Integrated Supply Project				NISP Open House Sign In Sheet October 9, 2019	
First Name	Last Name	Phone Number*	Email Address*		
211	Rob	Walker		What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
212	Sheridyn	Randolph		What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
213	Elisa & Tom	Nitchell		What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
214	LARRY	SMITH		What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
215	JACH	VENDRA		What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	

 Northern Water Northern Integrated Supply Project				NISP Open House Sign In Sheet October 9, 2019	
First Name	Last Name	Phone Number*	Email Address*		
216	DANIELA	HONEGGER	[REDACTED]	What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County IGA Process	
217	Jean	Gibbertson	[REDACTED]	What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
218	B:11	Ashley	[REDACTED]	What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
219	PAUL	NAHMJAS	[REDACTED]	What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County IGA Process	
220	ARTHUR	ABPLANALP	[REDACTED]	What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	

 Northern Water Northern Integrated Supply Project				NISP Open House Sign In Sheet October 9, 2019	
First Name	Last Name	Phone Number*	Email Address*		
John	Hage			221	
Address, City, Zip Code				What topics are you most interested in? (Check all that apply)	
				<input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
First Name	Last Name	Phone Number*	Email Address*		
Duane	Pond			222	
Address, City, Zip Code				What topics are you most interested in? (Check all that apply)	
				<input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
First Name	Last Name	Phone Number*	Email Address*		
Kim	Nelson			223	
Address, City, Zip Code				What topics are you most interested in? (Check all that apply)	
				<input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County IGA Process	
First Name	Last Name	Phone Number*	Email Address*		
STEPHEN	MCMATH			224	
Address, City, Zip Code				What topics are you most interested in? (Check all that apply)	
				<input checked="" type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
First Name	Last Name	Phone Number*	Email Address*		
Carol	Webb			225	
Address, City, Zip Code				What topics are you most interested in? (Check all that apply)	
				<input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County IGA Process	

 Northern Water Northern Integrated Supply Project				NISP Open House Sign In Sheet October 9, 2019	
First Name	Last Name	Phone Number*	Email Address*		
Janna	Alexander			226	
Address, City, Zip Code				What topics are you most interested in? (Check all that apply)	
				<input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
Elizabeth	Ashbach			227	
Address, City, Zip Code				What topics are you most interested in? (Check all that apply)	
				<input checked="" type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County IGA Process	
Donna	BRAGNETZ			228	
Address, City, Zip Code				What topics are you most interested in? (Check all that apply)	
				<input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
LARRY	LECHNER			229	
Address, City, Zip Code				What topics are you most interested in? (Check all that apply)	
				<input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
JIM	HEBBELW			230	
Address, City, Zip Code				What topics are you most interested in? (Check all that apply)	
				<input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	

 Northern Water Northern Integrated Supply Project				NISP Open House Sign In Sheet October 9, 2019	
First Name	Last Name	Phone Number*	Email Address*		
231	Kim	Whitin		What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
232	Diana	Sullivan		What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County IGA Process	
233	Demetri Traci	Mellos		What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
234	Mark	Loader		What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County IGA Process	
235	Tom	Nessett		What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County IGA Process	



MEMORANDUM

To: Mr. Rob Helmick: Larimer County Development Planning
From: Carl Brouwer, Stephanie Cecil, Christie Coleman: Northern Water
Date: January 13, 2020
Subject: Northern Integrated Supply Project (NISP)
 Dec. 18 Bonner Peaks and LCR 29C Neighborhood Open House

The Northern Colorado Water Conservancy District (Northern Water) held an open house at the Livermore Community Hall in Larimer County on December 18, 2019 from 3:00 p.m. to 7:00 p.m. Notifications for this open house were sent to:

- Properties and property owners in the LCR 29C Neighborhood
- Properties and property owners in the Bonner Peak Neighborhood

A total of approximately 158 notifications regarding NISP and the Open House were sent out on December 3. Names, addresses, and property information for these notifications was taken from the Larimer County Assessor's Parcel Database. Emails were also sent to the limited number of property owners in these neighborhoods that we had email addresses for with invitations to the open house and the request that they share that invitation with their neighbors.

A total of 34 people signed in at the NISP Open House. Most provided some form of contact information. It is believed that for most couples or families, only one person signed in, and others could have attended who choose not to sign in. Northern Water personnel staffed the open house to answer questions, and some Larimer County personnel attended as well. Multiple handouts, posters, and large-scale maps of the proposed Glade Reservoir recreation plan and recreation areas, U.S. Highway. 287 Relocation, and pipeline areas were displayed at the open house. Information explaining the NISP Project and the content and scope of the proposed 1041 Permit with Larimer County were also presented.

Northern Water received 22 comment cards from the open house. A breakdown of major comment themes is included below:

Issue	No. of Comments	In Support or Neutral	In Opposition
Position on project in general	4	2	2
Boating on reservoir	14	11	3
Request for non-motorized boating	9	-	-
Night-time boating on reservoir	18	1	17
Camping at recreation area	19	13	6
Fishing on reservoir	19	12	7
Trails in recreation area	19	14	5
Call for turn lanes at Bonner Peaks or other 287 safety issues	8	-	-

*Some cards contained multiple comments/ issues.

Overall, the comment cards generally reflected the views of the public at the open house. There was support for all proposed types of recreation at Glade Reservoir. Reservoir neighbors generally were neutral or in support of boating on Glade Reservoir. However, multiple people expressed concern over noise associated with motorized boating and the desire to allow only wakeless or electric watercraft on the reservoir and most were not in support of night-time boating. U.S. Highway 287 (U.S. 287) relocation comments focused on perceived safety issues associated with the existing U.S. 287 alignment and a desire for turn lanes at the entrance to the Bonner Peak Neighborhood. While that entrance (the Bonner Springs Ranch Road and U.S. Highway 287 Intersection) is outside of the limits of the U.S. 287 Relocation and the scope of the relocation project. We have been in contact with CDOT sharing the neighborhood's concerns with the intersection, the Owl Canyon intersection, and the overall safety of U.S. 287. Finally, there were no submitted comments on the pipeline routes.

The complete sign-in list and the comment cards from the open house can be found in attachments to this memo.

Public Comments and Sign-in Sheet

NISP Open House

Larimer County

December 18, 2019

RECREATION COMMENT CARD
NISP OPEN HOUSE - DEC. 18, 2019
LIVERMORE COMMUNITY HALL



WE WANT YOUR INPUT

What type of **trails** would you like to see at Glade Reservoir? horse

How important are **trails** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What **other types of recreation** should be considered? _____

Any additional comments? BUILD IT NOW

Northern Integrated Supply Project

Questions? Comments? Please visit the project website: www.nisptalk.com
 Project contact email: [Christie Coleman - ccoleman@northernwater.org](mailto:ChristieColeman@northernwater.org)
[Stephanie Cecil - scecil@northernwater.org](mailto:StephanieCecil@northernwater.org)

RECREATION COMMENT CARD
NISP OPEN HOUSE - DEC. 18, 2019
LIVERMORE COMMUNITY HALL



WE WANT YOUR INPUT

What type of **boating** would you like to see at Glade Reservoir? MOTOR BOATS / KAYAKING

How important is **boating** to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

How important is **nighttime boating** to you? (1 = not and 10 = very important) 1

2 3 4 5 6 7 8 9 10

What type **camping** would you like to see at Glade Reservoir? _____

How important is **camping** to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

What type of **fishing** would you like to see at Glade Reservoir? All

How important is **fishing** to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

Northern Integrated Supply Project

Questions? Comments? Please visit the project website: www.nisptalk.com

Project contact email: Christie Coleman – ccoleman@northernwater.org
 Stephanie Cecil – scecil@northernwater.org

RECREATION COMMENT CARD
NISP OPEN HOUSE - DEC. 18, 2019
LIVERMORE COMMUNITY HALL



WE WANT YOUR INPUT

What type of **trails** would you like to see at Glade Reservoir? "natural hiking - paved only ^{near} camp ground

How important are **trails** to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

What **other types** of recreation should be considered? birdwatching, mountain biking

Any additional comments? keep development to contained area south of dam
glad to see plans for visitor center for education & plant animal ID +

Northern Integrated Supply Project

Questions? Comments? Please visit the project website: www.nisptalk.com

Project contact email: [Christie Coleman - ccoleman@northernwater.org](mailto:Christie.Coleman@northernwater.org)
[Stephanie Cecil - scecil@northernwater.org](mailto:Stephanie.Cecil@northernwater.org)

RECREATION COMMENT CARD
NISP OPEN HOUSE - DEC. 18, 2019
LIVERMORE COMMUNITY HALL



WE WANT YOUR INPUT

What type of **boating** would you like to see at Glade Reservoir? prefer slow no-wave areas

How important is **boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

How important is **nighttime boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type **camping** would you like to see at Glade Reservoir? tent & RV

How important is **camping** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type of **fishing** would you like to see at Glade Reservoir? _____

How important is **fishing** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

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WE WANT YOUR INPUT

What type of **trails** would you like to see at Glade Reservoir?

Non-motorized access

How important are **trails** to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

What **other types of recreation** should be considered?

birding, equestrian, archery, hiking

Any additional comments?

I am concerned that the northern part of the reservoir's footprint will be exposed (e.g., mud) most of the time, which will be aesthetically unappealing to local residents.

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WE WANT YOUR INPUT

What type of **boating** would you like to see at Glade Reservoir? non-motorized

How important is **boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

How important is **nighttime boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type **camping** would you like to see at Glade Reservoir? tent only

How important is **camping** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type of **fishing** would you like to see at Glade Reservoir? non-motorized

How important is **fishing** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

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WE WANT YOUR INPUT

What type of **trails** would you like to see at Glade Reservoir? _____

How important are **trails** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What **other types of recreation** should be considered? _____

Any additional comments? PLEASE ADDRESS THE 287 INTERSECTION

AT BONNET SPRINGS RANCH RD

WE HAVE NO TURN LANES & YOU SHOULD EXTEND

287 IMPROVEMENTS TO CORRECT & HOLD BEAVER PEAK

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WE WANT YOUR INPUT

What type of **boating** would you like to see at Glade Reservoir? _____

How important is **boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

How important is **nighttime boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type of **camping** would you like to see at Glade Reservoir? _____

How important is **camping** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type of **fishing** would you like to see at Glade Reservoir? _____

How important is **fishing** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

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WE WANT YOUR INPUT

What type of **trails** would you like to see at Glade Reservoir?

Not on the North East Side

How important are **trails** to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

What **other types of recreation** should be considered?

Any additional comments?

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WE WANT YOUR INPUT

What type of **boating** would you like to see at Glade Reservoir? Fishing Recreation

How important is **boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

How important is **nighttime boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type **camping** would you like to see at Glade Reservoir? Controlled

How important is **camping** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type of **fishing** would you like to see at Glade Reservoir? Abundant

How important is **fishing** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

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WE WANT YOUR INPUT

What type of **trails** would you like to see at Glade Reservoir? NONE ON NORTH END OR WEST

How important are **trails** to you? (1 = not and 10 = very important)

(1) 2 3 4 5 6 7 8 9 10

What **other types of recreation** should be considered? _____

NONE MOTORIZED ONLY

Any additional comments? _____

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WE WANT YOUR INPUT

What type of **boating** would you like to see at Glade Reservoir? none motorized only

How important is **boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

How important is **nighttime boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type **camping** would you like to see at Glade Reservoir? none

How important is **camping** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type of **fishing** would you like to see at Glade Reservoir? _____

How important is **fishing** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

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WE WANT YOUR INPUT

What type of trails would you like to see at Glade Reservoir? prim. fire - like Red Mt. Open Space

How important are trails to you? (1 = not and 10 = very important)

1 (2) 3 4 5 6 7 8 9 10

What other types of recreation should be considered? None

Any additional comments?

Improve intersection of Bonner Springs w 287.
Most impact will be at reservoir but water goes out of
county - they receive the benefit

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WE WANT YOUR INPUT

What type of **boating** would you like to see at Glade Reservoir? Canoes & Kayaks - No Motors

How important is **boating** to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

How important is **nighttime boating** to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

What type **camping** would you like to see at Glade Reservoir? Prim. Fire

How important is **camping** to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

What type of **fishing** would you like to see at Glade Reservoir? Not interested

How important is **fishing** to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

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WE WANT YOUR INPUT

What type of **trails** would you like to see at Glade Reservoir? _____

How important are **trails** to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

What **other types of recreation** should be considered? _____

Any additional comments? _____

HAS NISP consulted w/ area
Fire/Rescue departments about the Hwy 287
Alignment + Safety concerns? Very hazardous
Conditions exist for no turn lanes @ Big Spring Corner

Northern Integrated Supply Project

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WE WANT YOUR INPUT

What type of **boating** would you like to see at Glade Reservoir? _____

How important is **boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

How important is **nighttime boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type **camping** would you like to see at Glade Reservoir? _____

How important is **camping** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type of **fishing** would you like to see at Glade Reservoir? _____

How important is **fishing** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

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WE WANT YOUR INPUT

What type of **trails** would you like to see at Glade Reservoir? perimeter of reservoir only

How important are **trails** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What **other types of recreation** should be considered? rock climbing - jpf same

Loganets along the east side - Dakota Forest - some of the best there is - see horse brook

Any additional comments?

CDW Good these containers for wildlife purposes only - no additional recreation access. Noise studies need for topic across the Reservoir

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 Stephanie Cecil - seccil@northernwater.org

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WE WANT YOUR INPUT

Overall non-motORIZED

What type of **boating** would you like to see at Glade Reservoir?

Referral = 0;

How important is **boating** to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

How important is **nighttime boating** to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

What type **camping** would you like to see at Glade Reservoir?

Confined to campsites, no dispersed

How important is **camping** to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

What type of **fishing** would you like to see at Glade Reservoir?

Don't care

How important is **fishing** to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

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WE WANT YOUR INPUT

What type of trails would you like to see at Glade Reservoir?

Now. We have beautiful places to
hike up/out Glade. ~~We want more~~

How important are trails to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

~~Well~~ This is a trick question... trails are very imp! to me but not trails at Glade!

What other types of recreation should be considered?

↳ None - don't build the reservoir!

Any additional comments? We are opposed to the fact that our beautiful

rural community will bear all the impacts from a

project that benefits people far away. Please find

alternatives that put the impacts near the end users.

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WE WANT YOUR INPUT

What type of **boating** would you like to see at Glade Reservoir? Removed this question - no reservoir please. Find an alternative water source.

How important is **boating** to you? (1 = not and 10 = very important)

Removed this question - boating is very important in that we do not want it.
 How important is **nighttime boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10
Again removed the question - very important - don't allow it!

What type **camping** would you like to see at Glade Reservoir? None

How important is **camping** to you? (1 = not and 10 = very important)

Removed the question - camping is very important, don't allow it.
 What type of **fishing** would you like to see at Glade Reservoir? None

How important is **fishing** to you? (1 = not and 10 = very important)

Removed question - fishing is important - don't allow it.

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WE WANT YOUR INPUT

What type of **trails** would you like to see at Glade Reservoir? FOR FISHING ACCESS. NO BOATS!

How important are **trails** to you? (1 = not and 10 = very important)

1 2 3 4 (5) 6 7 8 9 10

What **other types of recreation** should be considered? _____

Any additional comments? WAY IS CDOT NOT USING THIS OPPORTUNITY

TO IMPROVE SAFETY AT BONNER SPRINGS RANCH ROAD

(BONNER PARK) AND OUR CANYON! CDOT - WAKE UP!

Northern Integrated Supply Project

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 Stephanie Cecil – scecil@northernwater.org

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WE WANT YOUR INPUT

What type of boating would you like to see at Glade Reservoir? NON-MOTORIZED

How important is ^{NON-MOTORIZED}boating to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

How important is nighttime boating to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type camping would you like to see at Glade Reservoir? NONE

How important is camping to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type of fishing would you like to see at Glade Reservoir? ALL TYPES

How important is fishing to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

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WE WANT YOUR INPUT

Absolutely None on west side
East side of Reservoir

What type of trails would you like to see at Glade Reservoir?

How important are trails to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

What other types of recreation should be considered? *No ATV.*

Any additional comments?

Northern Integrated Supply Project

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scecil@northernwater.org

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WE WANT YOUR INPUT

What type of **boating** would you like to see at Glade Reservoir? nots, quiet nots

How important is **boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

How important is **nighttime boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type **camping** would you like to see at Glade Reservoir? Not large RV's. Tent & campers ok

How important is **camping** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type of **fishing** would you like to see at Glade Reservoir? Don't care

How important is **fishing** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

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WE WANT YOUR INPUT

What type of trails would you like to see at Glade Reservoir? HOSE, BIKE, WALKING

How important are trails to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

What other types of recreation should be considered? _____

Any additional comments? NEED TO CONSIDER IMPROVEMENTS (TURN RANES)

TO 287 ONTO BONNER SPRINGS RANCH ROAD.

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WE WANT YOUR INPUT

What type of **boating** would you like to see at Glade Reservoir? NON MOTORIZED

How important is **boating** to you? (1 = not and 10 = very important) ① 2 3 4 5 6 7 8 9 10

How important is **nighttime boating** to you? (1 = not and 10 = very important) ① 2 3 4 5 6 7 8 9 10

What type **camping** would you like to see at Glade Reservoir? ANY TYPE

How important is **camping** to you? (1 = not and 10 = very important) ④ 2 3 4 5 6 7 8 9 10

What type of **fishing** would you like to see at Glade Reservoir? ANY

How important is **fishing** to you? (1 = not and 10 = very important) 1 2 3 4 ⑤ 6 7 8 9 10

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WE WANT YOUR INPUT

What type of **trails** would you like to see at Glade Reservoir? mainly walking

How important are **trails** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What **other types of recreation** should be considered? _____

Any additional comments? would like to see left and right turn lanes

into Bonner Peak neighborhood off HW 287.

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WE WANT YOUR INPUT

What type of **boating** would you like to see at Glade Reservoir? non motorized

How important is **boating** to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

How important is **nighttime boating** to you? (1 = not and 10 = very important) 1

2 3 4 5 6 7 8 9 10

What type **camping** would you like to see at Glade Reservoir? _____

How important is **camping** to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

What type of **fishing** would you like to see at Glade Reservoir? _____

How important is **fishing** to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

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WE WANT YOUR INPUT

What type of trails would you like to see at Glade Reservoir?

Rough dirt trails - needn't be paved.
 Unpaved trails make for great running!

How important are trails to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

What other types of recreation should be considered?

Bicycling! Including bicycling access from surrounding communities.

NCR

Any additional comments? I live on NCR 296. It would be disappointing to me if the shoreline fishing access trails were not accessible from the south via NCR 296.

287's realignment presents Larimer County and CDOT w/ a fantastic opportunity to improve bicycle accessibility on what is presently US-287 from Ted's Place southbound - esp from E.H. 14 to 54th. It's scary to ride on right now! And it's the only way to

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Extend the County's Pleasant Valley Trail ~~State~~ at its terminus at Watson Lake. Thanks.

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Cameron Morris

WE WANT YOUR INPUT

What type of **boating** would you like to see at Glade Reservoir? Maybe boat rentals? I don't own a boat. (Yes)

How important is **boating** to you? (1 = not and 10 = very important)

1 (2) 3 4 5 6 7 8 9 10

How important is **nighttime boating** to you? (1 = not and 10 = very important)

1 (2) 3 4 5 6 7 8 9 10

What type **camping** would you like to see at Glade Reservoir? _____

How important is **camping** to you? (1 = not and 10 = very important)

1 2 3 (4) 5 6 7 8 9 10

What type of **fishing** would you like to see at Glade Reservoir? fish.

How important is **fishing** to you? (1 = not and 10 = very important)

1 (2) 3 4 5 6 7 8 9 10

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WE WANT YOUR INPUT

What type of trails would you like to see at Glade Reservoir?

HORSE, HIKING, CYCLING *

How important are trails to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

What other types of recreation should be considered?

* CYCLING IS ESPECIALLY GOOD FOR ADA + FAMILIES

Any additional comments?

GOOD PRESENTATION

Thank you.

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 Stephanie Cecil – scecil@northernwater.org

RECREATION COMMENT CARD

NISP OPEN HOUSE - DEC. 18, 2019
LIVERMORE COMMUNITY HALL



WE WANT YOUR INPUT

What type of **boating** would you like to see at Glade Reservoir? SAILING

How important is **boating** to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

How important is **nighttime boating** to you? (1 = not and 10 = very important) 1

2 3 4 5 6 7 8 9 10

What type **camping** would you like to see at Glade Reservoir? CANVAS, CABINS, RVs

How important is **camping** to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

What type of **fishing** would you like to see at Glade Reservoir? WELL STOCKED TO ATTRACT VISITORS

How important is **fishing** to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

Northern Integrated Supply Project

Questions? Comments? Please visit the project website: www.nisptalk.com

Project contact email: Christie Coleman – ccoleman@northernwater.org

Stephanie Cecil – scecil@northernwater.org

RECREATION COMMENT CARD
NISP OPEN HOUSE - DEC. 18, 2019
LIVERMORE COMMUNITY HALL



WE WANT YOUR INPUT

What type of **trails** would you like to see at Glade Reservoir? none

How important are **trails** to you? (1 = not and 10 = very important) ① 2 3 4 5 6 7 8 9 10

What **other types of recreation** should be considered? _____

Any additional comments? _____

Best not to have a 20th
century solution to 21st century
problems.

Northern Integrated Supply Project

Questions? Comments? Please visit the project website: www.nisptalk.com
 Project contact email: Christle Coleman – ccoleman@northernwater.org
 Stephanie Cecil – scecil@northernwater.org

RECREATION COMMENT CARD
NISP OPEN HOUSE - DEC. 18, 2019
LIVERMORE COMMUNITY HALL



WE WANT YOUR INPUT

What type of **boating** would you like to see at Glade Reservoir? non motorized

How important is **boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

How important is **nighttime boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type **camping** would you like to see at Glade Reservoir? none

How important is **camping** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type of **fishing** would you like to see at Glade Reservoir? catch & release

How important is **fishing** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

Northern Integrated Supply Project

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Project contact email: [Christie Coleman - ccoleman@northernwater.org](mailto:ccoleman@northernwater.org)
[Stephanie Cecil - scecil@northernwater.org](mailto:Stephanie.Cecil@northernwater.org)

RECREATION COMMENT CARD

NISP OPEN HOUSE - DEC. 18, 2019

LIVERMORE COMMUNITY HALL



WE WANT YOUR INPUT

What type of **trails** would you like to see at Glade Reservoir? _____

How important are **trails** to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

What **other types of recreation** should be considered? _____

Any additional comments? Please improve the safety of 287. It is
a nightmare. Need a median to separate north & southbound
traffic. Need reflectors. Can't see the white or yellow stripes now
and the rumble strips are ineffective.

Northern Integrated Supply Project

Questions? Comments? Please visit the project website: www.nisptalk.com

Project contact email: [Christie Coleman - ccoleman@northernwater.org](mailto:ChristieColeman@northernwater.org)
[Stephanie Cecil - scecil@northernwater.org](mailto:StephanieCecil@northernwater.org)

RECREATION COMMENT CARD
NISP OPEN HOUSE - DEC. 18, 2019
LIVERMORE COMMUNITY HALL



WE WANT YOUR INPUT

What type of **boating** would you like to see at Glade Reservoir? _____

How important is **boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

How important is **nighttime boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type **camping** would you like to see at Glade Reservoir? _____

How important is **camping** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type of **fishing** would you like to see at Glade Reservoir? _____

How important is **fishing** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

Northern Integrated Supply Project

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[Stephanie Cecil - scecil@northernwater.org](mailto:Stephanie.Cecil@northernwater.org)

RECREATION COMMENT CARD

NISP OPEN HOUSE - DEC. 18, 2019
LIVERMORE COMMUNITY HALL

**WE WANT YOUR INPUT**

What type of **trails** would you like to see at Glade Reservoir? none, no more

How important are **trails** to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

What **other types of recreation** should be considered? _____

Any additional comments? _____

Bonner Peak Ranch needs a turning
lane, especially if there is added tourist traffic
(or you'll need to increase Emergency budget)

Northern Integrated Supply Project

Questions? Comments? Please visit the project website: www.nisptalk.com

Project contact email: [Christie Coleman - ccoleman@northernwater.org](mailto:Christie.Coleman@northernwater.org)

[Stephanie Cecil - scecil@northernwater.org](mailto:Stephanie.Cecil@northernwater.org)

RECREATION COMMENT CARD
NISP OPEN HOUSE - DEC. 18, 2019
LIVERMORE COMMUNITY HALL



WE WANT YOUR INPUT

What type of **boating** would you like to see at Glade Reservoir? _____

How important is **boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

How important is **nighttime boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type **camping** would you like to see at Glade Reservoir? beats only

How important is **camping** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type of **fishing** would you like to see at Glade Reservoir? Any

How important is **fishing** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

Northern Integrated Supply Project

Questions? Comments? Please visit the project website: www.nisptalk.com

Project contact email: Christie Coleman – ccoleman@northernwater.org
 Stephanie Cecil – scecil@northernwater.org

RECREATION COMMENT CARD
NISP OPEN HOUSE - DEC. 18, 2019
LIVERMORE COMMUNITY HALL



WE WANT YOUR INPUT

What type of trails would you like to see at Glade Reservoir?

more access to northern trails

How important are trails to you? (1 = not and 10 = very important)

1 2 3 4 5 6 7 8 9 10

What other types of recreation should be considered?

I live at northern

top of reservoir & I'd love to be able
 to access lake from the north

Any additional comments?

Northern Integrated Supply Project

Questions? Comments? Please visit the project website: www.nisptalk.com

Project contact email: [Christie Coleman - ccoleman@northernwater.org](mailto:Christie.Coleman@northernwater.org)

[Stephanie Cecil - scecil@northernwater.org](mailto:Stephanie.Cecil@northernwater.org)

RECREATION COMMENT CARD
NISP OPEN HOUSE - DEC. 18, 2019
LIVERMORE COMMUNITY HALL



WE WANT YOUR INPUT

What type of **boating** would you like to see at Glade Reservoir? All kinds

How important is **boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

How important is **nighttime boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type **camping** would you like to see at Glade Reservoir? On the South End

How important is **camping** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type of **fishing** would you like to see at Glade Reservoir? All kinds

How important is **fishing** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

Northern Integrated Supply Project

Questions? Comments? Please visit the project website: www.nisptalk.com

Project contact email: [Christie Coleman - ccoleman@northernwater.org](mailto:Christie.Coleman@northernwater.org)
[Stephanie Cecil - scecil@northernwater.org](mailto:Stephanie.Cecil@northernwater.org)

RECREATION COMMENT CARD
NISP OPEN HOUSE - DEC. 18, 2019
LIVERMORE COMMUNITY HALL



WE WANT YOUR INPUT

What type of **trails** would you like to see at Glade Reservoir? hiking only

How important are **trails** to you? (1 = not and 10 = very important)

10 2 3 4 5 6 7 8 9

What **other types of recreation** should be considered? No Dunes

Any additional comments? don't allow ATV's dirt bikes or trails

Northern Integrated Supply Project

Questions? Comments? Please visit the project website: www.nisptalk.com

Project contact email: Christie Coleman – ccoleman@northernwater.org
 Stephanie Cecil – scecil@northernwater.org

RECREATION COMMENT CARD
NISP OPEN HOUSE - DEC. 18, 2019
LIVERMORE COMMUNITY HALL



WE WANT YOUR INPUT

What type of **boating** would you like to see at Glade Reservoir? Sailing

How important is **boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

How important is **nighttime boating** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10

What type **camping** would you like to see at Glade Reservoir? actual camping in a tent or less (no RV)


How important is **camping** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10


What type of **fishing** would you like to see at Glade Reservoir? all kinds


How important is **fishing** to you? (1 = not and 10 = very important) 1 2 3 4 5 6 7 8 9 10


Northern Integrated Supply Project


Questions? Comments? Please visit the project website: www.nisptalk.com
 Project contact email: [Christie Coleman - ccoleman@northernwater.org](mailto:Christie.Coleman@northernwater.org)
[Stephanie Cecil - scecil@northernwater.org](mailto:Stephanie.Cecil@northernwater.org)


 Northern Water Northern Integrated Supply Project		NISP Open House Sign In Sheet DECEMBER October 18, 2019	
First Name	Last Name	Phone Number*	Email Address*
76	hertta	Hingenberg	
Address, City, Zip Code [Redacted]			
What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit			
77	Tom	Peacock	
Address, City, Zip Code [Redacted]			
What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit			
78	Tom	Sale	
Address, City, Zip Code [Redacted]			
What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit			
79			
Address, City, Zip Code [Redacted]			
What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit			
80			
Address, City, Zip Code [Redacted]			
What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit			


 Northern Water Northern Integrated Supply Project				NISP Open House Sign In Sheet DECEMBER October 18, 2019	
First Name	Last Name	Phone Number*	Email Address*		
1	NORM	STIEFEL	[REDACTED]	[REDACTED]	
Address, City, Zip Code				What topics are you most interested in? (Check all that apply)	
[REDACTED]				<input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit	
First Name	Last Name	Phone Number*	Email Address*		
2	RH	Wollam	[REDACTED]	[REDACTED]	
Address, City, Zip Code				What topics are you most interested in? (Check all that apply)	
[REDACTED]				<input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit	
First Name	Last Name	Phone Number*	Email Address*		
3	Jane	Gibb	[REDACTED]	[REDACTED]	
Address, City, Zip Code				What topics are you most interested in? (Check all that apply)	
[REDACTED]				<input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit	
First Name	Last Name	Phone Number*	Email Address*		
4	JOHN + BETH	MORRIS	[REDACTED]	[REDACTED]	
Address, City, Zip Code				What topics are you most interested in? (Check all that apply)	
[REDACTED]				<input checked="" type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County 1041 Permit	
First Name	Last Name	Phone Number*	Email Address*		
5				[REDACTED]	
Address, City, Zip Code				What topics are you most interested in? (Check all that apply)	
[REDACTED]				<input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit	
First Name	Last Name	Phone Number*	Email Address*		

 Northern Water Northern Integrated Supply Project				NISP Open House Sign In Sheet DECEMBER October 18, 2019	
First Name	Last Name	Phone Number*	Email Address*		
Jan	Bright				
Address, City, Zip Code				What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County 1041 Permit	
RONALD	BROOKS				
Address, City, Zip Code				What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County 1041 Permit	
Alex	Garfield				
Address, City, Zip Code				What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County 1041 Permit	
Ed	Gordon				
Address, City, Zip Code				What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County 1041 Permit	
John	Tschirhart				
Address, City, Zip Code				What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit	

 Northern Water Northern Integrated Supply Project		NISP Open House Sign In Sheet DECEMBER October 18, 2019	
First Name	Last Name	Phone Number*	Email Address*
Jim	MUELLER		
Address, City, Zip Code			
What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit			
Becky	Hawley		
Address, City, Zip Code			
What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County 1041 Permit			
Cameron	MORRIS		
Address, City, Zip Code			
What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit			
John	DETENWANGER		
Address, City, Zip Code			
What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County 1041 Permit			
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What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit			

 Northern Water Northern Integrated Supply Project				NISP Open House Sign In Sheet DECEMBER October 18, 2019	
First Name	Last Name	Phone Number*	Email Address*		
66	Scott	Ellis			
Address, City, Zip Code				What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit	
First Name	Last Name	Phone Number*	Email Address*		
67	Vernon	Desbrien			
Address, City, Zip Code				What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit	
First Name	Last Name	Phone Number*	Email Address*		
68	Maile	Gwider			
Address, City, Zip Code				What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit	
First Name	Last Name	Phone Number*	Email Address*		
69	Larry	Peterson			
Address, City, Zip Code				What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit	
First Name	Last Name	Phone Number*	Email Address*		
70					
Address, City, Zip Code				What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit	

 Northern Water Northern Integrated Supply Project		NISP Open House Sign In Sheet DECEMBER October 18, 2019	
First Name	Last Name	Phone Number*	Email Address*
56	Cindy	Adan	[Redacted]
Address, City, Zip Code [Redacted]			
What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit			
First Name	Last Name	Phone Number*	Email Address*
57	Brent	Hawley	[Redacted]
Address, City, Zip Code [Redacted]			
What topics are you most interested in? (Check all that apply) <input checked="" type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit			
First Name	Last Name	Phone Number*	Email Address*
58	KAY + ALAN	MIKEBKY	[Redacted]
Address, City, Zip Code [Redacted]			
What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County 1041 Permit			
First Name	Last Name	Phone Number*	Email Address*
59	LINDA	GRIEGO	[Redacted]
Address, City, Zip Code [Redacted]			
What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit			
First Name	Last Name	Phone Number*	Email Address*
60	[Redacted]		
Address, City, Zip Code [Redacted]			
What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit			

 Northern Water Northern Integrated Supply Project				NISP Open House Sign In Sheet DECEMBER October 18, 2019	
	First Name	Last Name	Phone Number*	Email Address*	
71	Joel	Meeter			
Address, City, Zip Code					
What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit					
	First Name	Last Name	Phone Number*	Email Address*	
72	Karen	Coppinger			
Address, City, Zip Code					
What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit					
	First Name	Last Name	Phone Number*	Email Address*	
73	Craig	Kling			
Address, City, Zip Code					
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	First Name	Last Name	Phone Number*	Email Address*	
74	Tennifer	Lang			
Address, City, Zip Code					
What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit					
	First Name	Last Name	Phone Number*	Email Address*	
75	Rodger	Ames			
Address, City, Zip Code					
What topics are you most interested in? (Check all that apply) <input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit					

Northern Water Northern Integrated Supply Project		NISP Open House Sign In Sheet DECEMBER October 18, 2019	
First Name	Last Name	Phone Number*	Email Address*
11	Ram [Signature]	Cause	[Redacted]
Address, City, Zip Code			
What topics are you most interested in? (Check all that apply)			
<input checked="" type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input checked="" type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input checked="" type="checkbox"/> Larimer County 1041 Permit			
12	G204	Bork	[Redacted]
Address, City, Zip Code			
What topics are you most interested in? (Check all that apply)			
<input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit			
13	Brandon	Grant	[Redacted]
Address, City, Zip Code			
What topics are you most interested in? (Check all that apply)			
<input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit			
14	KAREN	Dinkel	[Redacted]
Address, City, Zip Code			
What topics are you most interested in? (Check all that apply)			
<input checked="" type="checkbox"/> NISP in General <input checked="" type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit			
15	Lloyd	Schott	[Redacted]
Address, City, Zip Code			
What topics are you most interested in? (Check all that apply)			
<input type="checkbox"/> NISP in General <input type="checkbox"/> Recreation <input type="checkbox"/> Pipeline Routes <input checked="" type="checkbox"/> Highway 287 <input type="checkbox"/> Larimer County 1041 Permit			



Larimer County Analysis – Technical Memorandum No. 2 Larimer County 1041 Review Criteria

Prepared for:
Larimer County

Prepared by:
**Northern Integrated Supply Project
Water Activity Enterprise**

February 2020

Technical Memo No. 2

NISP: Larimer County 1041 Review Criteria (LUC Section 14.10(D))

Summary

The purpose of this Technical Memo is twofold:

1. To direct Larimer County's Board of County Commissioners (BOCC) to the exchange of information between staff for the Northern Integrated Supply Project Water Activity Enterprise (NISP WAE) and Larimer County staff (County) over the course of many years pertaining to the Northern Integrated Supply Project (NISP or Project), and specifically, to the County's 1041 Permit and other land use criteria (Section I of this document); and

2. To reference those documents, and the information provided therein, to provide examples of how each of the BOCC's 1041 Permit review criteria are addressed for each activity associated with NISP regulated under 1041 (Section II of this document).

For purposes of the latter, the information within this document is by way of example and is not inclusive of all the information pertaining to NISP that has been documented, shared, reviewed, and commented on during the federal and state permitting efforts. As a cooperating agency, the County participated in the review and development of many of those documents.

Therefore, in addition to the information included by way of example herein, the Enterprise requests that the BOCC also consider relevant documentation associated with the environmental analysis led by the U.S. Army Corps of Engineers (Corps) during the NEPA and Clean Water Act section 404 permitting process for NISP; the Corps' consultation with the Colorado State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation pursuant to the National Historic Preservation Act (NHPA); and the Corps' consultation with the U.S. Fish and Wildlife Service pursuant to the Endangered Species Act. Review of those documents should include all relevant analysis, approvals, permit conditions, and the mitigation and enhancements offered by the NISP WAE in this federal permitting process.

Additionally, the NISP WAE requests that the Board of County Commissioners also refer to all relevant documentation associated with water quality analysis and the effects, including beneficial effects, to fish and wildlife resources analyzed through the separate state water quality and fish and wildlife approval processes for NISP. Those documents should include all analyses,

terms and conditions, implementation agreements, and mitigation and enhancement commitments under the 401 Water Quality Certification from the Colorado Department of Public Health and Environment, and the Fish and Wildlife Mitigation and Enhancement Plan entered into between the NISP WAE and the Colorado Department of Natural Resources (and approved by Colorado Parks and Wildlife Commission and the Colorado Water Conservation Board), pursuant to C.R.S. section 37-60-122.2.

Background

Larimer County Land Use Code, Section 14.10(D), sets forth 12 criteria ("12 Review Criteria") by which the BOCC will review a 1041 Permit application. It provides,

A 1041 permit application may be approved only when the applicant has satisfactorily demonstrated that the proposal, including all mitigation measures proposed by the applicant, complies with all the applicable criteria set forth in section 14. If the proposal does not comply with all the applicable criteria, the permit shall be denied, unless the county commissioners determine that reasonable conditions can be imposed on the permit which will enable the permit to comply with the criteria.

This document is the NISP WAE's demonstration to the BOCC that the NISP WAE has worked cooperatively with the County over many years to provide information, consider County comments, and conduct additional outreach with the local community regarding NISP. It also demonstrates, through the exchange of information, how evaluations and considerations, specific to the County's Land Use Code and relevant to the 12 Review Criteria, have been made by both parties over the course of many years, leading up to this 1041 permit application.

Section I. Informational Documents Exchanged Between the NISP WAE and the County in Consideration of the County's Land Use Code

Concurrent with the federal and state permitting processes for NISP, in which the County participated and coordinated directly with federal and state agencies, the NISP WAE coordinated with the County to satisfy information needs relative to the County's Land Use Code, as applicable to NISP.

Beginning in 2017, the NISP WAE provided project information to the County to specifically address Land Use Code requirements. The NISP WAE provided the County technical memoranda and updates to those memoranda from 2017 through 2019, each followed by comments and responses from both entities' staffs. The parties met numerous times and participated in public meetings, workshops, and open houses.

The following documents demonstrate the cooperative exchange of information between the NISP WAE and the County as the parties began contemplating the 1041 permit application submittal:

- **Technical Memorandum No. 1 – Project Summary (“Project Summary Memo”)**

May 2018

June 2019

- **Technical Memorandum No. 2 – Larimer County 1041 Evaluation Criteria (“1041 Evaluation Memo”)**

May 2018

June 2019

- **Technical Memorandum No. 3 – Conveyance Pipeline Route Study & Analysis (“Pipeline Memo”)**

May 2018

June 2019

July 2019

- **Technical Memorandum No. 4 – U.S. Highway 287 Relocation (“Hwy 287 Memo”)**

May 2018

June 2019

- **Technical Memorandum No 5 – Glade Reservoir Recreation (“Recreation Memo”)**

May 2018

June 2019

- **Larimer County comments to the NISP WAE**

January 23, 2018

June 29, 2018

August 26, 2019

November 12, 2019

- **Larimer County Engineering Department Comments on NISP IGA, File #19-ZONE2551 (“County Engineering Department Comments”)**

July 22, 2019 (This document includes comments from Larimer County Plans Examiner, the Town of Timnath, the Windsor Reservoir and Canal Company, Colorado Parks and Wildlife, City of Fort Collins, Poudre Fire Authority)

July 30, 2019

November 8, 2019

- **The NISP WAE’s Response to Larimer County and Referral Agency Comments**

March 20, 2018

October 7, 2019

These documents are referenced in Section II of this document to provide examples of how NISP satisfies each of the 12 Review Criteria.

Section II. Application of Information to the BOCCs 12 Review Criteria

Under Section 14 of the Land Use Code ("Areas and Activities of State Interest"), i.e. 1041 regulations, NISP involves two activities separately regulated by the County as activities of State interest: siting and development of new or extended domestic water transmission lines, and site selection and construction of a new water storage reservoir. Therefore, this document applies each of the 12 Review Criteria to each activity in Sections II.A ("Pipeline Siting and Development") and II.B ("Reservoir Siting and Construction"). Nevertheless, it is important to acknowledge that the federal and state reviews of the Project analyzed and evaluated the Project components as a whole. As suggested above, those documents should also be considered for purposes of demonstrating satisfaction of the 12 Review Criteria.

As technical memoranda were revised and/or updated by the NISP WAE after receiving comments and questions from the County, the revised technical memoranda supplanted earlier versions. Thus, referenced below is to the latest version of the technical memoranda listed in Section I, above.

A. Pipeline Siting and Development

Review Criteria 1: The proposal is consistent with the master plan and applicable Intergovernmental agreements affecting land use and developments

When developing the pipeline, the NISP WAE will implement applicable measures of good public stewardship described by the County in its Reservoir Parks Master Plan. For example, native vegetation will remain at the site, and landscaping will be replaced following construction. See Reservoir Parks Master Plan at 44. During development, if work is conducted after sundown, the NISP WAE will agree to use downcast lighting. See Reservoir Parks Master Plan at 45.

Relevant to the siting and development of the water pipeline component of the Project, the NISP WAE reviewed and considered the County's 1997 Master Plan, and the 2015 Open Lands Master Plan.

a. 1997 Larimer County Master Plan

"The Master Plan uses the term 'Growth Management Area'(GMA) to refer to what current IGAs with the cities of Fort Collins and Loveland refer to as Urban Growth Areas. In addition, the Master Plan calls for the establishment of two additional geographical boundaries that could be established beyond a municipality's growth management area: the 'Cooperative Planning Area' (CPA) and the 'Community Influence Area (CIA). See County Master Plan at 2-6. NISP pipeline routing information has been shared with and evaluated by the County, as reflected by the documents described in Section I, above. The pipeline crosses through multiple GMAs. Since the 1997 Master Plan, more towns have grown within Larimer County. The pipeline crosses through GMAs for Timnath, Windsor, Johnstown, and Fort Collins. The NISP WAE is actively coordinating with these entities.

Within the urban and agricultural area, the development of the pipeline will not change existing land uses and will continue to further the protection of agricultural land and water. For individual landowners affected by the construction, the NISP WAE will acquire easements for the pipeline. The easement agreement will provide that the NISP WAE will return the land to pre-construction condition and compensate for crop damages and/or losses incurred during construction or maintenance. Through its practice, the NISP WAE will follow goals and strategies under the Master Plan, such as GM-9 (Permanent and ongoing communication between agriculture and the County is essential); and GM-12 (Respect for private property is essential to the maintenance of agriculture). See Master Plan at 2-14. Similarly, as demonstrated in the following responses, the NISP WAE has adhered to Master Plan strategies that apply to all development activities, such as "all new development shall be located and designed for

compatibility with sensitive natural areas; compatibility with adjacent land use shall be considered in the design of all new development.” See Master Plan at 3-9.

b. 2015 Open Lands Master Plan

The pipeline will pass through the City of Fort Collins natural areas and may pass through Larimer County conservation easements. The NISP WAE is committed to restoring all lands to pre-existing condition following construction.

Pipeline Siting and Development

Review Criteria 2: The applicant has presented reasonable siting and design alternatives or explained why no reasonable alternatives are available

The Corps' EIS analyzed the impacts associated with pipeline development. The NISP WAE provided the County with numerous documents, described in Section I above, providing information about the selection of the pipeline route. Through dialogue between the NISP WAE and the County, the NISP WAE refined the information regarding the corridor location and construction. Site selection will avoid sensitive resources and will be compatible with existing land uses. The NISP WAE provided the County with its site analysis process and specific review criteria. After further discussion with the County, the pipeline routing identified in the latest Technical Memorandum No. 3 is the final alignment, recognizing that minor adjustments may be necessary in specific locations.

Discussions related to alternatives considered and evaluated by the NISP WAE for pipeline routing and the criteria used to determine the most reasonable siting and design can be found in the Project Summary Memo, the 1041 Evaluation Memo, and the Conveyance Pipeline Memo. In sum, constraints and criteria were determined in conjunction with the County. A two-phase approach was used to develop and evaluate alternative alignments. The first phase is an initial screen to determine and map alternatives. The second phase analyzes the routes developed by the first phase using the detailed conveyance routing evaluation criteria. Screen criteria include major corridors, land use and residential impacts, environmental impacts and county facilities. Detailed screen criteria included overall impact, land use and residential impacts, environmental and historic impacts, and county facilities.

Pipeline Siting and Development

Review Criteria 3: The proposal conforms with adopted county standards, review criteria and mitigation requirements concerning environmental impacts, including but not limited to those contained in this Code

As described above in Review Criteria 2, the County reviewed and provided comments on pipeline routing alternatives to help conform the proposal to county standards and evaluate impact avoidance and minimization. Additionally, the NISP WAE will follow applicable Land Use Code requirements and standards during construction. Information can be found in the 1041 Evaluation Memo.

Pipeline Siting and Development

Review Criteria 4: The proposal will not have a significant adverse effect on or will adequately mitigate significant adverse effects on the land or its natural resources, on which the proposal is situated and on lands adjacent to the proposal

Please refer to the federal and state permits and the NISP WAE's mitigation and enhancement measures under each. Specific to the delivery of water to Glade Reservoir, the NISP WAE revised the Project design prior to the Final EIS to avoid, minimize and mitigate impacts by proposing to deliver water within the Poudre River. This will keep flows in the Poudre River year-round. In sum, the pipeline impacts on land and natural resources are generally temporary in nature. All lands will be restored to original condition to be used in its original capacity or other capacities as dictated by easement language. Moreover, the NISP WAE will work with each landowner to develop a property-specific restoration and reclamation plan for each parcel.

Pipeline Siting and Development

Review Criteria 5: The proposal will not adversely affect any sites and structures listed on the State or National Registers of Historic Places

The Corps' analysis evaluated impacts of NISP to cultural resources. Compliance with the NHPA requires that steps be taken by the NISP WAE in the event of future discoveries on Project lands through a Programmatic Agreement.

Pipeline Siting and Development

Review Criteria 6: The proposal will not negatively impact public health and safety

Impacts associated with construction of the pipeline are primarily temporary and will not result in public health effects. Construction areas will not be open to or accessible by the public, and the NISP WAE, its employees, agents and contractors will follow applicable federal, state and local health and safety standards.

Pipeline Siting and Development

Review Criteria 7: The proposal will not be subject to significant risk from natural hazards including floods, wildfire or geologic hazards

Upon review of County maps, there are no geologic hazard areas within the pipeline route. The pipelines will cross the Poudre, Big Thompson, and Little Thompson rivers and associated floodplains. Consultants (Dewberry/HDR) have prepared a floodplain report, included in the 1041 application materials, to demonstrate compliance with floodplain regulations. Glade Reservoir release pipeline and the western edge of the Northern Tier pipeline are in a designated wildfire area. However, buried pipelines will not contribute to or be impacted by wildfire risks. Pipelines will be constructed to meet applicable local, state and federal floodplain regulations, fire and wildfire standards.

Pipeline Siting and Development

Review Criteria 8: Adequate public facilities and services are available for the proposal or will be provided by the applicant, and the proposal will not have a significant adverse effect on the capability of local governmental to provide services or exceed the capacity of service delivery systems

The pipeline design and construction will include both temporary and permanent storm water facilities as required. There will be no significant adverse effects to the capability of local governments to provide services. Northern Water and its enterprises have operated pipeline, pump station and dam facilities in Colorado for decades. Carter Lake and Horsetooth Reservoir are operated and maintained jointly by Northern Water and the U.S. Bureau of Reclamation while partnering with Larimer County for recreation and security requirements. Through this long partnership the knowledge, history, and skills to successfully construct and operate NISP have been developed.

Pipeline Siting and Development

Review Criteria 9: The applicant will mitigate any construction impacts to county roads, bridges and related facilities. Construction access will be re-graded and re-vegetated to minimize environmental impacts

As set forth in the 1041 Evaluation Memo, NISP construction will temporarily impact county roadways and rights of way. Impact to public rights of way is one of the evaluation criteria in the pipeline routing analysis. Also see Pipeline Memo. As part of the final design process, the NISP WAE will complete a pre-construction inventory to identify those county roads that may be used for construction traffic. During construction, the NISP WAE will conduct periodic inspections, and post-construction replacement will be completed to return any damaged roads to pre-construction conditions. Construction and access areas will be re-graded and re-vegetated to minimize environmental impacts.

Pipeline Siting and Development

Review Criteria 10: The benefits of the proposed development outweigh the losses of any natural resources or reduction of productivity of agricultural land as a result of the proposed development

NISP represents a shift away from the “buy-and-dry” approach of water development that has stressed agricultural communities. As part of a long-term strategy that is consistent with the goals and principles established in the Colorado Water Plan, NISP will eventually provide additional water to approximately 500,000 residents in Northern Colorado while also preserving thousands of acres of irrigated farmland.

The 1041 Evaluation Memo explains that the pipeline construction may involve temporary agricultural losses during construction. However, the NISP WAE will pay crop loss damages to easement holders for these temporary impacts and restore the agricultural lands to productivity after construction.

NISP preserves agriculture in Northern Colorado as it is likely that the Participants would rely primarily on the conversion of agricultural water rights to municipal and industrial use to provide the firm yield needed. It is estimated that the No Action alternative would result in the removal of irrigation from up to 64,200 acres of agricultural lands and the conversion of the irrigated agricultural lands to dry land uses. The reduction of productivity of agricultural land for the proposed Project is minimal compared to what would happen if NISP is not constructed.

Pipeline Siting and Development

Review Criteria 11: The proposal demonstrates a reasonable balance between the costs to the applicant to mitigate significant adverse effects and the benefits achieved by such mitigation

The pipeline will have only temporary impacts. Please refer to the mitigation proposed by the NISP WAE in the federal and state permitting efforts. Additionally, easement agreements between the NISP WAE and landowners commit the NISP WAE to return the land to pre-construction condition and compensate affected landowners for any damages resulting to crops during construction and future maintenance activities.

Pipeline Siting and Development

Review Criteria 12: The recommendations of staff and referral agencies have been addressed to the satisfaction of the county commissioners

As demonstrated by the exchange of informational documents listed in Section I, above, the NISP WAE conducted a series of reviews of its Pipeline Memo with the County. Each time, the County provided comments back after its review of the memorandum, and it also acquired comments from referral agencies, which were sent to the NISP WAE. From the first version of the Pipeline Memo, for example, the County sought more information for county rights of way crossings, how the alignment would avoid significant impacts on land and resources, and descriptions of the criteria used to evaluate the alignment options, among others. After receiving County comments, each time the NISP WAE would provide responses back to the County to provide further description or answers to the information sought by the County, and it would also revise or refine its Pipeline Memo. Prior to submitting this 1041 application, the NISP WAE submitted the latest version of the Pipeline Memo, which responded to the most-recent informational items requested by the County.

B. Water Storage Reservoir Siting and Construction

Review Criteria 1: The proposal is consistent with the master plan and applicable Intergovernmental agreements affecting land use and developments

As a cooperating agency during the Corps' NEPA process, the following statements reflect that the County considered the consistency of NISP with the County's land use directives and Master Plan during its review of Project information. In the agreement to participate as a Cooperating Agency between the County and the Corps, the County committed to:

- "provide timely reviews and comments on preliminary documents, reports, analyses and sections of the Draft and Final EISs that address information needs and requirements associated with the Location and Extent Review to be conducted by the County Planning Commission;" and
- "The County will provide information on possible conflicts between the alternatives in the draft EIS and the objectives of the Larimer County Master Plan and other applicable County policy or regulation."

[Northern Integrated Supply Project Environmental Impact Statement Cooperating Agency Agreement Between the U.S. Army Corps of Engineers, the lead federal agency, and Larimer County Board of County Commissioners, a cooperating agency, July 2005]

Throughout its exchange of information with the County, as described in Section I above, the NISP WAE shared its conclusions regarding the Project's consistency with the 1997 Master Plan, the 2015 Open Lands Master Plan, and the Larimer County Reservoir Parks Master Plan. Its conclusions with regard to the Project's consistency with each master plan follows.

a. 1997 Larimer County Master Plan

The County's role as a cooperating agency in the NEPA process and the recent discussions between the County and the NISP WAE to offer public recreation at Glade Reservoir are both illustrative of one of the County's goals under the Master Plan - to engage in "cooperative planning." Moreover, NISP will meet demands of a growing population, preserve agriculture in Northern Colorado, protect and preserve the natural environment, promote economic development within Larimer County through recreation at Glade Reservoir, and enhance the community's access to and use of new public recreation areas and opportunities. All of these are goals under the Master Plan. In particular, NISP is consistent with the following Master Plan goals and strategies:

- GM-10 The protection of agricultural land and water in Larimer County shall be based on a combination of incentives, voluntary participation and measures to strengthen the viability of agriculture;
- GM-13 Larimer County supports the development of a local economy which is increasingly self-reliant and that meets the needs of the present without compromising the needs of future generations;
- LU-10 All new development shall be located and designed for compatibility with sensitive natural areas;
- LU-11 Compatibility with adjacent land use shall be considered in the design of all new development;
- ER-1 Resources and environmental conditions potentially impacted by proposed development shall be identified in the initial stages of the project, to best design a development that protects the environment;
- ER-16 Larimer County will explore options to protect and provide adequate water resources for present and future uses in the County, in partnership with other affected interests.

In the 1041 Evaluation Memo, the NISP WAE identified that Glade Reservoir is in open zoning and included maps of the Project's components. This memorandum also explains that the Project will provide protection to environmental resources, including protection of fish and wildlife, and calls the County's attention to the Fish and Wildlife Mitigation and Enhancement Plan (FWMEP). This plan commits over \$53 million to mitigation and enhancement projects. The plan was adopted by the State of Colorado and represents the state's official position on the mitigation actions required for the project. Additionally, wetlands impacts are addressed through the development of a U.S. Army Corps of Engineers-approved wetland mitigation plan, and cultural resources will be protected through a Programmatic Agreement, which will spell out the project's Historic Preservation Act compliance measures and process. The Project's FWMEP is included in Appendix A to the 1041 Evaluation Memo.

The NISP WAE shares the County's desire to maintain irrigated agricultural lands and promote agriculture. NISP uses Cache la Poudre River water rights that do not require dry-up of agricultural land. The NISP WAE is also engaging with willing shareholders in the New Cache La

Poudre Irrigating Company and the Larimer & Weld Irrigation Company to preserve approximately 20,000 acres of irrigated agriculture by perpetually supplying water to those farms. This program, known as “Water Secure,” is being put into place in order to protect the exchanges associated with the Galeton Reservoir portion of NISP.

The Recreation Memo also describes how the Project is consistent with goals of the Master Plan. Of the 32 activities listed in the Master Plan as “desired activities at the reservoirs,” Glade Reservoir could provide 26, or 81%. These recreational activities could include: mountain biking, hiking, educational programming, kayaking and canoeing, rock climbing, road biking, stand up paddle boarding, wildlife viewing, fishing, jogging/running, sailing, large group picnicking, power boating, snowshoeing and cross-county skiing, youth programs, horseback riding, backcountry and boat-in camping, tent camping, picnicking, guided tours, boat ramps, festivals or events, developed/RV camping, scuba diving, water skiing, and jet skiing.

b. 2015 Open Lands Master Plan

The County’s Open Lands Master Plan provides that “a growing population will also increase the demand for land and water. New development requires additional sources of water and energy,” and “the Colorado Water Conservation Board estimates that Colorado will need between 600,000 and 1 million acre-feet/year of additional water for municipal and industrial uses to serve the state’s population by 2050, adjusted to reflect modest amounts of conservation.” [Open Lands Master Plan at 18.]

The development of Glade Reservoir within Larimer County serves to accomplish goals and strategies identified in the Open Lands Master Plan at a fraction of the cost that the County might otherwise incur if it purchased lands open to public and preservation. In this cooperative and collaborative way to bring to fruition a need for public lands and recreation within the County by partnering with the NISP WAE, the following guiding principles of the Open Lands Master Plan are met: “working with willing landowners to develop land-use alternatives and conservation strategies that meet the landowner’s financial needs and the County’s goal to preserve significant open lands;” and “collaboration with partners is important to leverage available resources.” [Open Lands Master Plan at 6.]

Similar to existing land uses within the County, NISP falls in the category of the following statement under the Open Lands Master Plan: “In addition to the resources the Open Lands Program provides, Larimer County is fortunate to have large amounts of land conserved or protected by other governmental agencies and non-governmental organizations.” [Id. at 15.] Similarly, through the robust mitigation and enhancement commitments of the NISP WAE, the

County's Open Lands Master Plan philosophies of conservation of natural resources and wildlife habitat are met.

In its Recreation Memo, the NISP WAE states that Glade Reservoir aligns with the objectives of the County's 2015 Open Lands Master Plan in the following ways:

- increases amount of open space to meet projected population demands;
- protects lakes, rivers, streams and preserves water quality;
- protects natural resources, wildlife habitat and rare species;
- provides more outdoor recreation opportunities;
- creates greenways or trail corridors that connect communities and parks;
- conserves regional lands;
- invests in management and maintenance of current natural surface trails, trailheads, parking, shelters and facilities;
- restores and rehabilitates rivers and open lands; and
- acquires water rights for in-stream flows and wildlife habitat; secures water rights for agricultural lands; and conserves land with proximity to open space.

c. Larimer County Reservoir Parks Master Plan

Glade Reservoir will be constructed in an environmentally and economically sound manner, meeting the key objectives identified in the County's Reservoir Parks Master Plan. These key objectives include:

- protecting wildlife and biodiversity;
- preserving environmental resources and the cultural values of historical places;
- providing for outdoor recreation; and
- protecting the health and safety of visitors.

[Larimer County Reservoir Parks Master Plan, December 2017, at 1.] NISP's protection of wildlife and biodiversity, and the preservation of environmental and cultural resources are addressed in the EIS, the Biological Opinion, NHPA consultation between the Corps and SHPO, and in the FWMEP. Under the FWMEP, in particular, the NISP WAE has committed to both the protection and enhancement of fish and wildlife resources, as well as the concept of allowing public use for recreation at Glade Reservoir.

The recreation components included in the Project, per the requirements of the FWMEP, will retain the basic level of recreation, which, according to the Reservoir Parks Master Plan, is consistent with "the trend toward fewer services" that many residents desire. [Reservoir Parks

Master Plan at 21.] The NISP WAE will be working with Colorado Parks and Wildlife to cooperatively manage reservoir lands for fish and wildlife services. [Id at 45.]

Consistent with the Reservoir Parks Master Plan, native vegetation will remain at the site, and management of the lands will include eradication of invasive species, as much as practicable. Per requirements from state and federal agencies under the various permits for NISP, preservation of cultural, geological and paleontological resources will occur. [See Reservoir Parks Master Plan at 43.] The NISP WAE will manage shoreline erosion and will have a water quality program, pursuant to its 401 certification. Per the FWMEP, NISP will improve and avoid fragmentation of key wildlife habitat and will protect important resources, as well as create trails. [See Reservoir Parks Master Plan at 47.]

The NISP WAE describes in the Recreation Memo the numerous benefits and ways in which the Project aligns with the Reservoir Parks Master Plan:

- provides outdoor recreational opportunities;
- promotes visitor health and safety;
- supports the County's vision;
- anticipates the future;
- provides a diversity of recreational experiences;
- celebrates the natural environment;
- integrates with a larger recreational network;
- manages resources in an economically and environmentally sustainable manner; and
- reduces pressure on existing recreation areas.

In fact, the Reservoir Park Master Plan recognizes Glade Reservoir as a "future park strategy."

Water Storage Reservoir Siting and Construction

Review Criteria 2: The applicant has presented reasonable siting and design alternatives or explained why no reasonable alternatives are available

As discussed in the 1041 Evaluation Memo, overall Project alternatives, including a No Action alternative, are evaluated as part of the Corps' NEPA and Section 404 permitting processes. A summary of the proposed Project alternative is included in Technical Memo No. 1 – Project Description, with much more detailed evaluation of Project alternatives presented in the EIS.

Water Storage Reservoir Siting and Construction

Review Criteria 3: The proposal conforms with adopted county standards, review criteria and mitigation requirements concerning environmental impacts, including but not limited to those contained in this Code

The County's role as a cooperating agency with the Corps during the NEPA process included a review by the County of the Project information alongside County plans, policies and regulations (See information above under Review Criteria 1) to help identify any inconsistencies.

The NISP WAE's review of the County's Land Use Code concluded that most of the development standards pertain to private developments. Nevertheless, the NISP WAE will follow County standards where applicable.

Technical Memo No. 1 – Project Description provides information on environmental permitting and mitigation associated with the Project. Additionally, the NISP WAE addresses how sections of the Land Use Code would be satisfied during Project construction within the 1041 Evaluation Memo.

Additionally, within the Recreation Concept Master Plan, the NISP WAE identifies potential design and management measures that it could implement to reduce visual, light and noise impacts. These include:

- addition of native vegetative buffers and/or stands of native trees along beneficial edges and/or within camping areas
- restricting recreational vehicles to less visible campground areas located in lower areas of the Recreation Area, and/or behind vegetative buffers
- use of downcast, full cutoff light fixtures meeting Dark Sky criteria

Water Storage Reservoir Siting and Construction

Review Criteria 4: The proposal will not have a significant adverse effect on or will adequately mitigate significant adverse effects on the land or its natural resources, on which the proposal is situated and on lands adjacent to the proposal

Please refer to the federal and state permits and the NISP WAE's mitigation and enhancement measures for NISP. As the NISP WAE describes in its 1041 Evaluation Memo, NISP includes a variety of avoidance and minimization measures, compensatory mitigation, and enhancements to the environment. The mitigation plans include a variety of improvements including, but not limited to:

- Best management practices, such as using straw bales to minimize erosion and using vehicle tracking control pads to keep roads clean during construction
- Commitments to send additional water down the Cache la Poudre River
- Peak flow operations programs to maintain critical spring flushing flows
- Wetland construction projects
- Over 80 acres of Prebles Meadow Jumping Mouse habitat construction to protect this endangered species
- Fish habitat improvements in approximately 2.4 miles of stream
- Big game habitat conservation on 1,080 acres
- Recreation features as outlined in the Recreation Memo

Additional detail on these and many other commitments are included in Appendix A to the Project Summary Memo and Appendix B of the Final EIS. Through these plans, any significant adverse effects from the Project on natural resources will be mitigated.

Water Storage Reservoir Siting and Construction

Review Criteria 5: The proposal will not adversely affect any sites and structures listed on the State or National Registers of Historic Places

The Corps' analysis evaluated potential impacts of NISP to cultural resources, and a Programmatic Agreement for continuing National Historic Preservation Act compliance requires steps to be taken by the NISP WAE in the event of future discoveries on Project lands. Historic Larimer County is a signatory to the Programmatic Agreement. With this Programmatic Agreement, no adverse effect will occur to any sites and structures listed on the State or National Registers of Historic Places.

Water Storage Reservoir Siting and Construction

Review Criteria 6: The proposal will not negatively impact public health and safety

Once the Project is operational, it will have an overall net benefit to public health as a result of its addition to needed water supply. The addition of public recreation at Glade Reservoir will alleviate recreation pressure at existing reservoirs including Carter Lake and Horsetooth Reservoir.

Any effects to water quality have been addressed and mitigated through the Corps' 404 permit and the NISP WAE mitigation, as well as the 401 Water Quality Certification. BMPs to protect safety and health will be implemented during Project construction. Following development of recreation facilities at Glade Reservoir, public health and safety will be enforced through a designated recreation manager and patrolled by enforcement officers.

During its participation as a cooperating agency in the Corps' NEPA process, Larimer County identified a concern regarding health and safety associated with the Atlas Missile Silo area. Following review by the Corps, the County, through its Environmental and Science Advisory Board, stated, "We appreciate the Corps taking another look at hazardous materials contamination at the Atlas Missile Site. We believe that the impact assessment is sound and the proposed project changes are appropriate to address potential impacts." [August 18, 2015 Larimer County "Environmental and Science Advisory Board" comments on the Supplemental Draft EIS].

The NISP WAE describes in its 1041 Evaluation Memo how public safety during construction is of the utmost importance to the NISP WAE. During any work in or near a roadway, emergency services access will be maintained. Construction managers and inspectors will be present onsite during construction activities to monitor construction safety and ensure contractors stay within the work areas.

And, specific to Glade Reservoir, the Recreation Concept Master Plan explains how public health was considered when areas were evaluated for conceptual recreation facilities by considering minimization of visual light and noise impacts to neighbors throughout the day and evening. The construction of Glade Reservoir recreation facilities, including camping, trails, boating, fishing, and other recreation options, will provide opportunities for the public to exercise, recreate, and maintain healthy lifestyles.

Water Storage Reservoir Siting and Construction

Review Criteria 7: The proposal will not be subject to significant risk from natural hazards including floods, wildfire or geologic hazards

The 1041 Evaluation Memo describes that the Project will conform with County standards for hazard areas such as floodplains and geologic hazards, and recreation infrastructure will be restricted to areas outside geologic hazard areas and designated floodplains.

The design of the dam, spillway, and associated infrastructure will be done in accordance with applicable Colorado dam safety criteria, including current seismic stability standards. A Dam Safety Permit from the Dam Safety Branch of the Colorado Division of Water Resources will be required prior to construction and operation of the dam. The dam will be regularly inspected by the Dam Safety Branch as well as maintained and operated by the NISP WAE.

And, as explained in the Recreation Memo, slopes were evaluated for purposes of evaluating conceptual recreation facilities. Rockfall hazard areas were also evaluated and avoided for purposes of evaluating conceptual recreation facilities.

Water Storage Reservoir Siting and Construction

Review Criteria 8: Adequate public facilities and services are available for the proposal or will be provided by the applicant, and the proposal will not have a significant adverse effect on the capability of local governmental to provide services or exceed the capacity of service delivery systems

NISP will comply with Section 8.1 (Adequate Public Facilities) of the County's Land Use Code, which provides:

- "The purpose of this section is to ensure all development is served by utilities and other facilities needed for a development are in place or will be installed by the applicant before they are needed."
- "Adequate public facilities requirements apply to all applications for conservation development, planned land division, subdivision, minor special review, special review, site plan review, public site plan review, special exception and minor land division submitted under this code. APF requirements also apply to rural land plans as specified in section 8.1."

To the extent this section of the LUC is applicable to the construction of the water supply reservoir, the NISP WAE provided the following information with regard to public facilities in its 1041 Evaluation Memo:

- Sewage Disposal – on site sewage treatment systems will be utilized for restrooms associated with the Project. Facilities may include a private restroom at the Glade pump station and sewer collection and treatment associated with the recreation plan.
- Domestic water – the Glade pump station will likely utilize nonpotable raw water for pump cooling water. Potable water will be used for the pump station restroom facilities and drinking water. Potable water may be considered for the recreation facilities and would be from a public community water system.
- Drainage – A drainage design will be completed as part of the final design of recreation facilities and will include the sizing and design of drainage features including swales, culverts, and stormwater detention ponds if needed. Dedicated stormwater design and facilities will be included as part of the Project.
- Fire Protection – Fire protection services will be determined as part of the recreation.
- Road Capacity – the roads that will be constructed at Glade Reservoir will be appropriately sized and constructed for necessary and anticipated capacities.

Public facilities and services will not be utilized for the Project, other than as discussed in Criteria 9, below. As described in the Recreation Concept Master Plan, it is anticipated that Larimer County will manage recreation facilities and activities at and surrounding Glade Reservoir for

public access. The Recreation Memo expresses how the NISP WAE committed to multiple recreation and public access mitigation and enhancement items as part of the FWMEP, including a visitor center, left abutment paved road and guardrail, foothills recreation area, boat ramp, rough grading of campgrounds, an upper parking lot, north trailhead parking lot, and a lower parking lot. Additionally, a cool water fishery will be established and managed in Glade Reservoir.

As to the future development of recreation at Glade Reservoir, a consultant hired by the NISP WAE developed a recreation plan for recreation at Glade Reservoir, and the County will continue to be involved in these studies and discussions. Site visits, additional studies and future public input processes will be utilized to inform the final planning and design of the recreational areas. Glade Reservoir provides an opportunity to develop water-based recreation on up to 1,600 surface acres of reservoir and additional land-based recreation on an adjacent 170-acre recreation area.

To the extent NISP will have public facilities associated with recreation at Glade Reservoir, per a voluntary condition offered by the NISP WAE in this 1041 Permit application, those facilities will be added at a later date upon the joint development of a recreation management plan between the NISP WAE and the County. Services associated with recreation development at Glade Reservoir may include sewage, drinking water, drainage, and fire protection.

Water Storage Reservoir Siting and Construction

Review Criteria 9: The applicant will mitigate any construction impacts to county roads, bridges and related facilities. Construction access will be re-graded and re-vegetated to minimize environmental impacts

The NISP WAE is offering a voluntary enhancement commitment under the 1041 Permit to create an access road for properties adjacent to the new U.S. Highway 287 location during the highway relocation project. Additionally, the NISP WAE will also coordinate with the Colorado Department of Transportation (CDOT), the Colorado Division of Water Resources and Larimer County to maintain certain benefits of 35-acre parcels, which are exempt from subdivision regulations and can typically receive less restrictive permitting for a well.

As described in the U.S. Highway 287 Memo, the route and alternatives were reviewed as part of the Project's EIS, which incorporated an open house, three rounds of public review, and two sets of public hearings. Construction by CDOT must be completed prior to the construction of Glade Reservoir.

The NISP WAE has consistently expressed an interest in addressing landowner impacts associated with this relocation. As described in the U.S. Highway 287 Memo, a portion of the parcels crossed for highway realignment are subdivided into 35-acre parcels. A 35-acre plot is exempt from subdivision regulations and can typically receive less restrictive permitting for a well. To maintain the full 35-acres, the NISP WAE discussed the potential of utilizing easements instead of a full land purchase for the 35-acre parcels. Additionally, the 35-acre parcels are all primarily undeveloped with limited access from an old haul road. Access along the new highway for all parcels will be coordinated with the property landowners, CDOT and the designers. The preliminary approach for the access road will be a frontage road that would provide a single point of access to the highway for multiple landowners.

Water Storage Reservoir Siting and Construction

Review Criteria 10: The benefits of the proposed development outweigh the losses of any natural resources or reduction of productivity of agricultural land as a result of the proposed development

For further discussion on the loss of natural resource, please refer to Criteria 4, above.

In its comment letter to the Corps on the Supplementary Draft EIS, the County provided the following comments acknowledging the benefits of the Project:

- “[NISP] touches on many values of key importance to our region, including the critical riparian habitat of the Poudre River, the preservation of irrigated farmland in Northern Colorado, and the availability of adequate water supply for the future growth we know will occur in our area.”
- “Irrigated agriculture is also of great importance to our region, as some of the nation’s richest and most productive farmland is located here. Without additional water supplies, more and more of this irrigated farmland will certainly be dried up as municipal demands increase as our population grows.”
- “Those of us who have lived in our region for many years realize the wisdom and foresight of our forefathers who planned ahead for the future we enjoy by ensuring adequate water supply for agricultural, municipal, and industrial uses by constructing the Colorado Big Thompson Project. It’s impossible to imagine a healthy and prosperous Northern Colorado without it.”
- “[W]e believe NISP to be very important to the future of Northern Colorado....”

[Larimer County letter, dated September 1, 2015, to the Corps of Engineers re comments on SDEIS]

A comment from the County’s Environmental and Science Advisory Board also acknowledges the benefit of the Project when it provided, “While conservation measures have helped to manage existing developed water supplies, the Participants have demonstrated that they have a need for additional water in the future.” [August 18, 2015 Larimer County “Environmental and Science Advisory Board” comments on the SDEIS].

In the 1041 Evaluation Memo, the NISP WAE explains that construction of Glade Reservoir and the Glade Forebay Reservoir would result in the permanent loss of approximately 150 acres of farmland. However, this loss is outweighed by the potential loss of 64,200 acres of farmland if

NISP were not constructed. As part of the NEPA and Section 404 processes, a No Action alternative was evaluated. This alternative considers what the Project participants would do to meet their water supply without NISP. In the absence of NISP, obtaining new water supplies in the region likely would become more challenging because the demand for a finite supply of water sources would increase. It is not possible to determine the specific mix of future water development approaches that would be pursued by the individual participants because the process of acquiring water supplies would be driven by complex social, economic, environmental, and political factors. Therefore, the No Action alternative is conceptual, and is intended to represent the possible water supplies that each participant could obtain. In this case, it is likely that participants would rely primarily on the conversion of agricultural water rights to municipal and industrial (M&I) use to provide the firm yield needed. It is estimated that the No Action alternative would result in the removal of irrigation from up to 64,200 acres of agricultural lands and the conversion of the irrigated agricultural lands to dry land uses. The reduction of productivity of agricultural land for the proposed NISP Project is minimal compared to what would happen if the Project is not constructed.

Water conservation is an important consideration and has been raised as a solution to the Participants' critical water shortages. All of the NISP WAE participants have ongoing water conservation programs to educate users about water supply and discourage unnecessary use of water on a long-term basis. All participants have conservation plans, which include the following:

- Profile of existing water supply system
- Profile of water demands and historical demand management
- Integrated planning and water efficiency activities
- Implementation and monitoring plans

Water efficiency measures have been factored into the amount of water that NISP needs by reducing the participants' demands to reflect their conservation programs. Water conservation is an important part of each participant's water management system. However, it is not enough, and the new water, as supplied by NISP, is needed to meet future water needs.

As described in its Recreation Memo, Glade Reservoir provides an opportunity to develop a brand new, outdoor, water-based recreation facility in Larimer County. The recreation commitments included in the FWMEP provide millions of dollars to develop recreation infrastructure and an associated cool-water fishery. Reservoir recreation will bring tourism and economic opportunities to businesses in Larimer County along with additional sales tax revenues. Development of Glade Reservoir recreation is estimated to provide \$13 million to \$30 million per year in total economic effects as described in the Project's Final EIS.

Water Storage Reservoir Siting and Construction

Review Criteria 11: The proposal demonstrates a reasonable balance between the costs to the applicant to mitigate significant adverse effects and the benefits achieved by such mitigation

In its 1041 Evaluation Memo, the NISP WAE explains that the FWMEP commits more than \$53 million to the 54 mitigation and enhancement commitments identified in the plan. Forty-three of those commitments, 80% of the identified improvements, will occur totally or partially in Larimer County. Those commitments are expected to cost more than \$49 million, indicating that approximately 90% of the plan's funding will provide benefit to Larimer County.

Additionally, the NISP WAE prepared a Conceptual Mitigation Plan as part of the Clean Water Act Section 404 Permit and associated NEPA regulations, and water quality mitigation will be addressed through the Colorado Department of Public Health and Environment's 401 Water Quality Certification.

Water Storage Reservoir Siting and Construction

Review Criteria 12: The recommendations of staff and referral agencies have been addressed to the satisfaction of the county commissioners

From its participation as a cooperating agency, and through the exchange of information between the NISP WAE and the County described in Section I, there was thorough and frequent coordination with the County and its referral agencies to review materials and provide comments on Project information documents during the many years leading up to this 1041 Permit application submittal.

In addition, and as described in its 1041 Evaluation Memo, the NISP WAE has and will continue to utilize an online public engagement tool to gather input and address concerns from the public.

Conclusion

Throughout the federal, state, and this local permitting effort, the NISP WAE engaged the public in many open-house meetings, workshops, tours, and one-on-one meetings, as well as through social media, NISPTalk.com and other outreach efforts. The NISP WAE listened to and considered public concerns, ideas, and comments, and continues to minimize project impacts, propose applicable best management practices, and refine project designs and construction concepts. The NISP WAE committed to voluntary project enhancements above and beyond mitigation of Project impacts to result in a critical water supply project that offers a net benefit to NISP Participants, the State, Larimer County, the public and affected landowners.



Larimer County Analysis – Technical Memorandum No. 3 Conveyance Pipeline Route Study & Analysis

Prepared for:
Larimer County

Prepared by:
**Northern Integrated Supply Project
Water Activity Enterprise**

February 2020

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APPENDICES

Appendix A – Route Alternatives Analysis

1.0 NISP Conveyance

This section provides information on the NISP conveyance system and documentation of the routing evaluation study performed through Larimer County. The main conveyance pipeline will begin at the proposed Glade Reservoir facilities and bring water both east and south to the project Participants. An additional Poudre Release Pipeline (also known as the Glade Release Pipeline) will bring water from the Glade facilities directly to the Poudre River. The main delivery pipeline is the County Line Pipeline, which generally follows the Larimer County-Weld County border south to the existing Southern Water Supply Pipeline just north of State Highway 66 in Weld County. The County Line Pipeline would receive water from the Northern Tier Pipeline and the Poudre Intake Pipeline and deliver water directly to the Participants or to existing Northern Water infrastructure (Southern Water Supply Project). The approximate size of the pipeline will be 48 inches in diameter. The final pipeline sizing will be determined following additional analyses during final design. Additional pumping will be required on the existing Southern Water Supply Pipeline to provide for additional delivery capacity within the system to the participants. Water would be delivered from Glade Reservoir to the County Line Pipeline using two different mechanisms:

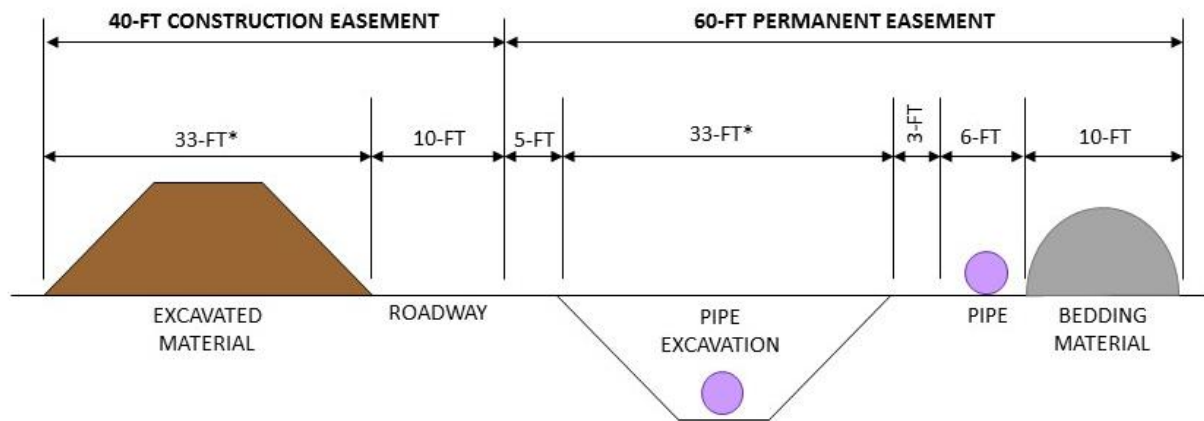
- Poudre/Glade Release and Poudre Intake Pipelines – Water from Glade Reservoir would be conveyed directly to the Poudre River via the Poudre/Glade Release Pipeline. The water would travel down 13 miles of the Poudre River before being pumped into the participant conveyance system. The intake for that water is the Poudre River Intake and Pump Station, which would be located upstream of the Mulberry Reclamation Plant discharge location and constructed to allow for 18 to 25 cfs, or 14,350 acre-feet annually, of NISP delivery. The Poudre River Intake would have a diversion structure, sedimentation basin, and pump station (1,000 to 1,300 horsepower). Water would be delivered from the intake to the County Line Pipeline via the approximately 32-inch diameter Poudre Intake Pipeline.
- Northern Tier Pipeline – The Northern Tier Pipeline would deliver water directly from Glade Reservoir to the County Line Pipeline via a closed pipeline. The Northern Tier Pipeline would be a 45-inch to 54-inch diameter pipeline capable of conveying 81 to 106 cfs of water to the NISP Participants, depending upon the need for redundancy between the pipeline and river conveyance options. The need for redundancy and final pipeline sizing will be determined following additional analyses during final design.

1.1. Working Area & Corridor

To construct pipelines in the 32-inch to 60-inch diameter range, a large construction area is advantageous to facilitate quicker and more efficient construction. However, a smaller area is

acceptable in certain areas where existing constraints and utilities may limit the working area. In the preliminary stage of the Project, Northern Water is anticipating an approximately 100-foot-wide work area. Approximately 60 feet of this would be utilized as a permanent easement to access the pipeline in the future, while 40 feet would be acquired temporarily and used only for the initial construction of the pipeline. This 100-foot-wide corridor will be modified as needed in tight construction areas and where existing constraints and utilities limit the construction space. See Figure 1 below for a schematic of the working area.

**Northern Integrated Supply Project
PRELIMINARY 100-ft Easement
for Single 48-inch Pipeline**



*= Exact width of trench excavation will vary depending on the depth of the pipeline and types of soils encountered from approximately 20-ft to 35-ft. The width and height of the excavated material pile will vary with the amount and types of soils from the excavation trench.

Figure 1: Preliminary Pipeline Easement

For this stage in the routing analysis, final survey, title and deed search, and final design is not completed. Northern Water will follow the route selected as part of this technical memorandum to the extent feasible, recognizing that the final route designed and constructed may deviate from the presented route as more information is gathered and final design is completed. The corridor developed from this study will be the baseline route as final design is initiated and Larimer County may review each additional deliverable as design progresses.

1.2. Route Alternatives Analysis

See Appendix A to this TM No. 3 for the complete Route Alternatives Analysis for pipeline routes within Larimer County for NISP. This analysis includes the following overall sections that describe various criteria and procedures that are applied to all pipeline routes in Larimer County:

- Decision Model and Criteria – A discussion of the criteria used to evaluate different alternative routes against each other. The identified performance metrics and requirements for various criteria are also explained.
- Development of Alignment Alternatives – This section includes resources utilized to develop various alignments and a discussion of the use of private easement instead of public right-of-way.
- Impacts Minimization Plan – A description of the various steps taken to minimize negative impacts on public and private resources such as public streets and traffic, wetland areas, and future development among others.

Three different sections detail the route analysis for each pipeline alignment. These sections include detailed information on how each route was evaluated with the various criteria.

1.2.1 Northern Tier Pipeline Alternatives Analysis

The route analysis for the Northern Tier Pipeline included over 10 different alignments evaluated against the criteria and decision model. Information and input from various public and stakeholder meetings that were held in 2017 and 2019 were incorporated into the development of the alignments, as well as information from multiple site visits. Fact sheets were developed for each route alternative explaining how the route was evaluated against the criteria. A quantitative summary of the scoring and preferred alignment is presented at the end of the analysis. Figure N.19 exhibits the Northern Tier Preferred Alignment.

1.2.2 County Line Pipeline Alternatives Analysis

The route analysis for the County Line Pipeline included multiple different alignments evaluated against the criteria and decision model. Due to existing and future development along this alignment, fewer route alternatives are available. Information and input from Timnath, Windsor, and Johnstown were incorporated into the creation of the alignments along with available development information. Fact sheets were developed for each route alternative explaining how the route was evaluated against the criteria. A quantitative summary of the scoring and preferred alignment is presented at the end of the analysis. Figure C.20 exhibits the County Line Preferred Alignment.

1.2.3 Poudre Intake Pipeline Alternatives Analysis

The route analysis for the Poudre Intake Pipeline was broken into two segments, the Main Section and the West Section. Information and input from various site visits and data gathering were incorporated into the development of the alignments. Fact sheets were developed for each route alternative explaining how the route was evaluated against the criteria. A quantitative summary of the scoring and preferred alignment is presented at the end of the analysis. Figures PW.4 and P.8 demonstrate the Poudre Intake Preferred Alignment.

2.0 Conclusions

The pipeline routes analyzed as part of this technical memorandum are preliminary routes that focus on evaluation criteria reviewed and discussed with Larimer County, as well as environmental concerns discussed with state and federal agencies. For this stage in the routing analysis, final survey, title and deed search, and final design are not completed. While Northern Water will follow the route selected as part of this technical memorandum as feasible, the final route designed and constructed may deviate from the presented route as more information is gathered and final design is completed.

See Figure 2 below with the preferred pipeline routes in Larimer County (also found as Figure 1 in Appendix A to this memorandum).

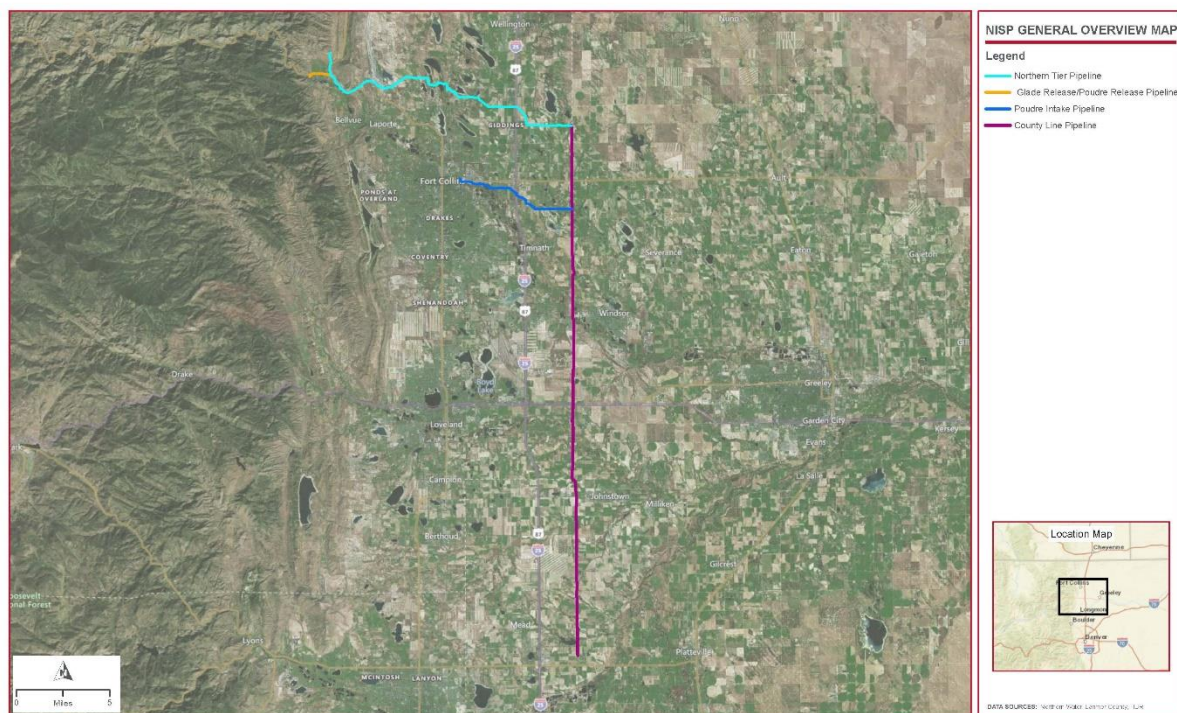


Figure 2: Preferred Pipeline Alignment



Northern Integrated Supply Project
Route Alternatives Analysis Introduction
for
Pipelines within Larimer County

February 2020

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DECISION MODEL AND CRITERIA

Dewberry/HDR and Northern Integrated Supply Project Water Activity Enterprise (NISP WAE) developed a decision model to evaluate alternative pipeline routes for all of the alignments within Larimer County that will comprise the Northern Integrated Supply Project. These pipelines include: Northern Tier, Poudre Release/Glade Release, Poudre Intake and County Line Pipelines. The general location of these four alignments can be seen in **Figure 1**.

The decision model considers multiple criteria including cost and non-cost criteria to determine a preferred alignment. The non-cost criteria considered include the following:

- Conduit Length
- Easement Difficulty
- Right-of-Way Impact
- Landowner Impact
- Proximity to Occupied Dwellings
- Environmental Impacts
- Existing Utilities
- Hazardous/Permitted Crossings
- Surface and Street Impacts
- Traffic Impacts
- Water Storage Reservoirs Impacts
- Construction Durations and Relative Constructability
- Required Trenchless Crossings
- Development Pressure
- Operation and Maintenance (O&M) Access
- O&M Requirements
- Natural Resources Impacts

Dewberry/HDR and NISP WAE established the criteria based on the project scope, key differentiators, Larimer County concerns, and relative importance to NISP WAE. After identifying and defining criteria, a relative performance system was established where alternative alignments were evaluated against the criteria and given a rating of “Green” for good performance, “Yellow” for moderate performance and “Red” for poor performance under the criteria. A detailed description of the evaluation criteria, performance metrics, and scoring is provided in the evaluation criteria section below.

DEVELOPMENT OF ALIGNMENT ALTERNATIVES FOR ANALYSIS

Dewberry/HDR utilized multiple resources to develop GIS based mapping to begin identifying potential pipeline routes for the project. Resources used included:

- Publicly available aerial imagery
- Property boundary information available from Larimer County
- National databases for wetland and riparian areas
- Publicly available topography information
- Local databases for existing underground utilities

Alternative routes for each alignment were developed following detailed review of aerial mapping and multiple site visits. The following paragraphs provide additional information regarding key issues impacting development of routes for analysis.

Pre-Evaluation Screening

After the development of preliminary alignment alternatives, an initial screening was performed to determine the viability of the potential route segments for further analysis. In a few isolated cases, route segments were eliminated because they did not meet the project need or were not reasonable to construct. For the preliminary alternative segment where this pre-evaluation elimination occurred, it is noted and the reasoning for elimination is provided.

Reconciliation of End Points

It was also determined that an approach would need to be developed to reconcile differences in alignment alternative end points. This applies to alignments within multiple project areas. An initial alignment evaluation was performed within the specific project areas, and if the selected alternatives in adjacent project areas required reconciliation in order to provide a continuous pipeline alignment, then the evaluation criteria were applied to the combined alternatives in the adjacent project areas which provided a continuous route and then compared against the other combined alternative alignments within the adjacent project areas.

IMPACTS MINIMIZATION PLAN

A comprehensive Impacts Minimization Plan was utilized for this analysis. This plan included steps to decrease impacts on public, private, and environmental resources. When developing the criteria in **Table 1**, emphasis was placed on mitigating negative impacts and enhancing the area if possible throughout the construction process. The specific steps taken were as follows:

1. Identifying pipeline alignment alternatives within private Right-of-Way as much as possible to minimize general public impact (road closures and access impacts)
2. Developing pipeline alignments that are adjacent to property lines and avoid splitting a property
3. Routing alignment options to avoid occupied dwellings/homes
4. Assessing environmental impacts to wetlands and adjusting routes to cause as little disturbance as possible
5. Routing alignment options to minimize number of street crossings, potential utility conflicts, and traffic disturbances
6. Routing alignment options to minimize impacts to water storage reservoirs by avoiding dam toes
7. Configuring pipeline alignments to avoid or minimize conflicts with future developments

8. Routing alignment options to minimize construction impact on trees and other natural resources .

EVALUATION CRITERIA

The route alternatives were evaluated against multiple criteria identified to reflect both quantitative (measurable) and qualitative (subjective) factors. Many of these criteria have both quantitative and qualitative components. Where possible, the project team identified numeric scoring parameters to assist in evaluating criteria that is mostly qualitative in nature.

Scoring

The route scoring methodology that best accommodates this blend of qualitative and quantitative evaluation criteria is a “green, yellow, red” assignment; where green is more favorable and red is least favorable. Where quantitative scoring is possible and appropriate, the routes will be assigned scores based upon a poor ¼ (red), middle ½ (yellow), and good ¼ (green) methodology. There are instances where either the small number (2 or 3) of route alternatives and/or a poorly distributed scoring pattern does not lend itself to assigning all three scores. In these instances, the scoring will be based on the judgement of the evaluation team. These instances are noted in the evaluation.

Capital Cost

This is a purely quantitative criterion. An AACE Level 5 construction cost opinion was developed for each of the proposed routes that passed the initial screening process. These cost opinions included; pipe materials and installation, basic tunneling, pipeline appurtenances, surface improvement impacts and restoration, and roadway restoration. The construction cost opinions were based on cost curves developed by the project team from past similar constructed projects. The cost curve results were supplemented to account for route specific construction elements such as major dewatering, tunnels, and major crossings. The construction cost of the pipelines is to be paid by the NISP Participants, including Fort Collins-Loveland Water District that serves residents within Larimer County. The construction cost for each route was ranked against the other alternative routes within each project area. The greater the construction cost, the lower the route ranking.

Conduit Length

This criterion is scored numerically, but has both quantitative and qualitative factors. The length of a pipeline typically has a strong correlation to cost, however longer pipelines in unconstrained/open-county areas can be constructed at lower per foot cost than shorter pipelines located in constrained areas. Pipeline length is also utilized as a criterion due to its impact on hydraulic capacity in the gravity NISP delivery system. Pipelines with a greater length reduce hydraulic capacity due to additional friction losses, which directly impacts the project’s function and could potentially require the installation of larger diameter pipelines. Larger diameter pipeline installation results in higher costs, potentially increased easement requirements, and increased impacts for multiple other criteria. In addition, greater length and/or diameter also increases the carbon footprint of the project due to increased construction duration, increased material requirements, and greater land disturbance. A longer pipeline also tends to increase impacts to the majority of the criteria listed below. Therefore, longer route length is ranked lower than shorter routes.

Easement Difficulty

This criterion is scored both numerically and subjectively as it has both quantitative and qualitative factors.

This criterion assesses the relative difficulty of acquiring a 60-foot wide permanent easement and an adjacent 40-foot wide temporary easement for a total 100 foot wide work area. At this phase of the project, the qualitative component of the assessment is based upon:

- The ability to route along the perimeter of the property adjacent to property lines,

- The relative percentage of non-perimeter property crossings, and
- The relative impacts of the easement and subsequent pipeline construction on property owners (surface improvements, proximity to buildings, etc)

Numerically, the number of total easements required for each route is determined (based upon the number of parcels crossed) and ranked against the other routes within that specific area. Routes with a higher number of easements required are ranked lower than those with fewer required easements. The routes judged to have the greater overall easement procurement difficulty are ranked lower than those judged to be less difficult.

Right-of-Way Impact

This criterion is scored numerically. As presented in further detail under the ‘Right of Way Acquisition Process’ section of this memorandum, NISP WAE’s standard is to route as much of the conveyance system as possible in private easement rather than in public right-of-way. Numerically, the length of each route in public right-of-way was determined and ranked against the other routes within that specific area. Routes with more lineal footage within public right-of-way are ranked lower than those with less footage in public right-of-way due to the many construction impacts on the public ROW including traffic impacts and decreased space for local utilities.

Land Owner Impact

This criterion is scored both numerically and subjectively as it has both quantitative and qualitative factors. Impacts to residential properties can be one of the more sensitive issues relative to pipeline routing, making them highly subjective. Subjective factors include:

- Impact of construction disturbance on the use of the property
- Impact to and restoration of surface improvements
- Impacts to future uses of the property
- Impacts of temporary access requirements during construction activity

The routes judged to have the greater overall land owner impacts are ranked lower than those judged to have fewer land owner impacts.

Numerically, the number of access points crossed and therefore the number of locations requiring temporary access provisions for each property are determined and ranked against the other routes within that specific area. Routes with a greater number of access issues are ranked lower. It is important to note that all accesses will remain open during construction, not blocked. In any situations requiring the traversing of an existing access point by the pipeline construction, the contractor will be required to provide temporary access provisions.

Proximity to Occupied Dwellings/Businesses

This criterion is scored numerically. It is important to note that during the identification of alternative routes, specific attention was given to minimize the proximity to existing residences, or businesses in commercial areas, where possible. The number of locations where the pipeline alignment passes within 100 feet of an occupied dwelling, or businesses in commercial areas, was determined for each route and ranked against the other alternative routes within that specific area. Pipeline routes with a greater number of dwellings/businesses within 100 feet are ranked lower.

Environmental Impacts

The length of pipeline within identified wetland/riparian areas are determined for each route. National databases were used for determination of wetland and riparian area boundaries. These databases provide a consistent source of information from which to evaluate all alternatives. However, detailed wetlands information for the preferred pipeline routes and Glade Reservoir can be found in the 1041 Permit wetlands report. Pipeline routes with a greater overall number of stream crossings and greater length of wetland/riparian crossings are ranked lower. The length of pipeline within identified floodplains (using the FEMA national floodplain mapping) are determined for each route.

Since wetlands and floodplains frequently occur in the same areas but rarely have identical boundaries, the lineal footage for each was added together for a total numeric score and ranked against the other alternative routes within that specific area. Pipeline routes with a greater overall length of wetland/riparian plus floodplain crossings are ranked lower.

While floodplains can pose risks to any conveyance system (pipelines, roadways, conduits and even supports for aerial systems) they are frequently unavoidable and must be a major consideration in design. Floodplains are not considered a significant risk to this pipeline due to the following practices:

- Use of double-lap-welded steel pipelines
- Performance of a scour analysis for each major crossing to ensure that pipeline burial depth is adequate
- Siting of critical appurtenances outside of floodplains
- Restoring to existing grades after pipeline construction to avoid any changes to the floodplain to obtain a “no rise” finding

It is important to note that NISP WAE’s welded-steel Southern Water Supply Pipeline (SWSP) remained operational throughout and after the September 2013 floods even though it traversed four of the major affected floodplains (Big Thompson, St. Vrain, Left Hand Creek, and Boulder Creek). Additionally, of the City of Longmont’s 5 raw water delivery systems (3 pipelines and 2 canals), the SWSP was their only operational supply following the September 2013 floods.

Existing Utilities

This criterion is scored subjectively. The relative density of anticipated existing utility corridors and level of coordination required with adjacent and crossing utilities are assessed for each route and ranked against the other alternative routes within that specific area. This determination is based on existing utility information obtained from Colorado 811/SUE requests submitted for each route considered. Field utility locating was not performed. The existing utility information obtained through the Colorado 811/SUE system is highly variable in accuracy and level of detail and can range from hand-drawn sketches to GIS based mapping, but generally consists only of a line on a map with minimal information on size, type, and exact location of the facility. As such, the scoring of the existing utilities criteria is based on the relative number of existing utilities identified to be within close proximity to or crossed by a particular pipeline route. In general, a higher number of existing utilities are found along road rights-of-way and in highly developed areas. However, even in areas considered to be more unconstrained, existing utilities such as oil and gas pipelines, larger water transmission pipelines, and overhead and buried electrical transmission lines are still relatively common.

It is important to note that existing utility conflict avoidance is a fundamental practice in pipeline routing and design, but existing utility corridors can also provide the potential for parallel routing alternatives. The vast majority of the existing utilities identified as being in the vicinity of the NISP project will be avoided by route adjustments within the proposed easements or by crossing over or under the existing utility while maintaining proper clearance. We anticipate a limited number of existing utility relocations.

Any utility relocations that are deemed to be unavoidable will be thoroughly coordinated with the utility owner during the final design phase of the project. NISP will be responsible for all costs, permits, and planning for any relocations of existing utilities.

Hazardous/Permitted Crossings

This criterion is scored numerically. The project mapping includes boundaries for known potentially hazardous groundwater or soil conditions which could require remediation or mitigation during pipeline construction. Those boundaries were developed from the following publicly available databases regarding potentially hazardous sites:

<https://ops.colorado.gov/Petroleum/maps>
<https://www.colorado.gov/pacific/cdphe/superfund-sites>
<https://www.colorado.gov/pacific/cdphe/voluntary-cleanup>
<https://www.colorado.gov/pacific/cdphe/hmcovenants>
<https://www.epa.gov/cleanups/cleanups-my-community>
<https://www.colorado.gov/pacific/cdphe/brownfields>

Pipeline routes with the greater number of crossings of potentially hazardous sites are ranked lower than those determined to have less.

Surface and Street Impacts

This criterion is scored numerically. Each alternative pipeline route was evaluated for the level of impact to public infrastructure by determining the lineal feet of pipeline in paved and gravel roads. An open-cut length of pipeline in paved roads is weighted as 2 versus a length of pipe in gravel roads weighted as 1. Crossings of paved roads utilizing trenchless methods are not counted in this criteria. The length of pipeline within roads was determined for each route and ranked against the other alternative routes within that specific project area. Pipeline routes with a greater lineal footage in roads are ranked lower.

Traffic Impacts

This criterion is scored numerically. The traffic impacts from pipeline construction are determined as follows:

- Trenchless pipe construction below paved roadways is considered to have “low” traffic impacts since it will remain completely open during the crossing
- Pipe construction in paved roadways is considered to have “high” traffic impacts since there will be at least partial lane closures and paved roadways typically have higher traffic volumes
- Pipe construction in gravel roadways is considered to have “medium” traffic impacts since there will be at least partial lane closures and gravel roadways typically have lower traffic volumes than paved roadways
- Open-cut crossings of gravel roads is considered to have “medium” traffic impacts due to an expected phased lane closures and gravel roadways typically have lower traffic volumes than paved roadways

The lineal footage of high, medium, and low traffic impacts is determined for each route and ranked against the other alternative routes within that specific area. High impacts receive a multiplier of 4, medium impacts receive a multiplier of 2, and low impacts receive a multiplier of 1. A Traffic Impact Score is then calculated for each pipeline route by multiplying each length of low, medium, and high times the respective length.

Water Storage Reservoirs Impacts

This criterion is scored numerically. The number of locations where the pipeline alignment passes within 100 feet of the toe of a dam, other critical dam-safety facilities, or reservoir inlet/outlet infrastructure was determined for each route and ranked against the other alternative routes within that specific area.

Construction Duration and Relative Constructability

This criterion is scored numerically. Duration of pipeline construction has both quantitative and qualitative factors. Duration of construction tends to correlate significantly with pipeline length and construction cost. Longer construction durations also tend to magnify qualitative factors such as public inconvenience, landowner impacts, and carbon footprint.

Pipeline production rates are estimated using factors including pipe diameter, route complexity, route length, available construction corridor area and access, utility density, and terrain challenges. An approximate total construction duration for each route was estimated and ranked against the other alternative routes within a specific project area. Routes with a greater construction duration are ranked lower.

Required Trenchless Crossings

This criterion is scored numerically. The impact of trenchless crossing construction has both quantitative and qualitative factors. Quantitatively, trenchless crossings can add significantly to the overall project cost. Qualitatively, trenchless crossings add elements of construction risk and high localized impacts at the tunnel portals. It has been assumed that all railroads, highways and all paved roads will be trenchless crossing.

Both the number of trenchless crossings and the total length of trenchless crossings are determined for each route and ranked against the other alternative routes within each specific area. Pipeline routes with greater length of trenchless construction are ranked lower.

Development Pressure

This criterion is scored numerically. The presence of known current or near term (within 2 years) development within each route alternative was investigated by conducting field visits, researching county, city, and town websites/databases, as well as attending in-person discussions with these entities. The lineal feet of pipeline traversing these known developments is determined for each route and ranked against the other alternative routes within each specific area. Pipeline routes with a greater length traversing near-term developments are ranked lower.

Operation and Maintenance (O & M) Access

This criterion is scored subjectively. Accessibility to the pipeline for the maintenance of pipeline appurtenances and to make repairs was evaluated for each pipeline route and ranked against the other alternative routes within each specific area. Adequate access is key to proper maintenance and prevention of leaks and or appurtenance failures which would adversely impact residents near the pipeline. Pipelines that have greater length adjacent to (but not within) public roadways are ranked higher. Pipeline routes with reduced or limited access for pipeline operation and maintenance are ranked lower.

O & M Requirements

This criterion is scored numerically. The anticipated number of air vacuum/release (AV/AR) and blowoff (BO) facilities based upon the traversed topography (high and low points) are estimated for each alternative route. Additionally, apparent locations where additional cathodic (corrosion) protection may be required due to foreign utility crossings (principally oil and gas) are also identified for each alternative route. These anticipated facilities are then totaled for each route and ranked against the other alternative routes within the specific area. Pipeline routes with greater combined O & M requirements are ranked lower.

Natural Resources

This criterion is scored numerically. Natural areas (natural tree areas, riparian areas, designated wildlife areas) are identified along each route. The lineal footage of pipeline traversing these areas is determined for each route and ranked against the other alternative routes within the specific area. Pipeline routes with a greater length traversing natural areas are ranked lower.

Grassland areas, farmed areas, and improved areas are considered to be temporarily impacted and more readily restorable over a shorter period of time than the above-mentioned natural areas and have not been included in this category.

Table 1 – Matrix Evaluation Criteria, Description, and Metrics

Evaluation Criteria	Performance Metrics - Green	Performance Metrics - Yellow	Performance Metrics - Red
Capital Cost	Lower ¼ of comparative alternatives	Middle ½ of comparative alternatives	Upper ¼ of comparative alternatives
Conduit Length	Lower ¼ of comparative alternatives	Middle ½ of comparative alternatives	Upper ¼ of comparative alternatives
Easement Difficulty	Lower ¼ of comparative alternatives & subjective factors	Middle ½ of comparative alternatives & subjective factors	Upper ¼ of comparative alternatives & subjective factors
Right-of-Way Impact	Lower ¼ of comparative alternatives	Middle ½ of comparative alternatives	Upper ¼ of comparative alternatives
Land Owner Impact	Lower ¼ of comparative alternatives & subjective factors	Middle ½ of comparative alternatives & subjective factors	Upper ¼ of comparative alternatives & subjective factors
Proximity to Occupied Dwellings	Lower ¼ of comparative alternatives	Middle ½ of comparative alternatives	Upper ¼ of comparative alternatives
Environmental Impacts	Lower ¼ of comparative alternatives	Middle ½ of comparative alternatives	Upper ¼ of comparative alternatives
Existing Utilities	Lower density of existing utilities (subjective)	Moderate density of existing utilities (subjective)	Higher density of existing utilities (subjective)
Hazardous/ Permitted Crossings	Lower ¼ of comparative alternatives	Middle ½ of comparative alternatives	Upper ¼ of comparative alternatives
Surface and Street Impacts	Lower ¼ of comparative alternatives	Middle ½ of comparative alternatives	Upper ¼ of comparative alternatives
Traffic Impacts	Lower ¼ of comparative alternatives	Middle ½ of comparative alternatives	Upper ¼ of comparative alternatives
Water Storage Reservoirs Impacts	Lower ¼ of comparative alternatives	Middle ½ of comparative alternatives	Upper ¼ of comparative alternatives
Construction Duration and Relative Constructability	Lower ¼ of comparative alternatives	Middle ½ of comparative alternatives	Upper ¼ of comparative alternatives
Required Trenchless Crossings	Lower ¼ of comparative alternatives	Middle ½ of comparative alternatives	Upper ¼ of comparative alternatives

Table 1 – Matrix Evaluation Criteria, Description, and Metrics

Evaluation Criteria	Performance Metrics - Green	Performance Metrics - Yellow	Performance Metrics - Red
Development Pressure	Lower ¼ of comparative alternatives	Middle ½ of comparative alternatives	Upper ¼ of comparative alternatives
Operation and Maintenance (O&M) Access	Better access (subjective)	Moderate access (subjective)	Poorer access (subjective)
O&M Requirements	Lower ¼ of comparative alternatives	Middle ½ of comparative alternatives	Upper ¼ of comparative alternatives
Natural Resources Impacts	Lower ¼ of comparative alternatives	Middle ½ of comparative alternatives	Upper ¼ of comparative alternatives

Appendix 1: Responses to Larimer County Comments

The following appendix is a summary of comments received from Larimer County related to the previous memo submission. Comments and associated responses are included.

Route Evaluation Comments:

1. Routing through and around the Eagle Lake Subdivision
Please see "Construction Approach for Eagle Lake" supplemental document for additional information. Document is currently in working draft status.
2. Routing Adjacent to Boxelder Floodplain
Noted that disturbance to the floodplain that results from construction of the pipeline will be subject to floodplain regulations.
3. Routing Near the Budweiser Effluent Lines
We are aware of the presence of the Anheuser-Busch effluent lines in the County Road 52 corridor. We will coordinate with A-B as design progresses.
4. Impacts to Larimer County Right-of-Way (ROW)
It is preferable to have alignments remain on the same side of the road to avoid the impacts and cost of crossings. We have crossed the roadway at locations where it was determined that impacts to existing surface improvements, impact to residences, or level of disturbance to occupied structures would be significantly mitigated by doing so. The goal of the routing study was to find a route with the overall least disturbance alignments and this has resulted in isolated locations that enter the public ROW.
5. Staging Locations
Staging locations have not yet been identified. These are typically identified during final design once the pipelines are divided into construction contracts. NISP WAE will work with Larimer County to ensure that staging and access requirements are delineated and coordinated in final design.



Northern Integrated Supply Project

Northern Tier Delivery Pipeline Alternatives Analysis

February 2020

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ROUTE COMPARISONS

Each of the alternatives developed was subjected to the evaluation criteria and metrics described in **Table 1** of the introduction section. The Northern Tier segment was broken into 4 Project Areas to facilitate comparison of alternatives of reasonable length. The Project Areas also enabled the project team to look at combinations of alternatives for each Project Area and facilitated a thorough analysis for the final preferred alignment.

An overview of all of the Project Areas and the identified alternative alignments is provided in **Figure N.1**. The overview page is followed by detailed fact sheets for each alternative alignment that describe the alignment and its performance against the evaluation criteria. Each fact sheet is accompanied by a figure illustrating the proposed routing and pertinent features in the area. The ranking column on the fact sheet provides the summary performance results of that alignment relative to other alternatives (green = good performance, yellow = fair performance, red = poor performance). In the end, the alternate with the best overall performance (least reds, most greens) was chosen to be the preferred alternate. This Preferred Northern Tier Alignment can be seen in **Figure N.19** at the end of this document.

In total, one (1) route was considered for Project Area 0, six (6) alternates were identified and assessed for Project Area 1, five (5) alignment alternates were identified and assessed for Project Area 2, and four (4) alignment alternates were identified and assessed for Project Area 3.

The pipeline segment identified in Project Area 0 can be seen on the individual alignment alternative maps (**see Figure N.2**), as well as on the overall maps. This segment is symbolized as a dashed grey and black line and is assessed in this document. This section of Northern Tier connects the Proposed Glade Reservoir with the alignment alternates in Project Area 1. Due to the short length and previous landowner coordination, a single route is assessed for this section of the pipeline.

Additionally there is a segment identified as the “Glade Release/Poudre Release Pipeline” which can be seen on the individual alternative maps (**see Figure N.3**), as well as on the overall maps. This segment is symbolized as black and white dashed and is assessed in this document. The Poudre Release Pipeline connects the Poudre River with the alignments in Project Area 1. Similar to the alignment in Project Area 0, a single route is assessed for this pipeline due to previous landowner coordination and direction. Neither of these pipelines were scored with color rankings, since there was only one alternative.

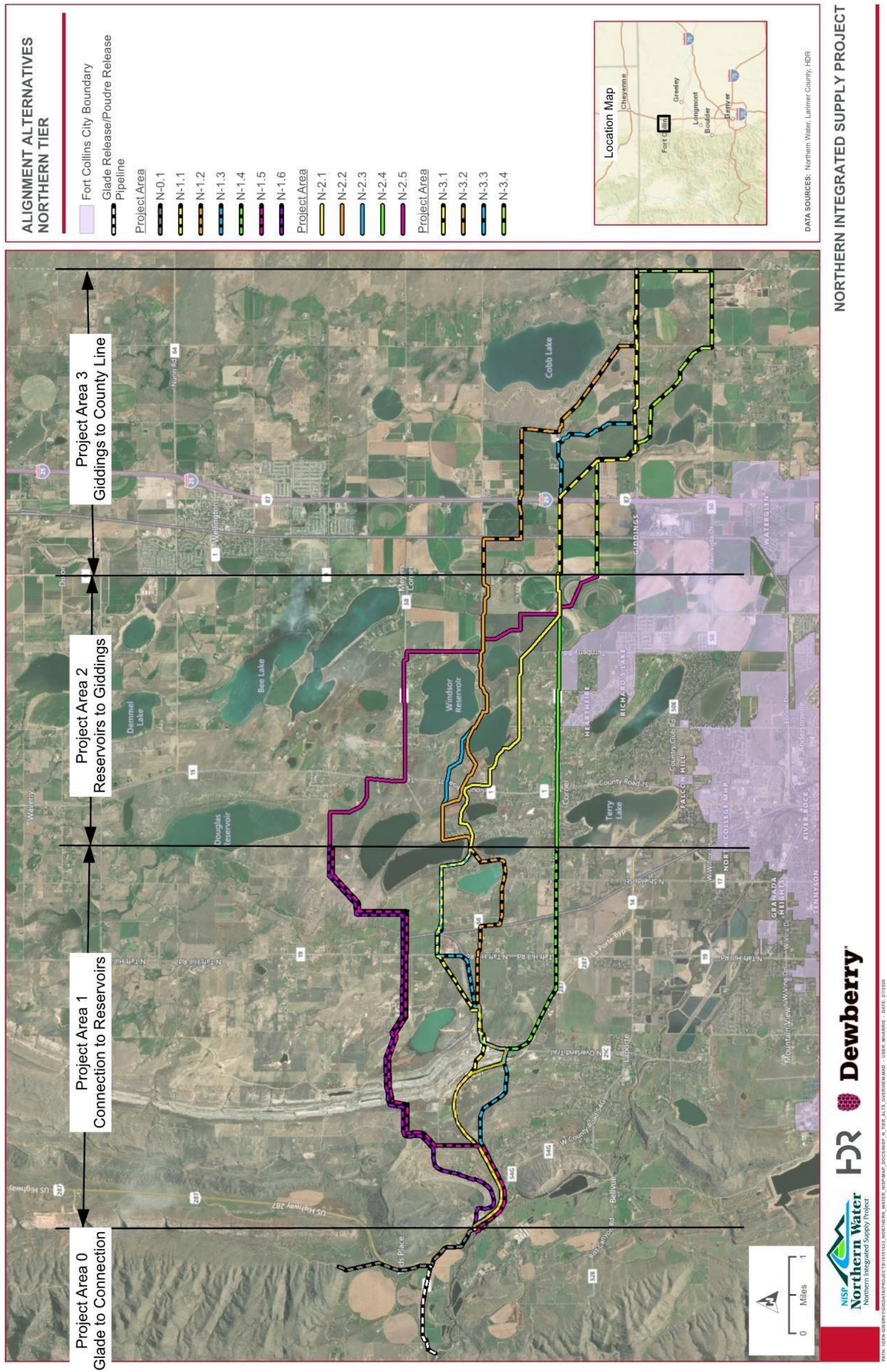


Figure N.1 Northern Tier Project Areas and Alternatives

Alternative Name	Project Area 0- Alternative N-0.1		
Alternative Location & Description	Alternative N-0.1 begins at the proposed Glade Reservoir Dam Outlet Works, about 6,500 feet north of the intersection of Highway 14 and Highway 287. From the Dam, it traverses generally south until encountering Highway 287, then follows the Highway 287 right-of-way across the Poudre Valley Canal and across Highway 14. It then follows the south side west property lines of two parcels before converging with the south ROW of Highway and the Northern Tier PA 1 alignment alternatives.		
	Criteria	Ranking*	Comments
Capital Cost	-	-	\$ 6,242,000
Conduit Length	-	-	2.1 miles; 11,100 feet
Easement Difficulty	-	-	10 parcels crossed. 2 non-perimeter crossings
Right-of-Way Impact	-	-	3,000 LF in parallel ROW
Land Owner Impact	-	-	2 driveways crossed, minimal subjective landowner impacts
Proximity to Occupied Dwellings	-	-	Within 100 feet from 1 dwelling
Environmental Impacts and Floodplain Crossings	-	-	200 LF of wetlands/riparian areas crossed and 0 LF of floodplain crossed
Existing Utilities	-	-	Low utility density
Hazardous/Permitted Crossings	-	-	No hazardous/permited crossings expected
Surface and Street Impacts	-	-	0 LF in gravel road and 0 LF in paved roads
Traffic Impacts	-	-	150 LF of low,0 LF of medium, 0 LF of high, Traffic Impact Score of 150
Water Storage Reservoirs Impacts	-	-	No impacts expected
Construction Duration and Relative Constructability	-	-	68 days of construction
Required Trenchless Crossing	-	-	1 other crossing (Highway 14) and 150 feet total trenchless
Development Pressure	-	-	0 LF of near-term developments
Operation and Maintenance Access	-	-	Convenient access. Near roadways
O&M Requirements	-	-	1 ARV and BO pairs. Large elevation increase over alignment
Natural Resources Impacts	-	-	50 LF in natural areas

* Rankings not provided since only one alignment is available

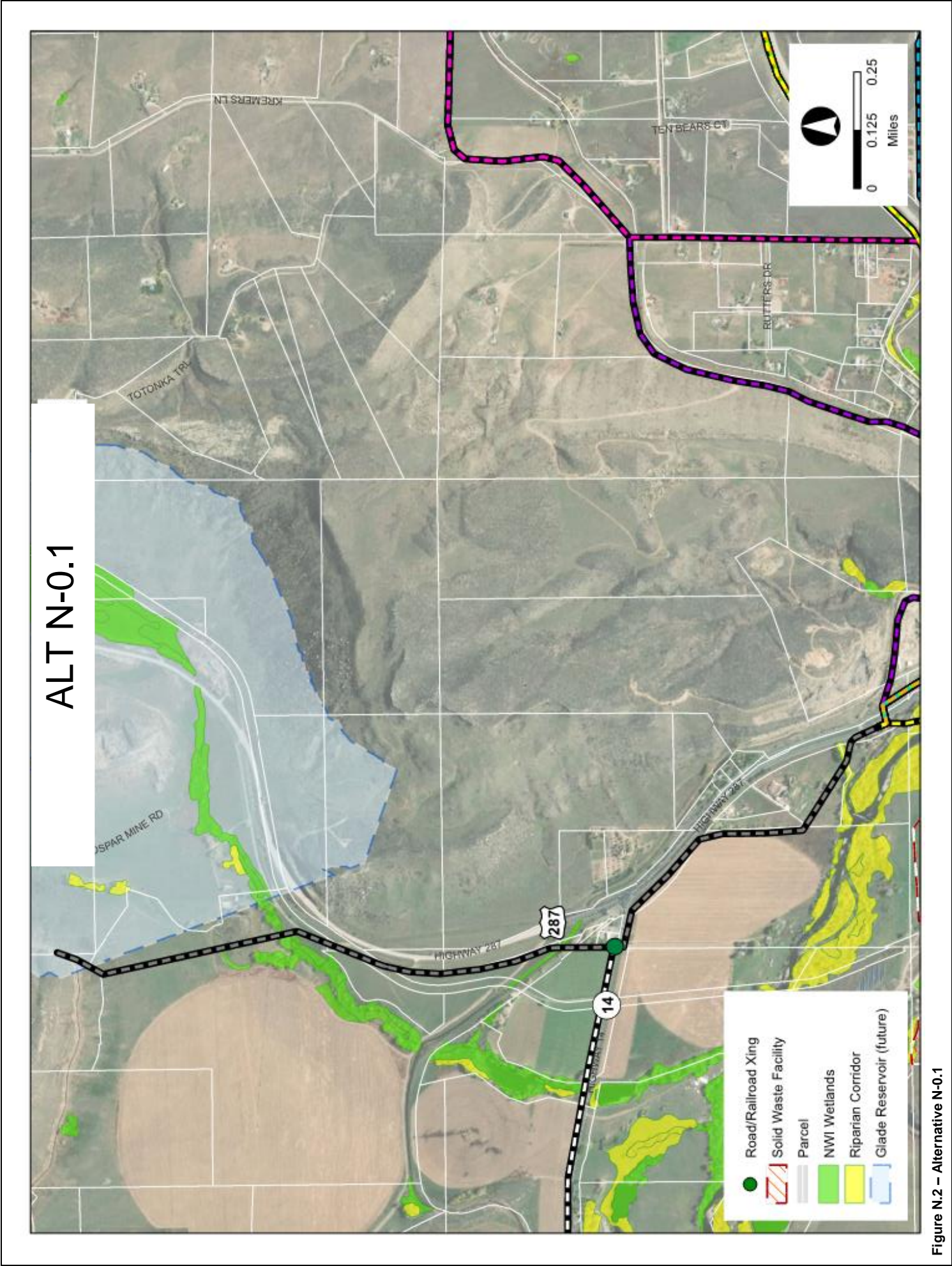
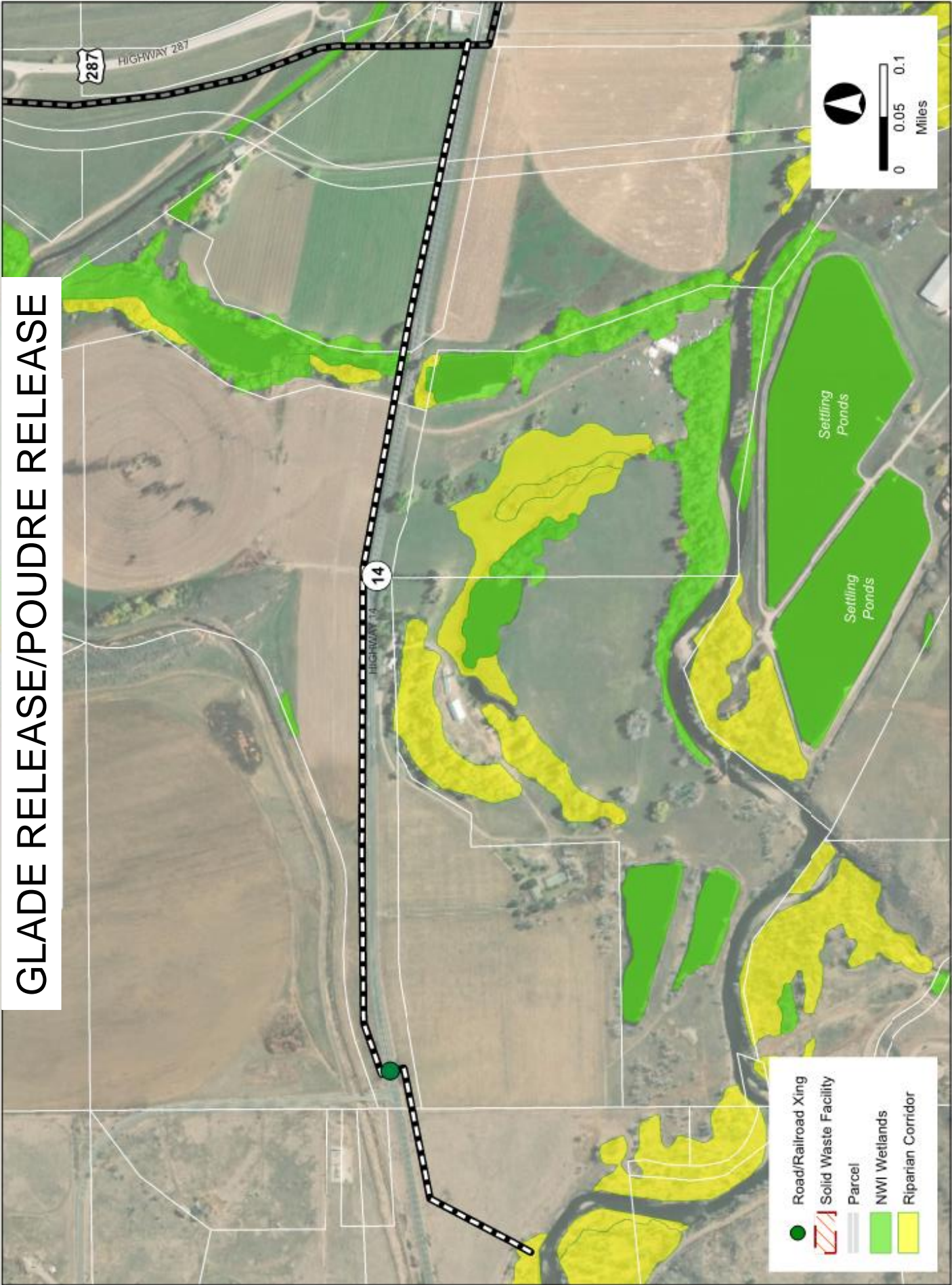


Figure N.2 – Alternative N-0.1

Alternative Name	Glade Release/Poudre Release Pipeline		
Alternative Location & Description	The Glade Release/Poudre Release Pipeline begins in the middle of alignment N-0.1 (approximately 250 feet west of the intersection of Highway 14 and Highway 287). It generally goes west, following the north side of Highway 14 for about a mile, before crossing to the south side of the highway. It continues to traverse westerly along the south side of Highway 14 for about 1,000 feet until turning southwest and terminating at the Poudre River.		
Criteria	Ranking*	Comments	
Capital Cost	-	\$ 3,978,000	
Conduit Length	-	1.3 miles; 6,900 feet	
Easement Difficulty	-	7 parcels crossed. 1 non-perimeter crossing	
Right-of-Way Impact	-	0 LF in parallel ROW	
Land Owner Impact	-	0 driveways crossed, minimal subjective landowner impacts	
Proximity to Occupied Dwellings	-	Within 100 feet from 0 dwellings	
Environmental Impacts and Floodplain Crossings	-	150 LF of wetlands/riparian areas crossed and 150 LF of floodplain crossed	
Existing Utilities	-	Low utility density	
Hazardous/Permitted Crossings	-	No hazardous/permitted crossings expected	
Surface and Street Impacts	-	0 LF in gravel road and 0 LF in paved roads	
Traffic Impacts	-	150 LF of low,0 LF of medium, 0 LF of high, Traffic Impact Score of 150	
Water Storage Reservoirs Impacts	-	Crossing pond/canal. No major impacts	
Construction Duration and Relative Constructability	-	49 days of construction	
Required Trenchless Crossing	-	1 other crossing (Highway 14) and 150 feet total trenchless	
Development Pressure	-	0 LF of near-term developments	
Operation and Maintenance Access	-	Convenient access. Near roadways	
O&M Requirements	-	4 ARV and BO pairs	
Natural Resources Impacts	-	50 LF in natural areas	

* Rankings not provided since only one alignment is available



Alternative Name	Project Area 1 - Alignment N-1.1		
Alternative Location & Description	Alignment N-1.1 begins at the end of the first segment of the Northern Tier Pipeline. It then follows the south ROW of highway 14 for about 1,000 feet before crossing to the north side of the highway. The alignment then parallels the north side of Hwy 14 until it turns to the southeast over a ridge and passes through the concrete plant. This alignment follows the proposed ROW of the Hwy 287 relocation. It continues east passing diagonally until reaching the back of Homes of Distinction development. From there, it turns east and crosses the Union Pacific Railroad before paralleling the southern edge of Water Supply and Storage Reservoir 3.		
	Criteria	Ranking	Comments
Capital Cost	Green		\$ 18,744,000
Conduit Length	Green		5.9 miles; 31,100 feet
Easement Difficulty	Yellow		18 parcels crossed, 8 non-perimeter crossings
Right-of-Way Impact	Yellow		12,000 LF of Highway 14 ROW disturbance.
Land Owner Impact	Green		1 driveway crossed, minimal subjective landowner impacts
Proximity to Occupied Dwellings	Green		Within 100 feet from 2 dwellings
Environmental Impacts and Floodplain Crossings	Yellow		1,100 LF of wetlands/riparian areas crossed and 1,900 LF of floodplain crossed
Existing Utilities	Yellow		Medium utility density
Hazardous/Permitted Crossings	Yellow		1 hazardous/permitted crossing. Crosses old cement plant which is indicated to be a "Solid Waste Facility"
Surface and Street Impacts	Yellow		400 LF in gravel roads (CR-56 2x CR-56E, CR-21C) and 0 LF in paved roads
Traffic Impacts	Green		900 LF of low, 400 LF of medium, 0 LF of high, traffic impact score of 1,700
Water Storage Reservoirs Impacts	Green		No impacts expected. Over 100 feet from toe of WSSC No. 3 dam.
Construction Duration and Relative Constructability	Yellow		253 days of construction
Required Trenchless Crossing	Yellow		2 RR crossings (UP RR 2x), 1 HW crossing (Highway 14), 2 CR crossing (CR-56 2x), 1 other road crossing (Taft Hill) and 900 feet total trenchless
Development Pressure	Green		0 LF of near-term developments
Operation and Maintenance Access	Yellow		Moderate access, both close and far proximity to roadways
O&M Requirements	Green		1 ARV/BO pair
Natural Resources Impacts	Yellow		700 LF in natural or riparian areas

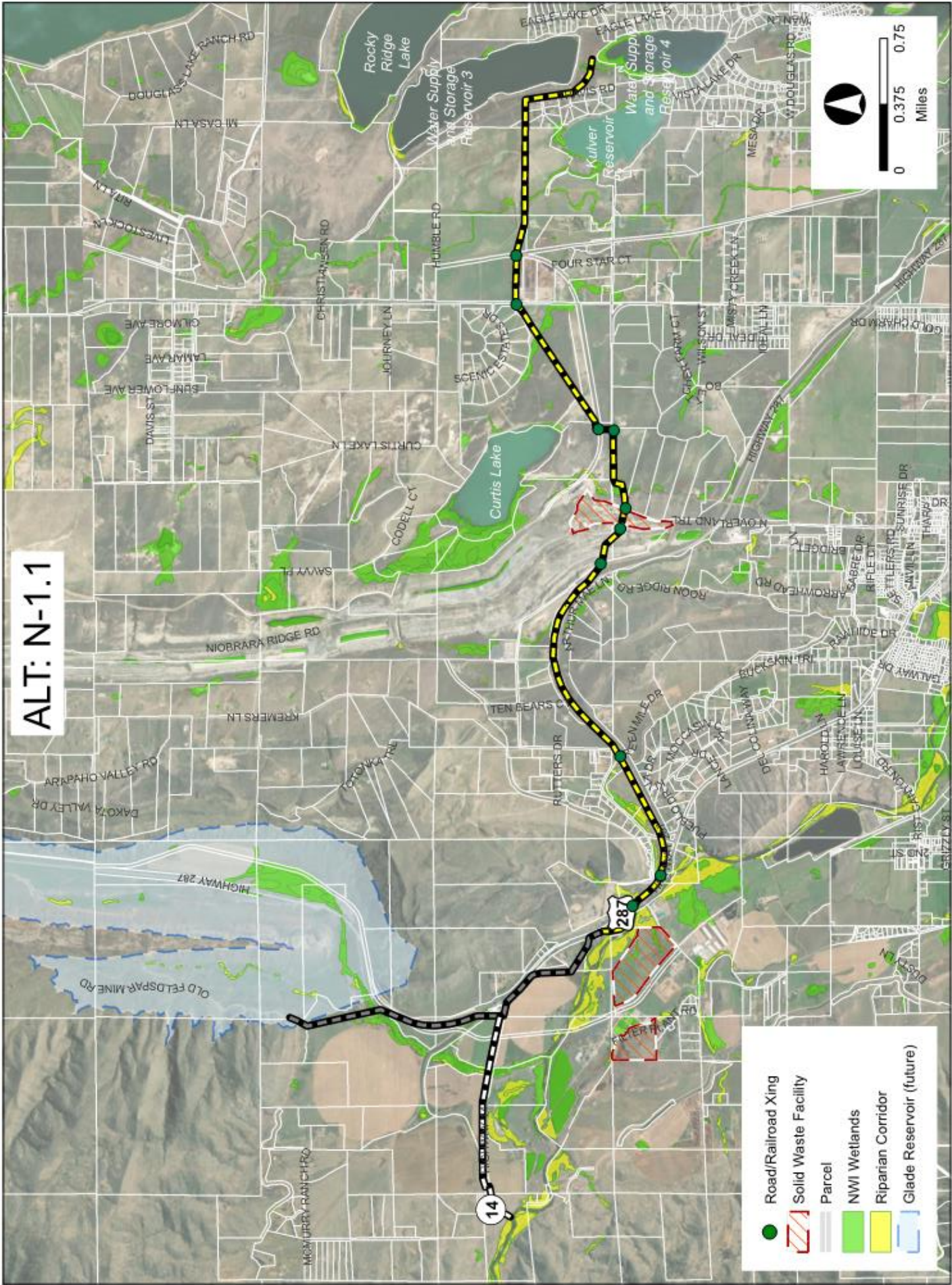
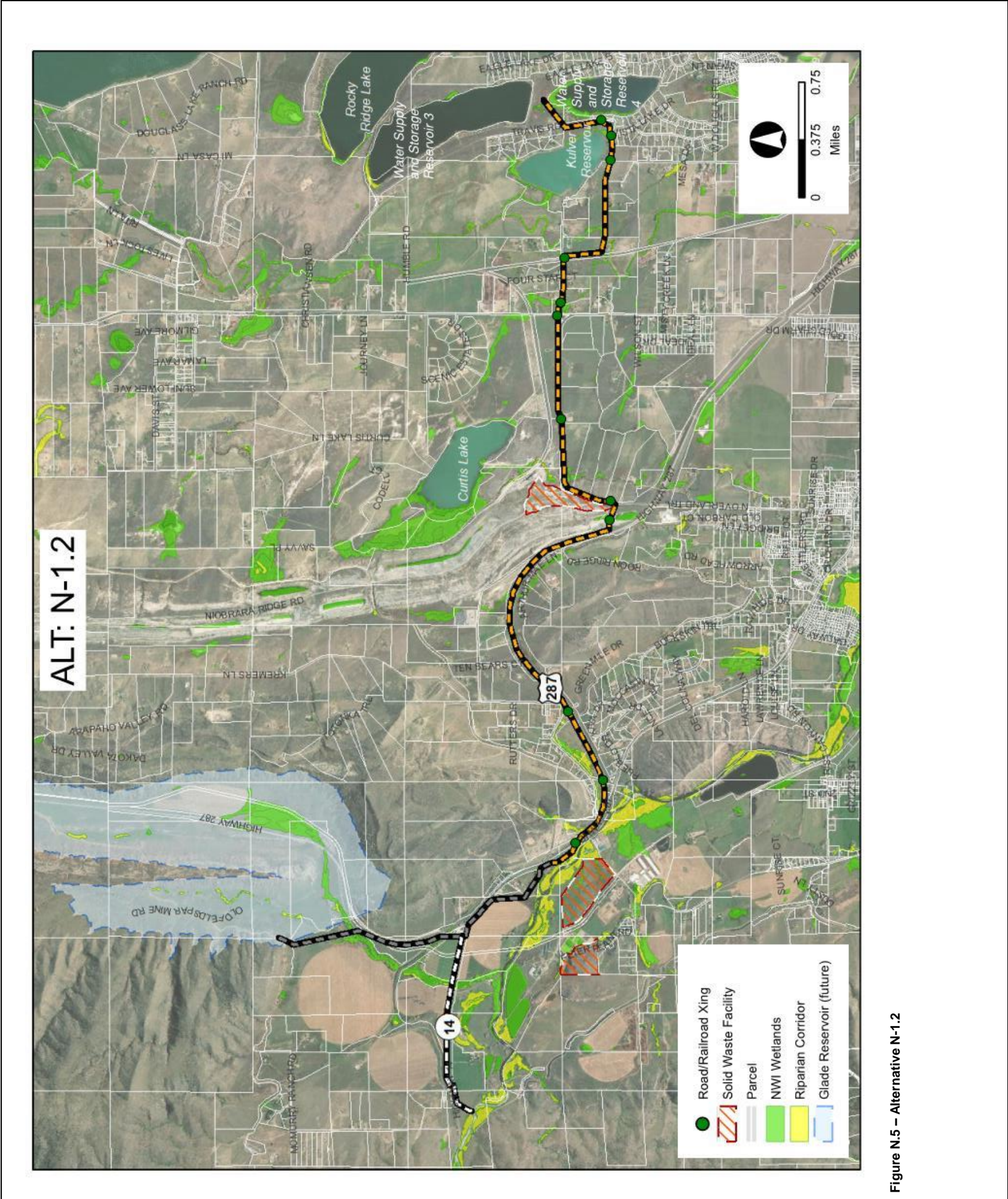
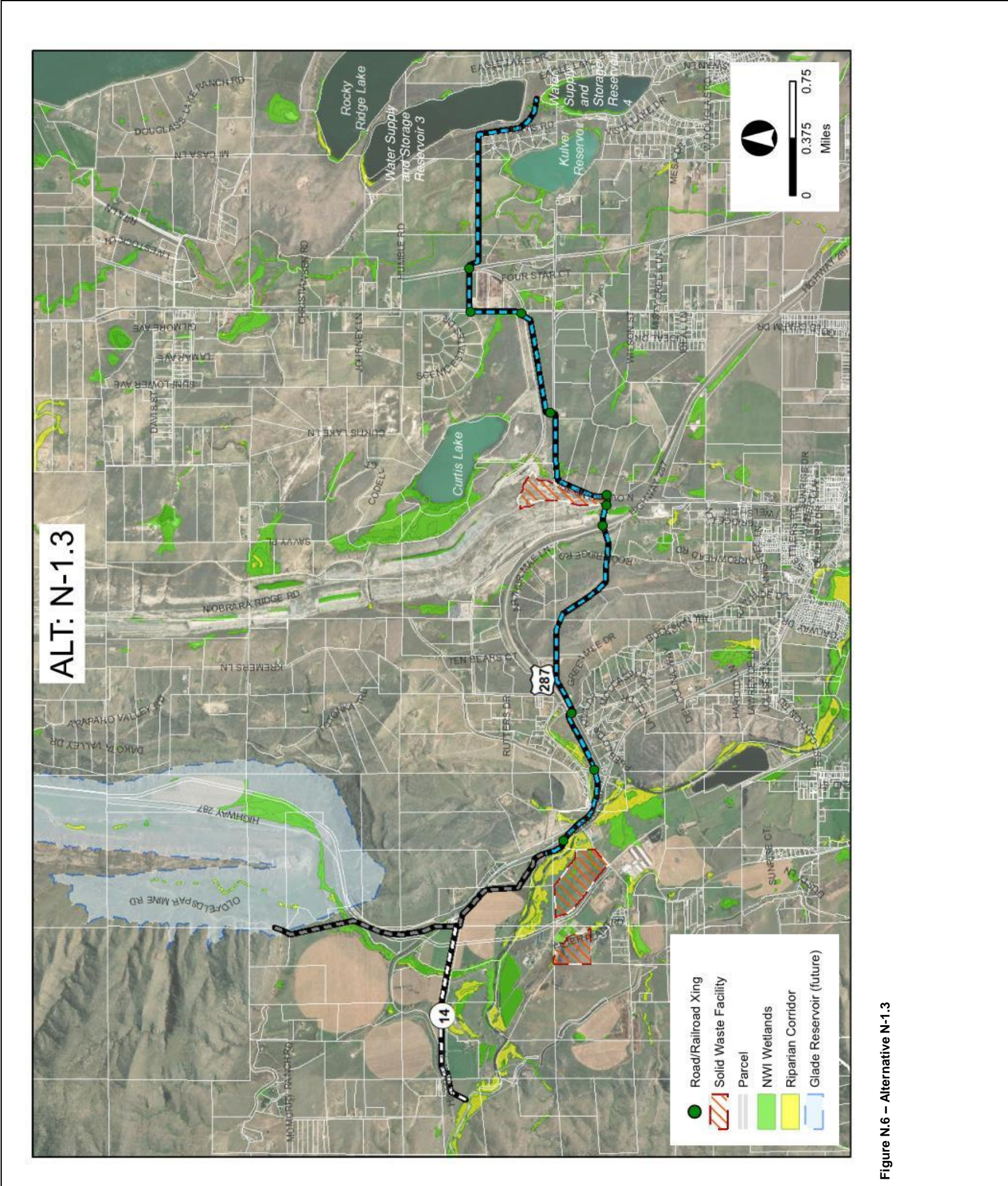


Figure N.4 – Alternative N-1.1

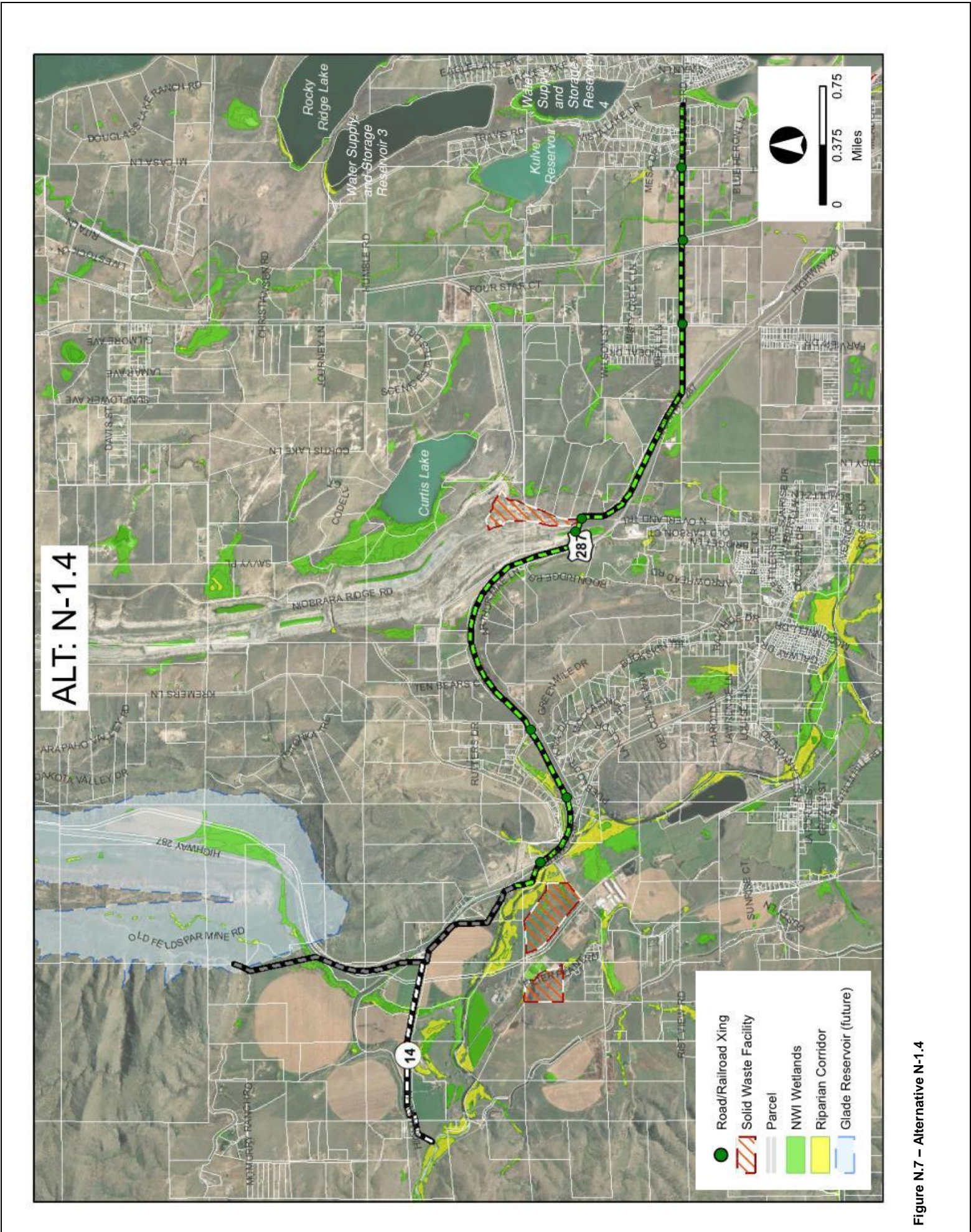
Alternative Name	Project Area 1 – Alignment N-1.2		
Alternative Location & Description	Alignment N-1.2begins at the end of the first segment of the Northern Tier Pipeline on the north side of Hwy 14 approximately 1,500 feet northwest of the intersection with CR 54E, at the same location as the other Project Area 1 alignments. Alignment N-1.2 begins following the same route as the Alignment N-1.1, but diverts south before skirting the southern edge of the concrete plant. It follows up the eastern side of the plant, where it then follows residential property lines, while heading east until crossing Union Pacific Railroad. After crossing the railroad, it traverses south, then east towards Water Supply and Storage Reservoir 4 where it crosses a channel between Kluver Reservoir and Storage Reservoir 4, before ending in the same location as Alignment N-1.1.		
	Criteria	Ranking	Comments
Capital Cost	Red	\$ 21,043,000	
Conduit Length	Yellow	6.5 miles; 34,400 feet	
Easement Difficulty	Yellow	20 parcels crossed, 4 non-perimeter crossings	
Right-of-Way Impact	Yellow	14,000 LF of Highway 14 ROW disturbance	
Land Owner Impact	Yellow	6 driveways crossed, moderate subjective landowner impacts	
Proximity to Occupied Dwellings	Green	Within 100 feet from 2 dwellings	
Environmental Impacts and Floodplain Crossings	Yellow	1,000 LF of wetlands/riparian areas crossed and 1,500 LF of floodplain crossed	
Existing Utilities	Yellow	Medium utility density	
Hazardous/Permitted Crossings	Green	No hazardous/permitted crossings expected	
Surface and Street Impacts	Yellow	300 LF in gravel roads (CR-56 2x, CR-56E) and 0 LF in paved roads	
Traffic Impacts	Green	1200 LF of low, 300 LF of medium, 0 LF of high, traffic impact score of 1,800	
Water Storage Reservoirs Impacts	Yellow	No impacts expected Alignment does pass through deep connection channel between Kluver Reservoir and Water Supply and Storage Reservoir 4	
Construction Duration and Relative Constructability	Red	310 days of construction	
Required Trenchless Crossing	Red	1 RR crossings (UP RR), 1 HW crossing (Highway 14), 3 CR crossings (CR-21C, CR-56 2x) , 3 other road crossings (Shields, Travis (2x))and 1200 feet total trenchless	
Development Pressure	Green	0 LF of near-term developments	
Operation and Maintenance Access	Yellow	Moderate access, both close and far proximity to roadways	
O&M Requirements	Yellow	2 ARV/BO pairs	
Natural Resources Impacts	Yellow	700 LF in natural or riparian areas	



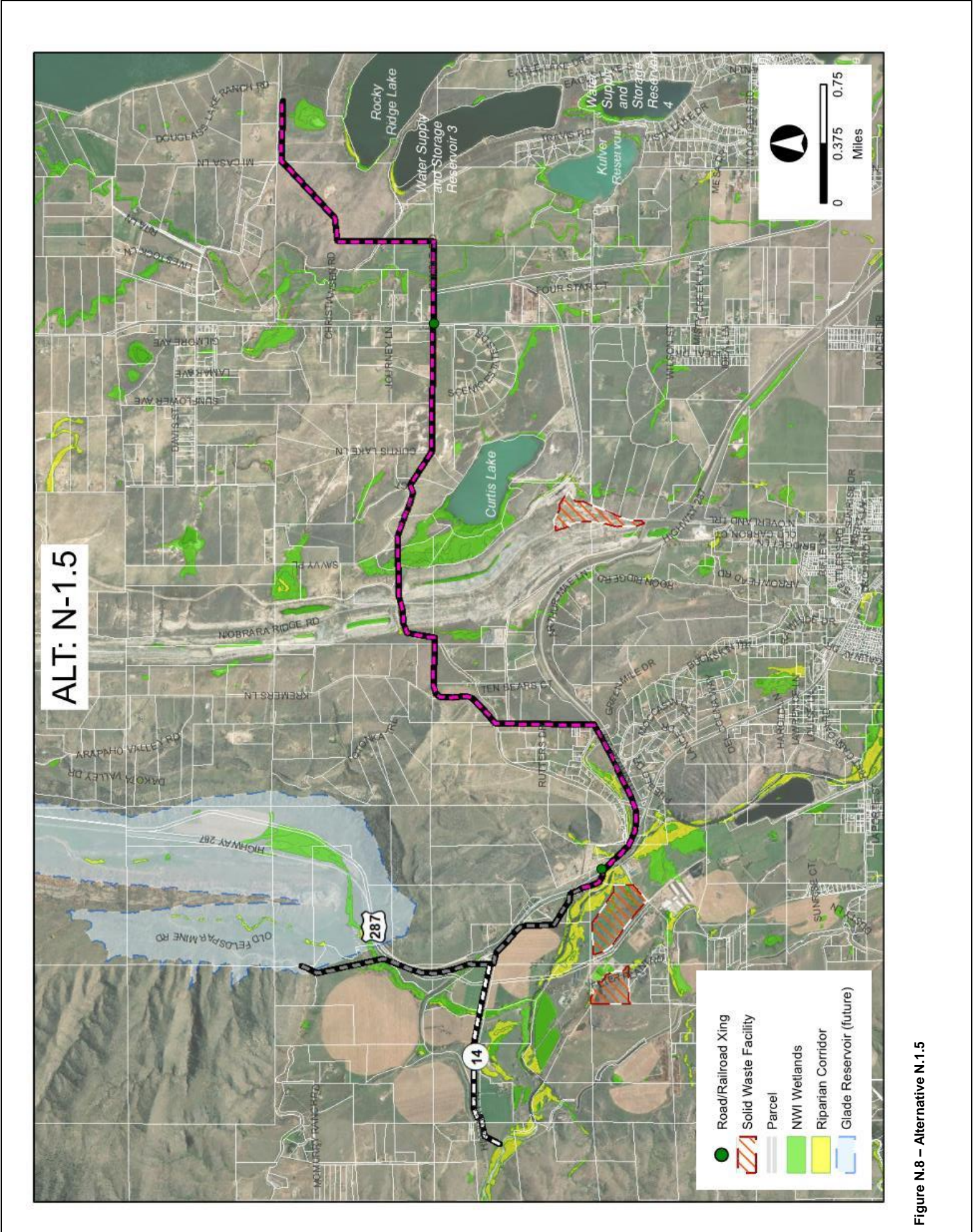
Alternative Name	Project Area 1 - Alignment N-1.3		
Alternative Location & Description	Alignment N-1.3begins at the end of the first segment of the Northern Tier Pipeline on the north side of Hwy 14 approximately 1,500 feet northwest of the intersection with CR 54E. Alignment N-1.3 parallels the north side of Hwy 14 until it crosses the highway just west of the intersection with Green Mile Drive. It then parallels the south side of Hwy 14 until it turns east and southeast through rural residential parcels. It crosses a foothill whose elevation would hydraulically limit conveyance from the reservoir unless the foothill was tunneled. The alignment then crosses Hwy 14 again as it passes through the steep ridge along current CR 56E, south of the concrete plant and then continues to the north along the east side of CR 56. It continues east paralleling the north side of the Union Pacific Railroad ROW to Taft Hill Road. From there, it heads north and then east where it ends between Water Supply and Storage Reservoir 3 and Reservoir 4.		
	Criteria	Ranking	Comments
	Capital Cost	Red	\$ 21,958,000
	Conduit Length	Yellow	6.3 miles; 33,300 feet
	Easement Difficulty	Yellow	25 parcels crossed. 5 non-perimeter crossings
	Right-of-Way Impact	Yellow	6,000 LF of Highway 14 ROW disturbance
	Land Owner Impact	Green	1 driveway crossed, minimal subjective landowner impacts
	Proximity to Occupied Dwellings	Green	Within 100 feet from 2 dwellings
	Environmental Impacts and Floodplain Crossings	Red	2,000 LF of wetlands/riparian areas crossed and 1,900 LF of floodplain crossed
	Existing Utilities	Yellow	Medium utility density
	Hazardous/Permitted Crossings	Green	No hazardous/permitted crossings expected
	Surface and Street Impacts	Yellow	200 LF in gravel roads (CR-56, CR-56E) and 0 LF in paved roads
	Traffic Impacts	Green	1400 LF of low, 200 LF of medium, 0 LF of high, traffic impact score of 1,800
	Water Storage Reservoirs Impacts	Green	No impacts expected. Over 100 feet from toe of WSSC No. 3 dam.
	Construction Duration and Relative Constructability	Red	391 days of construction
	Required Trenchless Crossing	Red	2 RR crossings (UP RR 2x), 3 HW crossings (Highway 14 3x), 2 CR crossing (CR-56 2x), 1 other road crossing (Taft Hill) 1 hill crossing and 1900 feet total trenchless
	Development Pressure	Green	0 LF of near-term developments
	Operation and Maintenance Access	Red	Difficult access. Alignment passes through hard to access areas and is not near roadways for much of the length
	O&M Requirements	Green	1 ARV/BO pair. Extreme elevation change along crest
	Natural Resources Impacts	Yellow	700 LF in natural or riparian areas



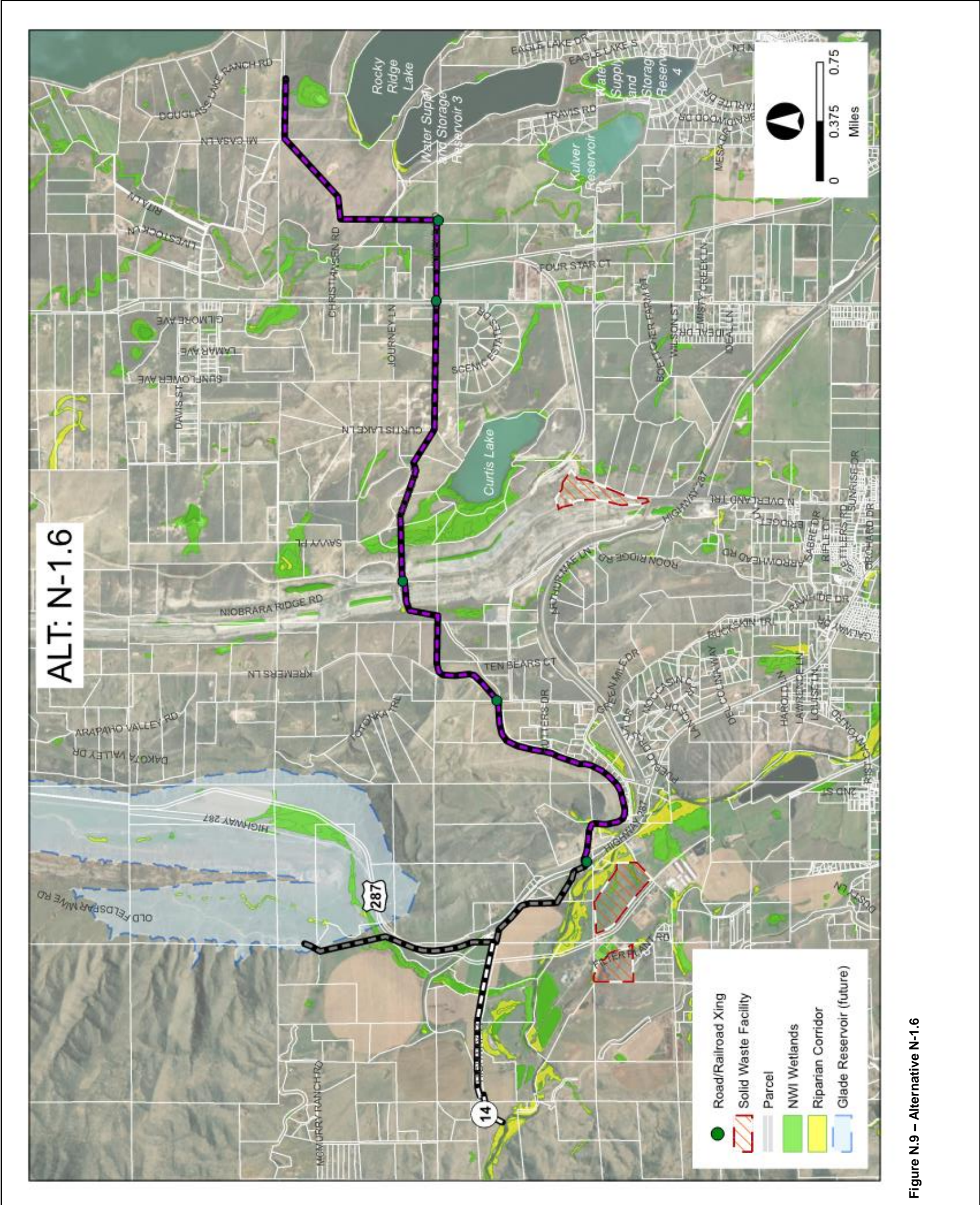
Alternative Name	Project Area 1 – Alignment N-1.4		
Alternative Location & Description	Alignment N-1.4begins at the end of the first segment of the Northern Tier Pipeline on the north side of Hwy 14 approximately 1,500 feet northwest of the intersection with CR 54E. It runs parallel to Hwy 14 until it turns to the east at CR 56E through the steep ridge, south of the concrete plant and then turns south back to Hwy 14. It parallels the north side of Hwy 14 until it reaches what would be an extension of Douglas Road and continues to the east paralleling Douglas Road until it ends at the same location as Alignment N-1.3, between Water Supply and Storage Reservoir 3 and Reservoir 4.		
	Criteria	Ranking	Comments
	Capital Cost	Red	\$ 21,416,000
	Conduit Length	Green	6.1 miles; 32,200 feet
	Easement Difficulty	Green	15 parcels crossed, 2 non-perimeter crossings
	Right-of-Way Impact	Red	21,000 LF of Highway 14 and Douglas Road ROW disturbance
	Land Owner Impact	Green	1 driveway crossed, moderate subjective landowner impacts
	Proximity to Occupied Dwellings	Red	Within 100 feet from 12 dwellings
	Environmental Impacts and Floodplain Crossings	Yellow	900 LF of wetlands/riparian areas crossed and 1,800 LF of floodplain crossed
	Existing Utilities	Red	High utility density
Hazardous/Permitted Crossings	Green	No hazardous/permitted crossings expected	
Surface and Street Impacts	Red	800 LF in gravel roads (CR-56 2x, CR-56E) and 3000 LF in paved roads (Douglas Road)	
Traffic Impacts	Red	800 LF of low, 800 LF of medium, 3000 LF of high. traffic impact score of 14,400	
Water Storage Reservoirs Impacts	Green	No impacts expected	
Construction Duration and Relative Constructability	Yellow	275 days of construction	
Required Trenchless Crossing	Yellow	1 RR crossing (UP RR), 1 HW crossing (Highway 14), 1 CR crossing (CR-56), 2 other road crossings (Taft Hill, Shields) and 800 feet total trenchless	
Development Pressure	Green	0 LF of near-term developments	
Operation and Maintenance Access	Yellow	Convenient access. Near roadway for entire length.	
O&M Requirements	Yellow	2 ARV/BO pairs. Extreme elevation change along HW 14	
Natural Resources Impacts	Yellow	700 LF in natural or riparian areas	



Alternative Name	Project Area 1 – Alignment N-1.5		
Alternative Location & Description	Alignment N-1.5 begins at the end of the first segment of the Northern Tier Pipeline on the north side of Hwy 14 approximately 1,500 feet northwest of the intersection with CR 54E. Alignment N-1.5 parallels the north side of Hwy 14 for a section. It turns to the north and follows the east side of CR 23E before turning to the east through the steep ridge. It continues east through the open space north of Curtis Lake and follows along the north side of Humble Road past Taft Hill Road. About a half mile past Taft Hill Road, the alignment veers north and then northeast to skirt the edges of the property lines surrounding the reservoirs. It ends at the same location as Alignment N-1.3, between Water Supply and Storage Reservoir 3 and Reservoir 4.		
	Criteria	Ranking	Comments
Capital Cost	Red	Red	\$ 20,636,200
Conduit Length	Red	Red	7.1 miles; 37,400 feet
Easement Difficulty	Red	Red	30 parcels crossed, 6 non-perimeter crossings. More exist, but follow two track roadway
Right-of-Way Impact	Yellow	Yellow	7,000 LF of Highway 14 ROW disturbance
Land Owner Impact	Green	Green	2 driveways crossed, minimal subjective landowner impacts
Proximity to Occupied Dwellings	Green	Green	Within 100 feet from 3 dwellings
Environmental Impacts and Floodplain Crossings	Yellow	Yellow	1,300 LF of wetlands/riparian areas crossed and 1,700 LF of floodplain crossed
Existing Utilities	Yellow	Yellow	Medium utility density
Hazardous/Permitted Crossings	Green	Green	No hazardous/permitted crossings expected
Surface and Street Impacts	Green	Green	0 LF in gravel roads and 0 LF in paved roads
Traffic Impacts	Green	Green	300 LF of low, 0 LF of medium, 0 LF of high, traffic impact score of 300
Water Storage Reservoirs Impacts	Green	Green	No impacts expected
Construction Duration and Relative Constructability	Green	Green	203 days of construction
Required Trenchless Crossing	Green	Green	1 HW crossing (Highway 14), 1 other road crossing (Taft Hill) and 300 feet total trenchless
Development Pressure	Green	Green	0 LF of near-term developments
Operation and Maintenance Access	Red	Red	Alignment passes through hard to access areas and is not near roadways for much of the length
O&M Requirements	Red	Red	5 ARV/BO pairs. Large elevation change
Natural Resources Impacts	Yellow	Yellow	700 LF in natural or riparian areas



Alternative Name	Project Area 1 – Alignment N-1.6		
Alternative Location & Description	Alignment N-1.6 begins at the end of the first segment of the Northern Tier Pipeline on the north side of Hwy 14 approximately 1,500 feet northwest of the intersection with CR 54E. Alignment N-1.6 begins following the south side of Willow Nook Road then continues to the northeast paralleling the South Poudre Canal to CR 23E. It follows the east side of CR 23 E before turning to the east through the steep ridge. It continues east through open space north of Curtis Lake and follows along the north side of Humble Road to Taft Hill Road. About a half mile past Taft Hill Road, the alignment veers north and then northeast to skirt the edges of the property lines surrounding the reservoirs. It ends at the same location as Alignment N-1.3, between Water Supply and Storage Reservoir 3 and Reservoir 4.		
	Criteria	Ranking	Comments
	Capital Cost	Red	\$ 20,436,900
	Conduit Length	Red	7.0 miles; 36,800 feet
	Easement Difficulty	Red	30 parcels crossed, 4 non-perimeter crossings
	Right-of-Way Impact	Green	0 LF in parallel ROW
	Land Owner Impact	Green	1 driveway crossed, minimal subjective landowner impacts
	Proximity to Occupied Dwellings	Yellow	Within 100 feet from 5 dwellings
	Environmental Impacts and Floodplain Crossings	Green	500 LF of wetlands/riparian areas crossed and 700 LF of floodplain crossed
	Existing Utilities	Green	Low utility density
	Hazardous/Permitted Crossings	Green	No hazardous/permitted crossings expected
	Surface and Street Impacts	Yellow	300 LF in gravel roads (CR-23E, CR-21C, Humble Rd) and 0 LF in paved roads
	Traffic Impacts	Green	300 LF of low, 300 LF of medium, 0 LF of high, traffic impact score of 900
	Water Storage Reservoirs Impacts	Green	No impacts expected
	Construction Duration and Relative Constructability	Green	200 days of construction
	Required Trenchless Crossing	Green	1 HW crossing (Highway 14), 1 other road crossing (Taft Hill) and 300 feet total trenchless
	Development Pressure	Green	0 LF of near-term developments
	Operation and Maintenance Access	Red	Difficult access. Alignment passes through hard to access areas and is not near roadways for much of the length
	O&M Requirements	Red	5 ARV/BO pairs. Extreme elevation change at beginning
	Natural Resources Impacts	Green	100 LF through natural areas



Alternative Name	Project Area 2 – Alignment N-2.1		
Alternative Location & Description	Alignment N-2.1 begins in-between Kulver Reservoir and Water Supply Reservoir #4 and then heads northeast in-between Water Supply Reservoir #3 and #4 and north of Dixon Reservoir. It turns south east of Dixon Reservoir before heading east at CR 56. It continues southeast through rural residential and agricultural properties, adjacent to Annex Reservoir #8 to Grey Rock Drive. It turns east and parallels Grey Rock Drive until it crosses an open farmland diagonally, and then follows CR 54 until the intersection with Giddings Rd.		
	Criteria	Ranking	Comments
	Capital Cost	Green	\$ 13,533,000
	Conduit Length	Green	4.4 miles; 23,000 feet
	Easement Difficulty	Red	26 parcels crossed, 9 non-perimeter crossings
	Right-of-Way Impact	Green	0 LF in parallel ROW
	Land Owner Impact	Green	1 driveway crossed, minimal subjective landowner impacts
	Proximity to Occupied Dwellings	Green	Within 100 feet from 6 dwellings
	Environmental Impacts and Floodplain Crossings	Yellow	500 LF of wetlands/riparian areas crossed and 0 LF of floodplain crossed
	Existing Utilities	Yellow	Medium utility density
	Hazardous/Permitted Crossings	Green	No hazardous/permitted crossings expected
	Surface and Street Impacts	Green	400 LF in gravel roads (Hood Lane, CR-56, CR-13, Turnberry) and 0 LF in paved roads
	Traffic Impacts	Green	500 LF of low, 400 LF of medium, 0 LF of high, Traffic Impact Score of 1300
	Water Storage Reservoirs Impacts	Green	No impact to water storage reservoir expected. Close to the side of Annex Reservoir 8
	Construction Duration and Relative Constructability	Green	160 days of construction
	Required Trenchless Crossing	Yellow	3 CR crossings (CR-15, CR-54 2x) and 2 other road crossings (Eagle Lake, Giddings) and 500 feet total trenchless
	Development Pressure	Green	0 LF of near-term developments
	Operation and Maintenance Access	Green	Best access of alternates identified
	O&M Requirements	Yellow	7 ARV and BO pairs. Some extreme elevation change throughout.
	Natural Resources Impacts	Green	100 LF through natural areas

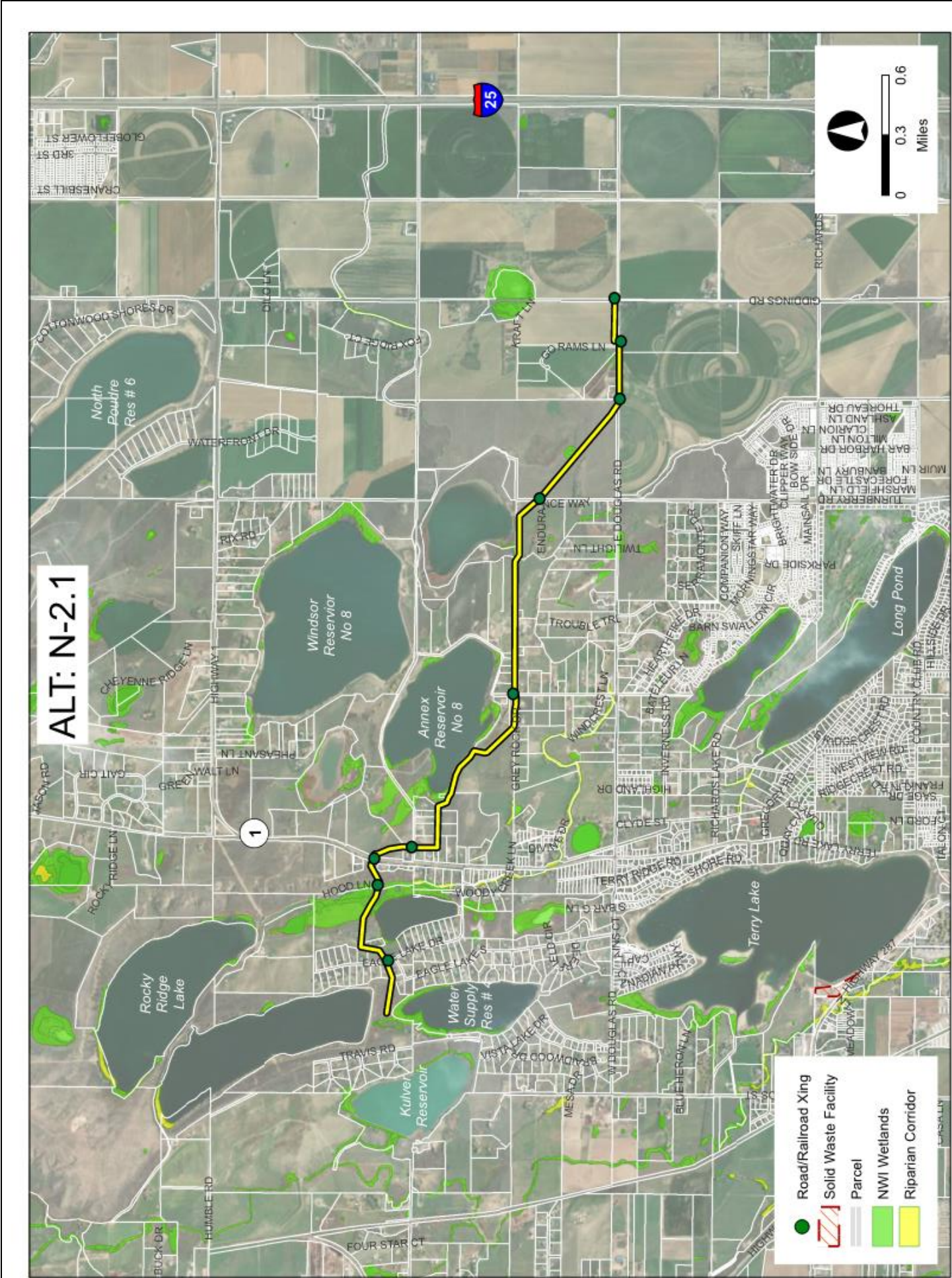
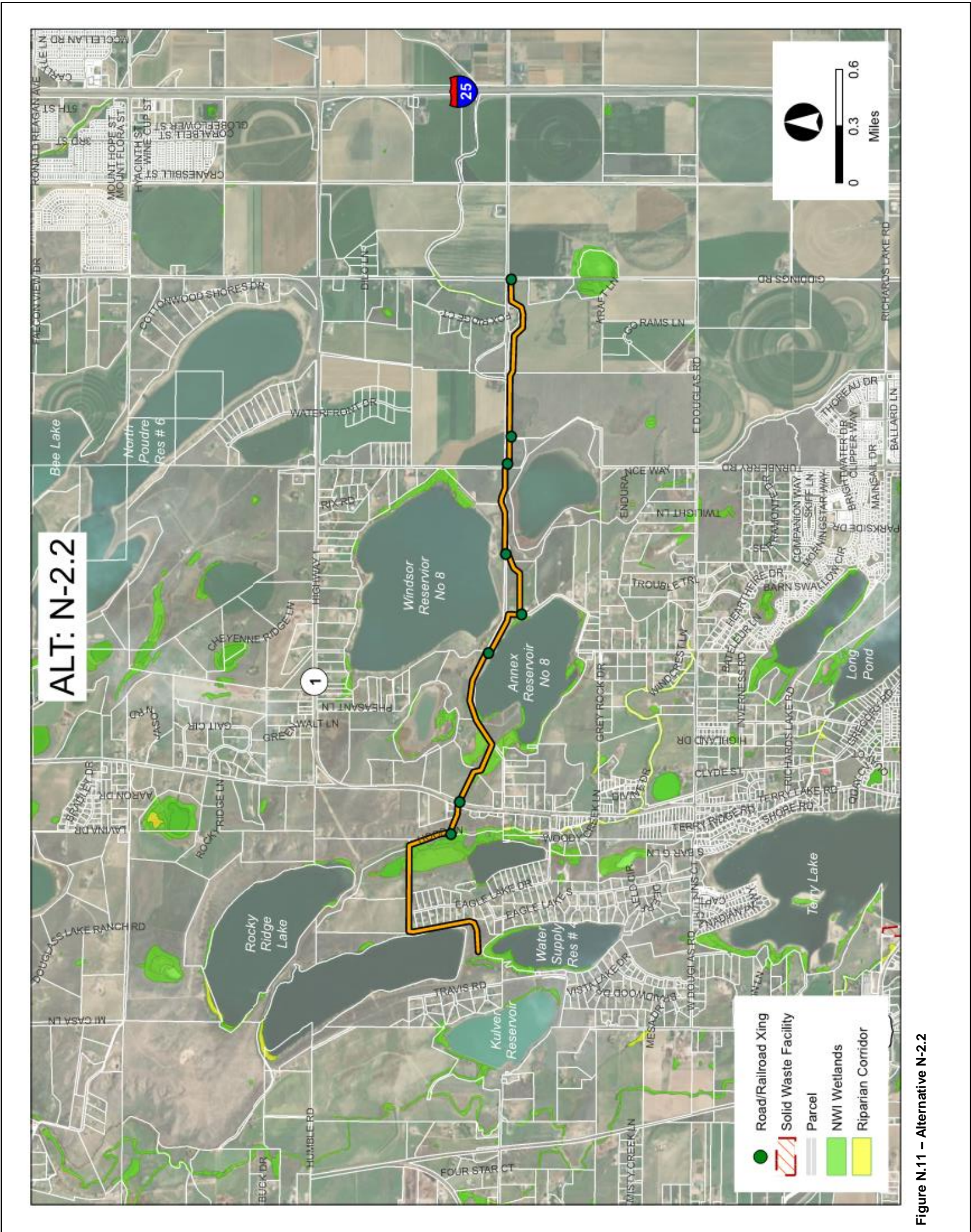


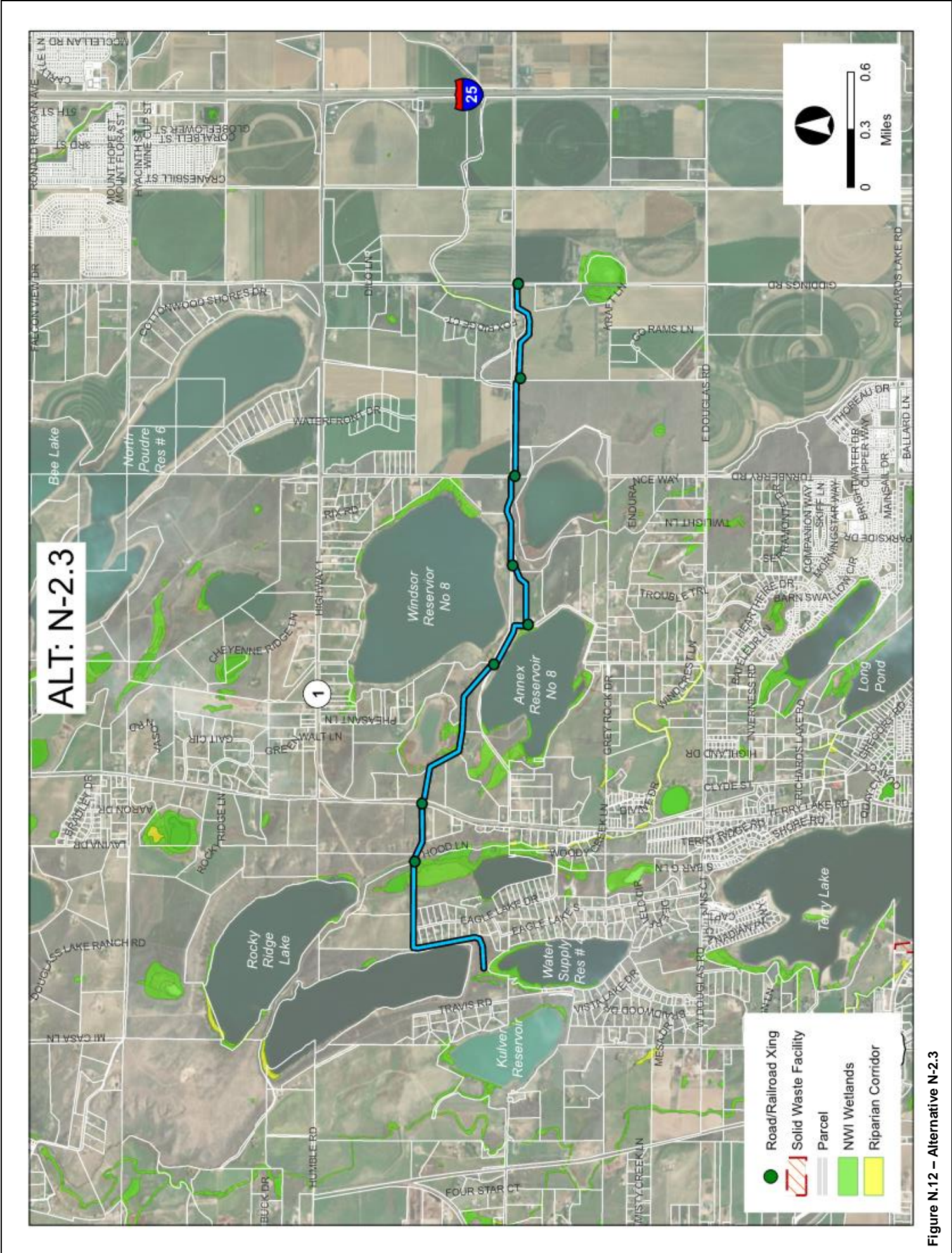
Figure N.10 – Alternative N-2.1

Alternative Name	Project Area 2 – Alignment N-2.2		
Alternative Location & Description	Alignment N-2.2 begins between the toe of Water Supply Reservoir #3 embankment and the north shore of Water Supply Reservoir #4. It then turns north along the east shore of Reservoir #3 and the back of rural residential lots. It turns east beyond the residential lots to Hood Lane and heads south on the west side of Hood Lane. It turns to the east in between Windsor Reservoir #8 dam and the north shore of Annex Reservoir Number 8 to CR 56. It continues east down CR 56 until the intersection with Giddings Road.		
	Criteria	Ranking	Comments
	Capital Cost	Green	\$ 13,321,000
	Conduit Length	Green	4.4 miles; 23,000 feet
	Easement Difficulty	Yellow	18 parcels crossed, 5 non-perimeter crossings
	Right-of-Way Impact	Green	0 LF in parallel ROW
	Land Owner Impact	Green	0 driveways crossed, minimal subjective landowner impacts
	Proximity to Occupied Dwellings	Green	Within 100 feet from 2 dwellings
	Environmental Impacts and Floodplain Crossings	Red	1,200 LF of wetlands/riparian areas crossed and 0 LF of floodplain crossed
	Existing Utilities	Yellow	Medium utility density
	Hazardous/Permitted Crossings	Green	No hazardous/permitted crossings expected
	Surface and Street Impacts	Green	600 LF in gravel roads (Hood Lane, CR-56 3x, CR-13, CR-11, and 0 LF in paved roads
	Traffic Impacts	Green	300 LF of low, 600 LF of medium, 0 LF of high, Traffic Impact Score of 1500
	Water Storage Reservoirs Impacts	Red	Will be in conflict with connection pipeline between Annex Reservoir 8, Elder Reservoir and Windsor Reservoir 8. Less than 100 feet from side of Storage Reservoir 3 and Annex Reservoir 8

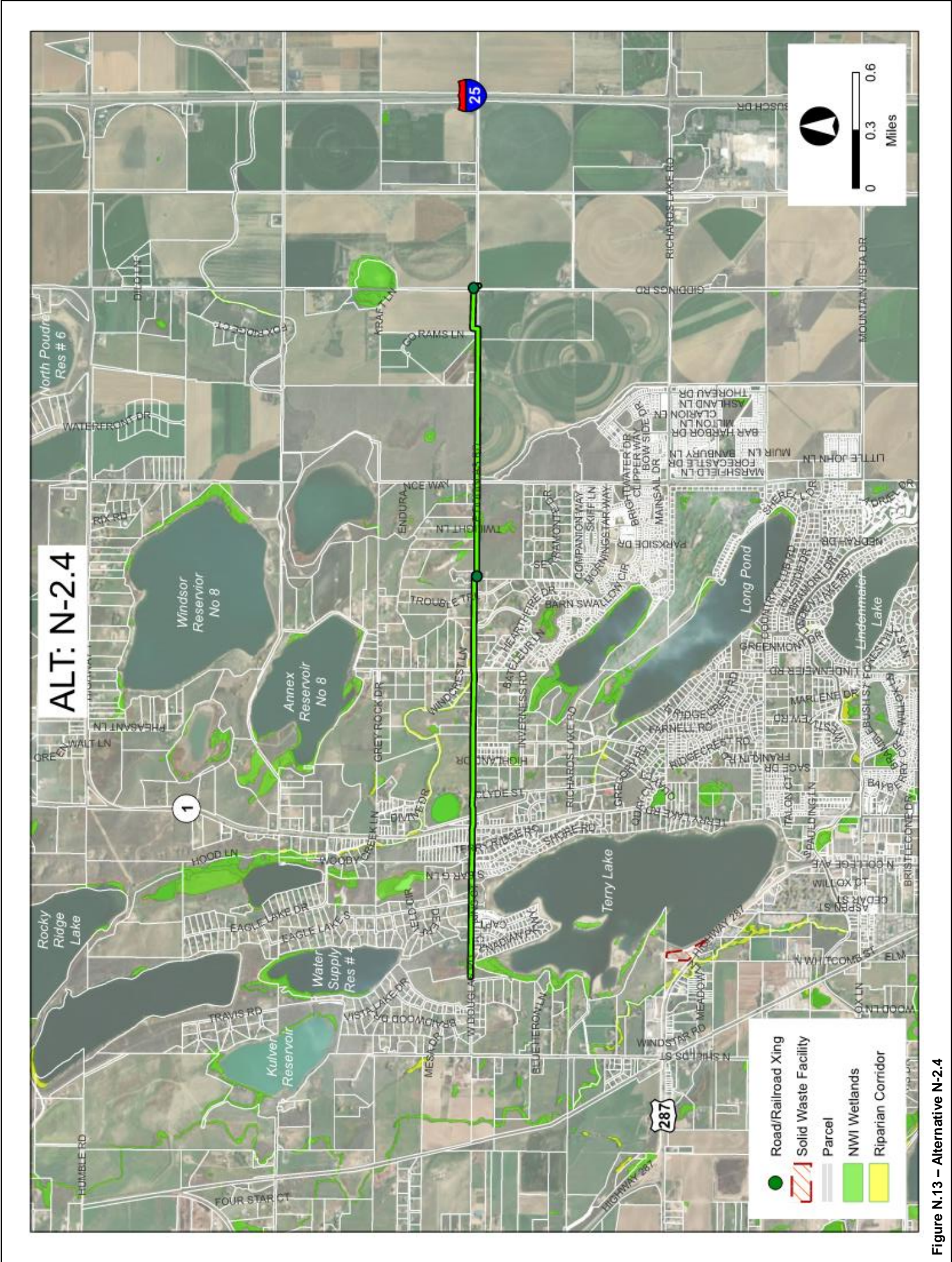
Construction Duration and Relative Constructability	Green	140 days of construction
Required Trenchless Crossing	Green	1 CR crossing (CR-15) and 1 other road crossing (Giddings) and 300 feet total trenchless
Development Pressure	Green	0 LF of near-term developments
Operation and Maintenance Access	Yellow	Moderate access, both close and far proximity to roadways
O&M Requirements	Yellow	6 ARV and BO pairs. Some extreme elevation change throughout
Natural Resources Impacts	Green	100 LF through natural areas



Alternative Name	Project Area 2 – Alignment N-2.3		
Alternative Location & Description	Alignment N-2.3 is very similar to N-2.2 with modifications to the alignment from Hood Lane to Windsor Reservoir to achieve better performance in the evaluation criteria.		
Criteria	Ranking	Comments	
Capital Cost	Green	\$ 13,327,700	
Conduit Length	Green	4.3 miles; 22,900 feet	
Easement Difficulty	Yellow	18 parcels crossed, 4 non-perimeter crossings	
Right-of-Way Impact	Green	0 LF in parallel ROW	
Land Owner Impact	Green	1 driveway crossed, minimal subjective landowner impacts	
Proximity to Occupied Dwellings	Green	Within 100 feet from 2 dwellings	
Environmental Impacts and Floodplain Crossings	Yellow	700 LF of wetlands/riparian areas crossed and 0 LF of floodplain crossed	
Existing Utilities	Yellow	Medium utility density	
Hazardous/Permitted Crossings	Green	No hazardous/permitted crossings expected	
Surface and Street Impacts	Green	600 LF in gravel roads (Hood Lane, CR-56 3x, CR-13, CR-11) and 0 LF in paved roads	
Traffic Impacts	Green	300 LF of low, 600 LF of medium, 0 LF of high, Traffic Impact Score of 1500	
Water Storage Reservoirs Impacts	Red	Will be in conflict with connection pipeline between Annex Reservoir 8, Elder Reservoir and Windsor Reservoir 8. Less than 100 feet from side of Storage Reservoir 3 and Annex Reservoir 8	
Construction Duration and Relative Constructability	Green	140 days of construction	
Required Trenchless Crossing	Green	1 CR crossing (CR-15) and 1 other road crossing (Giddings) and 300 feet total trenchless	
Development Pressure	Green	0 LF of near-term developments	
Operation and Maintenance Access	Yellow	Moderate access, both close and far proximity to roadways	
O&M Requirements	Yellow	6 ARV and BO pairs. Some extreme elevation change throughout	
Natural Resources Impacts	Green	100 LF through natural areas	



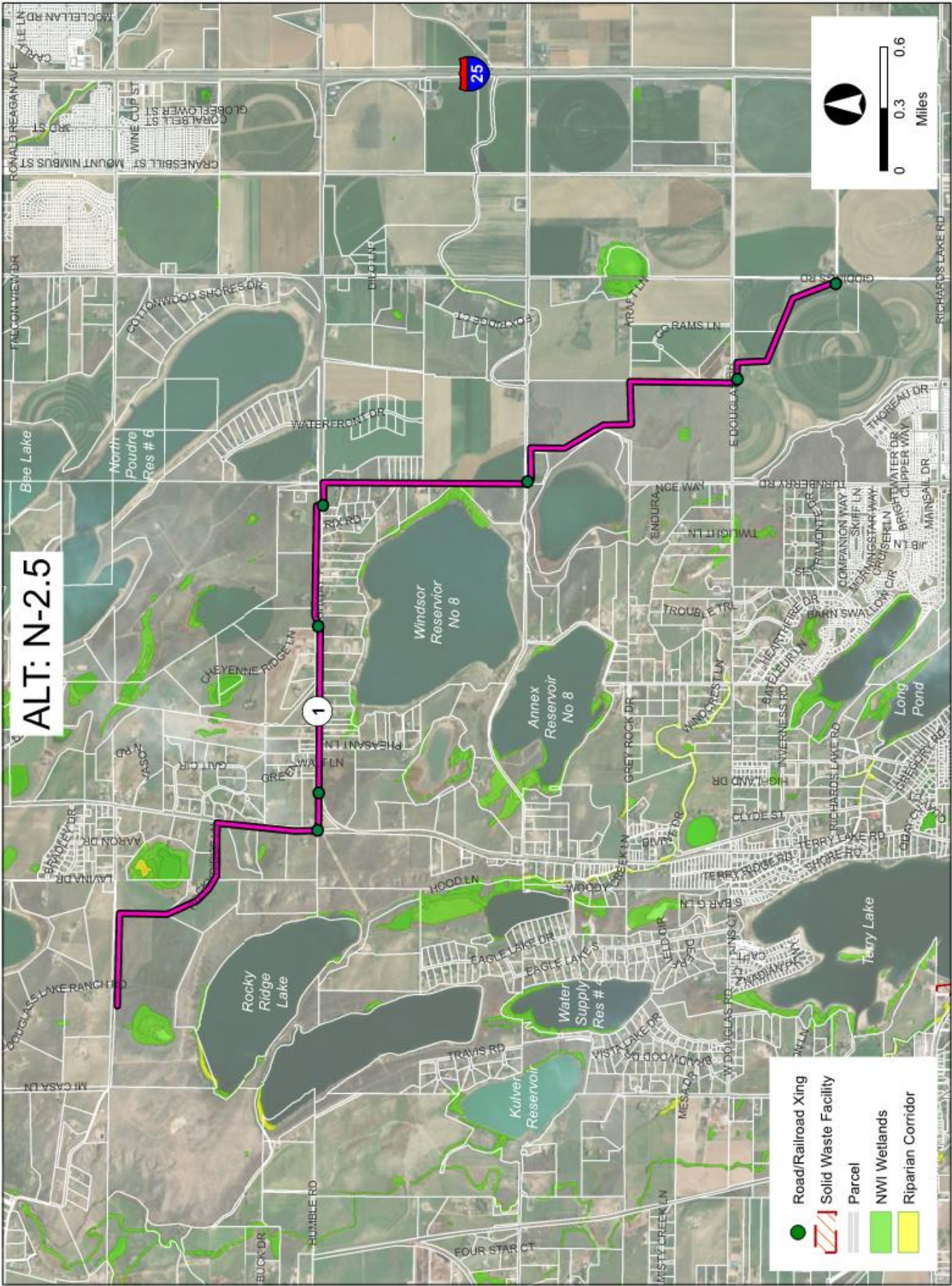
Alternative Name	Project Area 2 – Alignment N-2.4		
Alternative Location & Description	Alignment N-2.4 begins at the same location as the end of Alignment N-1.4 (between Terry Lake and Water Supply Reservoir #4 on Douglas Road). It continues east following Douglas Road to Giddings Road.		
Criteria	Ranking	Comments	
Capital Cost	Yellow	\$ 16,541,100	
Conduit Length	Green	3.4 miles; 18,200 feet	
Easement Difficulty	Green	15 parcels crossed, 0 non-perimeter crossings	
Right-of-Way Impact	Red	11,000 LF in ROW. Major ROW disturbance	
Land Owner Impact	Red	19 driveways crossed, high subjective landowner impacts	
Proximity to Occupied Dwellings	Red	Within 100 feet from 24 dwellings	
Environmental Impacts and Floodplain Crossings	Yellow	700 LF of wetlands/riparian areas crossed and 0 LF of floodplain crossed	
Existing Utilities	Red	High utility density	
Hazardous/Permitted Crossings	Green	No hazardous/permitted crossings expected	
Surface and Street Impacts	Red	0 LF in gravel roads and 9,000 LF in paved roads (Douglas Road)	
Traffic Impacts	Red	300 LF of low, 0 LF of medium, 9,000 LF of high, Traffic Impact Score of 36,300	
Water Storage Reservoirs Impacts	Green	No impacts expected	
Construction Duration and Relative Constructability	Green	210 days of construction	
Required Trenchless Crossing	Green	1 CR crossing (CR-54) and 1 other road crossing (Giddings) and 300 feet total trenchless	
Development Pressure	Green	0 LF of near-term developments	
Operation and Maintenance Access	Red	Inconvenient access due to traffic control and safety from being in/near existing busy roads for majority of length	
O&M Requirements	Green	2 ARV and BO pairs. Some extreme elevation change throughout	
Natural Resources Impacts	Green	100 LF through natural areas	



Alternative Name	Project Area 2 – Alignment N-2.5		
Alternative Location & Description	Alignment N-2.5 begins at the end of Alignment N-1.6, north of Rocky Ridge Lake Reservoir 1 along Weid County Road 60. It then traverses east and southeast around Rocky Ridge Lake through rural residential and agricultural properties to Terry Lake Road. It continues to follow the west side of Terry Lake Road to the south before turning east at CR 58. It continues east down CR 58 and then turns south at CR 11. It continues south down CR 11 and then southeast through agricultural and rural residential properties to Giddings Road.		
	Criteria	Ranking	Comments
	Capital Cost	Red	\$ 23,705,000
	Conduit Length	Red	6.5 miles; 34,500 feet
	Easement Difficulty	Yellow	20 parcels crossed, 3 non-perimeter crossings
	Right-of-Way Impact	Yellow	6,500 LF in ROW. Major ROW disturbance
	Land Owner Impact	Red	13 driveways crossed, high subjective landowner impacts
	Proximity to Occupied Dwellings	Yellow	Within 100 feet from 8 dwellings
	Environmental Impacts and Floodplain Crossings	Green	0 LF of wetlands/riparian areas crossed and 0 LF of floodplain crossed
	Existing Utilities	Red	High utility density
	Hazardous/Permitted Crossings	Green	No hazardous/permitted crossings expected
	Surface and Street Impacts	Yellow	5,000 LF in gravel roads (CR-11) and 0 LF in paved roads
	Traffic Impacts	Yellow	950 LF of low, 5,000 LF of medium, 0 LF of high, Traffic Impact Score of 10,950
	Water Storage Reservoirs Impacts	Green	No impacts expected

Construction Duration and Relative Constructability	Red	284 days of construction
Required Trenchless Crossing	Red	4 CR crossings (CR-58 3x, CR-54), 2 other road crossings (Terry Lake, Giddings) and 950 feet total trenchless
Development Pressure	Green	0 LF of near-term developments
Operation and Maintenance Access	Yellow	Moderate access, both close and far proximity to roadways
O&M Requirements	Green	2 ARV and BO pairs. Significantly longer length equates to more maintenance
Natural Resources Impacts	Green	100 LF through natural areas

Figure N.14 – Alternative N-2.5



Alternative Name	Project Area 3 – Alignment N-3.1		
Alternative Location & Description	Criteria	Ranking	Comments
	Capital Cost	Green	\$ 15,406,000
Conduit Length		Green	4.6 miles; 24,500 feet
Easement Difficulty		Green	11 parcels crossed, 1 non-perimeter crossing
Right-of-Way Impact		Yellow	1,500 LF in CR-52 ROW to avoid residences
Land Owner Impact		Green	3 driveways crossed, moderate subjective landowner impacts
Proximity to Occupied Dwellings		Yellow	Within 100 feet from 7 dwellings
Environmental Impacts and Floodplain Crossings		Yellow	0 LF of wetlands/riparian areas crossed and 2,000 LF of floodplain crossed
Existing Utilities		Yellow	Medium utility density
Hazardous/Permitted Crossings		Green	No hazardous/permitted crossings expected
Surface and Street Impacts		Red	1,200 LF in gravel roads (Broadacre Lane, CR-52, CR-54, CR-3) and 300 LF in paved roads (CR-52)
Traffic Impacts		Red	800 LF of low, 1,200 LF of medium, 300 LF of high, Traffic Impact Score of 4,400
Water Storage Reservoirs Impacts		Green	No impacts expected
Construction Duration and Relative Constructability		Green	210 days of construction
Required Trenchless Crossing		Green	1 RR crossing (BNSF), 1 HW crossing (I-25), 1 CR crossings (CR-52) , 1 other crossing (Brookkind Estates) and 800 feet total trenchless
Development Pressure		Green	0 LF of near-term developments
Operation and Maintenance Access		Yellow	Moderate access, Near roadways for large portions
O&M Requirements		Yellow	4 ARV and BO pairs. Large elevation increase over alignment
Natural Resources Impacts		Green	100 LF through natural areas

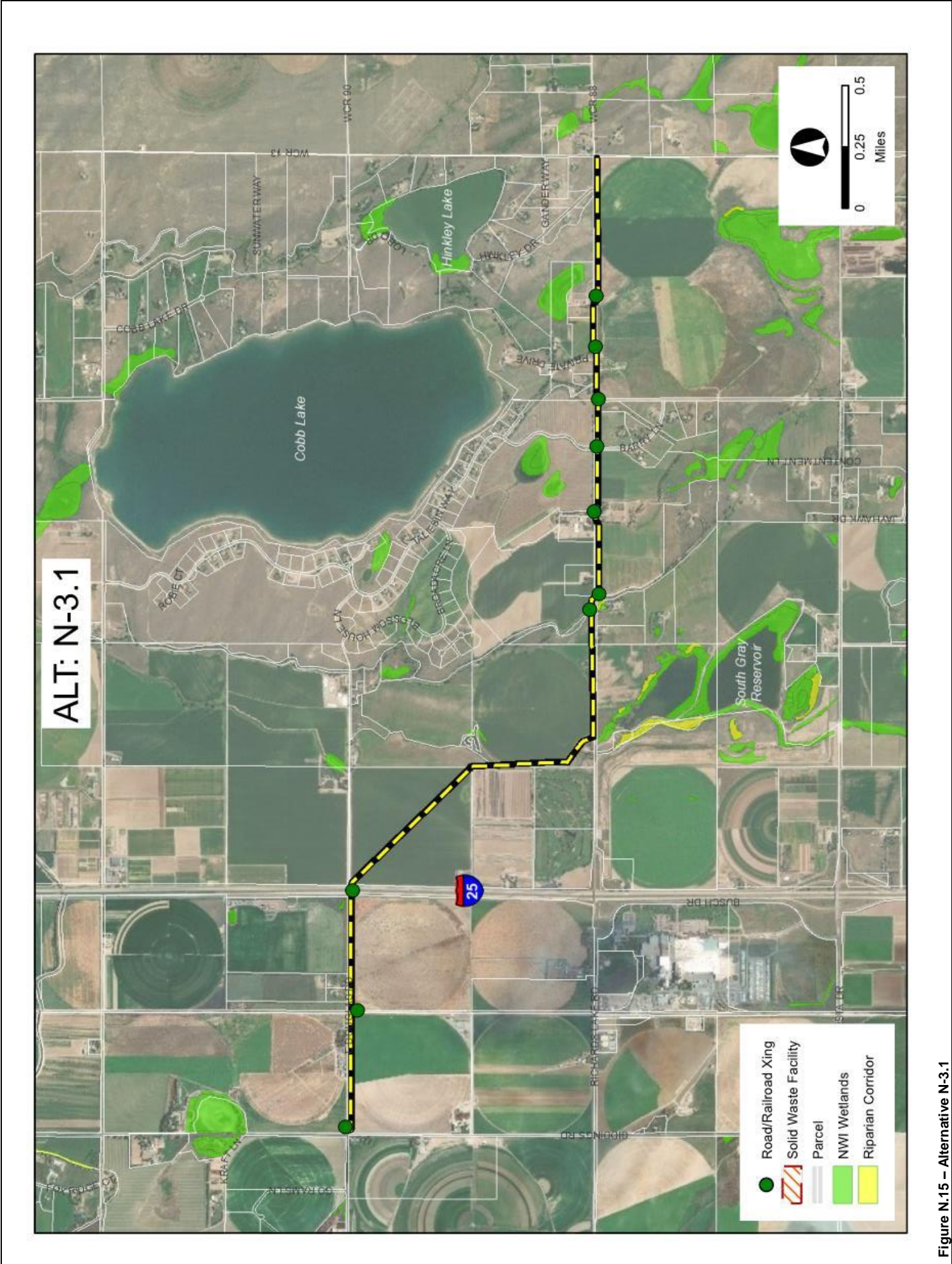
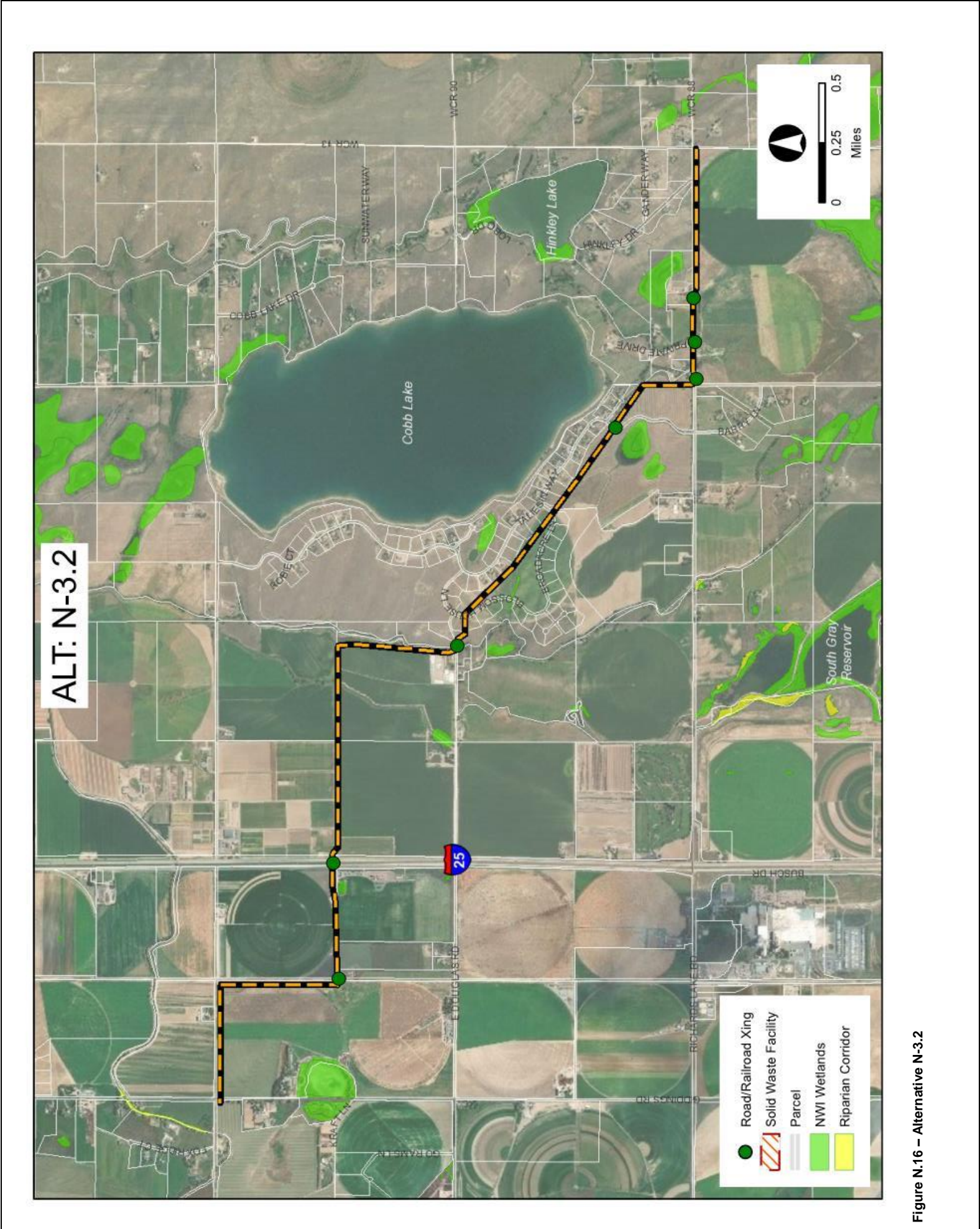


Figure N.15 – Alternative N-3.1

Alternative Name	Project Area 3 – Alignment N-3.2		
Alternative Location & Description	Alignment N-3.2 begins at the End of Alignment N-2.2 (Giddings Road and CR 56 intersection) and continues east following CR 56 for a half mile before heading south and then east through agricultural property toward Cobb Lake. It then heads south and then southeast through rural residential parcels in a currently expanding development to CR 52. It turns east following CR 52 until it intersects with CR 1.		
	Criteria	Ranking	Comments
Capital Cost		Red	\$ 18,075,000
Conduit Length		Yellow	5.4 miles; 29,000 feet
Easement Difficulty		Yellow	15 parcels crossed, 2 non perimeter crossings through development
Right-of-Way Impact		Yellow	1,500 LF in CR-52 ROW to avoid residences
Land Owner Impact		Green	3 driveways crossed, moderate subjective landowner impacts
Proximity to Occupied Dwellings		Green	Within 100 feet from 4 dwellings
Environmental Impacts and Floodplain Crossings		Green	0 LF of wetlands/riparian areas crossed and 900 LF of floodplain crossed
Existing Utilities		Yellow	Medium utility density
Hazardous/Permitted Crossings		Green	No hazardous/permited crossings expected
Surface and Street Impacts		Yellow	1,200 LF in gravel roads (CR-54, CR-52) and 0 LF in paved roads
Traffic Impacts		Yellow	800 LF of low, 1,200 LF of medium, 0 LF of high, Traffic Impact Score of 3,200
Water Storage Reservoirs Impacts		Green	No impacts expected
Construction Duration and Relative Constructability		Red	237 days of construction
Required Trenchless Crossing		Green	1 RR crossing (BNSF), 1 HW crossing (I-25), 1 CR crossings (CR 54), 1 other crossing (Tallestin Way) and 800 feet total trenchless
Development Pressure		Red	7000 LF near-term development
Operation and Maintenance Access		Red	Difficult access. Not near major roadways for large portions
O&M Requirements		Yellow	4 ARV and BO pairs. Significantly longer length equates to more maintenance. Large elevation increase over alignment
Natural Resources Impacts		Green	100 LF through natural areas



Alternative Name	Project Area 3 – Alignment N-3.4		
Alternative Location & Description	Alignment N-3.4 begins at the Giddings Road a half of a mile south of the CR 54 intersection and continues east through agricultural properties toward Cobb Lake. A half mile east of I-25 it heads south and then south east through agricultural properties to CR 50. It turns east at CR 50 through State of Colorado property to CR1. From there, it heads north to end at the same intersection as the previous alignments, the intersection of CR 1 and CR 52.		
	Criteria	Ranking	Comments
	Capital Cost	Red	\$ 18,176,000
	Conduit Length	Red	5.9 miles; 31,100 feet
	Easement Difficulty	Green	11 parcels crossed, 1 non-perimeter crossing
	Right-of-Way Impact	Green	0 LF in parallel ROW
	Land Owner Impact	Green	3 driveways crossed, moderate subjective landowner impacts
	Proximity to Occupied Dwellings	Green	Within 100 feet from 3 dwellings
	Environmental Impacts and Floodplain Crossings	Red	300 LF of wetlands/riparian areas crossed and 2,400 LF of floodplain crossed
	Existing Utilities	Yellow	Medium utility density
	Hazardous/Permitted Crossings	Green	No hazardous/permitted crossings expected
	Surface and Street Impacts	Green	100 LF in gravel roads (CR 3) and 0 LF in paved roads
	Traffic Impacts	Green	800 LF of low, 100 LF of medium, 0 LF of high, Traffic Impact Score of 1,000
	Water Storage Reservoirs Impacts	Green	No impacts expected
	Construction Duration and Relative Constructability	Yellow	235 days of construction

Required Trenchless Crossing	Green	1 RR crossing (BNSF), 1 HW crossing (I-25), 1 CR crossings (CR-52) and 800 feet total trenchless
Development Pressure	Green	0 LF of near-term developments
Operation and Maintenance Access	Red	Difficult access. Not near major roadways
O&M Requirements	Yellow	4 ARV and BO pairs. Significantly longer length equates to more maintenance. Large elevation increase over alignment
Natural Resources Impacts	Green	100 LF through natural areas

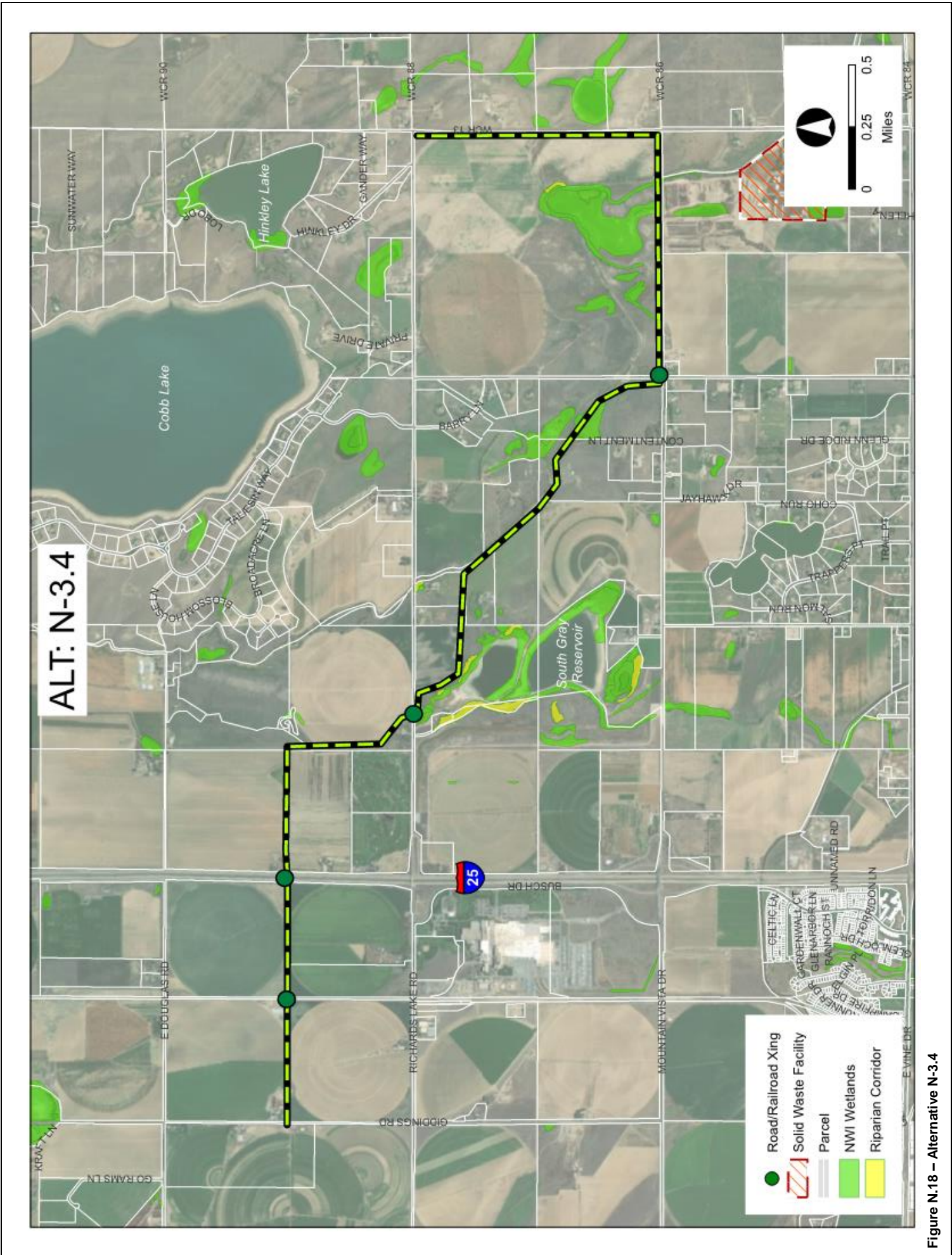


Figure N.18 – Alternative N-3.4

EVALUATION RESULTS

Table N.1 below provides a visual summary of the evaluation results and criteria ranking given to each alternative. **Table N.2** tabulates the number of greens, yellows, and reds given to each alternative.

Table N.1 – Visual Summary of Alternative Scoring

Evaluation Criteria	N-1.1	N-1.2	N-1.3	N-1.4	N-1.5	N-1.6	N-2.1	N-2.2	N-2.3	N-2.4	N-2.5	N-3.1	N-3.2	N-3.3	N-3.4
Capital Cost															
Conduit Length															
Easement Difficulty/Cost															
Use of Right-of-Way															
Land Owner Impact															
Proximity to Occupied Dwelling															
Environmental Impacts and Floodplain Crossings															
Existing Utilities															
Hazardous/Permitted Crossings															
Surface and Street Impacts															
Traffic Impacts															
Impacts to Water Storage Reservoirs															
Construction Duration and Relative Constructability															
Required Trenchless Crossings															
Development Pressure															
Operation and Maintenance (O&M) Access															
O&M Requirements															
Natural Area Impacts															

Table N.2 – Numeric Summary of Alternative Scoring

Evaluation Criteria	N-1.1	N-1.2	N-1.3	N-1.4	N-1.5	N-1.6	N-2.1	N-2.2	N-2.3	N-2.4	N-2.5	N-3.1	N-3.2	N-3.3	N-3.4
Red	0	3	5	6	5	5	1	2	1	7	6	2	4	5	4
Yellow	10	11	6	6	4	2	4	4	5	2	6	6	7	6	3
Green	8	4	7	6	9	11	13	12	12	9	6	10	7	7	11

PREFERRED ALIGNMENT

As stated previously, the alternate with the best overall performance (least reds, most greens) is to be the preferred alternate. In the case of a tie, alternates were to have been reviewed and the preferred alignment selected based upon prioritization of factors, mainly conduit length, constructability and land-owner/environmental impacts. In the case of the Northern Tier evaluations tie breakers were not needed. The preferred alignment consists of a combination of Alternate N-0.1, N-1.1, N-2.1 and N-3.1 plus the Glade Release/Poudre Release Pipeline. The preferred alignment is depicted in **Figure N.19** and generally described as follows:

The preferred alignment for the Glade Release/Poudre Release Pipeline begins at the south end of the first segment of the Northern Tier pipeline (approximately 250 feet west of the intersection of Highway 14 and Highway 287). It goes generally west, following the north side of Highway 14 for about a mile, before crossing to the south side of the highway. It continues to traverse westerly along the south side of Highway 14 for about 1,000 feet until turning southwest and terminating at the Poudre River.

The preferred alignment for Project Area O begins at the proposed Glade Reservoir Dam Outlet Works, about 6,500 feet north of the intersection of Highway 14 and Highway 287. From the dam, it traverses generally south until encountering Highway 287, then follows the Highway 287 right-of-way across the Poudre Valley Canal and across Highway 14. It then follows the south side west property lines of two parcels before converging with the south ROW of Highway 14.

From the end of the first segment in the Northern Tier Pipeline (N-0.1), the Northern Tier Pipeline follows the south ROW of Highway 14 for about 1,000 feet before crossing to the north side of the highway. The alignment then parallels the north side of Hwy 14 until diverging from the highway to turn to the southeast over a ridge and pass through the concrete plant. The alignment then follows the proposed ROW of the Hwy 287 relocation. It continues east, crossing Weld County Road 56, until reaching the back of Homes of Distinction development where it turns briefly to the north and then back to the east to parallel County Road 56. The alignment then parallels County Road 56 for approximately 1,500 feet before turning north to cross the road and the railroad spur, the line traverses northeasterly towards the feed lot at North Taft Hill Road. After crossing North Taft Hill Road, the lines traverses easterly to the west shore of Water Supply and Storage Reservoir 3 to intersect with Travis Road. At Travis Road, the line turns south for approximately 1,700 feet before turning east to pass between of Water Supply and Storage Reservoirs #3 and #4.

After passing between the two Water Supply Reservoirs, the Northern Tier line then heads northeast in-between Water Supply Reservoir #3 and #4 and north of Dixon Reservoir. It then turns south east of Dixon Reservoir before heading east at CR 56. It continues southeast through rural residential and agricultural properties, adjacent to Annex Reservoir #8 to Grey Rock Drive. It turns east and parallels Grey Rock Drive until it crosses an open farmland diagonally, and then follows CR 54 until the intersection with Giddings Rd.

At the intersection of Giddings Road and County Road the line continues east following CR 54 for a mile before heading southeast through agricultural property. It then heads south until reaching CR 52, which it follows until the intersection with County Road 1 where it connects to the County Line Road Pipeline

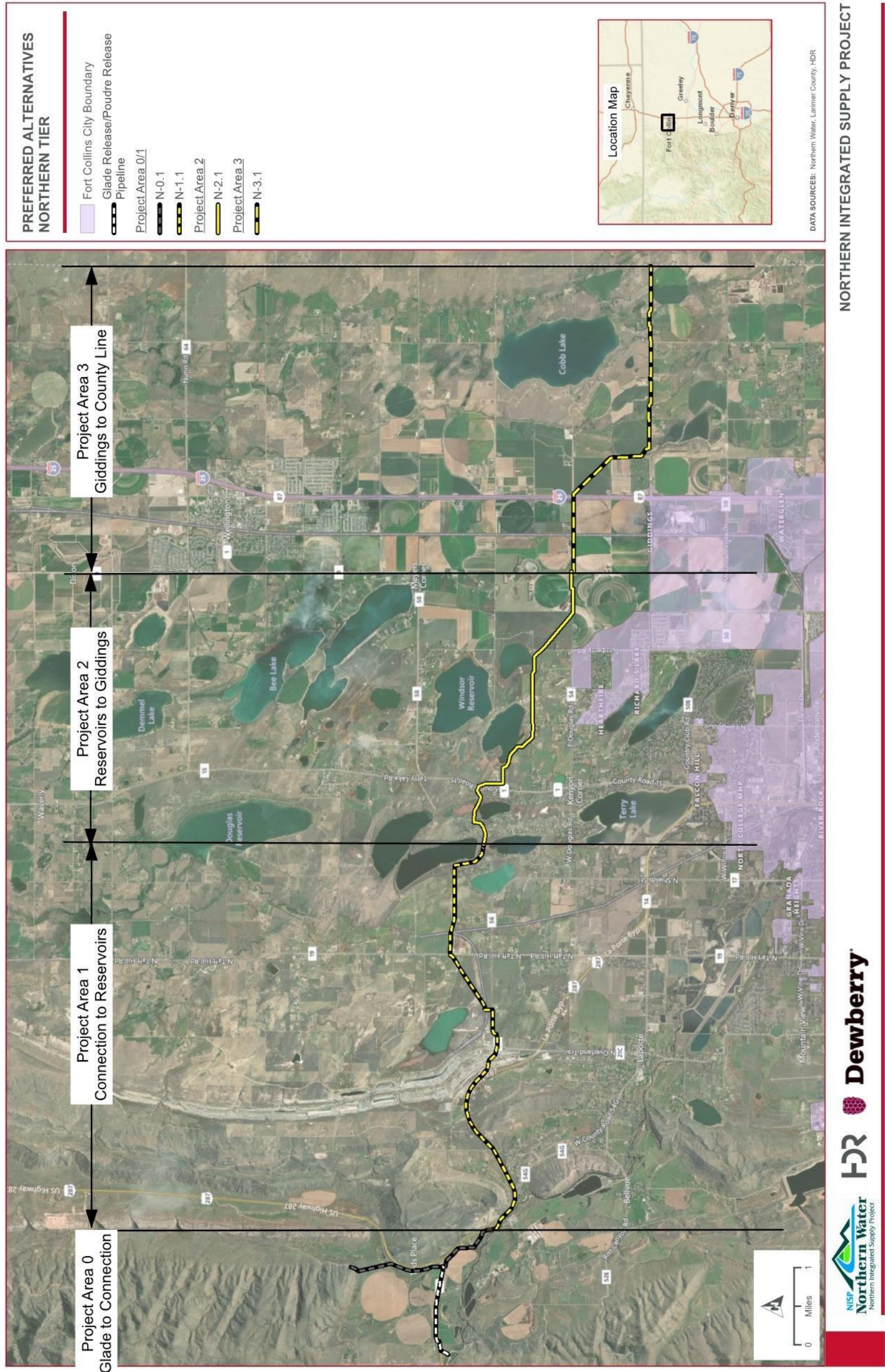
Some of the benefits of this alignment combination include:

- Limited traffic impacts
- Comparatively low construction duration
- Comparatively low landowner impacts
- Lower capital cost

Table N.3 below summarizes the estimated features of the overall preferred alignment, broken down by Project Area segments.

Table N.3 – Preferred Alignment Characteristics

Characteristic	N-0.1	Glade Release/Poudre Release	N-1.1	N-2.1	N-3.1	TOTAL
Pipe Diameter (inches)	54	54	54	54	54	54
Pipe Material	Mortar Lined Steel	Mortar Lined Steel	Mortar Lined Steel	Mortar Lined Steel	Mortar Lined Steel	Mortar Lined Steel
Total Distance (miles)	2.1	1.3	5.9	4.4	4.6	18.3
Approximate Pipe Cost	\$6,242,000	\$3,978,000	\$18,544,000	\$13,533,000	\$15,406,000	\$57,703,000
Length Tunnel (feet)	150	150	800	500	800	2400
Estimated Number of Landowners	10	7	18	26	11	72
LF of Wetland Crossings	200	150	1,100	500	0	1,950



Construction Approach for Pipeline Segment between Travis Road and Highway 1

In performing the route analysis the engineering team noted the gated entrances to the Eagle Lake Subdivision. The presence of these restricted entrances spurred the team to develop a preliminary approach to construction access and estimated construction duration so that the impacts to these gated entrances could be better understood. The limits of the preliminary plan are depicted in figure P-7 below.

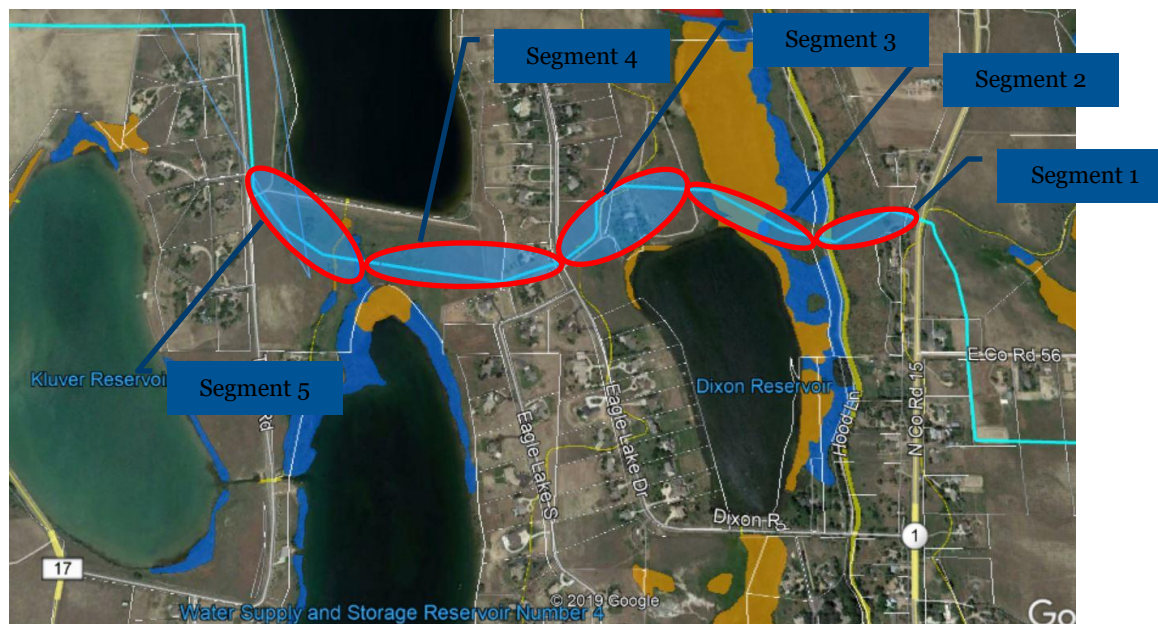


Figure P.9

Construction Access and Duration.

Segment 1 – Highway 1 to Hood Lane. Construction and material delivery vehicles will access the alignment via the alignment as it connects to Highway 1 and Hood Lane. In most cases entering via Highway one and exiting via Hood Lane. This segment is approximately 800 feet in length and is estimated to require approximately 5 to 8 work days for active excavation/pipe installation with activity beginning approximately 1 month prior for clearing, grubbing and site preparation. Following pipe installation, restoration of the disturbed area is anticipated to require approximately another 6 weeks. In total it is anticipated that this area will be impacted for approximately 12 weeks. The pipeline across Highway 1 will be crossed using trenchless methods so traffic on that roadway will not be restricted by construction activity.

Segment 2 – Wetlands North of Dixon Reservoir. Construction and material delivery vehicles will access the alignment via Hood Lane and Eagle Lake Drive. In most cases entering via Hood Lane and Exiting via Eagle Lake Drive. This will require access to the Eagle Lake Subdivision via the gated entrance at Eagle Lake Drive and Highway 1. This segment is approximately 1,100 feet in length and is estimated to require approximately 7 to 11 working days for active excavation/pipe installation with activity beginning approximately 1 month prior to that for clearing, grubbing and site preparation. Following pipe installation, restoration of the disturbed area is anticipated to require approximately another 6 weeks. In total it is anticipated that this area will be impacted for approximately 13 weeks. Because of the presence of wetlands in this segment, construction traffic will not access the alignment via Hood Lane once construction and restoration of this segment is completed. Unless otherwise requested by the County, it is proposed that the contractor not be allowed to use Eagle Lake Court for construction access.

Segment 3 – Private Property East of Eagle Lake Drive (TIPS COREY ALLEN/KAREN KRISTIN). Construction and material delivery vehicles will access the alignment via the Eagle Lake Drive both for construction traffic entering and exiting the site. This will require access to the Eagle Lake Subdivision via the gated entrance at Eagle Lake Drive and Highway 1. It is anticipated that sufficient temporary easement will be obtained from TIPS COREY ALLEN/KAREN KRISTIN to allow construction vehicles to turn around at the eastern end of this segment and exit the same way they came in. This segment is approximately 1,400 feet in length and is estimated to require approximately 9 to 14 working days for active excavation/pipe installation with activity beginning approximately six weeks prior for clearing, grubbing and site preparation. Following pipe installation, restoration of the disturbed area is anticipated to require approximately another 8 weeks. In total it is anticipated that this area will be impacted for approximately 17 weeks. Unless otherwise requested by the County, it is proposed that the contractor not be allowed to use Eagle Lake Court for construction access. The pipeline across Eagle Lake Drive will be crossed using trenchless methods so residential traffic using Eagle Lake Drive will not be restricted.

Segment 4 – Private Property west of Eagle Lake Drive to drainage between Water Supply and Storage Reservoirs 3 and 4. Construction and material delivery vehicles will access the alignment via the Eagle Lake Drive both for construction traffic entering and exiting the site. This will require access to the Eagle Lake Subdivision via the gated entrance at Eagle Lake Drive and Highway 1. It is anticipated that sufficient temporary easement will be obtained from the Water Supply and Storage Company to allow construction vehicles to turn around at the eastern end of the wetland that connects the two reservoirs. This segment is approximately 1,500 feet in length and is estimated to require approximately 9 to 14 working days for active excavation/pipe installation with activity beginning approximately six weeks prior for clearing, grubbing and site preparation. Following pipe installation, restoration of the disturbed area is anticipated to require approximately another 8 weeks. In total it is anticipated that this area will be impacted for approximately 17 weeks. Unless otherwise requested by the County, it is proposed that the contractor not be allowed to use Eagle Lake Court for construction access. Because of the presence of wetlands in this segment, construction traffic will not access the alignment via Eagle Lake Drive once construction and restoration of this segment is completed.

Segment 5 – Private Property east of Travis Road to drainage between Water Supply and Storage Reservoirs 3 and 4. Construction and material delivery vehicles will access the alignment via Travis Road both for construction traffic entering and exiting the site. It is anticipated that sufficient temporary easement will be obtained from the Water Supply and Storage Company to allow construction vehicles to turn around at the western end of the wetland that connects the two reservoirs. This segment is approximately 1,100 feet in length and is estimated to require approximately 8 to 12 working days for active excavation/pipe installation with activity beginning approximately six weeks prior for clearing, grubbing and site preparation. Following pipe installation, restoration of the disturbed area is anticipated to require approximately another 7 weeks. In total it is anticipated that this area will be impacted for approximately 16 weeks.

Space Availability for Other Pipeline in Preferred Corridor.

NISP WAE has not identified a need for an additional pipe in this corridor for its conveyance needs. Should another entity petition the County for a permit to construct a pipeline in parallel to NISP WAE's pipeline, adequate space exists to accommodate that pipeline. NISP WAE will acquire 40 feet of permanent easement plus an additional 60 feet of temporary easement for this project. If another pipeline were to be approved by the County, its permanent easement could abut NISP WAE's easement any they could use NISP WAE's permanent easement as their temporary easement.



Northern Integrated Supply Project

Poudre Intake Pipeline Alternatives Analysis

February 2020

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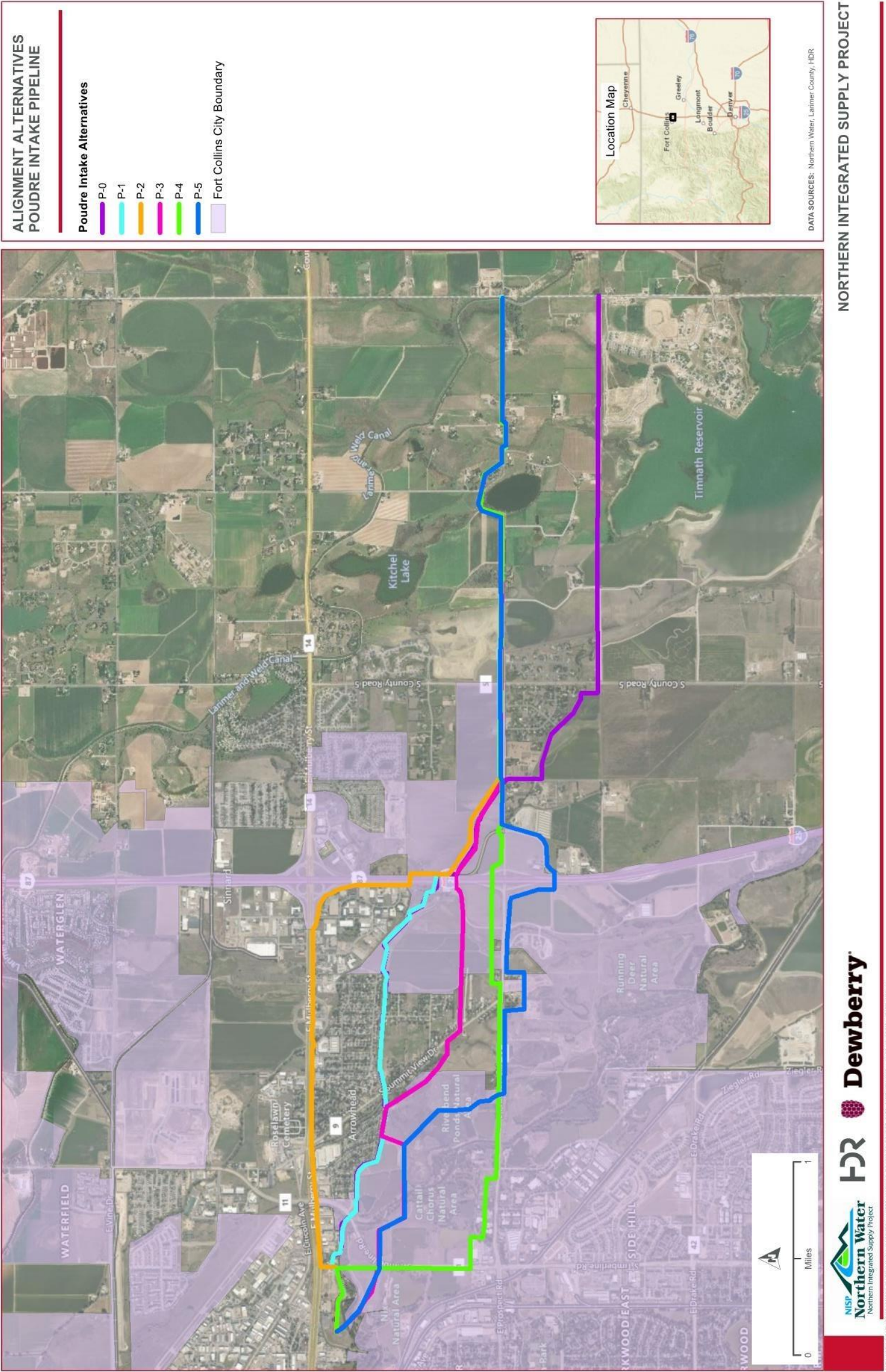
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303.764.1520

ROUTE COMPARISONS

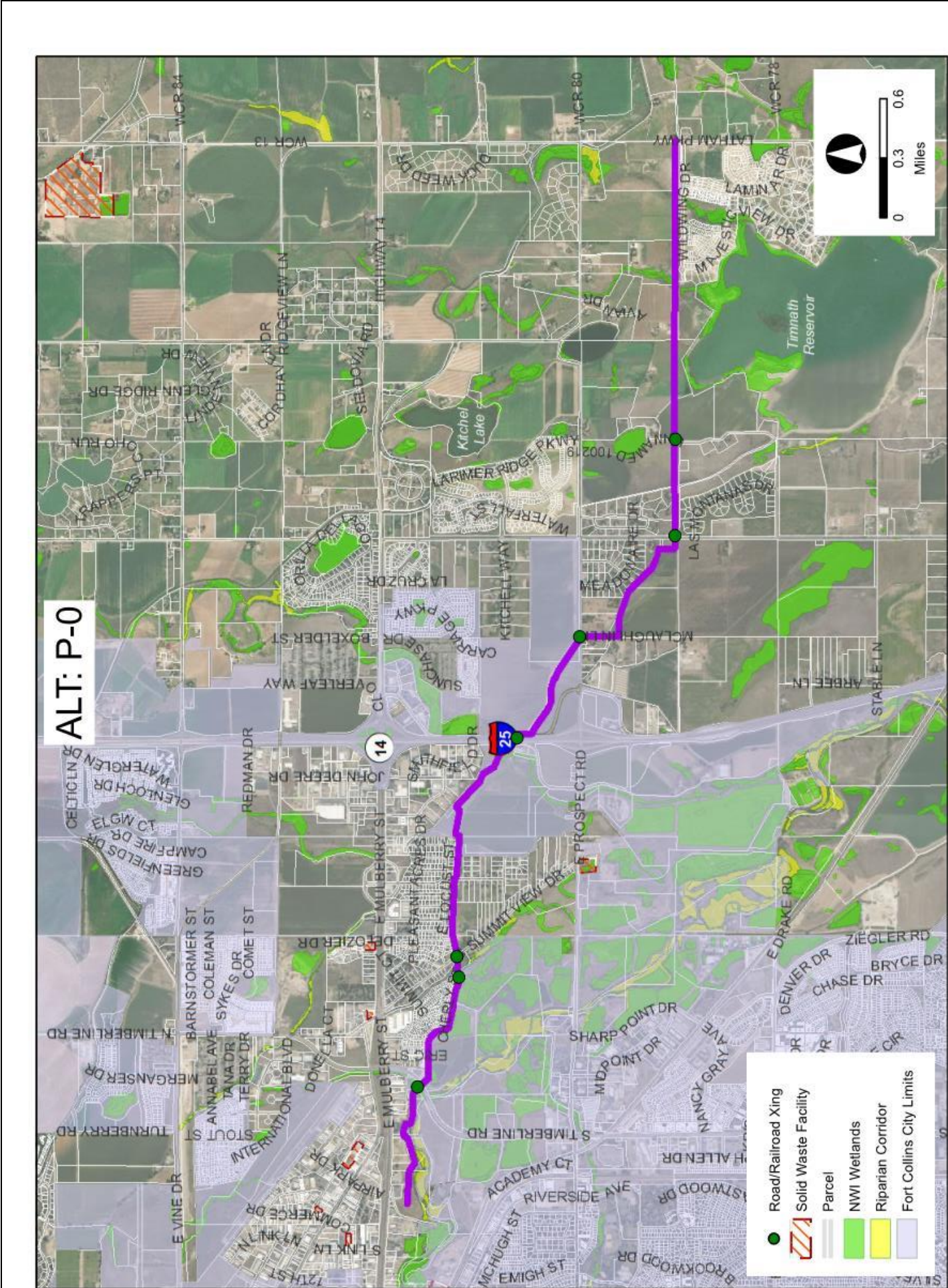
Each of the alternatives developed for the Poudre Intake segment were subjected to the evaluation criteria and metrics described in **Table 1** in the Introduction Section. The Poudre Intake segment was assessed as a single project area. This was due to the shorter overall length of the pipeline combined with the limited availability of viable alignments on the eastern half of the segment. Breaking up the Poudre Intake Pipeline into project areas did not enhance the evaluation, so the pipeline alternatives were evaluated over the entirety of the alignment. However, the section of the Poudre Intake Pipeline that connects the Poudre River Diversion Structure with the rest of the Poudre Intake Pipeline at the Poudre Pump Station location was assessed in another memo titled Poudre Intake West Pipeline Alternatives Analysis.

An overview of all of the identified alternative alignments is provided in **Figure P.1**. The overview page is followed by detailed fact sheets for each alternative alignment that describe the alignment and its performance against the evaluation criteria. Each fact sheet is accompanied by a figure illustrating the proposed routing and pertinent features in the area. The ranking column on the fact sheet provides the summary performance results of that alignment relative to other alternatives (green = good performance, yellow = fair performance, red = poor performance). In the end, the alternate with the best overall performance (least reds, most greens) was chosen to be the Preferred Alternate. This Preferred Poudre Intake Alignment can be seen in **Figure P.7** at the end of this document.

In the original evaluation a total, five (5) alignment alternatives were fully assessed for the Poudre Delivery segment. Since this TM was originally issued in October of 2019, the design team became aware of a new School planned for construction near Prospect Road and McLaughlin Lane. The new school and associated development resulted in challenges to alignments in that area. The design team met with the Town of Timnath to better understand those challenges. As a result of the meeting with the town and the design team's research for alternative alignments that mitigated the challenges presented by the school, a new alternative alignment was developed. The new alternative alignment was evaluated against the previously evaluated alignments using the same criteria. Including the new alignment, a total of six (6) alignment alternatives were fully assessed for the Poudre Intake segment.



Alternative Name	Alignment P-0		
Alternative Location & Description	Poudre Intake Alternative P-0 begins at the Poudre Diversion Pump Station location, just southeast of the Timnath Canal. The alignment then stays north of the Poudre River, passes through the garden center property before crossing Timberline Rd. From there, it follows the curve between the backs of residences and the ponds in the Fort Collins Natural Areas. The alignment then follows the south side of the Cache la Poudre Inlet canal until it crosses to the north side of the canal prior to crossing I-25. After crossing I-25, the alternative veers south where it crosses the canal again, and follows the south side of the canal until it crosses Prospect Road. From there, it continues along McLaughlin Lane before it turns east and continues to follow another canal until intersecting with CR 5. After intersecting at CR-5, the alignment heads due east, following an existing powerline easement before intersecting with County Line Road, where it ties in with the proposed County Line Alignment.		
	Criteria	Ranking	Comments
	Capital Cost	Green	\$ 11,464,000.00
	Conduit Length	Yellow	6.2 miles; 32,736 feet
	Easement Difficulty	Yellow	33 parcels crossed, 7 non-perimeter crossings
	Right-of-Way Impact	Green	400 LF in ROW
	Land Owner Impact	Green	2 driveways crossed, minimal subjective landowner impacts due to paralleling existing powerline easement south of Prospect
	Proximity to Occupied Dwellings	Red	Within 100-feet of 51 dwellings
	Environmental Impacts and Floodplain Crossings	Green	550 LF of wetlands/riparian areas crossed and 8,900 LF of floodplain crossed
	Existing Utilities	Green	Low utility density
Hazardous/Permitted Crossings	Green	No hazardous/permitted crossings known	
Surface and Street Impacts	Green	100 LF in gravel roads (CR 3e) and 400 LF in paved roads (Cherly St)	
Traffic Impacts	Green	1,000 LF of low, 100 LF of medium, 400 LF of high, traffic impact score of 2800	
Water Storage Reservoirs Impacts	Green	No impacts expected	
Construction Duration and Relative Constructability	Green	253 days of construction	
Required Trenchless Crossing	Green	1 HW crossing (I-25), 1 CR crossing (CR 5), 3 other road crossings (Summit View, Timberline, Prospect) and 1,000 feet total trenchless	
Development Pressure	Green	5000 LF of near term developments	
Operation and Maintenance Access	Green	Convenient access with trail system and ditch road west of I-25. East of I-25, proximity to existing powerline easement makes for especially convenient access.	
O&M Requirements	Yellow	6 ARV and BO pairs	
Natural Resources Impacts	Yellow	5,700 LF in Fort Collins Natural Areas, 350 LF in riparian corridor	



Alternative Name	Alignment P-1		
Alternative Location & Description	Poudre Intake Alternative P-1 begins at the same location as Alternative P-0 and follows the same path until just east of the I-25 crossing. From this point, Alternative P-1 stays on the north side of the Cache la Poudre Inlet canal and the north side of East Prospect Road. Traversing Easterly along the north side of East Prospect Road, the alignment diverts around Deadman Lake. After getting past the lake, the alignment crosses Prospect Rd twice to avoid residences before ending at the intersection of Prospect Rd and County Line Road, where it ties in with the proposed County Line Alignment.		
	Criteria	Ranking	Comments
	Capital Cost	Green	\$ 11,749,000
	Conduit Length	Green	5.9 miles; 31,100 feet
	Easement Difficulty	Green	32 parcels crossed, 5 non-perimeter crossings
	Right-of-Way Impact	Green	400 LF in ROW
	Land Owner Impact	Yellow ¹	3 driveways crossed, moderate subjective landowner impacts
	Proximity to Occupied Dwellings	Red	Within 100-feet of 48 dwellings
	Environmental Impacts and Floodplain Crossings	Yellow	1,000 LF of wetlands/riparian areas crossed and 8,900 LF of floodplain crossed
	Existing Utilities	Green	Low utility density
	Hazardous/Permitted Crossings	Green	No hazardous/permitted crossings known
	Surface and Street Impacts	Green	0 LF in gravel roads and 400 LF in paved roads (Cherly St)
	Traffic Impacts	Green	1,400 LF of low, 0 LF of medium, 400 LF of high, traffic impact score of 3,000
	Water Storage Reservoirs Impacts	Green	No impacts expected
Construction Duration and Relative Constructability	Yellow ¹	298 days of construction	
Required Trenchless Crossing	Yellow	1 HW crossing (I-25), 2 CR crossings (CR-5, CR-3), 4 other road crossings (Timberline, Summit View, Prospect 2x) and 1,400 feet total trenchless	
Development Pressure	Yellow	7500 LF of near-term developments	
Operation and Maintenance Access	Yellow ¹	Convenient access with trail system and ditch road west of I-25. East of I-25, proximity to Prospect makes for relatively easy acces.	
O&M Requirements	Yellow	6 ARV and BO pairs	
Natural Resources Impacts	Yellow ¹	5,700 LF ₂ in Fort Collins Natural Areas, 450 LF in riparian corridor	
1 Score was changed relative to the newly assessed alternative			
2 Length was adjusted from previous submittal due to additional information acquired			

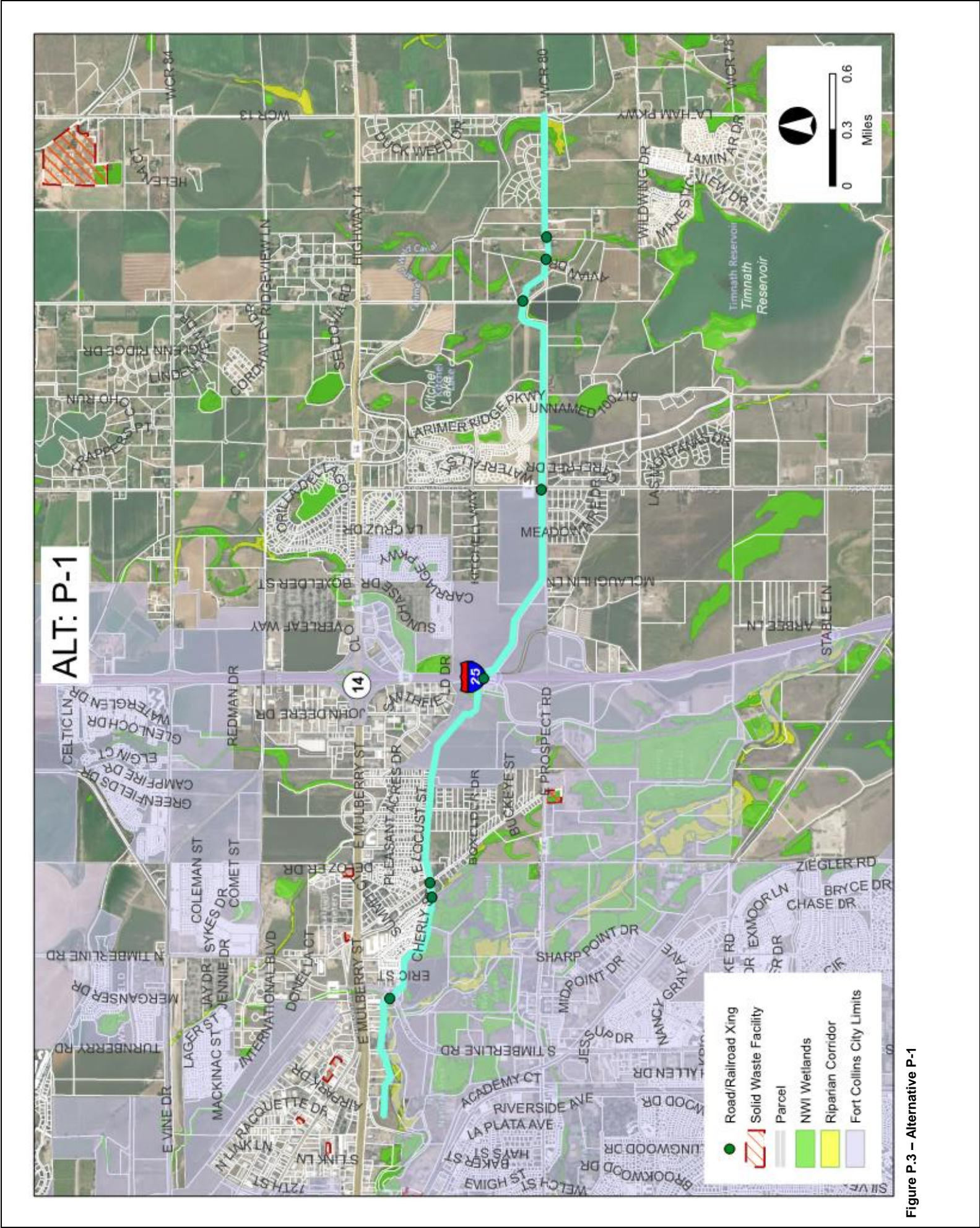


Figure P.3 – Alternative P-1

Alternative Name	Alignment P-2		
Alternative Location & Description	Poudre Intake Alternative P-2 begins at the same location as Alternative P-1. From the pump station, the alignment traverses south and crosses the Poudre River then turns south east and continues through Fort Collins Natural Areas, crossing South Timberline Road and then crossing the Poudre River again. After the second river crossing, the alignment continues through the Natural Areas, until it crosses Summit View Drive. From there, the alignment generally follows property lines before crossing I-25. The alignment then follows the same path east of I-25 as Alignment P-1.		
	Criteria	Ranking	Comments
	Capital Cost	Green	\$ 12,881,000
	Conduit Length	Green	6.0 miles; 31,700 feet
	Easement Difficulty	Yellow	38 parcels crossed, 3 non-perimeter crossings
	Right-of-Way Impact	Green	0 LF in ROW
	Land Owner Impact	Yellow 1	3 driveways crossed, moderate subjective landowner impacts
	Proximity to Occupied Dwellings	Green	Within 100 feet of 15 dwellings
	Environmental Impacts and Floodplain Crossings	Yellow	1,500 LF wetlands/riparian areas crossed and 8,500 LF of floodplain crossed
	Existing Utilities	Green	Low utility density
Hazardous/Permitted Crossings	Green	No hazardous/permitted crossings known	
Surface and Street Impacts	Green	0 LF in gravel roads and 0 LF in paved roads	
Traffic Impacts	Green	1,400 LF of low, 0 LF of medium, 0 LF of high, traffic impact score of 1,400	
Water Storage Reservoirs Impacts	Green	No impacts expected	
Construction Duration and Relative Constructability	Yellow 1	312 days of construction	
Required Trenchless Crossing	Yellow	1 HW crossing (I-25), 2 CR crossings (CR-5, CR-3), 4 other road crossings (Timberline, Summit View, Prospect 2x) and 1,400 feet total trenchless	
Development Pressure	Green	5000 LF of near-term developments	
Operation and Maintenance Access	Yellow	Moderate access with trail system and ditch road west of I-25. East of I-25, proximity to Prospect makes for relatively easy acces.	
O&M Requirements	Yellow	6 ARV and BO pairs	
Natural Resources Impacts	Red	8,000 LF in Fort Collins Natural Areas. Crosses the Poudre River twice. 350 LF in riparian corridor,	
1 Score was changed relative to the newly assessed alternative			
2 Length was adjusted from previous submittal due to additional information acquired			

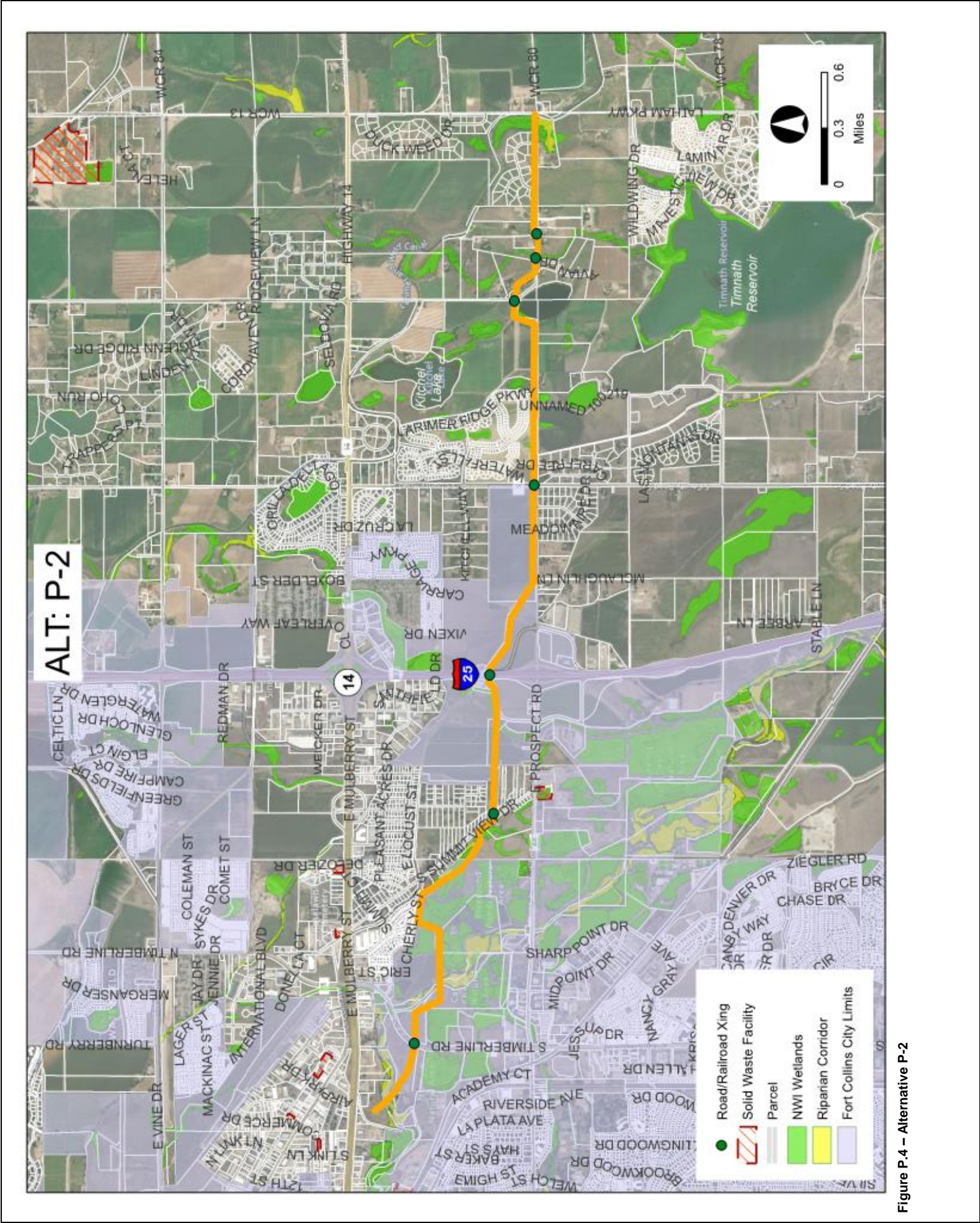
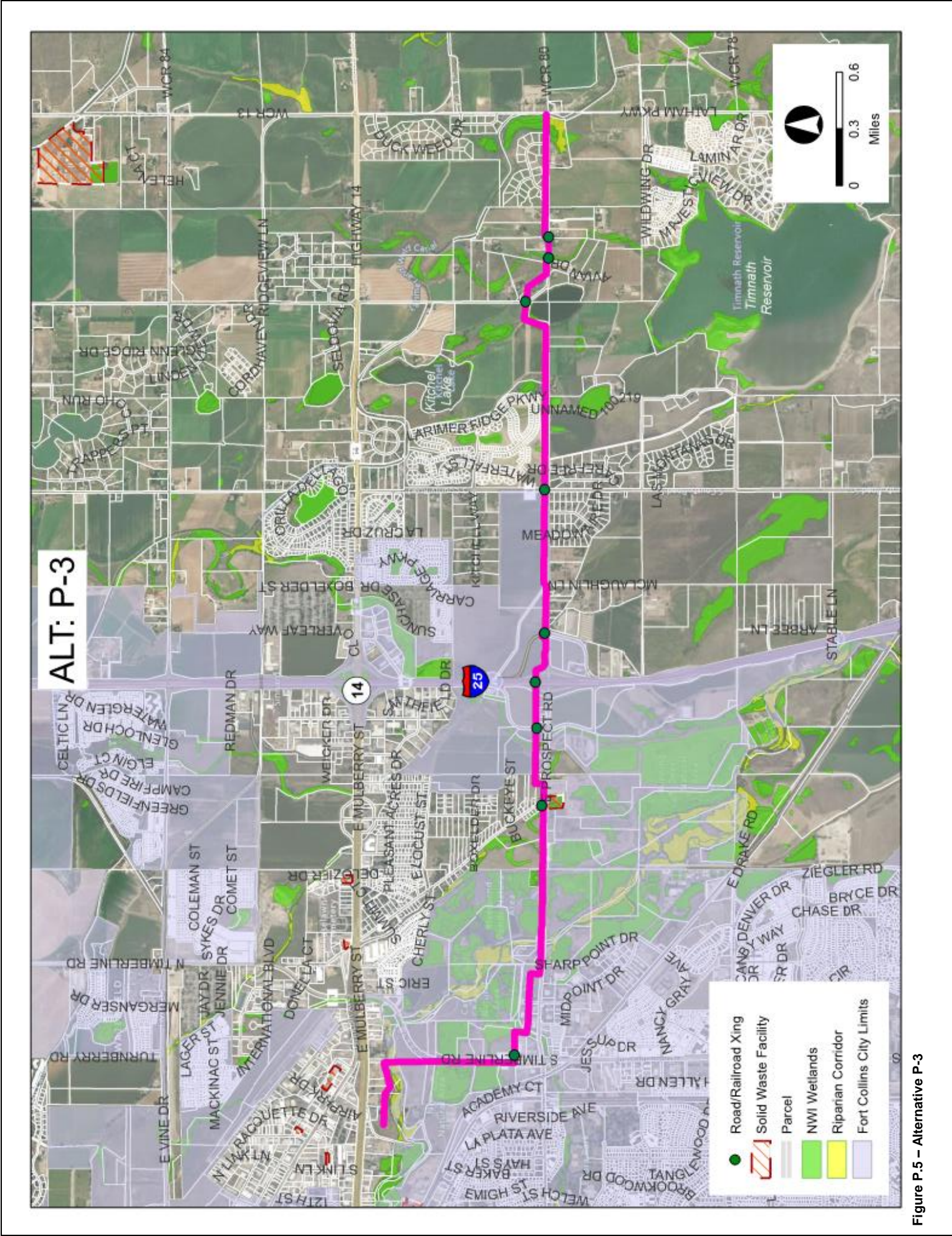


Figure P.4 – Alternative P-2

Alternative Name	Alignment P-3		
Alternative Location & Description	Poudre Intake Alternative P-3 begins at the same location as Alternative P-1. This alignment follows the same path as Alignment P-1 until it turns south to cross the Poudre River proceed south along the west side of Timberline Rd. Alternative P-3 then turns east, crosses Timberline and goes through the parking lot of medical offices before following Prospect Rd to the east. The alignment traverses east along Prospect before crossing I-25 and its on/off ramps. The alignment then follows the same path east of I-25 as Alignment P-1.		
	Criteria	Ranking	Comments
	Capital Cost	Yellow	\$ 14,022,400
	Conduit Length	Red	6.4 miles; 33,700 feet
	Easement Difficulty	Red	44 parcels crossed, 7 non-perimeter crossings
	Right-of-Way Impact	Yellow	4,000 LF in ROW.
	Land Owner Impact	Yellow	5 driveways crossed, significant subjective landowner impacts
	Proximity to Occupied Dwellings	Green	Within 100 feet of 8 dwellings
	Environmental Impacts and Floodplain Crossings	Red	1,000 LF wetlands/riparian areas crossed and 12,000 LF of floodplain crossed
	Existing Utilities	Red	High utility density
Hazardous/Permitted Crossings	Red	1 hazardous/permitted crossing known	
Surface and Street Impacts	Green	0 LF in gravel roads and 0 LF in paved roads	
Traffic Impacts	Green	1,900 LF of low, 0 LF of medium, 0 LF of high, traffic impact score of 1,900	
Water Storage Reservoirs Impacts	Green	No impacts expected	
Construction Duration and Relative Constructability	Red	384 days of construction	
Required Trenchless Crossing	Yellow	1 HW crossing (I-25), 2 CR crossings (CR-5, CR-3), 6 other road crossings (Timberline, Summit View, Frontage Road 2x, Prospect 2x) and 1,900 feet total trenchless	
Development Pressure	Green	5000 LF of near-term developments	
Operation and Maintenance Access	Red	Inconvenient access due to traffic control and safety from being in/hear existing busy roads for majority of length	
O&M Requirements	Green	4 ARV and BO pairs	
Natural Resources Impacts	Green	3,000 LF ₂ in Fort Collins Natural Areas.Crosses the Poudre River once. 200 LF in riparian corridor	
1 Score was changed relative to the newly assessed alternative			
2 Length was adjusted from previous submittal due to additional information acquired			



Alternative Name	Alignment P-5		
Alternative Location & Description	Poudre Intake Alternative P-5 begins at the same location as Alternative P-1. This follows the same general route as Alignment P-3 up until P-3 turned south to cross the Poudre River. Instead of turning south, this alternative turns north to intersect with the East Mulberry Street frontage road. The alignment then traverses to the east along the frontage road. The alignment continues in or near the Frontage Road as it curves to the south, following the curve south becoming the I25 frontage road. The alignment follows the I-25 frontage road south before crossing I25. The alignment then follows the same path east of I-25 Alternative P-1.		
Criteria	Ranking	Comments	
Capital Cost	Red	\$	20,472,700
Conduit Length	Yellow	6.3 miles; 33, 000 feet	
Easement Difficulty	Green	29 parcels crossed, 3 non-perimeter crossings	
Right-of-Way Impact	Red	12,000 LF in ROW.	
Land Owner Impact	Red	9 driveways crossed, significant subjective landowner impacts	
Proximity to Occupied Dwellings	Red	Within 100 feet of 33 dwellings	
Environmental Impacts and Floodplain Crossings	Green	400 LF wetlands/riparian areas crossed and 2,100 LF of floodplain crossed	
Existing Utilities	Red	High utility density	
Hazardous/Permitted Crossings	Red	1 hazardous/permitted crossing known	
Surface and Street Impacts	Red	0 LF in gravel roads and 10,000 LF in paved roads (Frontage Road S)	
Traffic Impacts	Red	1,250 LF of low, 0 LF of medium, 10,000 LF of high, traffic impact score of 41,250	
Water Storage Reservoirs Impacts	Green	No impacts expected	
Construction Duration and Relative Constructability	Red	392 days of construction	
Required Trenchless Crossing	Green	1 HW crossing (I-25), 2 CR crossings (CR-5, CR-3), 3 other road crossings and (Timberline, Prospect 2x) 1,250 feet total trenchless	
Development Pressure	Green	5000 LF of near-term developments	
Operation and Maintenance Access	Red	Inconvenient access due to traffic control and safety from being in/near existing busy roads for majority of length	
O&M Requirements	Red	3 ARV and BO pairs. Multiple foreign pipeline crossings, high CP O&M requirements.	
Natural Resources Impacts	Green	2,000 LF ₂ in Fort Collins Natural Areas	
1 Score was changed relative to the newly assessed alternative			
2 Length was adjusted from previous submittal due to additional information acquired			

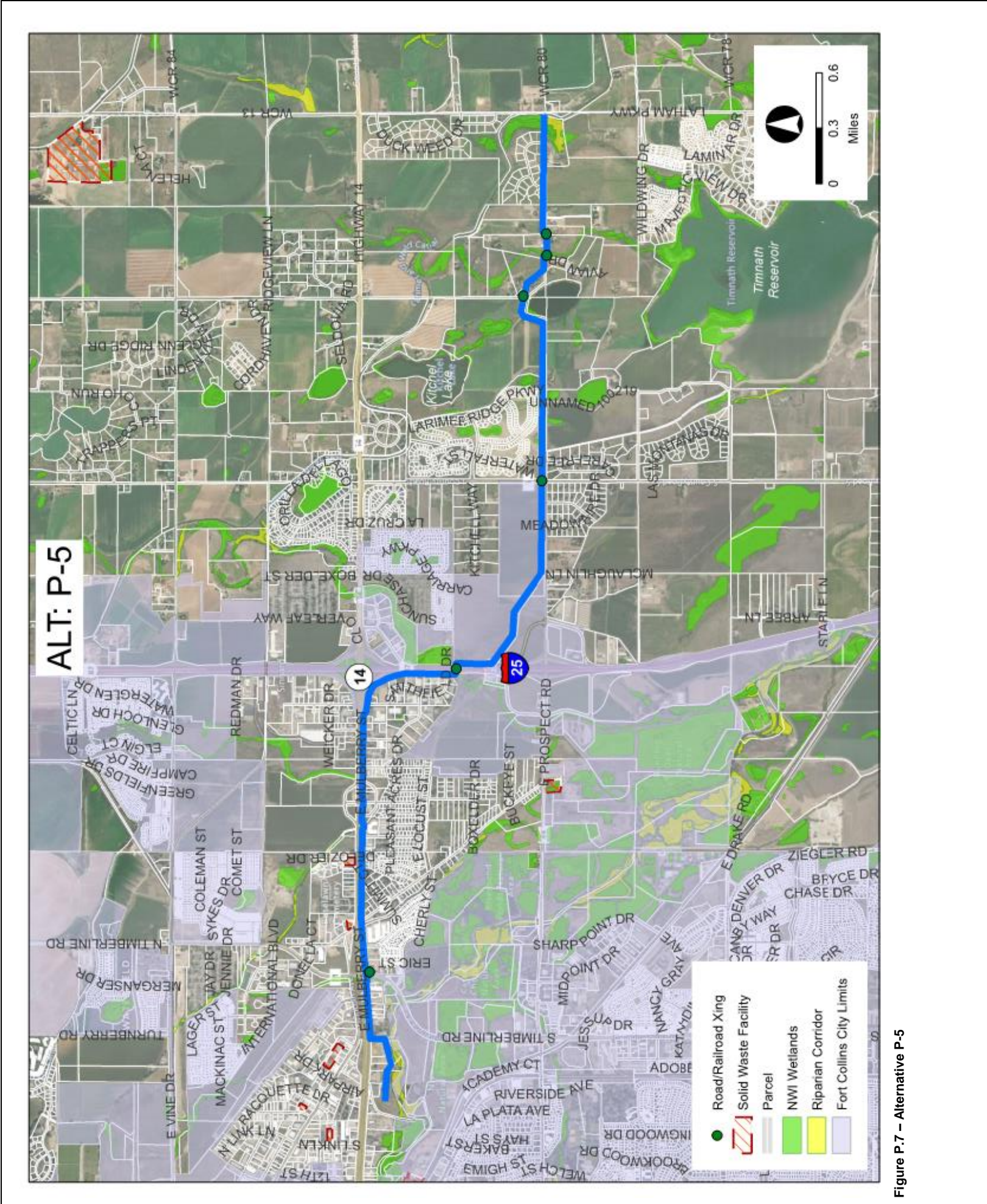


Figure P.7 – Alternative P-5

EVALUATION RESULTS

Table P.1 below provides a visual summary of the evaluation results and criteria ranking given to each alternative. **Table P.2** tabulates the number of greens, yellows, and reds given to each alternative. Detailed scoring tables of each alternative is provided in **Appendix A-3**.

Table P.1 – Visual Summary of Alternative Scoring

Evaluation Criteria	P-0	P-1	P-2	P-3	P-4	P-5
Capital Cost						
Conduit Length						
Easement Difficulty						
Right-of-Way Impact						
Land Owner Impact						
Proximity to Occupied Dwellings						
Environmental Impacts and Floodplain Crossings						
Existing Utilities						
Hazardous/Permitted Crossings						
Surface and Street Impacts						
Traffic Impacts						
Water Storage Reservoirs Impacts						
Construction Duration and Relative Constructability						
Required Trenchless Crossings						
Development Pressure						
Operation and Maintenance (O&M) Access						
O&M Requirements						
Natural Resources Impacts						

Table P.2 – Numeric Summary of Alternative Scoring

Evaluation Criteria	P-0	P-1	P-2	P-3	P-4	P-5
Red	1	1	1	7	4	11
Yellow	4	8	7	4	5	1
Green	13	9	10	7	9	6

PREFERRED ALIGNMENT

As stated previously, the alternate with the best overall performance (least reds, most greens) is to be the preferred alternate. In the case of a tie, alternates were to have been reviewed and the preferred alignment selected based upon prioritization of factors, mainly conduit length, constructability and land-owner/environmental impacts. In this case **Alignment P-0**, was clearly preferred and tie breakers were not needed.

The preferred alignment is depicted in **Figure P.9** and generally described as follows:

Poudre Intake Alternative P-0 begins at the Poudre Diversion Pump Station location, just southeast of the Timnath Canal. The alignment then stays north of the Poudre River, passes through the garden center property before crossing Timberline Road. From there, it follows the curve between the backs of residences and the ponds in the Fort Collins Natural Areas. The alignment then follows the south side of the Cache la Poudre Inlet canal until it crosses to the north side of the canal prior to crossing I-25. After crossing I-25, the alternative veers south where it crosses the canal again, and follows the south side of the canal until it crosses Prospect Road. From there, it continues along McLaughlin Lane before it turns east and continues to follow another canal until intersecting with CR 5. After intersecting at CR-5, the alignment heads due east, following an existing powerline easement before intersecting with County Line Road, where it ties in with the proposed County Line alignment.

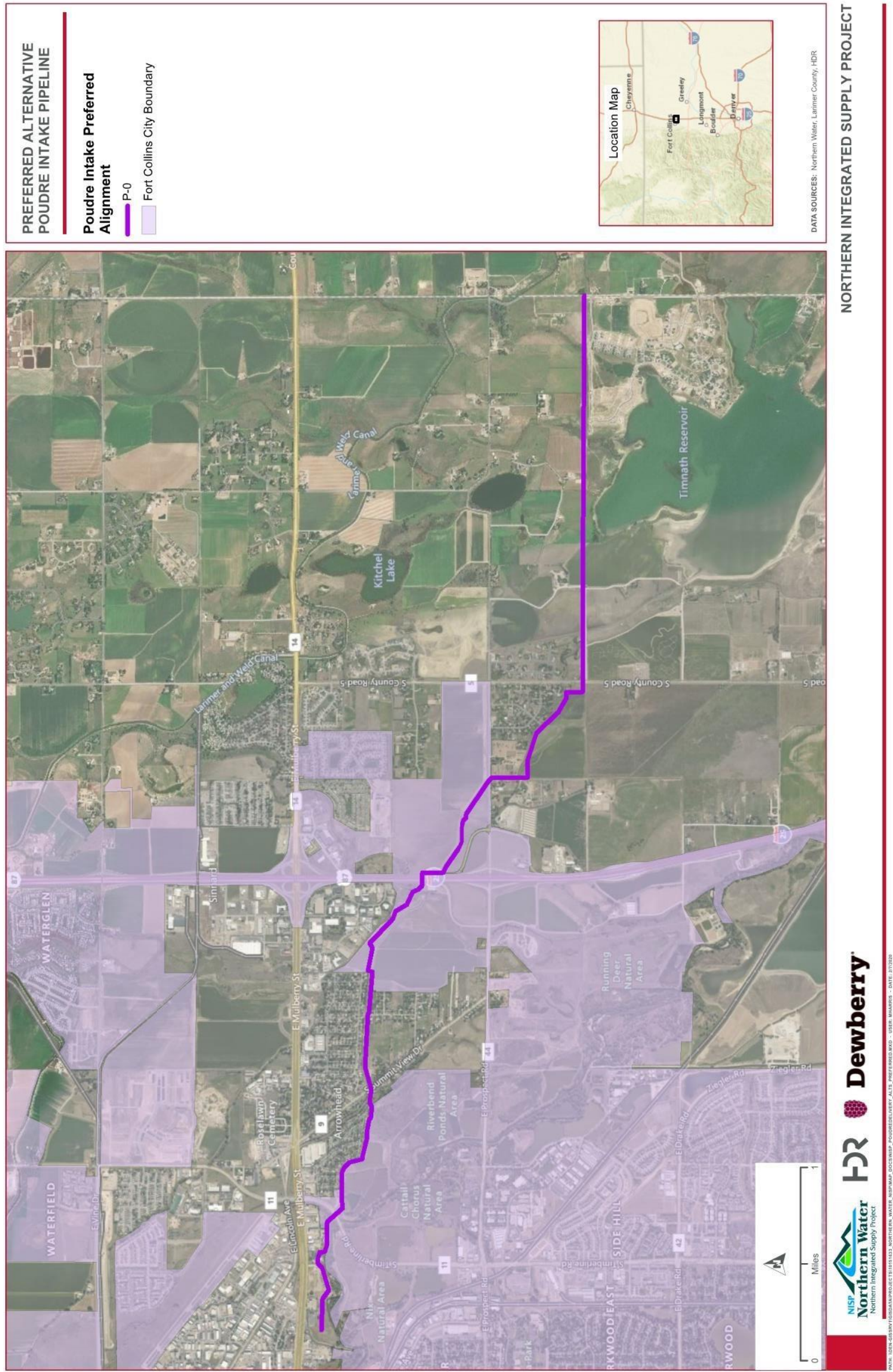
Some benefits this alignment feature over other alignments include:

- Least landowner impacts
- Shortest expected construction duration
- Comparatively low environmental and floodplain impacts
- Convenient access for O&M
- Relatively low impact to public ROW
- Least expensive

Table **P.3** below summarizes the characteristics of the preferred alignment.

Table P.3 – Preferred Alignment Characteristics

Characteristic	P-0
Pipe Diameter (inches)	32
Pipe Material	Mortar Lined Steel
Total Distance (miles)	6.2
Approximate Cost	\$11,464,000
Length Tunnel (feet)	1,000
Number of Landowners	33
LF of Wetland Crossings	550





Northern Integrated Supply Project

Poudre Intake West Pipeline Alternatives Analysis

February 2020

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ROUTE COMPARISONS

Each of the alternatives developed was subjected to the evaluation criteria and metrics described in **Table 1** in the introduction. The Poudre Intake West Pipeline segment was assessed as a single project area. This was due to the fact that the alignment is relatively short compared to other pipeline segments, allowing for easy readability/resolution with just one project area. This pipeline is the westernmost portion of the Poudre Intake Pipeline, which connects the Poudre River Diversion Structure with the rest of the Poudre Intake Pipeline at the Poudre Pump Station location. The rest of the Poudre Intake Pipeline was assessed in another memo titled Poudre Intake Pipeline Alternatives Analysis.

An overview of the Project Area and the alternative options can be seen in **Figure PW.1**. Detailed fact sheets for each alternative alignment compare its performance against the evaluation criteria and figures illustrating each individual alignment alternative are provided on the following pages. Included on the fact sheet for each alternate is a table demonstrating the ranking assigned for each criterion. In the end, the alternative with the best overall performance (least reds, most greens) was selected to be the preferred alternative. This preferred Poudre Intake West Pipeline Alignment can be seen in **Figure PW.4** at the end of this document.

In total, two (2) alternatives were assessed for the Poudre Intake West Pipeline segment all within a single project area.

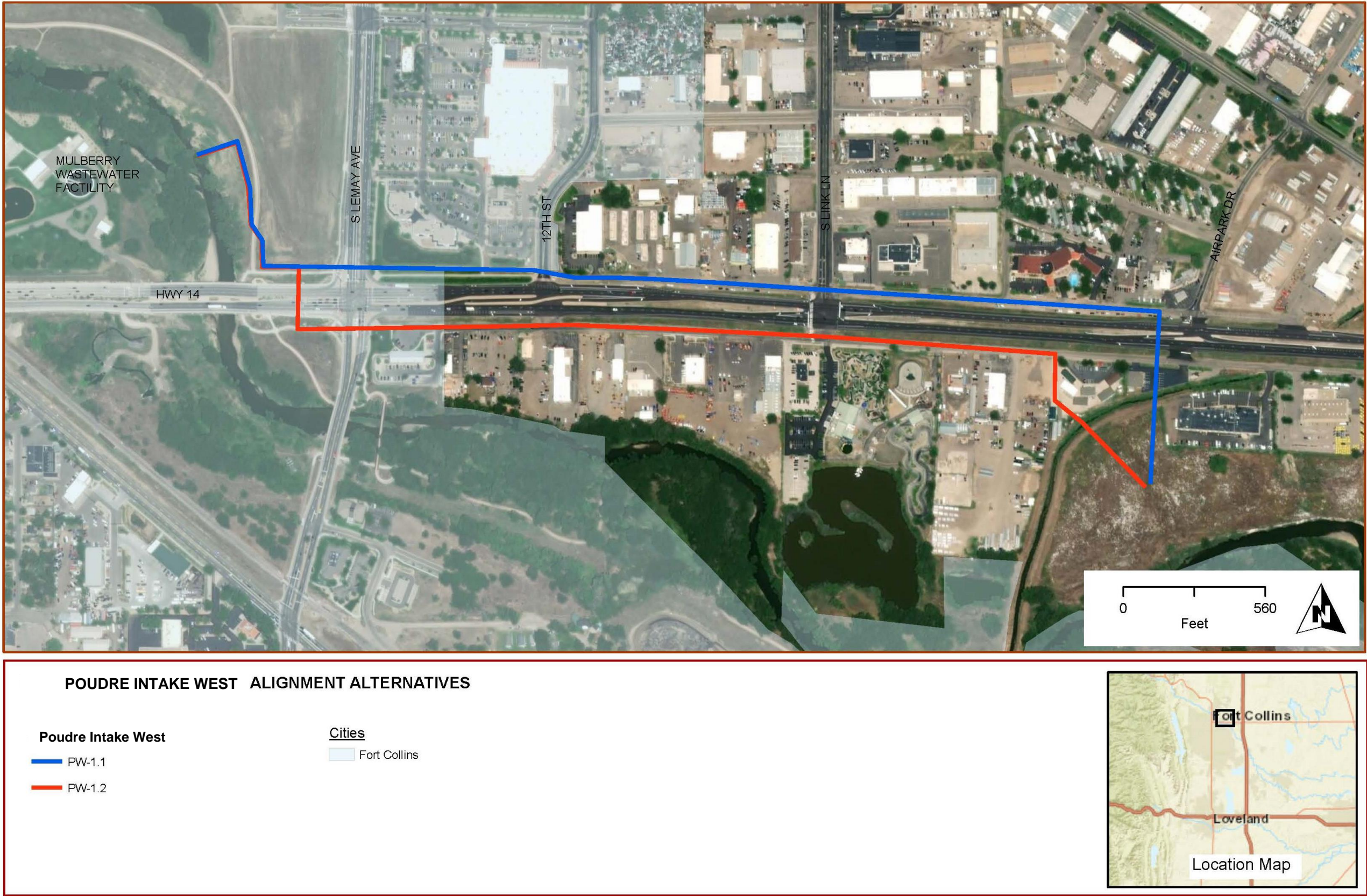


Figure PW.1 – Poudre Intake West Pipeline Alternatives

Alternative Name	Poudre Intake West- 1.1	
Alternative Location & Description	Alignment Alternative PW-1.1 begins at the proposed diversion structure just northeast of the City of Fort Collins Mulberry wastewater facility and routes northeast away from the Poudre River. It turns southeast, paralleling the Poudre River, until reaching E. Mulberry Street. It then turns east, crosses S. Lemay Ave., and continues along Frontage Road N. until reaching Air Park Dr. From this point the alignment turns south across E. Mulberry Street and the Timnath Reservoir Inlet Canal, to its termination point at the Poudre Diversion Sediment Pond.	
Criteria	Ranking	Comments
Capital Cost	Yellow	\$ 2,588,000
Conduit Length	Yellow	4,540 feet
Easement Difficulty	Yellow	6 parcels crossed, 1 non-perimeter crossings
Right-of-Way Impact	Green	2,900 LF in ROW
Land Owner Impact	Green	0 businesses impacted with one access point, 12 businesses impacted with two access points
Proximity to Occupied Dwellings	Yellow	Within 100-feet of 10 occupied businesses
Environmental Impacts	Green	No wetlands/riparian areas crossed
Existing Utilities	Red	High density of existing utilities
Hazardous/Permitted Crossings	Green	No hazardous/permited crossings known
Surface and Street Impacts	Yellow	0 LF of open-cut in gravel roads, 2,380 LF of open-cut in paved roads
Traffic Impacts	Yellow	0 LF of low, 600 LF of medium, 2,380 LF of high traffic impacts, traffic impact score of 10120
Water Storage Reservoirs Impacts	Green	No impacts expected
Construction Duration and Relative Constructability	Yellow	130 days of construction
Required Trenchless Crossing	Yellow	1 HWY (HWY 14), 2 Paved Roadways (Lemay Ave, 12th Street), 600 LF total trenchless
Development Pressure	Green	Some development pressure possible at northwest corner of HWY 14 and Lemay Ave, no other new developments known/expected
Operation and Maintenance Access	Green	Similar access due to proximity to roadways
O&M Requirements	Green	3 ARV and BO pairs
Natural Resources Impacts	Green	0 LF in natural areas

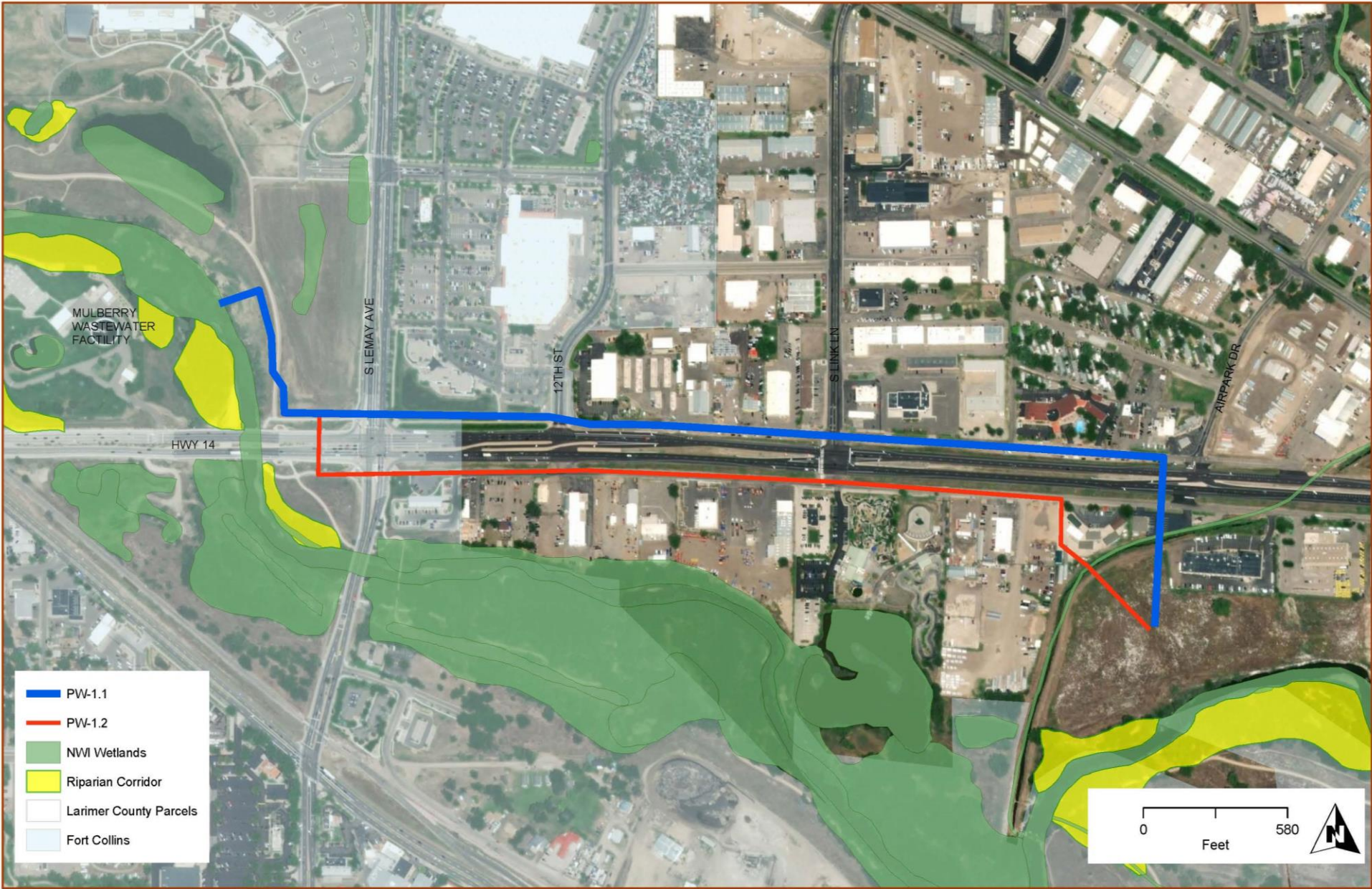


Figure PW.2 – Alternative PW-1.1

Alternative Name	Poudre Intake West-1.2	
Alternative Location & Description	Alignment Alternative PW-1.2 begins at the proposed diversion structure just northeast of the City of Fort Collins Mulberry wastewater facility and routes northeast away from the Poudre River. It turns southeast, paralleling the Poudre River, until reaching E. Mulberry Street. It then turns east for roughly 150 feet, it then turns south crossing E. Mulberry Street. From this point the alignment turns east, crosses S. Lemay Ave., and continues along Frontage Road S. for approximately 2,600 feet before turning south crossing the Timnath Reservoir Inlet Canal, finally terminating at the Poudre Diversion Sediment Pond.	
Criteria	Ranking	Comments
Capital Cost	Green	\$ 2,290,000
Conduit Length	Green	4,410 feet
Easement Difficulty	Green	5 parcels crossed, 1 non-perimeter crossings
Right-of-Way Impact	Yellow	3,200 LF in ROW
Land Owner Impact	Yellow	5 businesses impacted with one access point, 7 businesses impacted with two access points
Proximity to Occupied Dwellings	Yellow	Within 100-feet of 9 occupied businesses
Environmental Impacts	Green	No wetlands crossed
Existing Utilities	Red	High density of existing utilities
Hazardous/Permitted Crossings	Green	No hazardous/permited crossings known
Surface and Street Impacts	Red	0 LF of open-cut in gravel roads, 2600 LF of open-cut in paved roads
Traffic Impacts	Red	0 LF of low, 455 LF of medium, 2,600 LF of high traffic impacts, traffic impact score of 10,855
Water Storage Reservoirs Impacts	Green	No impacts expected
Construction Duration and Relative Constructability	Green	110 days of construction
Required Trenchless Crossing	Green	1 HWY (HWY 14) , 1 Paved Roadways (Lemay Ave), 455 LF total trenchless
Development Pressure	Green	Some development pressure possible at northwest corner of HWY 14 and Lemay Ave, no other new developments known/expected
Operation and Maintenance Access	Green	Similar access due to proximity to roadways
O&M Requirements	Green	3 ARV and BO pairs
Natural Resources Impacts	Green	0 LF in natural areas

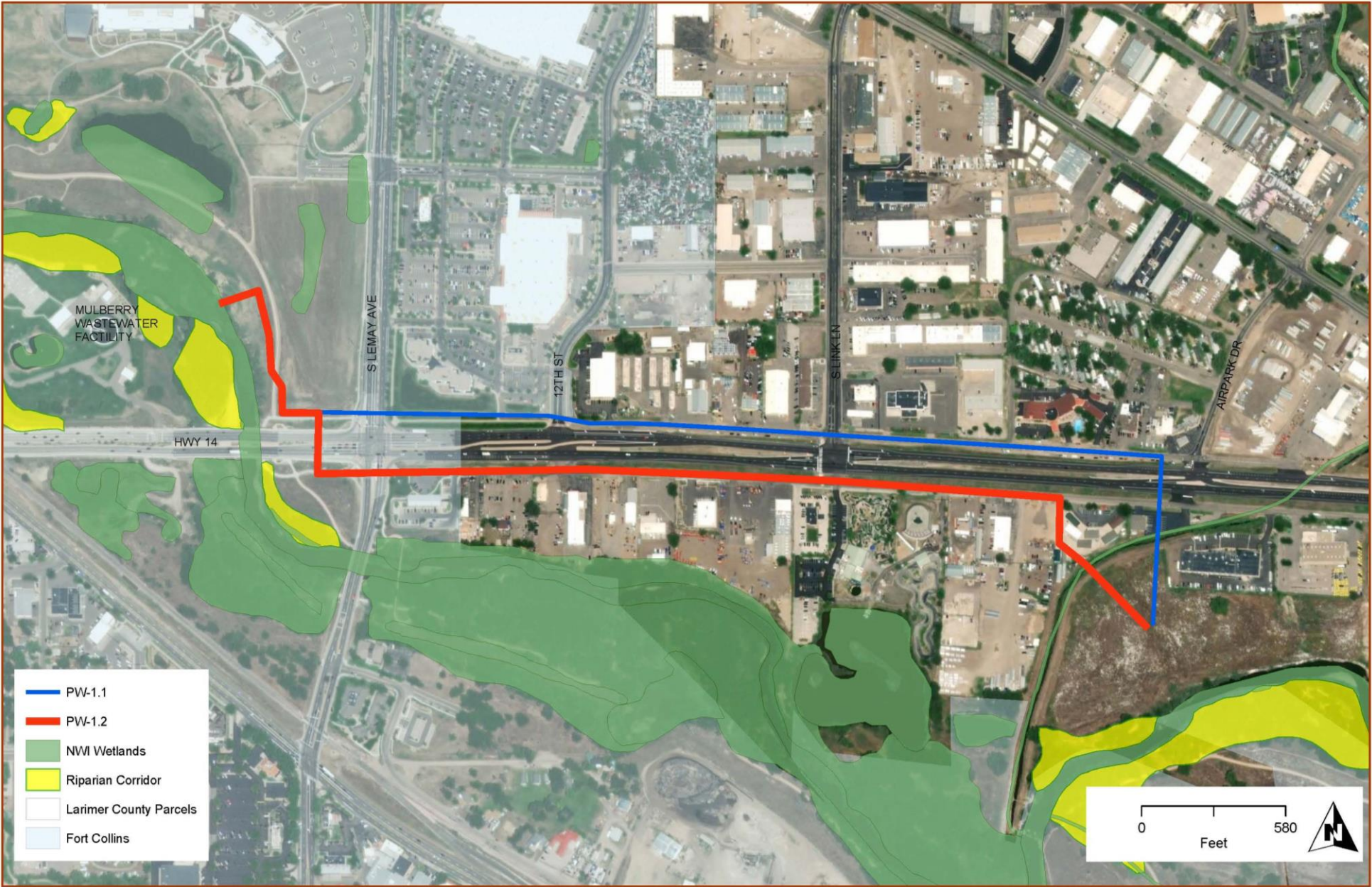


Figure PW.3 – Alternative PW-1.2

Table PW.1 is a visual summary of the score given to the two alternatives for each criteria. **Table PW.2** tabulates the number of greens, yellows, and reds given to each alternative. Detailed scoring tables of each alternative is provided in **Appendix A-4**.

Table PW.1 – Visual Summary of Alternative Scoring

Evaluation Criteria	PW-1.1	PW-1.2
Capital Cost		
Conduit Length		
Easement Difficulty		
Right-of-Way Impact		
Land Owner Impact		
Proximity to Occupied Dwellings		
Environmental Impacts		
Existing Utilities		
Hazardous/Permitted Crossings		
Surface and Street Impacts		
Traffic Impacts		
Water Storage Reservoirs Impacts		
Construction Duration and Relative Constructability		
Required Trenchless Crossings		
Development Pressure		
Operation and Maintenance (O&M) Access		
O&M Requirements		
Natural Resources Impacts		

Table PW.2 – Numeric Summary of Alternative Scoring

Evaluation Criteria	PW-1.1	PW-1.2
Red	1	3
Yellow	8	3
Green	9	12

PREFERRED ALIGNMENT

From analysis, it can be determined that the optimal/preferred alignment is alternative PW-1.2. The alignment begins at the proposed diversion structure just northeast of the City of Fort Collins Mulberry wastewater facility and routes northeast away from the Poudre River. It turns southeast, paralleling the Poudre River, until reaching E. Mulberry Street. It then turns east for roughly 150 feet, it then turns south crossing East Mulberry Street. From this point the alignment turns east, crosses South Lemay Ave., and continues along South Frontage Road for approximately 2,600 feet before turning south crossing the Timnath Reservoir Inlet Canal, finally terminating at the Poudre Diversion Sediment Pond located at the Poudre Pump Station. Some of the benefits of this alignment include a comparatively lower overall length, construction duration, trenchless crossings and lower capital costs.

Table PW.3 below summarizes the estimated features of the overall preferred alignment. In the case of a tie, alternates were evaluated and the preferred alignment was selected based upon prioritization of factors, mainly conduit length, constructability and land-owner/environmental impacts. Preferred alignment PW-1.2 can be seen in **Figure PW.4** on the following page.

Table PW.3 – Preferred Alignment Characteristics

Characteristic	PW-1.2
Pipe Diameter (inches)	32
Pipe Material	Mortar Lined Steel
Total Distance (feet)	4,410
Pipe Cost	\$2,290,000
Length Tunnel (feet)	455
Number of Landowners	5

Table PW.3 – Preferred Alignment Characteristics

Characteristic	PW-1.2
Wetland Crossings (feet)	0



Figure PW.4 – Poudre Intake West Pipeline Preferred Alignment



Northern Integrated Supply Project

County Line Road Delivery Pipeline Alternatives Analysis

February 2020

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ROUTE COMPARISONS

Each of the alternatives developed was subjected to the evaluation criteria and metrics described in **Table 1** in the introduction. The County Line segment was broken into 5 Project Areas, which made for easier comparison of alternatives. The Project Areas also enabled the project team to look at combinations of alternatives for each Project Area and facilitated a thorough analysis for the final Preferred Alignment.

An overview of all of the Project Areas and the alternative options can be seen in **Figure C.1**. Detailed fact sheets for each alternative alignment compare its performance against the evaluation criteria and figures illustrating each individual alignment alternative are provided on the following pages. Included on the fact sheet for each alternate is a table demonstrating the ranking assigned for each criterion. In the end, the alternate with the best overall performance (least reds, most greens) was chosen to be the preferred alternate. This preferred County Line alignment can be seen in **Figure C.20** at the end of this document.

In total, five (5) alternates were assessed for Project Area 1, three (3) alignment alternates were assessed for Project Area 2, two (2) alignment alternates were assessed for Project Area 3, four (4) alignment alternates were assessed for Project Area 4, and four (4) alignment alternates were assessed for Project Area 5.

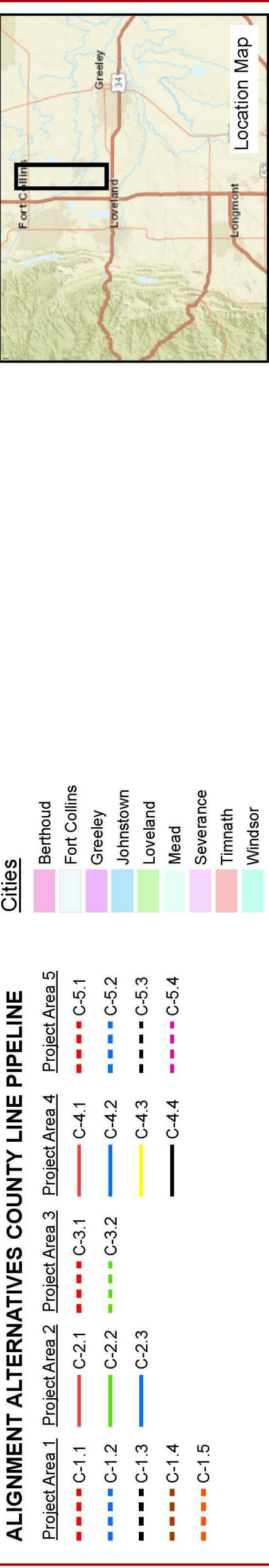
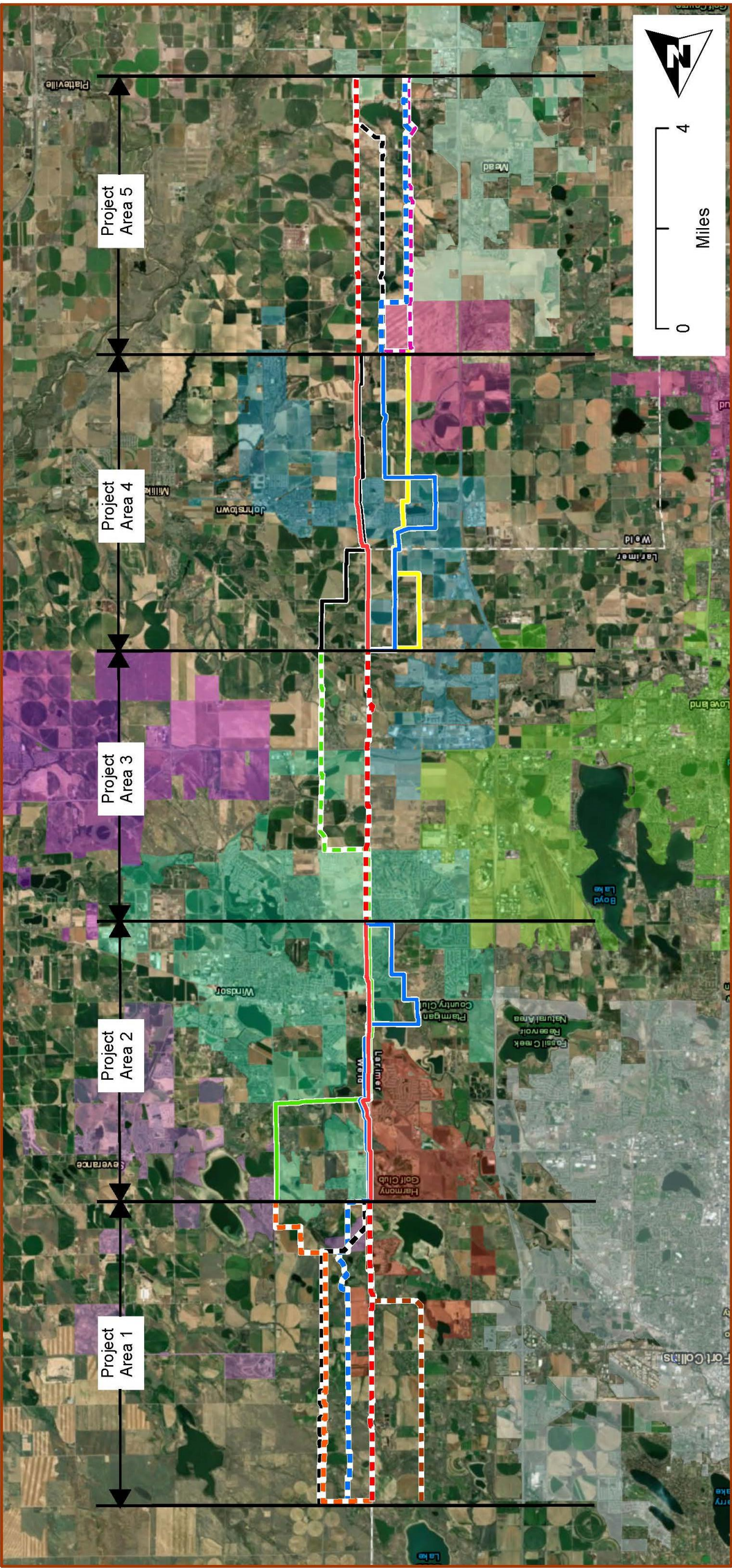


Figure C.1 – County Line Road Delivery Pipeline Project Areas and Alternatives

Alternative Name	C-1.1		
Alternative Location & Description	County Line Alternative C-1.1 begins at the intersection of CR 52 and CR 13 and heads south paralleling the west side of CR 13. It traverses through a combination of agricultural, rural residential, and subdivision properties, crossing CR 13 several times throughout this reach. Moving south the alignment crosses Hwy 14, passes Timnath Reservoir, and ends at the intersection of CR 13 and CR 40.		
Criteria	Ranking	Comments	
Capital Cost	Green	\$ 17,557,000	
Conduit Length	Green	6.1 miles, 32,200 feet	
Easement Difficulty	Yellow	27 parcels crossed, 0 non-perimeter crossings	
Right-of-Way Impact	Yellow	810 LF in ROW	
Land Owner Impact	Green	6 driveway crossings, minor subjective landowner impacts	
Proximity to Occupied Dwellings	Green	Within 100-feet of 2 occupied dwellings	
Environmental Impacts and Floodplain Crossings	Red	2460 LF of wetlands/riparian areas crossed and 0 LF of floodplain crossed	
Existing Utilities	Yellow	Moderate density of existing utilities	
Hazardous/Permitted Crossings	Green	No hazardous/permitted crossings known	
Surface and Street Impacts	Green	40 LF of open-cut in gravel roads (CR-78), and 0 LF of open-cut in paved roads	
Traffic Impacts	Green	360 LF of low, 40 LF of medium, 0 LF of high traffic impacts, traffic impact score of 440	
Water Storage Reservoirs Impacts	Yellow	Possible impacts to Timnath Reservoir outfall infrastructure	
Construction Duration and Relative Constructability	Green	180 days of construction	
Required Trenchless Crossing	Yellow	1 HWY (HWY 14), 6 County Roads (CR-13(x3), CR-48, CR-80, Wildwing Dr.), 720 LF total trenchless	
Development Pressure	Yellow	5260 LF of near-term developments	
Operation and Maintenance Access	Green	Convenient access due to proximity to roads	
O&M Requirements	Green	8 ARVs; 7 BOs	
Natural Resources Impacts	Yellow	410 LF in natural areas	

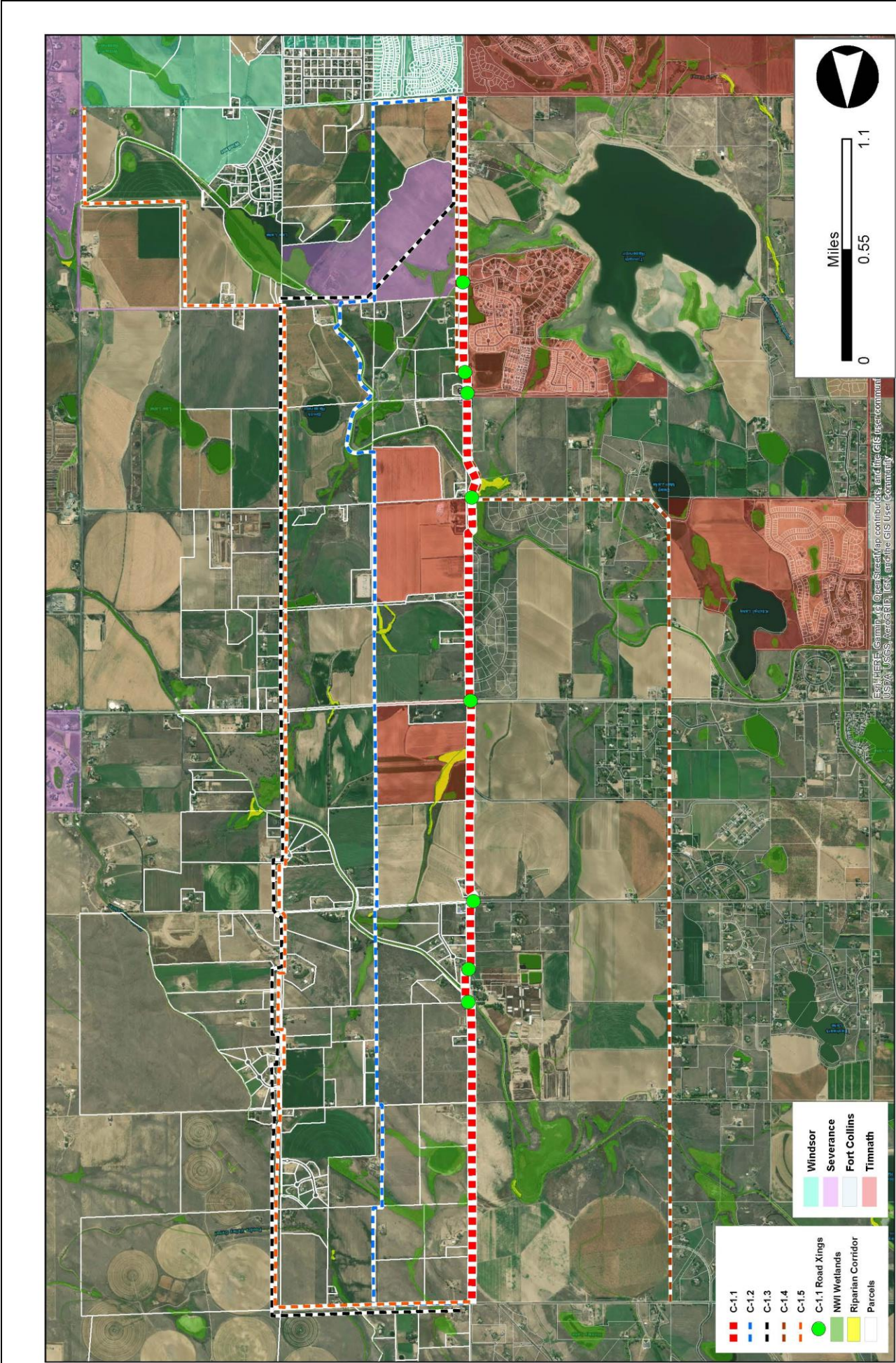


Figure C.2 – Alternative C-1.1

Alternative Name	C-1.2		
Alternative Location & Description	County Line Alternative C-1.2 begins at the intersection of CR 52 and CR 13 and runs east paralleling the south side of CR 52 for about 2,500 feet before heading south through agricultural fields along parcel boundaries. Continuing south the alignment runs into a canal near Smith Reservoir, it parallels the canal until it approaches CR 78 where it crosses to the south side and continues through more agricultural fields until it meets CR 40. The alignment then turns west paralleling the north side of CR 40 until ending at the intersection of CR 13 and CR 40.		
	Criteria	Ranking	Comments
	Capital Cost	Yellow	\$ 19,152,000
	Conduit Length	Yellow	7.4 miles, 38,900 feet
	Easement Difficulty	Green	20 parcels crossed, 0 non-perimeter crossings
	Right-of-Way Impact	Green	360 LF in ROW
	Land Owner Impact	Green	2 driveway crossings, minor subjective landowner impacts
	Proximity to Occupied Dwellings	Green	Within 100-feet of 2 occupied dwellings
	Environmental Impacts and Floodplain Crossings	Yellow	1565 LF of wetlands/riparian areas crossed and 0 LF of floodplain crossed
	Existing Utilities	Green	Low density of existing utilities
	Hazardous/Permitted Crossings	Green	No hazardous/permitted crossings known
	Surface and Street Impacts	Green	40 LF of open-cut in gravel roads (CR-78), and 0 LF of open-cut in paved roads
	Traffic Impacts	Green	300 LF of low, 80 LF of medium, 0 LF of high traffic impacts, traffic impact score of 460
	Water Storage Reservoirs Impacts	Green	No impacts expected
	Construction Duration and Relative Constructability	Green	190 days of construction
Required Trenchless Crossing	Green	1 HWY (HWY 14), 5 County Roads (CR-13, CR-86, CR-84, CR-80), 620 LF total trenchless	
Development Pressure	Red	8740 LF of near-term developments	
Operation and Maintenance Access	Red	Difficult access, does not parallel roads.	
O&M Requirements	Red	10 ARV and BO pairs	
Natural Resources Impacts	Red	550 LF in natural areas	

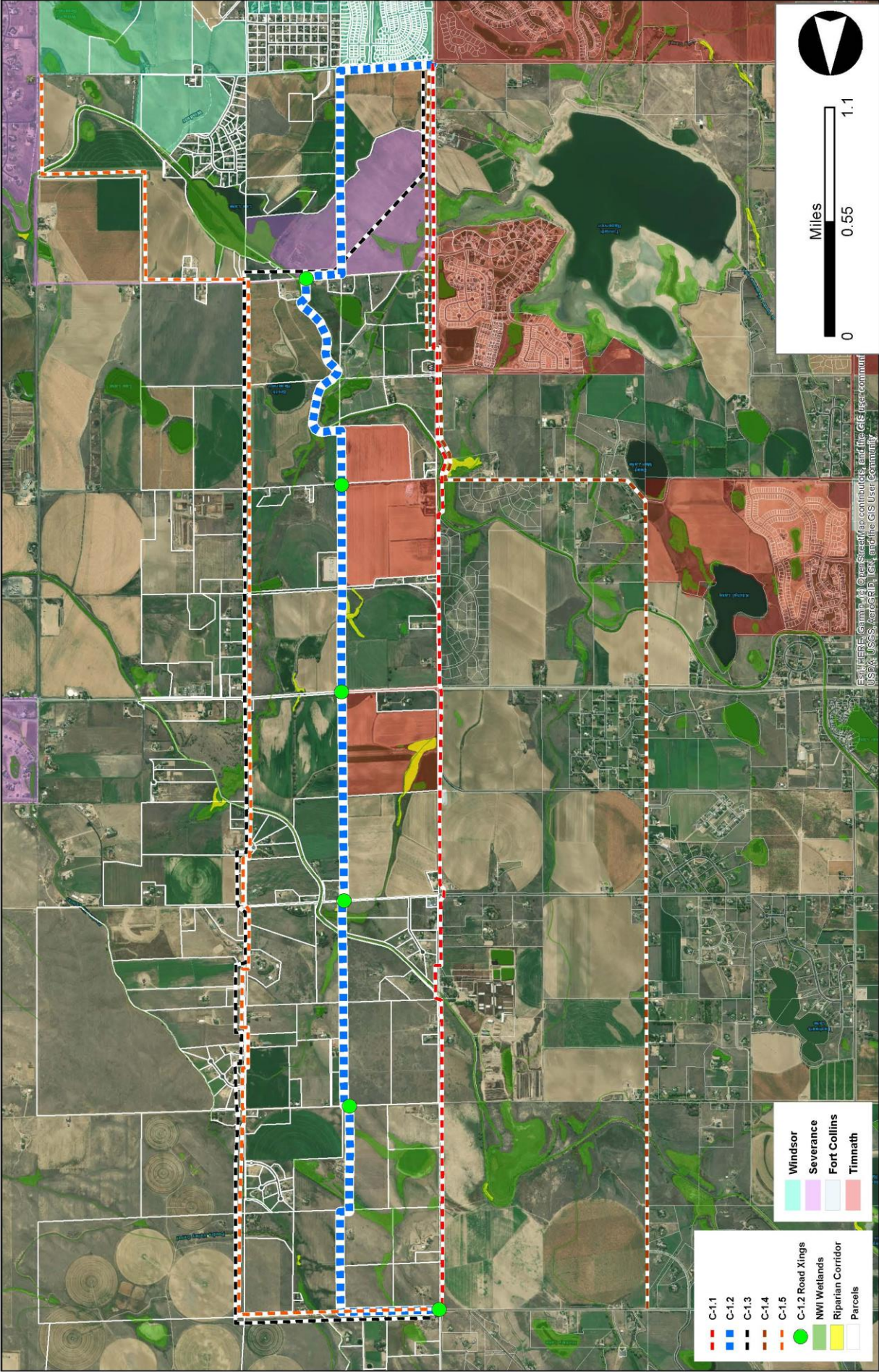
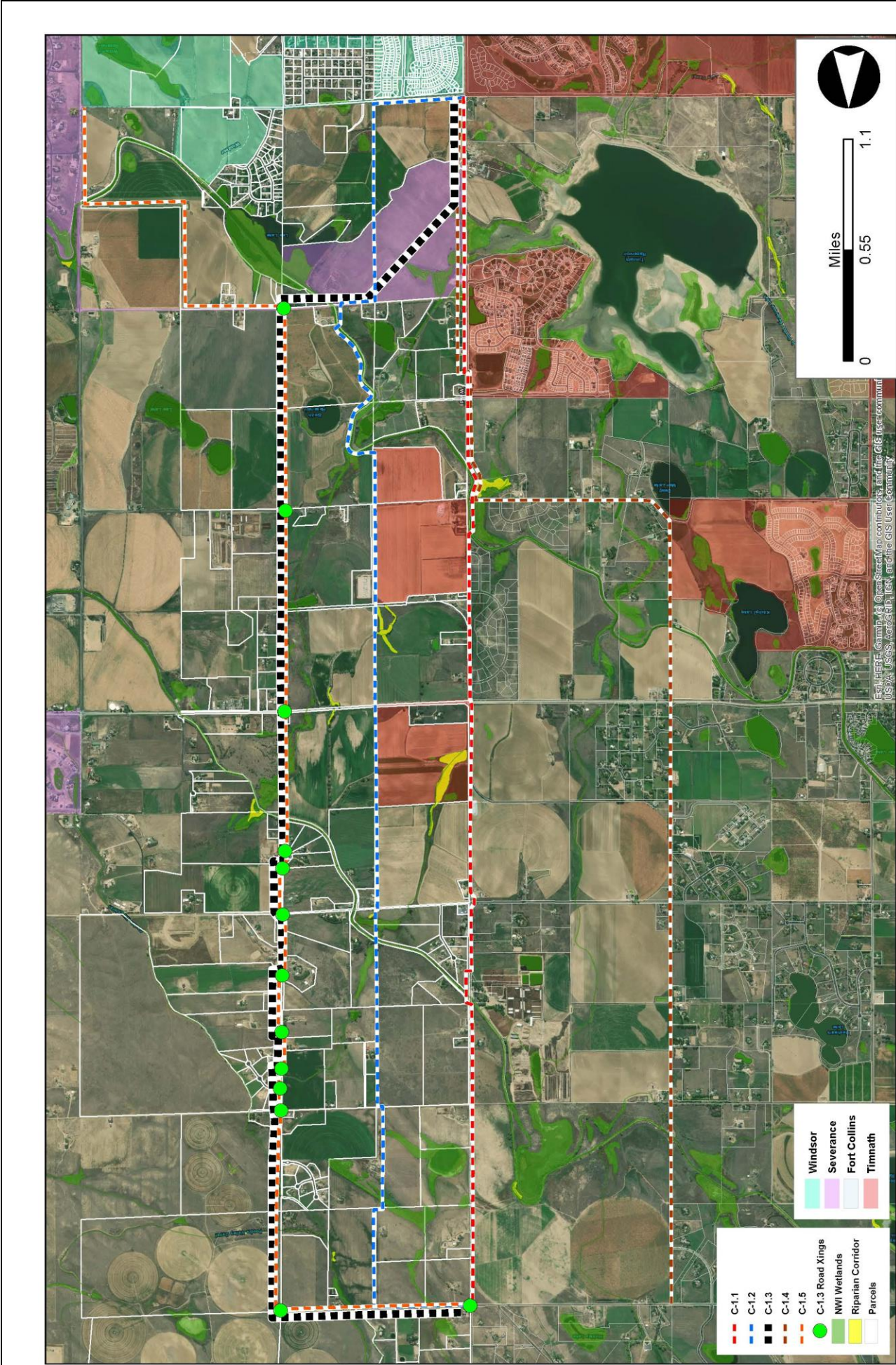


Figure C.3 – Alternative C-1.2

Alternative Name	C-1.3	
Alternative Location & Description	County Line Alternative C-1.3 begins at the intersection of CR 52 and CR 13 and runs east paralleling the south side of CR 52. The alignment crosses CR 13 on the south side of CR 88 and parallels the south side of CR 88 eastward to the intersection of CR 88 and CR 15. The alignment turns south and parallels CR 15 until reaching the northwest corner of the intersection of CR 15 and CR 78. The alignment then turns west along the south side of CR 78. Approximately 2,440 feet west of the intersection the alignment turns southwest and bisects a parcel east of CR 13 until approximately halfway between CR 78 and CR 76 along CR 13, ending at the intersection of CR 13 and CR 40.	
Criteria	Ranking	Comments
Capital Cost	Red	\$ 22,054,000
Conduit Length	Red	7.6 miles, 40,200 feet
Easement Difficulty	Red	35 parcels crossed, 1 non-perimeter crossings
Right-of-Way Impact	Red	1200 LF in ROW
Land Owner Impact	Red	17 driveway crossings, moderate subjective landowner impacts
Proximity to Occupied Dwellings	Red	Within 100-feet of 5 occupied dwellings
Environmental Impacts and Floodplain Crossings	Green	900 LF of wetlands/riparian areas crossed and 0 LF of floodplain crossed
Existing Utilities	Yellow	Moderate density of existing utilities
Hazardous/Permitted Crossings	Green	No hazardous/permitted crossings known
Surface and Street Impacts	Red	40 LF of open-cut in gravel roads (CR-78), and 385 LF of open-cut in paved roads (CR-15)
Traffic Impacts	Red	640 LF of low, 40 LF of medium, 385 LF of high traffic impacts, traffic impact score of 2160
Water Storage Reservoirs Impacts	Green	No impacts expected
Construction Duration and Relative Constructability	Red	230 days of construction
Required Trenchless Crossing	Red	1 HWY (HWY 14), 9 County Roads (CR-13, CR-15(x5), CR-86,Sage Hill Rd., CR-80), 1220 LF total trenchless
Development Pressure	Green	1050 LF of near-term developments
Operation and Maintenance Access	Green	Convenient access due to proximity to roads
O&M Requirements	Yellow	9 ARVs; 8 BOs
Natural Resources Impacts	Green	0 LF in natural areas



Alternative Name	C-1.4	
Alternative Location & Description	County Line Alternative C-1.4 It begins at the southwest corner of the intersection of CR 52 and CR 3 and traverses south parallel to CR 3, across several county roads until reaching the northwest corner of the intersection of CR 3 and E. Prospect Road, north of Deadman Lake. The alignment turns east and parallels E. Prospect Road, around a small portion of the lake. As E. Prospect Road turns into CR 44, the alignment continues east paralleling CR 44 to the intersection of CR 44 and CR 13. The alignment continues south finally ending at the intersection of CR 13 and CR 40.	
	This alignment was removed in the initial screening process due to the proposed NISP Participant water treatment plant being located north of the intersection of CR 52/CR 88 and CR 13. To connect to the water treatment plant additional pipeline parallel to the proposed Northern Tier pipeline would be needed creating complications in coordinating the pipeline systems and significantly increasing the length of the pipeline, making the alignment less favorable and hydraulically inferior than other viable alternatives.	
Criteria	Ranking	Comments
Capital Cost		
Conduit Length		
Easement Difficulty		
Right-of-Way Impact		
Land Owner Impact		
Proximity to Occupied Dwellings		
Environmental Impacts and Floodplain Crossings		
Existing Utilities		
Hazardous/Permitted Crossings		
Surface and Street Impacts		
Traffic Impacts		
Water Storage Reservoirs Impacts		
Construction Duration and Relative Constructability		
Required Trenchless Crossing		
Development Pressure		
Operation and Maintenance Access		
O&M Requirements		
Natural Resources Impacts		

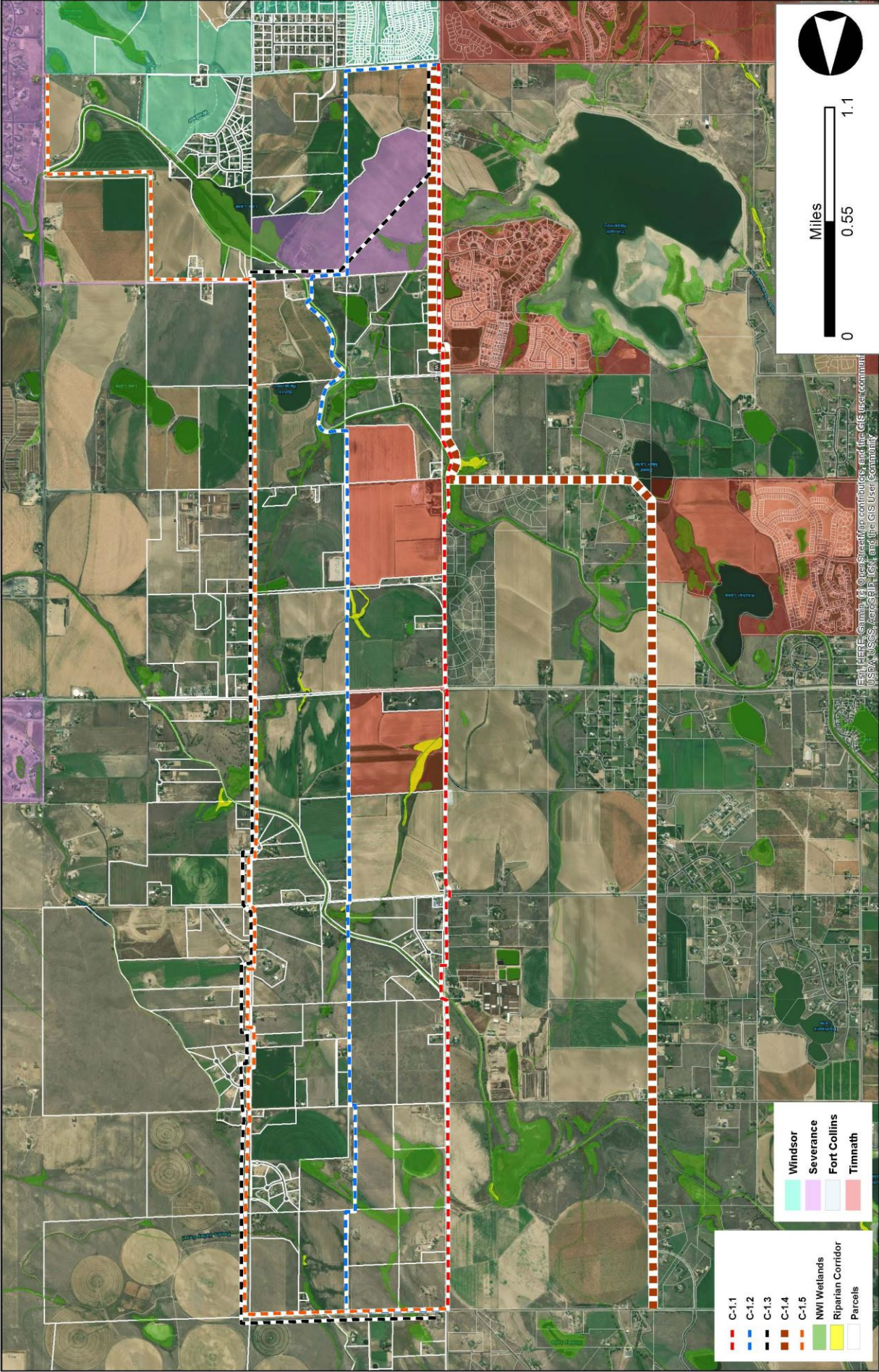


Figure C.5 – Alternative C-1.4

Alternative Name	C-1.5		
Alternative Location & Description	County Line Alternative C-1.5 begins at the southwest corner CR 88 and CR 13. The alignment crosses CR 13 on the south side of CR 88 and parallels the south side of CR 88 eastward to the intersection of CR 88 and CR 15 roads. The alignment turns south and parallels CR 15, crossing several county road until reaching the northwest corner of the intersection of CR 15 and CR 78. The alignment then turns east along the south side of CR 78. Approximately 2,750 feet west of CR 17 the alignment turns south along a parcel boundary for 2,750 feet before turning east to CR 17. The alignment turns south at CR 17 until ending at the CR 76.		
	Criteria	Ranking	Comments
	Capital Cost	Red	\$ 23,124,000
	Conduit Length	Red	8.1 miles, 42,500 feet
	Easement Difficulty	Red	40 parcels crossed, 0 non-perimeter crossings
	Right-of-Way Impact	Red	1100 LF in ROW
	Land Owner Impact	Red	17 driveway crossings, moderate subjective landowner impacts
	Proximity to Occupied Dwellings	Red	Within 100-feet of 5 occupied dwellings
	Environmental Impacts and Floodplain Crossings	Green	870 LF of wetlands/riparian areas crossed and 0 LF of floodplain crossed
	Existing Utilities	Yellow	Moderate density of existing utilities
	Hazardous/Permitted Crossings	Green	No hazardous/permited crossings known
	Surface and Street Impacts	Red	40 LF of open-cut in gravel roads (CR-78), and 385 LF of open-cut in paved roads (CR-15)
	Traffic Impacts	Red	640 LF of low, 40 LF of medium, 385 LF of high traffic impacts, traffic impact score of 2160
	Water Storage Reservoirs Impacts	Green	No impacts expected
Construction Duration and Relative Constructability	Red	240 days of construction	
Required Trenchless Crossing	Red	1 HWY (HWY 14), 9 County Roads (CR-13, CR-15(x5), CR-86,Sage Hill Rd., CR-80), 1220 LF total trenchless	
Development Pressure	Green	1050 LF of near-term developments	
Operation and Maintenance Access	Green	Convenient access due to proximity to roads	
O&M Requirements	Red	10 ARVs; 9 BOs	
Natural Resources Impacts	Green	0 LF in natural areas	

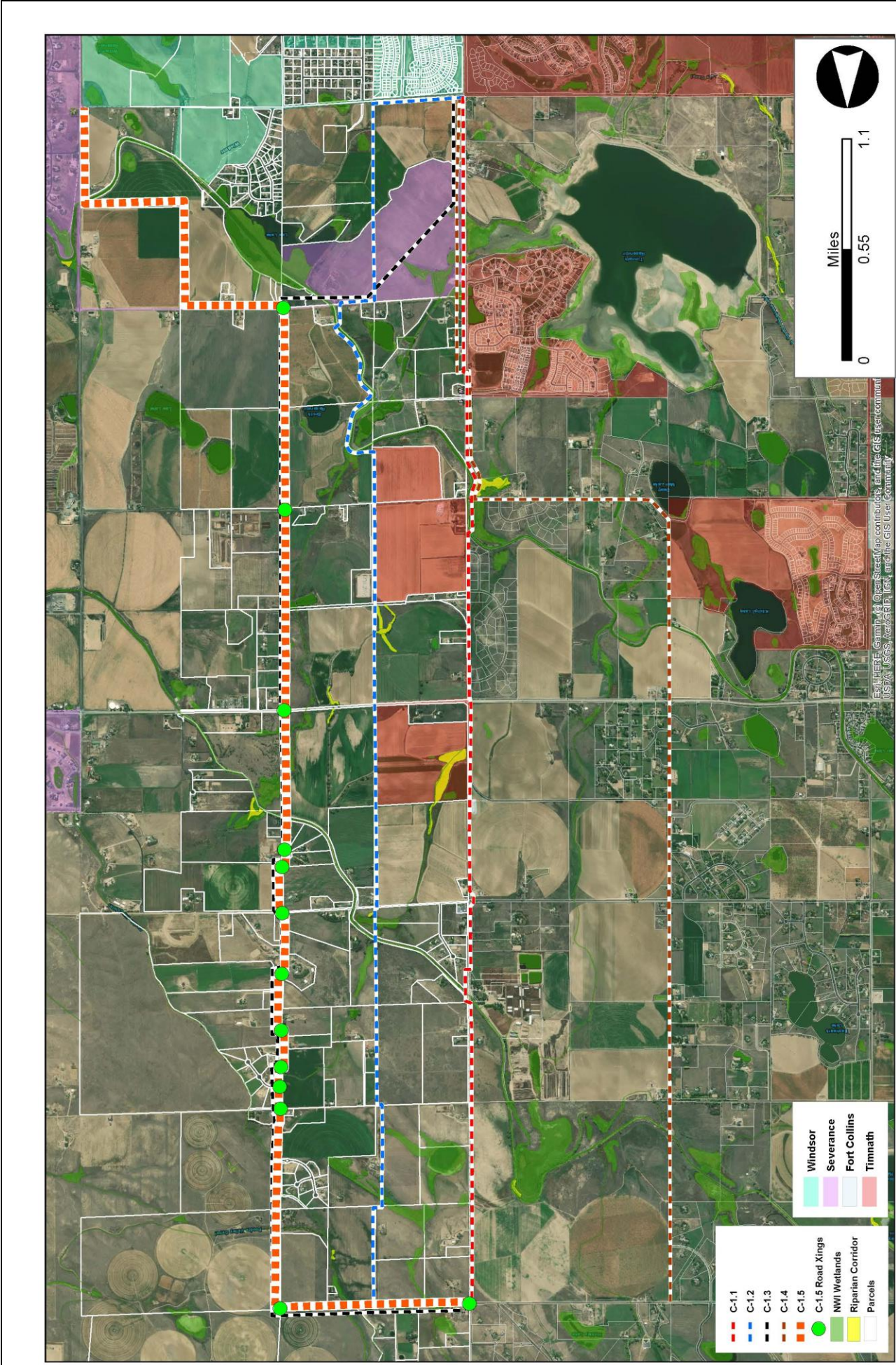


Figure C.6 – Alternative C-1.5

Alternative Name	C-2.1	
Alternative Location & Description	County Line Alternative C-2.1 begins at the intersection of CR 40 and CR 13 and runs south paralleling CR 13 beginning on the west side. It travels in a southerly direction crossing CR 13 several times throughout this reach. It traverses through a combination of agricultural, rural residential, and subdivision properties. Headed south the alignment changes direction to the southeast around a parcel, near the Timnath Ranch subdivision, before turning west again to CR 13. Near Hwy 392 it enters a constrained area where the alignment traverses passed three reservoirs and the Poudre River. Continuing south the alignment ends roughly 5,600 feet south of the Poudre River on the east side of CR 13 near the Raindance Subdivision.	
Criteria	Ranking	Comments
Capital Cost	Green	\$16,275,000
Conduit Length	Green	5.7 miles, 30,100 feet
Easement Difficulty	Green	19 parcels crossed, 1 non-perimeter crossings
Right-of-Way Impact	Yellow	650 LF in ROW
Land Owner Impact	Green	3 driveway crossings, minor subjective landowner impacts
Proximity to Occupied Dwellings	Green	Within 100-feet of 3 occupied dwellings
Environmental Impacts and Floodplain Crossings	Green	1410 LF of wetlands/riparian areas crossed and 5200 LF of floodplain crossed
Existing Utilities	Red	High density of existing utilities
Hazardous/Permitted Crossings	Green	No hazardous/permitted crossing known
Surface and Street Impacts	Green	No open trench construction across roadways
Traffic Impacts	Green	460 LF of low, 0 LF of medium, 0 LF of high traffic impacts, traffic impact score of 460
Water Storage Reservoirs Impacts	Green	No impacts expected
Construction Duration and Relative Constructability	Green	180 days of construction
Required Trenchless Crossing	Green	1 HWY (HWY 392), 1 Railroad, 5 County Roads (CR-76, CR-74, CR-13(x2), CR 68.5), 720 LF total trenchless
Development Pressure	Red	7290 LF of near-term developments
Operation and Maintenance Access	Green	Convenient access due to proximity to roads
O&M Requirements	Green	8 ARVs; 7 BOs
Natural Resources Impacts	Green	200 LF in natural areas

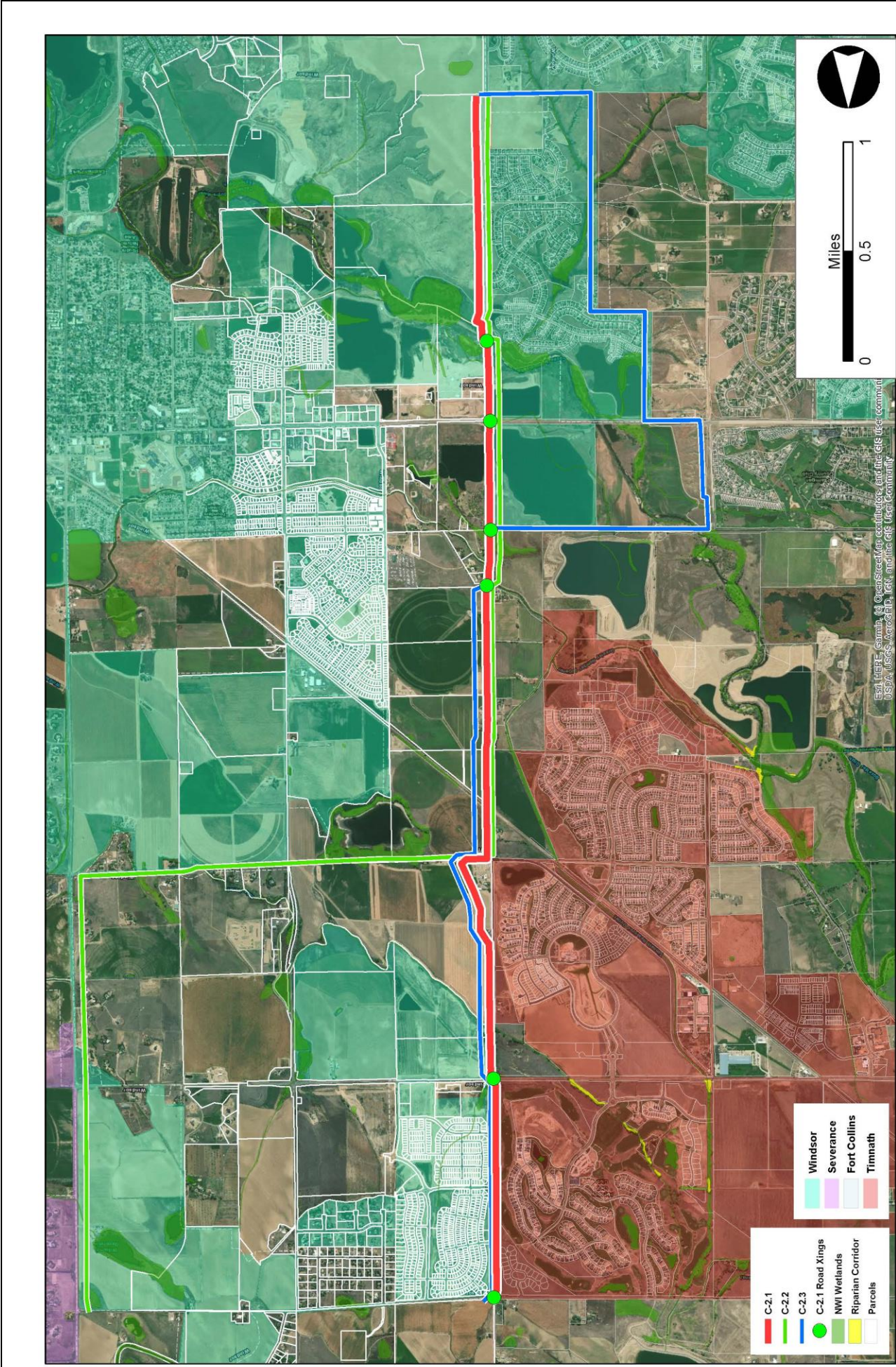


Figure C.7 – Alternative C-2.1

Alternative Name	C-2.2		
Alternative Location & Description	County Line Alternative C-2.2 begins at the northwest corner of CR 76 and CR 17. The alignment parallels CR 17 south, crossing CR 74, until turning west at CR 72. The alignment parallels the road, crossing CR 15, and continuing west through agricultural fields to the north side of Lake Canal Reservoir Number 1. The alignment turns south at CR 13. Near Hwy 392 it enters a constrained area where the alignment traverses passed three reservoirs and the Poudre River. Continuing south the alignment ends roughly 5,600 feet south of the Poudre River on the east side of CR 13 near the Raindance Subdivision.		
	Criteria	Ranking	Comments
	Capital Cost	Red	\$ 21,111,000
	Conduit Length	Red	7.4 miles, 39,200 feet
	Easement Difficulty	Red	34 parcels crossed, 1 non-perimeter crossings
	Right-of-Way Impact	Red	780 LF in ROW
	Land Owner Impact	Red	16 driveway crossings, moderate subjective landowner impacts
	Proximity to Occupied Dwellings	Green	Within 100-feet of 3 occupied dwellings
	Environmental Impacts and Floodplain Crossings	Red	3125 LF of wetlands/riparian areas crossed and 5250 LF of floodplain crossed
	Existing Utilities	Yellow	Medium density of existing utilities
	Hazardous/Permitted Crossings	Green	No hazardous/permitted crossings known
	Surface and Street Impacts	Red	40 LF of open-cut in gravel roads (Valleyview Terrace), and 0 LF of open-cut in paved roads
	Traffic Impacts	Red	520 LF of low, 0 LF of medium, 40 LF of high traffic impacts, traffic impact score of 600
	Water Storage Reservoirs Impacts	Green	No impacts expected
	Construction Duration and Relative Constructability	Red	230 days of construction
Required Trenchless Crossing	Red	1 HWY (HWY 392), 1 Railroad, 7 County Roads (CR-76, CR-74, CR-72, CR-15, CR-13(x2), CR-68.5), 920 LF total trenchless	
Development Pressure	Yellow	5500 LF of near-term developments	
Operation and Maintenance Access	Green	Convenient access due to proximity to roads	
O&M Requirements	Yellow	13 ARV and BO pairs	
Natural Resources Impacts	Green	200 LF in natural areas	

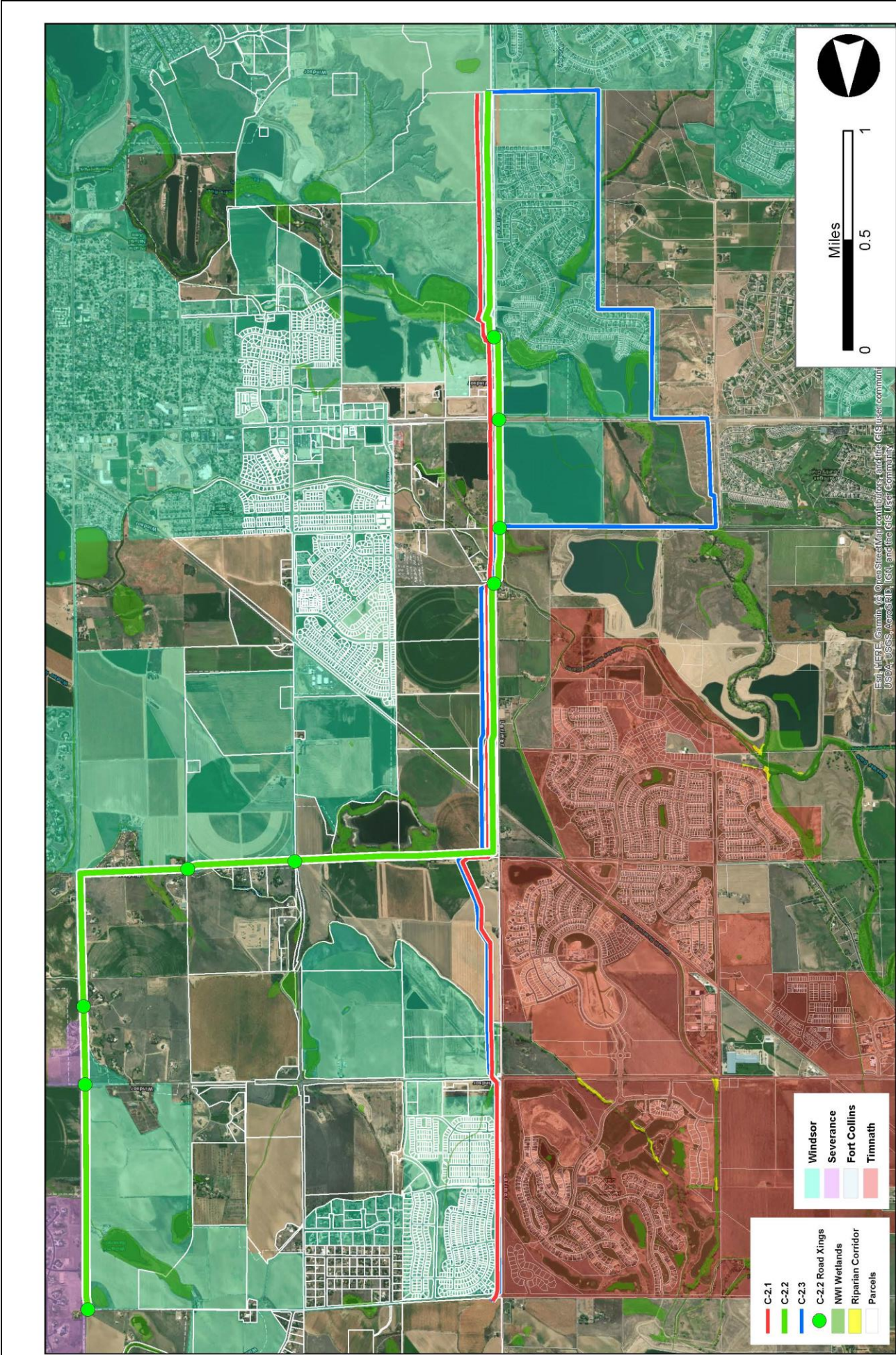


Figure C.8 – Alternative C-2.2

Map of the Fort Collins area showing the proposed C-2.3 Road Kings project. The map displays various land use zones in different colors: Windsor (light blue), Severance (pink), Fort Collins (light green), and Timnath (light yellow). The project area is outlined in red and blue. A scale bar indicates distances up to 1 mile. A north arrow is located in the top right corner. The map also shows existing infrastructure like roads and water bodies.

Figure C.9 – Alternative C-2.3

Alternative Name	C-3.1		
Alternative Location & Description	County Line Alternative C-3.1 begins along the east side of CR 13 roughly 2,600 feet north of CR 64, near the Raindance subdivision. It travels south paralleling the east side of CR 13 and crossing it several times throughout this reach. It traverses through a combination of agricultural, rural residential, and subdivision properties. Heading south it crosses Hwy 34, traverses west around a parcel, crosses three railroad tracks, and finally the Big Thompson River. South of the railroad tracks the line continues ending at the intersection of CR 54 and CR 13.		
	Criteria	Ranking	Comments
	Capital Cost	Green	\$ 16,998,000
	Conduit Length	Green	5.7 miles, 30,100 feet
	Easement Difficulty	Red	29 parcels crossed, 1 non-perimeter crossing
	Right-of-Way Impact	Green	900 LF in ROW
	Land Owner Impact	Yellow	6 driveway crossings, minor subjective landowner impacts
	Proximity to Occupied Dwellings	Green	Within 100-feet of 2 occupied dwellings
	Environmental Impacts and Floodplain Crossings	Red	740 LF of wetlands/riparian areas crossed and 2250 LF of floodplain crossed
	Existing Utilities	Yellow	Medium density of existing utilities
	Hazardous/Permitted Crossings	Green	No hazardous/permitted crossing known
	Surface and Street Impacts	Green	120 LF of open-cut in gravel roads (CR-64, CR-60), and 0 LF of open-cut in paved roads
	Traffic Impacts	Red	460 LF of low, 120 LF of medium, 0 LF of high traffic impacts, traffic impact score of 700
	Water Storage Reservoirs Impacts	Green	No impacts expected
	Construction Duration and Relative Constructability	Green	180 days of construction
	Required Trenchless Crossing	Red	1 HWY (HWY 34), 3 Railroads, 6 County Roads (Steeplechase Dr., CR-62, CR-13(x4)), 1020 LF total trenchless
Development Pressure	Yellow	10370 LF of near-term developments	
Operation and Maintenance Access	Green	Convenient access due to proximity to roads	
O&M Requirements	Green	6 ARV and BO pairs	
Natural Resources Impacts	Red	280 LF in natural areas	

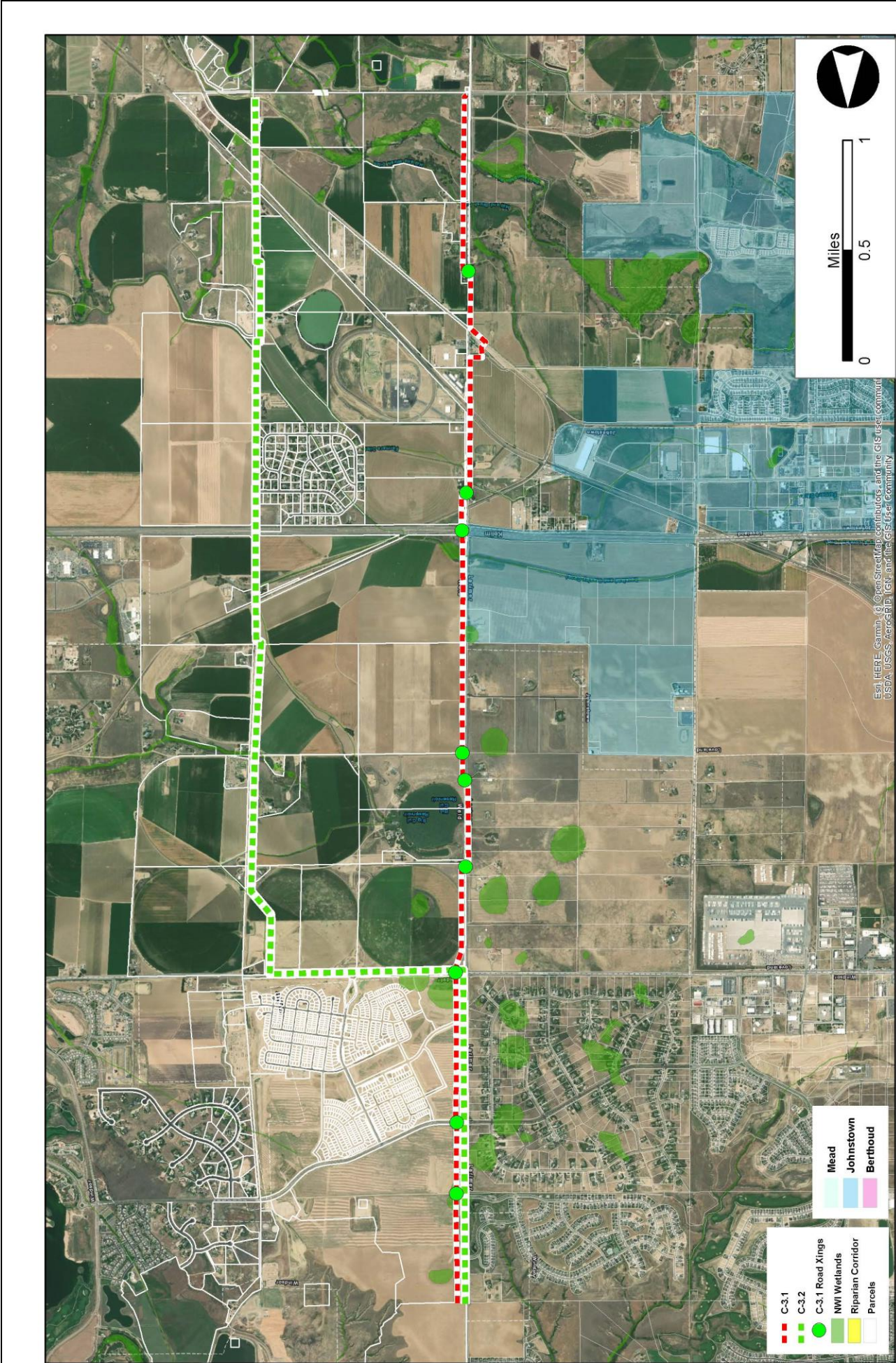


Figure C.10 - Alternative C-3.1

Alternative Name	C-3.2		
Alternative Location & Description	County Line Alternative C-3.2 begins along the east side of CR 13 roughly 2,600 feet north of CR 64, near the Raindance subdivision. The alignment runs south and turns east at CR 62 for approximately 4,630 feet until reaching a parcel boundary where it turns south. The alignment turns south and follows the parcel boundary until reaching CR 15. It then runs south and parallels the road, crossing Hwy 34, until ending at the intersection of CR 54 and CR 15.		
	Criteria	Ranking	Comments
	Capital Cost	Red	\$ 18,922,000
	Conduit Length	Red	6.5 miles, 34,100 feet
	Easement Difficulty	Green	24 parcels crossed, 1 non-perimeter crossing
	Right-of-Way Impact	Red	1020 LF in ROW
	Land Owner Impact	Green	4 driveway crossings, minor subjective landowner impacts
	Proximity to Occupied Dwellings	Green	Within 100-feet of 1 occupied dwellings
	Environmental Impacts and Floodplain Crossings	Green	500 LF of wetlands/riparian areas crossed and 0 LF of floodplain crossed
	Existing Utilities	Green	Low density of existing utilities
	Hazardous/Permitted Crossings	Green	No hazardous/permitted crossings known
	Surface and Street Impacts	Red	160 LF of open-cut in gravel roads (CR-64, CR-60, CR-56), and 0 LF of open-cut in paved roads
	Traffic Impacts	Green	400 LF of low, 160 LF of medium, 0 LF of high traffic impacts, traffic impact score of 560
	Water Storage Reservoirs Impacts	Green	No impacts expected
	Construction Duration and Relative Constructability	Red	200 days of construction
Required Trenchless Crossing	Green	1 HWY (HWY 34), 3 Railroads, 5 County Roads (Steeplechase Dr., CR-62, CR-15(x3)), 920 LF total trenchless	
Development Pressure	Yellow	10370 LF of near-term developments	
Operation and Maintenance Access	Green	Convenient access due to proximity to roads	
O&M Requirements	Green	6 ARV and BO pairs	
Natural Resources Impacts	Green	0 LF in natural areas	

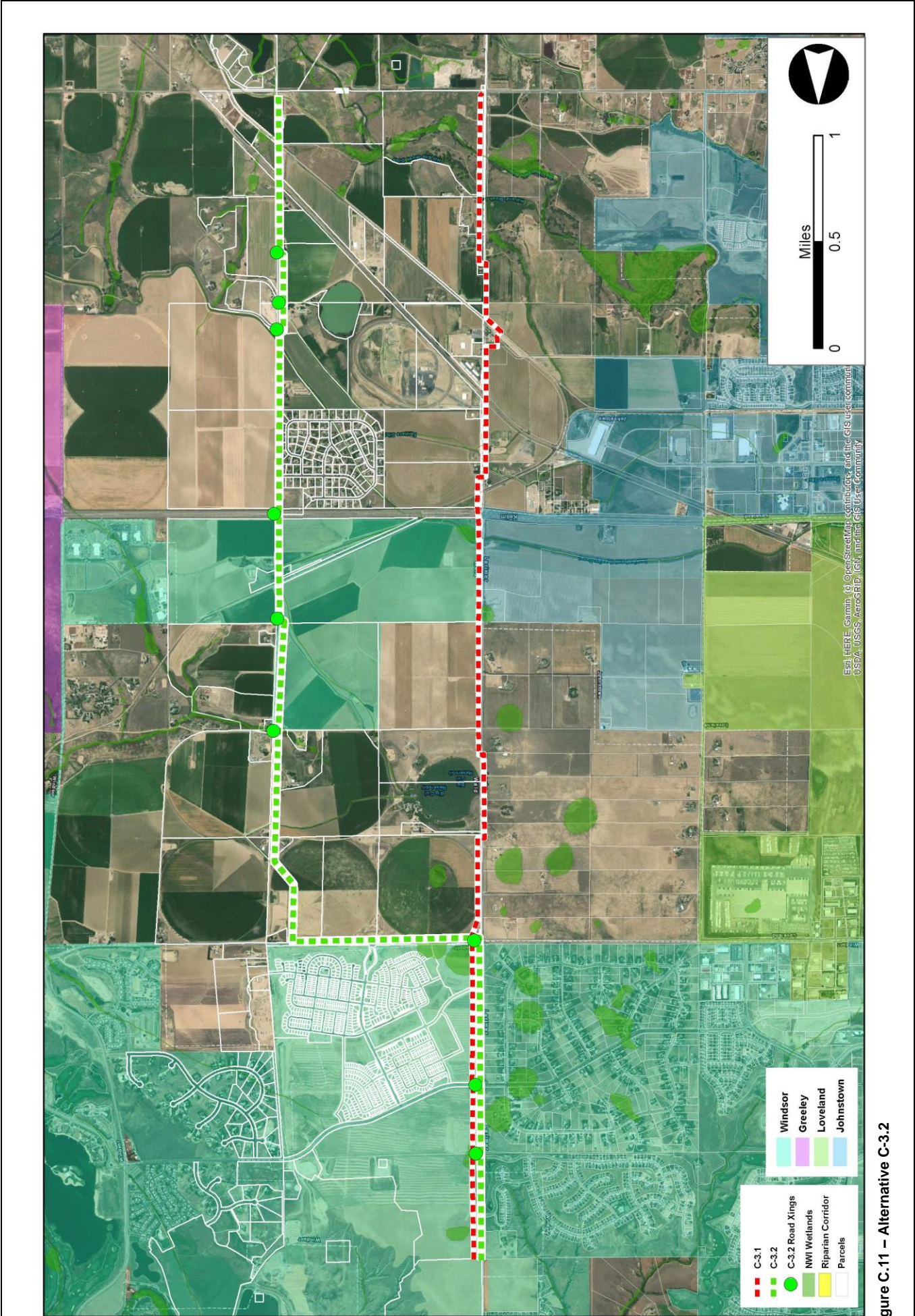


Figure C.11 – Alternative C-3.2

Alternative Name	C-4.1		
Alternative Location & Description	County Line Alternative C-4.1 begins at the intersection of CR 13 and CR 54 and runs south paralleling the west side of CR 13. It travels in a southerly direction crossing CR 13 several times throughout this reach. It traverses through a combination of agricultural, rural residential, and subdivision properties. Headed south the alignment crosses CR 14, follows a parcel boundary, and then continues paralleling CR 13 to the south. The line continues passing through the Town of Johnstown, crossing Hwy 60, a railroad track, the Little Thompson River, and finally ending on the west side of the intersection of CR 13 and CR 42.		
	Criteria	Ranking	Comments
	Capital Cost	Green	\$ 17,913,000
	Conduit Length	Green	6.2 miles, 32,500 feet
	Easement Difficulty	Green	23 parcels crossed, 0 non-perimeter crossings
	Right-of-Way Impact	Red	760 LF in ROW
	Land Owner Impact	Red	5 driveway crossings, moderate subjective landowner impacts
	Proximity to Occupied Dwellings	Green	Within 100-feet of 5 occupied dwellings
	Environmental Impacts and Floodplain Crossings	Green	90 LF of wetlands/riparian areas crossed and 490 LF of floodplain crossed
	Existing Utilities	Red	High density of existing utilities
Hazardous/Permitted Crossings	Green	No hazardous/permitted crossing known	
Surface and Street Impacts	Yellow	120 LF of open-cut in gravel roads (CR-46, CR-44), and 0 LF of open-cut in paved roads	
Traffic Impacts	Red	580 LF of low, 240 LF of medium, 0 LF of high traffic impacts, traffic impact score of 820	
Water Storage Reservoirs Impacts	Green	No impacts expected	
Construction Duration and Relative Constructability	Green	190 days of construction	
Required Trenchless Crossing	Red	1 HWY (HWY 60), 1 Railroad, 8 County Roads (CR-54, CR-52, CR-13(x5), CR-50), 1020 LF total trenchless	
Development Pressure	Red	5250 LF of near-term developments	
Operation and Maintenance Access	Green	Convenient access due to proximity to roads	
O&M Requirements	Green	5 ARVs; 4 BOs	
Natural Resources Impacts	Green	350 LF in natural areas	

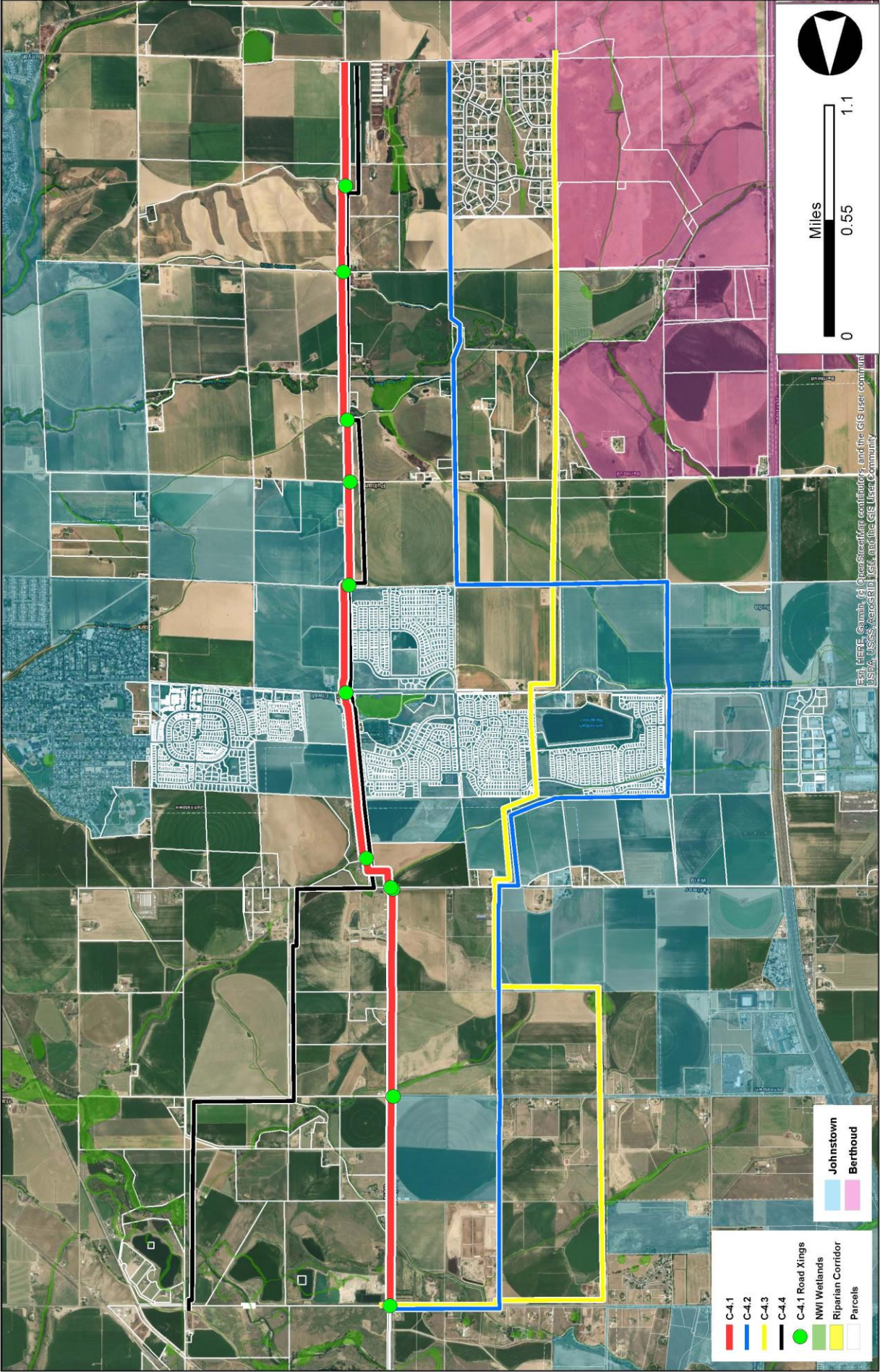


Figure C.12 – Alternative C - 4.1

Alternative Name	C-4.2		
Alternative Location & Description	County Line Alternative C-4.2 begins at the intersection of CR 13 and CR 54 and runs west paralleling the north side of CR 54 for about 2,800 feet before turning south through an agricultural field. It travels in a southerly direction along parcel boundaries until reaching existing subdivisions in the Town of Johnstown. The alignment turns west until reaching High Plains Blvd. where it turns south crossing Hwy 60 followed by a railroad track. It then turns east paralleling the south side of the railroad tracks for approximately 5,200 feet before continuing south through more agricultural fields, crossing the Little Thompson River, and finally ending at CR 42. The alignment traverses agricultural fields as well as existing and planned developments.		
	Criteria	Ranking	Comments
	Capital Cost	Red	\$ 21,565,000
	Conduit Length	Red	8.3 miles, 43,800 feet
	Easement Difficulty	Red	33 parcels crossed, 0 non-perimeter crossings
	Right-of-Way Impact	Green	480 LF in ROW
	Land Owner Impact	Green	4 driveway crossings, minor subjective landowner impacts
	Proximity to Occupied Dwellings	Red	Within 100-feet of 19 occupied dwellings
	Environmental Impacts and Floodplain Crossings	Yellow	310 LF of wetlands/riparian areas crossed and 980 LF of floodplain crossed
	Existing Utilities	Green	Low density of existing utilities
	Hazardous/Permitted Crossings	Green	No hazardous/permitted crossing known
	Surface and Street Impacts	Green	80 LF of open-cut in gravel roads (CR-14, CR-46), and 0 LF of open-cut in paved roads
	Traffic Impacts	Green	460 LF of low, 160 LF of medium, 0 LF of high traffic impacts, traffic impact score of 620
	Water Storage Reservoirs Impacts	Green	No impacts expected
	Construction Duration and Relative Constructability	Yellow	210 days of construction
	Required Trenchless Crossing	Green	1 HWY (HWY 60), 1 Railroad, 4 County Roads (CR-13, CR-18, CR-16, CR-44), 620 LF total trenchless
Development Pressure	Green	0 LF of near-term developments	
Operation and Maintenance Access	Red	Difficult access, does not parallel roads	
O&M Requirements	Red	9 ARV and BO pairs	
Natural Resources Impacts	Green	410 LF in natural areas	

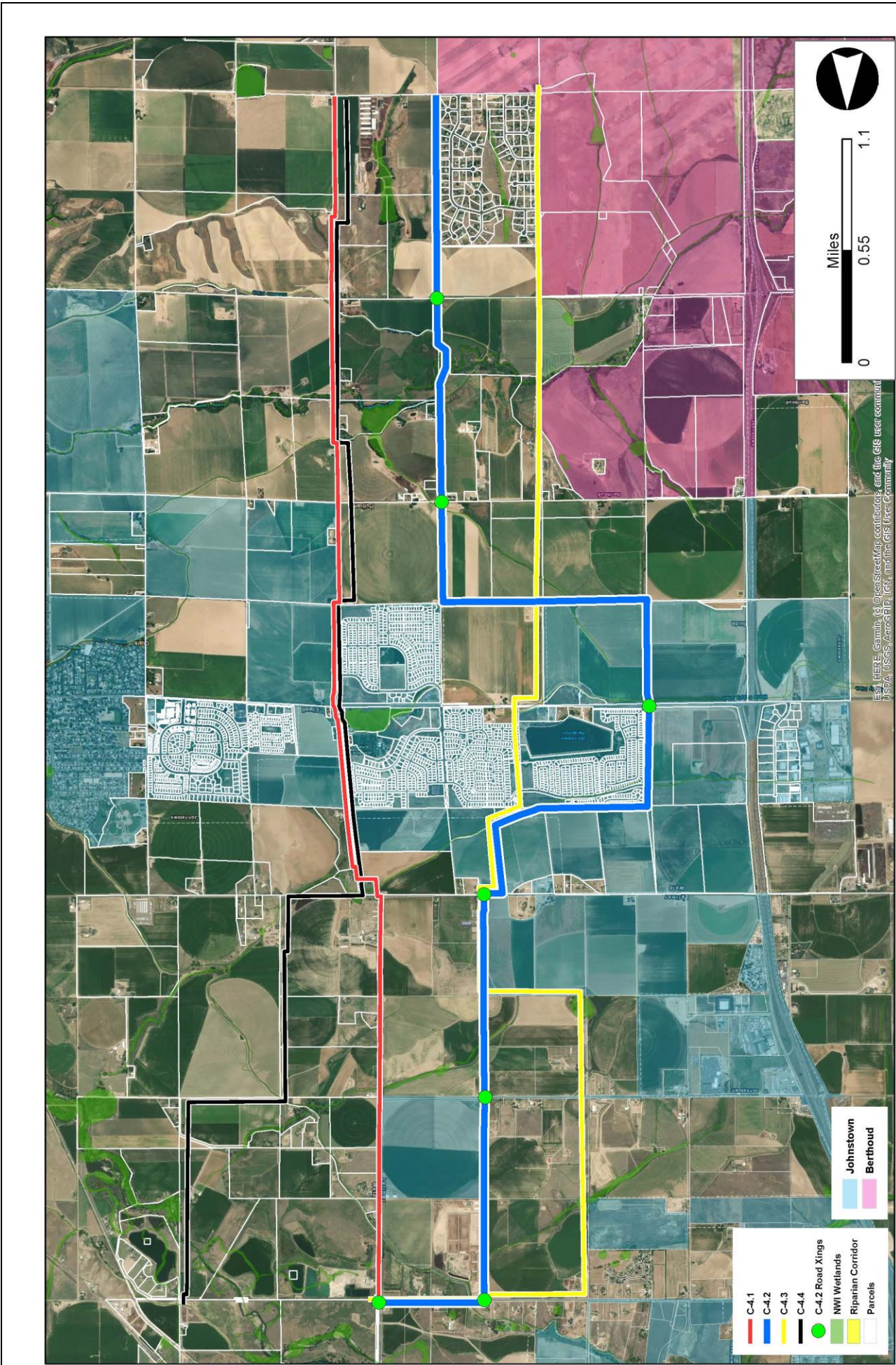


Figure C.13 – Alternative C-4.2

Alternative Name	C-4.3	
Alternative Location & Description	County Line Alternative C-4.3 begins at the intersection of CR 13 and CR 18 and runs west paralleling CR 18 to a parcel boundary south of CR 18 at the intersection of CR 18 and CR 3. The alignment traverses in a southerly direction along parcel boundaries until reaching existing subdivisions in Johnstown. The alignment turns south and traverses passed the east end of Johnstown Reservoir, across Hwy 60, followed by a railroad track, and the Little Thompson River, until ending approximately 5,400 feet west of CR 13 and CR 42.	
	This alignment was removed in the initial screening process because the corridor east of Johnstown Reservoir is not a constructible corridor. Large amounts of buried debris have been indicated within the corridor near Johnstown Reservoir. Therefore the alternative was not moved beyond the initial screening process.	
Criteria	Ranking	Comments
Capital Cost		
Conduit Length		
Easement Difficulty		
Right-of-Way Impact		
Land Owner Impact		
Proximity to Occupied Dwellings		
Environmental Impacts and Floodplain Crossings		
Existing Utilities		
Hazardous/Permitted Crossings		
Surface and Street Impacts		
Traffic Impacts		
Water Storage Reservoirs Impacts		
Construction Duration and Relative Constructability		
Required Trenchless Crossing		
Development Pressure		
Operation and Maintenance Access		
O&M Requirements		
Natural Resources Impacts		

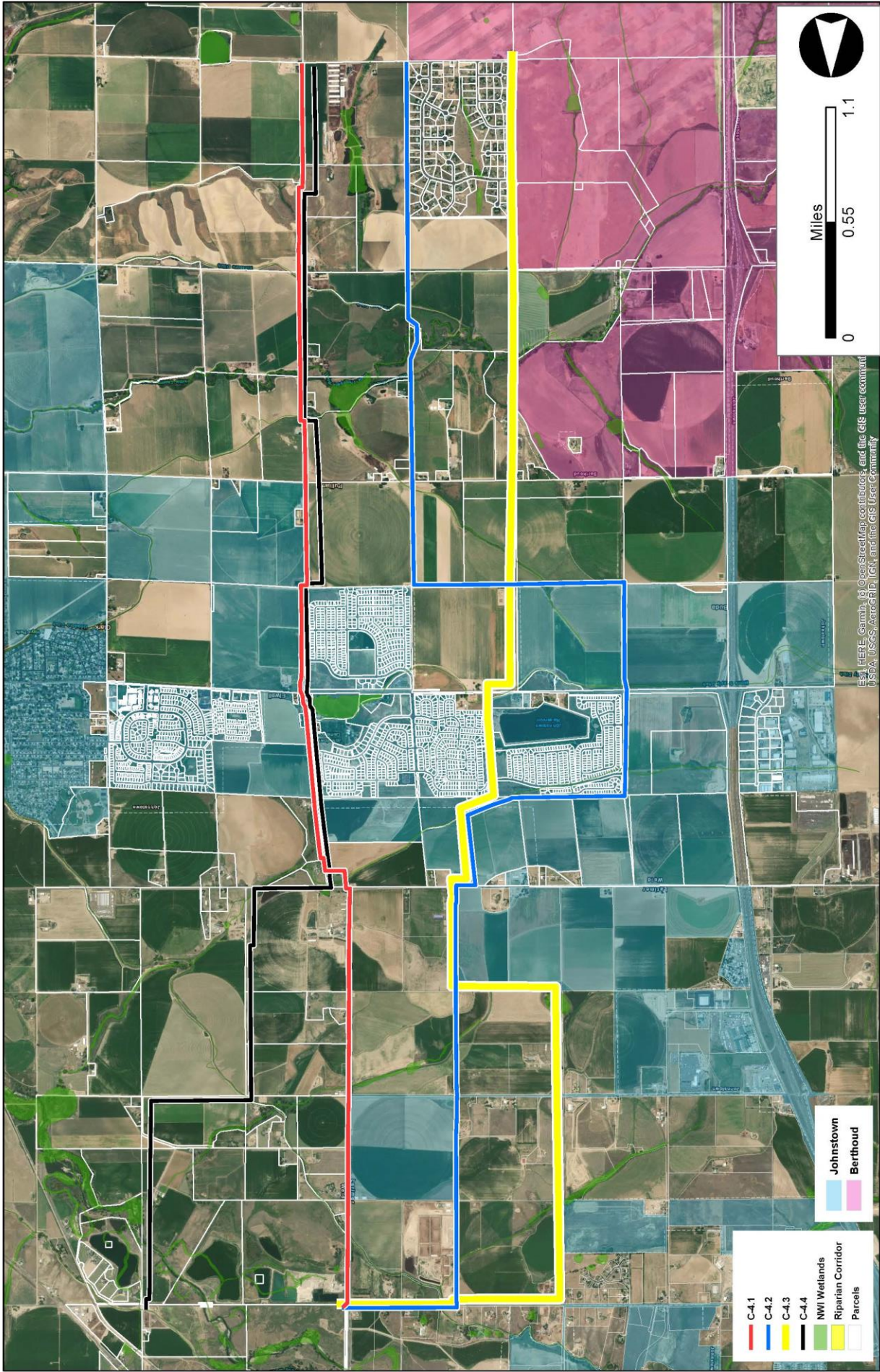


Figure C.14 – Alternative C-4.3

Alternative Name	C-4.4		
Alternative Location & Description	County Line Alternative C-4.4 begins at the intersection of CR 15 and CR 54 and runs south paralleling CR 15. It heads south crossing the Big Thompson River until turning west at CR 52 for approximately 2,565 feet where it turns south through agricultural fields along parcel boundaries. It continues south before turning west at CR 50, and then south again at CR 13. The line continues passing through the Town of Johnstown, crossing Hwy 60, a railroad track, The Little Thompson River, and finally ending on the west side of the intersection of CR 13 and CR 42.		
	Criteria	Ranking	Comments
	Capital Cost	Yellow	\$ 19,646,000
	Conduit Length	Yellow	7.0 miles, 36,900 feet
	Easement Difficulty	Green	23 parcels crossed, 0 non-perimeter crossings
	Right-of-Way Impact	Yellow	660 LF in ROW
	Land Owner Impact	Red	5 driveway crossings, moderate subjective landowner impacts
	Proximity to Occupied Dwellings	Green	Within 100-feet of 3 occupied dwellings
	Environmental Impacts and Floodplain Crossings	Red	410 LF of wetlands/riparian areas crossed and 2710 LF of floodplain crossed
	Existing Utilities	Yellow	Medium density of existing utilities
	Hazardous/Permitted Crossings	Green	No hazardous/permitted crossings known
	Surface and Street Impacts	Red	160 LF of open-cut in gravel roads (CR-52.25, CR-52, CR-46,CR-44), and 0 LF of open-cut in paved roads
	Traffic Impacts	Yellow	400 LF of low, 320 LF of medium, 0 LF of high traffic impacts, traffic impact score of 720
	Water Storage Reservoirs Impacts	Green	No impacts expected
	Construction Duration and Relative Constructability	Red	220 days of construction
	Required Trenchless Crossing	Yellow	1 HWY (HWY 60), 1 Railroad, 5 County Roads (CR-54, CR-50, CR-13(x3)), 720 LF total trenchless
Development Pressure	Red	5250 LF of near-term developments	
Operation and Maintenance Access	Yellow	Moderate access convenience due to proximity to road the majority of alignment	
O&M Requirements	Green	6 ARV and 5 BO pairs	
Natural Resources Impacts	Red	750 LF in natural areas	

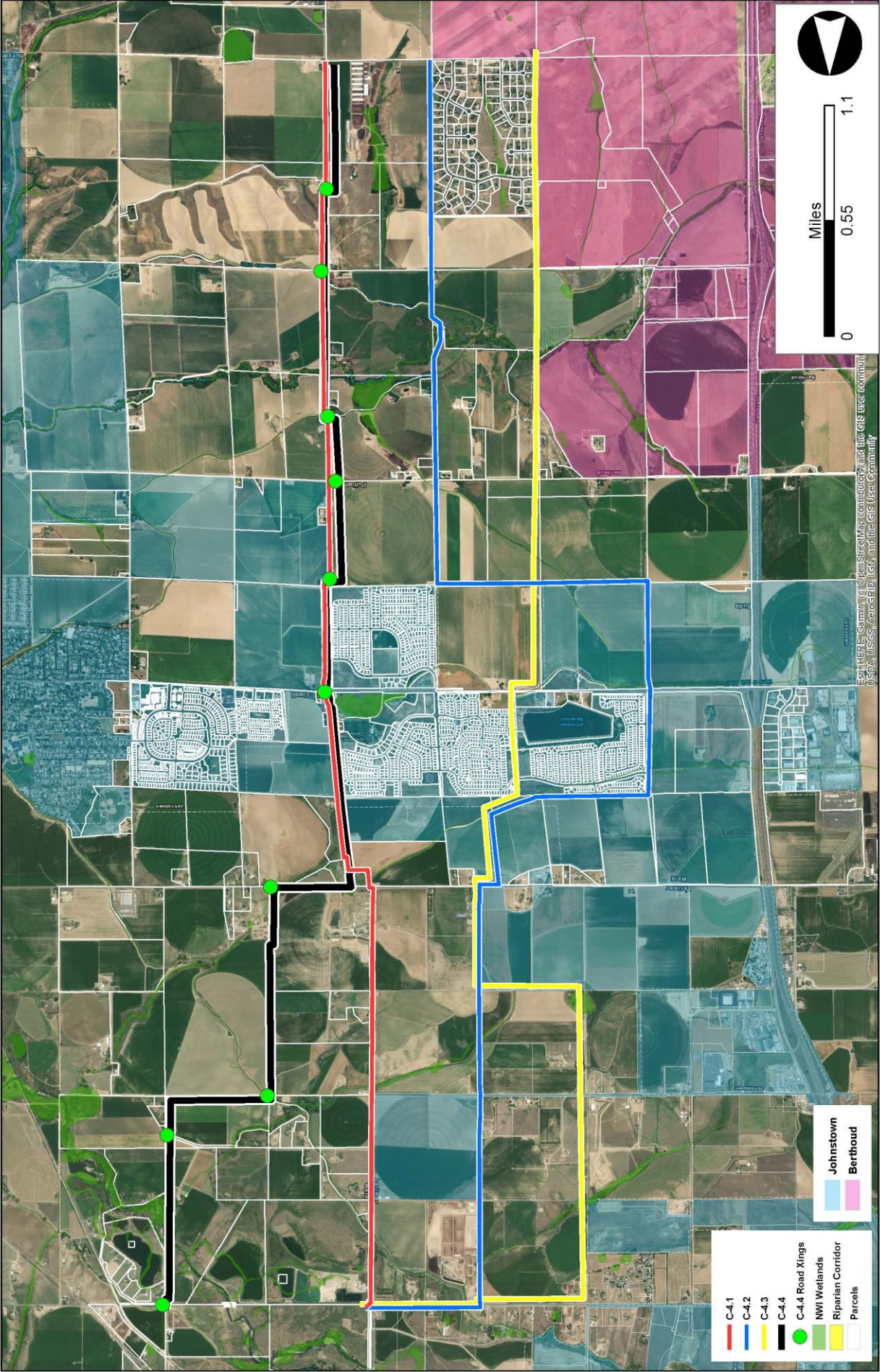


Figure C.15 – Alternative C-4.4

Alternative Name	C-5.1	
Alternative Location & Description	County Line Alternative C-5.1 begins at the intersection of CR 13 and CR 42 and runs south paralleling the west side of CR 13. It travels in a southerly direction crossing CR 13 several times throughout this reach. It traverses through a combination of agricultural, rural residential, and subdivision properties. Headed south the alignment runs adjacent to Lake Thomas Dam on the east side of CR 13, and continues until ending about 2,600 feet south of CR 32 where it ties in to the Fort Lupton/Hudson Pipeline.	
Criteria	Ranking	Comments
Capital Cost	Green	\$ 15,493,000
Conduit Length	Green	5.6 miles, 29,400 feet
Easement Difficulty	Green	23 parcels crossed, 0 non-perimeter crossings
Right-of-Way Impact	Red	540 LF in ROW
Land Owner Impact	Red	12 driveway crossings, minor subjective landowner impacts
Proximity to Occupied Dwellings	Red	Within 100-feet of 9 occupied dwellings
Environmental Impacts and Floodplain Crossings	Green	600 LF of wetlands/riparian areas crossed and 455 LF of floodplain crossed
Existing Utilities	Yellow	High density of existing utilities
Hazardous/Permitted Crossings	Green	No hazardous/permitted crossing known
Surface and Street Impacts	Green	80 LF of open-cut in gravel roads (CR-40, CR-36, CR-32), and 0 LF of open-cut in paved roads
Traffic Impacts	Green	240 LF of low, 80 LF of medium, 0 LF of high traffic impacts, traffic impact score of 400
Water Storage Reservoirs Impacts	Green	Toe of Lake Thomas Dam greater than 100-feet from alignment; no impacts expected
Construction Duration and Relative Constructability	Red	180 days of construction
Required Trenchless Crossing	Red	1 Railroad, 4 County Roads (CR-42, CR-13, CR-38, CR-34), 500 LF total trenchless
Development Pressure	Green	0 LF of near-term developments
Operation and Maintenance Access	Green	Convenient access due to proximity to roads
O&M Requirements	Green	6 ARVs; 5 BOs
Natural Resources Impacts	Green	0 LF in natural areas

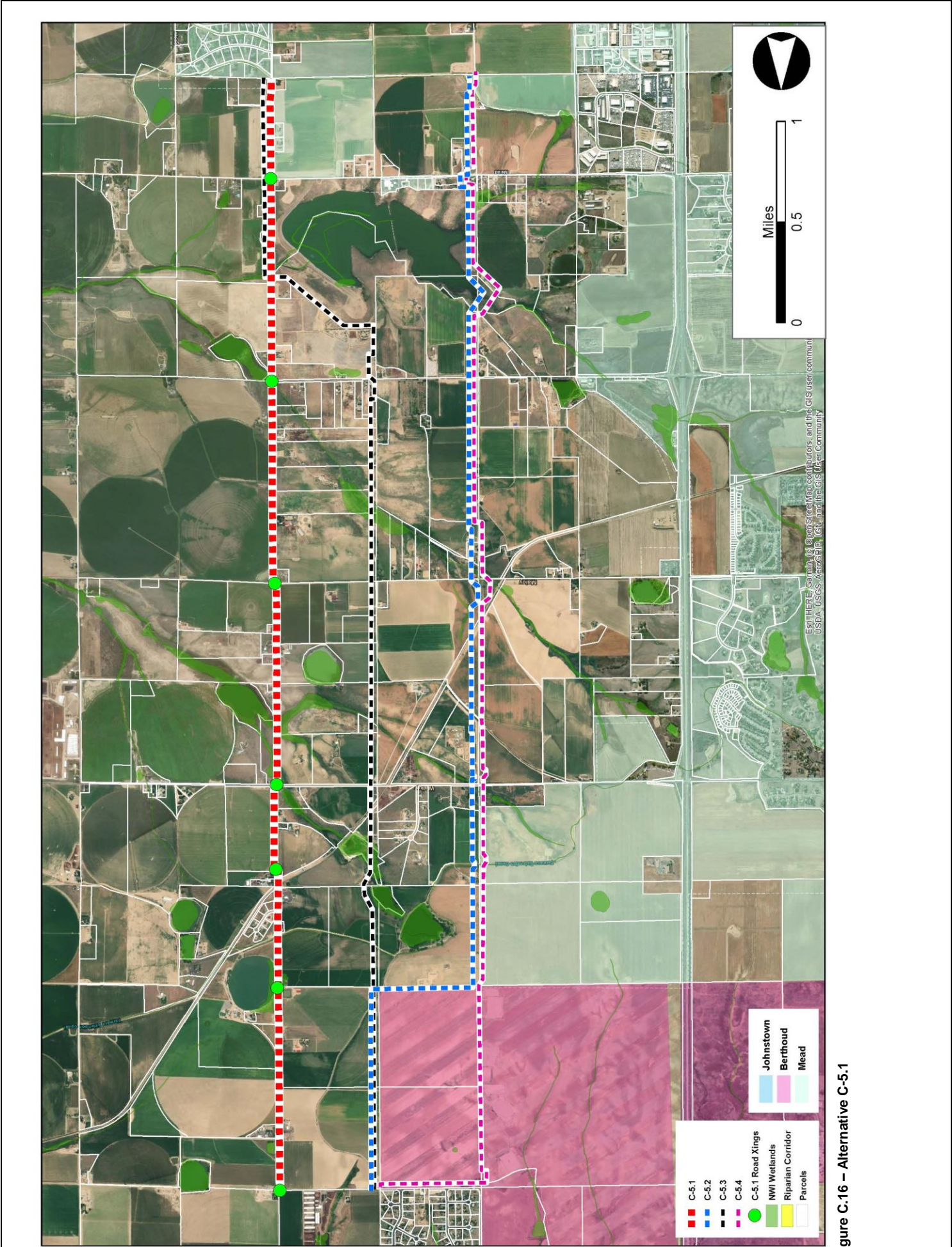


Figure C.16 – Alternative C-5.1

Alternative Name	C-5.2		
Alternative Location & Description	County Line Alternative C-5.2 begins roughly 2,600 feet west of the intersection of CR 42 and CR 13. It travels south through agricultural fields along parcel boundaries until it turns west at CR 40 for approximately 2,700 feet, and then again south through more agricultural fields. Approaching Lake Thomas it jogs to the west, and then continues south ending approximately 2,600 feet south of CR 32 where it ties in to the Fort Lupton/Hudson Pipeline.		
Criteria	Ranking	Comments	
Capital Cost	Yellow	\$ 16,275,000	
Conduit Length	Red	6.3 miles, 33,000 feet	
Easement Difficulty	Green	22 parcels crossed, 1 non-perimeter crossings	
Right-of-Way Impact	Yellow	470 LF in ROW	
Land Owner Impact	Green	0 driveways crossed, no subjective landowner impacts	
Proximity to Occupied Dwellings	Green	Within 100-feet of 2 occupied dwellings	
Environmental Impacts and Floodplain Crossings	Red	1070 LF of wetlands/riparian areas crossed and 575 LF of floodplain crossed	
Existing Utilities	Green	Low density of existing utilities	
Hazardous/Permitted Crossings	Green	No hazardous/permitted crossing known	
Surface and Street Impacts	Yellow	120 LF of open-cut in gravel roads (CR-40, CR-38, CR-36), and 0 LF of open-cut in paved roads	
Traffic Impacts	Green	180 LF of low, 120 LF of medium, 0 LF of high traffic impacts, traffic impact score of 420	
Water Storage Reservoirs Impacts	Green	No impacts expected	
Construction Duration and Relative Constructability	Green	170 days of construction	
Required Trenchless Crossing	Green	1 Railroad, 3 County Roads (CR-42, CR-34, CR-32), 400 LF total trenchless	
Development Pressure	Green	0 LF of near-term developments	
Operation and Maintenance Access	Red	Difficult access, does not parallel roads	
O&M Requirements	Red	8 ARV and BO pairs	
Natural Resources Impacts	Green	0 LF in natural areas	

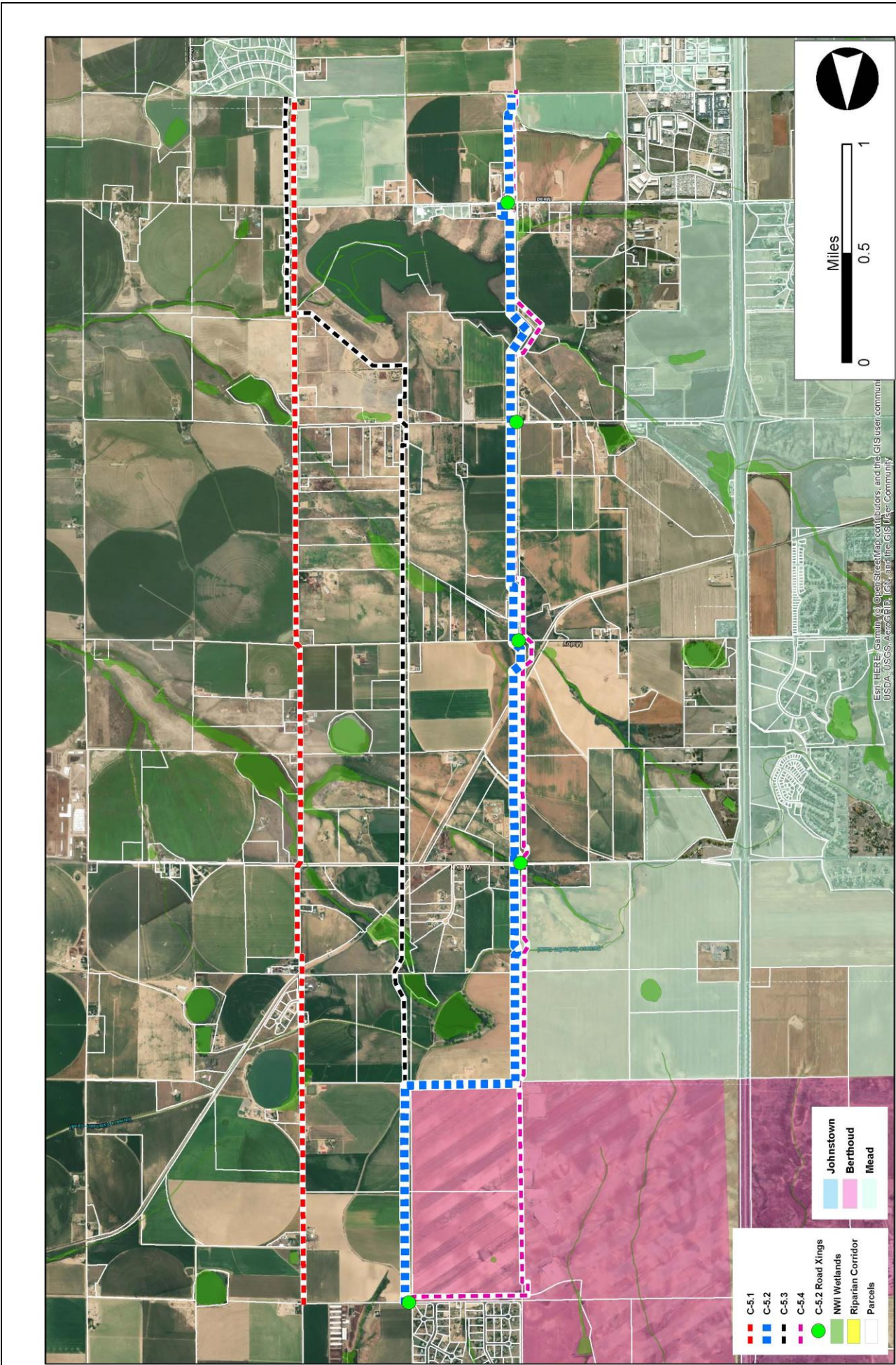


Figure C.17 – Alternative C-5.2

Alternative Name	C-5.3		
Alternative Location & Description	County Line Alternative C-5.2 begins roughly 2,600 feet west of the intersection of CR 42 and CR 13. It travels south through agricultural fields along parcel boundaries passed CR 40. It continues in a southerly direction just east of Davis Reservoir and west of Little Gem Reservoir. At approximately 1,370 feet south of CR 34 the alignment turns east for roughly 800 feet and then southeast to CR 13. Headed south the alignment runs adjacent to Lake Thomas Dam on the east side of CR 13, and continues until ending about 2,600 feet south of CR 32 where it ties in to the Fort Lupton/Hudson Pipeline.		
	Criteria	Ranking	Comments
	Capital Cost	Yellow	\$ 15,827,000
	Conduit Length	Yellow	6.0 miles, 31,600 feet
	Easement Difficulty	Red	34 parcels crossed, 1 non-perimeter crossings
	Right-of-Way Impact	Yellow	420 LF in ROW
	Land Owner Impact	Yellow	5 driveway crossings, minor subjective landowner impacts
	Proximity to Occupied Dwellings	Yellow	Within 100-feet of 6 occupied dwellings
	Environmental Impacts and Floodplain Crossings	Red	1290 LF of wetlands/riparian areas crossed and 455 LF of floodplain crossed
	Existing Utilities	Green	Low density of existing utilities
	Hazardous/Permitted Crossings	Green	No hazardous/permitted crossings known
	Surface and Street Impacts	Red	240 LF of open-cut in gravel roads (CR-40, CR-38, CR-36, CR-32), and 0 LF of open-cut in paved roads
	Traffic Impacts	Red	240 LF of low, 240 LF of medium, 0 LF of high traffic impacts, traffic impact score of 720
	Water Storage Reservoirs Impacts	Green	No impacts expected
	Construction Duration and Relative Constructability	Green	170 days of construction
	Required Trenchless Crossing	Green	1 Railroad, 3 County Roads (CR-42, CR-34, CR-13), 400 LF total trenchless
Development Pressure	Green	0 LF of near-term developments	
Operation and Maintenance Access	Red	Difficult access, does not parallel roads	
O&M Requirements	Yellow	8 ARVs; 7 BOs	
Natural Resources Impacts	Red	900 LF in natural areas	

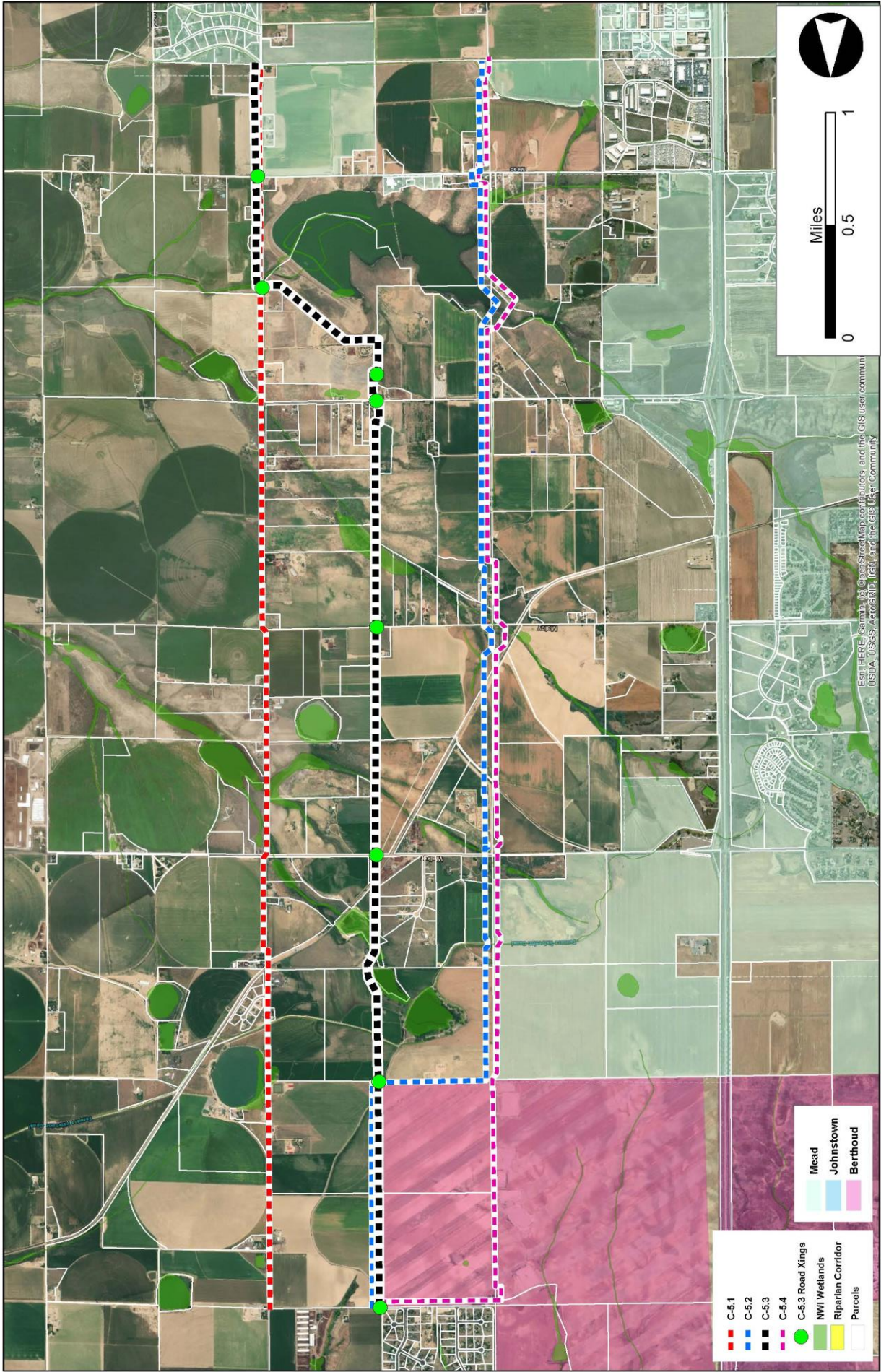


Figure C.18 - Alternative C-5.3

Alternative Name	C-5.4		
Alternative Location & Description	County Line Alternative C-5.2 begins roughly 2,600 feet west of the intersection of CR 42 and CR 13. The alignment traverses west for approximately 2,780 feet and then heads south through agricultural fields along parcel boundaries. Approaching Lake Thomas it jogs to the west, and then continues south ending approximately 2,600 feet south of CR 32 where it ties in to the Fort Lupton/Hudson Pipeline.		
	Criteria	Ranking	Comments
	Capital Cost	Red	\$ 16,544,000
	Conduit Length	Red	6.4 miles, 33,700 feet
	Easement Difficulty	Yellow	26 parcels crossed, 1 non-perimeter crossings
	Right-of-Way Impact	Green	300 LF in ROW
	Land Owner Impact	Green	0 driveways crossed, no subjective landowner impacts
	Proximity to Occupied Dwellings	Green	Within 100-feet of 2 occupied dwellings
	Environmental Impacts and Floodplain Crossings	Red	1070 LF of wetlands/riparian areas crossed and 575 LF of floodplain crossed
	Existing Utilities	Green	Low density of existing utilities
	Hazardous/Permitted Crossings	Green	No hazardous/permitted crossings known
	Surface and Street Impacts	Yellow	120 LF of open-cut in gravel roads (CR-40, CR-38, CR-36), and 0 LF of open-cut in paved roads
	Traffic Impacts	Green	180 LF of low, 120 LF of medium, 0 LF of high traffic impacts, traffic impact score of 420
Water Storage Reservoirs Impacts	Green	No impacts expected	
Construction Duration and Relative Constructability	Green	170 days of construction	
Required Trenchless Crossing	Green	1 Railroad, 3 County Roads (CR-42, CR-34, CR-32), 400 LF total trenchless	
Development Pressure	Red	8100 LF of near-term developments	
Operation and Maintenance Access	Red	Difficult access, does not parallel roads	
O&M Requirements	Red	9 ARVs; 8 BOs	
Natural Resources Impacts	Green	0 LF in natural areas	

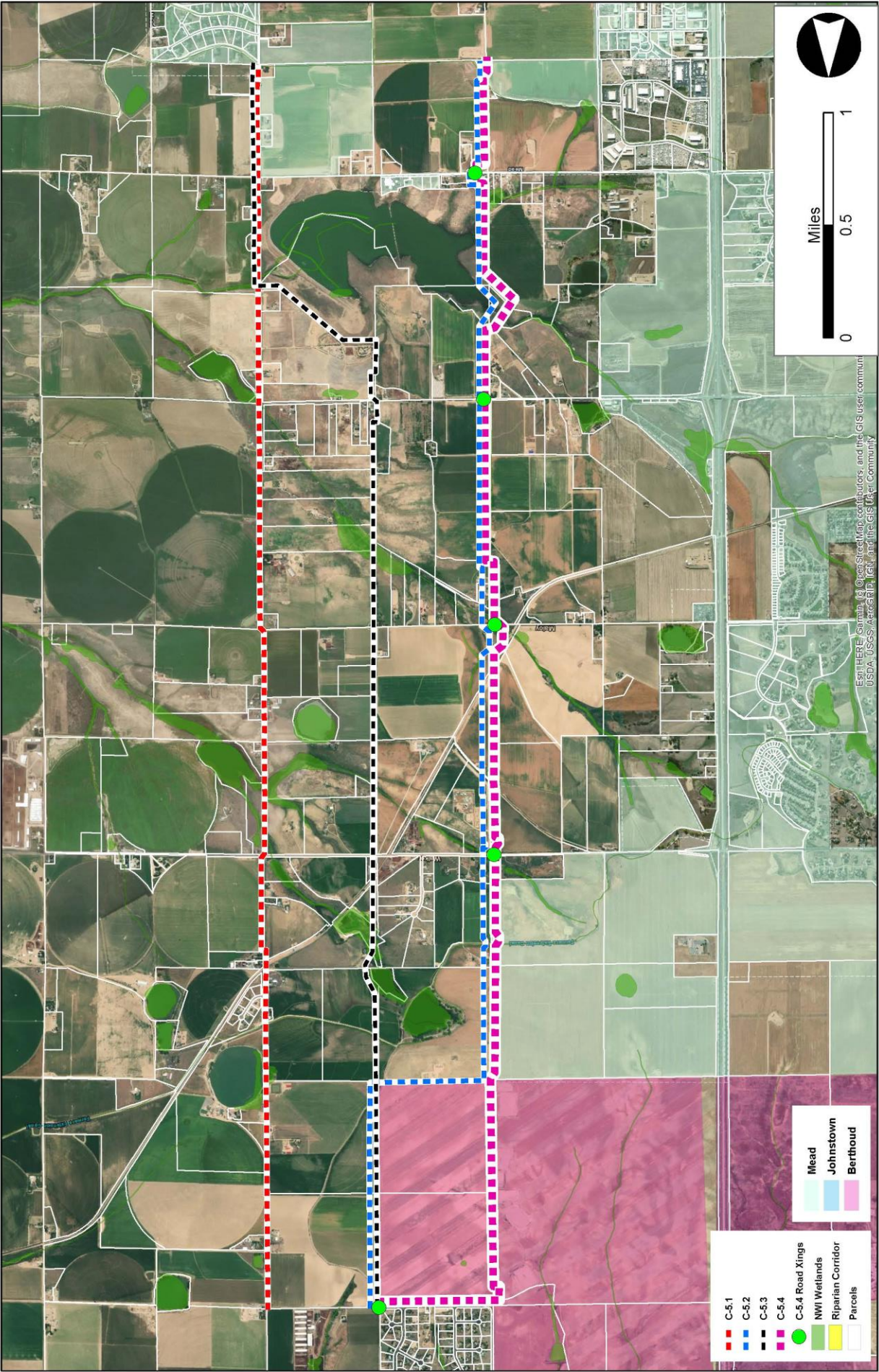


Figure C.19 - Alternative C-5.4

Table C.1 is a visual summary of the score given to every alternative for each criteria. Table C.2 tabulates the number of greens, yellows, and reds given to each alternative.

Table C.1 – Visual Summary of Alternative Scoring

Evaluation Criteria	C-1.1	C-1.2	C-1.3	C-1.4	C-1.5	C-2.1	C-2.2	C-2.3	C-3.1	C-3.2	C-4.1	C-4.2	C-4.3	C-4.4	C-5.1	C-5.2	C-5.3	C-5.4
Capital Cost																		
Conduit Length																		
Easement Difficulty																		
Right-of-Way Impact																		
Land Owner Impact																		
Proximity to Occupied Dwellings																		
Environmental Impacts and Floodplain Crossings																		
Existing Utilities																		
Hazardous/Permitted Crossings																		
Surface and Street Impacts																		
Traffic Impacts																		
Water Storage Reservoirs Impacts																		
Construction Duration and Relative Constructability																		
Required Trenchless Crossings																		
Development Pressure																		
Operation and Maintenance (O&M) Access																		
O&M Requirements																		
Natural Resources Impacts																		

Table C.2 – Numeric Summary of Alternative Scoring

Evaluation Criteria	C-1.1	C-1.2	C-1.3	C-1.4	C-1.5	C-2.1	C-2.2	C-2.3	C-3.1	C-3.2	C-4.1	C-4.2	C-4.3	C-4.4	C-5.1	C-5.2	C-5.3	C-5.4
Red	1	4	10	-	11	2	10	7	5	5	6	6	-	6	5	4	6	6
Yellow	7	3	2	-	1	1	3	2	3	1	1	2	-	7	1	3	6	2
Green	10	11	6	-	6	15	5	9	10	12	11	10	-	5	12	11	6	10

Project Area 1 scoring indicates that Alternatives C-1.1 and C-1.2 are comparably ranked in the numerical analysis. NISP WAE continues to investigate both routes in coordination with local jurisdictions and known development activities in the area. Alternative C-1.2 is located entirely within Timnath, Severance, and Weld County. For the purposes of this Larimer County route analysis, Alternative C-1.1 is shown to quantify the greatest potential impacts within Larimer County.

Project Area 3 scoring indicates Alternative C-3.2 as the better performing route over Alternative C-3.1. However, the two alignments do not have the same endpoints and would necessarily have to connect to Project Area 4 alignments. As stated in the introduction, this can be resolved by combining each Project Area 3 alternative with its respective Project Area 4 alternative continuation and creating a combined scoring comparison. This combined scoring is summarized in **Table C.3** below:

Table C.3 – Combined Scoring, Project Areas 3 and 4

Rating	Alternative Combinations	
	3.1 + 4.1	3.2 + 4.4
Red	11	11
Yellow	4	8
Green	21	17

The combined alternatives 3.1 + 4.1 score as the better performing alternatives than 3.2 + 4.4. The 3.1 alternative is, therefore, the preferred route.

PREFERRED ALIGNMENT

The preferred alignment consists of a combination of Alternative C-1.1, C-2.1, C-3.2, C-4.1 and C-5.2 and is presented in **Figure C.20**. The alignment begins at the intersection of CR 52 and CR 13 and generally follows County Line Road (outside of current ROW) south to approximately 2,600 feet south of CR 32 where it ties into the existing Fort Lupton Pipeline. The alignment generally has lower landowner impact and less proximity to occupied dwellings than the other alternative routes. Because of existing dense development in Timnath, Windsor, and Johnstown, east and west of County Line, it provides the best continuous corridor for a new large conveyance pipeline. It also parallels a corridor that will eventually become a major arterial roadway and will be coordinated in a way to leverage off of this future planning while minimizing ultimate loss of productive land use. **Table C.4** below summarizes the estimated features of the overall preferred alignment, broken down by Project Area segments. In the case of a tie, alternates were evaluated and the preferred alignment was selected based upon prioritization of factors, mainly cost and length.

Table C.4 – Preferred Alignment Characteristics

Characteristic	C-1.1	C-2.1	C-3.1	C-4.1	C-5.1	TOTAL
Pipe Diameter (inches)	48	48	48	48	48	48
Pipe Material	Mortar Lined Steel	Mortar Lined Steel	Mortar Lined Steel	Mortar Lined Steel	Mortar Lined Steel	Mortar Lined Steel
Total Distance (miles)	6.1	5.7	5.7	6.2	5.6	29.3
Pipe Cost	\$17,557,000	\$16,275,000	\$16,998,000	\$17,913,000	\$15,493,000	\$84,236,000
Length Tunnel (feet)	720	720	1,020	1,020	500	3,980
Number of Landowners	27	19	29	23	23	121
Wetland Crossings (feet)	2460	1,410	740	90	600	5,300

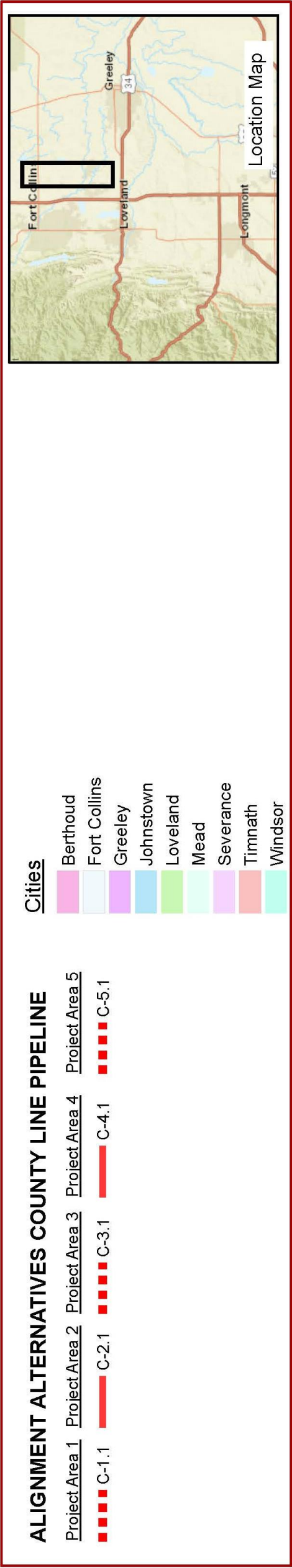
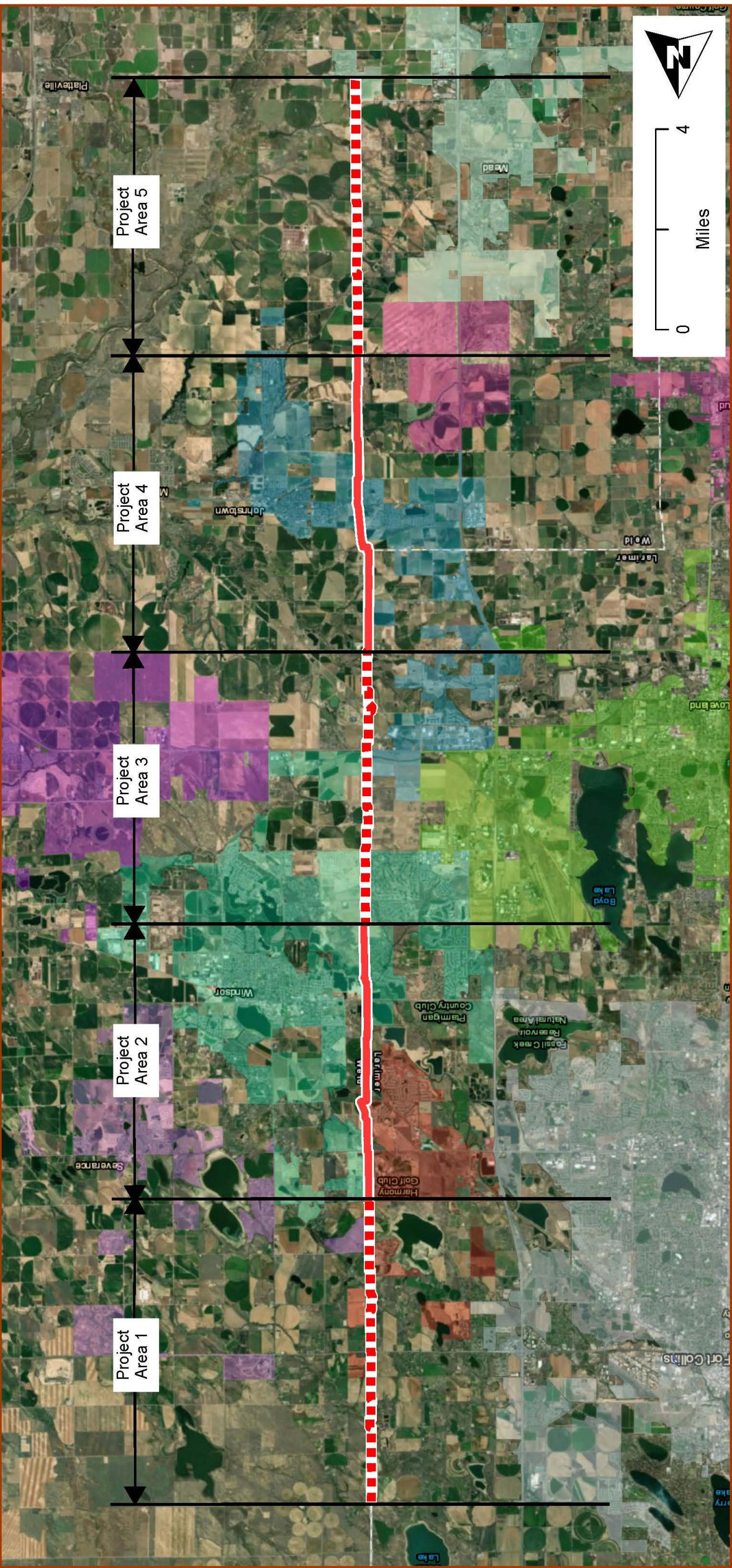


Figure C.20 – County Line Road Delivery Pipeline Preferred Alignment



**Larimer County 1041 Permit
Technical Memorandum No. 4
Glade Reservoir Recreation
Voluntary Permit Conditions**

Prepared for:
Larimer County

Prepared by:
**Northern Integrated Supply Project
Water Activity Enterprise**

February 2020

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1.0 Purpose

This memo outlines voluntary permit conditions being offered by the Northern Integrated Supply Project Water Activity Enterprise (NISP WAE) for including public recreation at Glade Reservoir that is conducive to its primary purpose as a water supply facility. These voluntary conditions are offered as commitments to be included in the Larimer County Board of County Commissioners' (County) 1041 Permit for the Northern Integrated Supply Project (NISP or Project). This memo supplements the description of the voluntary recreation commitments and Recreation Concept Master Plan and the discussion of the benefit these commitments provided in Tech Memo No. 1.

2.0 Fundamental Principles for Recreation Development

The proponents and applicants for NISP (NISP Participants) are voluntarily proposing to include certain fundamental principles regarding recreation development at Glade Reservoir as Voluntary Permit Conditions within the 1041 Permit for NISP.

The fundamental principles for recreation development at Glade Reservoir address the financing, construction and management of recreation at Glade Reservoir, and will commit both parties to the joint development of a Recreation Development Plan that will be prepared subsequent to issuance, and acceptance by NISP Participants, of the 1041 Permit. These fundamental principles honor more than a year of discussions with staff in the County's Planning and Natural Resources Departments and are included in the following Voluntary Permit Conditions.



This figure shows a May 2018 field trip to visit and coordinate the development of recreation areas.

2.1. Voluntary Permit Conditions

2.1.1 Recreation Development Plan

NISP Enterprise and the County will jointly develop a Recreation Development Plan that:

- a) Utilizes consultant cost estimates to prioritize a list of recreation facilities to be constructed using the money jointly contributed by the parties
- b) Meets the identified recreation commitments actions and strategies of the NISP Fish and Wildlife Mitigation and Enhancement Plan (FWMEP), including the identified Glade Reservoir Recreation and Wildlife Adaptive Management Program
- c) Meets recreation goals and objectives jointly agreed to by the parties in consideration of public comment leading up to and at the 1041 Permit hearings

The parties will begin development of this plan after the issuance of, and acceptance by the NISP Participants, of the 1041 Permit. The Recreation Development Plan must be complete before start of construction of Glade Reservoir to incorporate recreation facilities as part of reservoir construction efforts.

This plan will be similar in scope and design to the Recreation Concept Master Plan.

Northern Water shall have the right to modify a recreation facility design or location at any time if, in its sole discretion, it determines it is necessary to comply with NISP operations or maintenance, NISP permit conditions, or other issues that present a conflict with the primary water supply purposes of the Project. In this event, 30-day notice will be provided to Larimer County before such change becomes effective.

2.1.2 Recreation Scope and Funding Limits

The parties agree to a total cost commitment of \$21.8 million. This includes but is not limited to funding for:

- a) The cost of recreation commitments set forth in the FWMEP
- b) NISP WAE's purchase price for the existing KOA property adjacent to the reservoir site
- c) NISP WAE's cost associated with bringing the existing KOA facilities into compliance with County regulations
- d) The costs incurred by the parties to develop the Recreation Development Plan

- e) Any transportation upgrades identified by the County as being needed to safely transport recreation traffic to the recreation area

2.1.3 Funding Sources

The parties will share the total \$21.8 million cost of recreation construction, with NISP WAE contributing 75% and the County contributing 25%.

Of the NISP's WAE's 75%, \$5.5 million will be escalated per a construction price index (CPI) to the year construction starts. The remaining costs are expenses already committed or to be committed for recreation development at Glade Reservoir that are fixed costs, which include the visitor center, paved road with guardrails to dam crest, boat ramp, camping rough grading, parking lots, and the development of a cool water fishery and expanded fish-hatchery capacity.

The County can provide lump sum payment or annual payments to cover the 25% funding commitment. Alternatively, the Recreation Development Plan will identify a priority list of recreation facilities and will also include contingency facilities that would not be built if County funding is not available

Both parties agree to actively pursue grants or other outside funding sources. Any outside funding contributions would be attributed to meeting the County's 25% funding commitment.

2.1.4 Project Accounting

By the start of construction of Glade Reservoir, parties agree to transfer 50% percent of its total contribution to an interest-bearing account to be held in escrow for NISP WAE to draw upon during construction of those facilities agreed upon in the Recreation Development Plan. Transfer of the remaining funds shall occur on a yearly basis to meet the next year's, or any remaining, construction costs.

During construction, NISP WAE will draw funds for construction of recreation facilities from the escrow account and separately account for, and report to, the County the costs of recreation facility construction.

2.1.5 Excess Funding

Any funding remaining after construction of recreation facilities identified in the Recreation Development Plan would be dedicated for future development of additional recreation facilities, as agreed to by the County and NISP WAE.

2.1.6 Facility Ownership

NISP WAE shall own all facilities constructed under the Recreation Development Plan. For the term of the lease agreement, the County shall own all revenue it generates as the managing entity of public recreation at Glade Reservoir.

2.1.7 Construction and Timing

Construction of Glade Reservoir and associated recreation facilities will commence after NISP Participants receive and accept all final, post-litigation permits.

NISP WAE will construct recreation facilities at Glade Reservoir. Construction of facilities will occur concurrently with construction of the dam, reservoir, and appurtenant facilities at Glade Reservoir to allow for the most efficient and safe work environment. No areas shall be open to the public during this construction period.

2.1.8 Water Supply

Water supply to the facility will be limited to the supply available from West Fort Collins Water District water taps purchased with the KOA and one three-quarter-inch West Fort Collins Water District water tap presently owned by the Northern Colorado Water Conservancy District.

2.1.9 Glade Reservoir Recreation Facility Management

The County has indicated a desire to manage recreation at Glade Reservoir. Unless the County decides to defer management, the County and NISP WAE will enter into a 25-year lease agreement for the County to act as the managing entity to manage recreation at Glade Reservoir. Such lease agreement shall be entered into between the parties within one year prior to Project start-up, but not later than 90 days prior to Project start-up. Project start-up shall mean final completion of reservoir construction activities.

Management and public recreation may begin upon notice to the County from NISP WAE of Project start-up.

2.1.10 Operations and Maintenance

NISP WAE agrees to pay for security at Glade Reservoir and appurtenant structures, and capital improvements maintenance costs for infrastructure owned by NISP WAE.

Pursuant to the terms of the lease agreement, the County will be responsible for all other operations and maintenance costs including but not limited to

- a) Monthly service and utility costs
- b) Equipment, vehicles, staffing, and operational materials costs

The County, as managing entity, may determine the recreation fee structure to address funding needs. NISP WAE shall not be responsible for addressing recreation management funding shortfalls.