



# APPENDICES

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Appendix E - Public Meeting Materials & Summaries

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# APPENDIX A - DOCUMENTS

This appendix includes:

- Concurrence Memos - ***In Progress***
- Approval Documentation - ***In Progress***
- MOU with OSMP
- RTD Letter to Collaborate
- Sample Tribal Update Letter - same letter was sent to tribes individually
- Evaluation Criteria Definitions
- Full Evaluation Criteria Chart with Comments

**APPENDIX A - MOU WITH OSMP**

**MEMORANDUM OF UNDERSTANDING REGARDING THE  
BOULDER TO ERIE REGIONAL TRAIL MASTER PLANNING PROCESS**

This Memorandum of Understanding (“Agreement”) is made by and between the County of Boulder, a body politic and corporate (“County”) and the City of Boulder, a Colorado home rule city (“City”) through its Open Space and Mountain Parks department (“OSMP”). The County and City may hereinafter be referred to individually as “Party” or collectively as “Parties.”

**RECITALS**

- A. The Boulder to Erie Regional Trail (“BERT”) is a proposed regional trail connection linking Boulder and Erie.
- B. The Boulder Valley Comprehensive Plan (“BVCP”) Trails Map shows a conceptual trail alignment from Boulder to 95<sup>th</sup> Street with an indication that the trail connection will continue east.
- C. The connection was originally identified in the BVCP as a nine-mile soft-surface trail along the right-of-way previously owned by Union Pacific Railroad Company, now owned by RTD (“RTD ROW”), connecting into existing and planned regional and local trail systems.
- D. The Parties are cooperating to identify one or more conceptual trail alignment(s) for further consideration. The Parties intend that this master planning process will explore the RTD ROW, Boulder County right-of-way, and alternative alignment options on City-owned and other lands managed by OSMP (“OSMP lands”) outside the RTD ROW.
- E. The master planning process will include the Parties developing evaluation criteria, performing an alternatives analysis using that evaluation criteria, and selecting the conceptual trail alignment(s) for further consideration within the boundaries depicted in **Exhibit 1** (“Project”). The Parties do not intend for the Project to result in a preferred alignment; development of a preferred alignment will occur in a subsequent phase of the BERT planning and design process that will include additional analysis of the conceptual trail alignment(s) for further consideration by regional stakeholders and be subject to a separate agreement between the Parties.
- F. The Parties intend that, if an identified conceptual trail alignment for the BERT includes any segments that cross OSMP lands, the Parties will also develop an alternate conceptual trail alignment for further consideration that does not include segments crossing OSMP lands that will move forward for further evaluation in a subsequent phase of the BERT planning and design process.
- G. The Parties recognize that Boulder County Ordinances allow electric assisted bicycles (“e-bikes”) on regional trail connections including those trails within the RTD ROW, but the Boulder Revised Code currently prohibits e-bikes to operate on open space land, and that an alignment that crosses OSMP lands would require disposal of those segments of the trail that cross OSMP lands pursuant to City of Boulder Charter Section 177 in a subsequent phase of the BERT planning and design process.

**APPENDIX A - MOU WITH OSMP**

H. This Agreement outlines the roles and responsibilities of the Parties with respect to the Project.

**AGREEMENT**

NOW, THEREFORE, in consideration of the premises and of the mutual promises and covenants of the Parties hereto, the Parties agree as follows:

**A. THE PROJECT:**

1. Boulder County is the project lead and will fund the full cost of the Project.
2. As part of the Project, the Parties agree to engage in an alternatives analysis to explore all potential options for the BERT alignment in the area depicted in Exhibit 1 in order to select conceptual alternative(s) for further consideration that will be minimally impactful to natural resources on and adjacent to OSMP land.
3. The Parties agree that if any segment of an identified conceptual trail alignment within the area depicted in Exhibit 1 crosses OSMP lands, they will also identify an alternate conceptual trail alignment that does not cross OSMP lands in that area.

**B. ROLES AND RESPONSIBILITIES.** The Parties agree to cooperate in the Project in the following manner and upon the following terms:

1. The County will be responsible for the following with respect to the Project:
  - a. Coordinate with OSMP to develop the Project timeline, and incorporate and meet all OSMP decision-maker deadlines and requirements, including but not limited to the Open Space Board of Trustees, City Council and the Boulder County Board of County Commissioners.
  - b. Coordinate with OSMP to develop all Project materials including, but not limited to, written memorandums, maps, presentations, public engagement materials, and materials to inform decision-makers and members of the public.
    - i. Updates to the OSBT regarding conceptual trail alignment(s) for further consideration and the final master plan.
    - ii. Written materials for the OSBT must be completed and available for OSMP staff and leadership review and finalization three weeks prior to the date of board meeting.
    - iii. Presentation materials, if needed, for the OSBT must be completed a week prior to the date of the board meeting and a dry run of the presentation must be completed prior to the board meeting
  - c. Initiating and leading public engagement concerning the Project.

**APPENDIX A - MOU WITH OSMP**

- d. Scheduling and convening all Project meetings and ensuring all interested parties and relevant stakeholders are included.
  - e. Coordination with and management of consultants in support of the Project at Boulder County's sole cost and expense.
  - f. Securing the required permits for the County and its consultants to access OSMP lands as necessary to support the Project
  - g. Securing internal interagency agreement on the evaluation criteria, alternatives analysis and conceptual trail alignment(s) for further consideration on OSMP lands identified in Exhibit 1.
  - h. Documenting the reasoning underlying and the decisions made in the selection of the conceptual trail alignment(s) for further consideration
  - i. As the project lead, Boulder County has the final authority on all Project decisions after consultation with the City, except decisions involving OSMP lands.
2. The City will be responsible for the following with respect to the Project:
- a. Attending all meetings convened by the County involving the Project, OSMP lands, and any other City interests.
  - b. Coordinating with the County and its consultants as they seek to secure any permits required to access OSMP lands as necessary to support the Project.
  - c. Providing the County with City deadlines and requirements necessary to present the Project to OSBT and City Council and supporting the County in meeting these deadlines and fulfilling these requirements, with the City having final authority regarding the content of presentations and all project materials to OSBT and City Council.
  - d. Working in consultation with the County, the City will determine who will present to OSBT and other City decision-makers.
  - e. Providing resource information for OSMP lands from existing databases and staff knowledge but not data collecting, or initiating surveys to generate new information about natural, cultural, social, or agricultural resources potentially impacted by the Project.
  - f. Coordinating with the County to finalize and approve all Project materials described in Paragraph B.1.b, above, prior to materials being made public or being shared with decision-makers.
- C. **PROCESS REQUIREMENTS.** The Parties agree to the following coordination during the Project:

**APPENDIX A - MOU WITH OSMP**

1. The Parties shall agree on the evaluation criteria to be used for the alternatives analysis and identification of conceptual trail alignment(s) for further consideration.
2. All Project materials that include or could lead to the use of OSMP lands will require agreement of each Party prior to being made public.
3. The City will review and advise the County, and the County will ensure that all Project work that involves OSMP lands shall demonstrate consistency with the following:
  - a. The BVCP insofar as it provides guidance for a regional trail connection along the RTD ROW.
  - b. The OSMP Visitor Master Plan which provides guidance to study and evaluate possible new trails and trail connections along the RTD ROW.
  - c. The OSMP Master Plan, Grassland Ecosystem Management Plan and Agricultural Resources Management Plan.

**D. ALTERNATIVE REQUIREMENTS:**

1. If a conceptual trail alignment for further consideration proposes to cross OSMP lands, the Parties agree to also develop one or more alternate conceptual alignment(s) for further consideration that do not cross OSMP lands. The alternate conceptual trail alignment(s) would then move forward for further consideration, evaluation, and feasibility study during subsequent phases of the BERT planning and design process.
2. Analysis for each of the conceptual trail alignments that would involve OSMP lands shall include impact analysis to OSMP lands for the following considerations which will be further defined by the evaluation criteria process of the Project:
  - a. Natural resources (e.g., wetlands, wildlife, vegetation, ecological processes).
  - b. Cultural resources (e.g., protected cultural resource sites).
  - c. Agricultural resources (e.g., agricultural use and management, ditch operation and maintenance).
  - d. Social resources (e.g., existing and potential recreational uses, scenic values).
3. If any conceptual trail alignment for the BERT proposes to use OSMP lands outside of the RTD ROW, the County recognizes it must pursue disposal of that portion of the trail pursuant to City of Boulder Charter Section 177, a process that would occur during a subsequent phase of the BERT planning and design process.
4. The Parties agree to identify mitigating actions for conceptual alternatives that cross or are adjacent to OSMP lands to offset impacts to natural, cultural, agricultural, and

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social resources during the conceptual phase and during subsequent phases of the design and planning process and during implementation of the selected alignment.

5. Any conceptual alternative that impacts OSMP lands must be consistent with existing City rules and regulations, and the City of Boulder charter.
  6. The City's participation in the Project does not imply an ability to contribute toward funding implementation of the recommendations. The City will consider financial contributions to future implementation efforts for the BERT planning and design process in the context of City priorities.
  7. All conceptual alternatives considered by the Parties must allow for potential fencing of the trail where it is bordered by OSMP lands to prevent trail users from leaving the trail to enter OSMP land from outside of agreed upon access points.
- E. **TERMINATION:** Either Party may terminate this Agreement by providing 30 days' written notice to the other Party. If the Agreement is terminated, the City and County will not consider including OSMP lands in the BERT alignment.
- F. **MISCELLANEOUS:**
1. Appropriation. Nothing herein shall constitute a multiple fiscal year obligation pursuant to Colorado Constitution Article X, Section 20. Notwithstanding any other provision of this Agreement, the financial obligations of each Party under this Agreement are subject to annual appropriation by the governing body of such Party.
  2. No Third-Party Benefits Intended. This Agreement is solely for the benefit of the Parties hereto and no third party shall be entitled to claim or enforce any rights hereunder. It is the express intention of the Parties that any such entity, other than the County or the City, receiving services or benefits under this Agreement shall be deemed an incidental beneficiary only. This Agreement may not be enforced by any third party.
  3. Governmental Immunity. Each Party agrees to be responsible for its own negligent actions or omissions, and those of its officers, agents, and employees in the performance or failure to perform work under this Agreement. Nothing herein shall be construed as or is intended as a waiver of the rights and protections afforded any of the Parties under the Colorado Governmental Immunity Act, C.R.S. §§ 24-10-101 *et seq.*, as the same may be amended from time to time.
  4. Relationship between the Parties. Nothing in this Agreement shall be deemed to create a partnership, joint venture or employment relationship between the County and the City.
  5. Notice. Any notices required hereunder shall be sent by via mail, hand-delivered, or via email to the Parties at the following addresses, unless a Party notifies the other Party in writing that such contact or address has changed.

**APPENDIX A - MOU WITH OSMP**

For the City: Director  
Open Space and Mountain Parks  
City of Boulder  
P.O. Box 791  
Boulder, CO 80306-0791  
Burked@bouldercolorado.gov

With a Copy to: City Attorney  
Boulder City Attorney's Office  
1777 Broadway Office  
P.O. Box 791  
Boulder, CO 80306-0791

For the County: Dale Case, Director  
Boulder County Community Planning & Permitting  
P.O. Box 471 Boulder, CO 80306-0471  
dcase@bouldercounty.org

With a Copy to: Boulder County Attorney's Office  
P.O. Box 471  
Boulder, CO 80306-0471

6. Entire Agreement. This Agreement shall bind the Parties hereto, their agents, successors, and assigns. Any amendment of this Agreement is effective only if in writing and signed by both Parties.
  
7. Counterparts. This Agreement may be executed in counterparts, each of which (or combination of which), when signed by both Parties shall be deemed an original, but both together shall constitute one agreement.

IN WITNESS WHEREOF, the Parties have set their hands on the date and year written below.



**APPENDIX A - MOU WITH OSMP**

**COUNTY OF BOULDER**, a body corporate and politic

By:  \_\_\_\_\_ Date: September 19, 2022  
Dale Case, Director, Boulder County Community Planning & Permitting

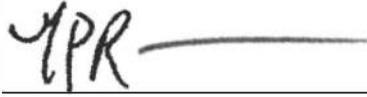
APPROVED AS TO FORM:

*County Attorney*  
\_\_\_\_\_  
County Attorney

*[City signature page follows.]*

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**CITY OF BOULDER, COLORADO**



\_\_\_\_\_  
Nuria Rivera-Vandermyde, City Manager

Date: 9/29/2022

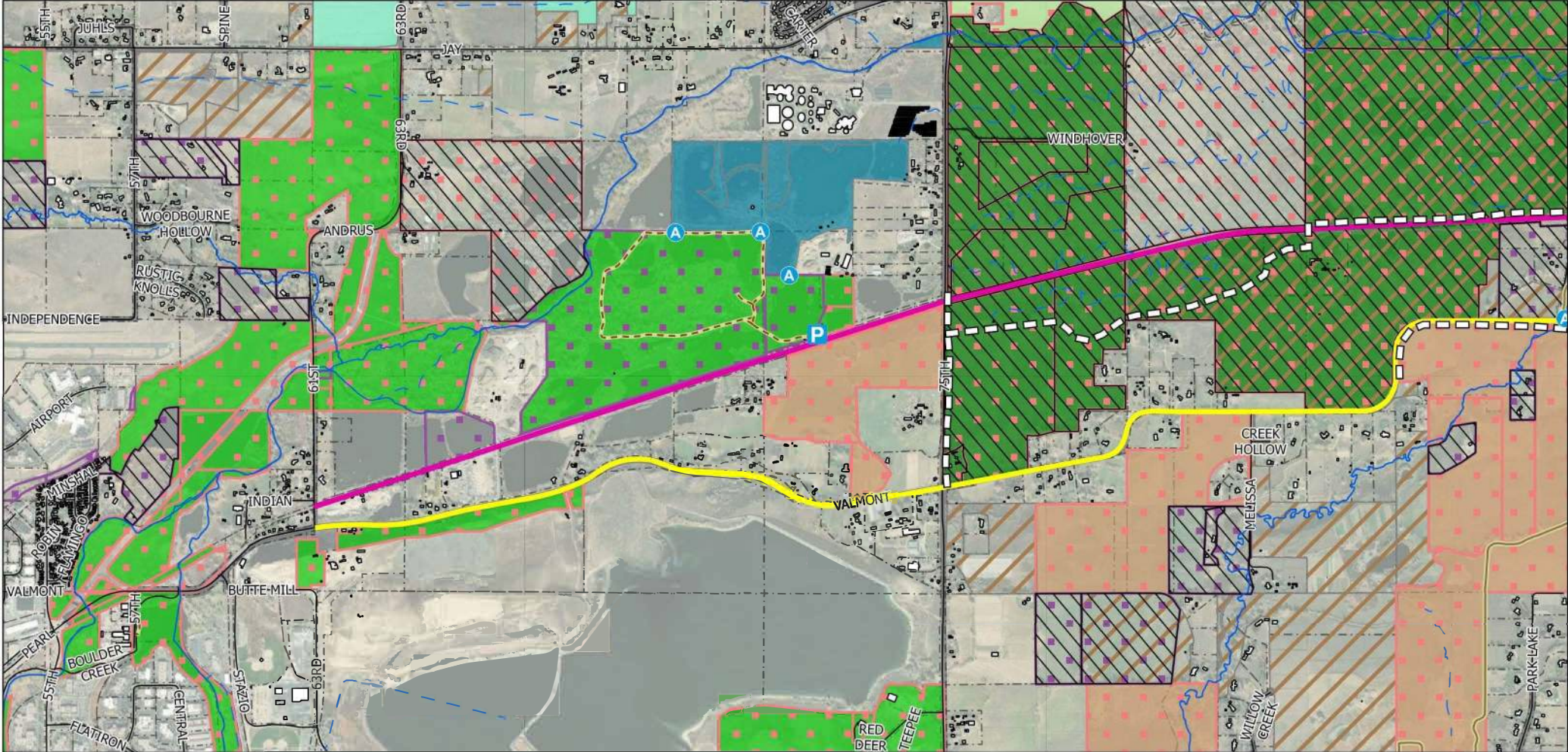
ATTEST:

APPROVED AS TO FORM:

  
\_\_\_\_\_  
City Clerk

  
\_\_\_\_\_  
City Attorney's Office 09/27/2022

# Exhibit 1: Map Depicting OSMF Lands in the Project Area



### Potential Corridors to Consider

- Routes on OSMF
- RTD Rail Corridor
- Valmont/Isabelle Corridor
- 287 Crossing at Jasper Rd
- 287 Crossing at Boulder Creek

### Linear Hydrology

- Perennial Stream

### Managed Trail Access Locations

- P** OSMF Trailhead
- A** OSMF Access Point

### Trails

- OSMF Hiking Trail
- OSMF Multi-Use Trail
- Erie Trails

### OSMF Land

- ▨ No Public Access
- ▨ OSMF Fee Ownership
- ▨ OSMF Joint Ownership
- ▨ OSMF Joint Easement
- ▨ OSMF Easement

### County Open Space

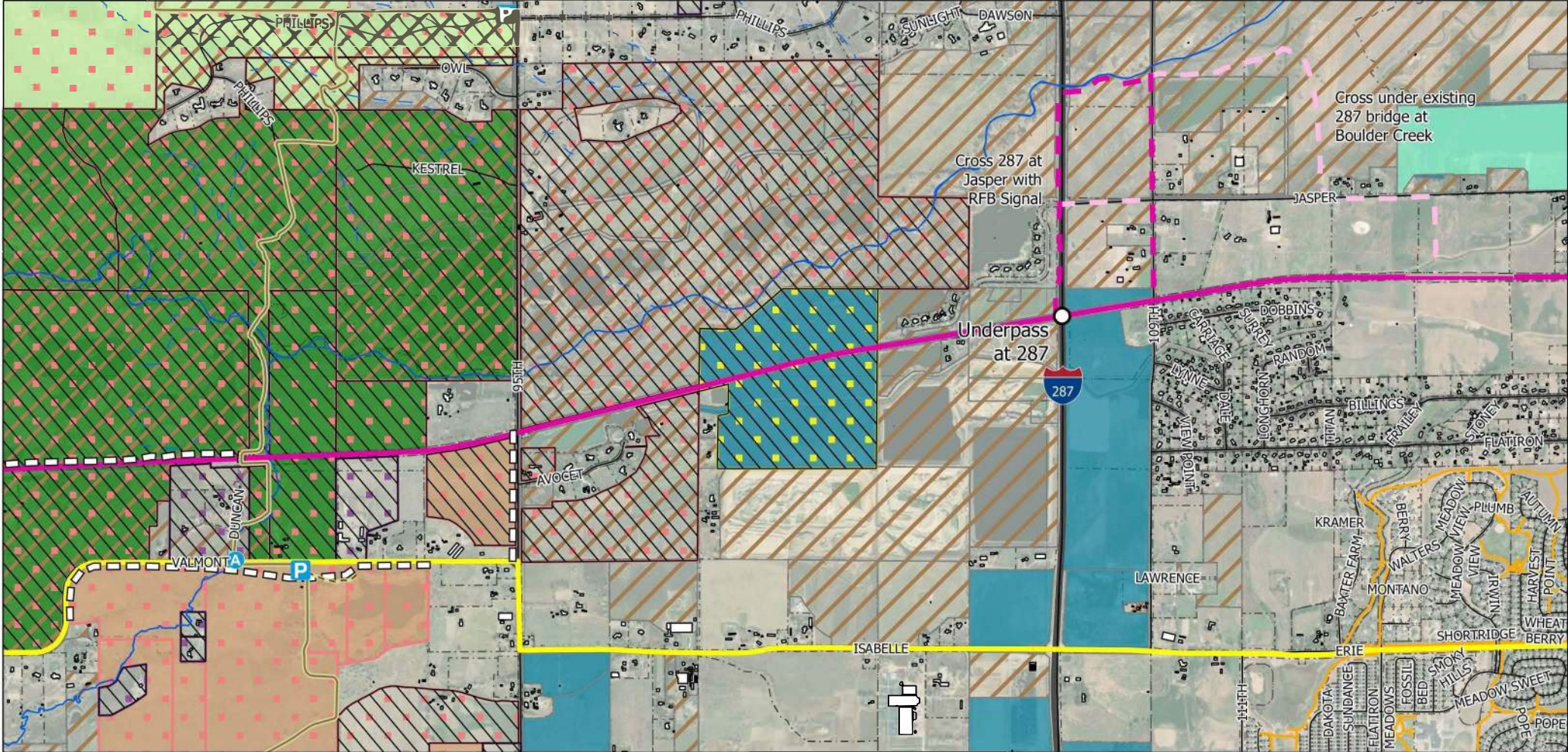
- ▨ County Conservation Easement
- ▨ County Owned Open Space
- ▨ Joint County and Municipal Open Space
- ▨ Agricultural Area
- ▨ Habitat Conservation Area
- ▨ Natural Area

### Parcels

- ▨ Passive Recreation Area
- ▨ Boulder County Road Right of Way

### OSMF Management Area Designations

# Exhibit 1: Map Depicting OSMF Lands in the Project Area



### Potential Corridors to Consider

- Routes on OSMF
- RTD Rail Corridor
- Valmont/Isabelle Corridor
- 287 Crossing at Jasper Rd
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### Linear Hydrology

- Perennial Stream

### Managed Trail Access Locations

- OSMF Trailhead
- OSMF Access Point

### Trails

- OSMF Hiking Trail
- OSMF Multi-Use Trail
- Erie Trails

### OSMF Land

- No Public Access
- OSMF Fee Ownership
- OSMF Joint Ownership
- OSMF Joint Easement
- OSMF Easement

### County Open Space

- County Conservation Easement
- County Owned Open Space
- Joint County and Municipal Open Space

### OSMF Management Area Designations

- Passive Recreation Area
- Agricultural Area
- Habitat Conservation Area
- Natural Area

- ### Parcels
- Boulder County Road Right of Way

Regional Transportation District

1560 Broadway  
Denver, Colorado 80202-1399  
(303) 299-2448



March 5, 2012

George Gerstle, Director  
Boulder County Transportation Department  
P.O. Box 471  
Boulder, CO 80306

Dear Mr. Gerstle:

I am in your receipt of your letter dated December 7, 2012. I wish to reiterate that we continue to be willing to work with Boulder County on establishing a trail within the Union Pacific Boulder Branch right-of-way, now owned by RTD.

While we have reviewed the terms of the proposed IGA and draft license agreement, we remain concerned that, despite the execution of an IGA and or license agreement, RTD could face Section 4(f) issues if rail were to be implemented in the corridor. And, as noted in our previous letter from October 26, 2011, RTD's primary goal for the corridor is to maintain it for future transit purposes.

Therefore, RTD's position remains the same as I laid out in the October letter. Specifically, RTD staff is amenable to the project and is willing to work with the County to recommend a recreation trail within the right-of-way, provided the following conditions can be satisfied:

- The trail must be located along the outside edge of the right-of-way;
- The trail shall not be located on the existing track bed;
- RTD will require an Intergovernmental Agreement and License Agreement;
- RTD cannot incur any costs associated with the construction or maintenance of the trail;
- Potential future relocation will be at the sole cost of the County.
- RTD retains the right to revoke the license agreement at any time.

Additionally, RTD will require a nominal fee for use of the right-of-way, to be determined in the near future as plans progress. We are willing to discuss these issues further with you. Please contact Chris Quinn at (303) 299-2439, [chris.quinn@rtd-denver.com](mailto:chris.quinn@rtd-denver.com) to arrange a meeting so that we can discuss further.

Sincerely,

A handwritten signature in black ink, appearing to read "William C. Van Meter", is written over a horizontal line. The signature is fluid and cursive.

William C. Van Meter  
Assistant General Manager, Planning

cc: Phillip A. Washington, RTD General Manager  
Nadine Lee, RTD Engineering Project Manager  
Chris Quinn, RTD Planning Project Manager



## Community Planning & Permitting

Courthouse Annex • 2045 13th Street • Boulder, Colorado 80302  
Mailing Address: P.O. Box 471 • Boulder, Colorado 80306  
303-441-3930 • [www.BoulderCounty.gov](http://www.BoulderCounty.gov)



This letter is to inform you about a trail project in Boulder County, Colorado and to invite you to be part of the planning process.

Boulder County, in partnership with the City of Boulder and the Town of Erie (project partners) is conducting a master planning effort for a new soft-surface regional trail called the Boulder to Erie Regional Trail (project) between the City of Boulder and Erie (Attachment 1). The surrounding landscape consists primarily of residential, agricultural fields and rural residences. The goal of the project is to create a safe route for cyclists and pedestrians between two communities.

At this time, there is no federal nexus for the project, although the project partners anticipate permits may eventually be authorized by the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service that would require intergovernmental consultation under Section 106 (54 United States Code (USC) § 306108) of the National Historic Preservation Act (54 USC § 300101 et seq.). The project partners, however, have incorporated known cultural resources into their planning and are planning for Class III cultural resource surveys prior to final design.

Attached is a file search of the Colorado Office of Archaeology and Historic Preservation database for a ½ mile buffer of the proposed trail corridor to account for design changes (Attachment 2). Most of the identified resources are historical (n=132) and consist of homes in Erie, farms, ditches, railroads, and mines. There are also three precontact Native American archaeological sites. The project proponents are considering this information early in project design to avoid potential impacts to significant cultural resources.

The project proponents are aware that Valmont Butte (5BL44) is a significant place to many tribes. The trail will be near Valmont Butte, but will not intersect it (See Attachment 2, Figure 2). Another place that holds importance to some tribes is the Fort Chambers site (5BL577) and George Chambers House (5BL378). These two places are about 1 mile north of the proposed trail corridor.

We would appreciate your feedback if you or another member of your tribe wishes to participate, but we also understand that you may not be able to prioritize a response while faced with COVID-19 challenges. We will be happy to hear from you at any time in the future. Please also let us know

**Claire Levy** County Commissioner   **Marta Loachamin** County Commissioner   **Ashley Stolzmann** County Commissioner



## Community Planning & Permitting

Courthouse Annex • 2045 13th Street • Boulder, Colorado 80302  
Mailing Address: P.O. Box 471 • Boulder, Colorado 80306  
303-441-3930 • [www.BoulderCounty.gov](http://www.BoulderCounty.gov)

how to best provide you additional information (e.g., email, letters, or phone calls). If you know of other tribes who may be interested in this project, please let us know.

More information about the proposed project can be found at [www.boco.org/BERT](http://www.boco.org/BERT). For comments or questions, please contact me directly. We value your input, and we thank you in advance for your contributions to this project.

Sincerely,

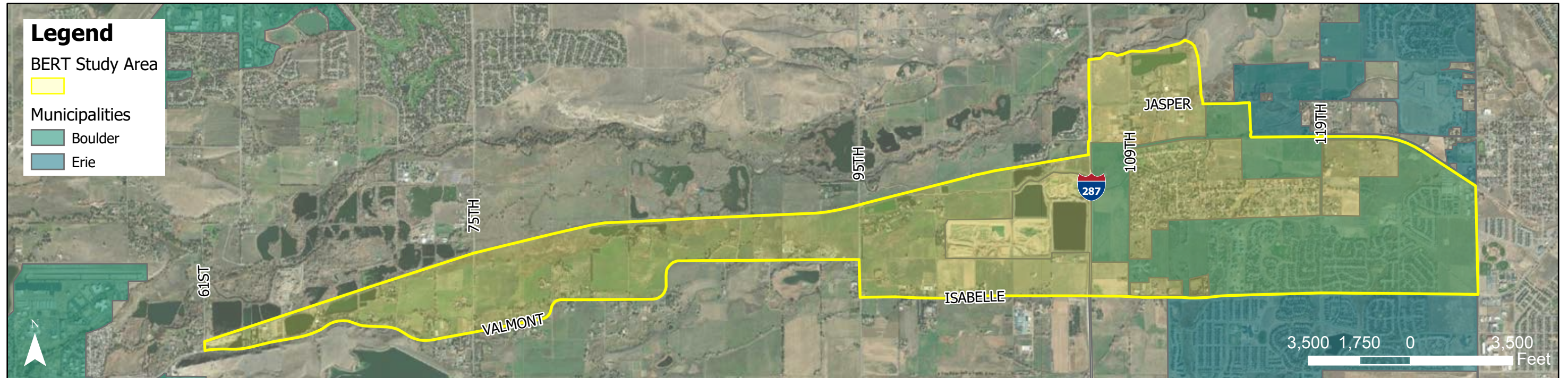
A handwritten signature in black ink, appearing to read "Tonya Luebbert".

Tonya Luebbert  
Regional Trails Planner  
Boulder County Community Planning & Permitting  
Transportation Planning Division  
720-564-2866  
[tluebbert@bouldercounty.org](mailto:tluebbert@bouldercounty.org)

Attachments:

Attachment 1: Boulder to Erie Regional Trail (BERT) Project Map  
Attachment 2: Cultural Resources File Search and Literature Review

# Boulder to Erie Regional Trail (BERT) Area







Consultants in Natural Resources and the Environment

## **Technical Memorandum File and Literature Review Boulder County RTD Rail Trail Project Boulder and Weld Counties, Colorado**

*Prepared for:*

*Loris and Associates*

*July 9, 2018*

On behalf of Boulder County, Loris and Associates contracted ERO Resources Corporation (ERO) to perform a cultural resource file and literature review for a proposed recreational trail in Boulder and Weld Counties, Colorado. ERO conducted the file search and literature review as a due diligence effort to determine whether cultural resources intersect the proposed trail corridor. The results may be used in preparation for any future potential regulatory obligations associated with permits or funding from Boulder County, a Colorado state agency, or federal agency in which the agency requires an evaluation of trail construction's effects on cultural resources.

### **Study Area**

The proposed trail follows a 9-mile segment of the Union Pacific Railroad in Boulder and Weld Counties, Colorado. The trail configuration is still in the planning stages; therefore, the cultural resource file and literature review area includes a ½-mile buffer of the proposed trail corridor to account for design changes. The entire study area is 6287.5 acres. The legal locations are Sections 13, 14, 21 to 24, and 26 to 28 in Township 1 North, Range 70 West of the 6th Principal Meridian; Sections 10 to 22 and 24 in Township 1 North, Range 69 West of the 6th Principal Meridian; and Sections 18 and 19 in Township 1 North, Range 68 West of the 6th Principal Meridian (Figure 1, attached).

### **Methodology**

The purpose of the cultural resource file and literature review is to determine whether any previously documented cultural resources listed on or eligible for listing on the National Register of Historic Places (NRHP) or State Register of Historic Places (SRHP) could be impacted by the proposed project. A "cultural resource" is defined as an archaeological site, structure, or building constructed 50 or more years ago. A cultural resource listed on or eligible for listing on the NRHP/SRHP is a "historic property." To assist with project planning and potential consultation obligations under Section 106 of the National Historic Preservation Act (NHPA) (36 CFR 800), the State Register Act (SRA) (CRS 34-80.1-104), and/or Boulder County planning requirements, ERO reviewed the previous cultural resource surveys and

resource documentation completed in the study area by conducting a file review with the Office of Archaeology and Historic Preservation (OAHP). The OAHP provided the results to ERO on June 26, 2018 (File Search No. 21214). The file search area included the entirety of the study area as defined above.

## **Results**

The OAHP file search identified 29 previous cultural resource surveys that intersect the study area (Table 1; Figures 2 through 6). Of these surveys, nine are intensive cultural resource surveys that encompass approximately 20 percent of the study area. Of the nine intensive surveys, only one of these occurred in the past 10 years. This survey was conducted in 2008 by Foothill Engineering Consultants, Inc. on behalf of the Department of Energy. The State Historic Preservation Office (SHPO) does not consider the results of surveys older than 10 years to be current or valid for consultation.

The OAHP records identified 136 previously documented cultural resources in the study area (Table 2; Figures 2 through 7). These resources include prehistoric and historical archaeological sites, historical structures, and historical buildings, although most of the resources are associated with the early settlement and dry land agriculture of the region. Of these, 36 historical buildings and structures are individually eligible for listing in or are listed in the SRHP and/or NRHP, including the Union Pacific Railroad (5BL469) which one potential trail design option follows. Any alterations to the physical characteristics of 5BL469 would be considered an adverse effect and would require consultation with the SHPO.

In addition to the OAHP file search, ERO did a preliminary review of existing literature, historical maps, and public records to determine if historical buildings or structures are located in the study area. Historic aerials and assessor records demonstrate that the area has been used for agriculture and ranching throughout the 20th century (Boulder County Tax Assessor 2018; Nationwide Environmental Title Research LLC 2018). Cultural resources associated with the early settlement and dry land agriculture in the area include ditches, railroad grades, and historical buildings. Additionally, portions of Boulder Creek flow through the study area and the presence of an alluvial depositional environment provides favorable conditions for the presence of buried archaeological deposits.

## **Summary**

The study area intersects numerous previously documented cultural resources, and one potential trail design alignment follows the path of the Union Pacific Railroad (5BL469), eligible for listing in the SRHP and NRHP. Pursuant to Boulder County Land Use Code and Historic Preservation Program (CR 1.03), the Colorado SRA (CRS34-80.1-104), or the NHPA (36 CFR 800), any agency involved in the project may require consultation with the SHPO or additional work to identify unknown cultural resources and assess known cultural resources identified during the literature review prior to construction. Based on the results of this file and literature review, an agency may require that a cultural resource specialist that meets Secretary of Interior professional qualification standards conducts additional work (e.g., a

## APPENDIX A - TRIBAL UPDATE LETTER MAR. 2023

File and Literature Review  
Boulder County RTD Rail Trail Project

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pedestrian survey and resource documentation on OAHP forms) to evaluate the effects of trail construction on cultural resources.

Please feel free to contact ERO with any questions you may have in reference to the file and literature review results and additional work potentially needed for compliance with county, state, or federal regulations pertaining to the management of cultural resources.

### Certification of Results



Abigail Sanocki  
ERO Resources Corporation  
Historical Archaeologist

### Attachments

Figure 1. Study Area (USGS 1:100,000 topographic background).  
Figure 2. File Search Results (USGS 1:24,000 topographic quadrangle) Figure 3. File Search Results (USGS 1:24,000 topographic quadrangle) Figure 4. File Search Results (USGS 1:24,000 topographic quadrangle) Figure 5. File Search Results (USGS 1:24,000 topographic quadrangle) Figure 6. File Search Results (USGS 1:24,000 topographic quadrangle) Figure 7. File Search Results (USGS 1:7,500 topographic background)

### References Cited

Boulder County Tax Assessor

2018 Boulder County Land Information Locator. Electronic database, <http://maps.boco.solutions/propertysearch/>, accessed July 2, 2018.

Nationwide Environmental Title Research LLC

2018 Historic Aerials. Online database, <https://www.historicaerials.com/viewer>, accessed July 2, 2018.

**APPENDIX A - EVALUATION CRITERIA DEFINITIONS**

Categories	Evaluation Considerations	Notes	Definitions
<b>Safety</b>	Roadway Crossings		Evaluate alignments based on roadway crossings, considerations include: <ul style="list-style-type: none"> <li>● Number of roadway crossings</li> <li>● Use of existing signalized intersections</li> <li>● Significance of the roadways crossed as measured by:                             <ul style="list-style-type: none"> <li>○ Road width</li> <li>○ Speed limit</li> <li>○ Average daily traffic on road</li> <li>○ Facilities Required as defined by BOCO crossing standards</li> </ul> </li> </ul>
	Hwy 287 Crossing		Evaluate trail crossing of 287 for any safety specific trade-offs between alignments, considerations include: <ul style="list-style-type: none"> <li>● How and where (under, around, etc.) 287 is crossed</li> <li>● Potential for shortcutting across 287 at an undesignated crossing location</li> </ul>
	Driveways and Other Access Crossings		Evaluate alignments based on driveways and access crossings, considerations include: <ul style="list-style-type: none"> <li>● Number of driveway and access crossings required on the alignment</li> <li>● Significance of the crossing as measured by:                             <ul style="list-style-type: none"> <li>○ Private residence</li> <li>○ Residential community</li> <li>○ Agricultural operation</li> <li>○ Commercial business</li> <li>○ Industrial business</li> </ul> </li> </ul>

**APPENDIX A - EVALUATION CRITERIA DEFINITIONS**

	User Sight Distances		Evaluate different alignments for user sight distance differences, considerations include: <ul style="list-style-type: none"> <li>• Sight lines (large radius turns vs right angles)</li> <li>• Structures, signs, trees, topography, or other obstructions between trail users, and between trail user and vehicles when approaching all types of crossings</li> </ul>
<b>Resource Considerations</b>	Fragmentation of Designated Habitat caused by BERT	<i>This process will not include generation of new environmental data and will rely on existing data and designations</i>	Evaluate alignments for new or additional fragmentation and likelihood of impacts from future use and disturbance caused by BERT of areas previously/currently designated as significant. Such areas and considerations include: <ul style="list-style-type: none"> <li>• Habitat Conservation Areas as designated by OSMP and BCCP</li> <li>• Size of remaining habitat blocks (100m buffer)</li> <li>• Known habitat for T&amp;E species or species of management interest (wildlife and plants)</li> <li>• Environmental Conservation Areas, High Biodiversity Areas, Critical Wildlife Habitat as designated in the BCCP</li> <li>• White Rocks</li> <li>• Colorado State Natural Areas</li> </ul>
	Wetlands	<i>Wetland delineation is not a part of this project so this will rely on existing delineation data desktop analysis, preliminary field assessment of existing conditions, and existing plant community mapping.</i>  <i>Non-native upland areas on the Culver property upstream of</i>	Evaluate alignments for interaction with, impacts to, and challenges related to wetland areas, considerations include: <ul style="list-style-type: none"> <li>• Approximate amount existing (if data is available) or potential wetland impacted by construction</li> <li>• Wetland restoration potential of existing uplands (so as not to preclude future restoration)</li> </ul>

**APPENDIX A - EVALUATION CRITERIA DEFINITIONS**

		<i>95th Street and Boulder Valley Farms downstream of 95th Street would be good candidates to evaluate for their wetland restoration potential.</i>	
	T&E or Species of Management Interest Habitat	<i>This process does not include additional data collection on species locations and will rely on existing data, mapping of habitat areas, and/or OSMP and BOCO staff local</i>	Evaluate alignments for impacts to species of management interest and their habitats, considerations include: <ul style="list-style-type: none"> <li>● Proximity to documented sites and associated spatial buffers implemented to protect threatened and endangered species or species of management interest</li> <li>● Proximity to potential habitat of threatened and endangered species or species of management interest</li> <li>● Rare Plant Areas and significant natural communities as defined in BCCP and existing (OSMP) data</li> <li>● Potential for trail closure (e.g. seasonal, nighttime) due to T&amp;E species proximity</li> </ul>
	Introduction of Invasive Species		Evaluate alignments for variation in the potential of BERT to introduce invasive species, considerations include: <ul style="list-style-type: none"> <li>● Land use and type of / quality of habitat adjacent to trail</li> </ul>
	Floodplains/Floodplain Resource Management	<i>This process will not generate additional information on floodplains and will rely on existing floodplain data.</i>	Evaluate alignments for difference in their potential impacts to or from floodplains, considerations include: <ul style="list-style-type: none"> <li>● Likelihood of trail to flood – measured by length of trail through 100 yr floodplain</li> <li>● Potential hydraulic impacts including potential changes to the current hydrologic regime (thereby impacting species that depend on current conditions)</li> <li>● Potential impacts to the floodplain</li> </ul>

**APPENDIX A - EVALUATION CRITERIA DEFINITIONS**

	Proximity to Cultural Sites	<i>This project does not include cultural resource survey and will rely on existing cultural resource data and knowledge</i>	Evaluate alignments for proximity to known important cultural sites or areas
	Agricultural Use, Productivity and Management		Evaluate alignments for impacts to existing agricultural values in the proximity of the corridor, considerations include: <ul style="list-style-type: none"> <li>• Impacts to significant agricultural lands: national, state, and local significance</li> <li>• Use of agricultural land for trail or conversion of agricultural access road(s) to trail</li> <li>• Any hindrance to agricultural operations or management presented by the trail</li> <li>• Number of gates and related associated infrastructure needed.</li> <li>• Proposed trailside fencing impacts to agricultural operations and livestock access to water</li> </ul>
	Ditch and Lateral Access, Operations, and Maintenance		Evaluate alignments for impacts to or from ditches and lateral access points in or around the corridor, considerations include: <ul style="list-style-type: none"> <li>• Number of ditches or ditch access roads the trail would have to cross</li> <li>• Number of culverts and other infrastructure needed for trail crossings</li> <li>• Impacts to irrigation water application, conveyance, and drainage</li> <li>• Impacts of storm drainage to ditches and laterals</li> </ul>
<b>Implementation and Maintenance</b>	Uses Existing Facilities/Right of Ways		Evaluate alignments for ability to use existing facilities or right of ways for greater ease of implementation, considerations include: <ul style="list-style-type: none"> <li>• Amount (linear ft, miles, etc.) of alignment that could use RTD or other existing ROWs</li> <li>• Use of existing roads or access points</li> </ul>

**APPENDIX A - EVALUATION CRITERIA DEFINITIONS**

			<ul style="list-style-type: none"> <li>○ Available width of ROW (approx. 20 ft minimum beyond edge of pavement)</li> <li>○ Condition of existing roads or access points</li> <li>○ Permission to use existing roads or access points</li> <li>○ Amount (linear ft, miles, etc.) of trail alignment that could utilize existing roads or access points</li> </ul>
	Compatibility with Future Development/Redevelopment		<p>Evaluate alignments for consistency or potential for connection to future development or redevelopment plans, considerations include:</p> <ul style="list-style-type: none"> <li>● Potential to connect with proposed future trails or trailheads</li> <li>● Potential to connect with future residential or commercial developments</li> <li>● Trail alignment that does not specifically negate or interfere with future development or redevelopment plans in or around the corridor</li> </ul>
	Maintenance Costs	<i>General maintenance cost estimates will be complete as part of this project with more detailed estimates as part of future projects</i>	<p>Evaluate alignments for associated maintenance costs, considerations include:</p> <ul style="list-style-type: none"> <li>● Winter maintenance (snow exp)</li> <li>● Potential for stormwater, irrigation water, or groundwater / surface water to flood the trail</li> <li>● Crossings of the ROW that could erode/impact the trail over time, such as livestock or large vehicles</li> <li>● Invasive non-native plant species management (ongoing)</li> <li>● Fence and gate repair (ongoing)</li> <li>● Management of culverts and other infrastructure for trail crossings</li> </ul>
	Permitting	<i>Actual permitting and compliance will not be completed in this project,</i>	<p>Evaluate alignments for differences in potential permitting needed for trail implementation, considerations include:</p>



**APPENDIX A - EVALUATION CRITERIA DEFINITIONS**

		<i>potentially required permits will be estimated in this project to be completed in subsequent phases</i>	<ul style="list-style-type: none"> <li>● Regulatory compliance</li> <li>● Required permits</li> <li>● Feasibility of obtaining floodplain permit</li> </ul>
	Construction Costs	<i>General cost estimates will be completed as part of this project with more detailed estimates as part of future phases</i>	Evaluate alignments for difference in potential construction costs to complete the trail, considerations include: <ul style="list-style-type: none"> <li>● Preliminary cost of infrastructure</li> <li>● Preliminary cost of engineering/design</li> </ul>
	Mitigation Costs	<i>General mitigation costs will be estimated as a part of this project with more detailed evaluations and cost estimates to take place in future projects</i>	Evaluate alignments for differences in potential environmental mitigation costs <ul style="list-style-type: none"> <li>● Preliminary cost of environmental permitting for required and desired mitigation</li> </ul>
	Ease/Speed of Implementation		Evaluate alignments for differences in potential ease or speed of implementation, considerations include: <ul style="list-style-type: none"> <li>● Acres or linear feet of easement, ROW, or property acquisition from public agencies</li> <li>● Acres or linear feet of easement, ROW, or property acquisition from private landowners</li> <li>● Potential for state or federal funding</li> <li>● Potential for partnerships with other agencies or entities</li> </ul>
	Construction Impacts		Evaluate alignments for differences in potential impacts from trail construction, considerations include: <ul style="list-style-type: none"> <li>● Construction time limitations due to the presence of species of management interest and their spatial buffers</li> <li>● Temporary closures of public or private operations</li> </ul>
<b>Adjacent Property Considerations</b>	Availability of BOCO or RTD ROW and property to complete the project		Evaluate alignments for differences in their use of BOCO or RTD ROW and property for trail. Agreements are in place for the use of the RTD

**APPENDIX A - EVALUATION CRITERIA DEFINITIONS**

			<p>ROW for this trail. Use of BOCO ROW offers fewer regulatory concerns when compared to property owned by other agencies or private landowners. Considerations include:</p> <ul style="list-style-type: none"> <li>● Length of trail alignment in RTD ROW</li> <li>● Length of trail alignment on BOCO property</li> </ul>
	Need for Use of Other Public Lands		<p>Evaluate alignments for differences in their required use of additional public lands (other than BOCO or RTD ROW lands), Considerations include:</p> <ul style="list-style-type: none"> <li>● Length of trail alignments on public lands</li> </ul>
	Need for Use of Private Property		<p>Evaluate alignments for differences in their required use of additional private property, considerations include:</p> <ul style="list-style-type: none"> <li>● Length of trail alignment on private property</li> </ul>
	Adjacent Land Uses		<p>Evaluate alignments for potential conflicts or compatibility issues between the trail and adjacent land uses, considerations include:</p> <ul style="list-style-type: none"> <li>● Activities like hunting on adjacent property</li> <li>● Distance from industrial activity</li> <li>● Distance from roads</li> </ul>
<b>Trail User Experience</b>	Directness of Alignment		<p>Evaluate alignments for directness of route, considerations include:</p> <ul style="list-style-type: none"> <li>● Length of each alignment, shorter is better</li> </ul>
	Recreational Value	<i>No loops or spurs will be proposed or evaluated on OSMP land, the only segments under consideration on OSMP lands are those found on the MOU map diagram.</i>	<p>Evaluate alignments for recreational value potential, considerations include:</p> <ul style="list-style-type: none"> <li>● Views</li> <li>● Scenic alignments or proposed options (including loops/spurs)</li> <li>● Accommodation of Trail User Groups</li> </ul>
	Connectivity to Existing or Potential Trails, and other Routes	<i>On OSMP Property only trails that are existing or have been approved/planned will be evaluated. Also, no loops or spurs will be proposed or</i>	<p>Evaluate alignments for opportunities provided for connection to existing, approved/planned, or potential trails, and routes, considerations include:</p> <ul style="list-style-type: none"> <li>● Potential connections to existing trails</li> </ul>

**APPENDIX A - EVALUATION CRITERIA DEFINITIONS**

		<i>evaluated on OSMP land, the only segments under consideration on OSMP lands are those found on the MOU map diagram.</i>	<ul style="list-style-type: none"> <li>● Potential to create or facilitate connections to approved/planned or proposed future trails</li> <li>● Opportunities to connect to existing routes or create loops</li> <li>● Potential to utilize existing trails as segments of BERT or to not duplicate trail facilities in a given area if possible</li> </ul>
	Connectivity to Origins and/or Destinations		<p>Evaluate alignments for likelihood to provide connections between origins and destinations, considerations include:</p> <ul style="list-style-type: none"> <li>● Opportunities to connect the BERT to existing or proposed neighborhoods or residential areas</li> <li>● Opportunities to connect the BERT to existing or proposed commercial or business centers</li> <li>● Opportunities to connect the BERT to existing or proposed recreation centers, parks, and public spaces</li> </ul>
	Trailheads	<i>Trailheads will not be designed in detail in this project, but potential locations will be identified for more detailed site planning in future projects</i>	<p>Evaluate alignments for ability to provide trailhead(s) locations adequate for desired user facilities such as restrooms, parking, drinking water, accessibility, horse trailer parking. Considerations include:</p> <ul style="list-style-type: none"> <li>● Number of potential trailhead locations</li> <li>● Size of potential trailhead locations</li> </ul>
	Interpretive Opportunities	<i>Actual interpretive signage will not be designed or located in this project and would take place in a subsequent project</i>	<p>Evaluate alignments for opportunities to provide interpretive information for trail users, possible interpretive topics include:</p> <ul style="list-style-type: none"> <li>● Views of, or proximity to built or natural features that are related to the history of the area</li> <li>● Views of, or proximity to area natural resources</li> </ul>

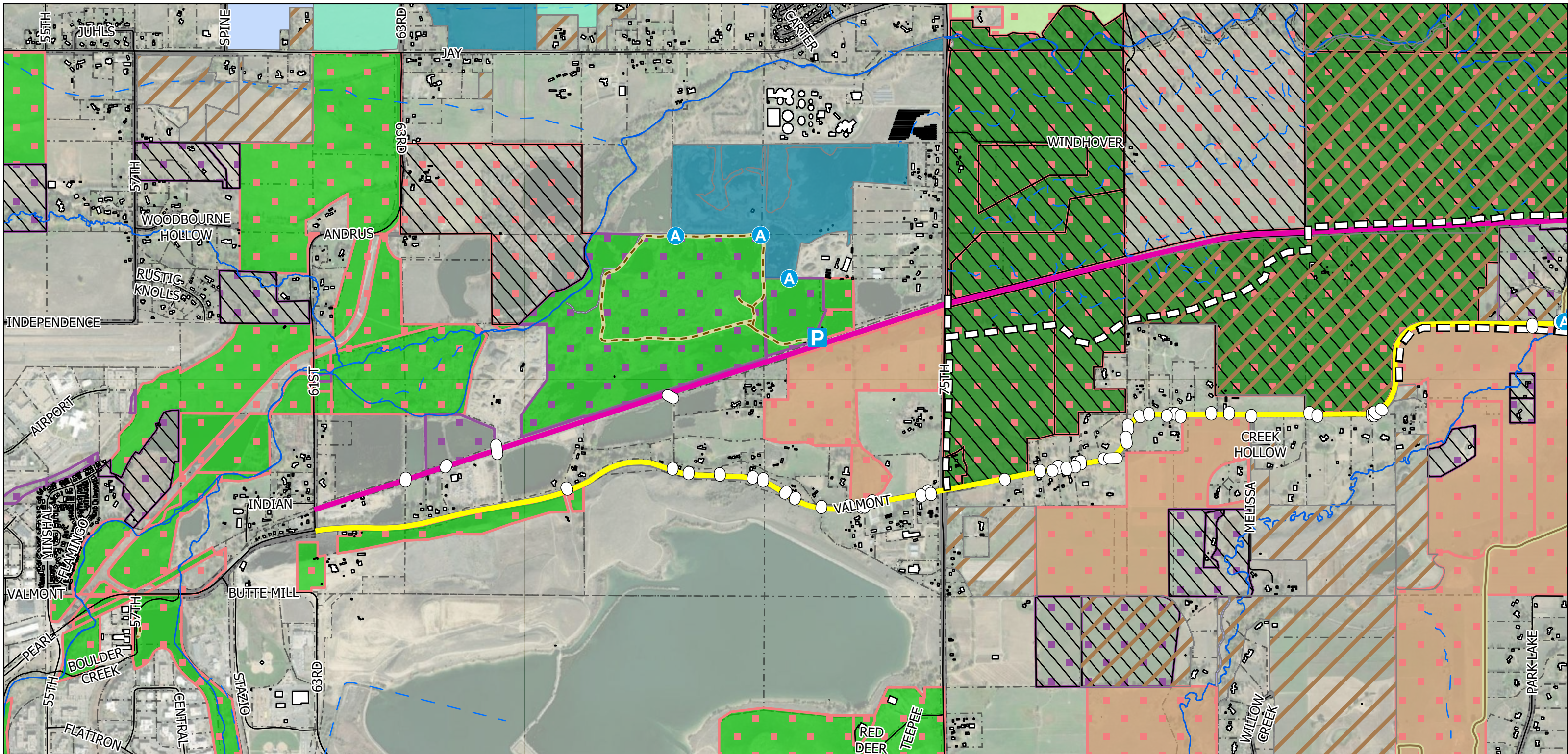


## APPENDIX B - BASEMAPPING

This appendix includes:

- MOU Map
- ERO Environmental Mapping- Original (2018) and Update (2023)
- Boulder County Comprehensive Plan Environmental Resources Elements Mapping
- Cultural Resources File Search & Literature Review - ***Not included due to sensitive nature of information***

# Exhibit 1: Map Depicting Land Ownership and Corridors of Consideration in the Project Area



- Potential Corridors to Consider**
- Routes on OSMP
  - RTD Rail Corridor
  - Valmont/Isabelle Corridor
  - 287 Crossing at Jasper Rd
  - 287 Crossing at Boulder Creek
  - Driveways

- County Open Space**
- County Conservation Easement
  - County Managed
  - County Owned Open Space
  - Joint County and Municipal Open Space
  - Miscellaneous Easement

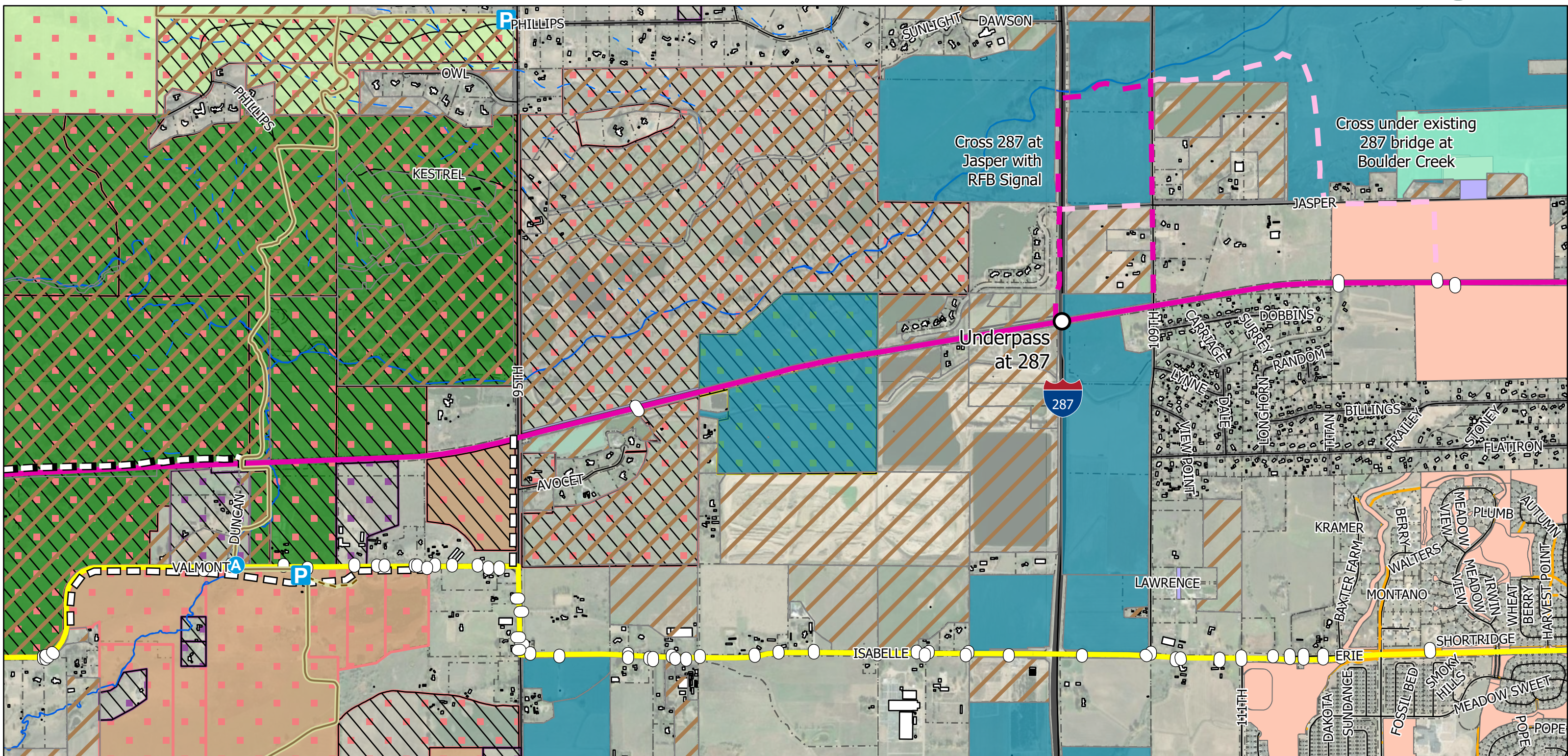
- Erie Green Space Ownership**
- Erie
- Linear Hydrology**
- Perennial Stream
  - Ephemeral and Intermittent Streams
- Managed Trail Access Locations**
- OSMP Trailhead

- OSMP Access Point**
- OSMP Access Point
- Trails**
- OSMP Hiking Trail
  - OSMP Multi-Use Trail
  - Erie Trails
- OSMP Land**
- No Public Access

- OSMP Fee Ownership**
- OSMP Fee Ownership
  - OSMP Joint Ownership
  - OSMP Joint Easement
  - OSMP Easement
- OSMP Management Area Designations**
- Agricultural Area

- Habitat Conservation Area
  - Natural Area
  - Passive Recreation Area
- Parcels**
- Boulder County Road Right of Way

# Exhibit 2: Map Depicting Land Ownership and Corridors of Consideration in the Project Area



**Potential Corridors to Consider**

- Routes on OSMP
- RTD Rail Corridor
- Valmont/Isabelle Corridor
- 287 Crossing at Jasper Rd
- 287 Crossing at Boulder Creek
- Driveways

**County Open Space**

- County Conservation Easement
- County Managed
- County Owned Open Space
- Joint County and Municipal Open Space
- Miscellaneous Easement

**Erie Green Space Ownership**

- Erie

**Linear Hydrology**

- Perennial Stream
- Ephemeral and Intermittent Streams

**Managed Trail Access Locations**

- OSMP Trailhead

**OSMP Access Point**

- OSMP Access Point

**Trails**

- OSMP Hiking Trail
- OSMP Multi-Use Trail
- Erie Trails

**OSMP Land**

- No Public Access

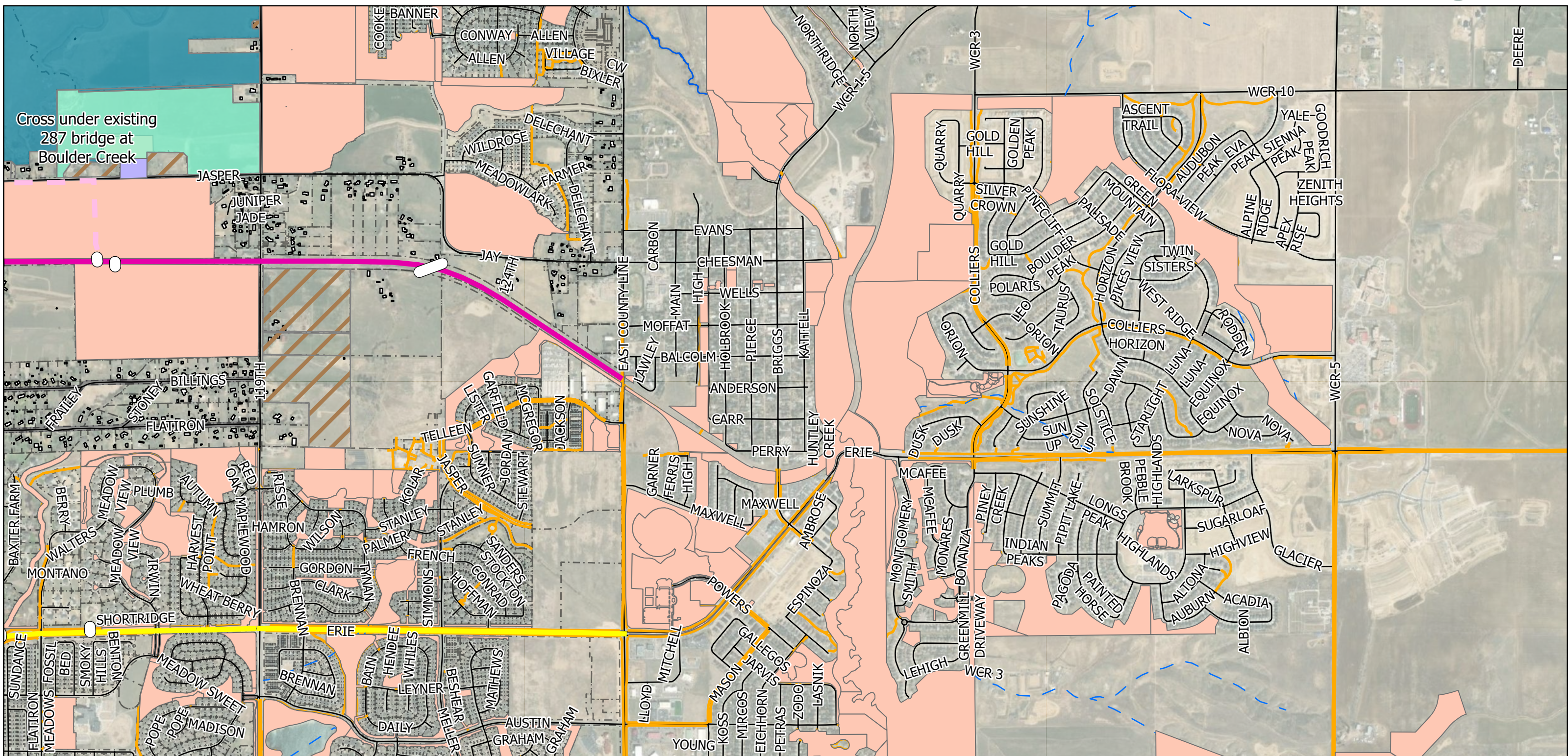
**OSMP Management Area Designations**

- OSMP Fee Ownership
- OSMP Joint Ownership
- OSMP Joint Easement
- OSMP Easement
- Agricultural Area

**Parcels**

- Habitat Conservation Area
- Natural Area
- Passive Recreation Area
- Boulder County Road Right of Way

# Exhibit 3: Map Depicting Land Ownership and Corridors of Consideration in the Project Area



- |   |  |   |  |   |   |
|---|--|---|--|---|---|
| <p><b>Potential Corridors to Consider</b></p> <ul style="list-style-type: none"> <li>▭ Routes on OSMP</li> <li>▬ RTD Rail Corridor</li> <li>▬ Valmont/Isabelle Corridor</li> <li>▬ 287 Crossing at Jasper Rd</li> <li>▬ 287 Crossing at Boulder Creek</li> <li>○ Driveways</li> </ul> | <p><b>County Open Space</b></p> <ul style="list-style-type: none"> <li>▭ County Conservation Easement</li> <li>▭ County Managed</li> <li>▭ County Owned Open Space</li> <li>▭ Joint County and Municipal Open Space</li> <li>▭ Miscellaneous Easement</li> </ul> | <p><b>Erie Green Space Ownership</b></p> <ul style="list-style-type: none"> <li>▭ Erie</li> </ul> <p><b>Linear Hydrology</b></p> <ul style="list-style-type: none"> <li>▬ Perennial Stream</li> <li>▬ Ephemeral and Intermittent Streams</li> </ul> <p><b>Managed Trail Access Locations</b></p> <ul style="list-style-type: none"> <li>▭ OSMP Trailhead</li> </ul> | <p><b>OSMP Access Point</b></p> <ul style="list-style-type: none"> <li>ⓐ OSMP Access Point</li> </ul> <p><b>Trails</b></p> <ul style="list-style-type: none"> <li>▬ OSMP Hiking Trail</li> <li>▬ OSMP Multi-Use Trail</li> <li>▬ Erie Trails</li> </ul> <p><b>OSMP Land</b></p> <ul style="list-style-type: none"> <li>▭ No Public Access</li> </ul> | <p><b>OSMP Fee Ownership</b></p> <ul style="list-style-type: none"> <li>▭ OSMP Fee Ownership</li> <li>▭ OSMP Joint Ownership</li> <li>▭ OSMP Joint Easement</li> <li>▭ OSMP Easement</li> </ul> <p><b>OSMP Management Area Designations</b></p> <ul style="list-style-type: none"> <li>▭ Agricultural Area</li> </ul> | <p><b>Habitat Conservation Area</b></p> <ul style="list-style-type: none"> <li>▭ Habitat Conservation Area</li> <li>▭ Natural Area</li> <li>▭ Passive Recreation Area</li> </ul> <p><b>Parcels</b></p> <ul style="list-style-type: none"> <li>▭ Boulder County Road Right of Way</li> </ul> |
|---|--|---|--|---|---|





Consultants in Natural Resources and the Environment

## **Environmental Data Collection Technical Memorandum Boulder County RTD Rail Trail Project Boulder and Weld Counties, Colorado**

*Prepared for:  
Loris and Associates  
August 13, 2018*

On behalf of Boulder County, Loris and Associates contracted ERO Resources Corporation (ERO) to perform an environmental data collection effort for the proposed RTD Rail Trail recreational trail in Boulder and Weld Counties, Colorado. This memo summarizes the results of the data collection effort.

### **Study Area**

The proposed trail follows a 9-mile segment of the Union Pacific Railroad in Boulder and Weld Counties, Colorado. The analysis area for this data collection effort includes a 0.5-mile buffer of the proposed trail to account for and potential alignment changes. The entire analysis area is approximately 6,288 acres. The legal locations are Sections 13, 14, 21 to 24, and 26 to 28 in Township 1 North, Range 70 West of the 6th Principal Meridian; Sections 10 to 22 and 24 in Township 1 North, Range 69 West of the 6th Principal Meridian; and Sections 18 and 19 in Township 1 North, Range 68 West of the 6th Principal Meridian (Figure 1, Appendix A).

### **Cultural Resources**

A “cultural resource” is defined as an archaeological site, structure, or building constructed 50 or more years ago. A cultural resource listed on or eligible for listing on the National Register of Historic Places (NRHP) or State Register of Historic Places (SRHP) is a “historic property.” To assist with project planning and potential consultation obligations under Section 106 of the National Historic Preservation Act (NHPA) (36 CFR 800), the State Register Act (SRA) (CRS 34-80.1-104), and/or Boulder County planning requirements, ERO reviewed the previous cultural resource surveys and resource documentation completed in the analysis area by conducting a file review with the Office of Archaeology and Historic Preservation (OAHP). See Appendix A for more information.

The OAHP records identified 136 previously documented cultural resources in the study area (Table 2 Appendix A; Figures 2 through 7 Appendix A). These resources include prehistoric and historical archaeological sites, historical structures, and historical buildings, although most of the resources are associated with the early settlement and dry land agriculture of the region. Of these, 36 historical

buildings and structures are individually eligible for listing in or are listed in the SRHP and/or NRHP, including the Union Pacific Railroad (5BL469) which one potential trail design option follows. Any alterations to the physical characteristics of 5BL469 would be considered an adverse effect and would require consultation with the State Historic Preservation Office (SHPO).

Pursuant to Boulder County Land Use Code and Historic Preservation Program (CR 1.03), the Colorado SRA (CRS34-80.1-104), or the NHPA (36 CFR 800), any agency involved in the project may require consultation with the SHPO or additional work to identify unknown cultural resources and assess known cultural resources identified during the literature review, prior to construction. Based on the results of this file and literature review, an agency may require that a cultural resource specialist that meets Secretary of Interior professional qualification standards conducts additional work (e.g., a pedestrian survey and resource documentation on OAHF forms) to evaluate the effects of trail construction on cultural resources.

## **Vegetation**

Vegetation within the analysis area varies from upland grasses, shrublands and woodlands to wetlands and riparian areas. According to data from the Colorado Natural Heritage Program (CNHP), the following natural communities are located within the analysis area:

- Foothills Ponderosa Pine Scrub Woodlands
- Lower Montane Forests
- Intermountain Greasewood Wet Shrubland
- Great Plains Mixed Grass Prairie
- Montane Riparian Forest
- Great Plains Mixed Grass Prairie
- Great Plains Mixed Grass Prairie
- Foothills Ponderosa Pine Savannas
- Narrow-leaf Cattail Marsh

According to the City of Boulder OSMP vegetation data, the following vegetation subclasses are located within the analysis area.

- Annual graminoid or forb vegetation
- Boulder, gravel, cobble, or talus / sparse vegetation
- Consolidated rock, sparse vegetation
- Deciduous shrubland
- Deciduous woodland
- Perennial graminoid vegetation

According to the Boulder County Comprehensive Plan, the Gunbarrel Ranch Conservation Easement, located between 75th Street and 95th Street, is considered a City of Boulder Rare Plant Area, which is defined as having a high likelihood of having occurrences of plant species of Special Concern.

## Wetlands and Waters

ERO reviewed wetland, riparian, lakes and stream data from the City of Boulder, Boulder County and the U.S. Fish and Wildlife Service. Known wetlands, lakes, ponds, streams and riparian areas are located throughout the analysis area but are more prevalent north of the proposed trail corridor in the Boulder Creek floodplain (see Figure 1a through 1e, Appendix B).

Numerous ponds, including the Sawhill and Walden Ponds are located in the western portion of the analysis area, north of the proposed trail alignment between 55<sup>th</sup> Street and 75<sup>th</sup> Street. A small portion of Valmont Lake is located south of the proposed trail alignment, between 63<sup>rd</sup> Street and 75<sup>th</sup> Street. Large swaths of wetlands are located in the central portion of the analysis area, both north and south of the proposed trail corridor between 75<sup>th</sup> Street and 95<sup>th</sup> Street. Wetlands are located north of the proposed trail corridor between 107<sup>th</sup> Street/ Main St and 119<sup>th</sup> Street.

Numerous streams, creeks, ditches and water pipelines are located in the analysis area; however, the western portion of the analysis area has a higher concentration of water conveyances. Approximately seven water conveyances cross the proposed trail corridor and their approximate location and names are included below (see Figure 1a through 1e, Appendix B).

- Between 55th Street and 75th Street
  - South Boulder Creek
  - Jones Donnelly Ditch
  - Butte Mill Ditch
- Between 75th and 95th Street
  - Green Ditch
  - Dry Creek
- Between 95th Street and 107th Street/ Main Street
  - Lower Boulder Ditch
- Between 107th Street/ Main Street and 119th Street
  - Unnamed Lateral Ditch
  - Lower Boulder Ditch

## Wildlife

The analysis area provides habitat for a variety of wildlife species. Key species and habitats are described below.

### Federally-Listed Wildlife Species

The analysis area contains, or is located near, potential habitat for the federally-listed species in Table 1.

**Table 1. Federally threatened, endangered, and candidate animal species potentially found in the analysis area**

Common Name	Scientific Name	Status*	Habitat	Habitat / Potential Habitat Present
<b>Mammals</b>				
Preble’s meadow jumping mouse (PMJM)	<i>Zapus hudsonius preblei</i>	T	Shrub riparian/wet meadows	Yes
North american wolverine	<i>Gulo gulo luscus</i>	T	High elevation alpine forests	No. The analysis area is lower in elevation than known habitat.
<b>Birds</b>				
Least tern	<i>Sterna antillarum</i>	E	Sandy/pebble beaches on lakes, reservoirs, and rivers	Potential
Mexican spotted owl	<i>Strix occidentalis</i>	T	Closed-canopy forest in steep canyons	No
Piping plover	<i>Charadrius melodus</i>	T	Sandy lakeshore beaches and river sandbars	Potential
Whooping crane	<i>Grus Americana</i>	E	Mudflats around reservoirs and in agricultural areas	Potential
<b>Fish</b>				
Pallid sturgeon	<i>Scaphirhynchus albus</i>	E	Large, turbid, free-flowing rivers with a strong current and gravel or sandy substrate	No. Found in the Missouri and middle Mississippi Rivers.
Greenback cutthroat trout	<i>Oncorhynchus clarkii stomias</i>	T	Cold, clear, gravel headwater streams and mountain lakes	No. The analysis area is lower in elevation than known habitat (above 8,000 feet)
<b>Plants</b>				
Colorado butterfly plant	<i>Gaura neomexicana var. coloradensis</i>	T	Subirrigated alluvial soils on level floodplains and drainage bottoms between 5,000 and 6,400 feet in elevation	Yes
Ute ladies’-tresses orchid	<i>Spiranthes diluvialis</i>	T	Moist to wet alluvial meadows, floodplains of perennial streams, and around springs and lakes below 6,500 feet in elevation	Yes
Western prairie fringed orchid	<i>Platanthera praeclara</i>	T	Mesic and wet prairies, and sedge meadows	No. The species found in tallgrass prairie ecosystem habitats west of the Mississippi River.

Source: Service 2018.

**Preble’s meadow jumping mouse.** The Boulder Creek floodplain is known to support populations of Preble’s meadow jumping mouse (PMJM). Designated critical habitat for PMJM is located within the analysis area, along South Boulder Creek, in the southwestern portion of the analysis area. CPW data shows that much of the Boulder Creek floodplain within the analysis area has been evaluated for the presence of PMJM. Within the analysis area, approximately 17 trap sites have been set and another eight sites have been evaluated for PMJM but not trapped (Figure 2, Appendix B).

Boulder County has identified Boulder Creek and South Boulder Creek as a Zone 4 (Potential Restoration, Contiguous) Habitat Conservation Area (HCA) for PMJM. Zone 4 HCA for PMJM is defined as

“[a]reas not known to be occupied but contiguous with known populations were restoration of unsuitable or degraded habitat could result in a significant increase in a PMJM population.” (Boulder County, 2015).

**Least tern, piping plover, whooping crane.** The interior least tern, piping plover, and whooping crane may migrate through Colorado or may occasionally nest on wide sandy shores of reservoirs, typically in eastern Colorado. Critical habitat for all three species is not located in the analysis area.

**Colorado butterfly plant.** The Colorado butterfly plant has historically been found in Boulder, Douglas, Jefferson, Weld and Larimer Counties. The Boulder Creek corridor meets the broad habitat criteria for Colorado butterfly plant and CNHP data indicates that known populations of the species occur within the analysis area (CHNP, 2018).

**Ute ladies'-tresses orchid.** Ute ladies'-tresses orchid has historically been found in Boulder, El Paso, Garfield, Jefferson, Larimer, Moffat and Weld Counties. The Boulder Creek corridor meets the broad habitat criteria for the species and CNHP data indicates that known populations occur within the analysis area (CHNP, 2018).

## Raptors

Seven raptor nests are located in the analysis area and include osprey, red-tailed hawk, bald eagle and long-eared owl. The majority of the nests are located north of the proposed trail corridor along the Green Ditch or Boulder Creek between 75<sup>th</sup> Street and 107<sup>th</sup> Street /Main Street (See Figure 2, Appendix B).

Of the eight raptor nests, four are active bald eagle nests. The proposed trail corridor intersects two of the CPW ½ bald eagle nest buffers near 107<sup>th</sup> Street/ Main Street. One bald eagle roost site is located in the analysis area between 75<sup>th</sup> Street and 95<sup>th</sup> Street and north of the proposed trail corridor. The analysis area is also located within bald eagle winter range, and summer and winter forage areas. No winter concentration areas are located in the analysis area.

## CPW Tracked Wildlife Species

Colorado Parks and Wildlife (CPW) tracks a number of species that are regionally important for big game hunting and overall conservation, including sensitive or seasonal activity areas for several species. The analysis area contains activity areas mapped by CPW for the following species (CPW, 2016) (See Figures 3 and 4, Appendix B) . These approximate areas are described below.

- Black-tailed prairie dog colony
  - Potential Occurrence (entire analysis area)
- Black bear
  - Overall Range (entire analysis area)
  - Human Conflict Area (western edge of analysis area to east of 107<sup>th</sup> Street / Main Street)
- Canada geese

- Winter Range (entire analysis area)
- Foraging Range (entire analysis area)
- Winter Concentration Area and Production Area (several pockets between South Boulder Creek and 95<sup>th</sup> Street)
- Brood Concentration Area (southern portion of analysis area between South Boulder Creek to 75<sup>th</sup> Street)
- Great blue heron
  - Nesting Area (two pockets north of the potential trail corridor on Boulder Creek near 75<sup>th</sup> Street and west of 107 Street/ Main Street)
  - Foraging Area (along Boulder Creek)
  - Historic Nest Area (western edge of analysis area)
- Mountain lion
  - Peripheral and Overall Range (western edge of analysis area to 107<sup>th</sup> Street / Main Street)
- Mule deer
  - Overall Range (entire analysis area)
  - Winter Range (along Boulder Creek to 107<sup>th</sup> Street/ Main Street)
  - Resident Population Area (western edge of analysis area to 95<sup>th</sup> Street)
  - Limited Use Area (75<sup>th</sup> Street to eastern edge of analysis area)
- Preble's meadow jumping mouse
  - Overall Range (entire analysis area)
- Ring-necked pheasant
  - Overall Range (95<sup>th</sup> Street to eastern edge of analysis area)
- White pelican
  - Overall Range and Foraging Area (Boulder Creek corridor from western edge of analysis area to 107<sup>th</sup> Street/ Main Street)
- White-tailed deer
  - Overall Range (entire analysis area)
  - Concentration Area (western edge of analysis area to 107<sup>th</sup> Street / Main Street)
  - Deer Highway Crossing (95<sup>th</sup> Street)

## **Boulder County Comprehensive Plan**

The Boulder County Comprehensive Plan guides future land use and planning decisions. The Plan includes numerous maps that illustrate Boulder County sensitive resources or planned facilities within the County (Boulder County, 2017). Table 2 provides a summary of the sensitive resources and facilities within the analysis area.

**Table 2. Boulder County Comprehensive Plan Maps**

Boulder County Comp Plan Map	Feature in Analysis Area	Summary of Resource in Analysis Area
Archaeologically Sensitive Areas	Yes	An archaeologically sensitive area located in analysis area as well as a Travel Route. See Figure 5, Appendix B.
County Trails	Yes	The proposed project is considered as a conceptual trail alignment.
Critical Wildlife Habitats & Migration Corridors	Yes	The area surrounding the Sawhill and Walden ponds as well as the Gunbarrel Ranch CE is designated as a Boulder County Critical Wildlife Habitat. Critical Wildlife Habitats serve a crucial role in sustaining populations of native wildlife and perpetuate and encourage a diversity of native species. See Figure 5, Appendix B.
Environmental Conservation Areas	Yes	The area located between 75th Street and 95th Street is designated as a Boulder County Environmental Conservation Area (ECA), called Gunbarrel Hill Agricultural Open Space. ECAs are areas that possess relatively low amounts of fragmentation, contain high quality natural resources or habitats, are designated at a sufficient size to provide ecological benefit, and/ or have significant potential for restoration. Boulder Creek is designated as a Riparian Habitat Connector, which is defined as an area of wildlife movement adjacent to relative unfragmented waterways which provides connectivity among Environmental Conservation Areas. See Figure 5, Appendix B.
Geologic Hazards and Constraints Areas	Yes	The analysis area includes areas designated as minor Geologic Constraint Areas, and moderate Geologic Hazard Areas due to the presence of expansive soils and potential for flooding.
High Biodiversity Areas	Yes	The analysis area is located in the Boulder Creek High Biodiversity area, defined as having a concentration of several biodiversity elements that are common globally but are important for the ecoregion. See Figure 5, Appendix B.
Intergovernmental Agreements	Yes	The analysis area is located in the Boulder Valley Comprehensive Plan and the East Central Boulder County Comprehensive Development Plan.
Mineral Resource Areas	Yes	Several pockets of aggregate and coal resource areas are located in the analysis area.
Natural Areas & Natural Landmarks	Yes	The White Rocks Natural Area (located on Gunbarrel Ranch CE, between 75th Street and 95th Street) is located in the analysis area. Boulder County Natural Areas are defined as having unique and important natural heritage that typifies native vegetation and associated biological and geological features and provides habitat for rare or endangered animal or plant species; or includes geological or other natural features of scientific or educational value. See Figure 5, Appendix B.
Niwot Community Service Area	N/A	N/A
On-Street Bikeways Plan	N/A	N/A

Boulder County Comp Plan Map	Feature in Analysis Area	Summary of Resource in Analysis Area
Open Space and Public Lands	Yes	The analysis area includes Boulder County Open Space and Conservation Easement lands.
PMJM Conservation Areas	Yes	Boulder Creek and South Boulder Creek are designated as Zone 4 (Potential Restoration, Contiguous) PMJM Habitat Conservation Areas.
Rare Plant Areas & Significant Natural Communities	Yes	Gunbarrel Ranch CE, located between N. 75th Street and N. 95th Street, is considered a Rare Plant Area, which is defined as having a high likelihood of having occurrences of plant species of Special Concern.
Significant Agricultural Lands	Yes	Lands located south of the proposed trail alignment are considered agricultural lands of national and local importance. See Figure 5, Appendix B.
View Protection Corridors	Yes	63rd St, 75th Street, 95th Street, 107th Street, Isabelle Rd., and Valmont Rd within the analysis area have a Boulder County View Protection Corridor Score of 1 or greater.
Wetlands & Riparian Areas	Yes	Numerous Boulder County identified wetlands and riparian areas are located in the analysis area. See Figure 1, Appendix B.

Boulder County, 2017

## City of Boulder Visitor Master Plan

The City of Boulder’s Visitor Master Plan guides OSMP’s initiatives, services and policies for visitors of OSMP managed lands. OSMP uses an area management system to implement the strategies of the Visitor Master Plan (City of Boulder, 2005). Under this system, specific policies, programs and projects are targeted to various areas. The following OSMP Visitor Management areas are located within the analysis area (see Figure 6, Appendix B):

- Agricultural Area
- Habitat Conservation Area
- Natural Area



## References Cited

- Boulder County. 2015. Habitat Conservation Areas for Preble's Meadow Jumping Mouse. <https://assets.bouldercounty.org/wp-content/uploads/2017/03/bccp-map-habitat-conservation-areas-for-prebles-meadow-jumping-mouse.pdf>
- Boulder County. 2017. Boulder County Comprehensive Plan Maps. <https://www.bouldercounty.org/property-and-land/land-use/planning/boulder-county-comprehensive-plan/>
- City of Boulder. 2005. City of Boulder, Open Space & Mountain Parks Visitor Master Plan. [https://www-static.bouldercolorado.gov/docs/final-vmp-1-201304101621.pdf?\\_ga=2.103701696.1336670321.1532443652-1355866336.1526502937](https://www-static.bouldercolorado.gov/docs/final-vmp-1-201304101621.pdf?_ga=2.103701696.1336670321.1532443652-1355866336.1526502937)
- Colorado Natural Heritage Program (CNHP). 2018. Biodiversity Tracking and Conservation, Elements by 7.5 Minute USGS Quadrangle. Colorado State University.
- Colorado Parks and Wildlife. 2016. GIS Species Activity Mapping.
- US Fish and Wildlife Service (Service). 2018. IPaC Report. <https://ecos.fws.gov/ipac/>

**Appendix A. Cultural Resource File and Literature Review Boulder  
County RTD Rail Trail Project**



Consultants in Natural Resources and the Environment

## **Technical Memorandum File and Literature Review Boulder County RTD Rail Trail Project Boulder and Weld Counties, Colorado**

*Prepared for:*

*Loris and Associates*

*July 9, 2018*

On behalf of Boulder County, Loris and Associates contracted ERO Resources Corporation (ERO) to perform a cultural resource file and literature review for a proposed recreational trail in Boulder and Weld Counties, Colorado. ERO conducted the file search and literature review as a due diligence effort to determine whether cultural resources intersect the proposed trail corridor. The results may be used in preparation for any future potential regulatory obligations associated with permits or funding from Boulder County, a Colorado state agency, or federal agency in which the agency requires an evaluation of trail construction's effects on cultural resources.

### **Study Area**

The proposed trail follows a 9-mile segment of the Union Pacific Railroad in Boulder and Weld Counties, Colorado. The trail configuration is still in the planning stages; therefore, the cultural resource file and literature review area includes a ½-mile buffer of the proposed trail corridor to account for design changes. The entire study area is 6287.5 acres. The legal locations are Sections 13, 14, 21 to 24, and 26 to 28 in Township 1 North, Range 70 West of the 6th Principal Meridian; Sections 10 to 22 and 24 in Township 1 North, Range 69 West of the 6th Principal Meridian; and Sections 18 and 19 in Township 1 North, Range 68 West of the 6th Principal Meridian (Figure 1, attached).

### **Methodology**

The purpose of the cultural resource file and literature review is to determine whether any previously documented cultural resources listed on or eligible for listing on the National Register of Historic Places (NRHP) or State Register of Historic Places (SRHP) could be impacted by the proposed project. A "cultural resource" is defined as an archaeological site, structure, or building constructed 50 or more years ago. A cultural resource listed on or eligible for listing on the NRHP/SRHP is a "historic property." To assist with project planning and potential consultation obligations under Section 106 of the National Historic Preservation Act (NHPA) (36 CFR 800), the State Register Act (SRA) (CRS 34-80.1-104), and/or Boulder County planning requirements, ERO reviewed the previous cultural resource surveys and

resource documentation completed in the study area by conducting a file review with the Office of Archaeology and Historic Preservation (OAHP). The OAHP provided the results to ERO on June 26, 2018 (File Search No. 21214). The file search area included the entirety of the study area as defined above.

## **Results**

The OAHP file search identified 29 previous cultural resource surveys that intersect the study area (Table 1; Figures 2 through 6). Of these surveys, nine are intensive cultural resource surveys that encompass approximately 20 percent of the study area. Of the nine intensive surveys, only one of these occurred in the past 10 years. This survey was conducted in 2008 by Foothill Engineering Consultants, Inc. on behalf of the Department of Energy. The State Historic Preservation Office (SHPO) does not consider the results of surveys older than 10 years to be current or valid for consultation.

The OAHP records identified 136 previously documented cultural resources in the study area (Table 2; Figures 2 through 7). These resources include prehistoric and historical archaeological sites, historical structures, and historical buildings, although most of the resources are associated with the early settlement and dry land agriculture of the region. Of these, 36 historical buildings and structures are individually eligible for listing in or are listed in the SRHP and/or NRHP, including the Union Pacific Railroad (5BL469) which one potential trail design option follows. Any alterations to the physical characteristics of 5BL469 would be considered an adverse effect and would require consultation with the SHPO.

In addition to the OAHP file search, ERO did a preliminary review of existing literature, historical maps, and public records to determine if historical buildings or structures are located in the study area. Historic aerials and assessor records demonstrate that the area has been used for agriculture and ranching throughout the 20th century (Boulder County Tax Assessor 2018; Nationwide Environmental Title Research LLC 2018). Cultural resources associated with the early settlement and dry land agriculture in the area include ditches, railroad grades, and historical buildings. Additionally, portions of Boulder Creek flow through the study area and the presence of an alluvial depositional environment provides favorable conditions for the presence of buried archaeological deposits.

## **Summary**

The study area intersects numerous previously documented cultural resources, and one potential trail design alignment follows the path of the Union Pacific Railroad (5BL469), eligible for listing in the SRHP and NRHP. Pursuant to Boulder County Land Use Code and Historic Preservation Program (CR 1.03), the Colorado SRA (CRS34-80.1-104), or the NHPA (36 CFR 800), any agency involved in the project may require consultation with the SHPO or additional work to identify unknown cultural resources and assess known cultural resources identified during the literature review prior to construction. Based on the results of this file and literature review, an agency may require that a cultural resource specialist that meets Secretary of Interior professional qualification standards conducts additional work (e.g., a

pedestrian survey and resource documentation on OAHP forms) to evaluate the effects of trail construction on cultural resources.

Please feel free to contact ERO with any questions you may have in reference to the file and literature review results and additional work potentially needed for compliance with county, state, or federal regulations pertaining to the management of cultural resources.

## **Certification of Results**

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Abigail Sanocki  
ERO Resources Corporation  
Historical Archaeologist

### **Attachments**

Figure 1. Study Area (USGS 1:100,000 topographic background).  
Figure 2. File Search Results (USGS 1:24,000 topographic quadrangle) Figure 3. File Search Results (USGS 1:24,000 topographic quadrangle) Figure 4. File Search Results (USGS 1:24,000 topographic quadrangle) Figure 5. File Search Results (USGS 1:24,000 topographic quadrangle) Figure 6. File Search Results (USGS 1:24,000 topographic quadrangle) Figure 7. File Search Results (USGS 1:7,500 topographic background)

## **References Cited**

Boulder County Tax Assessor  
2018 Boulder County Land Information Locator. Electronic database,  
<http://maps.boco.solutions/propertysearch/>, accessed July 2, 2018.

Nationwide Environmental Title Research LLC  
2018 Historic Aerials. Online database, <https://www.historicaerials.com/viewer>, accessed July 2, 2018.

## Appendix B. Figures

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RTD Rail Trail Master Plan

- |                                 |                                   |
|---------------------------------|-----------------------------------|
| Waterway                        | Freshwater Pond                   |
| Waterbody                       | Freshwater Emergent Wetland       |
| Field Delineated Wetland (2007) | Freshwater Forested/Shrub Wetland |
| Analysis Area                   | Riverine                          |
|                                 | Lake                              |

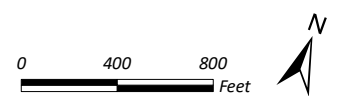
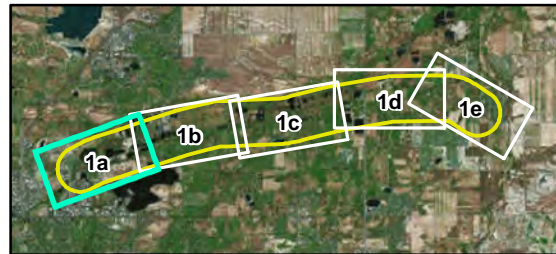


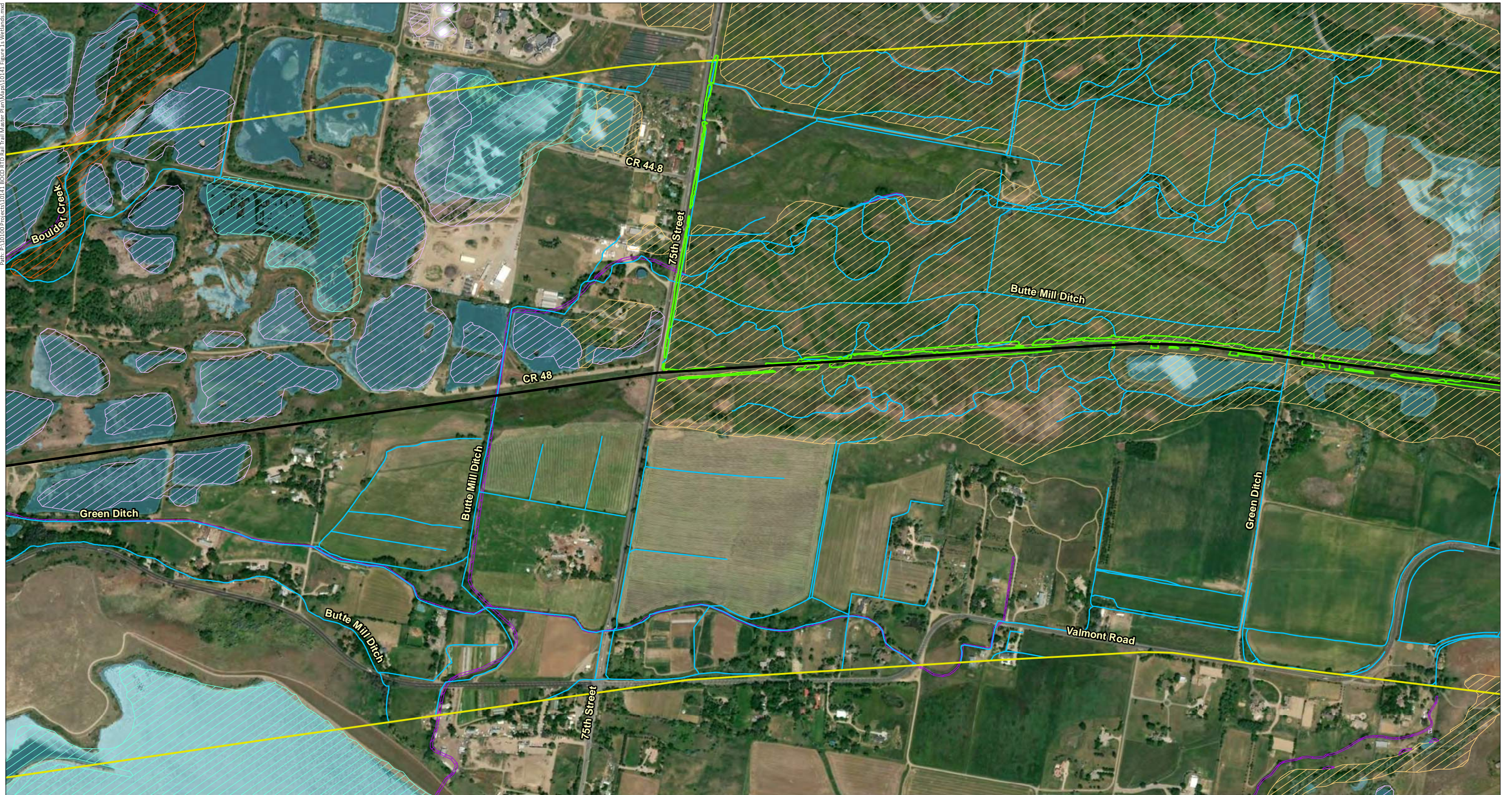
Figure 1a  
Wetlands and Waters

Image Source: DigitalGlobe®, June 2017





Prepared for: Loris  
File: 10141 Figure 1s Wetlands.mxd (GS)  
August 10, 2018





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RTD Rail Trail Master Plan

-  Waterway
-  Waterbody
-  Field Delineated Wetland (2007)
-  Analysis Area

National Wetlands Inventory

-  Freshwater Emergent Wetland
-  Freshwater Forested/Shrub Wetland

-  Freshwater Pond
-  Lake
-  Riverine

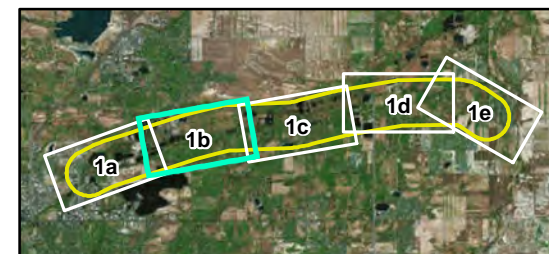


Figure 1b  
Wetlands and Waters

Image Source: DigitalGlobe©, June 2017

Prepared for: Loris  
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August 10, 2018





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RTD Rail Trail Master Plan

- |                                 |  |                 |
|---------------------------------|--|-----------------|
| Waterway                        | National Wetlands Inventory<br>Freshwater Emergent Wetland | Freshwater Pond |
| Waterbody                       | Freshwater Forested/Shrub Wetland                          | Lake            |
| Field Delineated Wetland (2007) | Riverine   |                 |
| Analysis Area                   |  |                 |

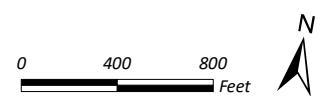
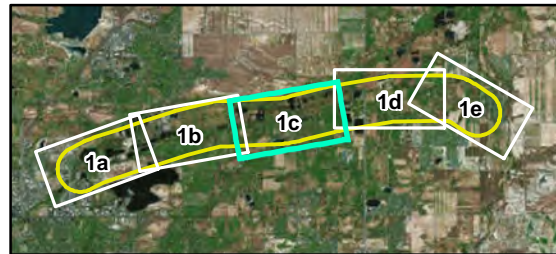


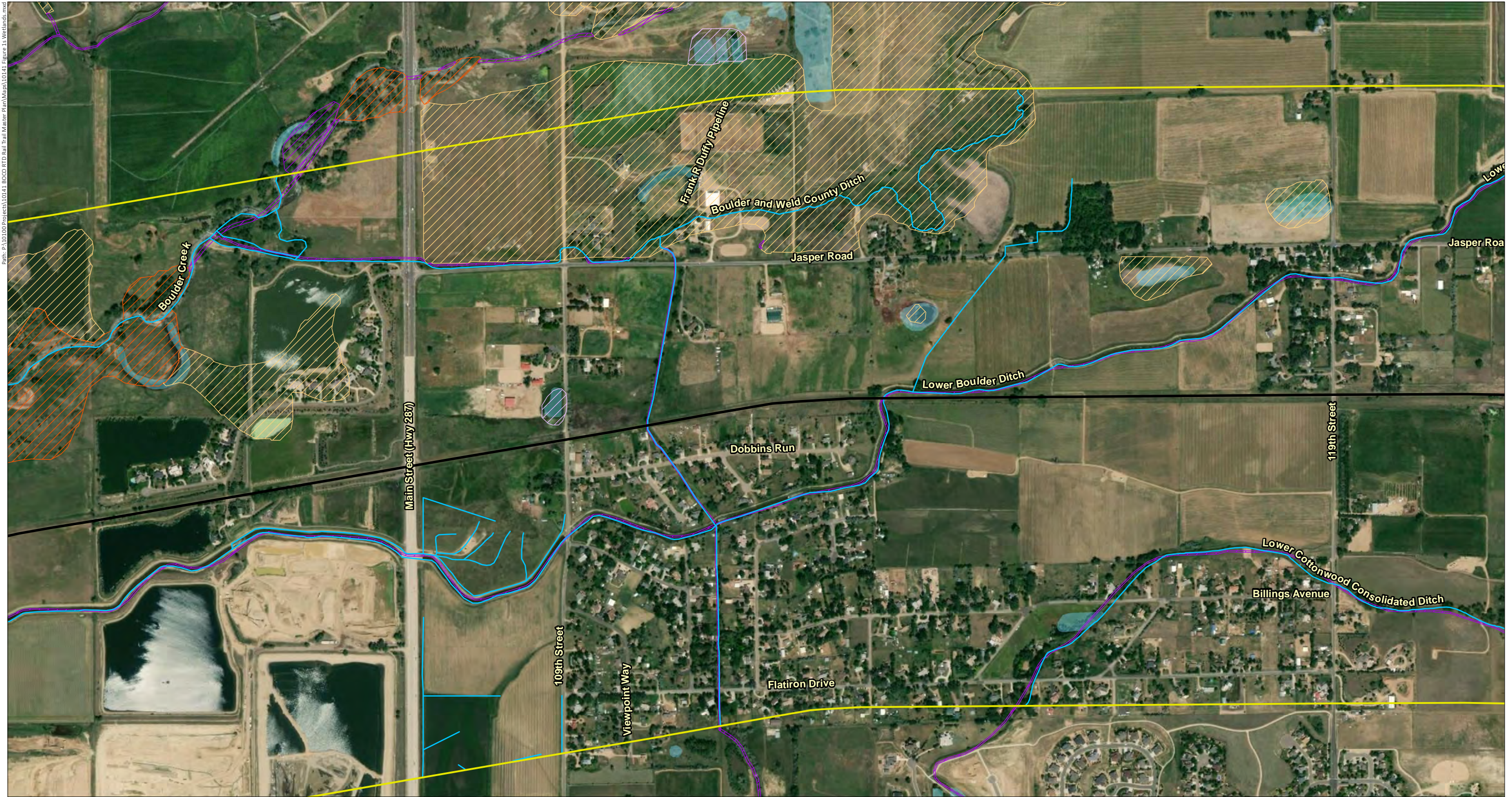
Figure 1c  
Wetlands and Waters

Image Source: DigitalGlobe®, June 2017

Prepared for: Loris  
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August 10, 2018



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RTD Rail Trail Master Plan

- |                                 |  |                 |
|---------------------------------|--|-----------------|
| Waterway                        | National Wetlands Inventory<br>Freshwater Emergent Wetland | Freshwater Pond |
| Waterbody                       | Freshwater Forested/Shrub Wetland                          | Lake            |
| Field Delineated Wetland (2007) |  | Riverine        |
| Analysis Area                   |  |                 |

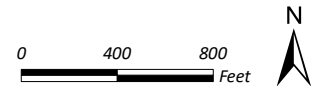
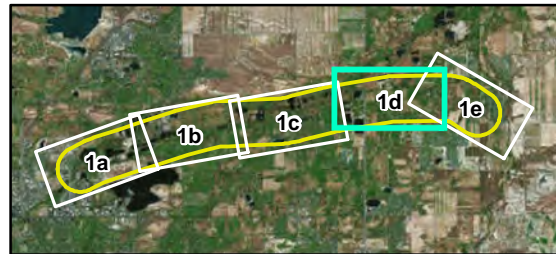


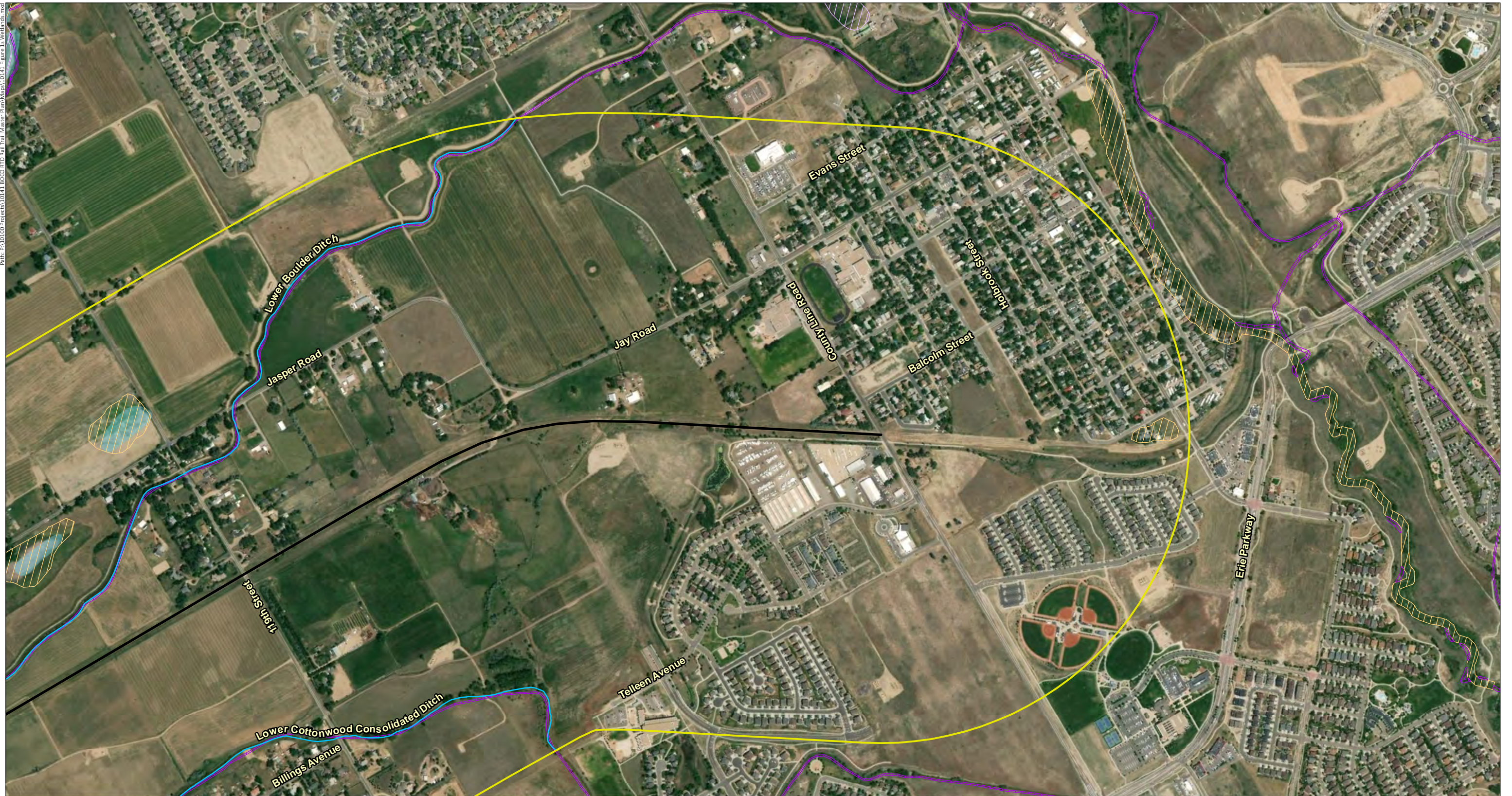
Figure 1d  
Wetlands and Waters

Image Source: DigitalGlobe©, June 2017










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RTD Rail Trail Master Plan

- |   |   |   |
|---|---|---|
|  Waterway                        |  National Wetlands Inventory       |  Freshwater Pond |
|  Waterbody                       |  Freshwater Emergent Wetland       |  Lake            |
|  Field Delineated Wetland (2007) |  Freshwater Forested/Shrub Wetland |  Riverine        |
|  Analysis Area                   |   |   |

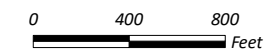
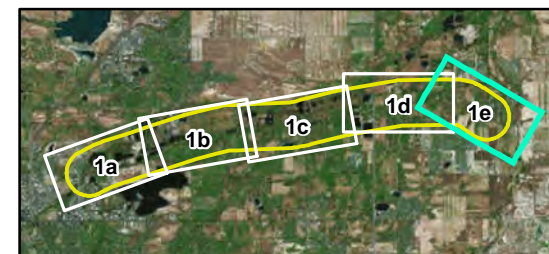
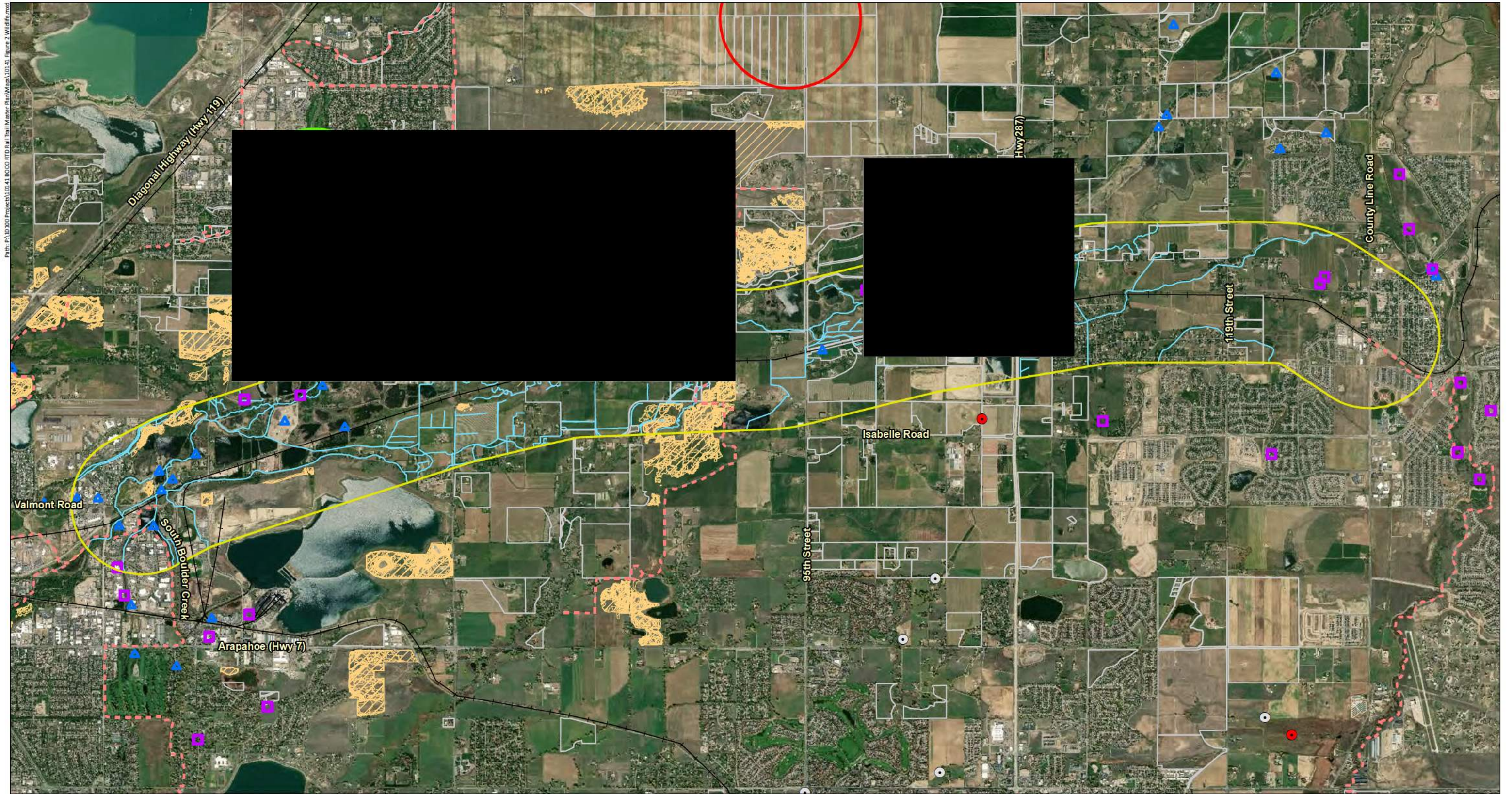


Figure 1e  
Wetlands and Waters

Image Source: DigitalGlobe®, June 2017

Prepared for: Loris  
File: 10141 Figure 1s Wetlands.mxd (GS)  
August 10, 2018



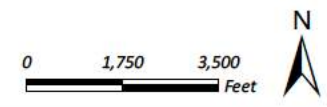


RTD Rail Trail Master Plan

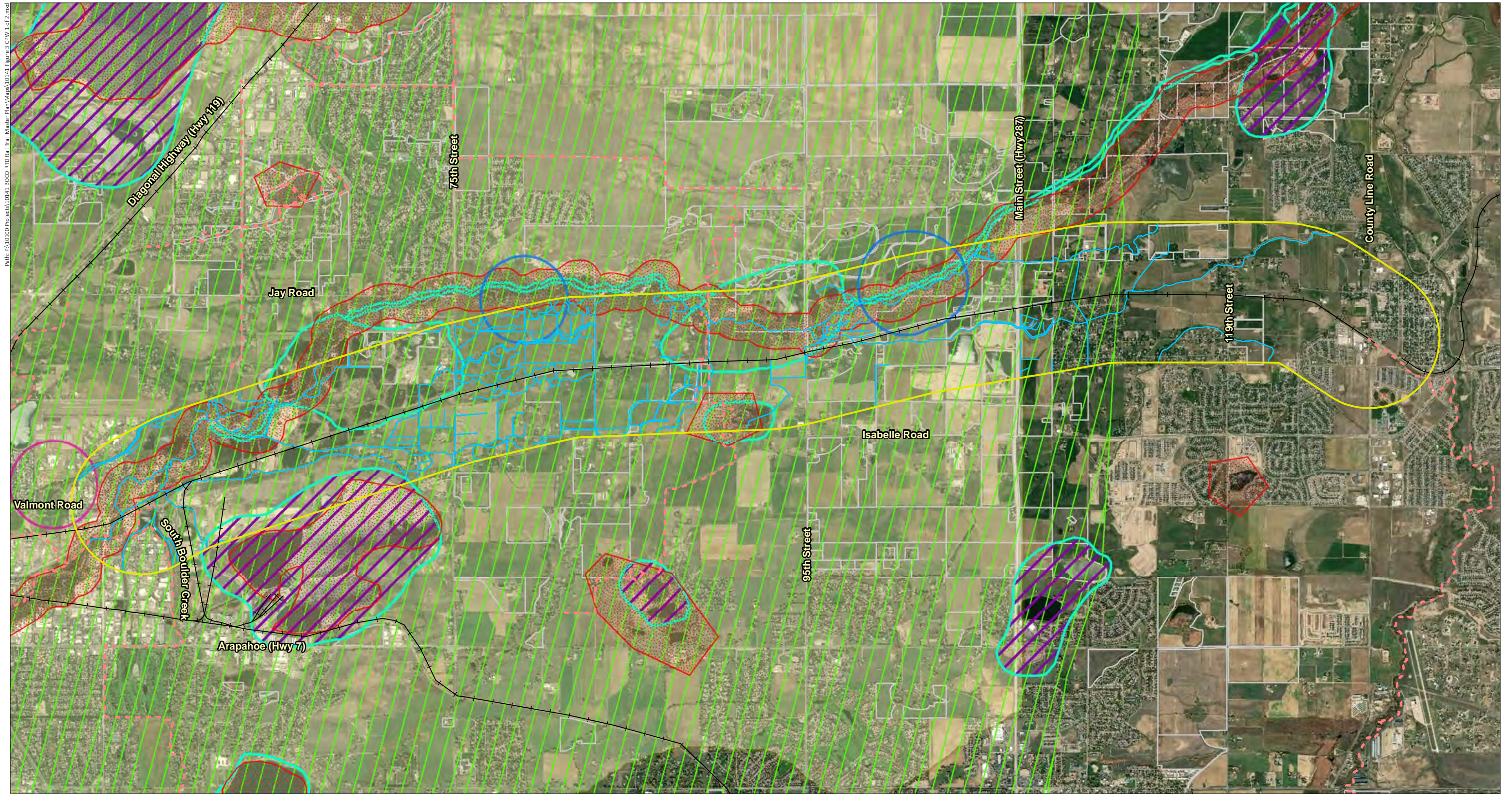
- |                         |                          |  |                           |                       |
|-------------------------|--------------------------|--|---------------------------|-----------------------|
| <b>ERO Raptor Nests</b> | <b>Preble's Trapping</b> | <b>Bald Eagles (Colorado Parks and Wildlife)</b> | <b>Other</b>              | <b>Railroad Grade</b> |
| ● Bald Eagle            | ▲ Trapped and not Found  | ■ Active Bald Eagle Nest Site                    | ▨ OSMP Prairie Dog Colony | — Waterway            |
| ● Red-tailed Hawk       | ■ Evaluated, not Trapped | ■ Unknown Status Bald Eagle Nest Site            | ■ Analysis Area           | □ County Open Space   |
| ○ Unknown               |                          | ■ Bald Eagle Roost Sites                         | --- Existing Trail        |                       |

Image Source: DigitalGlobe©, June 2017

Figure 2  
Wildlife



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File: 10141 Figure 2 Wildlife.mxd (GS)  
August 10, 2018



RTD Rail Trail Master Plan

Colorado Parks and Wildlife

- Great Blue Heron Nesting Area
- Great Blue Heron Foraging Area
- Great Blue Heron Historic Nest Area

- Canada Geese Winter Concentration and Production Areas
- Canada Geese Brood Concentration Area
- Black Bear Human Conflict Area
- Mountain Lion Overall and Peripheral Ranges

Other

- Analysis Area
- Existing Trail
- Railroad Grade

Waterway

- County Open Space

Image Source: DigitalGlobe®, June 2017

Note: Entire Analysis Area is within Black-tailed Prairie Dog Potential Occurrence. Black Bear Overall Range, Canada Geese Winter Range, and Canada Geese Foraging Range.

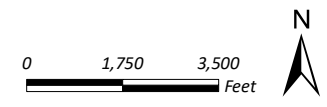
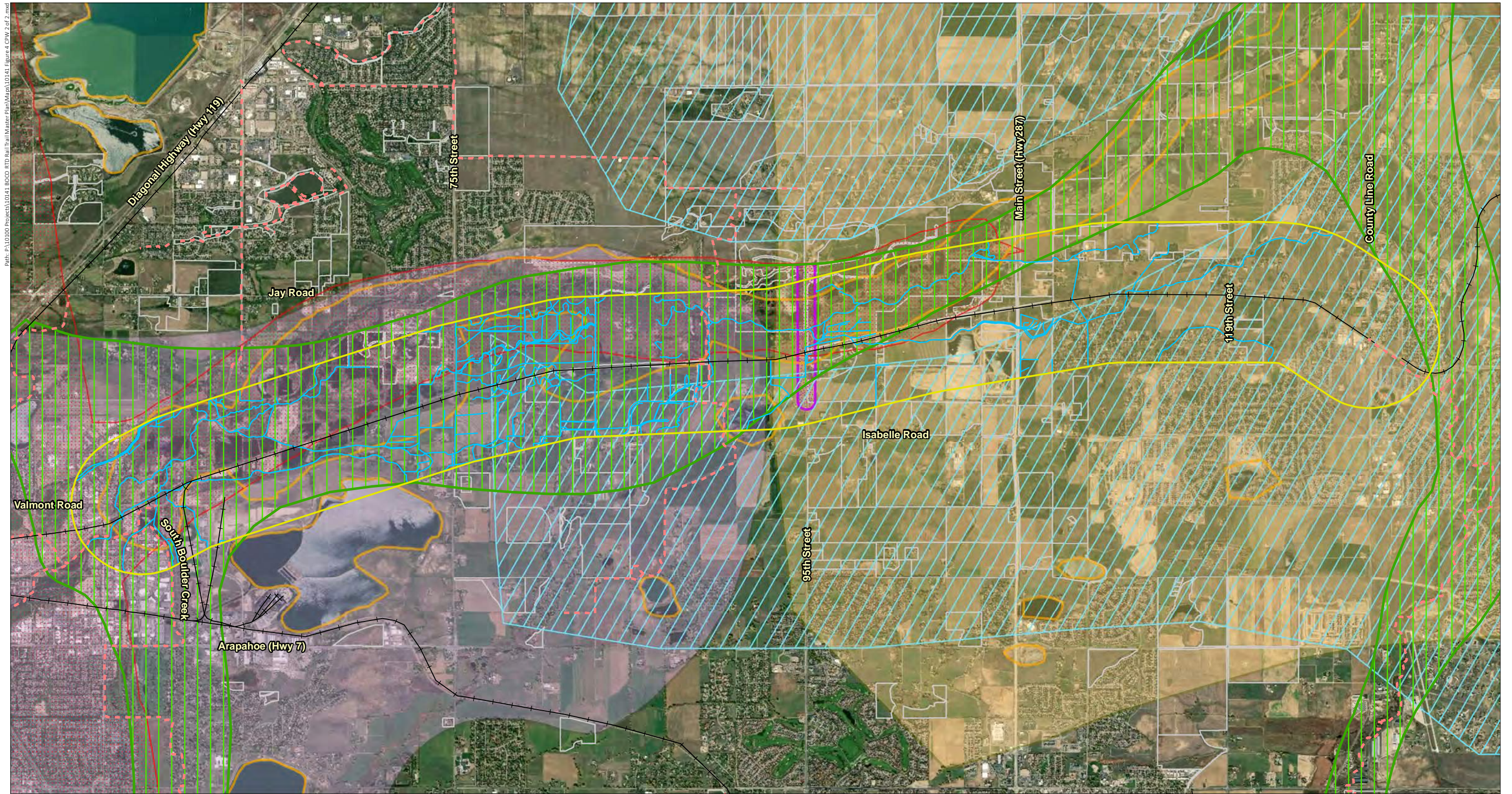


Figure 3  
CPW Tracked Species  
1 of 2

Prepared for: Loris  
File: 10141 Figure 3 CPW 1 of 2.mxd (GS)  
August 10, 2018





RTD Rail Trail Master Plan

Colorado Parks and Wildlife

- Mule Deer Winter Range
- Mule Deer Limited Use Area
- Mule Deer Resident Population Area

- Ring-necked Pheasant Overall Range
- White Pelican Foraging Area and Overall Range
- White-tailed Deer Concentration Area
- White-tailed Deer Highway Crossing

Other

- Analysis Area
- Existing Trail
- Railroad Grade

- Waterway
- County Open Space

Image Source: DigitalGlobe®, June 2017

Note: Entire Analysis Area is within Mule Deer Overall Range, Preble's Meadow Jumping Mouse Overall Range, and White-tailed Deer Overall Range.

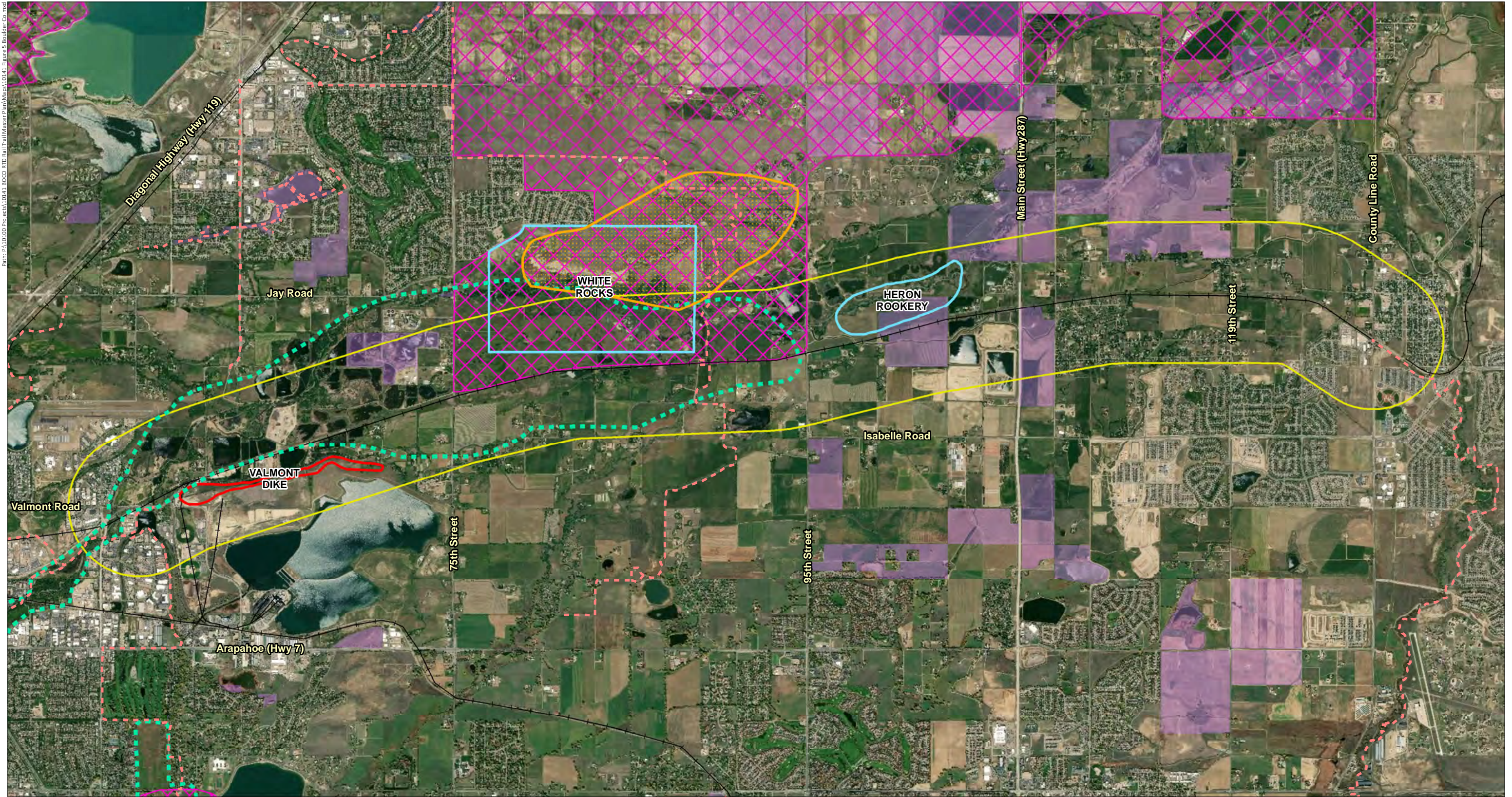


**Figure 4**  
CPW Tracked Species  
2 of 2

Prepared for: Loris  
File: 10141 Figure 4 CPW 2 of 2.mxd (GS)  
August 10, 2018



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RTD Rail Trail Master Plan










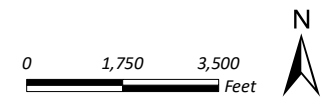

-  Natural Area
-  Natural Landmark
-  Archaeologically Sensitive Area
-  High Biodiversity Area
-  Environmental Conservation Area
-  Existing Trail
-  Railroad Grade
-  Analysis Area
-  Boulder County Land

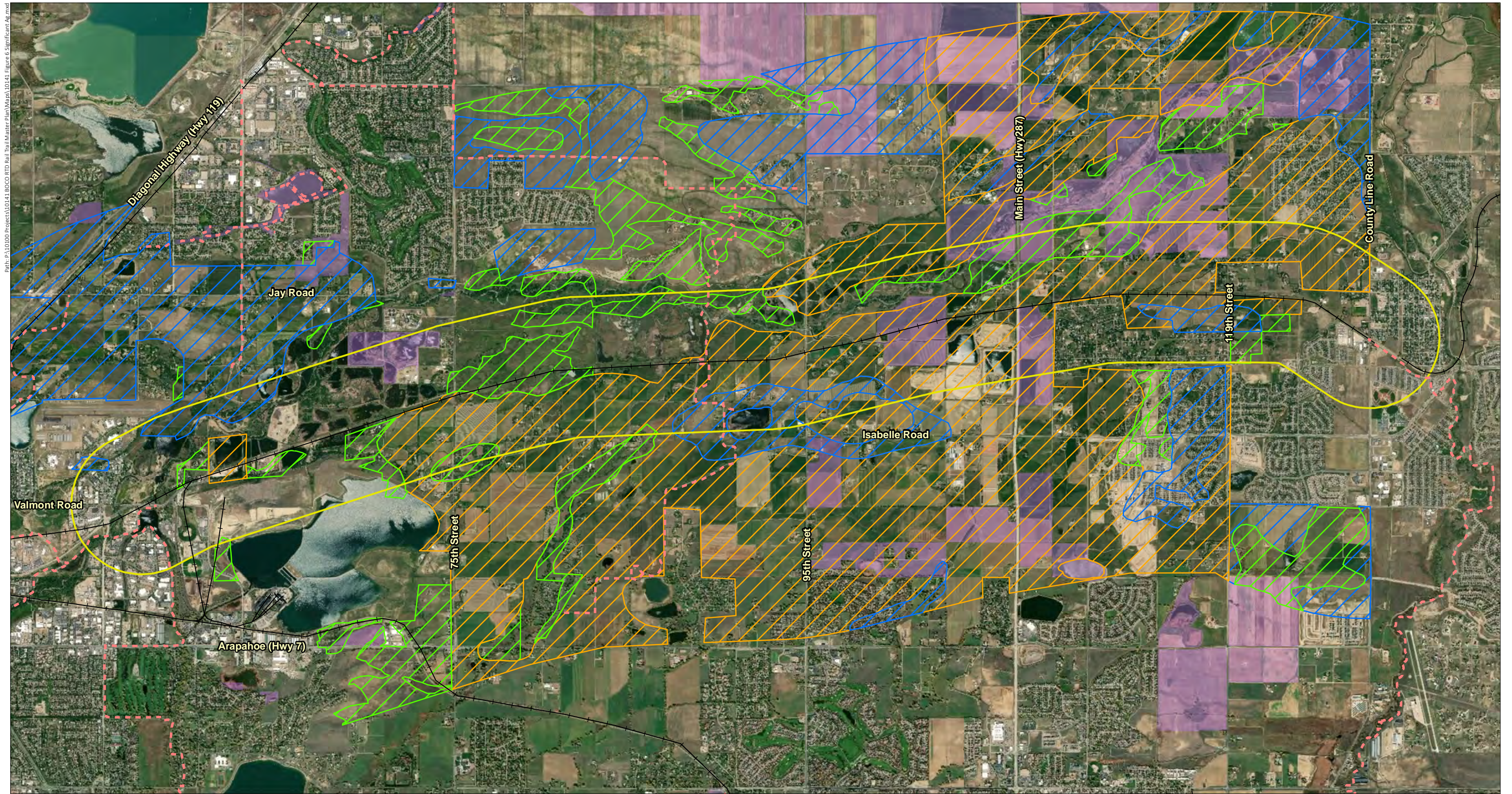
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**Figure 5**  
Boulder County Management Area



Prepared for: Loris  
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August 10, 2018





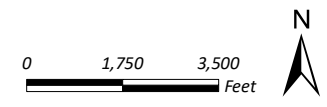
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**RTD Rail Trail Master Plan**


Significant Agricultural Lands	--- Existing Trail
Local Importance	—+— Railroad Grade
National Importance	Analysis Area
Statewide Importance	Boulder County Land

Image Source: DigitalGlobe®, June 2017

**Figure 6**  
Significant Agricultural Lands

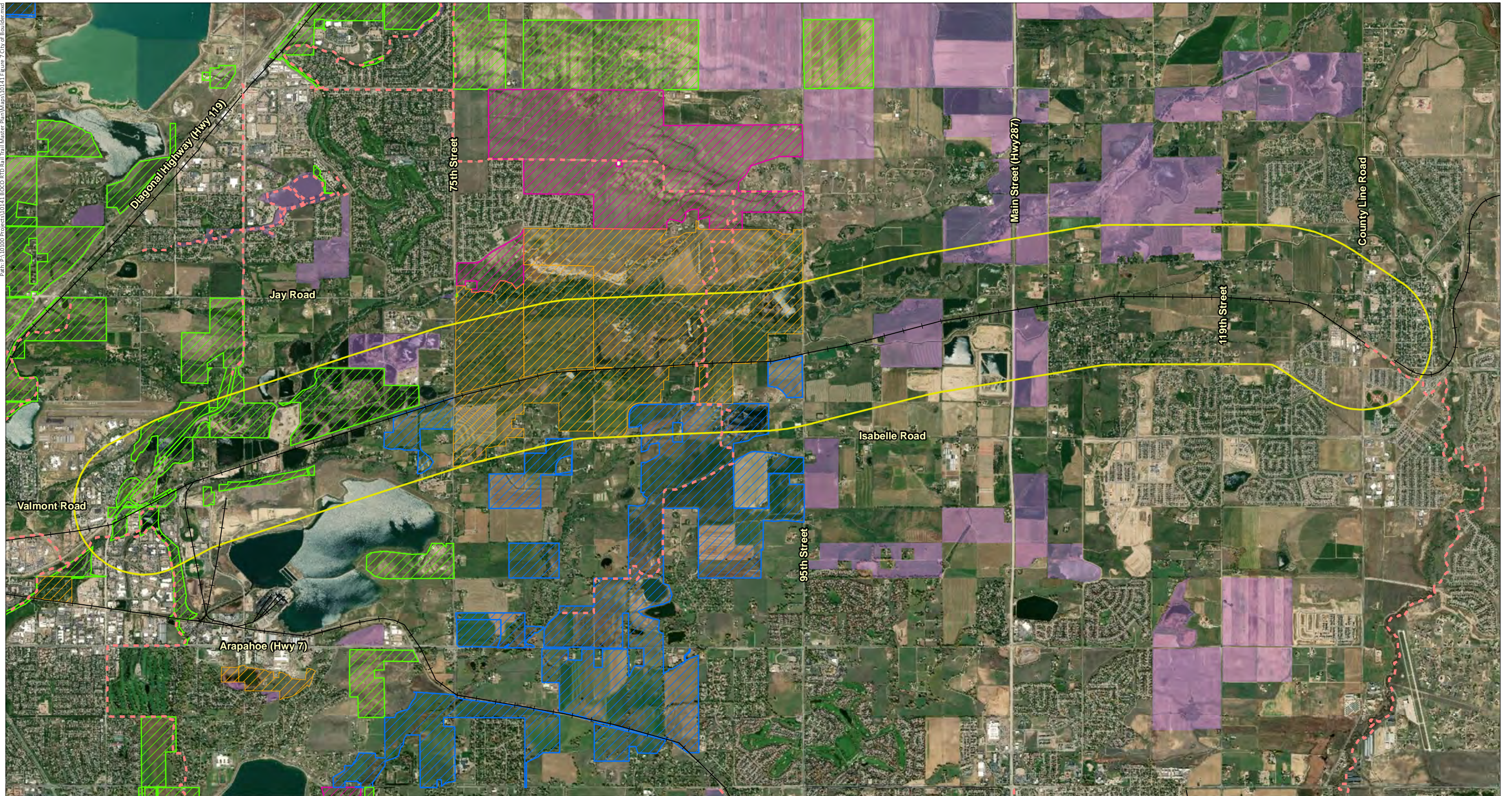


Prepared for: Loris  
File: 10141 Figure 6 Significant Ag.mxd (GS)  
August 10, 2018





Part 4: P:\10100 Projects\10141 BOCO RTD Rail Trail Master Plan\Map\10141.Figure 7 City of Boulder.mxd



RTD Rail Trail Master Plan

OSMP Management Areas

Agricultural Area

Habitat Conservation Area

Natural Area

Passive Recreation Area

Existing Trail

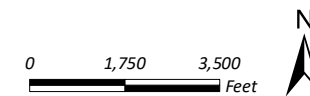
Railroad Grade

Analysis Area

Boulder County Land

Image Source: DigitalGlobe®, June 2017

**Figure 7**  
City of Boulder Management Areas



Prepared for: Loris  
File: 10141 Figure 7 City of Boulder.mxd (GS)  
August 10, 2018





Denver	1626 Cole Boulevard, Suite 100, Lakewood, CO 80401-3306
Durango	835 East Second Avenue, Suite 400, Durango, CO 81301
Hotchkiss	161 South 2nd Street, PO Box 932, Hotchkiss, CO 81419
Idaho	7154 West State Street, Suite 398, Boise, ID 83714

7/25/2023

**TO:** Otak and the Project Team**FROM:** ERO Resources Corporation**RE:** BOCO RTD Rail Trail Master Plan – Updated OSMP Data Memo

ERO Resources Corporation provided a memo summarizing the results of the data collection effort in 2018. This memo includes updated environmental information where applicable, based on updated data sources and new information provided by City of Boulder Open Space and Mountain Parks (OSMP).

#### Rare Plant Species

Rare plant species found in the corridor (between 75<sup>th</sup> and 95<sup>th</sup>):

- Showy prairie gentian (*Eustoma grandiflorum*)

The Showy Prairie Gentian is present particularly along the RTD right of way on OSMP lands in wetlands and moist meadows near agricultural ditches. Based on conversations with OSMP staff, this plant's presence is largely dependent on moisture levels and has seen a decline on the OSMP agricultural properties over the years due to changes in ditch structures and moisture (Riedel 2023).

- Ute ladies'-tresses (*Spiranthes diluvialis*)

The Ute ladies'-tresses have also been found in one location on the north side of the RTD right of way on OSMP agricultural lands. Similar to the Showy prairie gentian, it requires moist meadows to grow. Conversations with OSMP staff did not indicate recent surveying of Ute ladies'-tresses.

Rare plant species found adjacent to the corridor (north of corridor between 75<sup>th</sup> and 95<sup>th</sup>):

- Black spleenwort (*Asplenium adiantum-nigrum*)

The Boulder County Comprehensive Plan characterizes the Gunbarrel Ranch Conservation Easement, located between 75th Street and 95th Street, as a City of Boulder Rare Plant Area, which is defined as having a high likelihood of having occurrences of plant species of Special Concern (City of Boulder 2020).

### Wetlands and Waters

Numerous ponds, including the Sawhill and Walden Ponds are located in the western portion of the analysis area, north of the proposed trail alignment between 55<sup>th</sup> Street and 75 Street. A small portion of Valmont Lake is located south of the corridor, between 63<sup>rd</sup> Street and 75<sup>th</sup> Street. Large swaths of wetlands are located in the central portion of the analysis area, both north and south of the corridor between 75<sup>th</sup> Street and 95<sup>th</sup> Street. Several wetlands are located directly along the RTD right of way on City of Boulder OSMP properties in this area. Wetlands are located north of the corridor between 107<sup>th</sup> Street/ Main St and 119<sup>th</sup> Street. After the OSMP site visit on July 24, 2023, it is apparent there are more moist meadows along the RTD right of way than shown in OSMP data. According to conversations with OSMP staff, this is largely due to agricultural ditch flows and water table levels in the area (Riedel 2023).

Numerous streams, creeks, ditches and water pipelines are located in the analysis area; however, the western portion of the analysis area has a higher concentration of water conveyances. Approximately seven water conveyances cross the proposed trail corridor, and their approximate location and names are included below.

- Between 55th Street and 75th Street
  - South Boulder Creek
  - Jones Donnelly Ditch
  - Butte Mill Ditch
- Between 75th and 95th Street
  - Green Ditch
  - Dry Creek
- Between 95th Street and 107th Street/ Main Street
  - Lower Boulder Ditch
- Between 107th Street/ Main Street and 119th Street
  - Unnamed Lateral Ditch
  - Lower Boulder Ditch

### Wildlife

The analysis area provides habitat for a variety of wildlife species. Key species and habitats are described below.

#### *Federally Listed Species*

The analysis area contains, or is located near, potential habitat for the federally-listed species in **Table 1**.

**Table 1. Federally threatened, endangered, and candidate animal species potentially found in the analysis area.**

Common Name	Scientific Name	Status*	Habitat	Habitat / Potential Habitat Present
<b>Mammals</b>				
Preble’s meadow jumping mouse (PMJM)	<i>Zapus hudsonius preblei</i>	T	Shrub riparian/wet meadows	Yes
<b>Birds</b>				
Least tern	<i>Sterna antillarum</i>	E	Sandy/pebble beaches on lakes, reservoirs, and rivers	Potential
Piping plover	<i>Charadrius melodus</i>	T	Sandy lakeshore beaches and river sandbars	Potential
Whooping crane	<i>Grus Americana</i>	E	Mudflats around reservoirs and in agricultural areas	Potential
<b>Plants</b>				
Ute ladies'-tresses orchid	<i>Spiranthes diluvialis</i>	T	Moist to wet alluvial meadows, floodplains of perennial streams, and around springs and lakes below 6,500 feet in elevation	Yes
Western prairie fringed orchid	<i>Platanthera praeclara</i>	T	Tall grass prairie, most often found on unplowed, calcareous prairies and sedge meadows	Potential

Source: Service 2023.

**Raptors**

Thirteen raptor nests intersect the analysis area and are known to include osprey, red-tailed hawk, bald eagle, and long-eared owl. The majority of the nests are located north of the corridor along the Green Ditch or Boulder Creek between 75th Street and Highway 287.

The corridor intersects two of the Colorado Parks and Wildlife (CPW) half-mile bald eagle nest buffers near Highway 287. These buffers do not allow permitted human encroachment. One active bald eagle roost site is located in the analysis area between 75th Street and 95th Street and north of the proposed trail corridor. The analysis area is also located within bald eagle winter range, and summer and winter forage areas. No winter concentration areas are located in the analysis area.

**Boulder OSMP Tracked Species**

Based on data shared with ERO, OSMP tracks habitat blocks for the Northern leopard frog and buffers for Northern harrier nest sites. The largest concentration of Northern leopard frog habitat and all tracked Northern harrier nests are located between 75<sup>th</sup> and 95<sup>th</sup>. The Northern harrier is a ground nesting bird which is extremely sensitive to disturbances (Keeley 2023). The Northern harrier has a quarter mile buffer around nesting sites, which intersects the RTD right of way on the western side of OSMP agricultural property.

The Northern leopard frog is listed as a CPW Tier 1 Species of Greatest Conservation Need (CPW 2020). They are found in wetland areas and prefer at least five inches of water depth to maintain adequate

breeding habitat. Generally, the Northern leopard frog is managed by removing livestock from its vicinity to minimize vegetation loss.

### Figures

Attached are four figures which showcase the general area surrounding the RTD rail right of way and the corresponding biological characteristics. **Please note**, these figures are not to be shared outside of the project team per the City of Boulder's data sharing agreement.

#### *Figure 1 – Wetlands and Waters*

Figure 1 compares wetlands and waters data from 2018 with updated 2023 data. Wetlands were generally categorized across the majority of OSMP lands in 2018 and have shown more specific boundaries in the 2023 data. The highest concentration of wetlands along the RTD right of way on OSMP lands are further west, closest to 75<sup>th</sup> Street.

#### *Figure 2 – Wildlife*

Figure 2 compares wildlife habitat data from 2018 and 2019 with updated 2023 data. Generally, all wildlife data has remained the same with no new nest sites or surveyed occupied areas for other species of concern.

#### *Figure 3 – Rare Plants*

Figure 3 provides an overview of rare plant species on OSMP properties in the corridor.

#### *Figure 4 – City of Boulder Management Areas*

Figure 4 provides an overview of management area designations along the corridor. Most notably present is the Habitat Conservation Area present across the OSMP agricultural lands along the RTD right of way.

## References

Boulder County. 2020. Boulder County Comprehensive Plan Maps.

<https://www.bouldercounty.org/property-and-land/land-use/planning/boulder-county-comprehensive-plan/>

Colorado Parks and Wildlife (CPW). 2020. Leopard Frogs: Assessing Habitat Quality for Priority Wildlife Species in Colorado Wetlands.

[https://cpw.state.co.us/Documents/LandWater/WetlandsProgram/PrioritySpecies/Factsheet-and-Habitat-Scorecard\\_LeopardFrogs.pdf](https://cpw.state.co.us/Documents/LandWater/WetlandsProgram/PrioritySpecies/Factsheet-and-Habitat-Scorecard_LeopardFrogs.pdf). November.

Keeley, Will. 2023. Senior Wildlife Ecologist for the City of Boulder Open Space and Mountain Parks (OSMP). Conversation with Carrie Tanner, ERO Resources Corporation, regarding sensitive raptor nesting sites and other important species habitats on OSMP lands. July 24.









Riedel, Lynn. 2023. Plant Ecologist for the City of Boulder Open Space and Mountain Parks (OSMP). Conversation with Carrie Tanner, ERO Resources Corporation, regarding historical and current biological assessments of OSMP agricultural lands. July 24.

US Fish and Wildlife Service (Service). 2023. IPaC Report. <https://ipac.ecosphere.fws.gov/>

Path: P:\10100 Projects\10141 BOCO RTD Rail Trail\Master Plan\Maps\2023\10141 Figure 1a-e Wetlands.mxd



**Boulder to Erie Regional Trail (BERT)**

- |  |  |  |
|--|--|--|
|  Analysis Area  |  Wetland 2018 |  Linear Hydrology |
|  Wetland 2023   |  Lake/Pond    |  Ditch            |
|  Lake/Pond 2023 |  |  Stream           |



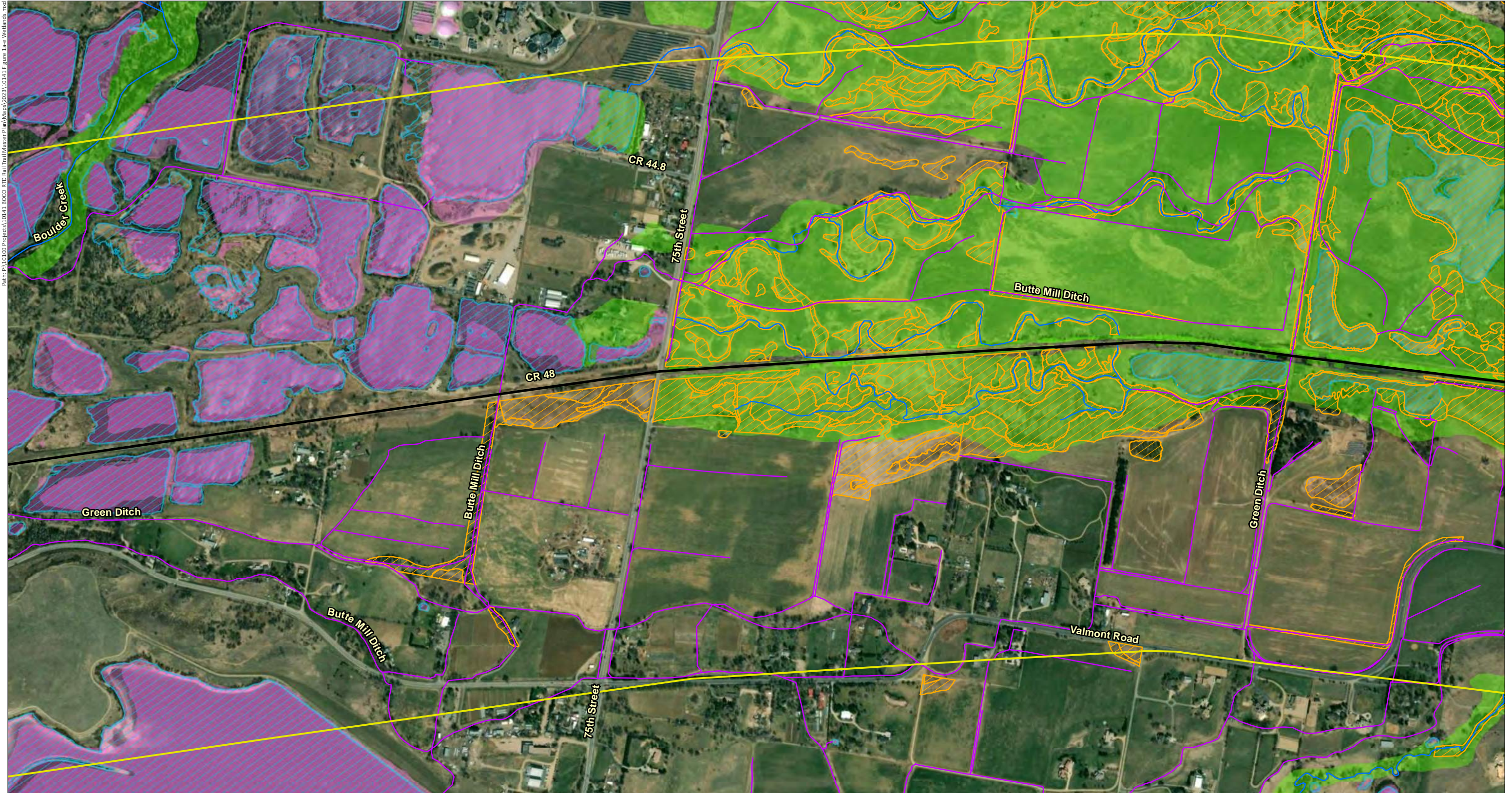
**Figure 1a**  
Wetlands and Waters

Image Source: Maxar Technologies©, April 17, 2022

Prepared for: Loris  
File: 10141 Figure 1a-e Wetlands.mxd (GS)  
July 25, 2023

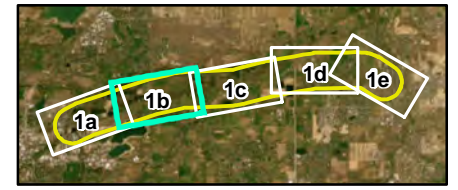


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**Boulder to Erie Regional Trail (BERT)**

Analysis Area	Wetland 2018	Linear Hydrology
Wetland 2023	Lake/Pond	Ditch
Lake/Pond 2023		Stream



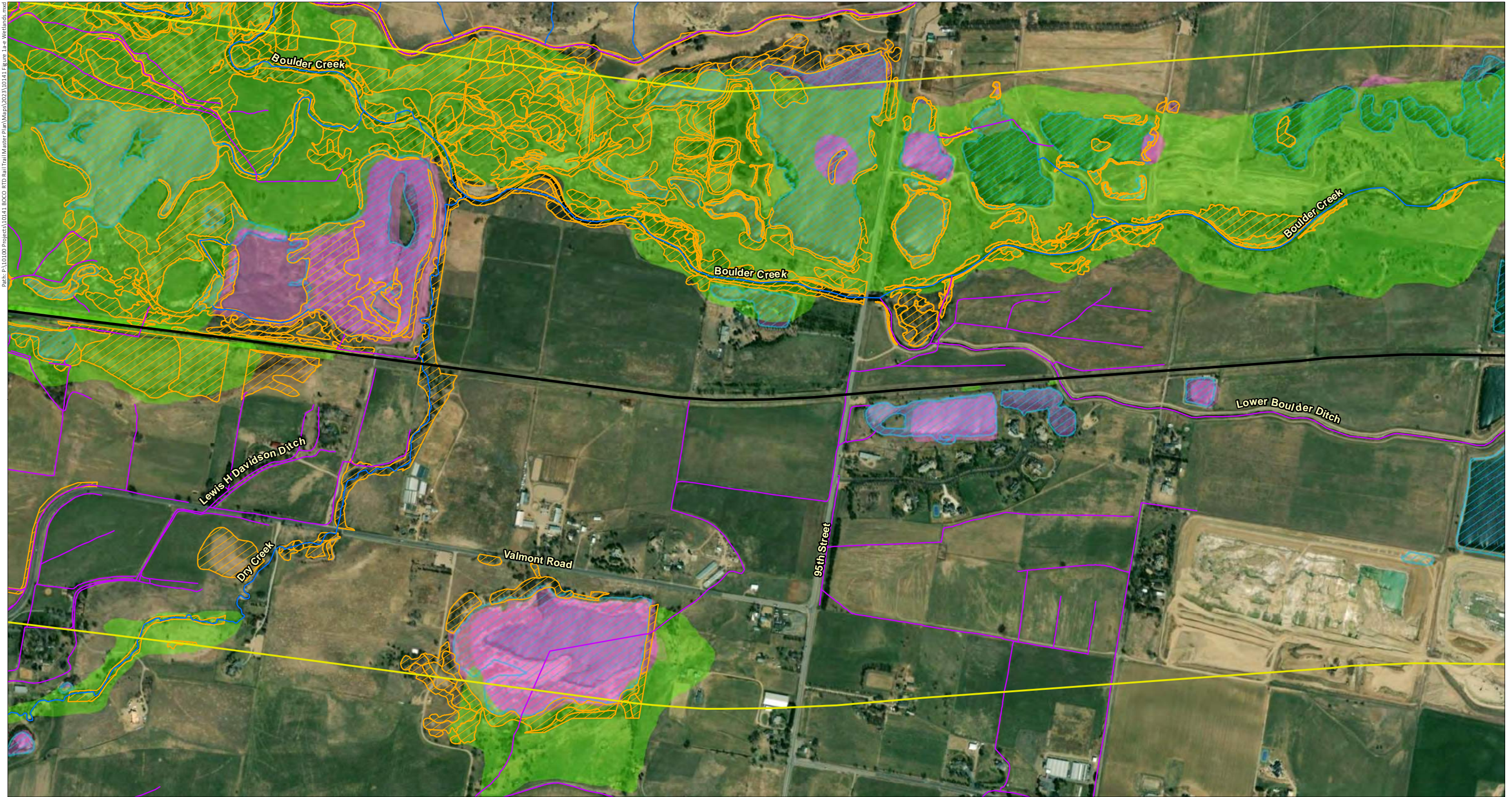
**Figure 1b**  
Wetlands and Waters

Image Source: Maxar Technologies©, April 17, 2022

Prepared for: Loris  
File: 10141 Figure 1a-e Wetlands.mxd (GS)  
July 25, 2023



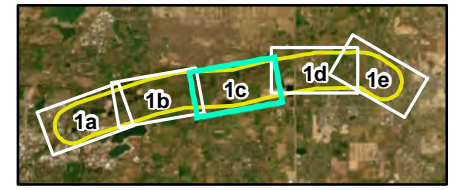




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**Boulder to Erie Regional Trail (BERT)**

Analysis Area	Wetland 2018	Linear Hydrology
Wetland 2023	Lake/Pond	Ditch
Lake/Pond 2023	Stream	



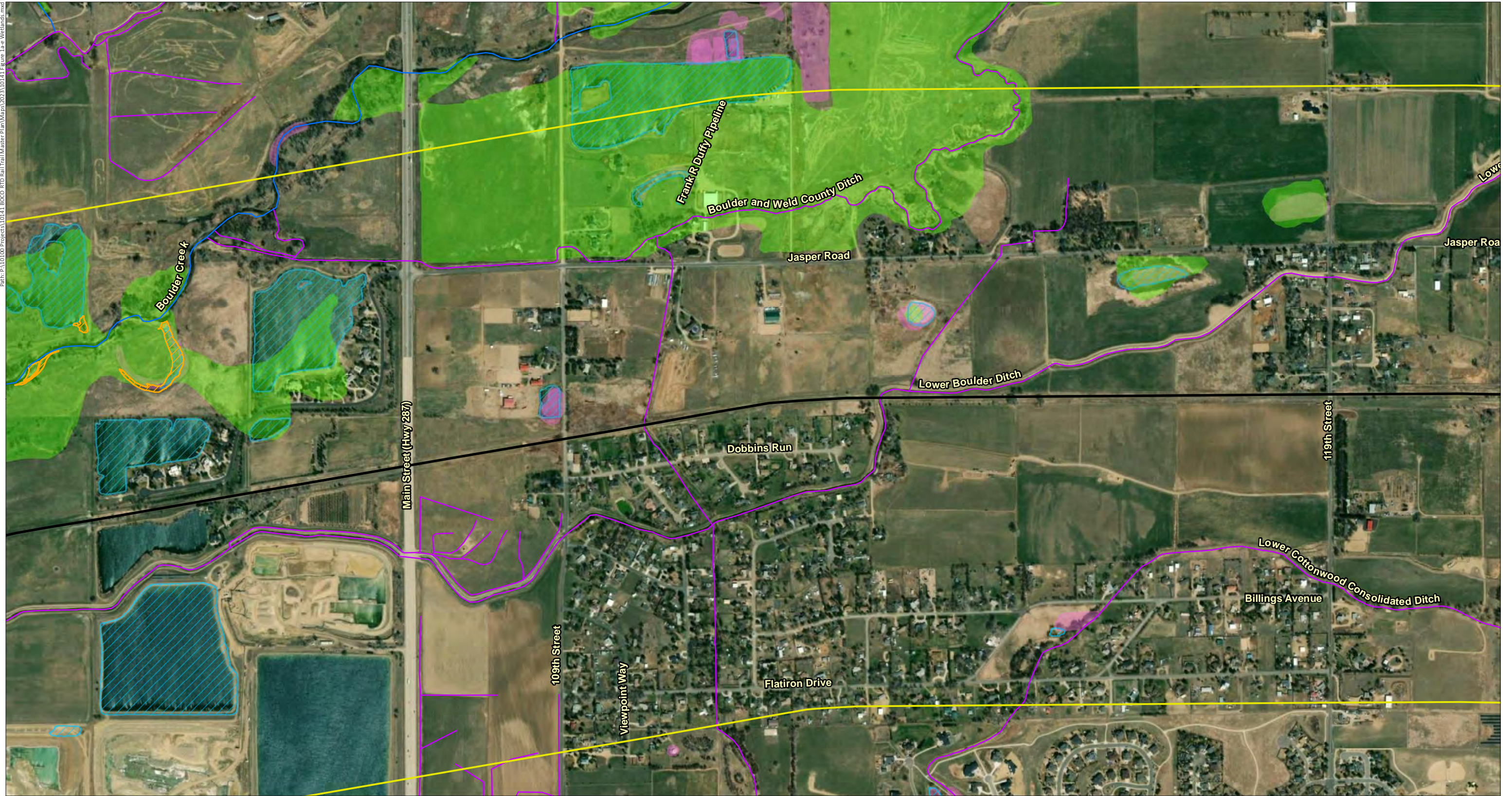
**Figure 1c**  
Wetlands and Waters

Image Source: Maxar Technologies©, April 17, 2022









Prepared for: Loris  
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July 25, 2023

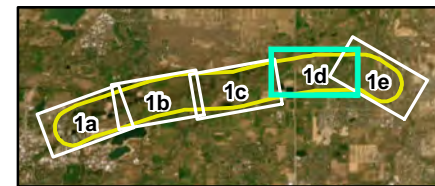


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**Boulder to Erie Regional Trail (BERT)**

- |  |  |  |
|--|--|--|
|  Analysis Area  |  Wetland 2018 |  Linear Hydrology |
|  Wetland 2023   |  Lake/Pond    |  Ditch            |
|  Lake/Pond 2023 |  |  Stream           |

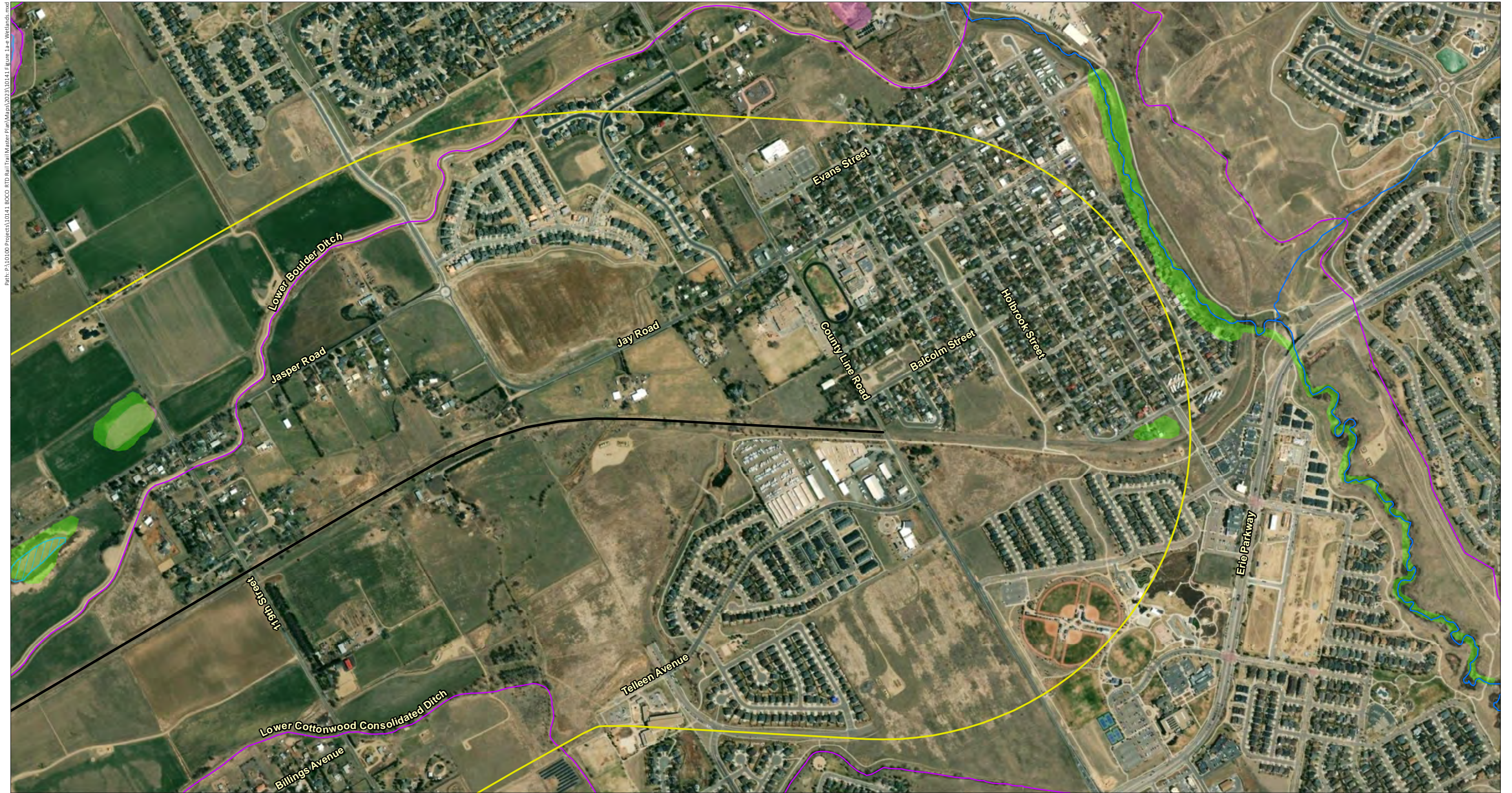


**Figure 1d**  
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Image Source: Maxar Technologies©, April 17, 2022






Prepared for: Loris  
File: 10141 Figure 1a-e Wetlands.mxd (GS)  
July 25, 2023

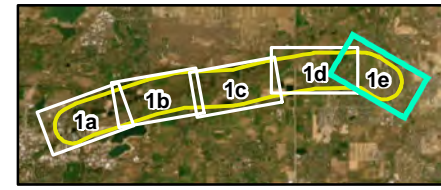




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**Boulder to Erie Regional Trail (BERT)**

 Analysis Area	 Wetland 2018	 Linear Hydrology
 Wetland 2023	 Lake/Pond	 Ditch
 Lake/Pond 2023		 Stream

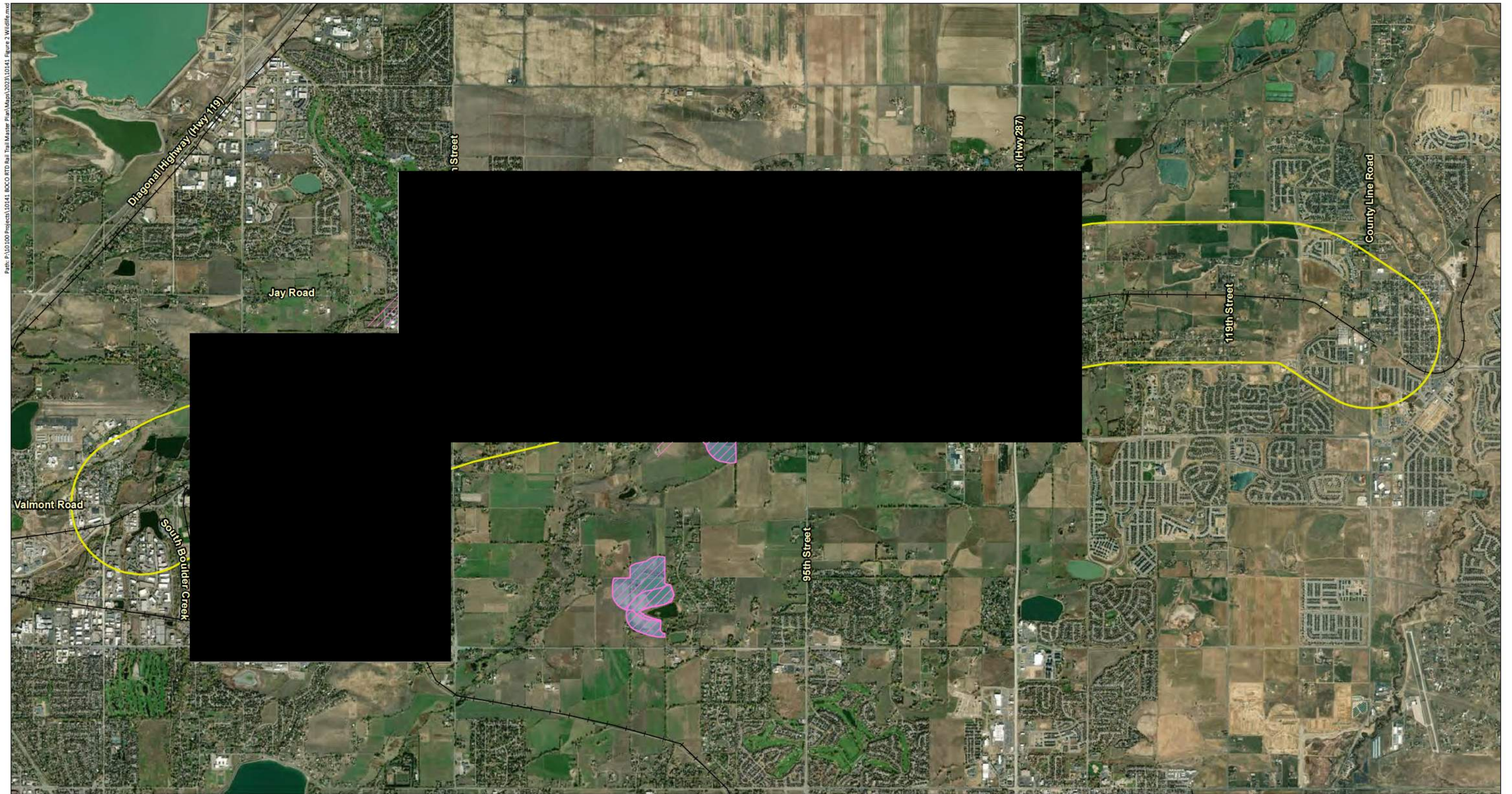


**Figure 1e**  
Wetlands and Waters

Image Source: Maxar Technologies©, April 17, 2022

Prepared for: Loris  
File: 10141 Figure 1a-e Wetlands.mxd (GS)  
July 25, 2023





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**Boulder to Erie Regional Trail (BERT)**

- Analysis Area
- Raptor Nest Half Mile Buffer 2023
- Northern Harrier Nest Quarter Mile Buffer 2023

**Bald Eagles (Colorado Parks and Wildlife)**

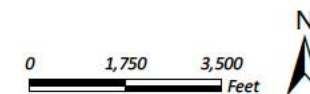
- Active Bald Eagle Nest Site 2019
- Bald Eagle Roost Site 2019

**Northern Leopard Frog Habitat Block 2023**

- Northern Leopard Frog Habitat Block 2023
- Northern Leopard Frog Habitat Block 2018
- Railroad Grade

Image Source: Maxar Technologies©, April 17, 2022

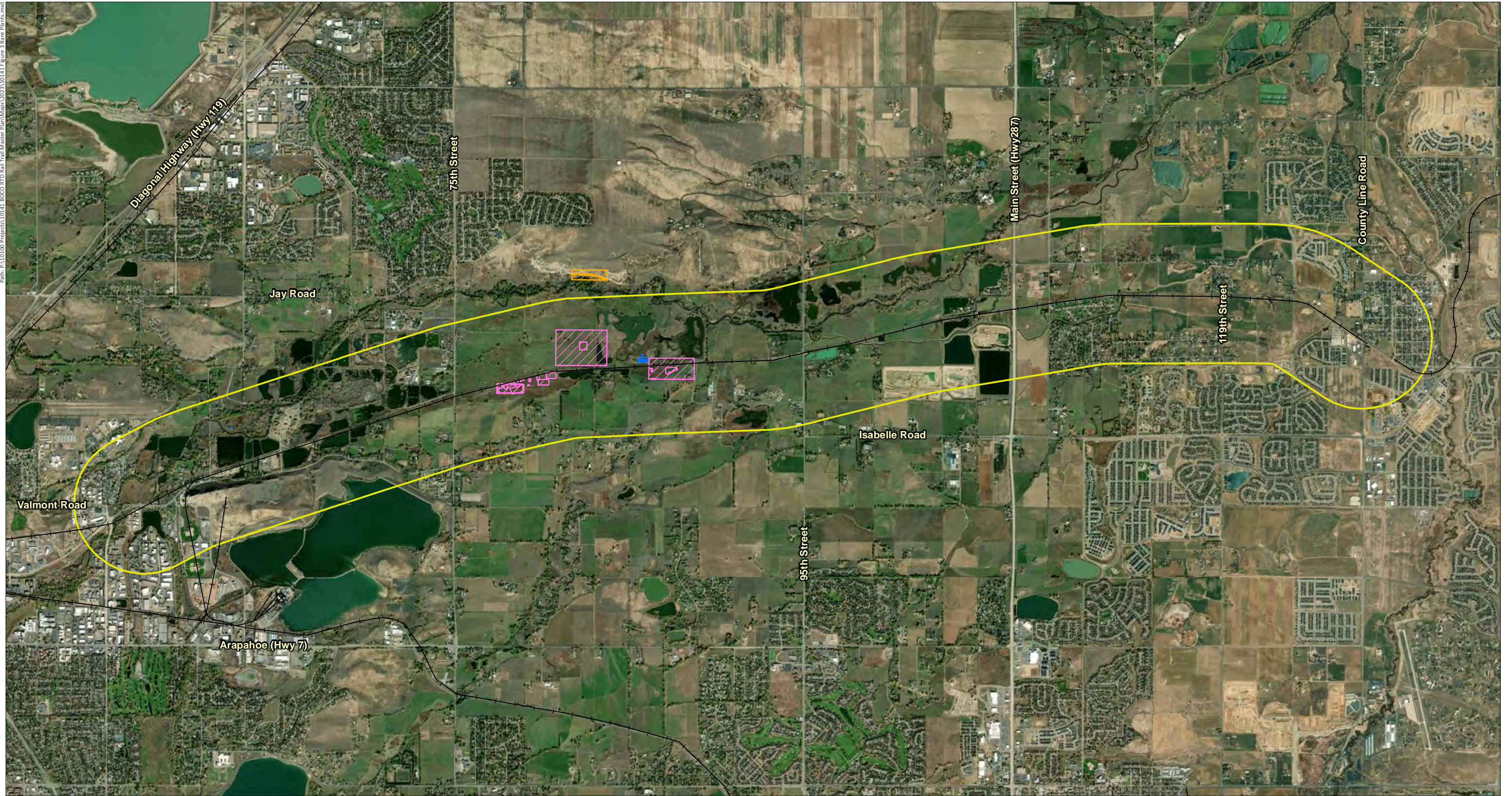
**Figure 2  
Wildlife**



Prepared for: Loris  
File: 10141 Figure 2 Wildlife.mxd (GS)  
July 24, 2023



Path: P:\10100 Projects\10141 BOCO RTD Rail Trail Master Plan Maps\2023\10141.Figure 3 Rare Plants.mxd



**Boulder to Erie Regional Trail (BERT)**

- +—+ Railroad Grade
- Analysis Area
- Asplenium adiantum-nigrum
- Eustoma grandiflorum
- Spiranthes diluvialis

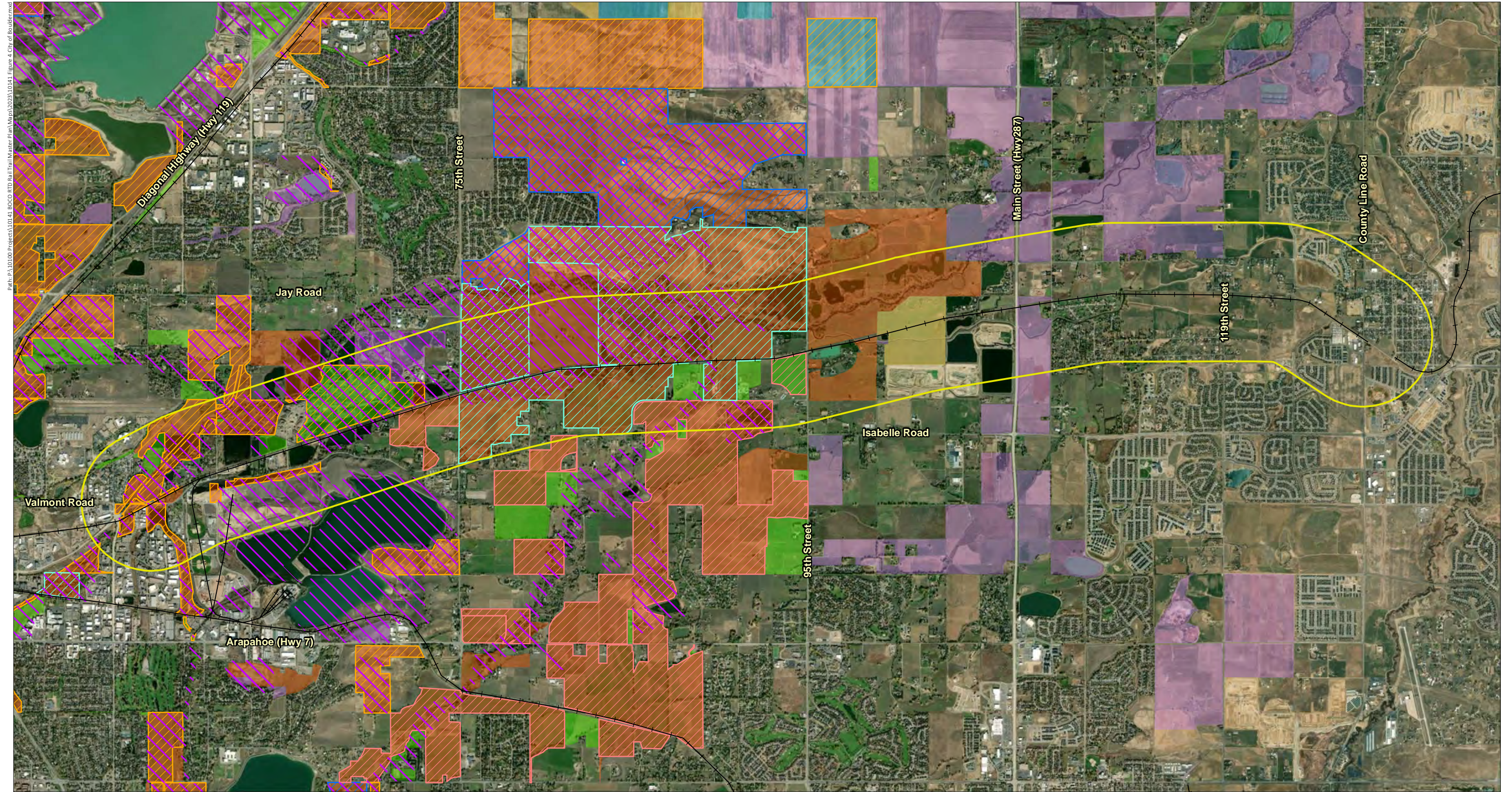
Image Source: Maxar Technologies©, April 17, 2023

**Figure 3**  
**Rare Plants**



Prepared for: Loris  
File: 10141 Figure 3 Rare Plants.mxd (GS)  
July 24, 2023



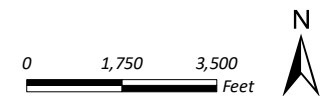


**Boulder to Erie Regional Trail (BERT)**

—+—+— Railroad Grade	OSMP Land	OSMP Fee Ownership	Management Area Designations	Natural Area
Analysis Area	OSMP Easement	OSMP Joint Ownership	Agricultural Area	Passive Recreation Area
Boulder County Land	OSMP Joint Easement		Habitat Conservation Area	
BVCP Natural Ecosystem Overlay				

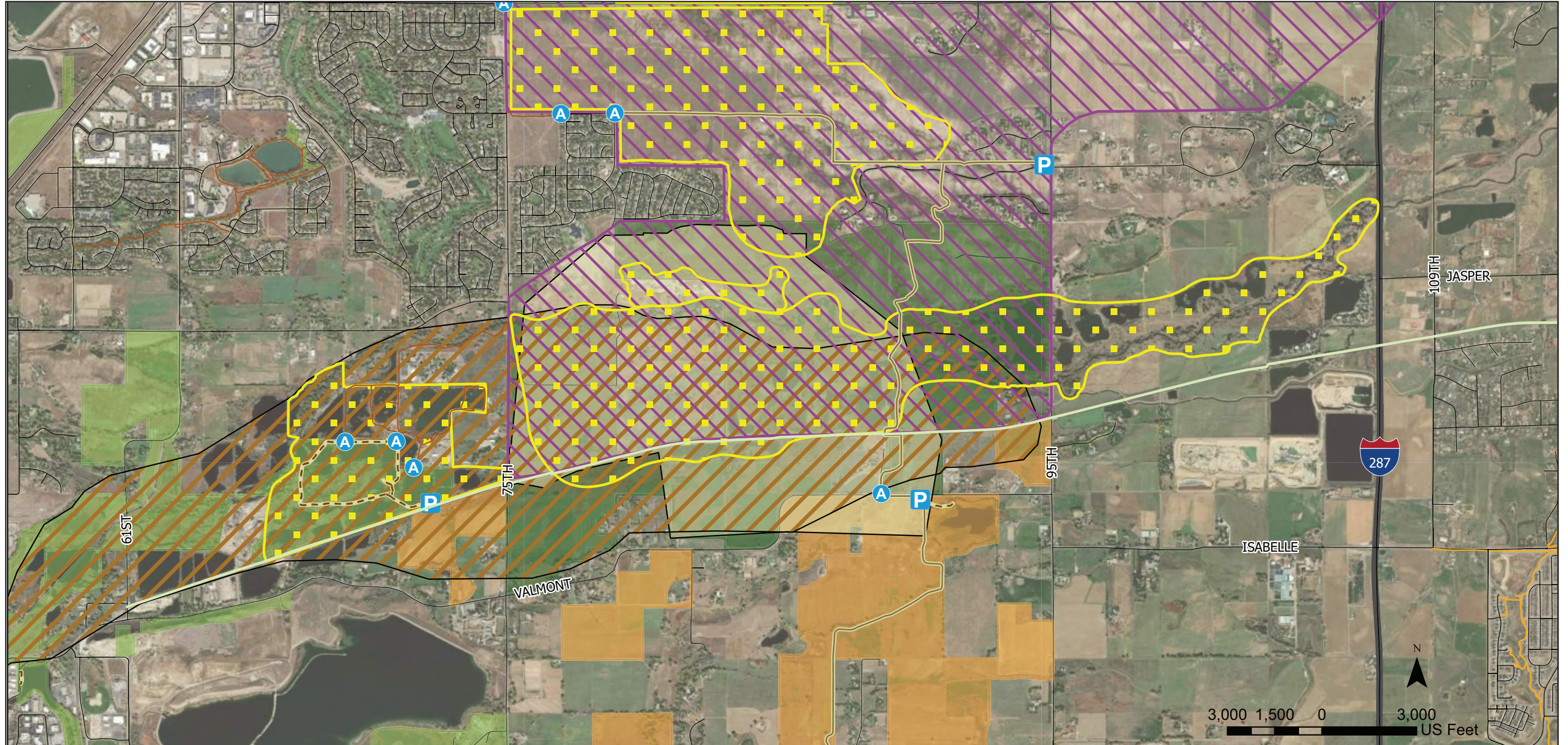
Image Source: Maxar Technologies©, April 17, 2022

**Figure 4**  
City of Boulder Management Areas



Prepared for: Loris  
File: 10141 Figure 4 City of Boulder.mxd (GS)  
July 24, 2023

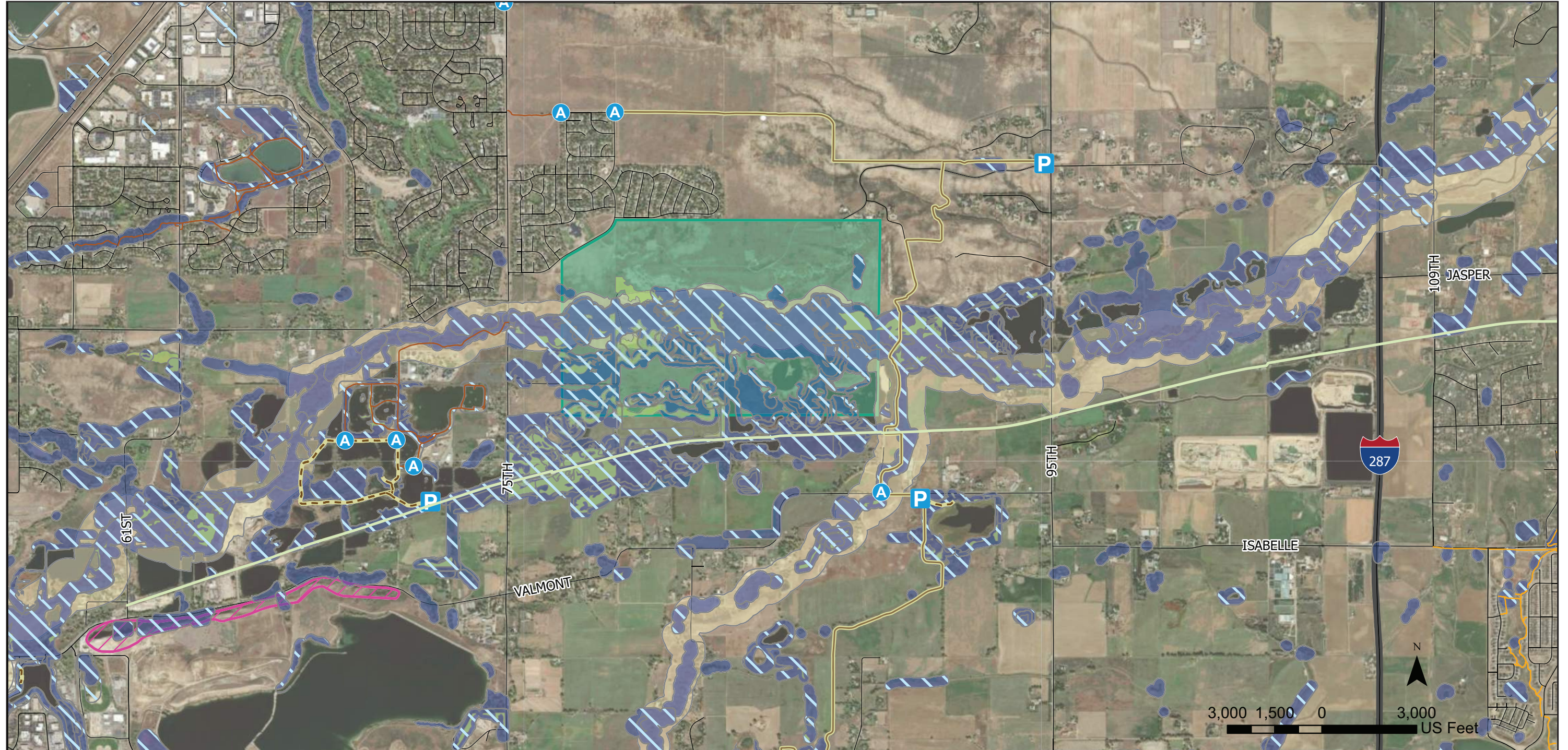
# Boulder County Comprehensive Plan Environmental Resource Elements



**Legend**

<p><b>PREFERRED ALIGNMENT FOR FURTHER CONSIDERATION</b></p> <p><b>MANAGED TRAIL ACCESS LOCATIONS</b></p> <p><b>P</b> OSMP Trailhead with Designated Parking</p> <p><b>A</b> Access Point - Parking Along Public Streets Unless Otherwise Posted</p> <p><b>TRAILS</b></p> <p>OSMP Hiking Trail</p> <p>OSMP Multi-Use Trail</p>	<p><b>BOULDER COUNTY TRAILS</b></p> <p><b>ERIE TRAILS</b></p> <p><b>BCCP CRITICAL WILDLIFE HABITATS</b></p> <p><b>BCCP ENVIRONMENTAL CONSERVATION AREAS</b></p> <p><b>BCCP HIGH BIODIVERSITY AREAS</b></p> <p>B1: Outstanding Biodiversity Significance</p>	<p>B2: Very High Biodiversity Significance</p> <p>B3: High Biodiversity Significance</p> <p><b>BCCP RARE PLANT AREAS</b></p> <p><b>OSMP MANAGEMENT AREA DESIGNATIONS</b></p> <p>Agricultural Area</p> <p>Habitat Conservation Area</p> <p>Natural Area</p> <p><b>PARCELS</b></p>
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# Boulder County Comprehensive Plan Environmental Resource Elements



**Legend**

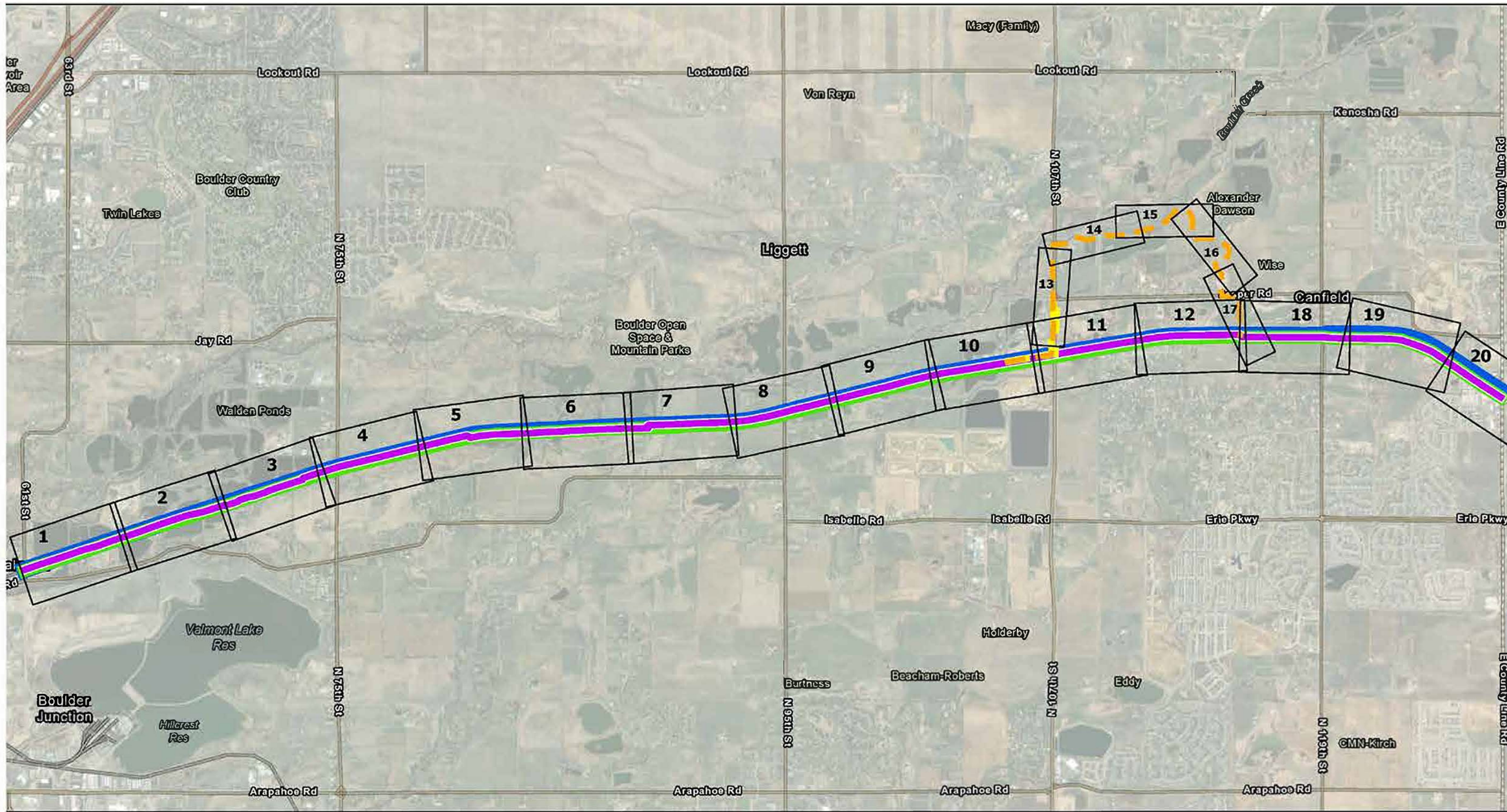
<p><b>PREFERRED ALIGNMENT FOR FURTHER CONSIDERATION</b></p> <p>—</p> <p><b>MANAGED TRAIL ACCESS LOCATIONS</b></p> <p><b>P</b> OSMP Trailhead with Designated Parking</p> <p><b>A</b> Access Point - Parking Along Public Streets Unless Otherwise Posted</p> <p><b>TRAILS</b></p> <p>— OSMP Hiking Trail</p> <p>— OSMP Multi-Use Trail</p>	<p><b>BOULDER COUNTY TRAILS</b></p> <p>—</p> <p><b>ERIE TRAILS</b></p> <p>—</p> <p><b>BCCP SIGNIFICANT NATURAL COMMUNITIES</b></p> <p>—</p> <p><b>BCCP PREBLES MEADOW JUMPING MOUSE HABITAT</b></p> <p>— Potential Restoration, Contiguous</p>	<p><b>BCCP RIPARIAN AREAS</b></p> <p>—</p> <p><b>BCCP WETLANDS</b></p> <p>—</p> <p><b>BCCP NATURAL LANDMARKS AND NATURAL AREAS</b></p> <p>— Natural Areas</p> <p>— Natural Landmark</p> <p><b>PARCELS</b></p> <p>—</p>
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# APPENDIX C - SITE PHOTOS & MAPS

This appendix includes:

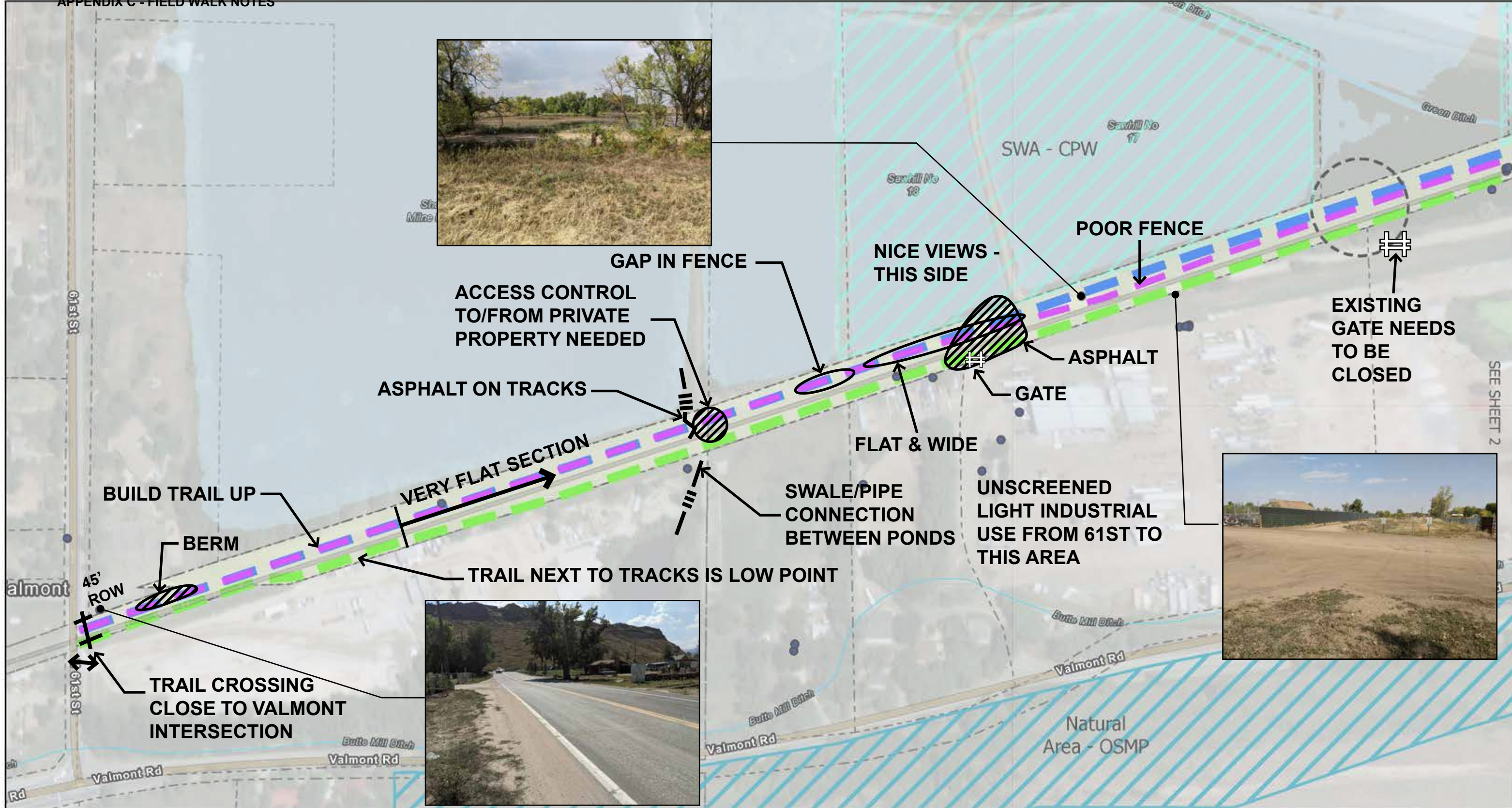
- Field walk notes



# RTD RAIL TRAIL - ALIGNMENTS

AUGUST 17, 2020

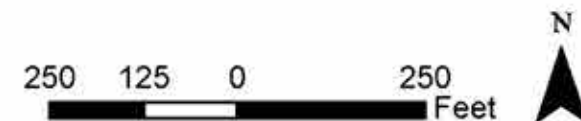




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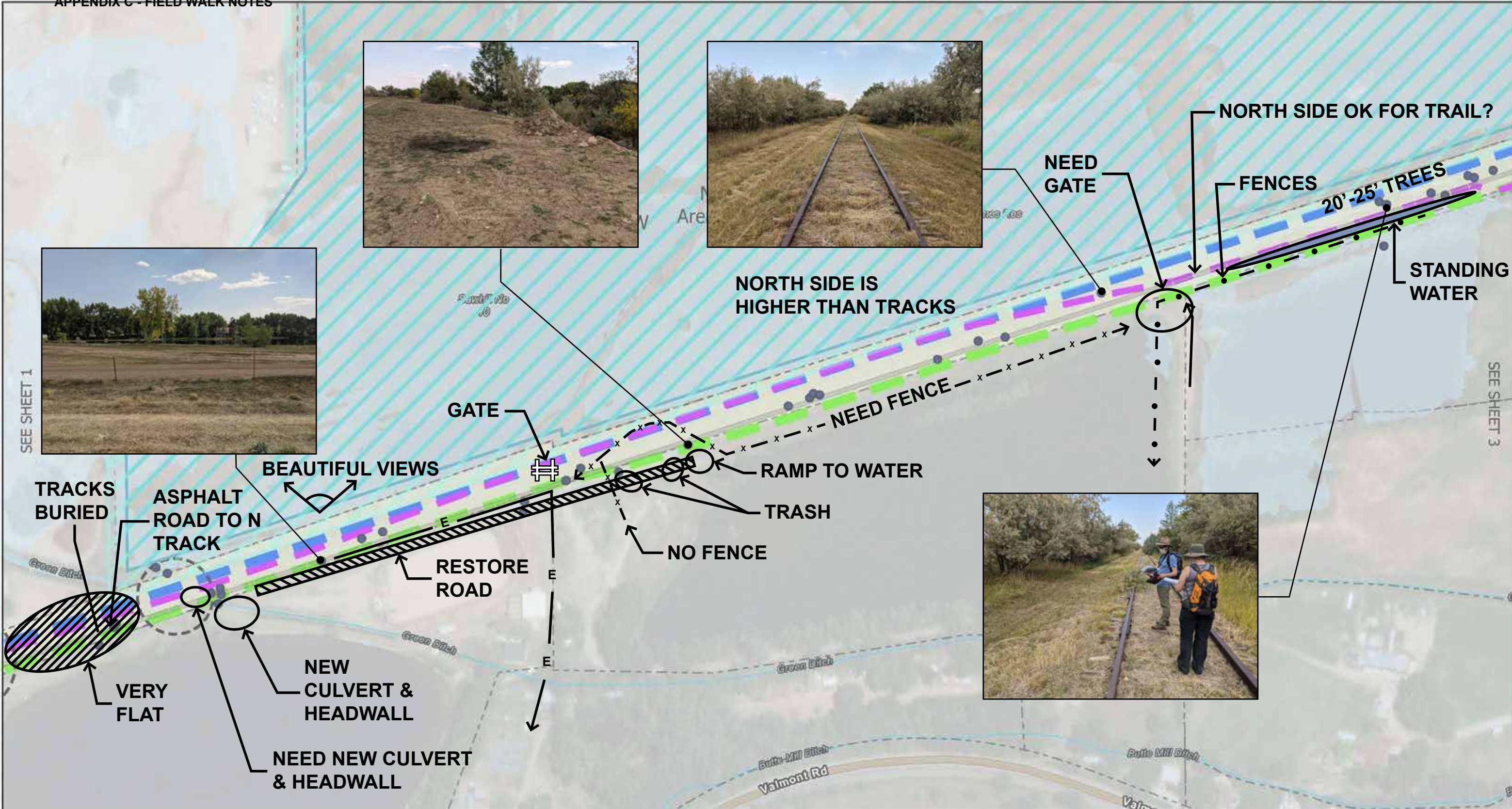
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  - North
  - South
- Crossover Alignment
  - 10Yr Extents
- 287 Crossover Options
  - Option 3
  - Option 4
- Crossings
  -

Sheet 1 of 20



**RTD RAIL TRAIL**

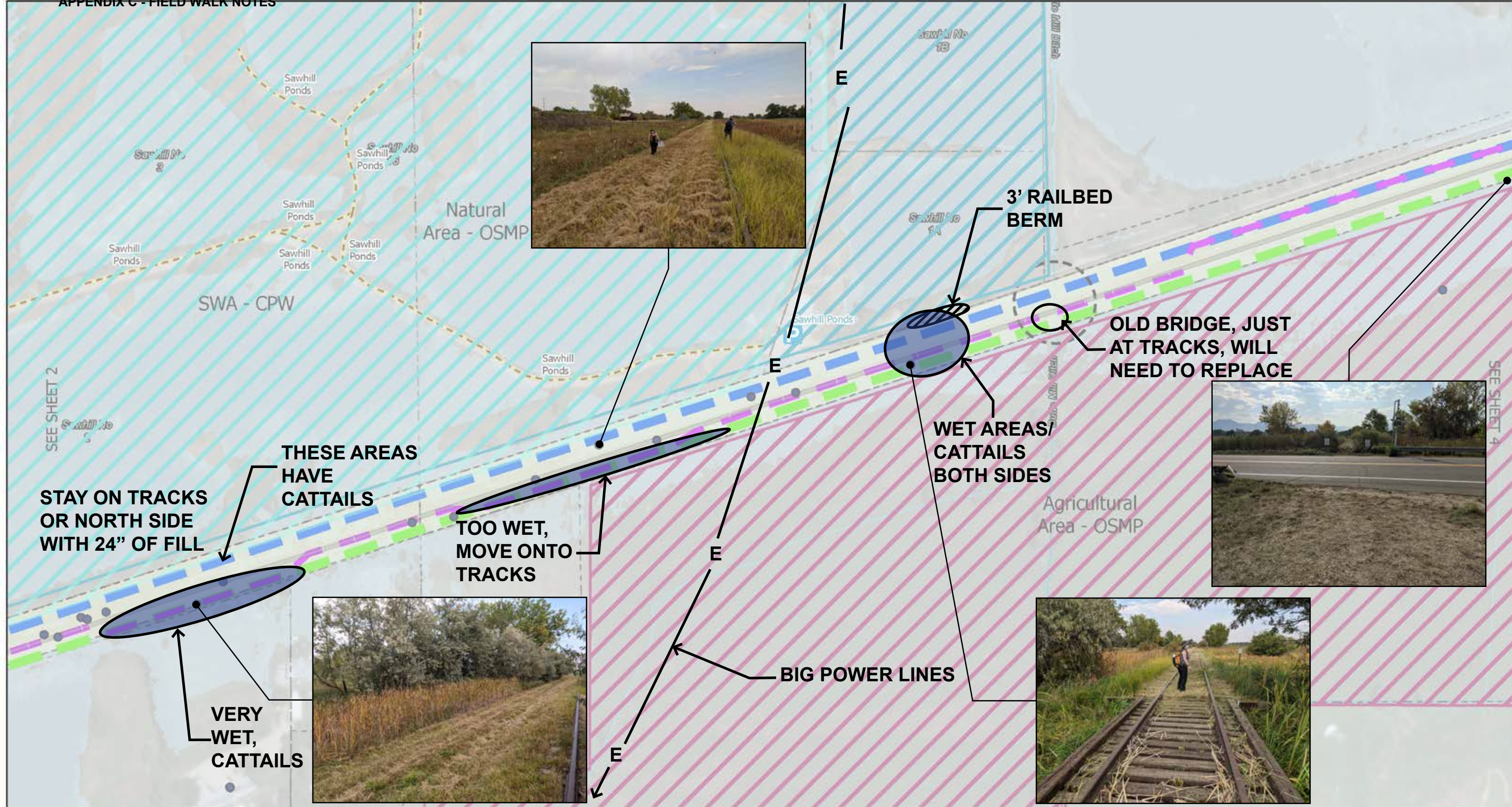




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  - Option 3
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- Crossings
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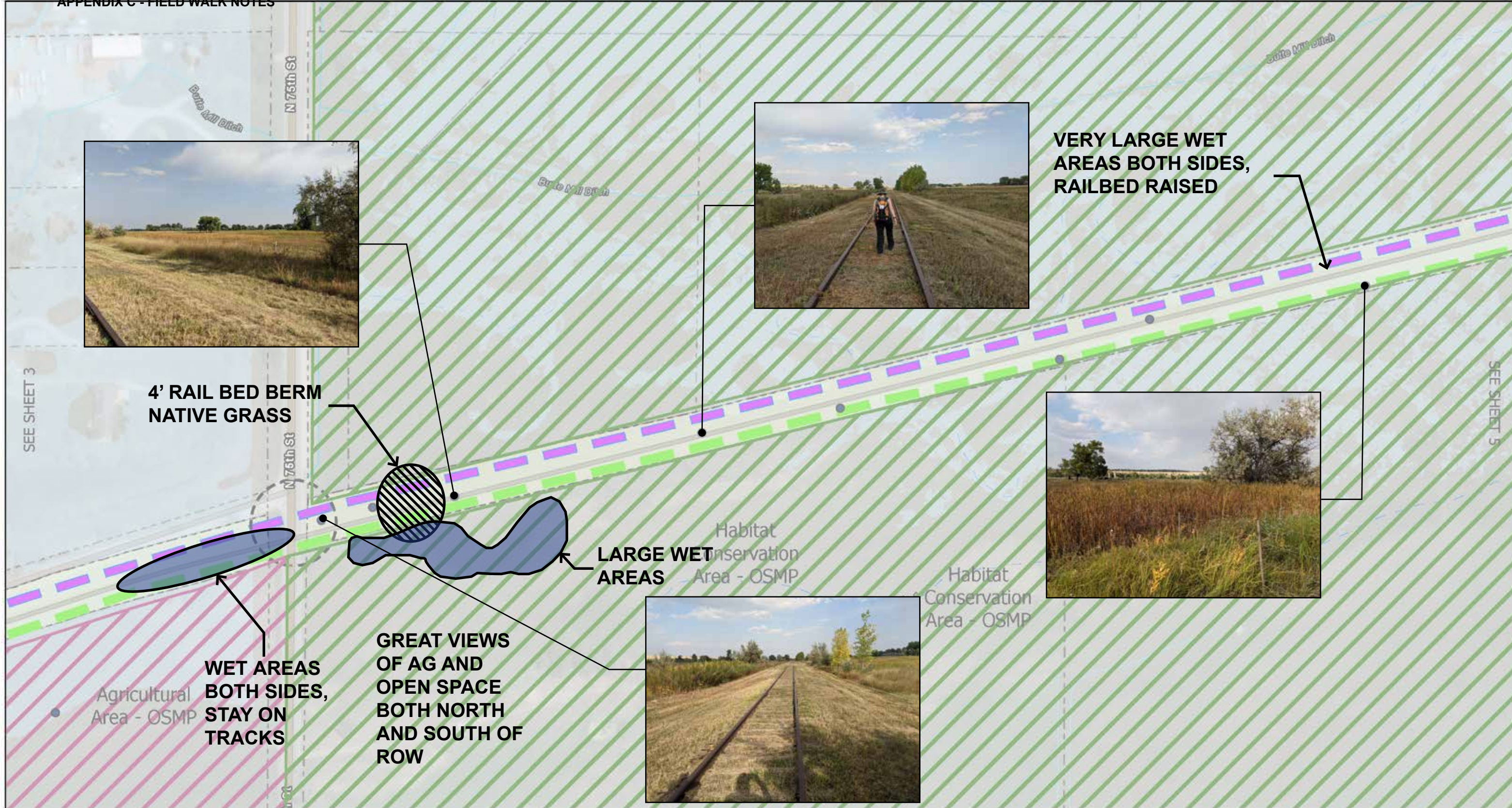
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Sheet 3 of 20



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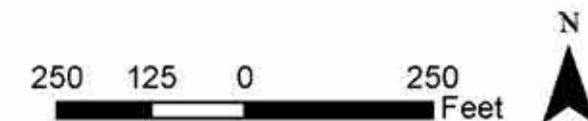




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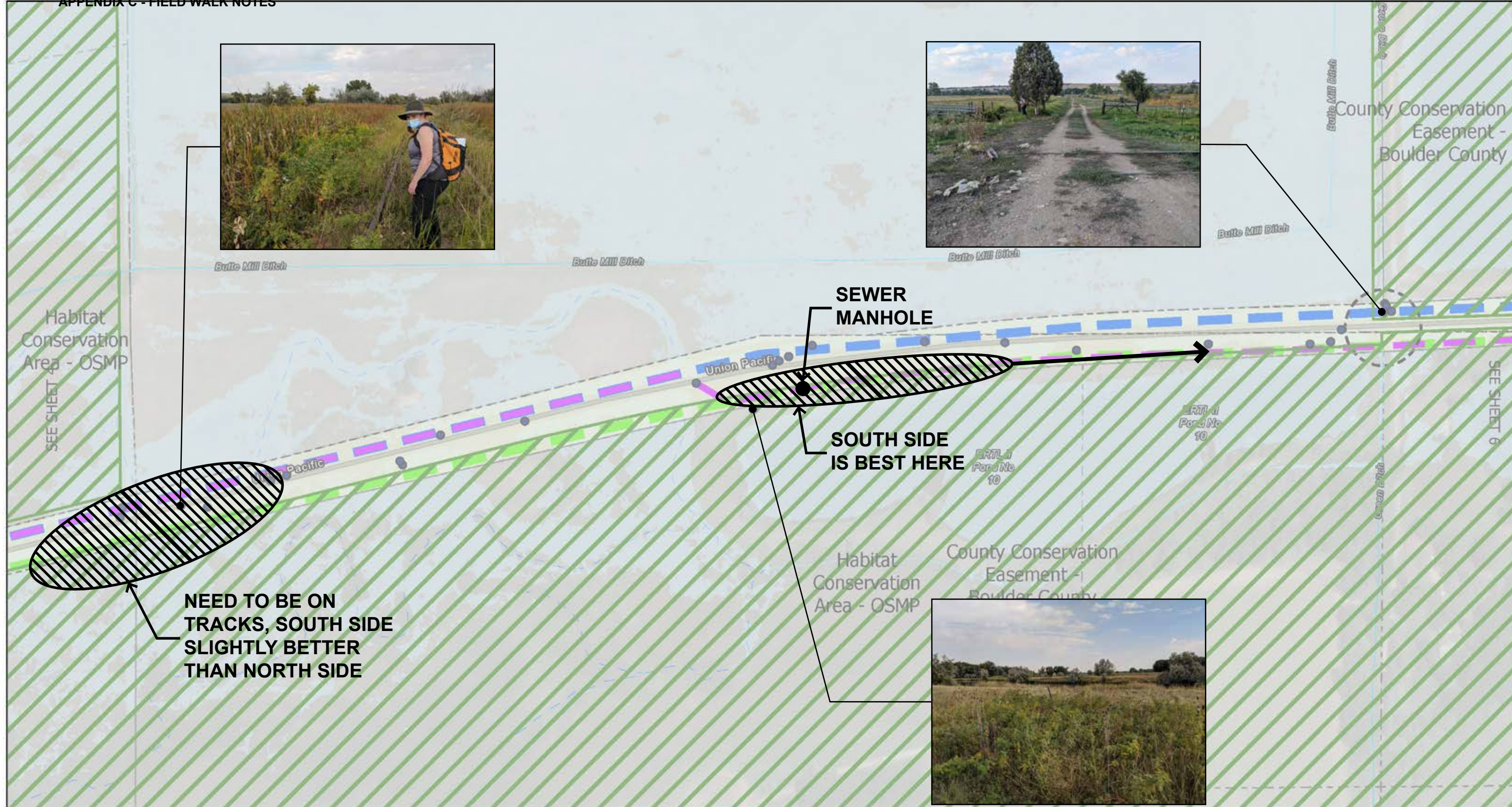
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Sheet 4 of 20



**RTD RAIL TRAIL**





**Legend**

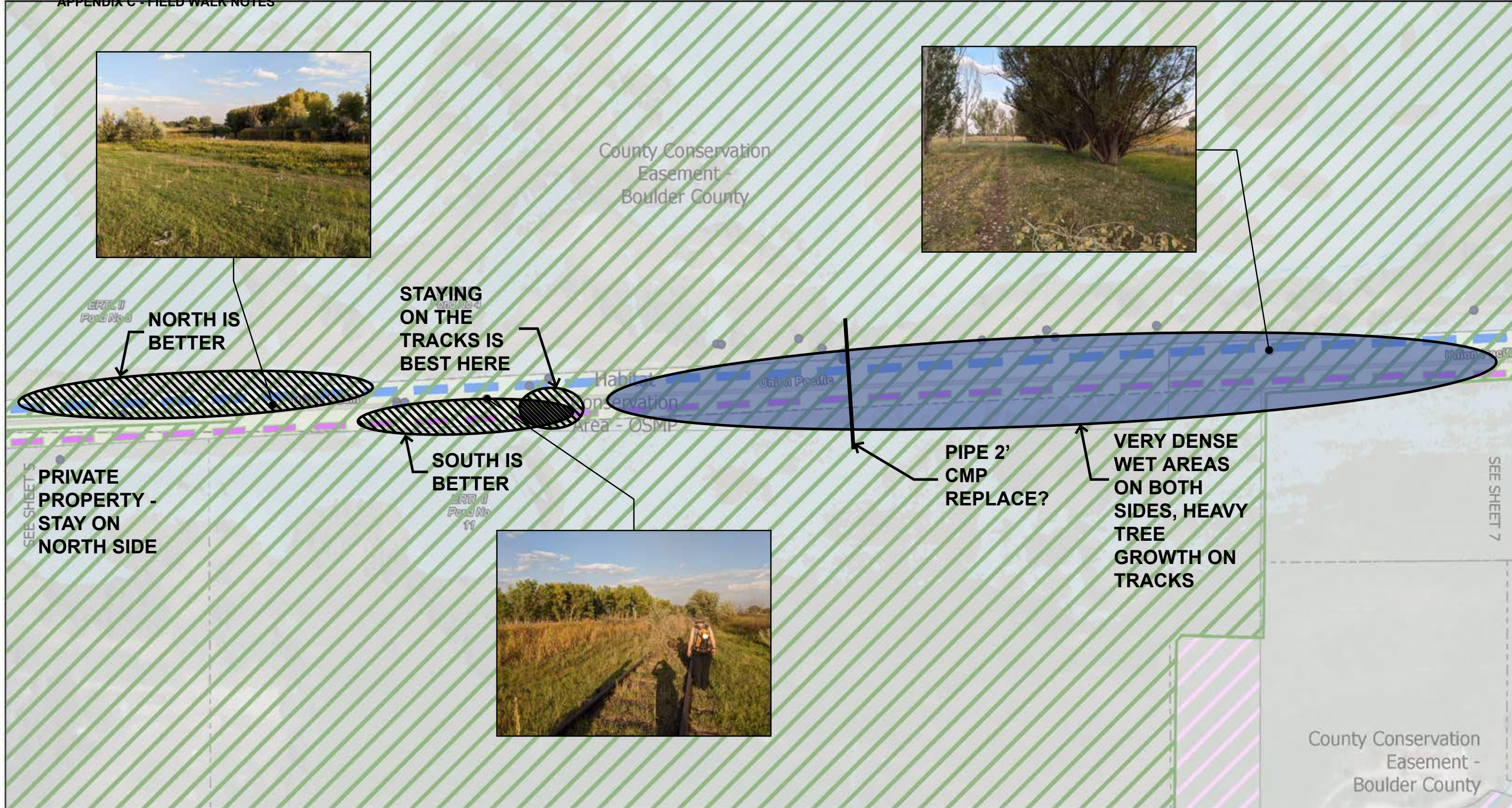
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- Crossings

Sheet 5 of 20



**RTD RAIL TRAIL**





**Legend**

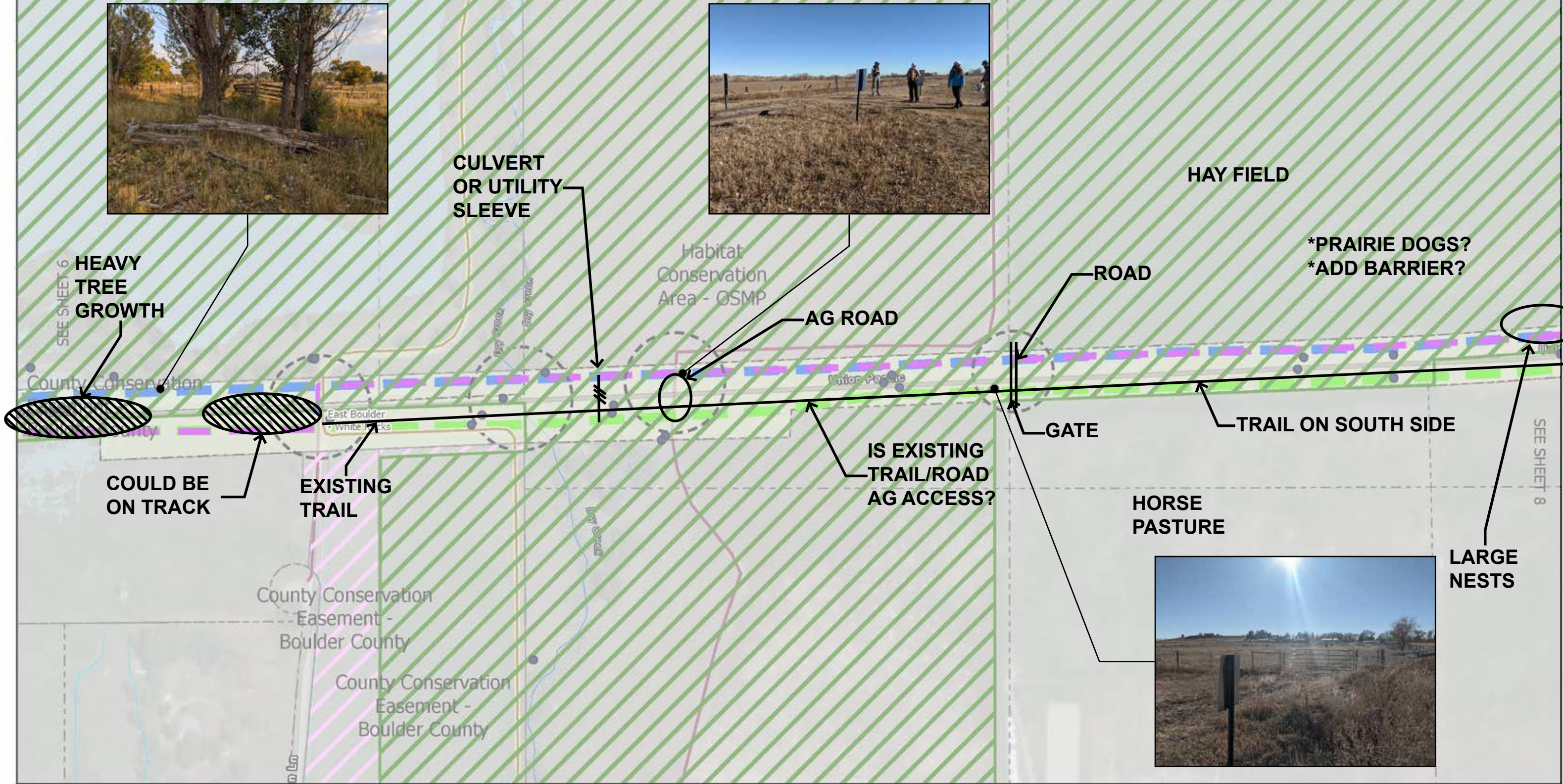
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- Option 3
- Option 4
- Crossings



**RTD RAIL TRAIL**

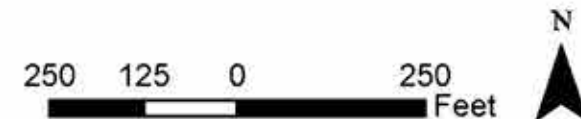






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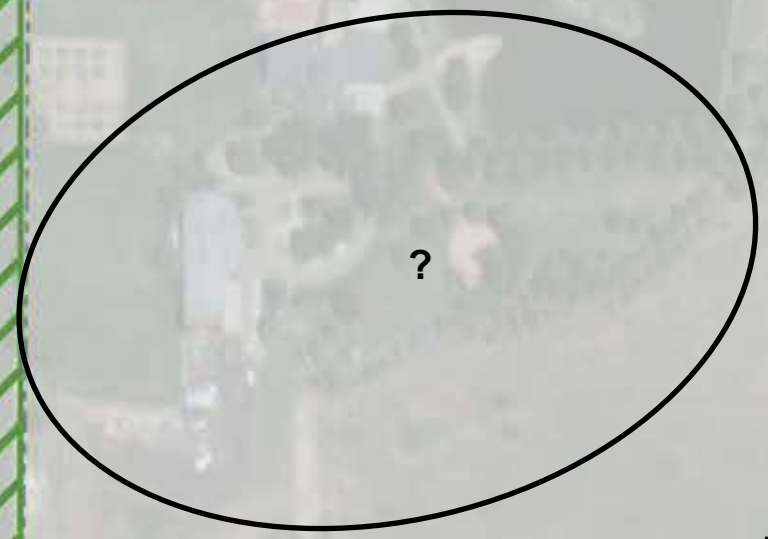
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  - South
- Crossover Alignment
  - 10Yr Extents
- 287 Crossover Options
  - Option 3
  - Option 4
- Crossings
  -



County Conservation Easement - Boulder County

Boulder Creek

Habitat Conservation Area - OSMP



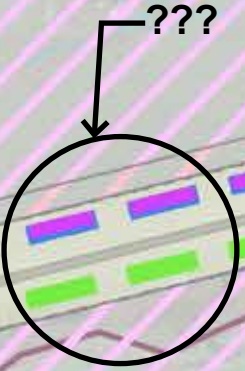
County Conservation Easement - Boulder County

Miscellaneous Easement - Boulder County

FENCE MAY NEED IMPROVED  
County Conservation Easement - Boulder County

LARGE NESTS

FENCE



XCEL TRAIL HEAD?

OTHER SIDE

Agricultural Area - OSMP



County Conservation Easement - Boulder County

County Conservation Easement - Boulder County

County Conservation Easement - Boulder County

**Legend**

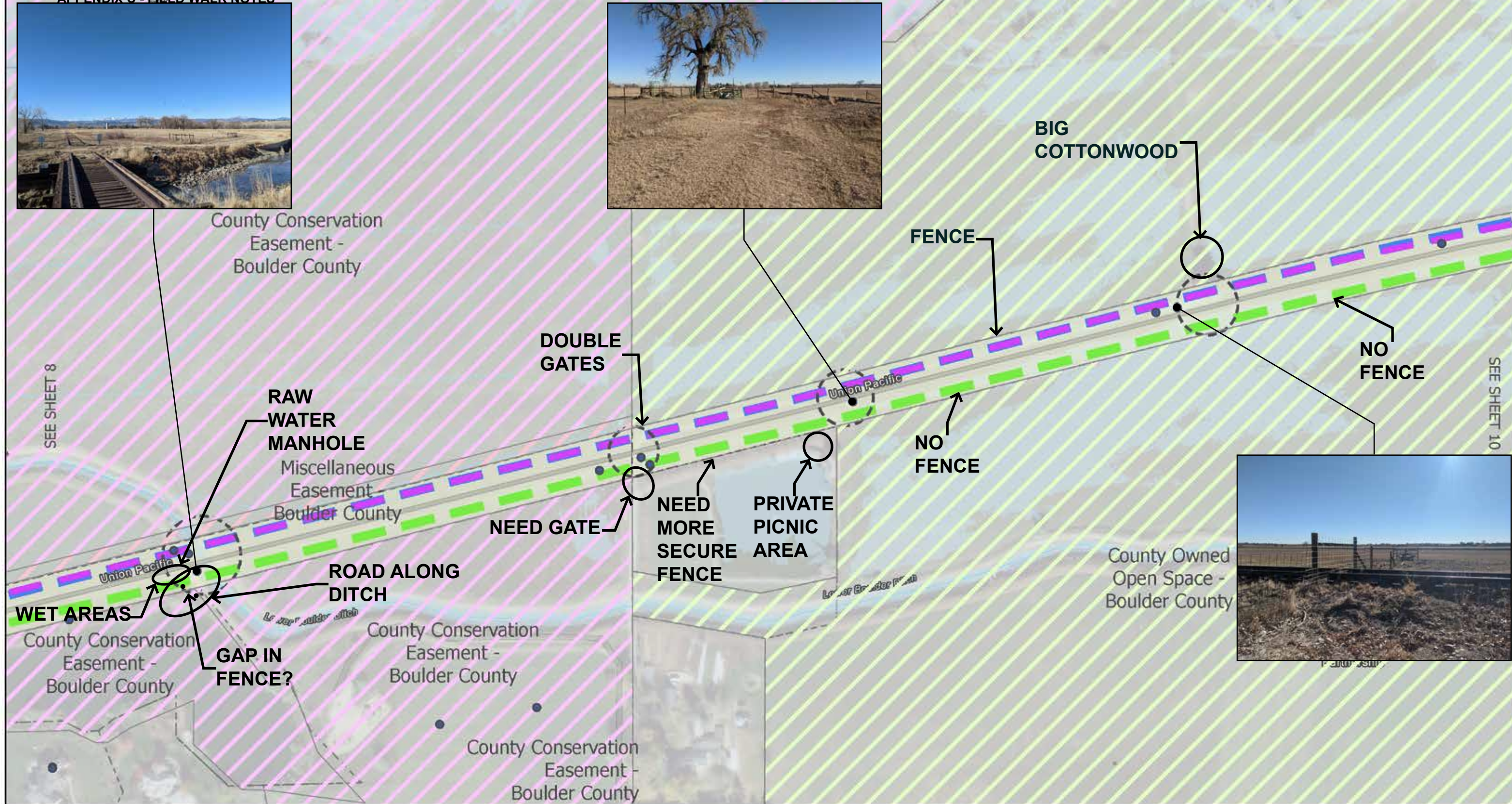
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  - South
- Crossover Alignment
  - 10Yr Extents
- 287 Crossover Options
  - Option 3
  - Option 4
- Crossings
  -

Sheet 8 of 20



**RTD RAIL TRAIL**





SEE SHEET 8

SEE SHEET 10

**Legend**

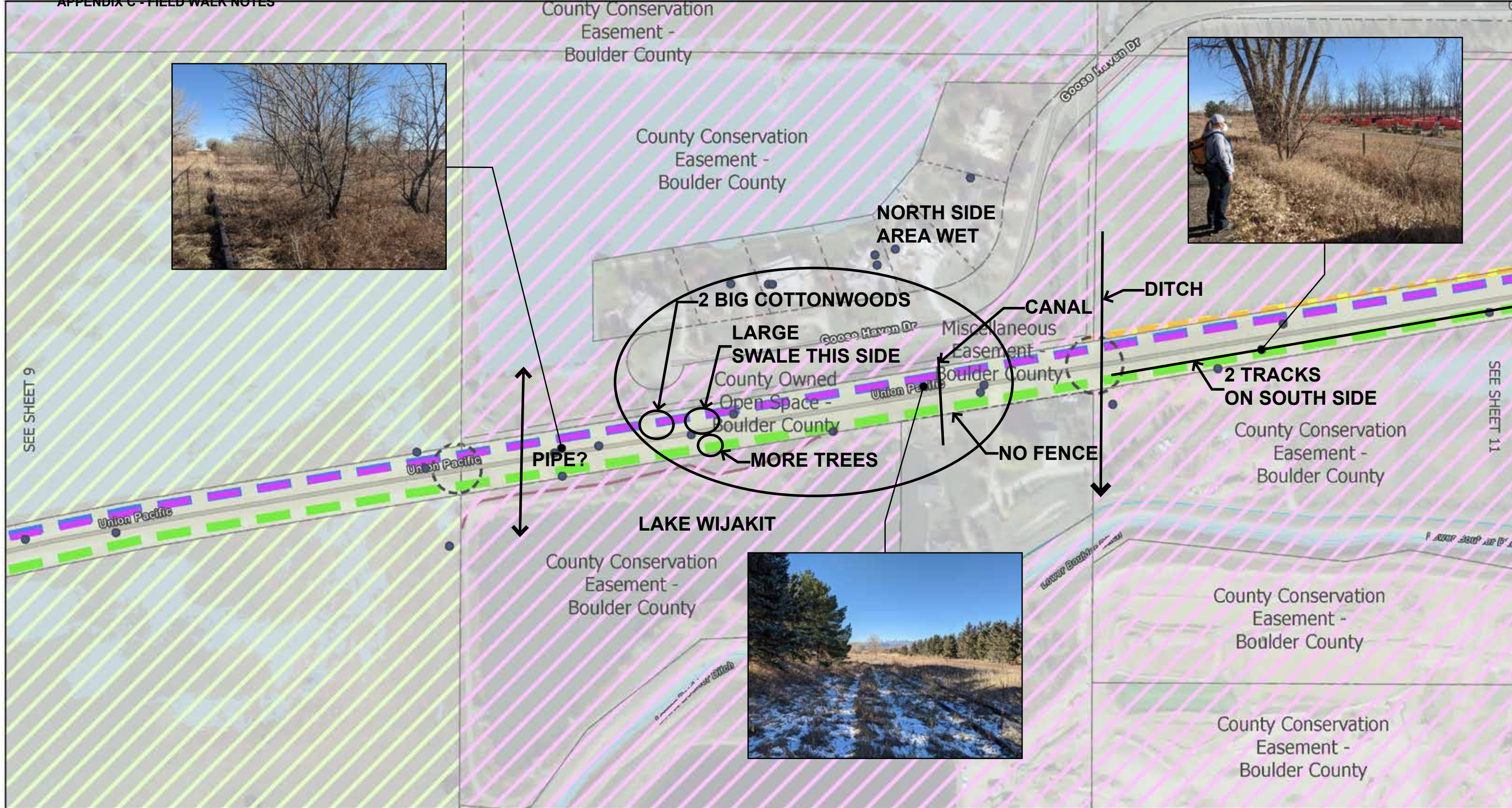
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  - Option 4
- Crossings
  -

Sheet 9 of 20



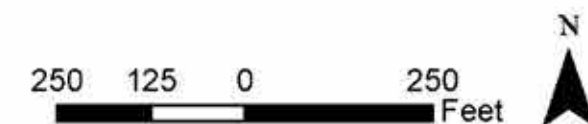
**RTD RAIL TRAIL**

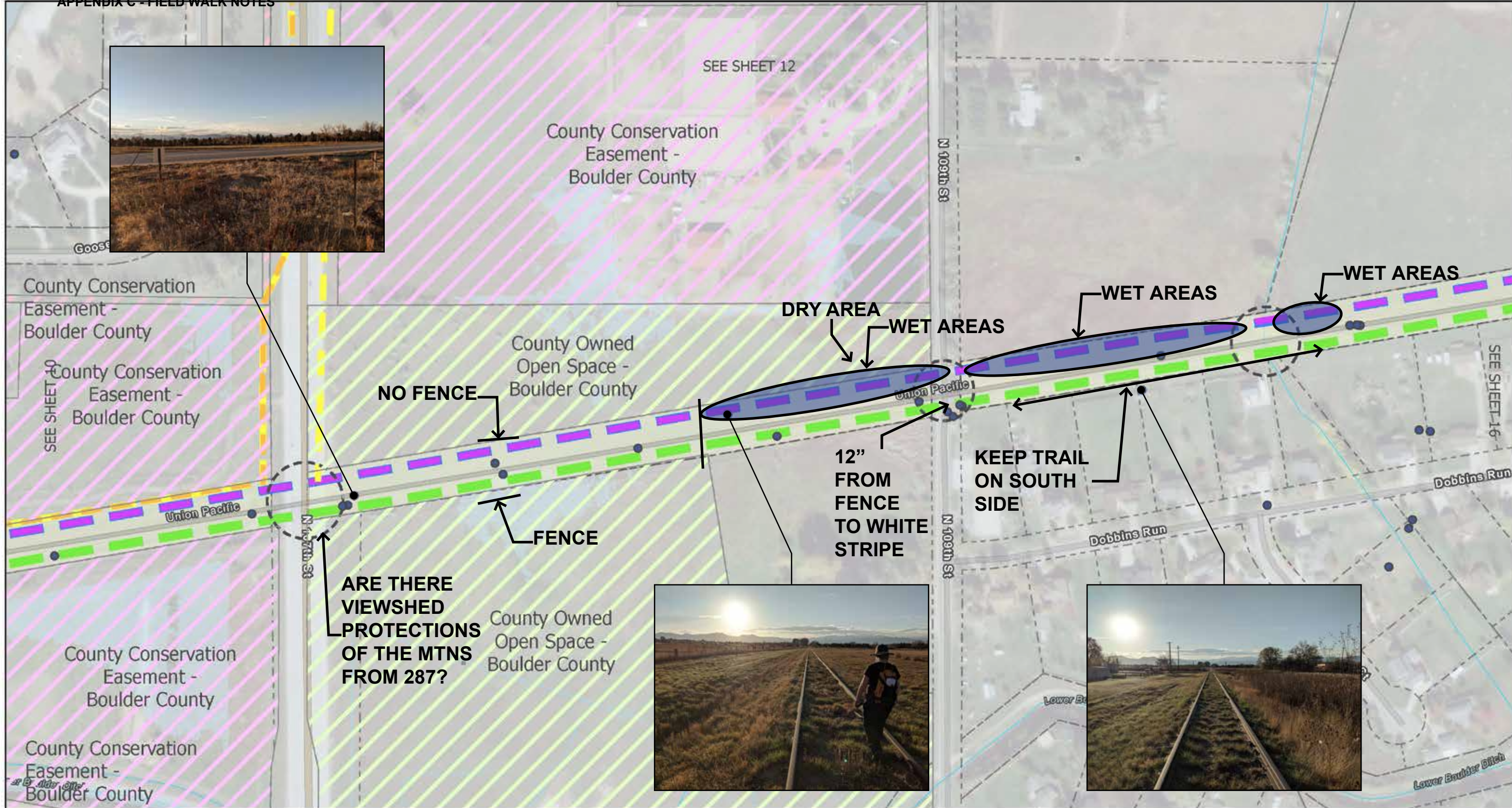




**Legend**

- Preliminary Alignments
  - North
  - South
- Crossover Alignment
  - 10Yr Extents
- 287 Crossover Options
  - Option 3
  - Option 4
- Crossings
  -





**Legend**

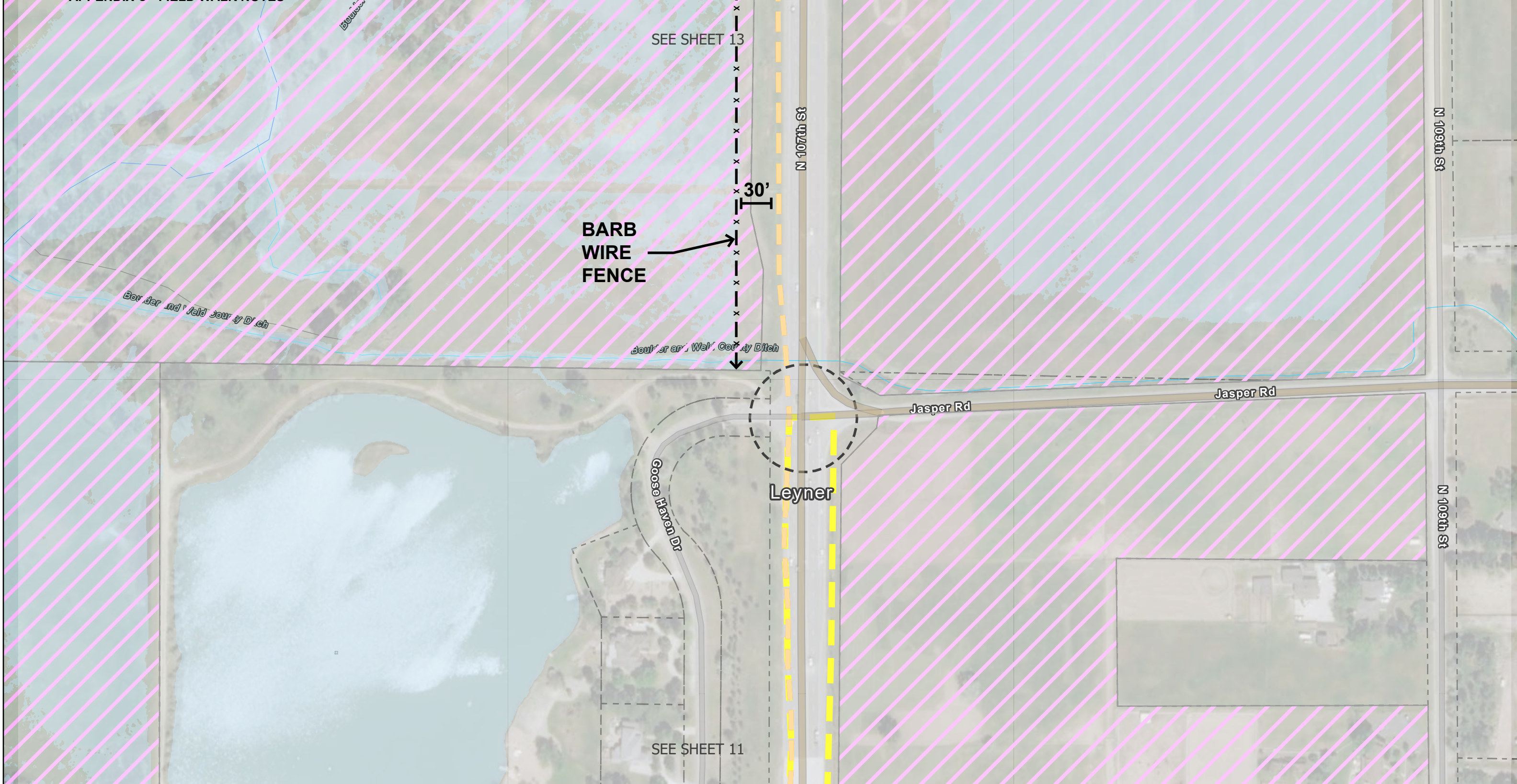
- Preliminary Alignments
  - North
  - South
- Crossover Alignment
- 10Yr Extents
- 287 Crossover Options
  - Option 3
  - Option 4
- Crossings
  -

Sheet 11 of 20



**RTD RAIL TRAIL**

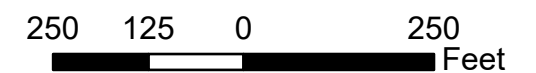




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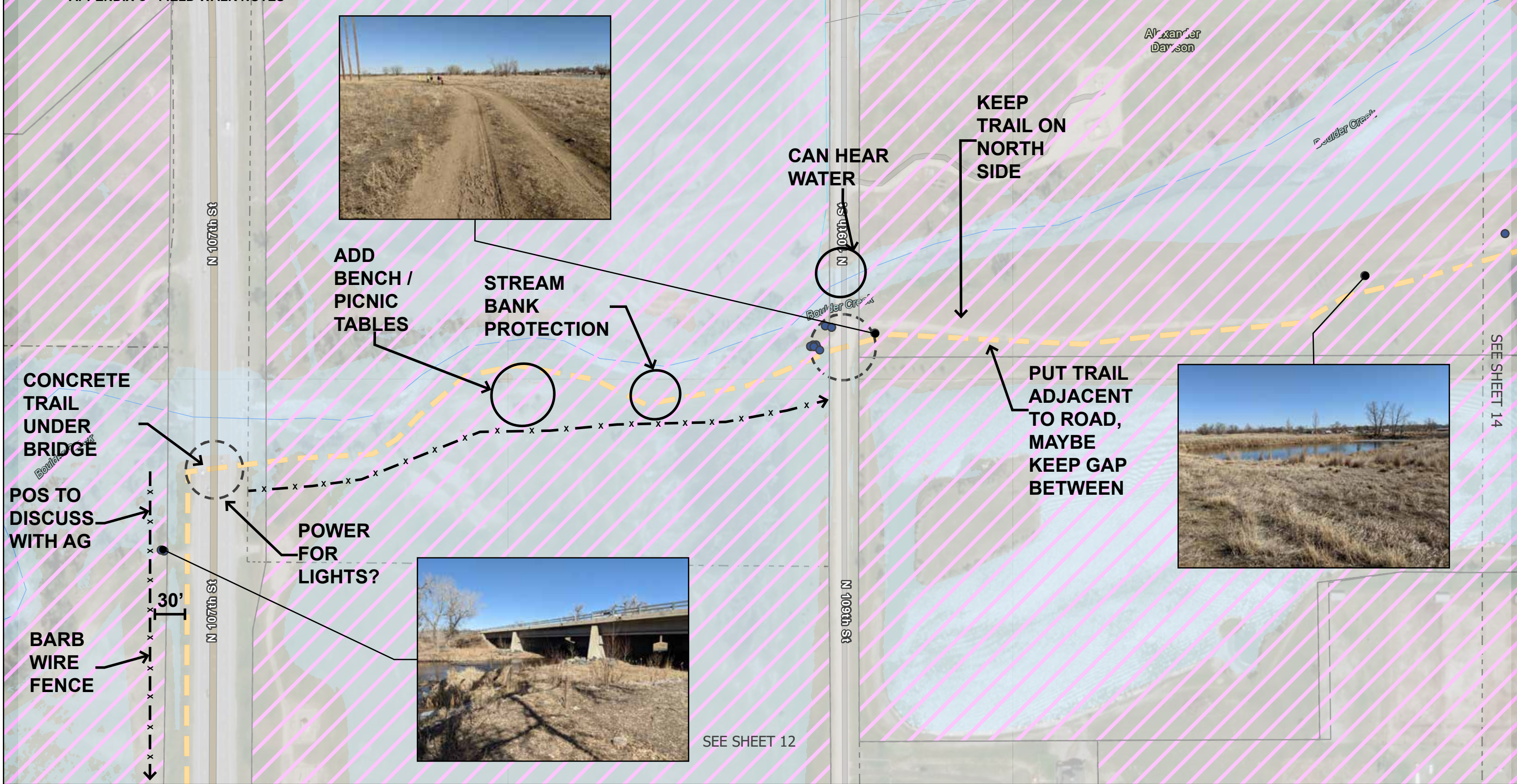
- |                        |                     |                       |           |
|------------------------|---------------------|-----------------------|-----------|
| Preliminary Alignments | Crossover Alignment | 287 Crossover Options | Crossings |
| North                  | 10Yr Extents        | Option 3              |           |
| South                  |                     | Option 4              |           |

Sheet 12 of 20



**RTD RAIL TRAIL**





**Legend**

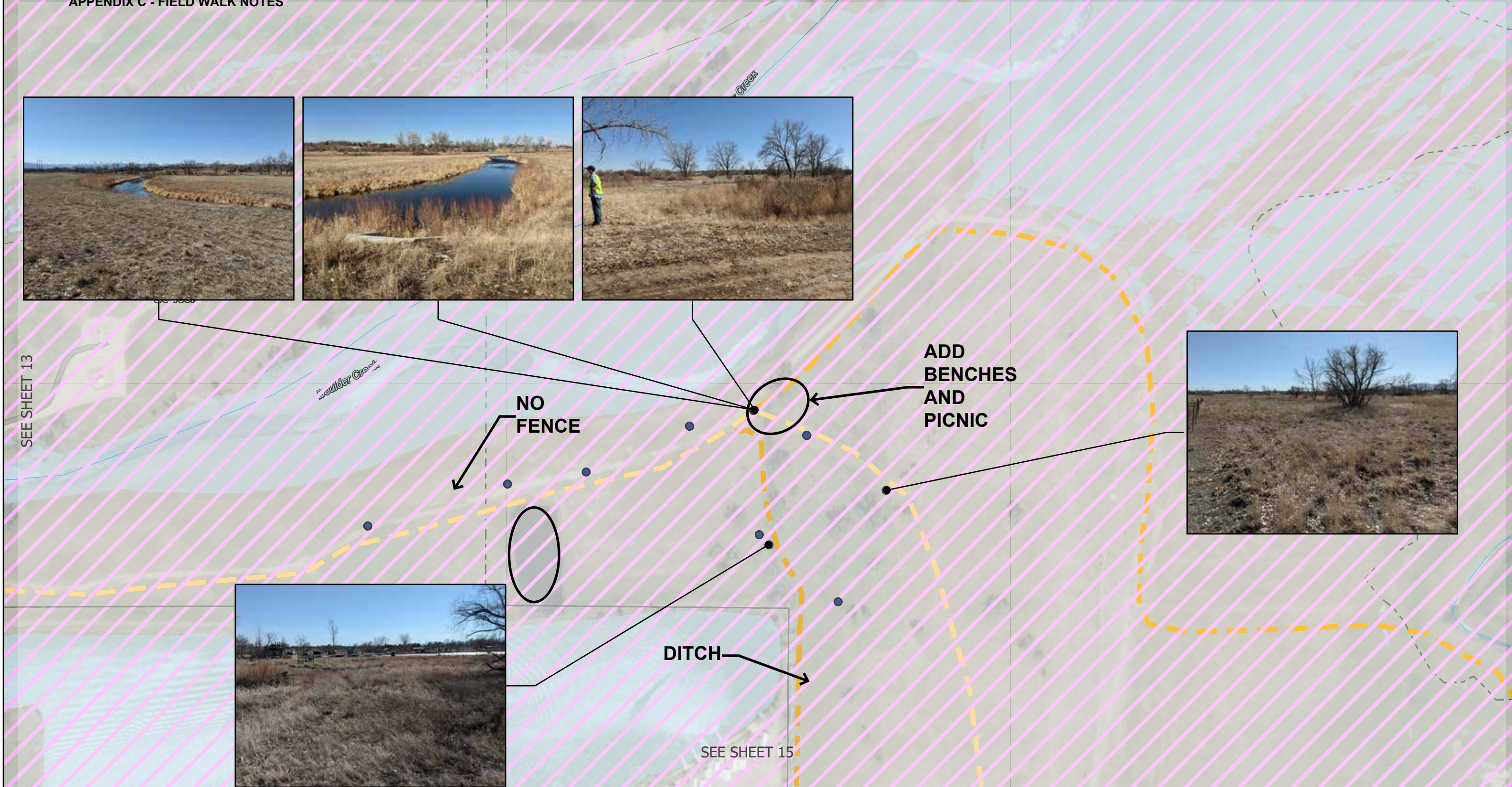
- Preliminary Alignments
  - █ North
  - █ South
- Crossover Alignment
- 10Yr Extents
- 287 Crossover Options
  - Option 3
  - Option 4
- Crossings

Sheet 13 of 20



**RTD RAIL TRAIL**

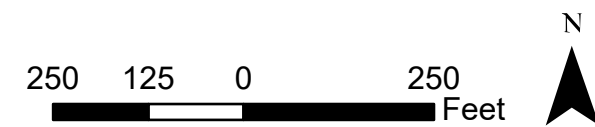




**Legend**

- |                        |                     |                       |           |
|------------------------|---------------------|-----------------------|-----------|
| Preliminary Alignments | Crossover Alignment | 287 Crossover Options | Crossings |
| North                  | 10Yr Extents        | Option 3              |           |
| South                  |                     | Option 4              |           |

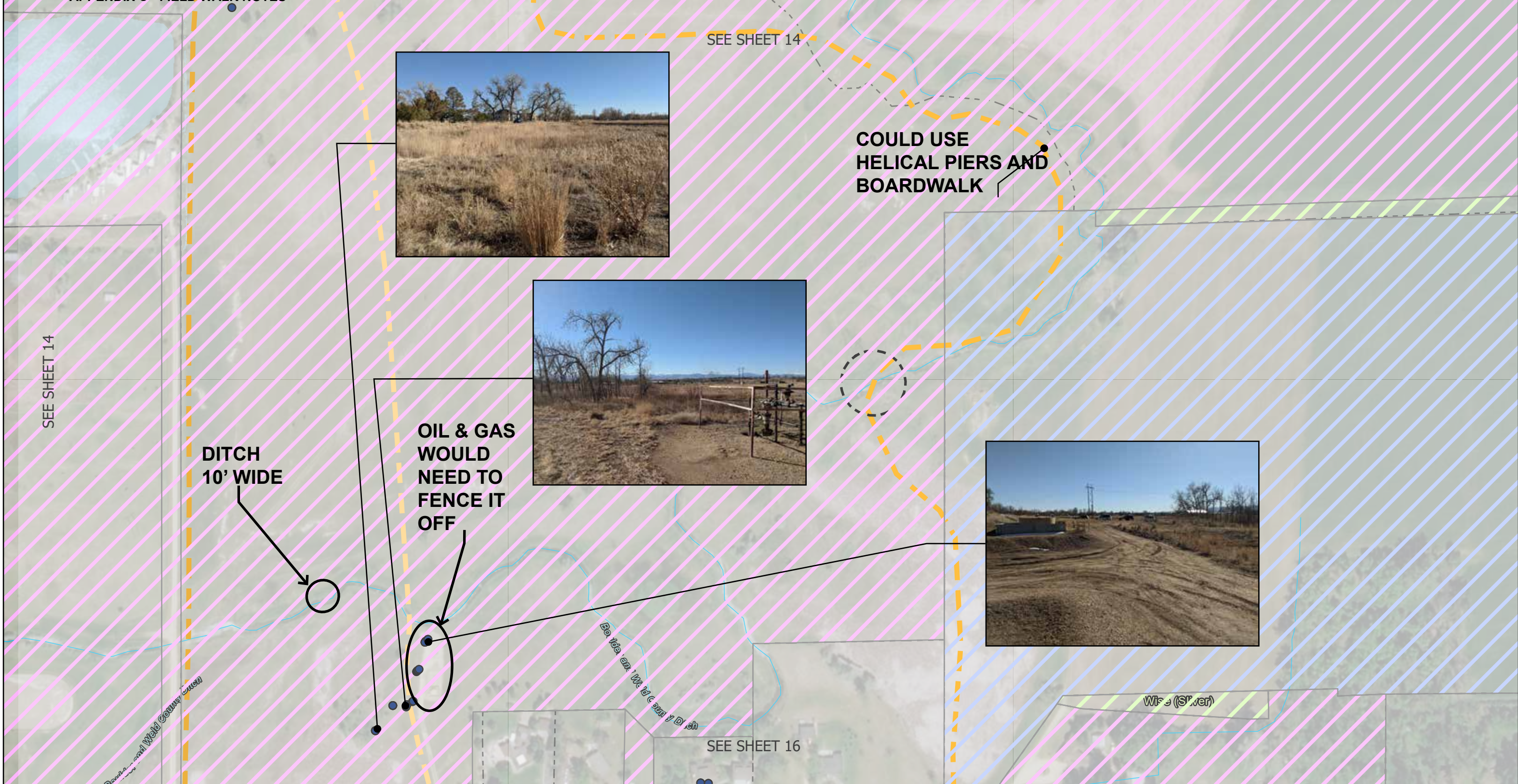
Sheet 14 of 20



**RTD RAIL TRAIL**



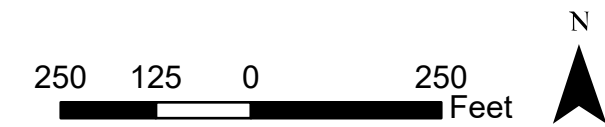




**Legend**

- Preliminary Alignments
  - █ North
  - █ South
- Crossover Alignment
  - Crossover Alignment
- 287 Crossover Options
  - Option 3
  - Option 4
- Crossings
  - Crossings
- 10Yr Extents
  - 10Yr Extents

Sheet 15 of 20



**RTD RAIL TRAIL**





**Legend**

- |                        |                     |                       |           |
|------------------------|---------------------|-----------------------|-----------|
| Preliminary Alignments | Crossover Alignment | 287 Crossover Options | Crossings |
| North                  | 10Yr Extents        | Option 3              |           |
| South                  |                     | Option 4              |           |

Sheet 16 of 20



**RTD RAIL TRAIL**



WET AREAS

DROP BELOW OIL AND GAS ROAD?

SEE SHEET 15

Wise (Silver)

SEE SHEET 18

SEE SHEET 16



DITCH ROAD

NO GATE

GATE

TREE HOUSE

Legend

Preliminary Alignments

- North
- South

Crossover Alignment

10Yr Extents

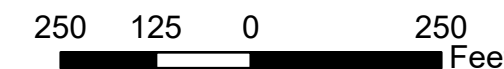
287 Crossover Options

- Option 3
- Option 4

Crossings

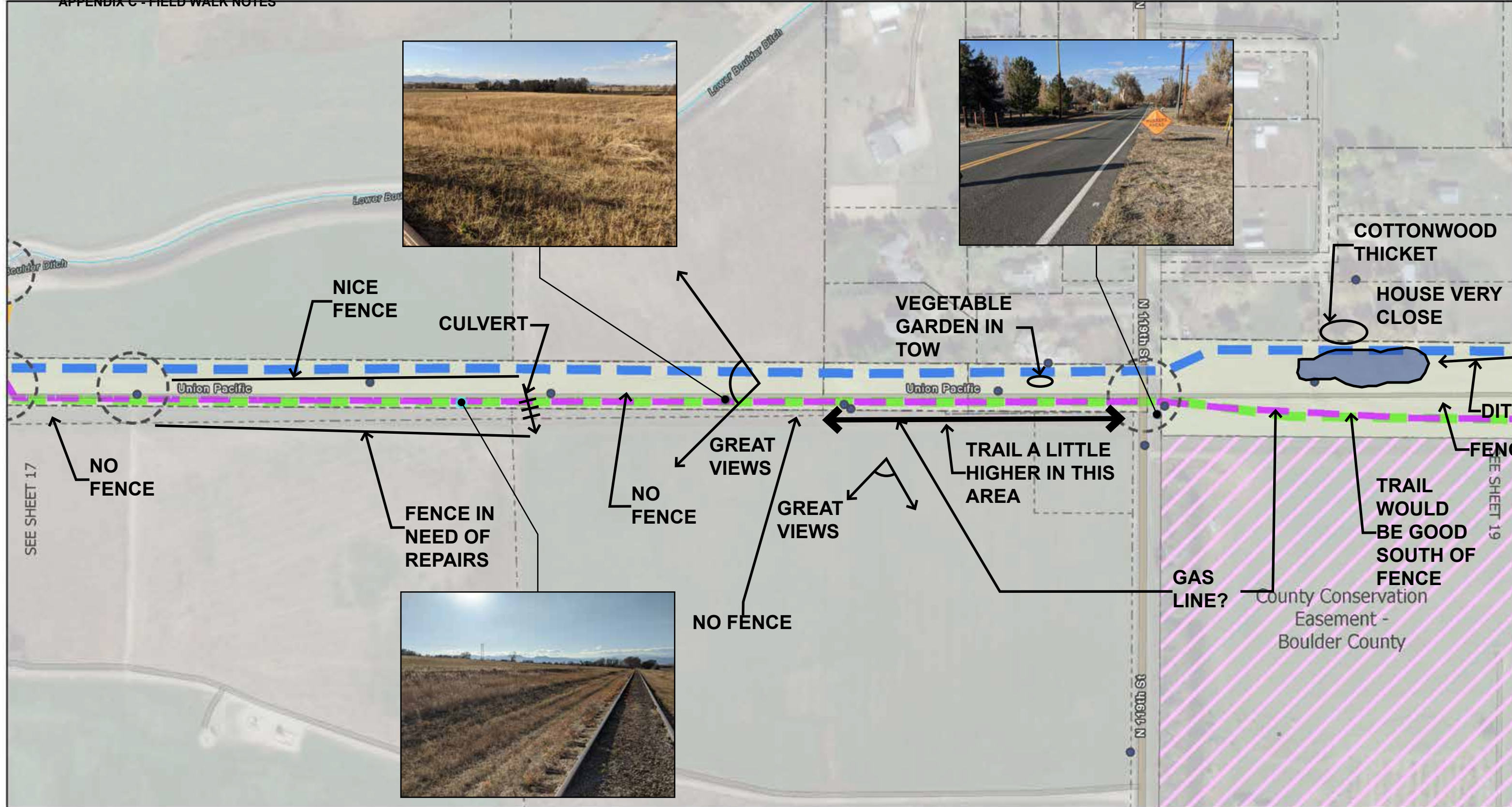


Sheet 17 of 20



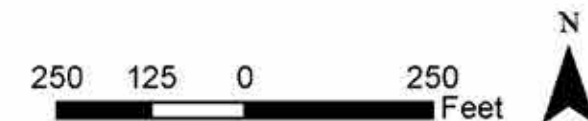
RTD RAIL TRAIL

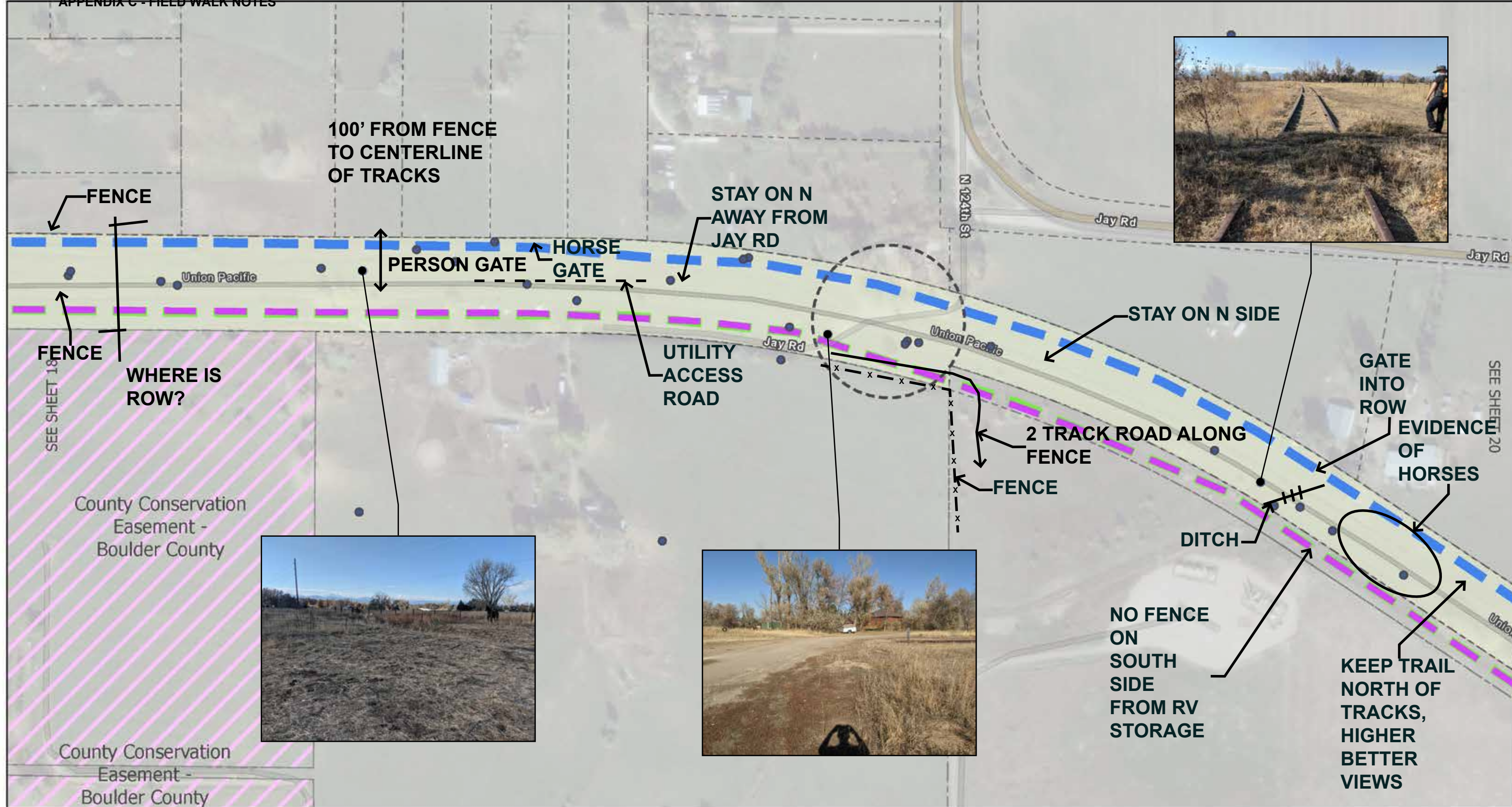




**Legend**

- Preliminary Alignments
  - █ North
  - █ South
- █ Crossover Alignment
- 10Yr Extents █
- 287 Crossover Options
  - █ Option 3
  - █ Option 4
- Crossings





**Legend**

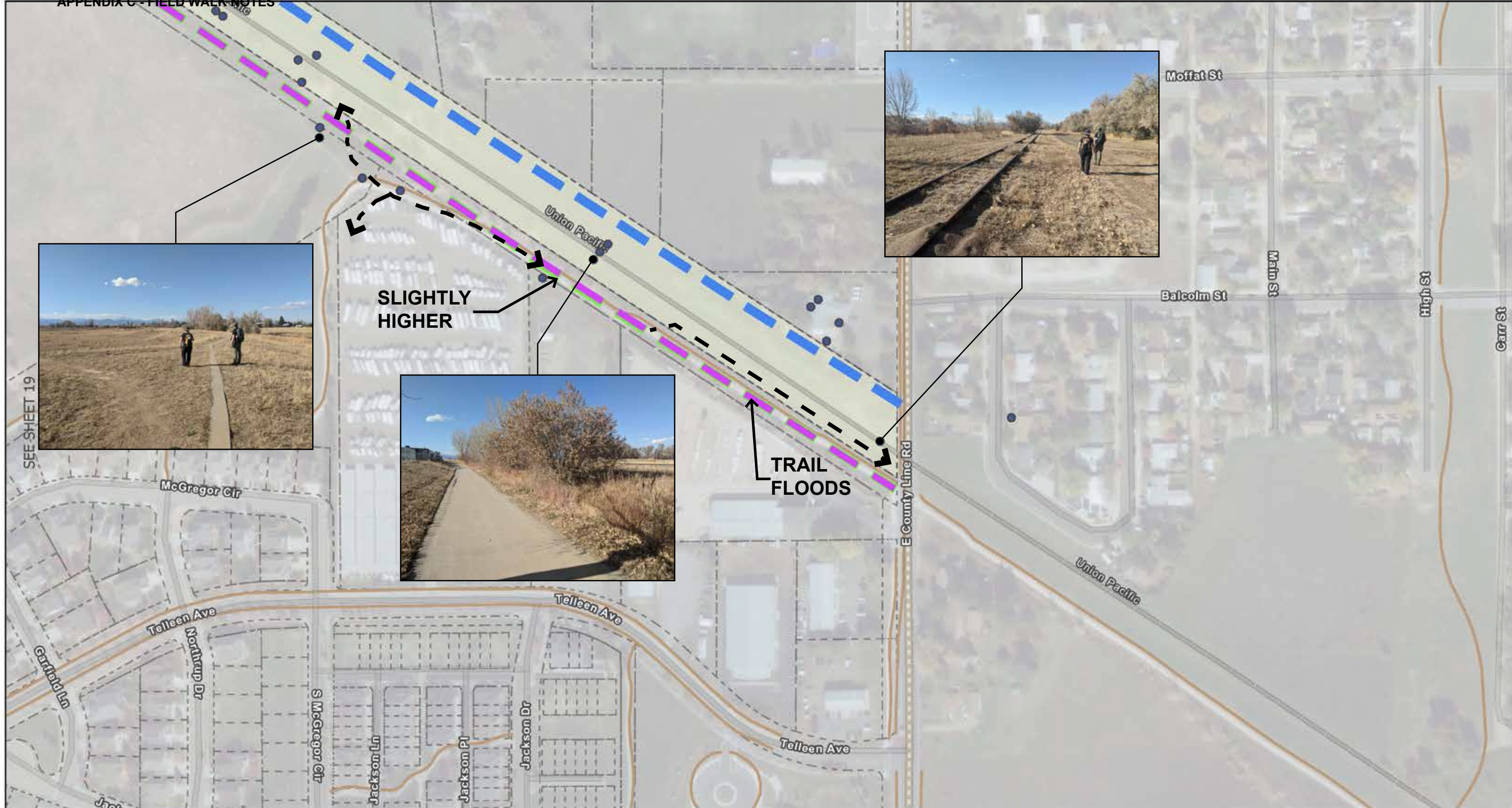
- Preliminary Alignments
  - North
  - South
- Crossover Alignment
- 10Yr Extents
- 287 Crossover Options
  - Option 3
  - Option 4
- Crossings
  -

Sheet 19 of 20



**RTD RAIL TRAIL**

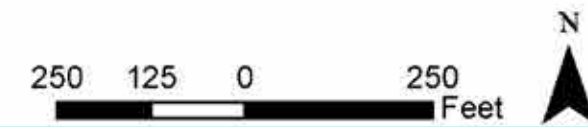




**Legend**

- |                        |                     |                       |           |
|------------------------|---------------------|-----------------------|-----------|
| Preliminary Alignments | Crossover Alignment | 287 Crossover Options | Crossings |
| North                  | Crossover Alignment | Option 3              | Crossings |
| South                  | 10Yr Extents        | Option 4              |           |

Sheet 20 of 20



**RTD RAIL TRAIL**



# APPENDIX D - MEETING MATERIALS & SUMMARIES

This appendix includes:

- RTD Meetings
- CPW & OSMP Meetings
- Adjacent Landowner Interviews
- Steering Committee
- Connectivity Workshop
- Community Working Group

## APPENDIX D - RTD MEETINGS

### RTD Rail Trail – Alignment Discussion with RTD - 3.1.21

- Questions
  - Distance from ROW to Boulder Creek in scenic route option
  - Cross sections for the trail
    - Good to start with what the city is working on at the other end (Bridge to Nowhere project?)
    - Those cross sections have been approved by RTD so there's some level of comfort with those so good way to start bringing RTD management into the project
      - Bring project to the attention of the new General Manager
  - Additional info
    - Preliminary cross section
    - How would incorporate the rails
      - Width of trail relative to rail
      - Would you want to keep the trails as a feature or bury the existing rails, how deep, how would that work, etc.
      - Can they be removed?
    - How does it work with crossings being closed vs out of service vs abandoned?
      - Probably have to deal with PUC
      - If it is closed, then it's up to the road authority to decide how they want to cross
      - If it is out of service but the rails are still present, then RTD retains the rights
    - Timeline Narrative, executive summary of steps to date that RTD can use to bring their new general manager up to date
    - Some sort of briefing for the new GM
      - Brief overview of project, where would be on the tracks and such in simplified terms
  - Erie RailBike Project
    - As part of that project going to be evaluating the crossings, what would be required to make them passable and what would be required in terms of flagging and signage, etc.
- Thoughts on Crossings
  - At crossings it is as much a PUC issue as an RTD issue
- Thoughts on being on rail grade
  - Not a big fan of being on rail bed from a point of view of losing the linear nature of the ROW



## APPENDIX D - RTD MEETINGS

- Might help case to include pictures and documentation of the current condition of the rail bed, it isn't usable in the current condition so that is relevant to the discussion
- Include a "Revert Clause" so if RTD wants to run a train at some point the ROW would need to be returned to how it was before or if the trail vacates the area then it must be returned to how it was before

# Boulder to Erie Regional Trail

## RTD and Boulder County

Friday, February 2, 2024  
1:00 pm - 2:00 pm

### Meeting Purpose:

- Clarify RTD’s approval process for the master plan, discuss alignment evaluation, and ask remaining questions regarding railbed use

### Agenda Item

#### Welcome and Agenda Overview

#### Approval Process

- Who from RTD approves the preferred alignment and/or final master plan? And what does that approval process look like?
- What do you need from us to do so? (e.g. presentation, a memo or letter work)
- Following an official update to RTD, can we receive updated written correspondence from RTD? (the last one is outdated, from 2012)

#### Rail Removal/Logistics

- Do the rails need to remain if the trail is on the railbed in certain sections?
- Can rails be removed in short sections?
- Is there a certain percentage of the rails that should remain?

#### Ownerships/Partnerships

- Is it an actual desire of RTD to sell the rail corridor?
- What role does Union Pacific have, if any, in the use or removal of the rails?
- Are there certain sections of the rail that need to remain due to agreements that RTD has made with entities like Colorado Railbike Adventures?

#### Alignment Evaluation

- Given today’s discussion is our evaluation still accurate?
- Any other concerns?

#### Wrap Up and Next Steps



## RTD Meeting 2/2/24

### Approval Process

- Letter of understanding or MOU between RTD and BOCO.
  - Or Concurrence memo? **BOCO to talk internally about what the BOCC would want to see.**
    - **Who needs to sign it from RTD?** (based on how much weight it needs to carry)
      - GM may take more time; plan for who will be signing it and the time it will take.
  - This may take some time if a more formal document.
  - License agreement/lease to come.
- Letter from RTD (2012 version) – likely can have RTD update
  - Need to understand the terms and conditions from that version (most of which sound like will stay the same)

### Rail Removal/Logistics

- Rail corridor
  - Rail defines the corridor.
    - When rail is taken out, it loses the definition of a rail corridor and becomes just a piece of land.
  - The rail cannot be taken out (aside from a few pieces here and there); but can be buried.
  - Covering rail in crusher fines in certain sections of the trail might be very maintenance intensive; consider concrete for those.
    - If the concreted sections have the railheads exposed then there might not be so much of a limit to distance of burying them.
    - Could do concrete panels like at crossings.

### Ownerships/Partnerships

- Not necessarily interested in selling the corridor, but open to requests from the county potentially.
- RTD has some agreements with landowners for crossings and fences for grazing.
- UP no longer has concern over the surface, though they do care about underground.
  - They have a lot of underground rights (so something to consider if there were ever to be any utilities, etc.)
  - Might have fiberoptics – **follow up with Kirk on utilities present underground in the corridor.**
- Railbike has exclusive use of the railbed itself; though RTD retains rights in the right of way.

### Alignment Evaluation

- **Send RTD updated version of graded alignments spreadsheet.**

### Final Thoughts

- RTD is generally in favor of the project and do not have any major concerns at this time.

**Meeting Notes**  
**Boulder to Erie Regional Trail**  
**CPW Coordination**

Wednesday, March 13, 2024  
11:30am - 12:30pm

- Attendance
  - Chris M (assistant area wildlife manager for area 2)
  - Conrad Lattes (BOCO attorney for POS and Pub Works)
  - Tyler Asnicar - Boulder
  - Cassy Penn - Erie
  - Lexi - NE land use coordinator
  - Tonya, Kelsey, Cliff, Carrie, Jeffrey, Laura
  
- Brief Overview of Buffers, Concern, and All BERT Alignment Concepts
  - Blue Heron Nesting Area: 0.25 mi buffer
  - Red Tailed Hawk:
  - Bald Eagle: 0.5 mi buffer
  - Golden Eagle Near 287
  - Long-Eared Owl: no specific buffer, one location east of 287
  - Tonya introduced project and process a bit, alignments
    - RTD ROW: rail right of way not in use but not formally abandoned
    - OSMP MOU: hoped environmentally-friendlier route, not what we found
    - Valmont ROW: at request of BOCC
  - Cliff introduced timeline: currently a master plan looking for a certain level of agreement from all stakeholders about preferred options, if it a good idea
    - Next steps are design work, construction, etc.
  - Tyler and Cassy input
    - OSMP may expect more as they own the properties, wetlands
    - CPW has raptor data and concerns
  
- Understanding Managers/Decision-Makers for wildlife along RTD ROW
  - With CPW as the owner of Sawhill and OSMP as the manager, does OSMP have the authority to enforce a use closure for active raptor nesting periods on the BERT?
    - *The lease has an MOU: while under the lease the SH property formangement is OSMP to enforce laws and regulations, doesn't preclude CPW officer enforcement. **Specific to buffer closures, within the MOU is "the most stringent or strict buffer will apply on city-owned, city-leased, or properties within city-limits."***
    - *Around sawhill the eagle and osprey buffers cross boundaries that OSMP manages*

## APPENDIX D - CPW & OSMP MEETINGS

- *Sawhill is in County limits*
- *If you go against recommendations, CPW can do a take if something happens to the wildlife*
- *Public Safety closures at any point (temporary) (e.g. if a moose moved in close by)*
- Does OSMP have the authority to enforce use closures on the BERT outside their property boundaries?
  - Unsure that OSMP could enforce on land that isn't here
  - Ultimate authority is USFWS
  - You can apply for an incidental take (might not be publicly-supported)
- Bald Eagles, Osprey, and other Raptors along RTD ROW, adjacent recreation use and construction closures
  - In the past, CPW has not foreseen use closures on the BERT for active ground nesting birds and raptor nesting periods. We noted that construction of the trail itself may be limited to certain times of year outside these active nesting periods. Do you think this is still feasible?
    - CPW main recommendation is 0.25 buffer for eagle nests, construction will not occur, and possibly a trail use closure (no surface occupancy)
    - If there is a nest in an area with high disturbance rather than "pristine wilderness" there is "wobble room" language
      - 10 daily occupied structures (if habitation within 0.25 miles 660 feet or 1/8th of a mile)
      - **ACTION:** review "highly developed area" language
    - Some nest sites between 75th and 95th are "alternate nests"
      - Near pond 9
  - Is CPW considering adopting changes based on recent eagle nest guidelines from USFWS?
    - ***USFWS, then CPW, then owner, whoever has the most stringent recommendations or rules is who you have to abide by.***
    - ***Gray area: if the nest is on their property you follow their buffer***
      - ***OSMP has indicated 0.5 mile buffer***
      - ***USFWS has ultimate authority***
      - ***Set ID area and not a buffer necessarily***
      - *Q for OSMP: winter night roost recommendations are different than nest sites*
      - *Boulder County will be the ultimate decision maker for permit (take comments from all landowners and stakeholders)*
- Next Steps
  - Would CPW be willing to voice support for the BERT Master Plan in writing? For example, RTD will likely be providing a concurrence memo. We notified those at the Steering Committee of this idea and are planning to discuss this further with partners on an individual basis.

## APPENDIX D - CPW & OSMP MEETINGS

- CPW does not support nor disagree with projects, they will write a letter that says “we worked with you to come up with recommended wildlife impact minimization and here is what they are...”
  - **ACTION:** Tonya to share names of different trail alignments
  - **ACTION:** CPW to share sawhill MOU with BOCO
- What is CPW's sense?
  - Recommendation nest by nest if this is likely highly-developed area
  - CPW (Tyler and Lexi) to do a quick summary to qualify if its a disturbed area
    - Weeks not months (maybe a couple)
  - Caveat that if eagles move that will change things
  - OSMP alignment is second preferable because further than 0.25 mi
  - If you work with CPW and minimize, if you can afford signage to explain why the trail might move a little bit can give public favor
- USFWS
  - Could say “mitigation” is sufficient or not sufficient

**Meeting Notes**  
**Boulder to Erie Regional Trail**  
**CPW and OSMP Coordination**

Wednesday, April 10, 2024

12:00pm - 1:00pm

[Meeting Link](#)

**Meeting Purpose:** Clarify wildlife regulations, existing conditions, and considerations as they relate to the Boulder to Erie Regional Trail (BERT) Master Plan conceptual alignments for further consideration.

**Attendance**

- CPW
  - Cassy Penn, District wildlife officer (Erie)
  - Luke Svare, NE regional trails coordinator
  - Lexi Hamous, NE regional land use coordinator
  - Tyler Aniscar, District wildlife officer (Boulder)
  - Chris: Area
- BERT
  - Tonya Luebbert
  - Kelsey Blaho
  - Bill Mangle
  - Carrie Tanner
  - Cliff Lind
  - Jeffrey Range
  - Laura
  - Conrad Lattes (BOCO Attorney)
  - Ron Beane (ERO Permit/Raptor Mitigation Specialist)
- BOCO
  - Conrad Lattes (BOCO Attorney)
  - Stacey Proctor, Manager of Regional Trails Bikeways
- OSMP
  - Juliet Bonnell, Planner
  - Will Keeley, Senior Wildlife ecologist
  - Heather Swanson, Deputy Director

## Next Steps and Action Items

- OSMP/Otak to coordinate with Will Keeley to provide updated data of coordinates and raptor occupancy and nesting, discuss development of a feature class
  - clear definition of existing level disturbance for each nest
- CPW to update recommendations with updated wildlife locations including OSMP
  - CDR to create a document for more direct wildlife mitigation recommendations from CPW

## Clarifications/Overview of CPW Recommendations

- Active Nest Locations
  - 4 Eagles: ¼ mi buffer
    - ½ mi buffer during nesting season Dec 1 - July 31: closures
    - Does CPW anticipate changed restrictions based on USFWS?
      - No, CPW will maintain recommendations. USFWS can issue a permit
  - 1 Osprey: ¼ mi buffer
  - 1 Red Tailed Hawk: ½ mi buffer
- QUESTION: Avian resources outside of RTD ROW (i.e. along Valmont what has been surveyed?)
  - CPW: High confidence that any other nests would be mapped
  - OSMP: Well used for nesting and foraging
- CPW role: recommendations, appreciate consideration, ultimate authority with Boulder County
- OSMP Role on land outside the own:
  - Nov 1 - July 31
  - fence lines for defensible space
  - no standard; OSMP has not built a trail within ½ mile of nest, mostly because the area around are closed





## APPENDIX D - CPW & OSMP MEETINGS

- Red-tailed hawk and northern harrier, additional

### Eagles

- Heather Swanson, there are plans that have gone through USFWS for the mitigation and disturbance avoidance
- Nest near White Rocks Trail was a pre-existing use to the nest
- Always assumed constriction closures for raptors

### Osprey

- CPW-OSMP: MOU of the osprey platform
  - this pair set up shop while there was some other use existing

### Red-Tailed Hawk

- RTH: There is an occupied nest

**Q:** Is there any room to discuss mitigation holistically beyond the nesting site?

- note about foraging

**Q:** Are there any CPW guidelines for northern harriers?

- No recommendations from CPW
- OSMP—rare to OSMP lands, ¼ mi is what OSMP tends to look at, ground nesting leads to intolerance
  - there is local guidance about the species (look at comp plan)

Conrad:

- OSMP decision making body ends at land

CPW:

- turkey season is starting this weekend so DWM will be busier coming up
  - 2 weeks should work

## APPENDIX D - CPW & OSMP MEETINGS

Hi BERT team,

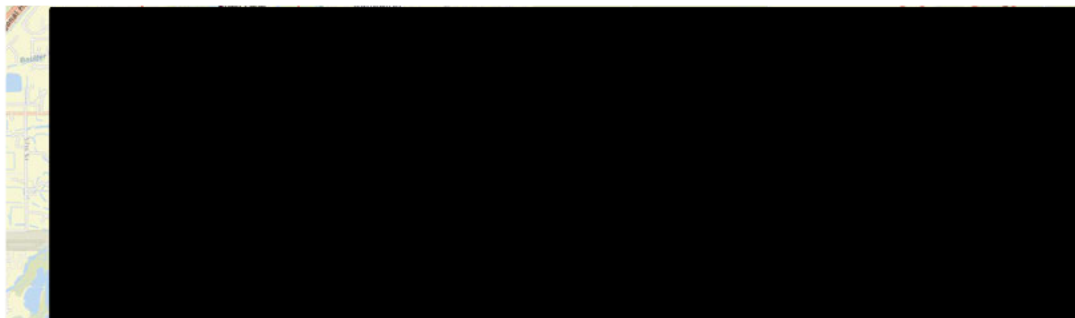
After review of the proposed Boulder to Erie Regional Trail (BERT) and the trail alignments that we were given on March 12th, CPW have proposed the following recommendations:

CPW prefers the Valmont alignment because it avoids the 1/2 mile buffer for 3 out of the 5 active nests in the trail vicinity. We understand this is the least preferred trail for the BERT team but as we stated during the first meeting, this would have the least impacts to wildlife. For the nest on the most western side of the trail, we evaluated its location and regardless of the alignment chosen, we would not recommend a seasonal closure in this particular nest because of the amount of existing disturbance around the nest. This pair of eagles started nesting while the gravel mine to the southeast was active, so they decided to nest even with the disturbance of the mine and the 61st Street daily traffic. Regardless of the trail alignment, we would not recommend a seasonal closure on the most eastern Bald Eagle nest as well. This nest is close to HWY 287, 15 houses, and an access road the neighborhood uses daily, so this pair is also very tolerant of disturbance. This pair has an alternate nest that is very close to the active nest that was displayed on the map that we showed during the meeting, and we are not concerned with this nest unless it becomes active. For all alignments we recommend constructing the trail outside the nesting season (December 1- July 31).

CPW's least preferred alignment would be the one that follows the existing right of way. This alignment is within the 1/4-mile buffer of 2 Bald Eagle nests, and we recommend no surface occupancy within that 1/4-mile buffer year-round. This alignment is also within the 1/3-mile buffer for the Red-tailed hawk nest, which we recommend avoiding during the nesting season (Feb 15- July 15).

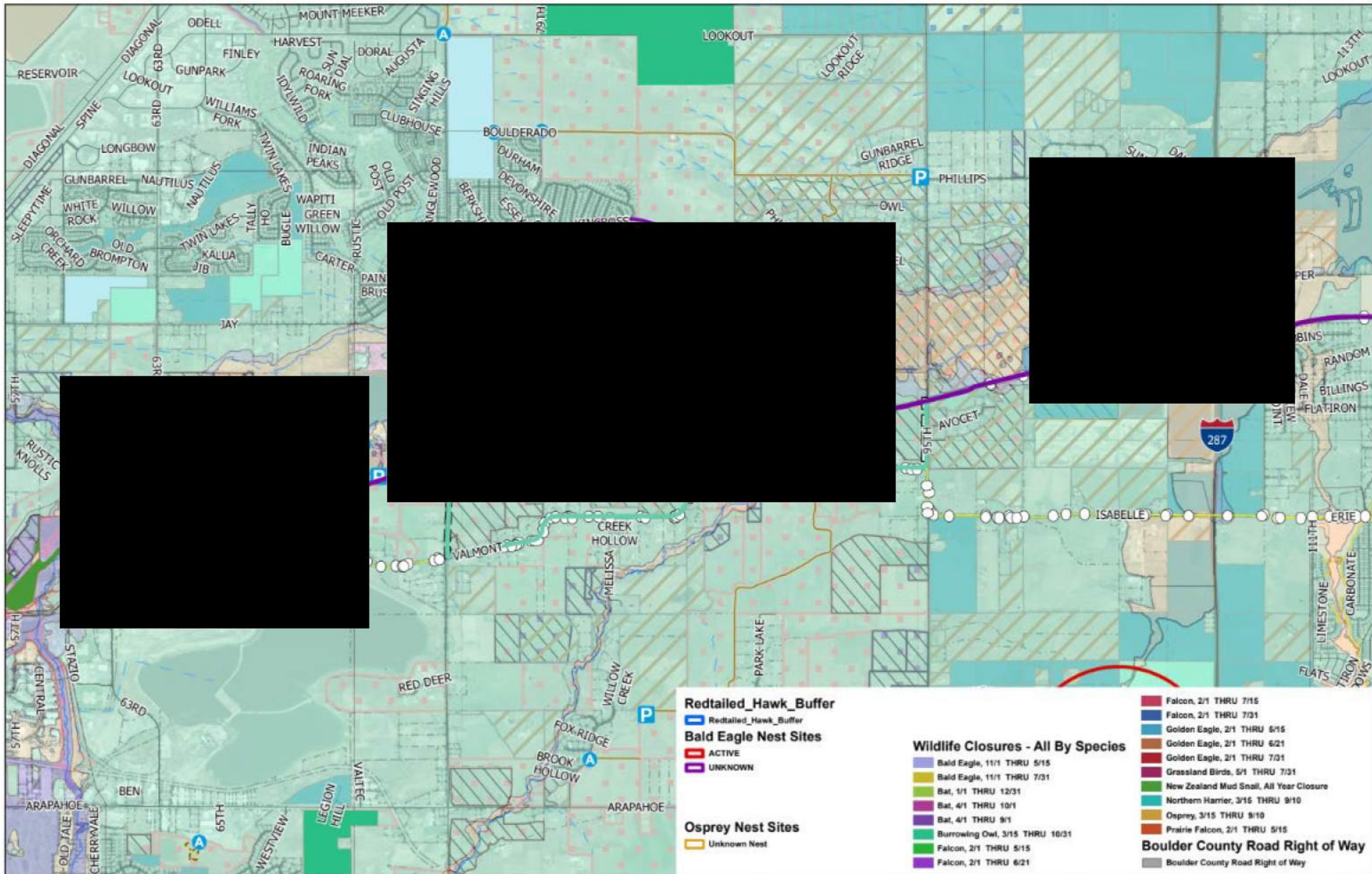
The 3rd alignment that cuts south of the ROW (highlighted in blue on the map below) would be the second preferred alignment because it avoids the 1/4 mile buffer of the 2 Bald eagle nests closer to Boulder Creek and the Red-tailed hawk nest's 1/3 mile buffer. Next to these nests is the Boulder-White Rock Trail, which has a seasonal closure for these nests from (December 1 to July 31). We would recommend the same closure for this alignment since the trail is still within the 1/2 mile buffer of the nests and these nests do not incur as much disturbance as the other nests to the west and east. Lastly, we recommend constructing the trail outside the nesting season (December 1- July 31). I have attached a screenshot of the map with nests identified to reference; two nests have been deemed inactive and/or destroyed; we can identify all of them during the next meeting.

We look forward to discussing these recommendations during the April 10th meeting and are happy to answer any questions you may have.



-Stay Wild,  
Lexi Hamous, MS (She/Her)  
Northeast Region Land Use Coordinator  
Colorado Parks and Wildlife

APPENDIX D - CPW & OSMP MEETINGS



## RTD RAIL TRAIL

### KEETER FAMILY INTERVIEW

July 9, 2020

#### ATTENDEES

Ben Keeter  
Scooter Keeter  
Kent Hogan (kent@hogankeeter.com)  
Tonya Luebbert  
Cliff Lind  
Melissa Rary

#### CONVERSATION NOTES

##### General Feedback

- General understanding and support for the trail
- City sewer project will come through the property
- One Keeter family parcel was sold to Doug & Dawn Peterman; otherwise, the map is accurate

##### User Access

- Busy private road (access easement) connects the northern parcel of the property (with truck traffic) to Valmont. Crosses directly over tracks and RTD ROW
  - License agreement exists for road to cross tracks, family would like this to be maintained
  - Family can provide copy of license agreement if needed
  - May potentially sell northern parcel, but the road from Valmont is the only access for the property, and access easement will be conveyed to new property owner
- Concerned about users accessing their property along the trail
  - Would like fencing or a mechanism to keep people off of their property and from parking on their road
- People currently use their road and park in RTD ROW to access Sawhill ponds for fishing and boating
  - Not an official entrance to Sawhill Ponds
  - Could be a maintenance concern for Boulder County and RTD

##### Alignment

- Prefer alignment on north side of tracks. South side is generally wetter and closer to their property
- Road on north side of the tracks crosses the Green Ditch, which is fairly active

##### Environmental

## APPENDIX D - ADJACENT LANDOWNER INTERVIEWS

- A lot of deer activity - deer cross the tracks every morning
- Osprey next in the area

## RTD RAIL TRAIL

### KEETER FAMILY INTERVIEW

July 29, 2020

#### ATTENDEES

Doug Tiefel  
Willie Tiefel  
Ron Blackwelder  
Tonya Luebbert  
Cliff Lind  
Melissa Rary

#### CONVERSATION NOTES

##### General Feedback / Takeaways

- Trail has been in the works for a while - happy to see it moving forward
- Tiefel/Blackwelder property abuts the south end of County property which is currently leased for grazing

##### 287 Crossing

- Understanding that original plan was to follow Boulder Creek and cross with the Creek
- Recommendation for crossing with Boulder Creek - structure is already in place, and County owns land or has easement from tracks to Boulder Creek crossing along 287
- 287 is very busy, and getting busier - important to have a safe way for trail users to cross

##### User Access

- Consider ways to mitigate trespassing (fencing, etc.)

##### Alignment

- Recommendation for alignment on north side of tracks in between Blackwelder/Tiefel property and Goose Haven
- Prefer alignment on north side of tracks for environmental reasons
- Tiefel family confirmed trail easement along south side of Goose Haven subdivision

##### Environmental

- Creek flooded significantly in 2013 and bridge was rebuilt
  - Flooding during normal year does not rise above rocks along creek
- Blackwelder property uses irrigation ditch for watering on north side of the tracks
- Lafayette Gravel Ditch runs North/South between Tiefel property and Goose Haven Subdivision
  - Jon File, [jon.file@comcast.net](mailto:jon.file@comcast.net), 303-570-0798

## RTD RAIL TRAIL

### Ertl FAMILY INTERVIEW

September 21, 2020

#### ATTENDEES

Twig Ertl  
Nancy Grimes  
Tonya Luebbert  
Cliff Lind  
Aliina Fowler  
Melissa Rary

#### CONVERSATION NOTES

##### General Feedback / Takeaways

- General reluctance about the trail and potential impacts on the environment and surrounding landowners
- The Ertl family did not receive the postcard
  - **ACTION:** Melissa to check to see if their address is on the distribution list

##### Environmental

- The white rocks area is home to a lot of animals, especially along the water bodies (Boulder Creek and ponds)
- Interested in finding ways to keep trail from being detrimental to the environment
- Want to find out more about animals that exist and how/where they will be impacted as it relates to construction and trail use
- Consider it a habitat conservation area
- 

##### Trail Use

- Strong opposition to dogs allowed on trail between 75th and 95th
  - Due to environmental concerns
- Enforcement
  - How to enforce violation of trail usage: speed, animals, etc.
- Management for variety of users (bikers, ebikers, bird watchers, etc.)
  - Potential conflicts

##### Options for Land Owners

- County should consider fencing to keep trespassers off properties

##### Facilities

- Parking
  - How will people park along corridor?
  - Look at alternative modes of transportation to/from trail and connection points
- Restrooms

## APPENDIX D - ADJACENT LANDOWNER INTERVIEWS

- Outhouses are concern - will need enough so people will use those
- Looking at trail connection options - what exists in the corridor
- 95th to 287 is a lot of private property - consider facilities within this area

### Additional Property Owners

- John Cohagen
- Michael Brown & Julia Buonanno
  - 303-931-5365
  - 3641 Duncan lane
- Claire Lyn Dexter
  - 303-665-3969
  - 9307 Valmont
- Tonya Gonzalez
  - 303-815-0688
  - 7929 Valmont
- Scott Pancost
- Shannahan Family



## Meeting Agenda

### RTD Rail Trail Master Plan

### Stakeholder Committee Meeting

July 25, 2018

11:00 am – 12:30 pm

Otak Offices – 371 Centennial Parkway, Suite 200, Louisville, CO

**Meeting Purpose:** Revisit the project purpose, share results of block-by-block meetings, and review initial data review.

11:00 - 11:10 am      Welcome and Introductions

11:10 – 11:45 am	<p><b>Review and Discussion:</b> Review and discuss the final Scope of Work, high-level objectives and goals for the RTD Rail Trail Master Plan, timeline, and associated Community Engagement.</p> <p><b>Objective:</b> Ensure a shared understanding of the desired outcomes, community outreach scope and parameters, and deliverables for the RTD Rail Trail Master Plan</p>
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11:45 am – 12:00 pm	Corridor Overview
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12:00 pm – 12:20 pm	<p><b>Review and Discussion:</b> Initial Data Findings – ROW, Environmental</p> <p><b>Objective:</b> Project Team understands opportunities and constraints for right-of-way, and environmental findings</p>
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12:20 pm – 12:30 pm	<b>Next Steps and Action Item Review</b>
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# RTD Rail Trail

Steering Committee Meeting #1

# Agenda

- 1. Introductions (10 Min)**
- 2. Project Review and Discussion (30 Min)**
- 3. Public Involvement (10 Min)**
- 4. Data Collection Review and Discussion (30 Min)**
- 5. Next Steps and Action Item Review**

# Introductions

**Name**

**Agency**

**Role at Agency**

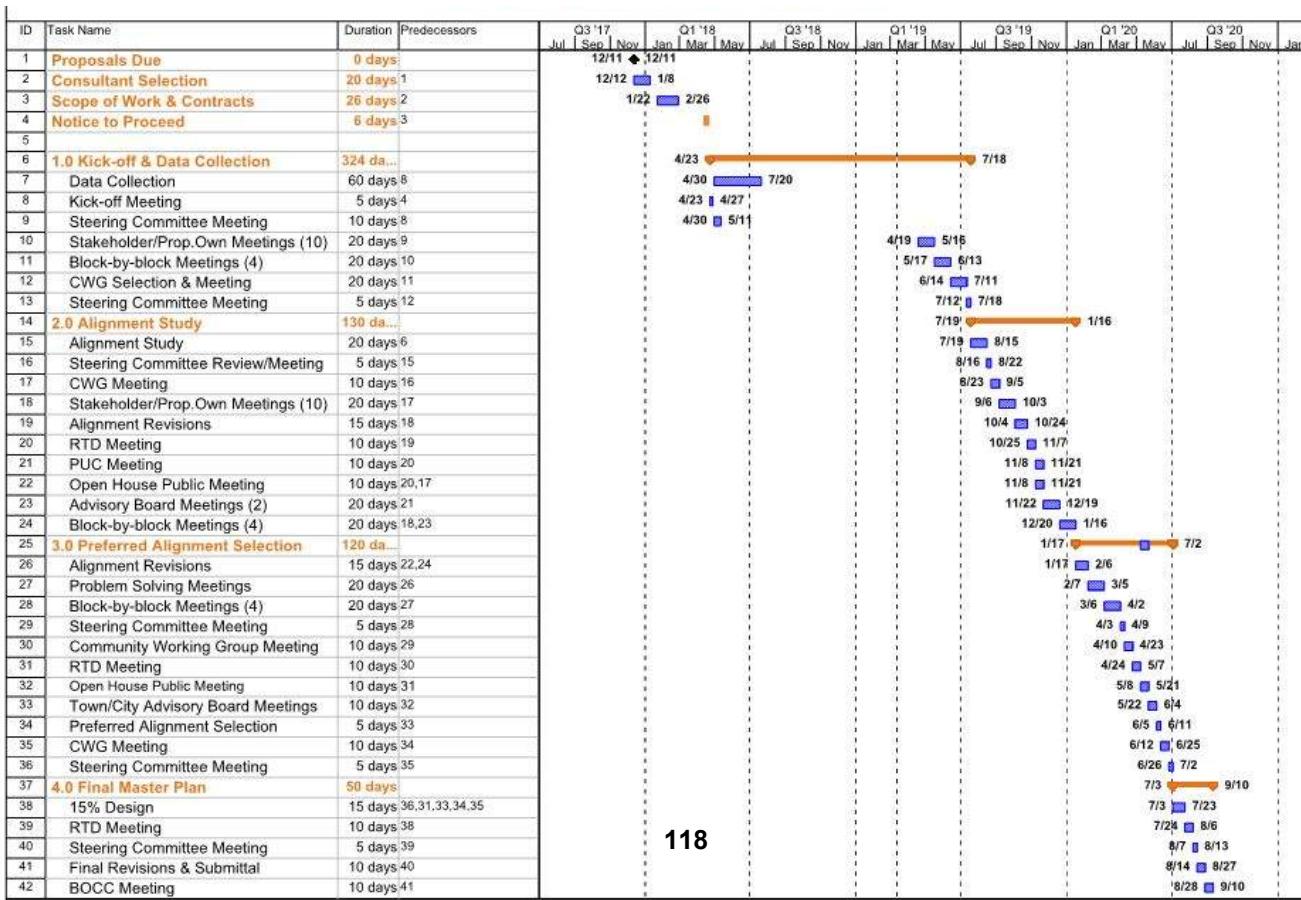
**Plans for an upcoming vacation you are excited about?**

# Project Review

## **Kickoff – May 16, 2018**

- **Reviewed Scope of Work**
- **Reviewed Schedule**
- **Crafted Goals and Vision**
  
- **Project Re-Kicked Off – February 13, 2019**

# New Project Schedule



# Data Collection Review

**Environmental**

**Floodplain**

**Right-of-Way**

**Alignment Mapping**

RTD Rail Regional Trail  
Steering Committee  
July 25, 2019  
Otak

Participants:

Aliina Fowler, ERO  
Anthony Pratt, Otak  
Tim Swope, Boulder County  
Tonya Luebbert, Boulder County  
Lindsay Merz, City of Boulder  
Kacey French, Boulder OSMP  
Jeff Moline  
Mike McGill, Erie  
Matt Spinner, Erie  
Luke Bolinger, Erie  
Allison Kelly, Boulder County  
Kirk Strand, RTD  
Kelsey Blaho , Otak  
Al Hardy  
Mike McGill

**Intro**

- Anthony starts, leads intros
- Project update: dates started, hiatus, re-kickoff, project schedule (starting alignment study now, next steering committee meeting will look at results of alignment study, public engagement is heavy)
  - ACTION: Anthony will send project schedule out to committee
- Update on project vision and goals: read the vision
- Kacey: If we're doing alignment study and not doing OSMP property until 2020, how will we put those things in concert? AP: we're currently looking primarily at the N and S sides of the corridor, once preferred alignment chosen details of issues/constraints/opportunities will be discussed further
- Kirk: There was a competing sewer project and competing Boulder trail (ties in at Valmont). What's the status of the sewer project.
  - Jeff Moline: BoCo has started a planning review. Lindsay, also hasn't heard update, but that it's not in the stretch (61<sup>st</sup>) along the trail. AP: We plan on considering this while looking at alignment
  - Lindsay on trail: Once we get usability permit from RTD, I'm currently at about 30% design. Only need to track the crossing at 61<sup>st</sup>; last heard pulled out of RTD ROW

**Public Involvement – project website further build out (rtdrailtrail.com)**



- What (if anything) committee members had heard from their constituents
  - Erie: we heard concerns that RTD won't let this happen.
- Further Discussion
  - Community Working Group
    - 16 applications received – that's about the desired number so will be formalizing that in near future
      - Kirk: any nonprofits on the CWG? – Not currently but are looking into increasing that involvement
        - Jeff M: Boulder Area Trails Association a possibility; County Nature Association.
        - Tim S: Sierra Club has worked with us previously.
        - Kacey: list of people that are familiar with and active in planning processes, from our 2019;
        - Lindsay: I'll look at Valmont and Andrews bike path, we may have some groups involved in that
        - ACTION: Follow up with Steering Committee
  - Q: you can't zoom in on the map on the website to see alignment, is that intentional?
    - AP: at this point, we don't have an alignment, so it's just a PDF to show termini, segments, and give a high level understanding.
  - Steering Committee members to promote website and project updates at other relevant regularly scheduled meetings, in their networks, with their colleagues, etc.

#### Data Collection

- Environmental: Aliina – ERO did desktop data collection: wetlands, historic sites, railbed is considered a historic resource; biggest hot topics – wetland impacts, endangered species habitats, raptor nests, Preble's Trapping
  - Towards Erie, less wetlands, but more raptor nests
  - Kirk: we have a mowing contractor
  - AF: until we do more alignment work, we can't know how much wetlands, but they are out there.
  - TSwope: Are the number of wetlands in the corridor, is this an opportunity, because the wetlands that are out there are not high quality?
    - AF: Yes, but that's expensive. It depends on if there is funding
  - Looked at CPW data: lots of data. This is a riparian corridor, so there are a lot of species out there
  - Q: what historical and cultural resources did you find?
    - 136 documented: 36 are historical buildings

- APE (Area of Potential Effect) started out large and will get narrowed.
  - Q: are you familiar with how it works when you take a historic site – like the railroad in this case – and turn it to for a new use?
    - AF: yes, it’s possible. We’d need to work with SHPO. It could be everything from mitigation to signage.
  - Swope: One of the places where we’d like to not close seasonally is by Hwy 287 (there are eagle nest sites there), because there are limited places that we can go under the highway. AF: we’d have to look at that. We don’t know what those sites will look like
- ROW (AP)
  - We’ve found some easements, where we can come out of the corridor and be on a trail easement (around 75<sup>th</sup>)
- Floodplain (AP)
  - There’s a lot of water. Otak did 10 year floodplain mapping. Biggest area is 75<sup>th</sup> to 95<sup>th</sup>.
  - Moving towards preferred alignment, we’ll be looking at the areas where there’s floodplains (as well as things like wetlands or nesting sites), where we may need to move across the
  - Kirk: we’ve been looking at cross sections of how the trail and rail can coexist in constrained areas.
    - ACTION: Kirk will share cross sections for constrained sections that have been generated through their sewer line relocation project
  - Erie: we’re about to hire a new parks director. A priority will be to do a master plan for the Wise Farm Open Space.
    - Process to at least be started if not completed in about the next year, exact timing will be up to new director once hired
  - AP: Are there other projects we don’t know about – we know about the sewer, others? Swope: \_\_\_Boulder County Bullhead Gulch floodplain\_\_\_ Goose Haven study, which may provide more opportunities
    - Kirk: someone from BoCo talked about limiting access to ponds to the north. A pest control guy was dumping racoon carcasses. They want to put in a fence across RTD property to stop access for illegal dumping
  - Kirk: At the first meeting we talked about some parcel areas that were contentious. If we need to engage RTD ROW resources (we think we bought 100’ swath from Union Pacific and we think we own it all, but there are all sorts of areas where there’s an easement or other ownership questions), we need to do that sooner rather than later.
    - AP: Yes, we’ll do that once we have an alignment selected.
  - Kirk: I’ve noticed that parcel maps from county are not updated – something to be aware of that data from the county is not always entirely up to date

- Jeff M: are reports – like environmental report – will they be made available to the public?
  - AP: Yes, once we hone in the mapping, we won't be showing sensitive sites. It's important to narrow down the alignment, in order that there's a better sense of the actual impacts. Then we'll be releasing.

**Next Steps:**

- AP – start looking at the alignment as a whole; we'll review alternatives and select a preferred alignment (includes crossings 287, 61<sup>st</sup>, \_\_\_\_\_, and understanding what's possible – e.g., bridge or underpass – and what
- ACTION – Lindsay sending 30% design to Tonya
- Kirk – is there a chance you'll be going back and forth from north to south?
  - AP – probably.
  - Kirk – you should coordinate those with us, because there will be resistance within RTD to adding new permanent rail crossings. You just need to stay as far away from the railroad as possible and try to stick to existing crossings
  - Is there a distance that's too close?
    - Kirk – I'll send the cross section (ACTION), 50ft section becomes more problematic than 100ft section
    - If you're going to get closer to the tracks than you think we'll like, we'll have a bigger RTD meeting to discuss.
    - AP – once we have our preferred alignment, let's have an RTD meeting.
  - Crossing close to the rail (especially at grade) but probably above and below as well will bring the state into the discussion to some extent

## Meeting Agenda RTD Rail Trail Master Plan Stakeholder Committee Meeting

Friday, May 1, 2020  
2:00 pm – 3:00 pm  
Virtual Meeting

**Meeting Purpose:** Review past actions, review alignments, and discuss next steps of the project.

2:00 – 2:05 pm      Welcome and Introductions

2:05 – 2:20 pm	<p><b>Review and Discussion:</b> Review and discuss actions since last steering committee meeting.</p> <ul style="list-style-type: none"> <li>1) <b>Schedule</b></li> <li>2) <b>Project Delays/Changes – E-Bikes, COVID-19</b></li> <li>3) <b>CWG Meetings</b></li> </ul> <p><b>Objective:</b> Ensure a shared understanding of actions conducted since last summer.</p>
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2:20 pm – 2:45 pm	<p><b>Review and Discussion:</b> Alignment Overview</p> <p><b>Objective:</b> Review and comment on proposed alignments based on stakeholder input. Discuss potential crossing of roadways.</p>
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2:45 pm – 3:00 pm	<p><b>Next Steps and Action Item Review</b></p> <ul style="list-style-type: none"> <li>1) Policy Maker Meetings – Board, Elected Officials, etc.</li> <li>2) Community Working Group - Meeting</li> <li>3) Public Meetings – Neighborhood workshops and Open House</li> </ul>
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## Meeting Minutes

**Meeting: RTD Rail Trail – Steering Committee Meeting**

**Project No.: 018509.C00**

**Meeting Date: May 1, 2020**

**Meeting Time: 2pm**

**Location: Zoom Virtual Meeting**

**Attendees:**

**Minutes By: Kelsey Blaho / Jeffrey Range**

### Updates

- Schedule
  - Project activities paused for a few months in 2019 to clarify policy on E bikes on trail
- Stakeholder Meetings
- Community Working Group
  - 16 Residents for Corridor Working Group
  - Interested in maintaining closer connection between working group and steering committee (less working in silos)
    - Idea to have steering committee member sit in on working group meeting so both groups know what the other group is doing
    - General consensus/agreement that is a good idea, beneficial to project process
    - Steering Committee member to give presentation on activity of steering committee, then answer questions that working group might have
    - **ACTION/DECISION** Luke Bolinger (Town of Erie - Parks) – volunteer to serve that role  Luke and Jeffrey to work out talking points and then run by steering committee group to make sure everyone is aware and signs off on what will be discussed
- Currently in the Alignment Phase of the project
  - Open House Meetings + Neighborhood Workshop Meetings  Combined based on attendance patterns at previous round of meetings

### Alignment Overview

- Start discussion West  East on trail
- **ACTION/DECISION** Starting point of trail around 61<sup>st</sup> (not at “bridge to nowhere”)
  - Alignment for other project (City of Boulder trail project) in the area that this trail would connect into

This information has been recorded in accordance with our applicable standard of professional care. If we do not receive any comments within five business days of receipt we will finalize these minutes as drafter for the project file.

## Recreation/ Visitor Experience Opportunities Workshop

- o Alignment sent to Tonya - perhaps not share/show public, might show older version of alignment already seen by public
- o Will somehow note that this trail will connect to city trail
  - In maps for public consumption, start maps at updated Western terminus (61<sup>st</sup> Street)
- Is any crossing onto the RTD rail bed acceptable in any location if necessary? For example, areas with wetland on both sides?
  - o Overall goal = avoid rail bed all together, in reality will be some areas where it is up on the rail bed
    - **ACTION / DECISION** – RTD agrees that the study can proceed with current, draft alignment, understanding that establishment of a preferred alignment is forthcoming and will need to adhere to the original agreement that the trail cannot preclude future rail service.
    - Will be up for negotiation once more detailed plans for a preferred alignment is developed
    - Technical team to proceed with development of preferred alignment, to be dependent in the end on negotiations and original agreement to not do anything that would preclude putting a train through the area, and anything that is done and needs to be undone for a train later will be done at the cost of the county
  - ☐ **ACTION / DECISION** - Meeting will be scheduled with RTD to discuss alignment in more detail and get approval from them before anything is shown to the public
- Trailheads
  - o Initial idea to utilize already existing trailheads to the extent possible based on study of volumes and amenity accommodations that are already existing
  - o At the very least, existing trailheads would accommodate connection to this new trail as people will most likely use it for access anyway since it's already all there
  - o Any standard spacing requirement for trailheads on trails?
    - Not specifically from the county for county regional trails
    - Focused more on us and adjacent patterns of development that might benefit from connection to the trail as opposed to specific spacing independent of context
  - ☐ **ACTION / DECISION** – Set up meeting with OSMP to discuss trailheads and what might be needed at each trailhead, if facilities need expansion, etc. (meeting to take place later in project process)
- 287 Crossing Options
  - ☐ Need to distinguish between open space ownership in the area (city vs county vs towns) on the maps, especially in the areas where it is mixed
  - o Definitely worth discussing the routing options as a department (BoCo POS)
    - Part of the idea with the longer route option is that if the crossing just looks like an out of the way reroute then people likely won't use it, they will just cross 287 which is an issue

*Recreation/ Visitor Experience Opportunities Workshop*

- \_\_\_ If the crossing route is a more pleasant route with scenery and looks like it's more than just an out and back longer detour then people might be more likely to actually use it/follow it
  - ☑ Anthony to send more detailed map for internal discussion of nuance of crossing route options
- Additional Questions, Comments, Concerns
  - No current plans for Wise Farm area (Luke, Town of Erie)
    - Farming to continue in the area for the foreseeable future
  - The trail stays totally in the ROW next to OSMP lands (Kacey French, Boulder OSMP)
  - Development proposal currently in review by RTD for at-grade crossing of tracks, uphill battle (Kirk, RTD)
  - RTD would need to look at the alignments specifics in more detail to make sure they feel comfortable with the proposals
  - 61<sup>st</sup> and Belmont – Subaru Dealership encroaching on RTD ROW, current ongoing legal issue taking place (Kirk, RTD)

Next Steps

- Policy Maker Meetings
  - **ACTION / DECISION** – Create materials for elected officials
- Community Working Group
- Public Meetings
  - **ACTION / DECISION** – Get materials approval from OSMP and POS prior to bringing to public; Distinguish on maps Boulder County and City of Boulder properties
- ☑ Like to do another site visit for project team to walk the alignment
  - Coordinate with RTD, shouldn't be an issue with proper protocol regarding social distancing, etc.
- ☑ Kirk to double check details with safety staff

# Meeting Agenda

## Boulder to Erie Regional Trail (BERT)

# Steering Committee Meeting

Friday, February 24, 2023

10:00 am - 11:30 am

Otak Offices | 371 Centennial Parkway, Suite 210 | Louisville, CO 80027

[Teams Meeting Link](#)

**Meeting Purpose:**

- Update Steering Committee on the project status, progress, and next steps
- Understand corridor-wide updates that impact the project
- Review and discuss evaluation criteria

TIME	AGENDA ITEM
10:00 - 10:15 am	<b>Welcome and Introductions</b>
10:15 - 10:40 am	<b>Review: Project Updates</b> <ul style="list-style-type: none"> <li>● Project Overview</li> <li>● Where We Left Off</li> <li>● Expanded Scope</li> <li>● OSMP MOU</li> <li>● Schedule and Activities</li> <li>● Ongoing Outreach</li> </ul>
10:40 - 11:00 am	<b>Discussion: Related Corridor Updates</b> <ul style="list-style-type: none"> <li>● East Boulder Creek Management Plan</li> <li>● Erie Open Space / Trails / Development</li> <li>● Rail Bike</li> <li>● Other?</li> </ul>
11:00 - 11:20 am	<b>Discussion: Evaluation Criteria</b> <ul style="list-style-type: none"> <li>● Project Goals and Process</li> <li>● OSMP Input</li> <li>● High level overview of Evaluation Criteria</li> <li>● Initial reactions</li> </ul>
11:20 - 11:30 am	<b>Next Steps and Action Item Review</b>





## Steering Committee Members

Tonya	Luebbert	Boulder County - CP&P
Stacy	Proctor	Boulder County - CP&P
Tim	Swope	Boulder County - PW
Allison	Kelly	Boulder County - PW
Jarret	Roberts	Boulder County - POS
Justin	Atherton-Wood	Boulder County - POS
Jeffrey	Moline	Boulder County - POS
Lindsay	Merz	City of Boulder - Transportation & Mobility
Kacey	French	City of Boulder - OSMP
Juliette	Bonnell	City of Boulder - OSMP
Dan	Marcucci	CDOT
Tyler	Asnicar	CPW
Luke	Svare	CPW
Luke	Bolinger	Erie
Mike	McGill	Erie
Matt	Spinner	Erie
Carlos	Hernandez	Erie
Chris	Quinn	RTD
Kirk	Strand	RTD
Cliff	Lind	Otak
Kelsey	Blaho	Otak
Melissa	Bade	CDR
Laura	Hickey	CDR
Bill	Mangle	ERO
Carrie	Tanner	ERO





**BERT Steering Committee Meeting**  
**Friday, February 24, 2023**



**Boulder to Erie Regional Trail (BERT)**

130



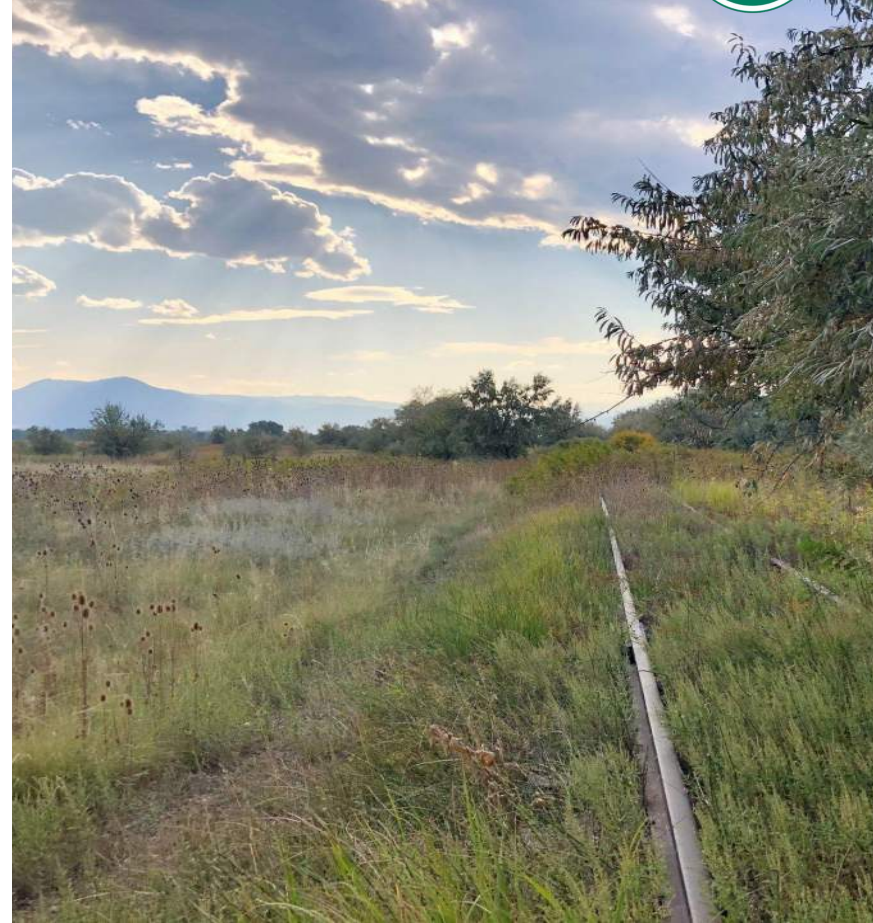
**CDR ASSOCIATES**  
COLLABORATIVE DECISION RESOURCES



# AGENDA



1. Welcome & Introductions
2. Project Updates
3. Related Corridor Updates
4. Evaluation Criteria
5. Next Steps & Action Items



# INTRODUCTIONS



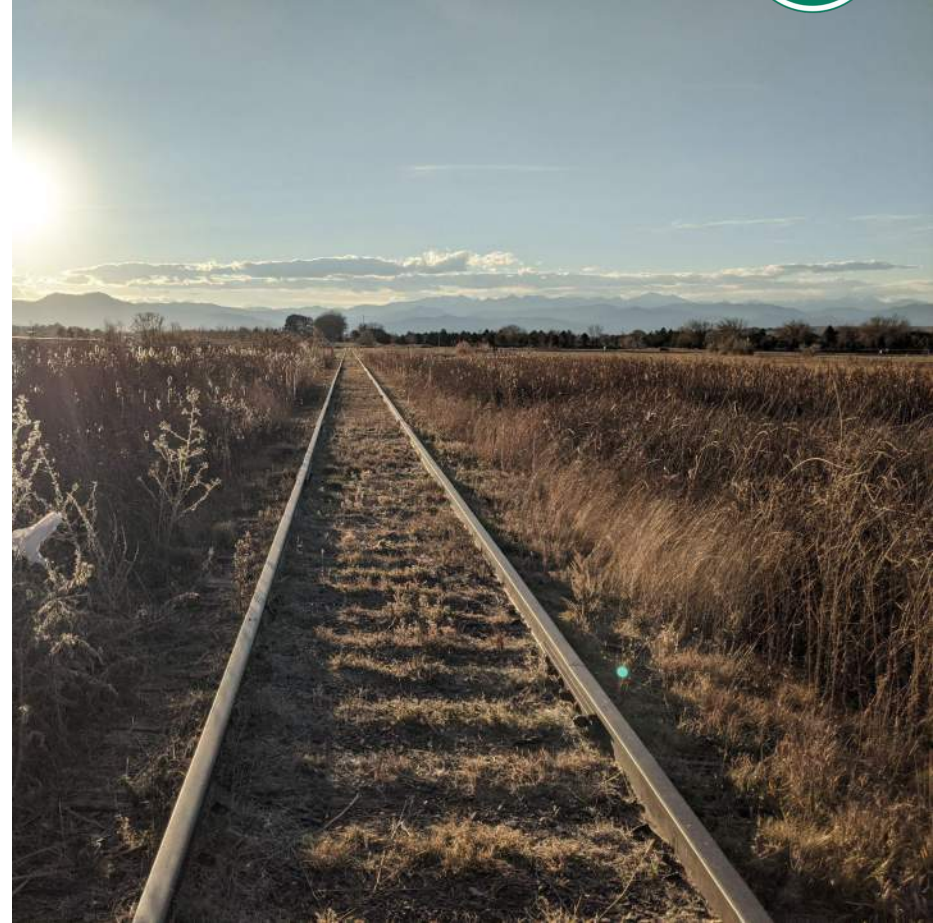
- Name
- Organization or Affiliation
- Role with BERT
- What are you looking forward to once the weather is warmer?



# PROJECT UPDATES



- Project Overview
- Where We Left Off
- Expanded Scope
- OSMP MOU
- Schedule and Activities
- Ongoing Outreach



# PROJECT UPDATES: Project Overview



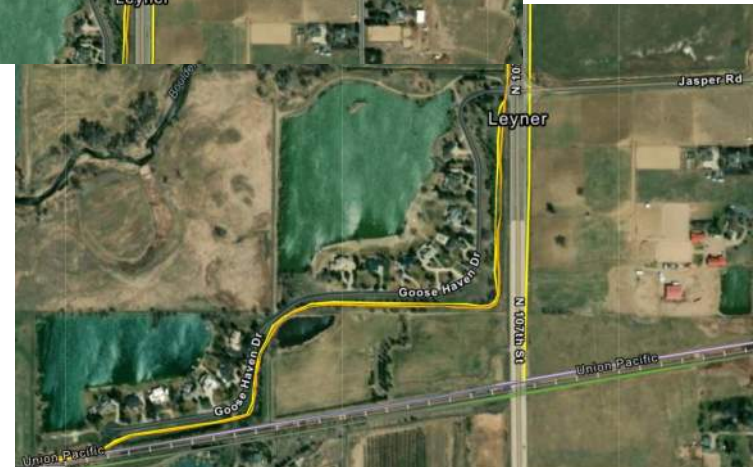
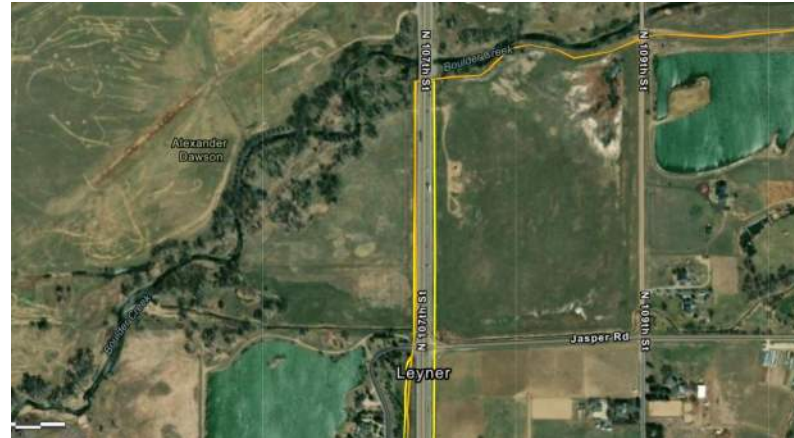
- Evaluating options for the creation of a new soft-surface regional trail linking the City of Boulder and Erie
- Connection identified in the county's regional trails prioritization process in 2003 and is eligible for funding through the Countywide Sales Tax Ballot passed by voters in 2007
- Boulder Valley Comprehensive Plan and Boulder County Transportation Master Plan identify this trail connection as an important link



# PROJECT UPDATES: Where We Left Off



- Last Steering Committee meeting was in Spring of 2020
  - ◆ Virtual meeting after pandemic hit
- Discussion at meeting focused on alignment options, particularly crossings
  - ◆ Discussion of options for 287 crossing
- Some field work done to walk alignment and meet with landowners regarding crossings



# PROJECT UPDATES: Expanded Scope



- Expanded scope considered in 2020 due to concerns from stakeholders and Boulder County BOCC
- Engagement with Native American tribes and community members
- Addressing environmental concerns by considering additional alignments





# PROJECT UPDATES: OSMP MOU



- Signed Fall of 2022
- Resulted in agreement to include City of Boulder-owned and other lands managed by OSMP outside the RTD rail corridor in this process
- Master planning process will explore the RTD rail corridor, Boulder County right-of-way, and alignment options on OSMP property outside the RTD rail corridor



# PROJECT UPDATES: Schedule and Activities



- Development of evaluation criteria
- Performing an alternatives analysis using that evaluation criteria
- Selecting the conceptual trail alignment(s) for further consideration
  - ◆ Not intended to result in preferred alignment



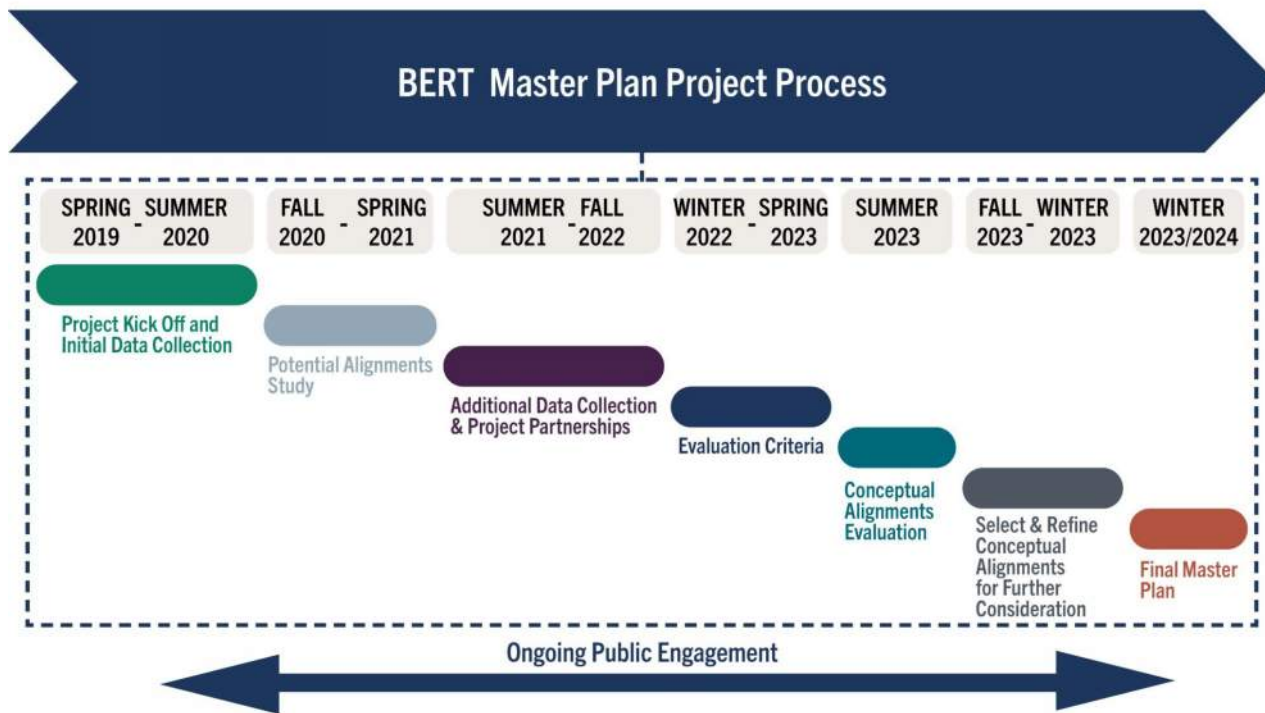
The Boulder to Erie Regional Trail (BERT) Master Plan project is an important step in creating a trail that we can walk, roll, run, ride and enjoy between Boulder and Erie. However, it's not the only step and not the last step. To understand the complex process it will take before a trail is completed and ready to enjoy, take a look at the diagram above.

We're in the BERT Master Plan Project Process phase, which will result in the BERT Final Master Plan. When the Master Plan is completed, we will identify funding sources and potential phasing. After that, we will move into final design and engineering. Throughout this process, Boulder County will work on obtaining all the necessary approvals and permitting. It is likely that the trail will be built in sections as funding allows.

When all segments are built, we'll be able to experience the trail in its entirety.



# PROJECT UPDATES: Schedule and Activities



# PROJECT UPDATES: Schedule and Activities



February 24 <sup>th</sup>	Steering Committee Meeting	Discussion of project updates and introduction of the Evaluation Criteria
March 31st	Evaluation Criteria Review Deadline	Steering Committee to submit response/comments on evaluation criteria to team
4 <sup>th</sup> Week of May	Connectivity Workshop	Workshop to discuss potential conceptual alignments and connectivity options
2 <sup>nd</sup> Week of July	Open House/ Public Meeting	Open house/public meeting around initial conceptual alignments
First 3 weeks of October	Steering Committee Review of Evaluation Criteria Grading	Steering Committee members to have opportunity to review evaluation criteria grading of conceptual alternatives
2 <sup>nd</sup> Week of January 2024	Steering Committee Meeting	Presentation of conceptual alignments for further consideration for review and input. Revisions will be made prior to other outreach and public meeting
First Week of February 2024	Open House Public Meeting	Open house/public meeting around conceptual alignments for further consideration
3rd Week of February 2024	Steering Committee Meeting	Presentation of Final Master Plan for review and input. Revisions will be made prior to other outreach and final submittal
First Week of March 2024	Final Submittal	Final Master Plan submittal

# PROJECT UPDATES: Ongoing Outreach



- Steering Committee
- Native American tribes and community members
- Community Working Group (**April 13, 4-6pm**)
- Public Meetings
- Ongoing Conversations with Landowners and Neighbors



# RELATED CORRIDOR UPDATES



- East Boulder Creek Management Plan
- Erie Open Space / Trails / Development
- Rail Bike
- Other?



Rail Bike along the Hudson River near New Creek, New York

# EVALUATION CRITERIA: Project Goals and Process



- Identification of reasoning for trail
- Identification of project goals
  - ◆ Transportation and Recreation
  - ◆ Increased Safety
  - ◆ Multi-Use
  - ◆ Low Environmental and Cultural Impacts
  - ◆ Implementable
  - ◆ Low Adjacent Property Impacts
  - ◆ Trail User Experience
- Informs Evaluation Criteria



# EVALUATION CRITERIA: Overview



Boulder - Erie Regional Trail

January 30, 2023

**CONCEPTUAL TRAIL ALIGNMENT ANALYSIS**

	Highly Favorable
	Favorable
	Neutral
	Unfavorable
	Highly Unfavorable

Categories	Evaluation Considerations	Conceptual Alignment 1		Conceptual Alignment 2		Conceptual Alignment 3	
		Value	Comment	Value	Comment	Value	Comment
		<b>SAFETY</b>	Roadway Crossings Hwy 287 Crossing Driveways and Other Access Crossings User Sight Distances				
<b>RESOURCE CONSIDERATIONS</b>	New Habitat Fragmentation Wetlands T&E or Sensitive Species Habitat Floodplains Proximity to Cultural Sites Agricultural Use, Productivity and Management Ditch Operations and Maintenance						
<b>IMPLEMENTATION AND MAINTENANCE</b>	Uses Existing Facilities/Right of Ways Compatibility with Future Development/Redevelopment Maintenance Cost Improvement Costs Construction Impacts						
<b>ADJACENT PROPERTY CONSIDERATIONS</b>	Availability of BOCD or RTD ROW and property to complete the project Use of OSMP Property Property Owner Cooperation (potential for right-of-way or easement acquisition) Property Acquisition Costs Adjacent Land Uses						
<b>TRAIL USER EXPERIENCE</b>	Directness of Alignment Recreational Value Connectivity to Existing or Potential Trailheads and Trails						



# EVALUATION CRITERIA: Discussion



- What are your initial takeaways from the Evaluation Criteria?
- Do you have any immediate questions or concerns?

*Next Step: The project team will distribute the evaluation criteria including OSMP input for further review and comment by March 31, 2023.*



## CONTACT US

Tonya Luebbert, Regional Trails Planner  
tluebbert@bouldercounty.org

Visit the Website: [RTDRailTrail.com](http://RTDRailTrail.com)



CDR ASSOCIATES  
COLLABORATIVE DECISION RESOURCES



## Meeting Notes

### Boulder to Erie Regional Trail

# Steering Committee Meeting

Friday, February 24, 2023

10:00 am - 11:30 am

Otak Offices | 371 Centennial Parkway, Suite 210 | Louisville, CO 80027

[Attached: Presentation, Map]

#### Meeting Purpose:

- Update Steering Committee on the project status, progress, and next steps
- Understand corridor-wide updates that impact the project
- Review and discuss evaluation criteria

#### Welcome and Introductions

Melissa Bade opened the meeting and welcomed all virtual and in-person attendees. Attendees introduced themselves and shared what they are looking forward to in warmer weather, sharing excitement for getting back on trails.

#### Review and Discussion of Project Updates

##### Overview of Project

- Corridor map
- Project background
  - Voters of Boulder County passed a sales ballot initiative in 2001, then 2007, and again in 2022 that supports funding for trails construction. Additional necessary funding for construction will be through grants, with this sales tax funding serving as a match for those opportunities.

**Q:** How much money is remaining from the 2007 sales tax toward this project?

**A:** The 2007 sales tax expired

**Q:** When does the sales tax expire?

**A:** 2007 expired in 2020, 2022 passed initiative is in perpetuity

**Q:** How are trails prioritized for the new 2022 sales tax? Where does BERT fall?

**A:** This project is in the first 15 year timeline, where it falls in the 15 years will be determined by the BERT Master Plan

**Q:** What is the timeline for this study?

**A:** Goal is to finish in early 2024



Boulder to Erie Regional Trail (BERT)



CDR ASSOCIATES  
COLLABORATIVE DECISION RESOURCES



- Where We Left Off
  - Last Steering Committee meeting was focused on the 287 crossing. Some field work was done to walk the alignment and meet with landowners along potential alignments—*these alignments across 287 are still in consideration*
- Expanded Scope
  - Community encouraged greater Tribal engagement
  - Addressing environmental concerns by considering additional alignments
    - In late 2020/early 2021 the County Commissioners gave Tonya the direction to consider wildlife and ecosystem concerns in the segment of the RTD corridor between 75th and 95th, introducing new trail route options

**Q:** What are the environmental concerns?

**A:** This area has a lot of wetlands and rare plant populations and falls within the buffer of bald eagle nests. It is also located close to the border of protected areas identified in the Boulder County Comprehensive Plan

- OSMP MOU
  - Signed in Fall 2022 to accommodate environmental concerns, additional routes are on City of Boulder OSMP lands

### Schedule and Activities

- Project next steps
  - Outcome for current phase (Final Master Plan) are additional alignments for consideration
  - We are in the writing evaluation criteria phase, concept evaluation to follow in order to select 2 or 3 alignments for the master plan.
  - *The current effort is only for the Master Plan, Design and further steps will need to be scoped and contracted*
- Schedule
  - Early May: Connectivity Workshop will look at potential alignments and discuss connectivity, any challenges
  - **ADVICE:** Public Meeting should not be held first week of July
  - Erie is willing to do a walk-tour/field day from downtown Erie westward, could replace a workshop in a room with maps
  - **UPCOMING EVENT:** Erie town festival in May

→ **ACTION:** Project Team to touch base with Boulder Parks and Opens Pace about coordinated public outreach and upcoming events



**Discussion: compartmentalizing and phasing of construction for funding ease**

- From the Erie lens, RISE grants and other funding for design are coming up in the next 3-6 months so we would like to apply. There are concerns of “a trail to nowhere,” but 95th street connects to valmont trail network, and the segment east of 95th could be easier and thus constructed earlier
- Boulder is supportive of phased construction but would like to finish the master plan ahead of seeking any construction funding
- Erie clarifies that applying this year for funding would provide funding to be accessed in 2025  
They have pre-drafted a grant for \$1.5 million. The trail doesn’t need to be in design or construction to qualify and 4 of 5 grants don't require the master plan to be complete, so the trail mention in other plans will suffice

→ **ACTION:** Tonya to follow up with Carlos regarding grant opportunities

**Ongoing Outreach**

- Steering Committee
  - Review evaluation criteria, preferred alignments, and final master plan
- Tribes and Native American groups
  - Sharing a handful of letters and connecting to specific local groups through CCIA
- Community Working Group
  - This is a group of 15-20 volunteer community members. The original group was a lot of cyclists interested in commuting. Additional members are environmental groups, adjacent neighbors, equestrian groups, and a CU representative.
  - Next meeting April 13, 4-6pm, information-sharing
- Public Meetings
  - Erie notes to be mindful about what questions we’re asking—meaningful connections that are tied to a specific decision (e.g. would you like us to build it all at once? Is phasing a satisfying option?)
- Ongoing Conversation with Landowners and Neighbors
  - Erie offers support by connecting to a network with Green Latinos, faith-based organizations, etc. to engage voices that are often left out
  - Suggested Contact: Marina La Grave
  - Western end: San Lazaro Community. Boulder Parks and Open Space has ranger outreach connections
  - In 2019 and 2020 we held neighborhood meetings along the corridor, we could explore revisiting those moving forward

→ **ACTION:** Jeff to share a stakeholder list that includes organizations, media outlets to reach underserved communities



**CLARIFICATION:** Certain segments may only have one suggested alignment, and the area of concern (75th to 95th) will likely have multiple

**Discussion: Related Project Updates**

<p><b>East Boulder Creek Management Plan</b> Boulder Parks and Open Space</p>	<ul style="list-style-type: none"> <li>• A collection of 5 properties, 1370 acres, roughly from Jasper &amp; Kenosha north, between 287 and east county line</li> <li>• In Phase 1: talking about options for trails, trail connections, doing some engagement, 700+ survey responses</li> <li>• Phase 2: Spring and Summer 2023, public outreach to begin in late april or may</li> <li>• Plan wrapped up by EOY, implementation to follow</li> <li>• Will be meeting with staff/stakeholders in Erie next week</li> </ul>
<p><b>Rail Bike</b> Erie</p>	<ul style="list-style-type: none"> <li>• Private operator will launch in April/May 2023</li> <li>• Will run from Downtown eastward, westbound route will end at 287</li> <li>• Flaggers for at-grade crossings</li> <li>• 5 year real estate agreement, works within current maintenance</li> </ul>
<p><b>Transportation and Mobility Plan</b> Erie</p>	<ul style="list-style-type: none"> <li>• Last plan was in 2013</li> <li>• Lots of post-pandemic interest in walking, cycling</li> <li>• Have a group of cyclists advocating for BERT</li> <li>• On-street connection along Isabelle held up because of a lawsuit</li> <li>• Could underpass at 287</li> <li>• Neighborhood connections are really important as Erie grows</li> </ul>
<p><b>Trail Connections Improvements</b> Erie</p>	<ul style="list-style-type: none"> <li>• From east county line to 119th, on the south side of RTD RoW</li> <li>• Canyon creek: trail plan near completion</li> <li>• Lafferty Property: plan underway</li> <li>• One private landowner parcel directly west of 119th</li> <li>• East of 119th is Open Space and will undergo a full master plan</li> </ul>
<p><b>Valmont Multi-use Path</b> City of Boulder</p>	<ul style="list-style-type: none"> <li>• South Boulder Creek to 61st</li> <li>• Just finished 75% plan, now working on permitting and agreements</li> <li>• Goal: obtain funding to start construction at end 2023/start 2024</li> <li>• Boulder County is working towards safe crossing on 61st just north of Valmont section</li> </ul>

**Evaluation Criteria**

**Project Goals and Process**

- Evaluation Criteria were part of the expanded scope, mostly due to concerns related to 287 and 75th to 95th section



- Revisited goals for the Trail system (transportation, recreation, safety, low impacts, and providing a quality trail user experience) to inform development of criteria
- Looking for input from SC, CWG, and Public on the criteria
- Shared version of criteria for review will include OSMP edits
- Design Team will do the scoring using these criteria and share with experts for comment (e.g. Steering Committee members for comment)
- Public version will share the “categories” column only

**Use for Evaluation Criteria**

- To keep alignments in touch with the critical needs of stakeholders
- Help identify strengths and weaknesses of each alignment to support selection of a preferred alignment

**High level overview of Evaluation Criteria**

- Categories: Safety, Resource Considerations, Implementation + Maintenance, Adjacent Property Considerations, Trail User Experience
- Each category has 4-5 evaluation considerations
- Scale from Highly Unfavorable to Favorable

**Initial Reactions**

**Q:** Can you explain what a “green” Roadway Crossings rating is?

**A:** might relate to the safety what specific roads are crossed, what kind of crossing is suggested

**Q:** Can you elaborate on what “safety” refers to?

**A:** Speaks to safety of trail users and vehicles, assuming that an underpass is safer than a on-street crossing with a traffic signal

**Q:** Can Erie weigh in on the evaluation of alignments, at least in their section?

**A:** Design team will fill in the evaluation and share with experts for comment and connectivity workshop with Steering Committee will inform evaluation

**Q:** Is it the alignment analysis or features analysis? Erie wants to make sure there is an off-street connection, and not leaning only on Isabelle St.

**A:**

**Next Steps and Action Item Review**

**Review Draft Evaluation Criteria**

- We want to make sure the criteria are reflective of what's important to the steering committee
- **ACTION:** Project Team touch base with Boulder Parks and Opens Pace about coordinated public outreach and upcoming events
- **ACTION:** Tonya follow up with Carlos regarding grant opportunities



- **ACTION:** Jeff share a stakeholder list that includes organizations, media outlets to reach underserved communities with Tonya
- **ACTION:** Digitally share criteria document with Steering Committee, return comments by March 17th





Attendees

Name		Organization	Virtual	In-Person
Tonya	Luebbert	Boulder County - CP&P	•	•
Stacy	Proctor	Boulder County - CP&P	•	•
Tim	Swope	Boulder County - PW	•	•
Allison	Kelly	Boulder County - PW	•	•
Justin	Atherton-Wood	Boulder County - POS	•	•
Jeffrey	Moline	Boulder County - POS	•	•
Lindsay	Merz	City of Boulder - Transportation & Mobility	•	•
Juliette	Bonnell	City of Boulder - OSMP	•	•
Dan	Marcucci	CDOT	•	•
Luke	Bolinger	Erie Parks & Recreation	•	•
Matt	Spinner	Erie Parks & Open Space	•	•
Carlos	Hernandez	Erie Transportation Manager	•	•
Kirk	Strand	RTD	•	•
Cliff	Lind	Otak	•	•
Kelsey	Blaho	Otak	•	•
Melissa	Bade	CDR	•	•
Laura	Hickey	CDR	•	•
Bill	Mangle	ERO	•	•
Carrie	Tanner	ERO	•	•



# Meeting Agenda

## Boulder to Erie Regional Trail

# Steering Committee Meeting

Monday, February 26, 2024  
 1:00pm - 2:30pm  
 Erie Community Center | 450 Powers St | Erie, CO 80516  
[Meeting Link](#)

**Meeting Purpose:**

- Update Steering Committee on the project status, progress, and next steps
- Review graded alternatives and survey results, discuss any questions/comments

Time	Agenda Item
1:00 - 1:10 pm	<b>Welcome and Introductions</b>
1:10 - 1:25 pm	<b>Project Updates</b> <ul style="list-style-type: none"> <li>● Where We Left Off</li> <li>● Recent Partner Coordination</li> <li>● Schedule and Activities</li> <li>● Outreach</li> </ul>
1:25 - 2:00 pm	<b>Alignment Evaluation Overview</b> <ul style="list-style-type: none"> <li>● Grading Process Overview</li> <li>● Results Overview and Takeaways</li> <li>● Discussion: Any final thoughts?</li> </ul>
2:00 - 2:10 pm	<b>Survey Overview</b> <ul style="list-style-type: none"> <li>● Key Themes</li> </ul>
2:10 - 2:30 pm	<b>Next Steps</b> <ul style="list-style-type: none"> <li>● Spring 2024                             <ul style="list-style-type: none"> <li>○ Selection of Alignment for Further Consideration</li> <li>○ Project Webpage Update</li> <li>○ Steering Committee Meeting</li> <li>○ CWG Meeting</li> <li>○ Public Meeting</li> </ul> </li> <li>● Summer 2024                             <ul style="list-style-type: none"> <li>○ Final Master Plan Document</li> <li>○ Board Meetings</li> <li>○ Concurrence Memos</li> </ul> </li> </ul>



Welcome!

BERT Steering Committee  
Monday, February 26, 2024



Boulder to Erie Regional Trail (BERT)

155



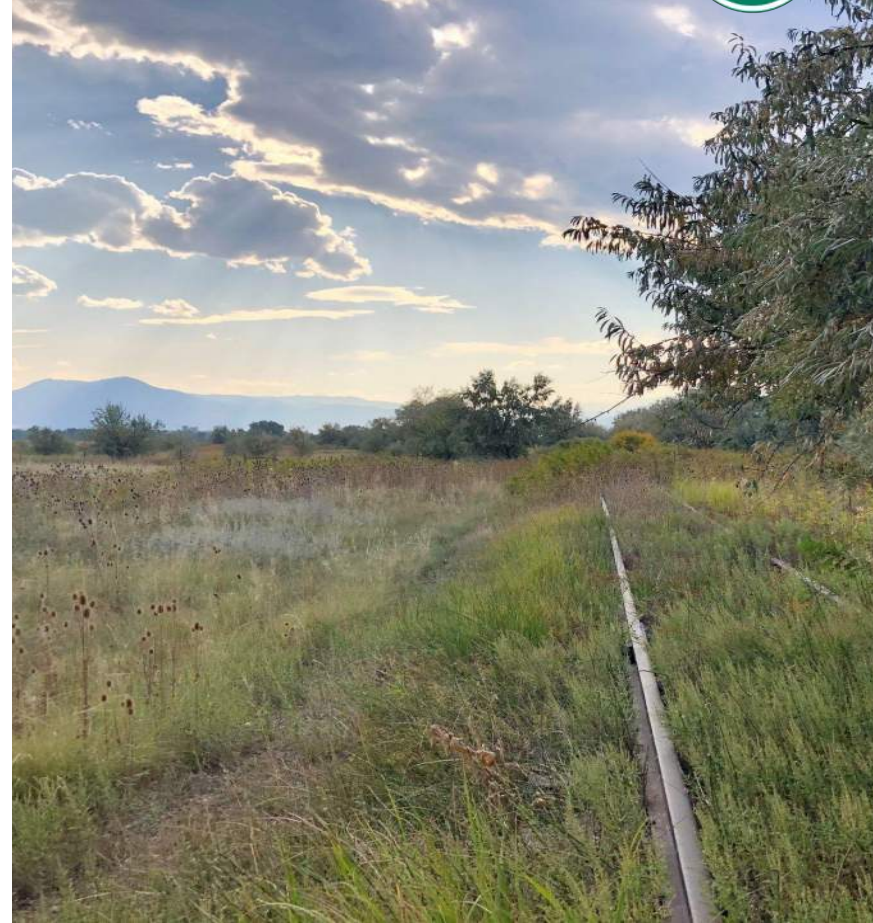
CDR ASSOCIATES  
COLLABORATIVE DECISION RESOURCES



# AGENDA



1. Welcome & Introductions
2. Project Updates
3. Alignment Evaluation
4. Survey Results
5. Wrap Up & Next Steps



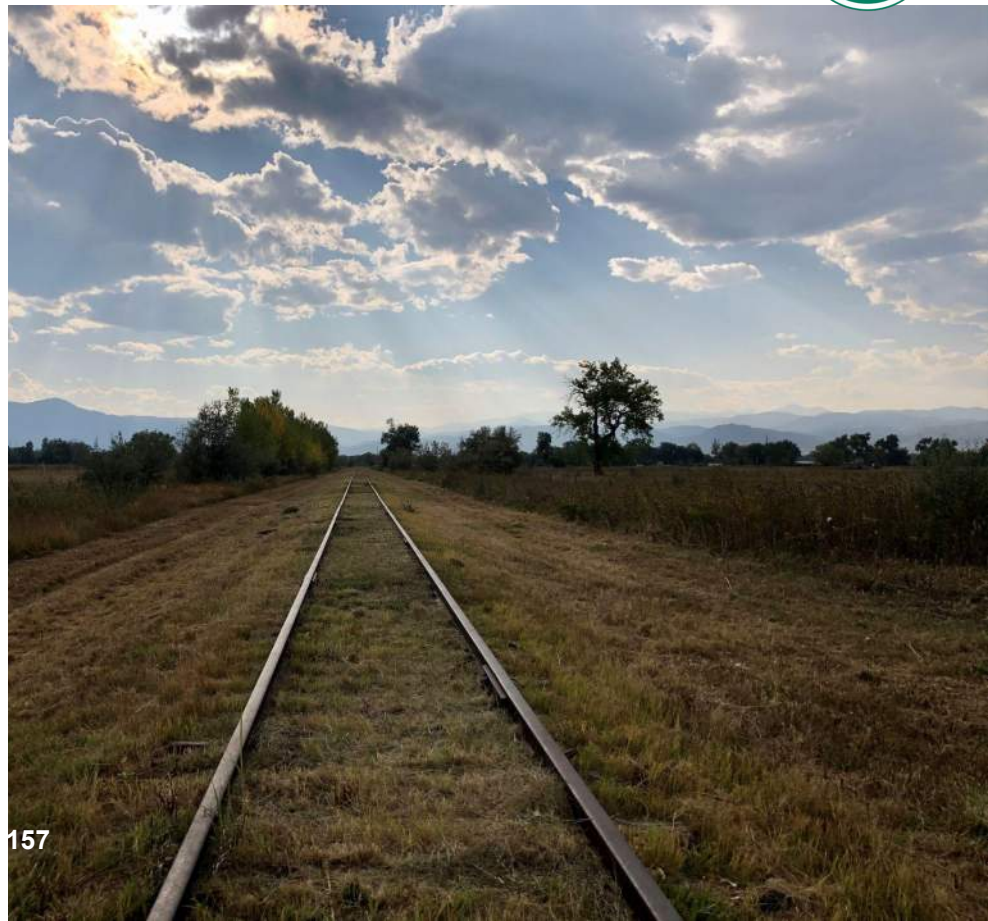
# PROJECT TEAM INTRODUCTIONS



CDR ASSOCIATES  
COLLABORATIVE DECISION RESOURCES



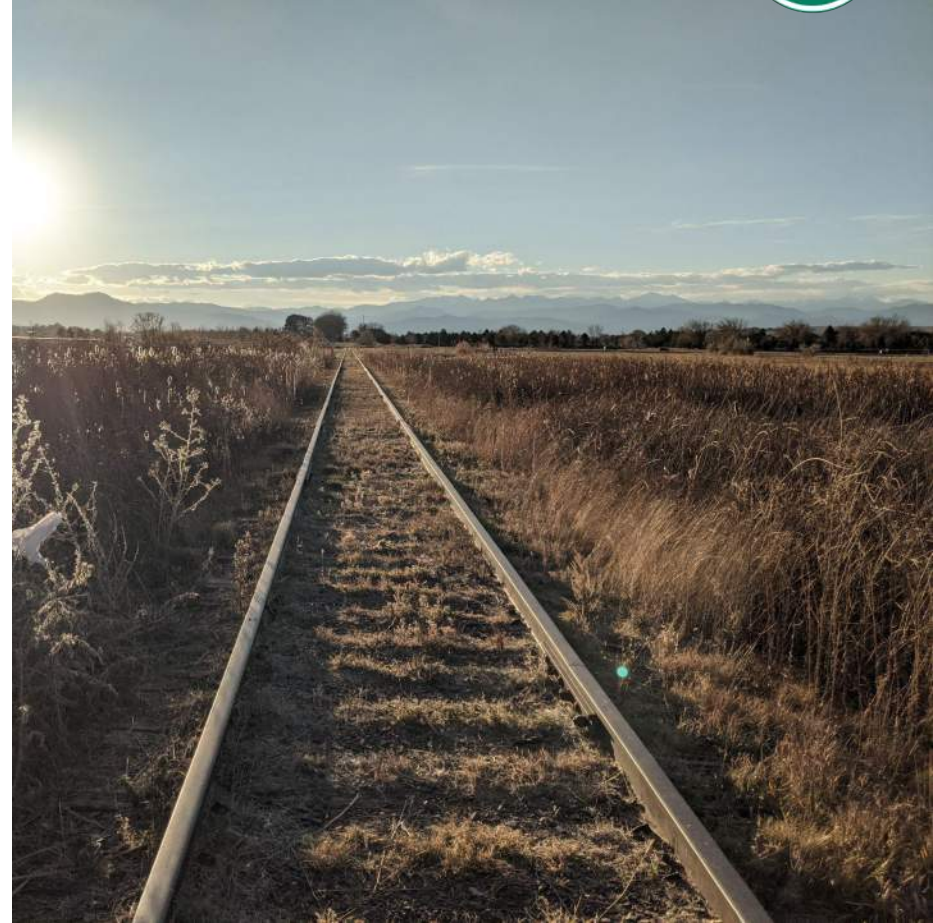
Tonya Luebbert  
*Regional Trails Planner*  
tluebbert@bouldercounty.gov



# PROJECT UPDATES



- Where We Left Off
- Schedule and Activities
- Outreach and Partner Coordination



# PROJECT UPDATES: Where We Left Off



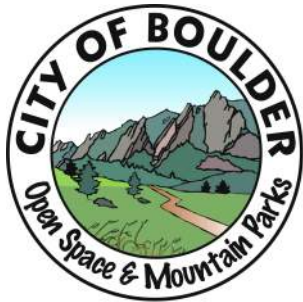
- Last Steering Committee meeting was in February 2023
  - ◆ Reconnecting and starting outreach back up after changes to scope
- Connectivity Workshop in May 2023
  - ◆ Gathered details to begin to understand opportunities and constraints of each corridor



# PROJECT UPDATES: Recent Partner Coordination



→ Meetings with RTD regarding rail bed and evaluation



→ Evaluation with OSMP

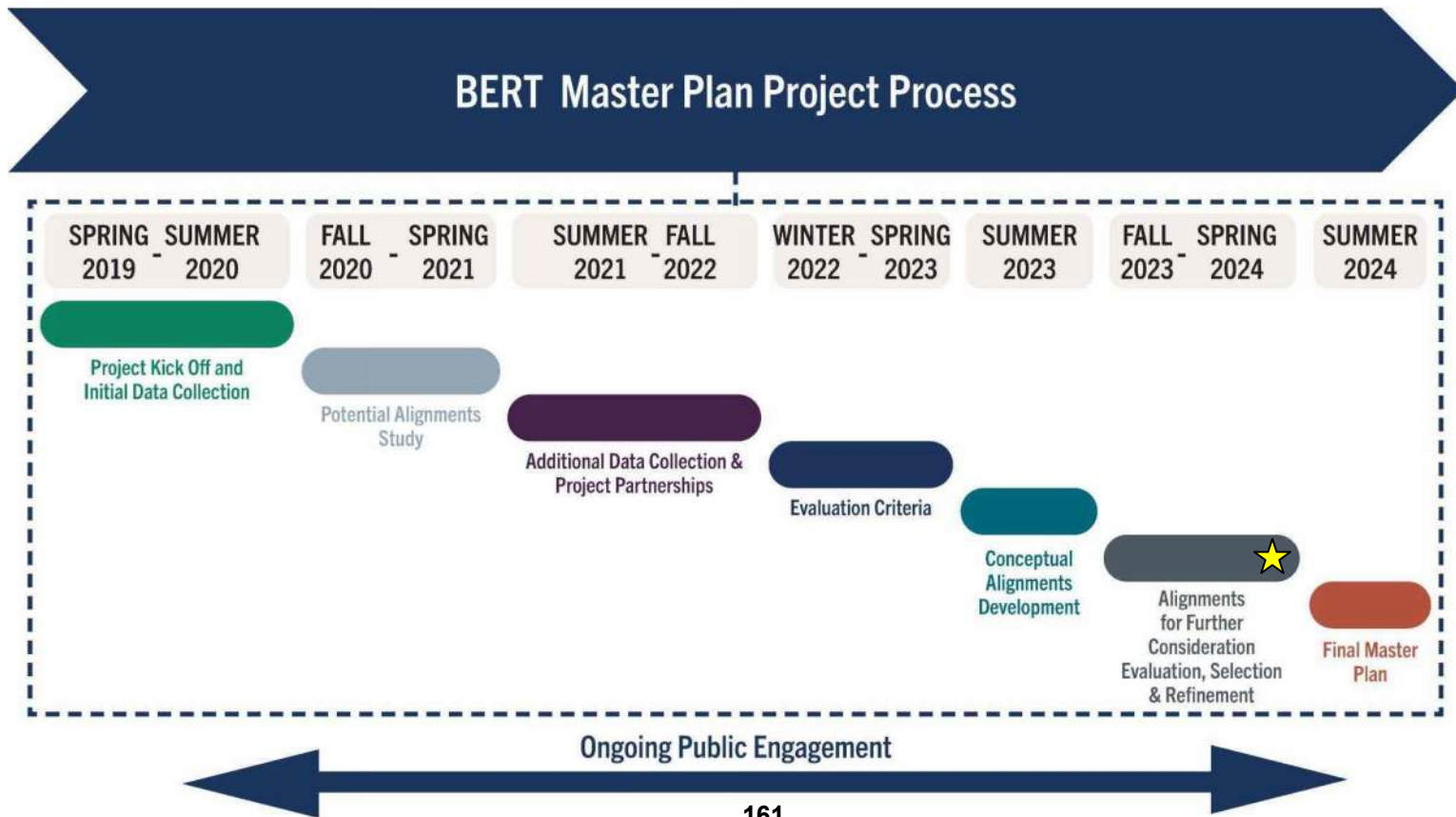
→ Rails-to-Trails Conservancy guidance for next steps



**rails-to-trails**



# PROJECT UPDATES: Schedule and Activities



# PROJECT UPDATES: Ongoing Outreach

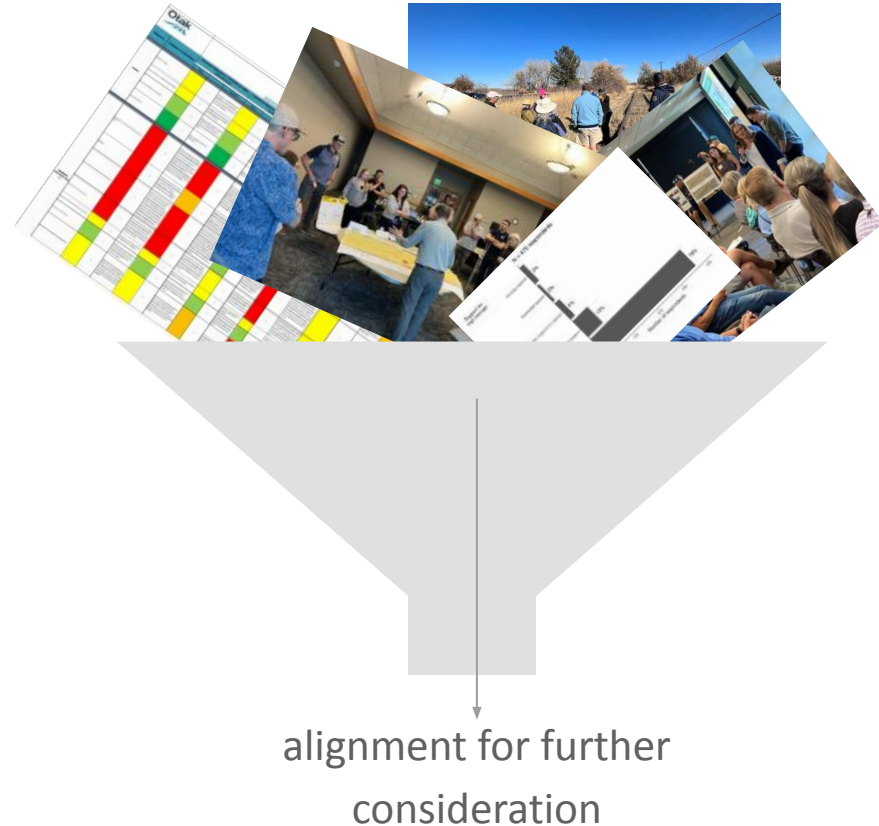


- Public Meeting
- Meetings and Site Walk with CWG
- Statistically-Valid Survey



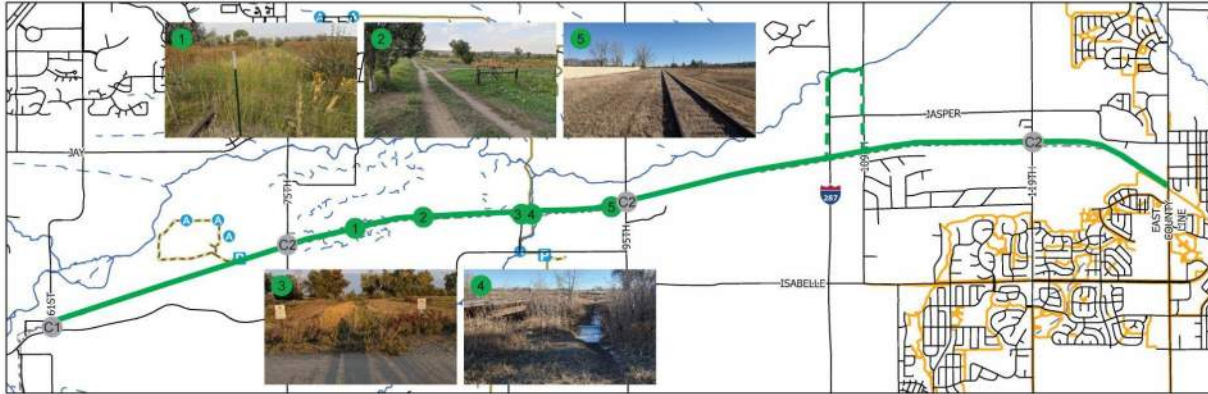
# ALIGNMENT EVALUATION: Overview

- How were alignments graded?
  - ◆ Initial grading by project team
  - ◆ Partner review and revision
  
- How will alignment for further consideration be selected?
  - ◆ Alignment Grading
  - ◆ Steering Committee and Partner Input
  - ◆ Public Input



# ALIGNMENT EVALUATION: Overview

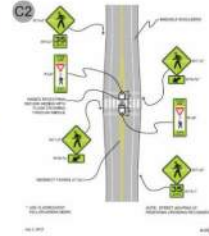
## RTD ROW Alignments (1a & 1b)



### Notes:

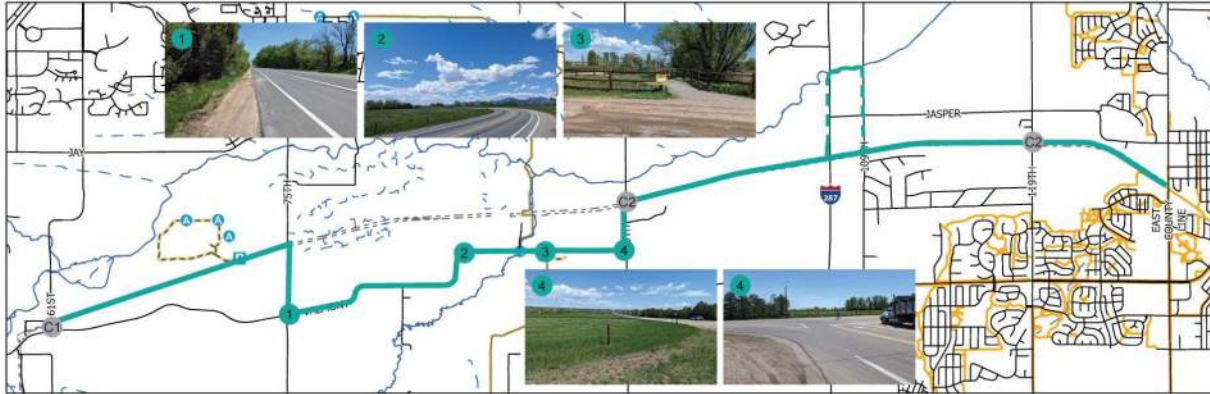
- These alignments are fully in the RTD ROW
- There are 2 alignment variations:
  - (1a) - trail in the ROW, not on the rail bed itself, but with crossings of the rail bed as needed
  - (1b) - the trail in the ROW with potential for trail on top the existing rail bed in areas as needed

### Crossings:



# ALIGNMENT EVALUATION: Overview

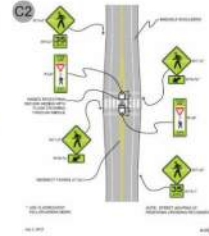
## RTD ROW/Valmont/OSMP/BOCO ROW Alignment (2)



### Notes:

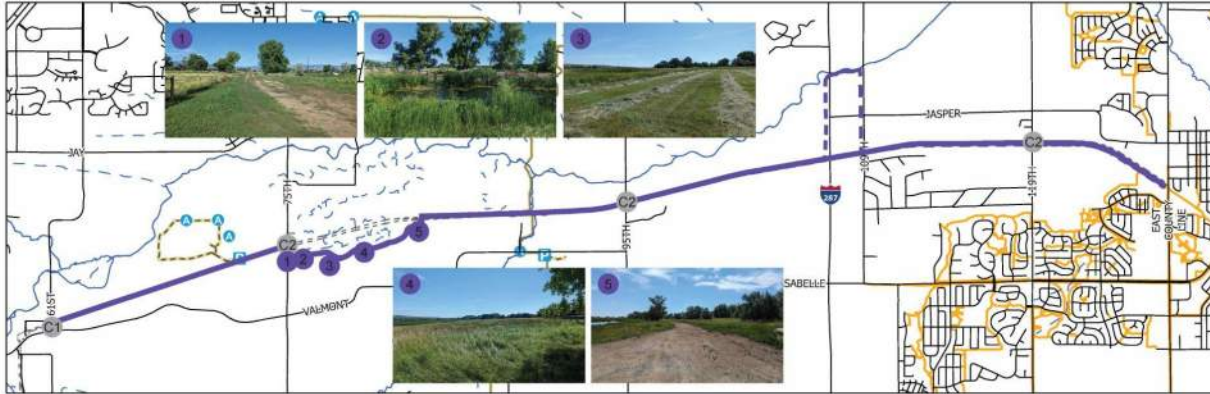
- (2) - alignment is a combination of RTD ROW, OSMP, and BOCO ROW/Valmont around the 75th to 95th section:
  - **61st to 75th** - RTD ROW & CPW/OSMP Road to Sawhill Ponds
  - **RTD ROW to Valmont** - OSMP/BOCO ROW
  - **75th to 95th** - BOCO ROW/OSMP
  - **Valmont to RTD ROW** - BOCO ROW
  - **95th to Erie** - RTD ROW

### Crossings:



# ALIGNMENT EVALUATION: Overview

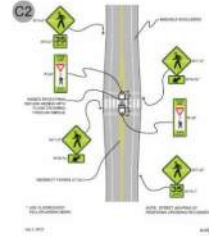
## RTD ROW/OSMP Alignment (3)



### Notes:

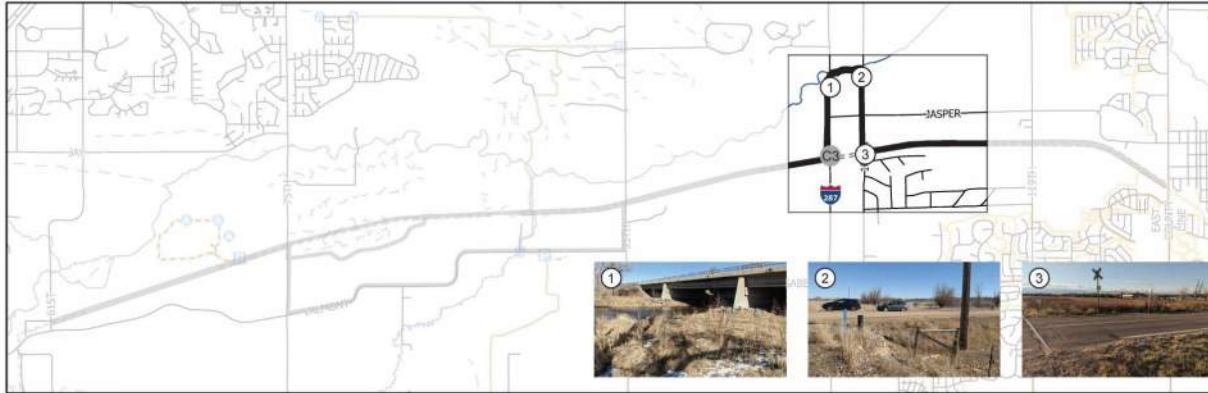
- (3) - alignment is a combination of RTD ROW and OSMP:
  - **61st to 75th** - RTD ROW & CPW/OSMP road to Sawhill Ponds
  - **RTD ROW to OSMP Route (along 75th)** - BOCO ROW/OSMP property
  - **75th to 95th** - OSMP property & RTD ROW
  - **95th to Erie** - RTD ROW

### Crossings:



# ALIGNMENT EVALUATION: Overview

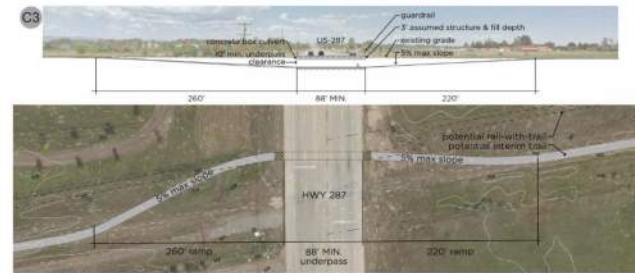
## Hwy 287 Crossing (2 options)



### Notes:

- Two options are being considered for crossing Hwy 287:
  - Option 1 - an underpass in line with the RTD ROW under the road
  - Option 2 - a route that goes along Hwy 287 up to the existing Boulder Creek crossing under 287 and uses that to get the trail under 287
    - This route would then go along Boulder Creek until it reached 109th and then take 109th back to the RTD ROW.

### Crossing:



# ALIGNMENT EVALUATION: Results



	<b>Conceptual Alignment 1a</b>	<b>Conceptual Alignment 1b</b>	<b>Conceptual Alignment 2</b>	<b>Conceptual Alignment 3</b>
<b>Safety</b>	11	11	5	10
<b>Resource Considerations</b>	9	10	17	6
<b>Implementation &amp; Maintenance</b>	15	15	10	6
<b>Adjacent Property Considerations</b>	14	14	4	5
<b>Trail User Experience</b>	21	21	15	19
<b>Summary</b>	<b>70</b>	<b>71</b>	<b>51</b>	<b>46</b>



# ALIGNMENT EVALUATION: Results



	<b>287 Crossing Option 1 - Underpass</b>	<b>287 Crossing Option 2 - Boulder Creek</b>
<b>Safety</b>	10	6
<b>Resource Considerations</b>	17	11
<b>Implementation &amp; Maintenance</b>	9	13
<b>Adjacent Property Considerations</b>	12	7
<b>Trail User Experience</b>	13	17
<b>Summary</b>	<b>61</b>	<b>54</b>

# DISCUSSION: Questions & Comments



- Any clarifications or questions?
- Are there any final thoughts regarding alignment evaluation?
- Do you see problems or issues with how we've evaluated?

# DISCUSSION: Questions & Comments



## From the Project Team

- What are the potential trail use closures for wildlife?

# SURVEY: Takeaways



**91%**

Strong support  
of trail

**3<sup>rd</sup>**

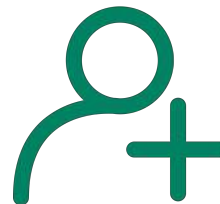
Strong dislike of  
Valmont option



Desire to protect  
the environment



Preference for an  
underpass at US 287



Reached many  
new people

# NEXT STEPS



March 2024	Alignment for further considerations selection meeting <b>Project Webpage Update (Survey summary)</b>
April 2024	<b>Steering Committee Meeting (Report out of decision, master plan outline, concurrence memos, and planning for funding and future phases)</b> CWG Meeting
May 2024	Open House/Public Meeting
Summer 2024	Final Master Plan Document <b>Board Meetings (June - POSAC, Erie OSTAB, OSBT; July/August - BOCC)</b> <b>Concurrence Memos (Will work with you individually)</b>



## CONTACT US

Tonya Luebbert, Regional Trails Planner  
tluebbert@bouldercounty.gov

Visit the Website: [boco.org/BERT](https://www.boco.org/BERT)



CDR ASSOCIATES  
COLLABORATIVE DECISION RESOURCES



**Meeting Summary**  
**Boulder to Erie Regional Trail**  
**Steering Committee Meeting**

Monday, February 26, 2024  
1:00pm - 2:30pm | Erie Community Center/Virtual

**Meeting Purpose**

- Update Steering Committee on the project status, progress, and next steps
- Review graded alternatives and survey results, discuss any questions/comments

**Meeting Agenda**

Welcome and Introductions
Project Updates
Alignment Evaluation Overview
Survey Overview
Next Steps and Action Item Review

**Project Updates**

The Project Team provided an overview of the partner coordination for alignment evaluation and the public outreach that has taken place since the Steering Committee last gathered for the Connectivity Workshop in May 2023. **Over the last 9 months, the project team has:**

- **Scored each alignment** via the evaluation criteria, including meetings with RTD and OSMP throughout to ensure the evaluation is reflective of realities.
- **Conducted public outreach** via Community Working Group meetings, a site visit to the 61st-75th RTD right-of-way, a very well-attended public meeting, and a statistically valid survey to residents and landowners near the alignments under consideration.
- **Met with representatives from the Rails-to-Trails Conservancy** to receive early guidance regarding future phases (funding, design, construction) of the BERT.

The project is nearing the selection of alignment(s) for further consideration and intends to complete the Master Plan in Summer 2024.

There were no questions, concerns, or comments regarding project updates from the Steering Committee.

### Alignment Evaluation Overview

The project team provided an overview of the process to fill out the evaluation criteria and how the selection of preferred alignment(s) for further consideration will take place. Alignment grading/scoring has been an iterative process overseen and conducted by the Project Team. Scoring has been informed by Partner (OSMP, RTD, Public Works, etc.) expertise of the various rights-of-way and adjacent properties included in the 4 alignments and 2 highway crossings under consideration. The results of completing the evaluation criteria have revealed the tradeoffs and distinctions between each alignment. Guidance on how to weigh and understand these tradeoffs to and make decisions of preferred alignment(s) for further consideration will be provided via the abundance of public, CWG, Steering Committee, and partner input.

A snapshot of evaluation criteria grading/scoring results are summarized in the table below:

	Conceptual Alignment 1a	Conceptual Alignment 1b	Conceptual Alignment 2	Conceptual Alignment 3	287 Crossing Option 1 - Underpass	287 Crossing Option 2 - Boulder Creek
<b>Safety</b>	11	11	5	10	10	6
<b>Resource Considerations</b>	9	10	17	6	17	11
<b>Implementation &amp; Maintenance</b>	15	15	10	6	9	13
<b>Adjacent Property Considerations</b>	14	14	4	5	12	7
<b>Trail User Experience</b>	21	21	15	19	13	17
<b>Summary</b>	<b>70</b>	<b>71</b>	<b>51</b>	<b>46</b>	<b>61</b>	<b>54</b>

### Steering Committee Feedback

Overall, Steering Committee Members were supportive of the process, expressed gratitude for ample involvement, and felt the results are an accurate reflection of the strengths and weaknesses of each alignment. General Steering Committee Comments included:

- OSMP: Our feedback on resource considerations have been well-reflected
- Erie: Erie jurisdiction contains less wildlife and safety concerns
- RTD: Content with evaluation
- CDOT: Content with US-287 evaluation and suggested preparing for cost estimations and developing maintenance agreements



A few suggestions were made to improve evaluation and communication of the process and results, including:

- **Equally weigh the evaluation categories.** Since there are not an equal number of “points” associated with each category, the project team should revisit how equalizing scores may affect results.
- **Share relative minimum and maximum scores.** It is clear that higher is better, but the magnitude of value in one point is not equal across categories.
- **Communicating scores with colors.** The public and decision makers are less familiar, and may be less interested in, the technicalities of analysis.
- **Clearly elaborate the narrative of tradeoffs and takeaways alongside the scores.** Much like how the summary table was verbally presented in the meeting, the context around strengths and weaknesses that are revealed were impactful to understanding how decisions will be made.
- **Include the definition of the evaluation criteria categories.** For example, if adjacent property impacts for this project are important to evaluation for the BERT, make sure that is clear in the definition.

One consideration that arose for the Project Team that has not been reflected in the alignment grading/scoring is *the potential for extended trail use closures due to wildlife*. The project team sought insight and input from the Steering Committee to understand how to navigate this topic when making a decision of preferred alignment(s) for further consideration. It was recommended that the Project Team meet with CPW and OSMP to verify the following:

- Wildlife Management Jurisdiction along each alignment concept
- Guidance regarding the wildlife disturbance tolerance specific to BERT alignment concepts
- Trail Construction Closures
- How phasing of the BERT construction may present opportunities to work around closures and benefit the community

## Survey Overview

Results from the statistically-valid survey results were shared ahead of the meeting and top-line takeaways were briefly discussed. The survey was sent to nearly 2,800 residents and landowners along the BERT alignment concepts and completed by around 450 respondents.

### Top-line Takeaways

- **Support for the Trail.** 91% of respondents were in support of the trail and 93% indicated they would use the trail if it were built
- **A Strong Interest in On-trail Safety.** 57% of respondents indicated safety as a factor in their alignment-ranking decision.
- **A Desire to Be Environmentally-Conscious.** Protection of wildlife habitat and the environment were the 2nd and 4th most cited factors in alignment-ranking decisions.
- **A Strong Aversion to an Alignment Along Valmont.** While Alignments 1 and 3 were more equally ranked 1st or 2nd on average, Alignment 2 including Valmont was consistently ranked 3rd (last).
- **Preference for an Underpass at US-287.** 86% of respondents indicated this preference.

**Next Steps and Action Items**

April 2024	Alignment for further considerations selection meeting <b>Project Webpage Update (Survey summary)</b>
May 2024	<b>Steering Committee Meeting (Report out of preferred alignment(s) for further consideration decision, master plan outline, concurrence memos, and planning for funding and future phases)</b> CWG Meeting
June 2024	Open House/Public Meeting
Summer 2024	Final Master Plan Document <b>Open Space Board Meetings (July - POSAC, Erie OSTAB, OSBT)</b> <b>Concurrence Memos (Will work with you individually)</b> <b>BOCC Hearing - August</b>

**Action Items**

- BERT Project Team to meet with CPW and OSMP regarding potential trail use closures and update evaluation if necessary
- BERT Project Team to coordinate with Steering Committee Organizations individually regarding Concurrence Memos (or something similar)
- Tonya to coordinate individually with POS, OSMP, and Erie to get on POSAC, OSBT, and OSTAB July agendas.

## Attendance

- Kirk Strand, RTD
- Chris Quinn, RTD
- Luke Bolinger, Erie
- Matt Spinner, Erie
- Juliet Bonnell, City of Boulder OSMP
- Lindsay Merz, City of Boulder Transportation & Mobility
- Cassy Penn, CPW Erie
- Tony Meneghetti, CDOT
- Alli Kelly, Boulder County Public Works
- Jeff Davis, Boulder County Public Works
- Jarret Roberts, Boulder County Parks and Open Space
- Justin Atherton-Wood, Boulder County Parks and Open Space
- Stacey Proctor, Boulder County CP&P
- Tonya Luebbert, Boulder County, BERT Project Manager
- Cliff Lind, Project Team
- Kelsey Blaho, Project Team
- Laura Hickey, Project Team
- Jeffrey Range, Project Team
- Carrie Tanner, Project Team

## Meeting Agenda

### Boulder to Erie Regional Trail (BERT) Plan

# Steering Committee Meeting

Tuesday, July 16, 2024

10:00am - 12:00pm

Boulder Public Library - Main Branch | 1001 Arapahoe Ave | Boulder, CO

**Meeting Purpose:**

- Update Steering Committee on the project status and progress
- Coordinate next steps for Steering Committee member coordination (i.e. board meetings and concurrence memos)
- Present Preferred Alignment for Further Consideration

Time	Agenda Item
10:00 - 10:10 am	<b>Welcome and Attendance</b>
10:10 - 10:25 am	<b>Project Updates</b> <ul style="list-style-type: none"> <li>● Where we left off - February 2024 meeting recap</li> <li>● Recent Partner Coordination</li> <li>● BERT Plan Development Schedule</li> </ul>
10:25 - 11:25 am	<b>Preferred Alignment Selection</b> <ul style="list-style-type: none"> <li>● Process and Evaluation Overview</li> <li>● Questions/Comments</li> </ul>
11:40 - 12:00 pm	<b>Next Steps</b> <ul style="list-style-type: none"> <li>● <b>Partner Engagement</b> <ul style="list-style-type: none"> <li>○ <b>BERT Plan Review</b></li> <li>○ <b>Board Meetings</b></li> <li>○ <b>Concurrence Memos</b></li> </ul> </li> <li>● Final public engagement (CWG, public open house, BERT Plan public comment period)</li> <li>● Final BERT Plan in October</li> <li>● Action Item Review</li> </ul>



Welcome!

BERT Steering Committee  
Tuesday, July 16, 2024



Boulder to Erie Regional Trail (BERT)

181



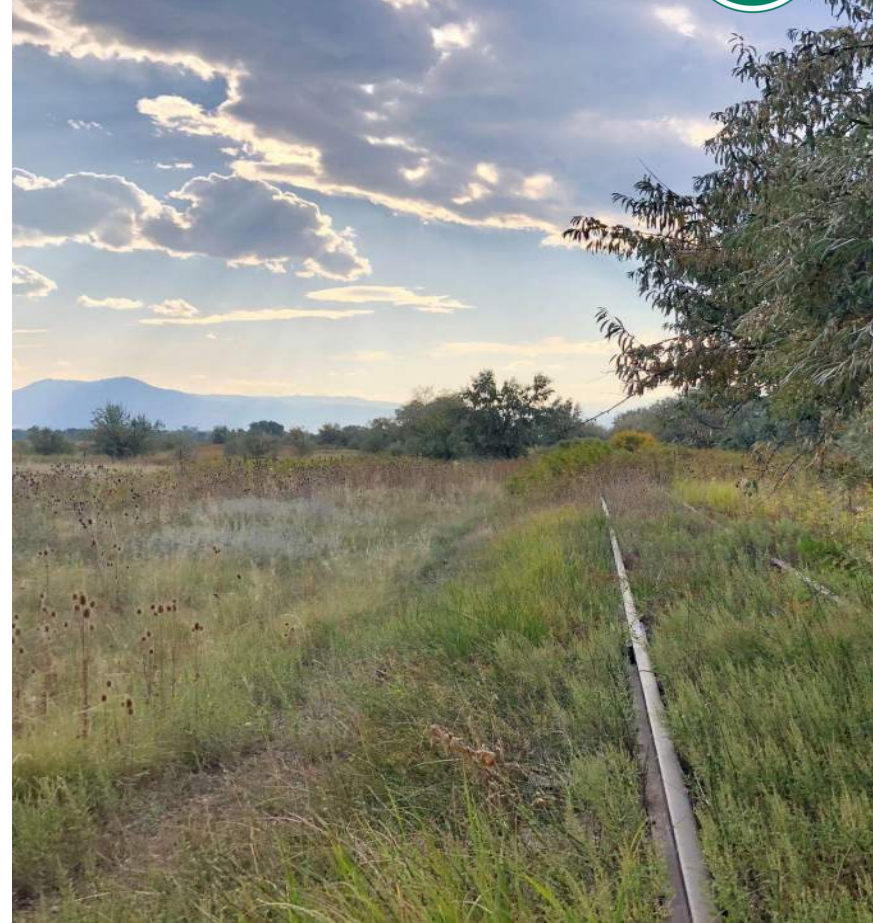
CDR ASSOCIATES  
COLLABORATIVE DECISION RESOURCES



# AGENDA



1. Welcome & Attendance
2. Project Updates
3. Preferred Alignment Selection
4. Wrap Up & Next Steps

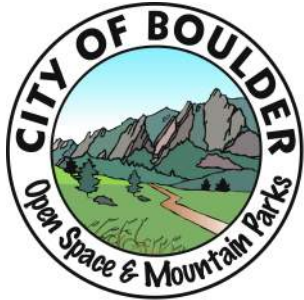


# PROJECT UPDATES: Where We Left Off



- Last Steering Committee meeting was in February 2024
  - ◆ Reported out results from technical evaluation
  - ◆ Feedback on presentation of results
  - ◆ Presented and discussed preferred alignment selection process
- Statistically-valid survey summary posted to website

# PROJECT UPDATES: Recent Partner Coordination



→ Meetings with CPW and OSMP regarding nest locations along alignments for further consideration

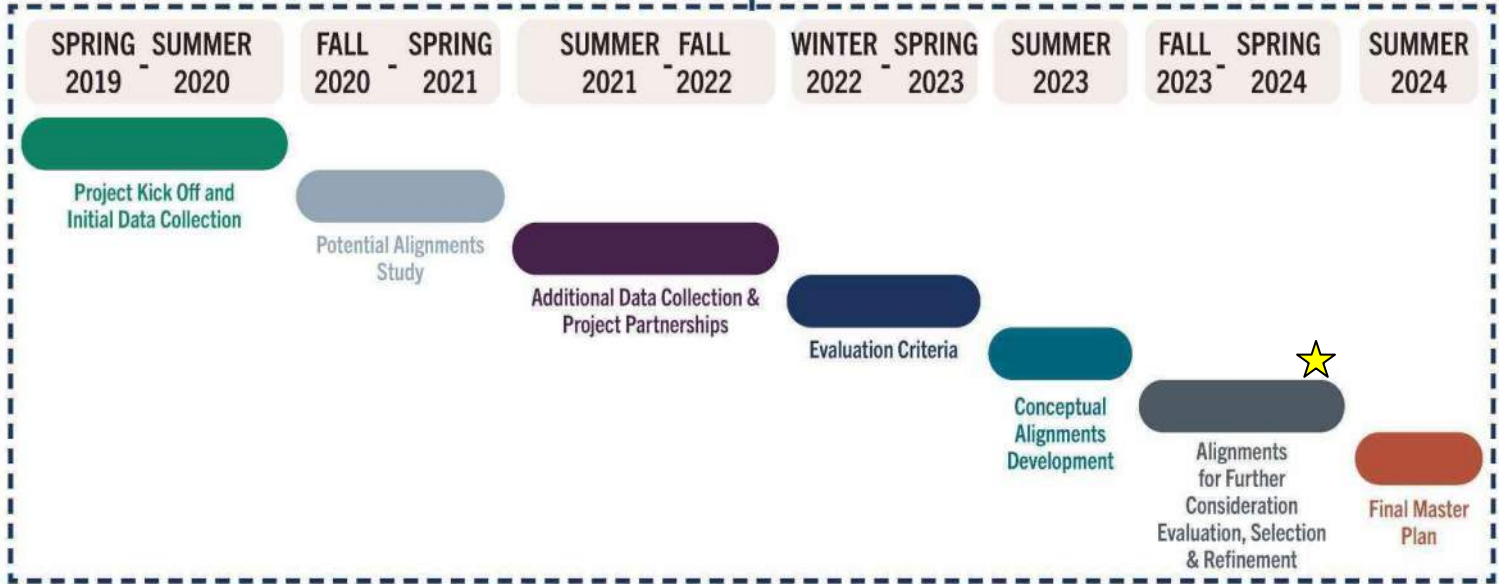




# PROJECT UPDATES: Plan Development



## BERT Master Plan Project Process



Ongoing Public Engagement

# PREFERRED ALIGNMENT SELECTION: Details



## **BERT PREFERRED ALIGNMENT SELECTION PROCESS SUMMARY**

**July 2024**

# NEXT STEPS



July 2024

CWG Meeting (July 25)

August 2024

CPW/OSMP Nest Coordination Meeting (likely August 6)  
 Final Public Open House (Tentative August 29)  
 Partner Agency BERT Plan Review (Aug 12-23)

September &  
 October 2024

Public Comment Period (August 29-September 25)

Board Meetings

- Erie OSTAB Sept. 9
- OSBT Sept. 11
- POSAC Sept. 26
- BOCC Oct. 10

Concurrence Memos

Final Master Plan



## CONTACT US

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tluebbert@bouldercounty.gov

Visit the Website: [boco.org/BERT](https://www.boco.org/BERT)

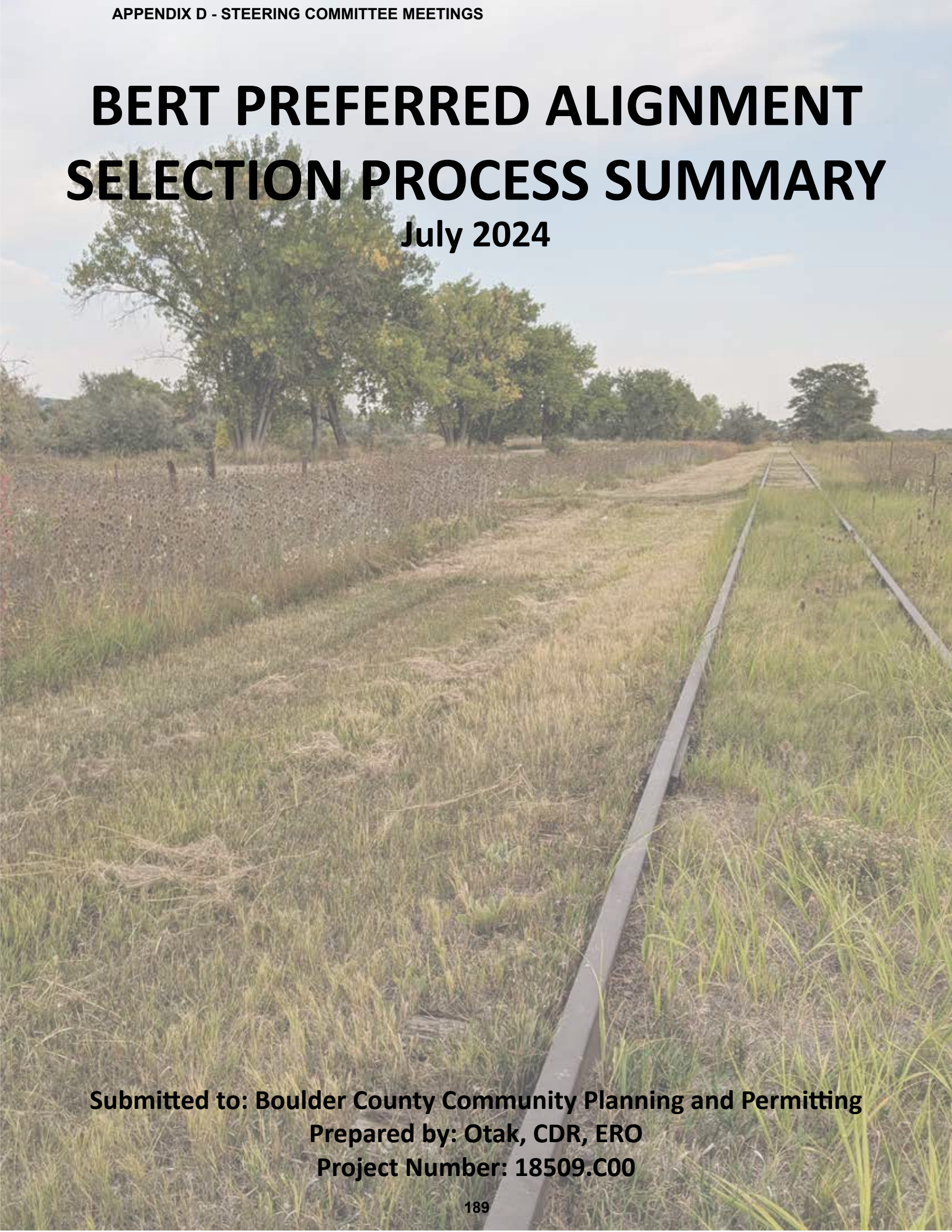


CDR ASSOCIATES  
COLLABORATIVE DECISION RESOURCES



# **BERT PREFERRED ALIGNMENT SELECTION PROCESS SUMMARY**

**July 2024**



**Submitted to: Boulder County Community Planning and Permitting  
Prepared by: Otak, CDR, ERO  
Project Number: 18509.C00**

# PROJECT GOAL, OBJECTIVES & SELECTION PROCESS

## Goal

The goal of this planning effort is to identify and evaluate conceptual alignment(s) and identify a preferred alignment for further consideration for an east-west multi-use trail connection between Boulder and Erie in Eastern Boulder County for both transportation and recreation. This alignment shall be reasonably implementable while providing increased safety for both transportation and recreation with low impacts to environmental and cultural resources in addition to adjacent properties. It will also provide an opportunity to advance Boulder County's Strategic Priority of greenhouse gas emissions reductions by providing a desired connection in eastern Boulder County that has been identified in both the Boulder Valley Comprehensive Plan and the Boulder County Transportation Master Plan.

## Objectives

The ideal alignment will be safe, feasible, efficient, convenient, and enjoyable, taking into consideration the following goals:

**TRANSPORTATION AND RECREATION:** provide an east-west multi-use trail for both transportation and recreation uses

**INCREASED SAFETY:** provide a safe, low-stress connection between Erie and Boulder;

**MULTI-USE:** provide opportunities for bicyclists, pedestrians, equestrians, as well as snowshoers and cross-country skiers in the winter months

**ENVIRONMENTAL AND CULTURAL CONSIDERATIONS:** the trail has a low impact on environmental and cultural resources

**IMPLEMENTABLE:** Develop a trail alignment that is feasible for both funding and construction

**ADJACENT PROPERTY CONSIDERATIONS:** the trail's impact on adjacent properties will be minimized to the extent possible

**TRAIL USER EXPERIENCE:** offer opportunities to experience the natural beauty of Boulder County and connect to other trail systems in the area

## Preferred Alignment Selection Process

After evaluation of all the conceptual alignments and crossing options, the project team selected a preferred alignment for further consideration. This selection was made through a review of various project elements, including:

**PUBLIC INPUT:** results from two community surveys, four neighborhoods workshops, notes/input from public meetings, community working group meetings, approximately 250 emails to date, and written feedback

**STEERING COMMITTEE AND STAKEHOLDER INPUT:** comments, notes, and written feedback from steering committee meetings, additional partner reviews and discussion, and one-on-one meetings with stakeholders and project partners

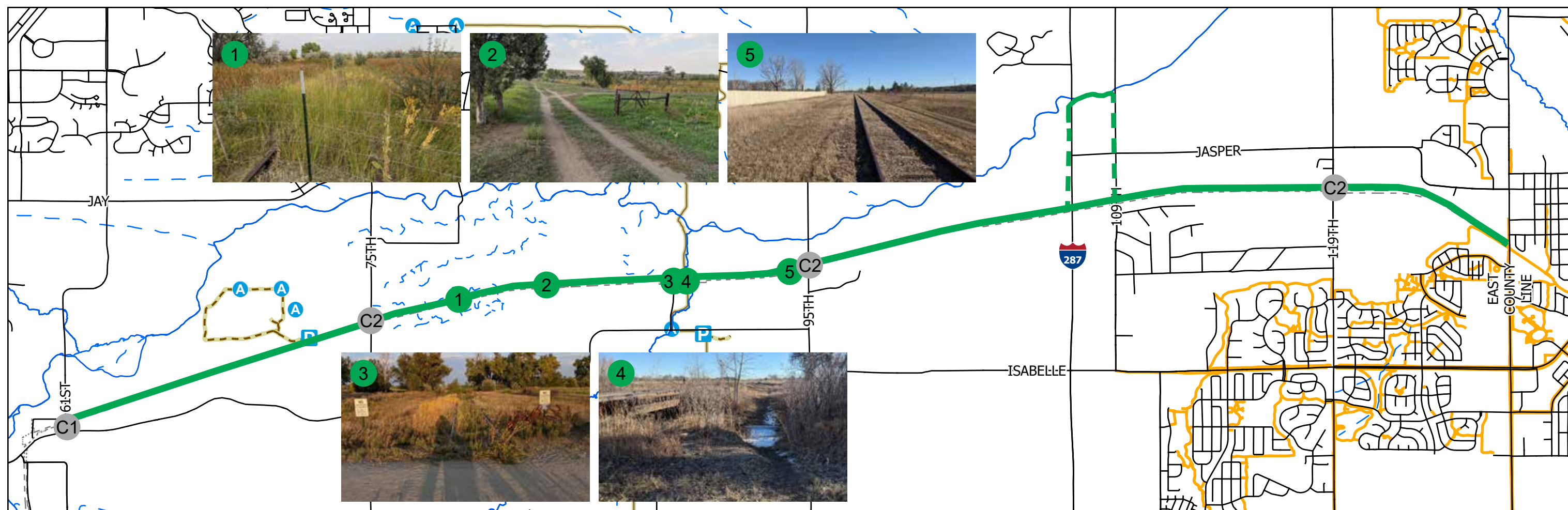
**TECHNICAL EVALUATION:** evaluation of conceptual alignments 1A, 1B, 2, and 3 as well as Hwy 287 crossing options 1 and 2 through an extensive evaluation criteria process

# CONCEPTUAL ALIGNMENTS - PROS AND CONS

## RTD ROW Alignments (1A & 1B) - *Alignments 1A & 1B are subtle variations on an alignment fully within the existing RTD ROW between 61st Street in Boulder and East County Line Road in Erie.*

**ALIGNMENT 1A** is an alignment that is in the ROW but is not on top of the rail bed itself unless absolutely necessary. This alignment is on either the north or the south side of the actual rail bed and the only time it lies atop the rail bed is if a cross over is needed to bring the trail from the north side to the south or vice versa. In which case the cross over would be as minimal as possible.

**ALIGNMENT 1B** offers greater flexibility to utilize the existing rail bed for extended distances if justified. Since the rails and rail ties must remain intact, any trail constructed in this scenario would need to be built atop the existing infrastructure, presenting constructibility challenges. This approach would only be pursued if placement of the trail on either the north or south side of the rail bed is deemed undesirable, likely due to adjacent wetlands. The determination would be made following a wetland delineation survey in future project phases.



### PROS OF ALIGNMENTS 1A & 1B:

- Availability of RTD ROW with adequate width for trail and no additional easement or acquisition needs
- Safe route separated from roads with significant vehicular traffic and exhaust
- Distance from roads makes the route more comfortable for various users, whether for transportation or recreation
- Most direct route from Boulder to Erie
- Scenic route adjacent to agricultural and open space lands

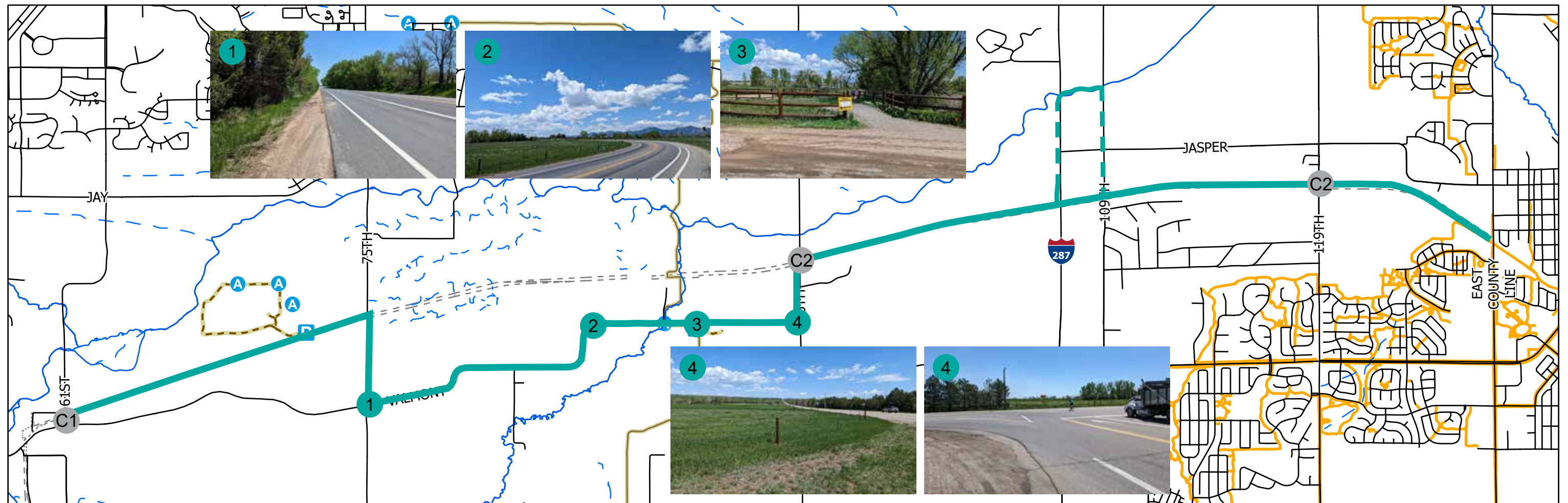
### CONS OF ALIGNMENTS 1A & 1B:

- Corridor passes adjacent to areas of environmental significance, such as habitat conservation areas and habitat of both plant and animal species that are threatened, endangered or of management interest, and active agricultural operations
- Seasonal wildlife closures are not required but recommendations are under discussion with the appropriate agencies.
- Existing rail bed infrastructure presents constructibility challenges
- Wet areas in the corridor require further evaluation and potential design challenges to be further explored in future project phases

# CONCEPTUAL ALIGNMENTS - PROS AND CONS

## RTD ROW/Valmont/BOCO ROW Alignment (2)

**ALIGNMENT 2** uses a combination of the RTD right-of-way, and the Boulder County road rights-of-way of 75th, 95th, and Valmont Rd between 61st Street and East County Line Road. This alignment generally follows the RTD ROW from 61st to 75th Street, although the possibility of locating the trail adjacent to the existing Colorado Parks and Wildlife (CPW) road to Sawhill Ponds should be explored for the stretch from the Sawhill Ponds trailhead to 75th. The RTD ROW is wet in this area so using the existing road area would be an opportunity to utilize existing infrastructure to avoid impacts to wet areas, while also avoiding two parallel paths through the landscape as would result from adding the trail in the RTD ROW within sight of the existing road in virtually the same location. At 75th the trail would divert south to Valmont using Boulder County road right-of-way and follow adjacent to Valmont, also using Boulder County road right-of-way to 95th. The alignment would proceed from Valmont Rd north adjacent to the Boulder County 95th St right-of-way, connecting back to the RTD right-of-way. The remaining trail alignment would stay within the RTD ROW for the rest of the way to East County Line Road in Erie.



### PROS OF ALIGNMENTS 2:

- This alignment circumvents the 75th to 95th section of the RTD ROW, thereby avoiding adjacent environmentally sensitive areas, including habitat conservation areas, and habitat of plant and animal species that are threatened, endangered or of management interest, and active agricultural operations.

### CONS OF ALIGNMENTS 2:

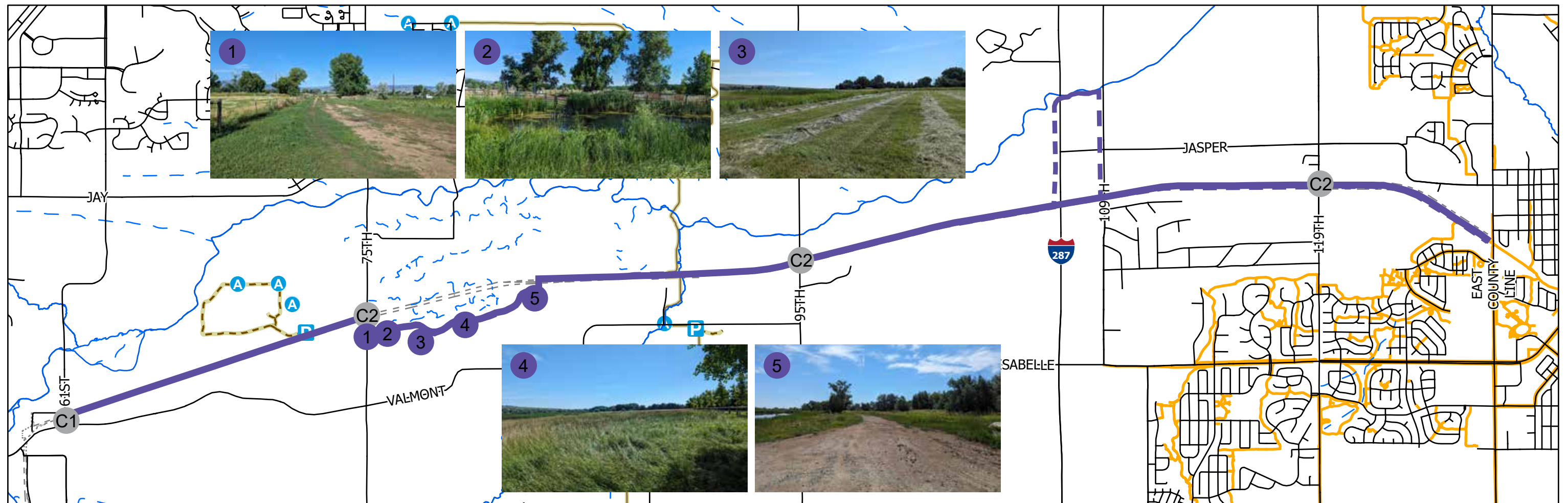
- The trail segment along Valmont is less safe due to the close proximity to the busy road, therefore potentially reducing the numbers of trail users willing/able to use the trail
- Existing ROW width along Valmont is limited and there are many private driveway crossings in this section, all of which will require additional easement, ROW acquisition, and/or negotiation. This combined with the safety concerns of the driveway crossings presents significant feasibility challenges for this option.
- This route is a less direct connection since it avoids going straight through the 75th - 95th section



# CONCEPTUAL ALIGNMENTS - PROS AND CONS

## RTD ROW/OSMP Alignments (3)

**ALIGNMENT 3** explores a combination of the RTD ROW and Boulder Open Space and Mountain Parks (OSMP) land to make the Boulder to Erie connection. Same as all of the alignments, the 61st to 75th segment is in the RTD ROW with the exploration of possible use of the Sawhill Ponds road section. Then at 75th the trail travels south on the edge of OSMP property before cutting across on OSMP land for a small section before resuming north and joining the RTD ROW. The remaining alignment from 95th to East County Line Road continues in the RTD ROW as in all alignments



### PROS OF ALIGNMENTS 3:

- Avoids a particularly wet segment of the RTD ROW
- A fairly direct route (not quite as direct as 1A and 1B)
- Safe route separated from busy roads

### CONS OF ALIGNMENTS 3:

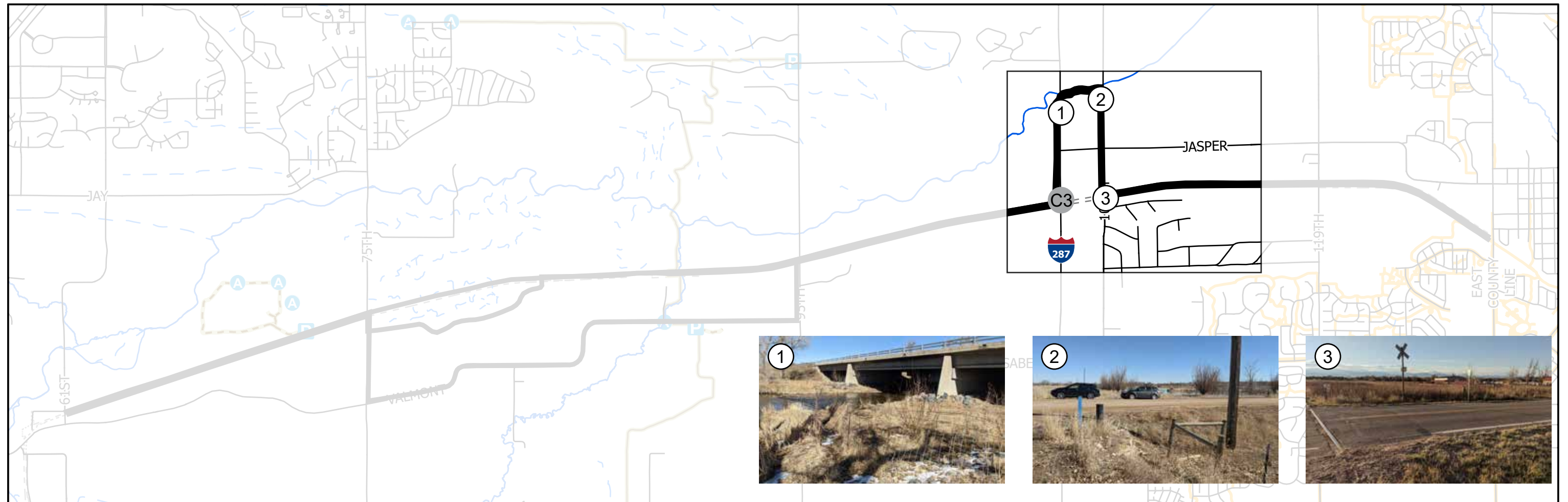
- While avoiding a wet section of the RTD ROW, this route runs through areas of even greater environmental sensitivity and active agricultural operations resulting in a significant environmental impact, the most of all the alternatives
- Seasonal wildlife closures recommendations are under discussion with the appropriate agencies, the trail segment on OSMP property would be subject to OSMP wildlife closure recommendations.
- Due to the use of OSMP land and therefore an additional property owner, additional coordination would be required between organizations for both implementation and maintenance

# HWY 287 CROSSING OPTIONS - PROS AND CONS

## Crossing Options (1 & 2)

**OPTION 1** is an underpass in line with the RTD Row crossing under Hwy 287

**OPTION 2** follows Highway 287 to the current Boulder Creek crossing beneath 287, utilizing this existing point to pass the trail under the highway, mostly within a trail easement on the west side of Hwy 287. It continues alongside Boulder Creek until reaching 109th Street, then loops back to reconnect the trail within the RTD ROW.



### PROS OF OPTION 1:

- Safer, more direct route with minimal interaction with the busy Hwy 287
- Minimal impacts to environment or land outside of RTD ROW corridor

### CONS OF OPTION 1:

- Cost
- Due to proximity to Boulder Creek it is likely that pumping would be necessary to keep water out of underpass
- Underpass is undesirable for equestrian users due to height restriction and enclosed space
- Maintenance considerations to make sure lighting is functional and path is clear

### PROS OF OPTION 2:

- Less costly as it utilizes an existing crossing point
- Would provide another connection point to the proposed East Boulder Creek trail system

### CONS OF OPTION 2:

- Existing crossing point is tight, space is sufficient but extremely minimal both in terms of height and width
- Longer crossing option as it jogs up and around, adding approximately 1.5 miles of extra distance to route
- Additional ROW and easement considerations for sections of route to and from RTD ROW to Boulder Creek
- Greater environmental impacts to area around Boulder Creek
- 109th is a rural residential road likely without the road right-of-way needed for a separated trail along it

# PUBLIC INPUT

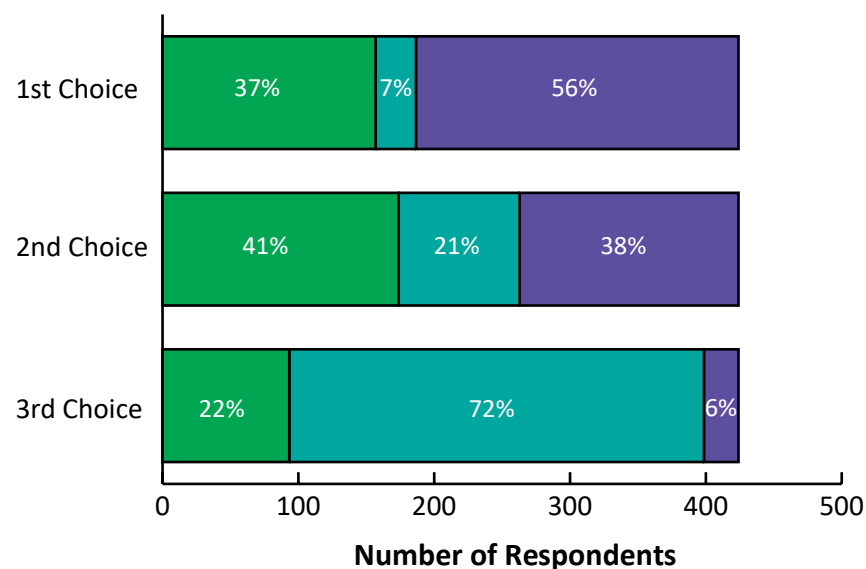
Public input into the selection of the preferred alignment primarily stems from a statistically valid survey, alongside notes and input gathered from public meetings, Community Working Group (CWG) sessions, emails and written feedback. Safety, specifically separation of trail and roads, emerged as a top priority across all stakeholder groups. Other significant considerations included the desire for a quick implementation timeline, a direct route, minimal impacts on private property, and opportunities to enjoy scenic views. Environmental impact reduction was also consistently highlighted as a priority by the public. Overall, these values align with a preference for Alignment 1 within the RTD ROW among stakeholder groups. At US 287, there is a slight preference for an underpass, though there is an openness to exploring the Boulder Creek option if it promises faster construction. Detailed results and insights from the various outreach efforts are presented in the figures and diagrams below.

Engagement Type	Summary of Public Input	Alignment 1	Alignment 2	Alignment 3	US 287 Preference
<b>Community Working Group</b> (4 Meetings and 1 Site Walk)	<ul style="list-style-type: none"> <li>Environmental interest at a broader scale to reduce greenhouse gas emissions from car traffic</li> <li>Advocates for trail concept and construction, desire for implementation as quickly as possible</li> <li>Repeated importance of safety, direct connectivity, and inclusive recreation opportunities</li> <li>Concerns about dangerous intersections/interface with cars</li> <li>Desire for trails that preserve scenic views and promote accessibility</li> <li>Balance trail development with habitat preservation and minimize impacts on wildlife</li> </ul>	<p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>Safe option</li> <li>Scenic opportunities</li> <li>Most direct route</li> </ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>Wildlife/environmental impacts</li> </ul>	<p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>Avoids most wildlife and most wetland concerns</li> </ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>Least perceived safety</li> <li>Least scenic opportunities</li> <li>Least direct route</li> <li>Numerous property/driveways slowing administration</li> </ul>	<p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>Safe option</li> <li>Scenic opportunities</li> </ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>Slightly less direct</li> <li>Greatest wildlife/environmental impacts</li> </ul>	<p><b>NO CLEAR PREFERENCE</b></p> <p>OPTION 1, UNDERPASS:</p> <ul style="list-style-type: none"> <li>Longer perceived implementation but safer and more direct</li> </ul> <p>OPTION 2, BOULDER CREEK:</p> <ul style="list-style-type: none"> <li>Best alignment option for timely trail construction but less direct</li> </ul>
<b>Public Open Houses</b> (1 Virtual and 1 In-Person)	<ul style="list-style-type: none"> <li>Highly engaged community that supports trail concept</li> <li>Desire for a safe alignment that does not require any interaction with the road at all</li> <li>Comments cards expressing concern for sensitive ecosystems, wildlife, and/or culturally significant sites near the RTD right of way between 61st and 75th.</li> <li>Urgency/anticipation to get the trail to construction/implementation while carefully considering cost effectiveness</li> </ul>	<p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>Safe option</li> <li>Scenic opportunities</li> <li>Most direct route</li> </ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>Wildlife/environmental impacts</li> </ul>	<p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>Avoids most wildlife and most wetland concerns</li> </ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>Least perceived safety</li> <li>Least scenic opportunities</li> <li>Least direct route</li> <li>Numerous property/driveways slowing implementation</li> </ul>	<p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>Safe option</li> <li>Scenic opportunities</li> </ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>Greatest wildlife/environmental impacts</li> </ul>	<p><b>UNDERPASS PREFERRED</b></p> <p>OPTION 1, UNDERPASS:</p> <ul style="list-style-type: none"> <li>Generally, interests for either option were safety-related. There was a slight preference for an underpass due to the directness of the route and lack of interruption to car traffic on US 287</li> </ul>
<b>Landowner Interviews</b> (3 Interviews)	<ul style="list-style-type: none"> <li>Interest in barriers to minimize trespassing onto adjacent property</li> <li>Environmental concerns between 75th and 95th, consider approaches to minimize impacts and to prohibit dogs in this area</li> </ul>	<p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>Options along north side of the RTD ROW from 95th-109th and 61st to 75th.</li> <li>Majority in favor of trail</li> </ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>Wildlife/environmental impacts.</li> </ul>	<p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>Options along north side of the RTD ROW from 95th-109th and 61st to 75th.</li> <li>Majority in favor of trail</li> </ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>Least wildlife/environmental impacts.</li> <li>Greater adjacent property impacts</li> </ul>	<p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>Options along north side of the RTD ROW from 95th-109th and 61st to 75th.</li> <li>Majority in favor of trail</li> </ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>Greatest effects to wildlife/environmental</li> </ul>	<p><b>BOULDER CREEK PREFERRED</b></p> <p>OPTION 2, BOULDER CREEK:</p> <ul style="list-style-type: none"> <li>Preferred due to perceived ease of implementation with existing structure</li> </ul>
<b>Neighborhood Workshops</b> (4 Workshops) <i>Note: These workshops only involved discussion of alignments within RTD ROW.</i>	<ul style="list-style-type: none"> <li>Interest in barriers to minimize both wildlife and adjacent property impacts</li> <li>Value safety</li> <li>Mention of environmental impacts (Boulder to 75th)</li> <li>Interest in connections to other trails</li> <li>Excitement about route option off of Valmont</li> </ul>	<p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>All groups were in favor of the trail</li> <li>Minimizes impacts to adjacent properties</li> <li>Promote safety</li> </ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>Impacts to wildlife/environment</li> </ul>			<p><b>UNDERPASS PREFERRED</b></p> <p>OPTION 1, UNDERPASS:</p> <ul style="list-style-type: none"> <li>Safer and less property impacts</li> </ul>
<b>Emails from Community Members</b> (Approximately 250 emails)	<ul style="list-style-type: none"> <li>The majority of comments reflected support and high anticipation for construction/implementation</li> <li>Support highlights potential benefits for recreation access, safe transportation options, community connectivity, and economic development.</li> <li>Environmental concerns regarding wetlands, wildlife, and sensitive habitats</li> <li>Environmental interest at a broader scale to reduce greenhouse gas emissions from car traffic</li> </ul>	<p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>Removed from cars (safety)</li> <li>Scenic value</li> <li>Wider right-of-way provides flexibility for environmental considerations</li> </ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>Impacts to wildlife/environment</li> </ul>	<p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>Avoids most wildlife and most wetland concerns</li> </ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>Greatest interface with cars degrades safety</li> <li>Least scenic value</li> <li>Narrow right-of-way limits implementation</li> </ul>	<p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>Removed from cars (safety)</li> <li>Scenic value</li> </ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>Greatest effects to wildlife/environmental</li> </ul>	<p><b>UNDERPASS</b></p> <p>OPTION 1, UNDERPASS:</p> <ul style="list-style-type: none"> <li>Prioritize safety while maintaining the continuity and quality of the trail</li> </ul>

# PUBLIC INPUT

Survey - Alignment Preferences

424 Total Respondents

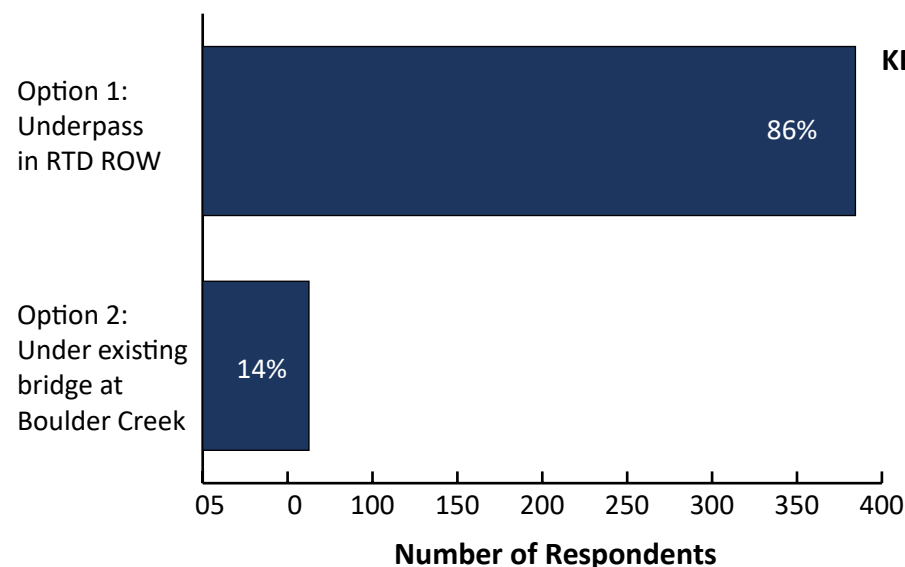


**KEY POINT(S):**

- 72% of respondents ranked Alignment 2 (Valmont) as least preferred
- The majority of respondents preferred an alignment off of Valmont Road
- 78% of respondents ranked Alignment 1 as either their 1st or 2nd Choice

Survey - Preferred US 287 Crossing Option

447 Total Respondents

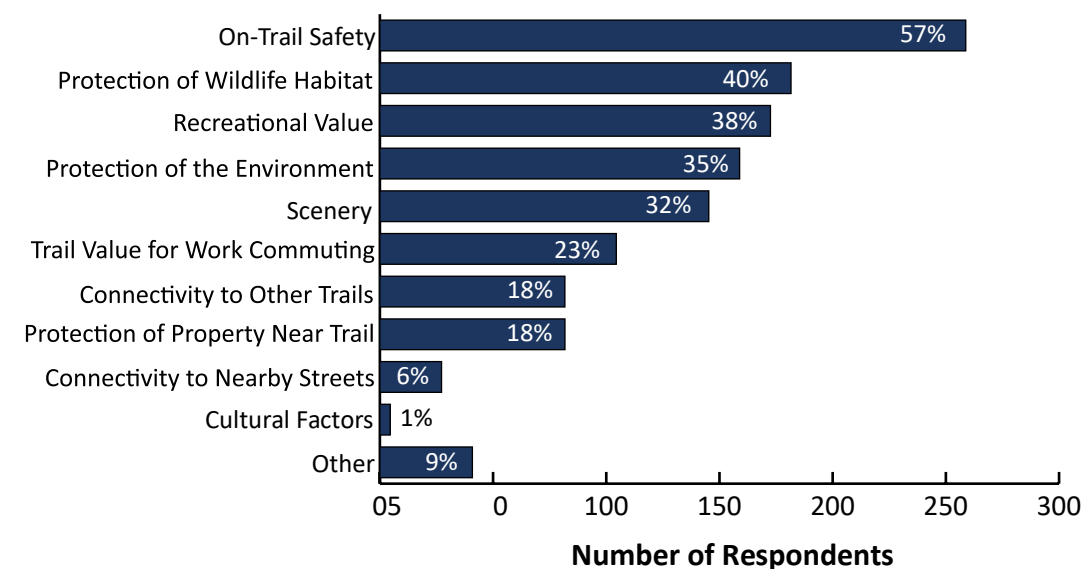


**KEY POINT(S):**

- The vast majority of respondents preferred an underpass crossing of US 287

Survey - Decision Factors

454 Total Respondents



**KEY POINT(S):**

- Survey respondents were asked to indicate up to three decision factors that influenced their choice of top trail alignments, seen to the left.
- While safety was the top decision factor, more than one-third of respondents also indicated that protection of wildlife habitat, recreational value, and protection of the environment influenced their choice

*Note: While it is clear from the survey that Alignment 2 was the least preferred (considering on-trail safety and visitor experience), it is less clear that Alignment 3 would have been ranked as highly as it was considering its impacts to natural resources because two of the four top factors respondents indicated influenced their choice of the preferred alignment(s) for further consideration were: protection of wildlife habitat (40%) and protection of the environment (35%).*

**PUBLIC INPUT SUMMARY:**

- **HIGHEST RANKED ALIGNMENT OPTION(S):** ALIGNMENT 1 - RTD ROW AND ALIGNMENT 3 - OSMP PROPERTY
- **HIGHEST RANKED CROSSING:** 287 CROSSING OPTION 1 - UNDERPASS

# STEERING COMMITTEE AND STAKEHOLDER INPUT

The BERT Steering committee consists of Boulder County Planning & Permitting, Boulder County Public Works, Boulder County Parks & Open Space, City of Boulder Transportation & Mobility, City of Boulder Open Space and Mountain Parks (OSMP), Colorado Department of Transportation (CDOT), Colorado Parks & Wildlife (CPW), Town of Erie, and the Regional Transportation District (RTD). Steering committee and stakeholder input into the preferred alignment for further consideration selection process primarily comes from comments, notes, and written feedback from steering committee meetings and additional partner reviews and discussion. Similar to the public, the safety of a trail facility separated from the road emerged a priority across stakeholder groups. Other values included feasibility, directness of route, and scenic opportunities. The steering committee has expressed a desire to minimize environmental impacts where possible, and discussed potential opportunities for this at length. These values are consistent with a preference for Alignment 1 within the RTD ROW. At US287, there is a slight preference for an underpass. Results and insights from the various forms of outreach are presented in the figures and diagrams below.

Engagement Type	Summary of Stakeholder Input	Alignment 1	Alignment 2	Alignment 3	US 287 Preference
<p><b>Steering Committee</b> (4 Meetings)</p> <p><i>Also note that in addition to meetings, all Steering Committee members contributed individually to creating and filling out the technical evaluation seen on the following pages.</i></p>	<ul style="list-style-type: none"> <li>Consider various land use regulations, property rights, and potential conflicts with existing developments in the project area to keep trail implementable</li> <li>Desires for safe, off-street connection</li> <li>Interest in balancing safety measures, environmental conservation, and community connectivity</li> <li>Funding and budgetary constraints for construction and maintenance</li> <li>Concern for environmental impact and wildlife conservation, particularly in sensitive areas such as wetlands and habitats</li> </ul>	<p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>Safe option</li> <li>Scenic opportunities</li> <li>Most direct route</li> </ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>Wildlife/environmental impacts</li> </ul>	<p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>Avoids most wildlife and most wetland concerns</li> </ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>Greatest interface with cars degrades safety</li> <li>Least scenic value</li> <li>Narrow right-of-way limits implementation</li> </ul>	<p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>Safe option</li> <li>Scenic opportunities</li> </ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>Slightly less direct</li> <li>Greatest wildlife/environmental impacts</li> </ul>	<p><b>NO CLEAR PREFERENCE</b></p> <p>OPTION 1, UNDERPASS:</p> <ul style="list-style-type: none"> <li>More challenging implementation, but safer and more direct</li> </ul> <p>OPTION 2, BOULDER CREEK:</p> <ul style="list-style-type: none"> <li>Less costly, connected to other trails, but greater environmental impacts</li> </ul>
<p><b>Connectivity Workshop</b> (1 design/alignment focused meeting with the steering committee and jurisdictional landowners)</p>	<ul style="list-style-type: none"> <li>Wet areas along RTD ROW between 75-95th impact implementation cost</li> <li>Potential wildlife and sensitive habitat impacts along RTD and OSMP alignments</li> <li>In Valmont-Isabelle ROW driveways, roadway traffic, and areas with narrow ROW present safety and implementation challenges as well as a dampened user experience</li> <li>Existing plans and support along RTD ROW east of 95th</li> </ul>	<p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>Removed from cars (safety)</li> <li>Scenic value</li> <li>Wider right-of-way provides flexibility for environmental considerations</li> </ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>Impacts to wildlife/environment</li> </ul>	<p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>Avoids most wildlife and most wetland concerns</li> </ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>Safety concerns on the Valmont corridor due to a narrow ROW and steep adjacent slopes</li> <li>Driveway impacts on implementation</li> </ul>	<p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>Safe option</li> <li>Scenic opportunities</li> </ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>Greatest wildlife/environmental impacts</li> </ul>	<p><b>UNDERPASS</b></p> <p>OPTION 1, UNDERPASS:</p> <ul style="list-style-type: none"> <li>Avoids sensitive species habitat, safer option, although more expensive</li> </ul>

## STEERING COMMITTEE & STAKEHOLDER INPUT SUMMARY:

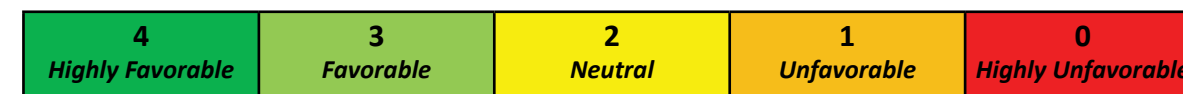
- HIGHEST RANKED ALIGNMENT OPTION(S):** ALIGNMENT 1 - RTD ROW
- HIGHEST RANKED CROSSING:** 287 CROSSING OPTION 1 - UNDERPASS

# TECHNICAL EVALUATION OF ALTERNATIVES

EVALUATION CATEGORIES	Safety	Resource Considerations	Implementation and Maintenance	Adjacent Property Considerations	Trail User Experience
<b>EVALUATION CONSIDERATIONS</b>	<ol style="list-style-type: none"> <li>Roadway Crossings</li> <li>Hwy 287 Crossing</li> <li>Driveways and Other Access Crossings</li> <li>User Sight Distances</li> </ol>	<ol style="list-style-type: none"> <li>Fragmentation of Designated Habitat cause by BERT</li> <li>Wetlands</li> <li>T&amp;E or Species of Management Interest Habitat</li> <li>Introduction of Invasive Species</li> <li>Floodplains/Floodplain Resource Management</li> <li>Proximity to Cultural Sites</li> <li>Agricultural Use, Productivity, and Management</li> <li>Ditch and Lateral Access, Operations, and Maintenance</li> </ol>	<ol style="list-style-type: none"> <li>Uses Existing Facilities/Right of Ways</li> <li>Compatibility with Future Development/Redevelopment</li> <li>Maintenance Costs</li> <li>Constructions Costs</li> <li>Mitigation Costs</li> <li>Permitting</li> <li>Ease/Speed of Implementation</li> <li>Construction Impacts</li> </ol>	<ol style="list-style-type: none"> <li>Ability of property owned by either Boulder County or RTD, as the primary project partners, to complete the project</li> <li>Need for Use of Other Public Lands</li> <li>Need for Use of Private Property</li> <li>Adjacent Land Use</li> </ol>	<ol style="list-style-type: none"> <li>Directness of Alignment</li> <li>Recreation Value</li> <li>Connectivity to Existing or Potential Trailheads, Trails, and other Routes</li> <li>Connectivity to Origins and/or Destinations</li> <li>Trailheads</li> <li>Interpretive Opportunities</li> </ol>

The project team and participating partners have reviewed and discussed these considerations to ensure they comprehensively cover factors relevant to assessing trail alignments in this corridor. Definitions for each consideration have been developed and reviewed in coordination with project partners to establish a shared understanding and ensure consistency in evaluating each conceptual alignment based on current project information. Additional information generated in future phases will enhance this evaluation and provide necessary details for the actual design and construction phases.

Once these considerations and the corresponding definitions were in place, the four alignments were evaluated accordingly by the project team initially and then reviewed by project partners and further refined. Due to the conceptual nature of the alignments and the data available at this stage, alignments received rankings of “Highly Favorable,” “Favorable,” “Neutral,” “Unfavorable,” or “Highly Unfavorable,” for each consideration, as shown in the key diagram below.



The tables on the following page show summaries of the conceptual alignment grading matrix with totals by category and the ranking associated with that total combined in one chart for the conceptual alignments and one chart for the Hwy 287 crossing options. The row of numbers at the bottom of the table represents the sum of all the points for each alignment. This makes it easier to see how the alignments compare to one another.

These totals by category have also been adjusted to account for the fact that the categories have differing numbers of considerations within them, as listed in the chart above. While the number of considerations per category is reflective of the complexity of the particular category and is not at all intended to represent any intentional weighting of categories based on level of importance, this difference does in effect weight different categories unequally making it more difficult to compare the scores between categories and alignments. In order to balance this out multipliers have been applied to the various categories as seen in the table below to ensure that the maximum number of “points” possible for each category is the same.

EVALUATION CATEGORIES	NUMBER OF CONSIDERATIONS	MULTIPLIER	MAXIMUM POINTS POSSIBLE/ CONSIDERATION	MAXIMUM POINTS POSSIBLE/ CATEGORY
Safety	4	2	8	32
Resource Considerations	8	1	8	32
Implementation and Maintenance	8	1	8	32
Adjacent Property Considerations	4	2	8	32
Trail User Experience	6	1.33	8	32

**APPENDIX D - STEERING COMMITTEE MEETINGS**

EVALUATION CATEGORIES	EVALUATION CONSIDERATIONS	Conceptual Alignment 1a - RTD ROW with minimal railbed crossovers	Conceptual Alignment 1b - RTD ROW with railbed potential	Conceptual Alignment 2 - Valmont	Conceptual Alignment 3 - OSMP Property	287 Crossing - Option 1 - Underpass	287 Crossing - Option 2 - Boulder Creek
Safety	Roadway Crossings						
	Hwy 287 Crossing						
	Driveways and Other Access Crossings						
	User Sight Distances						
	<i>[Multiplier =2] Total out of 32:</i>	22	22	10	20	20	12
Resource Considerations	Fragmentation of Designated Habitat cause by BERT						
	Wetlands						
	T&E or Species of Management Interest Habitat						
	Introduction of Invasive Species						
	Floodplains/Floodplain Resource Management						
	Proximity to Cultural Sites						
	Agricultural Use, Productivity and Management						
	Ditch and Lateral Access, Operations, and Maintenance						
	<i>[Multiplier =1] Total out of 32:</i>	9	10	17	6	17	11
Implementation and Maintenance	Uses Existing Facilities/Right of Ways						
	Compatibility with Future Development/Redevelopment						
	Maintenance Cost						
	Construction Costs						
	Mitigation Costs						
	Permitting						
	Ease/Speed of Implementation						
	Construction Impacts						
	<i>[Multiplier =1] Total out of 32:</i>	15	15	10	6	9	13
Adjacent Property Considerations	Ability of BOCO or RTD ROW and property to complete the project						
	Need for Use of Other Public Lands						
	Need for Use of Private Property						
	Adjacent Land Use						
	<i>[Multiplier =2] Total out of 32:</i>	28	28	8	10	24	14
Trail User Experience	Directness of Alignment						
	Recreational Value						
	Connectivity to existing or potential Trailheads, Trails, and other Routes						
	Connectivity to Origins and/or Destinations						
	Trailheads						
	Interpretive Opportunities						
	<i>[Multiplier =1.33] Total out of 32:</i>	27.93	27.93	19.95	25.27	17.29	22.61
<b>Total out of 160</b>		<b>101.93</b>	<b>102.93</b>	<b>64.95</b>	<b>67.27</b>	<b>87.29</b>	<b>72.61</b>

# TECHNICAL EVALUATION OF ALTERNATIVES

EVALUATION CATEGORIES	Conceptual Alignment 1a- RTD ROW with minimal railbed crossovers	Conceptual Alignment 1b - RTD ROW with railbed potential	Conceptual Alignment 2 - Valmont	Conceptual Alignment 3 - OSMP Property
Safety	22	22	10	20
Resource Considerations	9	10	17	6
Implementation and Maintenance	15	15	10	6
Adjacent Property Considerations	28	28	8	10
Trail User Experience	27.93	27.93	19.95	25.27
<b>Total out of 160</b>	<b>101.93</b>	<b>102.93</b>	<b>64.95</b>	<b>67.27</b>

**ALTERNATIVES KEY POINTS:**

- Alignments 1a and 1b rank almost the same as each other, the only slight difference is in the “Resource Considerations” category. These are also the only alignments to rank “Highly Favorable” in one or more categories
- Alignment 2 ranks the best of the alignments in the “Resource Considerations” category but is generally worse in the other categories
- While Alignment 3 ranks well for “Safety” and “Trail User Experience,” it is the worst of the alignments in “Resource Considerations” and “Implementation and Maintenance” and is the only alignment to score “Highly Unfavorable” in or more categories

**SAFETY:**

- **Best** = Alignments 1A and 1B
- **Worst** = Alignment 2

**RESOURCE CONSIDERATIONS:**

- **Best** = Alignment 2
- **Worst** = Alignments 3

**IMPLEMENTATION AND MAINTENANCE:**

- **Best** = Alignments 1a and 1b
- **Worst** = Alignment 3

**ADJACENT PROPERTY CONSIDERATIONS:**

- **Best** = Alignments 1a and 1b
- **Worst** = Alignment 2

**TRAIL USER EXPERIENCE:**

- **Best** = Alignments 1a and 1b
- **Worst** = Alignment 2

KEY
25.7 - 32 <i>Highly Favorable</i>
19.3 - 25.6 <i>Favorable</i>
12.9 - 19.2 <i>Neutral</i>
6.5 - 12.8 <i>Unfavorable</i>
0 - 6.4 <i>Highly Unfavorable</i>

EVALUATION CATEGORIES	287 Crossing - Option 1 - Underpass	287 Crossing - Option 2 - Boulder Creek
Safety	20	12
Resource Considerations	17	11
Implementation and Maintenance	9	13
Adjacent Property Considerations	24	14
Trail User Experience	17.29	22.61
<b>Total out of 160</b>	<b>87.29</b>	<b>72.61</b>

**CROSSINGS KEY POINTS:**

- Option 1 ranks better than Option 2 in 3 of 5 categories and highest in “Safety” and “Adjacent Property Considerations”
- Option 2 ranks higher than Option 1 in “Implementation and Maintenance” and “Trail User Experience”

**SAFETY:**

- **Best** = Option 1

**RESOURCE CONSIDERATIONS:**

- **Best** = Option 1

**IMPLEMENTATION AND MAINTENANCE:**

- **Best** = Option 2

**ADJACENT PROPERTY CONSIDERATIONS:**

- **Best** = Option 1

**TRAIL USER EXPERIENCE:**

- **Best** = Option 2

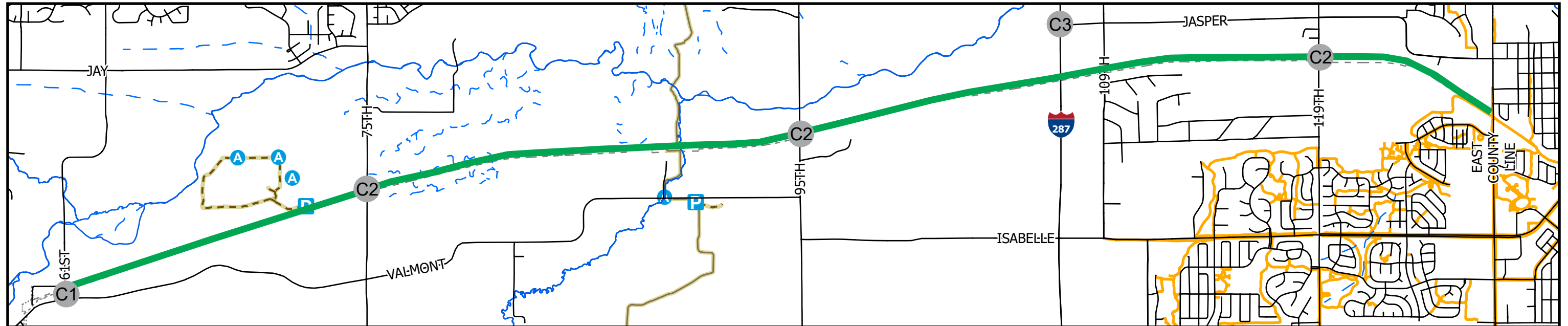
**TECHNICAL EVALUATION SUMMARY:**

- **HIGHEST RANKED ALIGNMENT OPTION(S):** ALIGNMENT 1B - RTD ROW WITH RAILBED POTENTIAL
- **HIGHEST RANKED CROSSING:** 287 CROSSING OPTION 1 - UNDERPASS

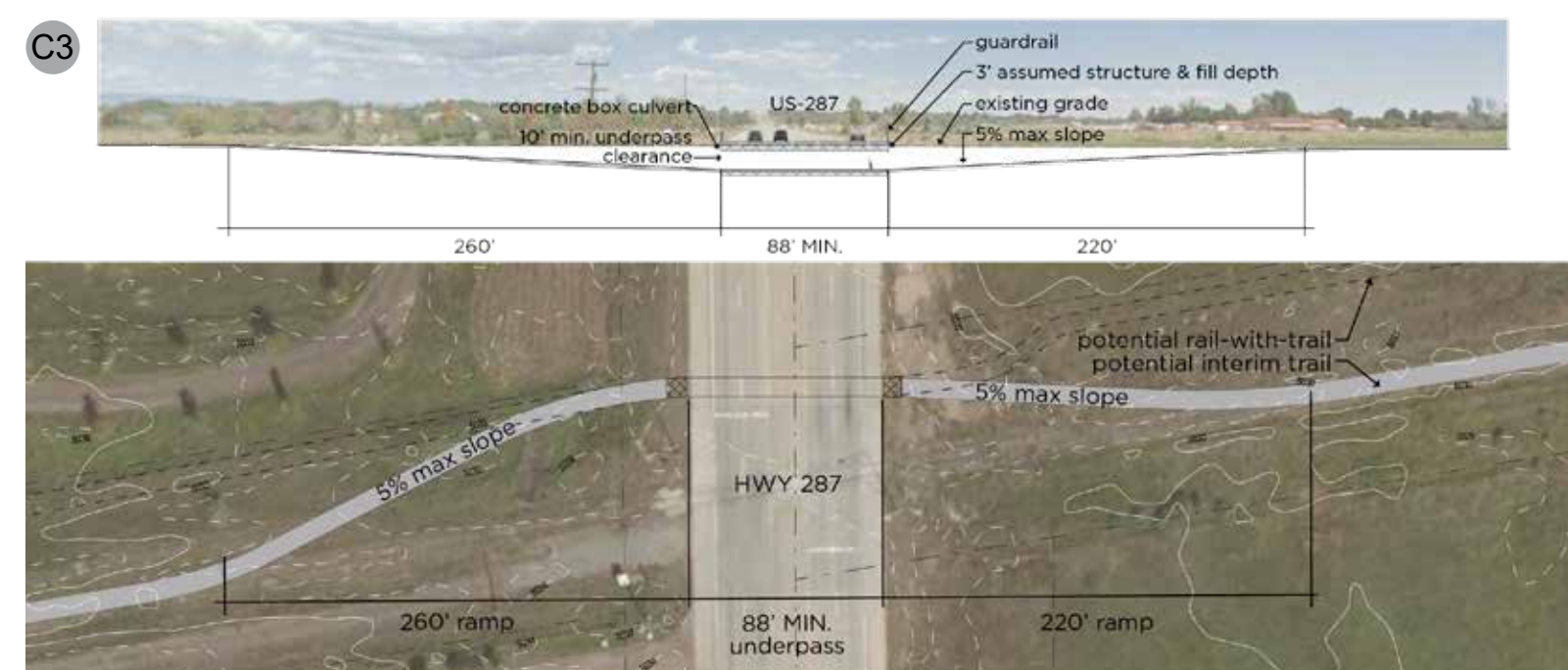
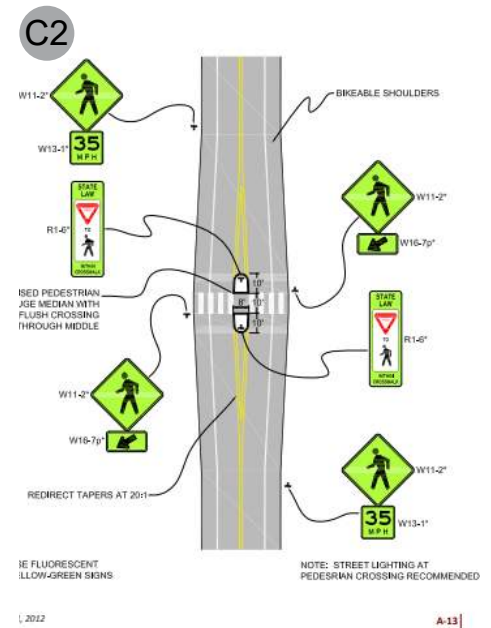


# PREFERRED ALIGNMENT FOR FURTHER CONSIDERATION

THE PREFERRED BERT TRAIL ALIGNMENT FOR FURTHER CONSIDERATION IS A 10FT WIDE SOFT SURFACE TRAIL LOCATED IN THE RTD ROW OFF OF THE RAIL BED, UNLESS THERE IS A WETLAND AVOIDANCE ADVANTAGE GAINED BY LOCATING ON TOP OF THE EXISTING RAILBED (ALIGNMENT 1B). IT CROSSES 75TH, 95TH, AND 119TH WITH BOULDER COUNTY MULTI-MODAL STANDARDS CROSSING A-13 (CROSSING C2 BELOW), CROSSES HWY 287 WITH AN UNDERPASS (CROSSING C3 BELOW). 109TH IS CROSSED WITH A TRADITIONAL CROSSWALK DUE TO LOWER TRAFFIC VOLUMES.



## Crossings



## Meeting Summary

### Boulder to Erie Regional Trail (BERT) Plan

# Steering Committee Meeting

Tuesday, July 16, 2024

10:00am - 12:00pm

Boulder Public Library - Main Branch | 1001 Arapahoe Ave | Boulder, CO

#### Meeting Purpose:

- Update Steering Committee on the project status and progress
- Coordinate next steps for Steering Committee member coordination (i.e. BERT Plan document review, board meetings, concurrence)
- Present Preferred Alignment for Further Consideration, discuss any questions/comments

#### Updates

The BERT Planning team has been working with Colorado Parks and Wildlife and City of Boulder Open Space and Mountain Parks to clarify nest-by-nest recommendations for sensitive raptor species in proximity to the RTD right-of-way. This process has extended our timeline two months, to conclude in October 2024.

#### → SC Question: Is the discussion around diverting the trail alignment?

- A: No. Since no regulatory buffers (USFWS is regulatory authority) overlap with the RTD right-of-way, but recommended CPW/OSMP buffers for one some raptor species do overlap, ERO has put together nest-by-nest recommendations for CPW and OSMP to review. This type of coordination is not typical at this stage, but the project team is committed to exploring options to support implementation and meet community values indicated in our outreach and best inform the Boulder County Commissioners in their consideration of BERT Plan approval.

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There are multiple opportunities for Steering Committee feedback and review of the draft BERT Plan. Details are as follows:

- Confirmed Dates for Board Presentations of BERT Alignment and Draft BERT Plan:
  - Erie Open Space and Trails Advisory Board: Monday, September 9
  - City of Boulder Open Space Board of Trustees: Wednesday, September 11
  - Boulder County Parks & Open Space Advisory Committee: Thursday, September 26
- Steering Committee Member Review of BERT Plan: August 12-23 via SharePoint, details and instructions to follow (dates for plan review have since been pushed back to Aug 14-27)

#### → Steering Committee Members clarified the following as appropriate requests to Boards and leadership for the BERT Plan

- Boulder County POSAC: Motion of support and continued collaboration
- City of Boulder OSBT: Agreement to process, evaluation, and advise on continued collaboration
- Erie OSTAB: Motion to concur with the findings of the BERT Plan
- RTD: Concurrence Memo

- CPW: Recommendations for wildlife considerations

### Preferred Alignment Selection Process

This planning process explores an opportunity to advance Boulder County's Strategic Priority of greenhouse gas emissions reductions by providing a desired connection in eastern Boulder County that has been identified in the Boulder County Comprehensive Plan, the Boulder Valley Comprehensive Plan, and the Boulder County Transportation Master Plan. The evaluation of alignments for the BERT combined three types of inputs:

1. Technical evaluation of objectives defined by the Steering Committee and Project Team
2. Public preferences and values from extensive outreach including surveys, community member emails, in-person open houses, neighbor interviews, and advising from a Community Working Group
3. Expertise from the Steering Committee meeting discussions landowners of the rights-of-way under consideration for alignment options

There are four alternatives and two highway 287 crossings that were evaluated using these inputs:

- Two Alternatives are entirely within RTD right-of-way: one stays entirely outside the rail bed, one using rail bed in sections as needed (i.e. wet areas that would make construction & maintenance difficult), tradeoff is that building within the railbed is not straightforward.
- RTD/BOCO Valmont Rd rights-of-way: The benefit of this option is that it avoids more environmentally sensitive areas; however issues include construction feasibility due to narrow right of way, multiple land owners, and a strong dislike of traffic proximity and perceived safety.
- RTD/OSMP rights-of-way: The intended benefit of this option was to avoid sensitive and/or wet areas in the RTD right-of-way while maintaining some directness and separation from roads; but when compared to other alignment concepts during the evaluation process, the intended/desired benefits were revealed to instead be further operational and environmental resource issues.
- 287 Underpass: The strength of this option is safety and convenience for trail users, but issues include higher cost and additional implementation requirements.
- 287 at Boulder Creek: The strength of this option is potential for faster implementation, but the route is less convenient for trail users, interfaces with more roads, and may need easements.

#### → SC Feedback on Evaluation Presentation and Approach

- Remove any language around "best" and "worst" among alignment options and work towards communication of tradeoffs
- Remove technical evaluation total "scores" to reduce confusion of a bias towards numbers as "absolute" determinant
- Reiterate the context behind the color-coding often
- Divide resource considerations into three distinct categories: environmental, agricultural, and cultural
- Divide implementation and maintenance considerations into two distinct categories

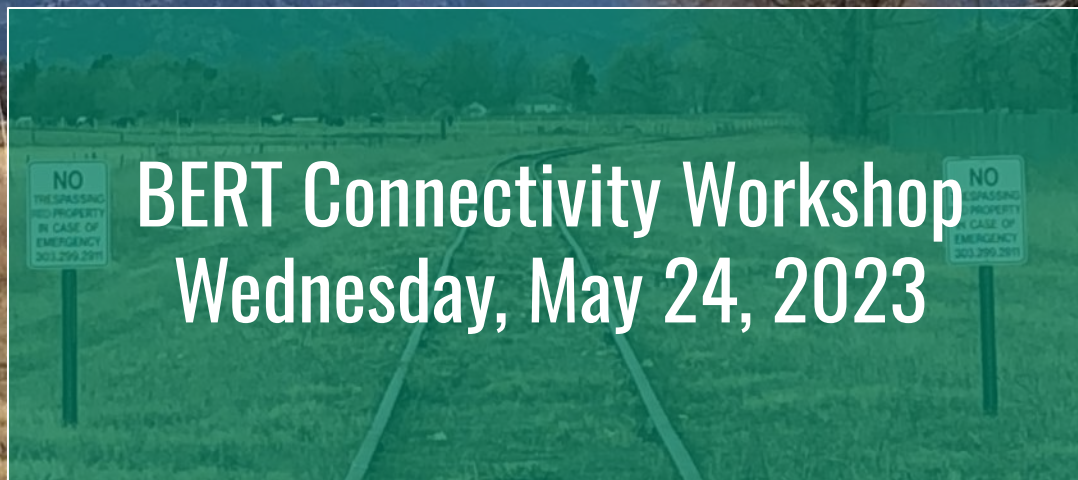
#### → SC Feedback on Selected Alignment for referred Consideration: Alignment 1 – RTD right-of-way with the ability to use the rail bed and an underpass at 287

- No concerns voiced
- **ACTION:** Connect with railbike company to coordinate early about planned operations on the Erie portions of RTD right-of-way
- **ACTION:** Schedule individual underpass discussion with CDOT

### Attendance

- Tonya Luebbert, Boulder County CP&P
- Cliff Lind, Project Team
- Kelsey Blaho, Project Team
- Bill Mangle, Project Team
- Jeffrey Range, Project Team
- Laura Hickey, Project Team
- Juliet Bonnell, OSMP
- Kacey French, OSMP
- Stacey Proctor, Boulder County CP&P
- Jarret Roberts, Boulder County Parks & Open Space
- Justin Atherton-Wood, Boulder County Parks & Open Space
- Miguel Aguilar, Town of Erie
- Tony Meneghetti, CDOT

Representatives from RTD, CPW, City of Boulder Transportation & Mobility, and Boulder County Public Works were not in attendance.



Boulder to Erie Regional Trail (BERT)

205



CDR ASSOCIATES  
COLLABORATIVE DECISION RESOURCES



# MEETING PURPOSE

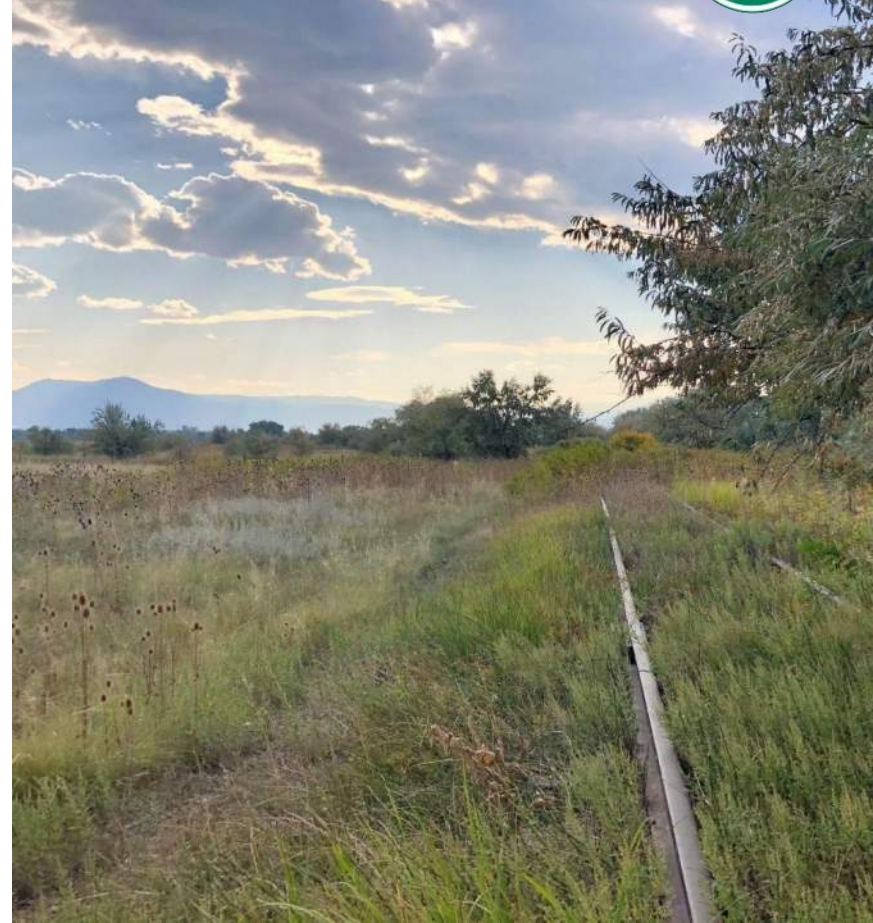


To collaboratively identify two or three conceptual trail alignments in a workshop environment. The conceptual trail alignments can utilize the RTD ROW, defined corridors on OSMP property, and BOCO ROW. We will provide technical information and base mapping so that we can put pen to paper to brainstorm ideas and refine them to conceptual trail alignments for further evaluation and consideration.

# AGENDA



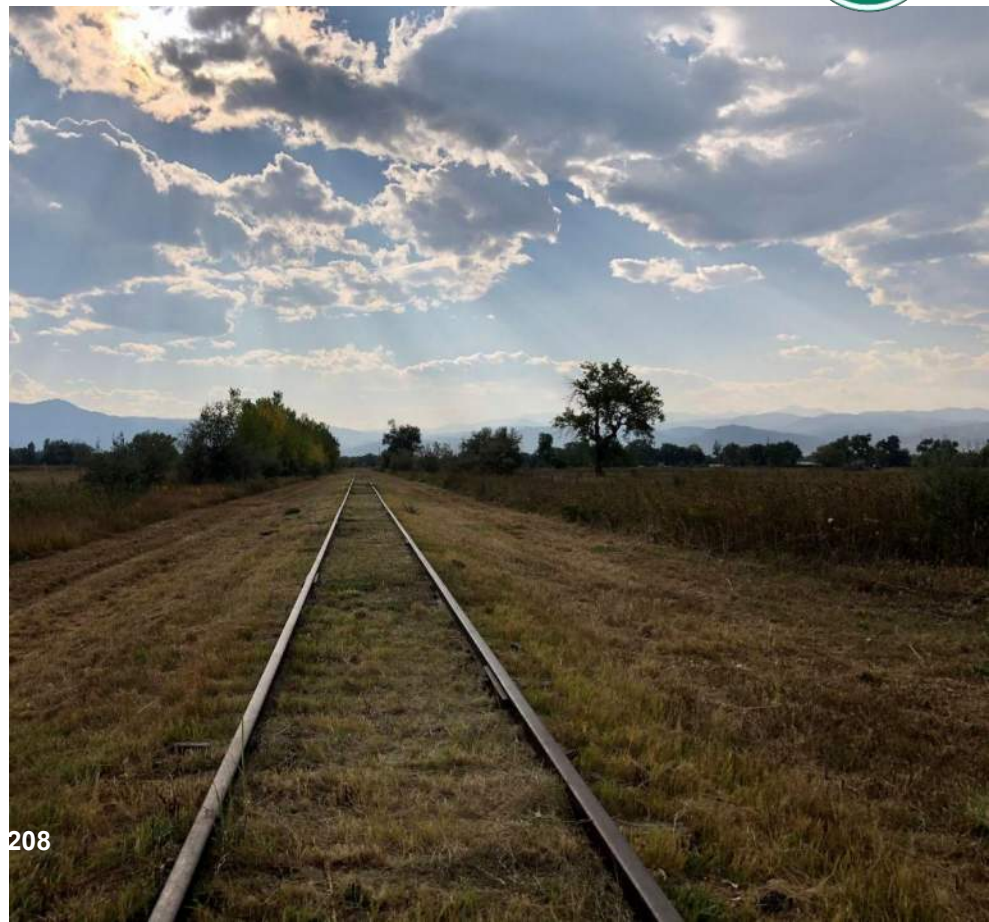
1. Welcome & Introductions
2. General Corridor Overview
3. Regional Trails
4. BREAK
5. Activity
6. Wrap Up & Next Steps



# INTRODUCTIONS



- Name
- Organization or Affiliation
- What do you enjoy most about the work you do?

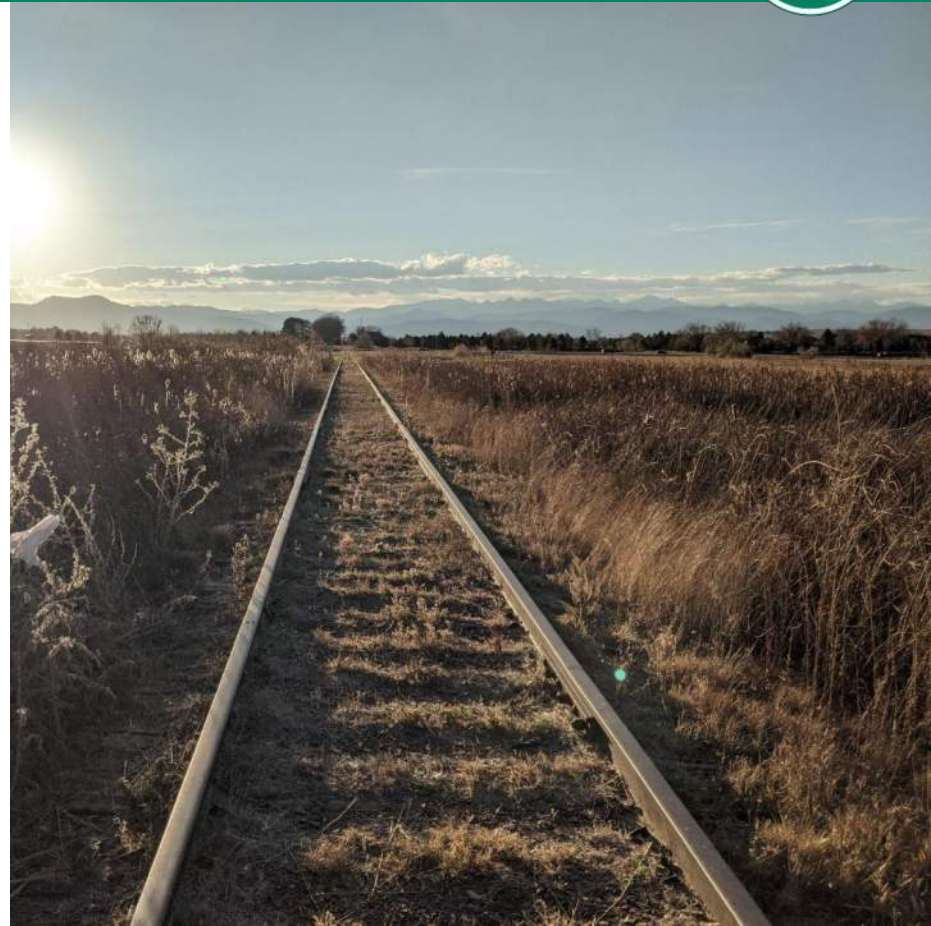




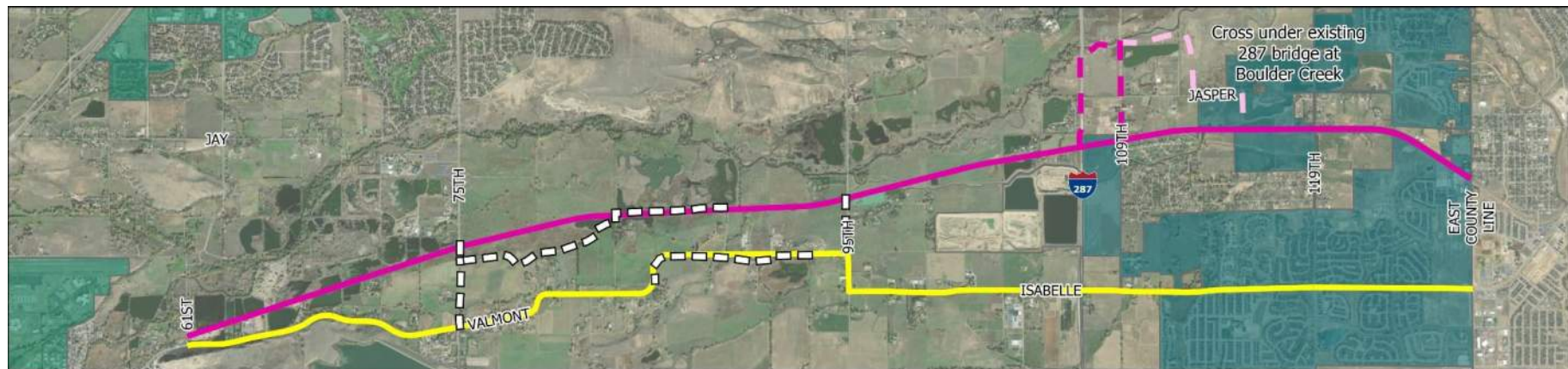
# CORRIDOR OVERVIEW



- Whole Corridor
- 61<sup>st</sup> – 95<sup>th</sup>
- 95<sup>th</sup> - Erie



# CORRIDOR OVERVIEW: Whole Corridor



# CORRIDOR OVERVIEW: 61<sup>st</sup> – 95<sup>th</sup>



*RTD ROW and Valmont & 61<sup>st</sup> intersection*



*RTD ROW just east of 61<sup>st</sup>*

# CORRIDOR OVERVIEW: 61<sup>st</sup> – 95<sup>th</sup>



*RTD ROW between 61<sup>st</sup> and Sawhill Ponds*



*RTD ROW close to Sawhill Ponds*

# CORRIDOR OVERVIEW: 61<sup>st</sup> – 95<sup>th</sup>



*Valmont close to 75<sup>th</sup> Intersection*



*RTD ROW between 75<sup>th</sup> and East Boulder – White Rocks Trail*

# CORRIDOR OVERVIEW: 61<sup>st</sup> – 95<sup>th</sup>



*RTD ROW between 75<sup>th</sup> and East Boulder – White Rocks Trail*



*Valmont between 75<sup>th</sup> and East Boulder – White Rocks Trail*

# CORRIDOR OVERVIEW: 61<sup>st</sup> – 95<sup>th</sup>



*RTD ROW close to East Boulder – White Rocks Trail*



*RTD ROW close to East Boulder – White Rocks Trail*

# CORRIDOR OVERVIEW: 61<sup>st</sup> – 95<sup>th</sup>



*Valmont close to East Boulder – White Rocks Trail*



*RTD ROW close to 95<sup>th</sup>*



# CORRIDOR OVERVIEW: 61<sup>st</sup> – 95<sup>th</sup>



Valmont at 95<sup>th</sup>



Valmont at 95<sup>th</sup>

# CORRIDOR OVERVIEW: 61<sup>st</sup> – 95<sup>th</sup>



*RTD ROW between 95<sup>th</sup> and US 287*



*Isabelle between 95<sup>th</sup> and US 287*

# CORRIDOR OVERVIEW: 95<sup>th</sup> - Erie

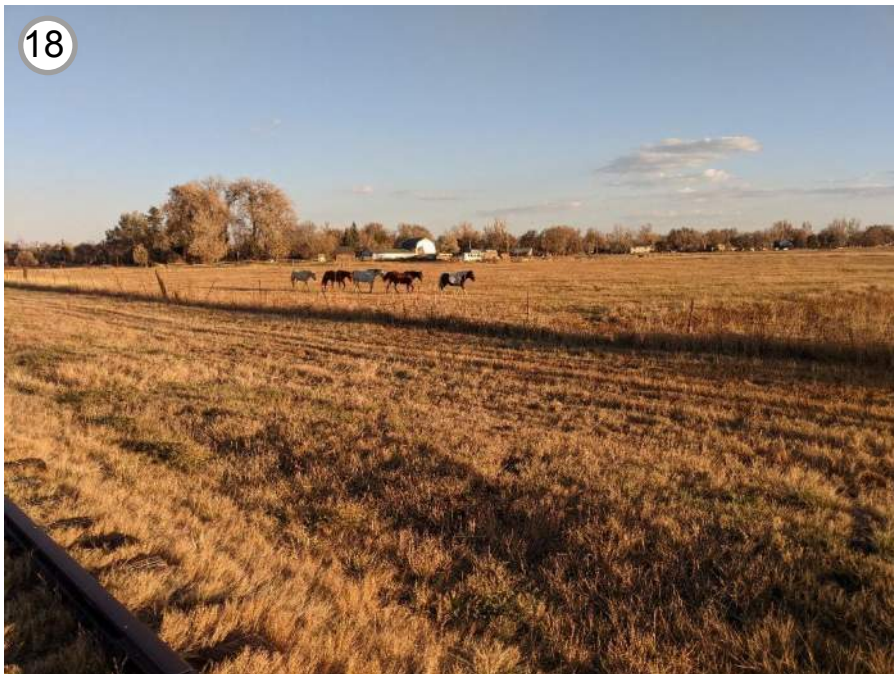


*RTD ROW between 95<sup>th</sup> and US 287*

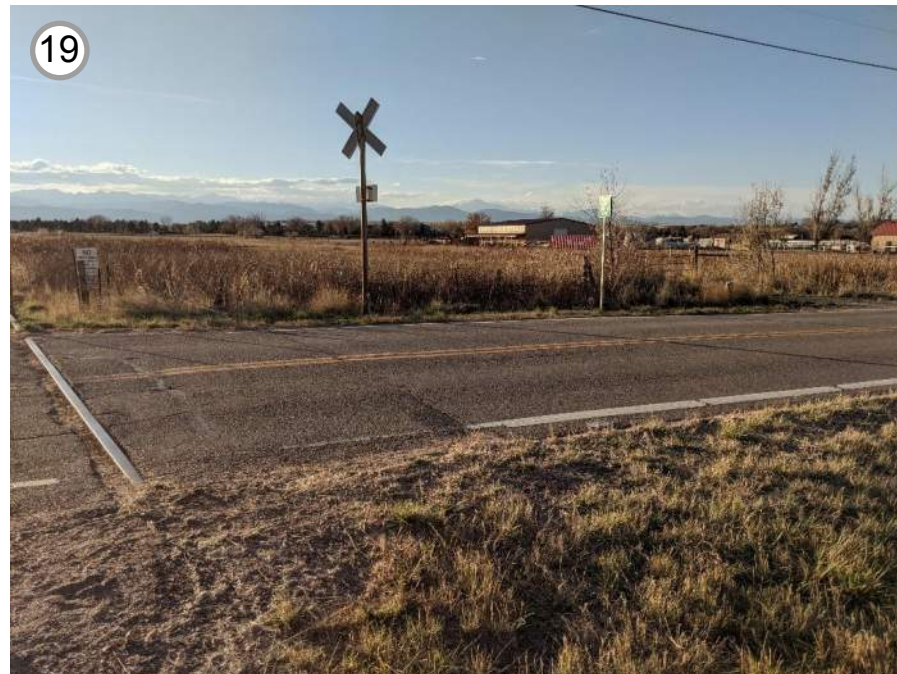


*RTD ROW at US 287*

# CORRIDOR OVERVIEW: 95<sup>th</sup> - Erie



RTD ROW just past US 287



RTD ROW at 109<sup>th</sup>

# CORRIDOR OVERVIEW: 95<sup>th</sup> - Erie



109<sup>th</sup> between RTD ROW and Isabelle



RTD ROW just past 109<sup>th</sup>

# CORRIDOR OVERVIEW: 95<sup>th</sup> - Erie



*Isabelle between 109<sup>th</sup> and 119<sup>th</sup>*



*Isabelle between 109<sup>th</sup> and 119<sup>th</sup>*

# CORRIDOR OVERVIEW: 95<sup>th</sup> - Erie



119<sup>th</sup> between the RTD ROW and Isabelle



RTD ROW between 119<sup>th</sup> and East County Line Rd

# CORRIDOR OVERVIEW: 95<sup>th</sup> - Erie



*RTD ROW at East County Line Rd*



# REGIONAL TRAILS: Typical Conditions



- Surface – Compacted crusher fines
- Typ Width – 10ft with 1ft shoulder or 2ft shoulder between continuous obstructions (fences, railing, continuous structures)



# REGIONAL TRAILS: Typical Conditions



- Possible side trail for horses
- Fencing/Gates



# REGIONAL TRAILS: Typical Conditions



→ Total Width of Disturbance

→ User Types

- Bikes
- Equestrians
- Runners
- Walkers



# REGIONAL TRAILS: Typical Conditions



## → Crossings – 61<sup>st</sup> and Valmont



PRELIMINARY - NOT FOR CONSTRUCTION - JANUARY, 2023

# REGIONAL TRAILS: Typical Conditions



→ Crossings – 287 Underpass



*Airport Road Underpass*



*US 287 Underpass*

# REGIONAL TRAILS: Typical Conditions



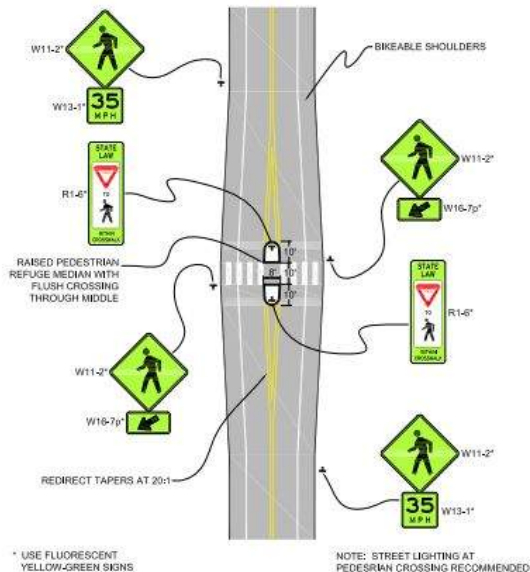
## → Other Road Crossings



IBM Connector

Boulder County Multimodal Transportation Standards

Standard Drawing 8 - Typical Pedestrian Crossing Treatment  
(2-Lane Rural Roadway with Speed Limit  $\geq$  35mph)



July 1, 2012

A-13 |

# REGIONAL TRAILS: Typical Conditions



## → Water Crossings



*Bridge and Bench along Cradleboard Trail*

# REGIONAL TRAILS: Typical Conditions



## → Trailheads and Trail Access



*Stearns Lake Parking Lot – Carolyn Holmberg Preserve*



**232** *East Boulder – White Rocks Trail*





**BREAK**



# ACTIVITY: Intro & Instructions

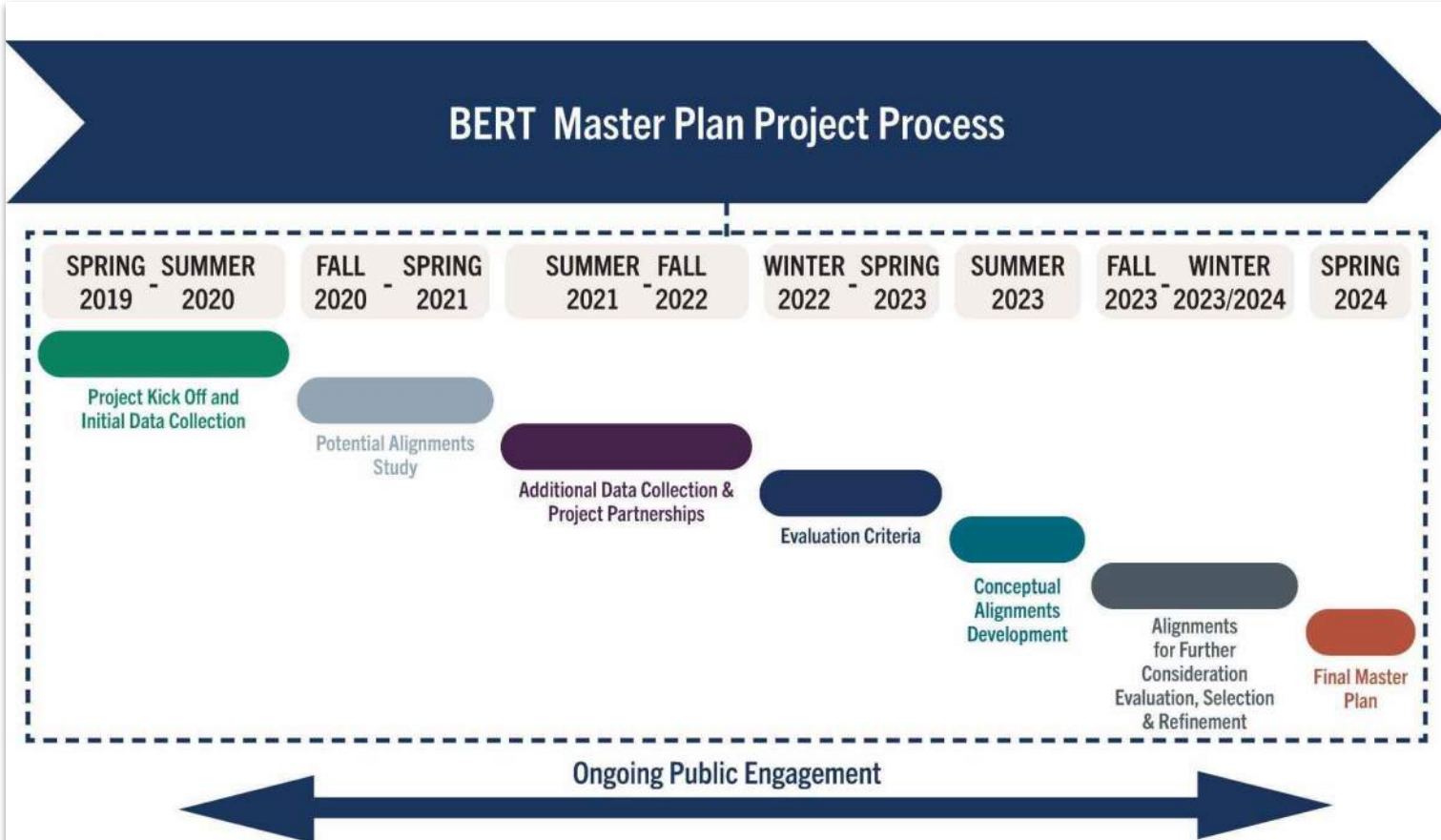
- Separate into two corridor groups (61st-95th, 95th-Erie)
- Identify any important conditions or challenges in the section
- Identify 1-4 potential alignment options/combinations and the pros/cons of each
- Consider:
  - Potential opportunities for connectivity or new trailheads
  - Other important decision making factors outlined in project purpose and goals
- Report out on discussion

# Project Purpose and Goals



- **Project Purpose:** The purpose of this planning effort is to evaluate and identify alignment(s) for further consideration for an east-west multi-use trail connection between Boulder and Erie in Eastern Boulder County for both transportation and recreation. The ideal trail alignment will be reasonably implementable while providing increased safety for both transportation and recreation with low impacts to environmental and cultural resources and adjacent properties.
- **Project Goals:** This project will provide an east-west multi-use trail connection between Boulder and Erie in Eastern Boulder County. The ideal trail alignment will be safe, feasible, efficient, convenient, and enjoyable, taking into consideration the following goals:
  - **Transportation and Recreation:** provide an east-west multi-use trail for both transportation and recreation uses;
  - **Increased Safety:** provide a safe, low-stress connection between Erie and Boulder;
  - **Multi-Use:** provide opportunities for bicyclists, pedestrians, equestrians, and even snowshoers and cross-country skiers in the winter months;
  - **Low Environmental and Cultural Considerations:** impact of the trail on environmental and cultural resources will be minimized to the extent possible;
  - **Implementable:** realistically develop a trail alignment that is implementable from a funding and construction perspective;
  - **Low Adjacent Property Considerations:** impact of the trail on adjacent properties will be minimized to the extent possible; and
  - **Trail User Experience:** provide opportunity to experience the natural beauty of Boulder County and connect to other trail systems in the area

# NEXT STEPS



# NEXT STEPS



- Meeting Summary/Notes
- Refine Concepts from Connectivity Workshop
- Open House/Public Meeting – Early July



## CONTACT US

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tluebbert@bouldercounty.org

Visit the Website: [RTDRailTrail.com](http://RTDRailTrail.com)

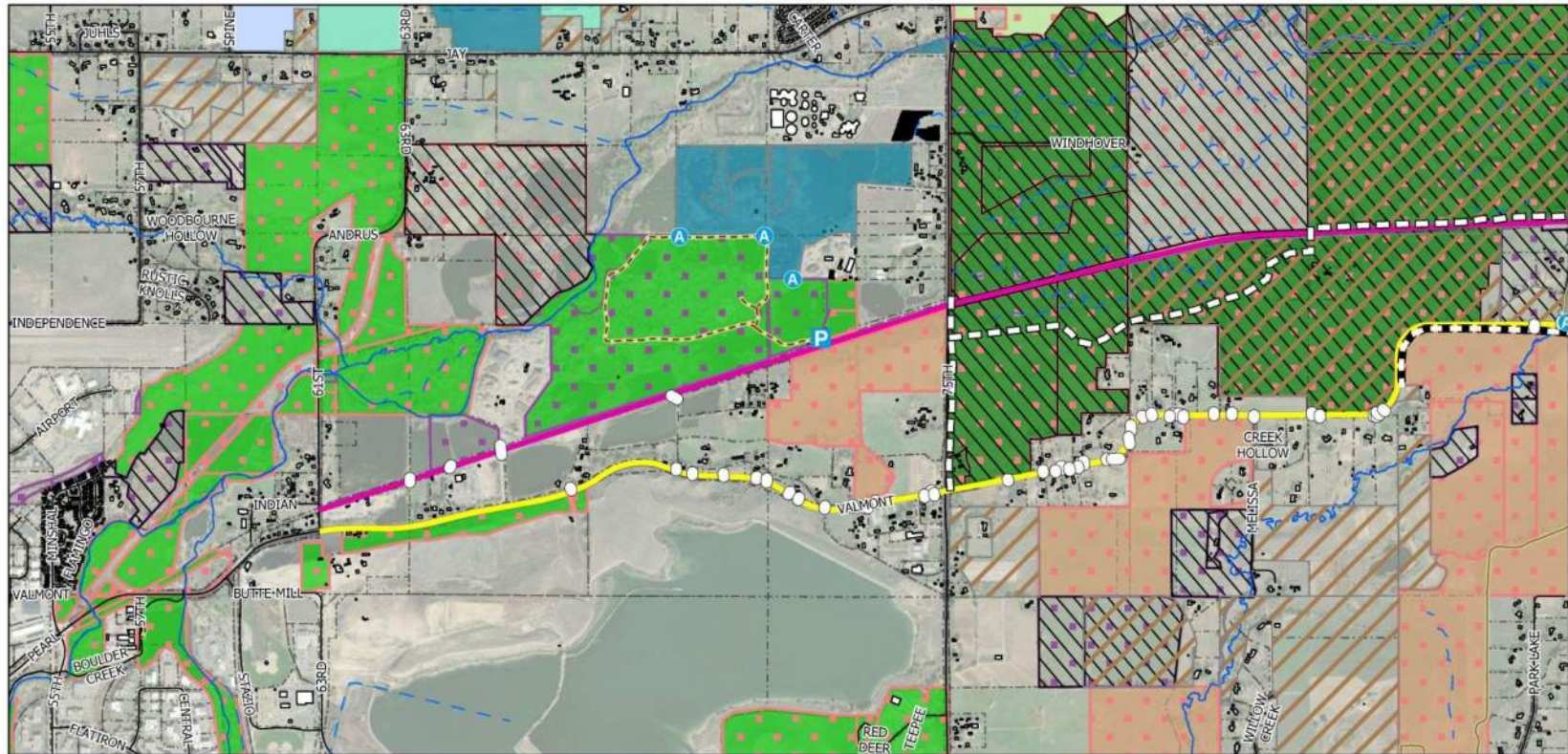


CDR ASSOCIATES  
COLLABORATIVE DECISION RESOURCES



ERO Resources Corporation

# Exhibit 1: Map Depicting Land Ownership and Corridors for Consideration in the Project Area



### Corridors for Consideration

- Routes on OSMP
- RTD Rail Corridor
- Valmont/Isabelle Corridor
- 287 Crossing at Boulder Creek A
- 287 Crossing at Boulder Creek B
- Driveways

*Note: The lines on these maps represent general corridors and could contain multiple conceptual trail alignments for further consideration.*

### County Open Space

- ▨ County Conservation Easement
- County Managed
- County Owned Open Space
- Joint County and Municipal Open Space
- ▨ Miscellaneous Easement

### Erie Green Space Ownership

- Erie
- ### Linear Hydrology
- Perennial Stream
  - Ephemeral and Intermittent Streams
- ### Managed Trail Access Locations
- P OSMP Trailhead

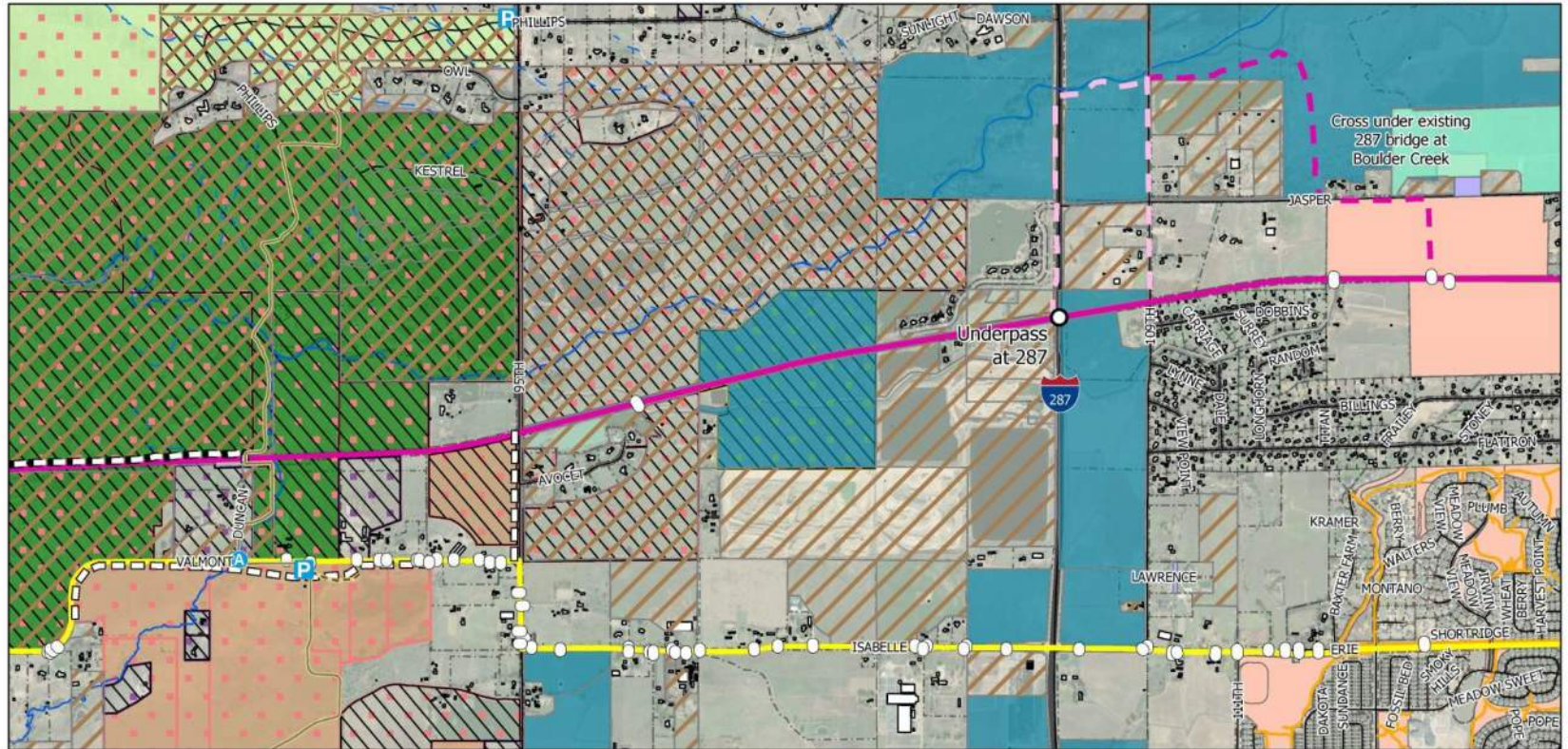
### OSMP Access Point

- OSMP Hiking Trail
  - OSMP Multi-Use Trail
  - Erie Trails
- ### OSMP Land
- ▨ No Public Access

- OSMP Fee Ownership
  - OSMP Joint Ownership
  - OSMP Joint Easement
  - ▨ OSMP Easement
- ### OSMP Management Area Designations
- Agricultural Area

- Habitat Conservation Area
  - Natural Area
  - Passive Recreation Area
- ### Parcels
- ▨ Boulder County Road Right of Way

# Exhibit 2: Map Depicting Land Ownership and Corridors for Consideration in the Project Area



### Corridors for Consideration

- Routes on OSMP
- RTD Rail Corridor
- Valmont/Isabelle Corridor
- 287 Crossing at Boulder Creek A
- 287 Crossing at Boulder Creek B
- Driveways

*Note: The lines on these maps represent general corridors and could contain multiple conceptual trail alignments for further consideration.*

### County Open Space

- County Conservation Easement
- County Managed
- County Owned Open Space
- Joint County and Municipal Open Space
- Miscellaneous Easement

### Erie Green Space Ownership

- Erie
- ### Linear Hydrology
- Perennial Stream
  - Ephemeral and Intermittent Streams

### Managed Trail Access Locations

- OSMP Trailhead

### OSMP Access Point

- OSMP Access Point
- OSMP Hiking Trail
- OSMP Multi-Use Trail
- Erie Trails
- OSMP Land
- No Public Access

### OSMP Fee Ownership

- OSMP Fee Ownership
- OSMP Joint Ownership
- OSMP Joint Easement
- OSMP Easement
- Agricultural Area

### Habitat Conservation Area

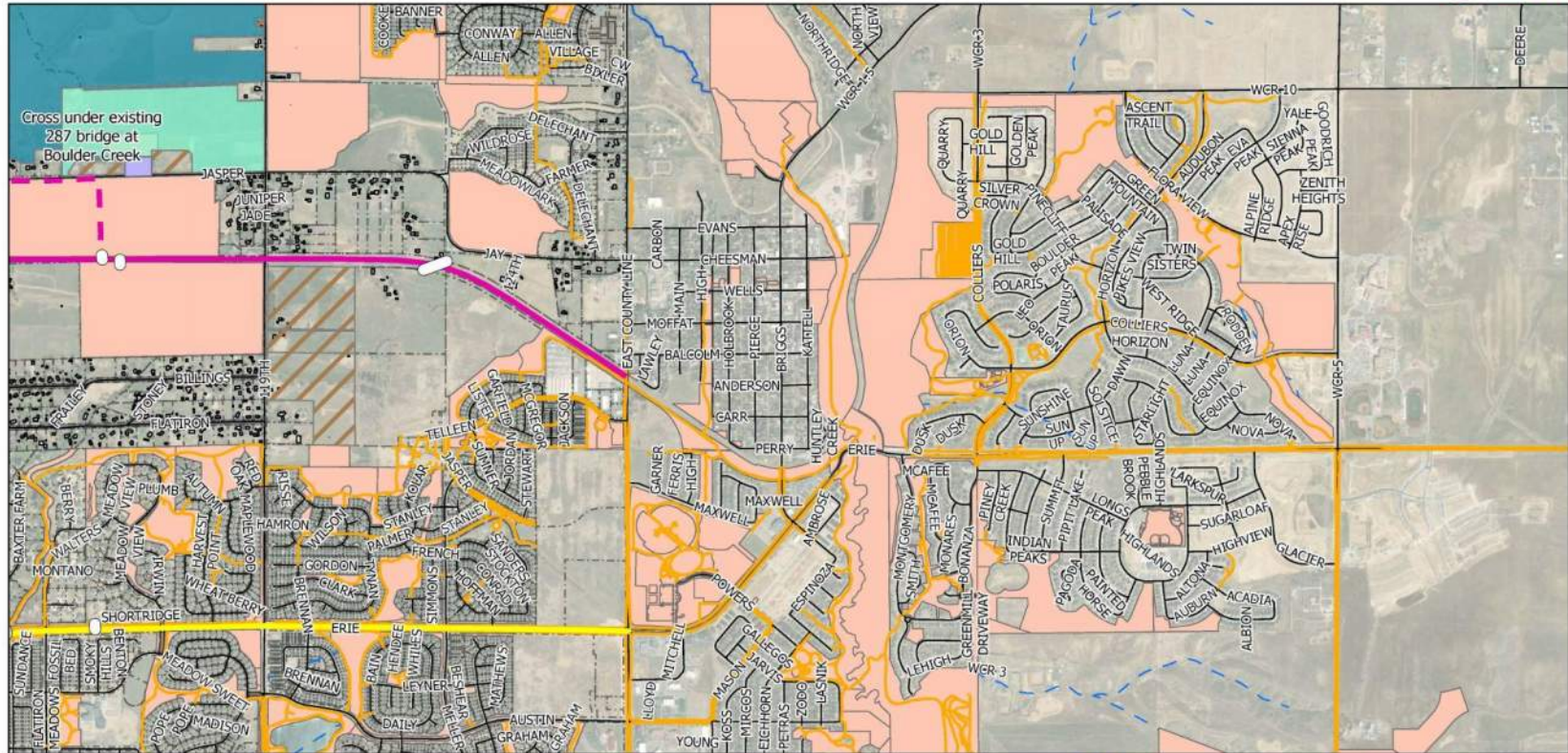
- Habitat Conservation Area
- Natural Area
- Passive Recreation Area

### Parcels

- Boulder County Road Right of Way



# Exhibit 3: Map Depicting Land Ownership and Corridors for Consideration in the Project Area



### Corridors for Consideration

- Routes on OSMP
- RTD Rail Corridor
- Valmont/Isabelle Corridor
- 287 Crossing at Boulder Creek A
- 287 Crossing at Boulder Creek B
- Driveways

Note: The lines on these maps represent general corridors and could contain multiple conceptual trail alignments for further consideration.

### County Open Space

- County Conservation Easement
- County Managed
- County Owned Open Space
- Joint County and Municipal Open Space
- Miscellaneous Easement

### Erie Green Space Ownership

- Erie
- ### Linear Hydrology
- Perennial Stream
  - Ephemeral and Intermittent Streams
- ### Managed Trail Access Locations
- OSMP Trailhead

### OSMP Access Point

- OSMP Access Point
- ### Trails
- OSMP Hiking Trail
  - OSMP Multi-Use Trail
  - Erie Trails
- ### OSMP Land
- No Public Access

- OSMP Fee Ownership
- OSMP Joint Ownership
- OSMP Joint Easement
- OSMP Easement
- Agricultural Area

- Habitat Conservation Area
- Natural Area
- Passive Recreation Area

### Parcels

- Boulder County Road Right of Way

## Meeting Summary

### Boulder to Erie Regional Trail

# Connectivity Workshop

Wednesday, May 24, 2023  
[Included: Presentation]

### Meeting Purpose

To collaboratively identify two or three conceptual trail alignments in a workshop environment. The conceptual trail alignments can utilize the RTD ROW, defined corridors on OSMP property, and BOCO ROW. We will provide technical information and base mapping so that we can put pen to paper to brainstorm ideas and refine them to conceptual trail alignments for further evaluation and consideration.

### Welcome and Introductions

The Project Team opened the meeting and welcomed attendees. Attendees introduced themselves and described what they like most about their jobs, sharing an appreciation for getting outside during site and field visits, collaborating with diverse perspectives, promoting community stewardship, and bringing plans to life.

### Corridor Overview

To begin the workshop, the project team presented photos of the existing conditions along the RTD ROW and Valmont-Isabelle ROW that make up the conceptual BERT corridors for further consideration and evaluation. The presentation is available at the end of this summary.

### Typical Trail Conditions

The project team also presented the typical trail conditions based on Boulder County's Regional Trails Program standards. It is anticipated that the trail surface will be compact crusher fines, 10 feet wide with a 1-2 feet shoulder width, and possible side trail for equestrian use. Expected trail user types include bikes, equestrians, runners, walkers, rollers, cross-country skiers, and snowshoers. Road crossings are anticipated to be on-street with the exception of a potential underpass at US-287. Example photos and some additional details can be found in the presentation available at the end of this summary. Discussion and questions regarding trail surface type are summarized in the table below.

**Q:** Will the trail be within the railbed? Or next to it?

**A:** RTD has requested a rail-with-trail rather than rail-to-trail, meaning the trail will mostly run alongside the rail bed when it is within the RTD right of way (ROW). RTD is open to crossing the rail bed to the north or south side where needed, but the trail cannot preclude future rail.



**Q:** Is soft-surface confirmed?

**A:** Yes, on any OSMP property, and as part of Boulder County’s Regional Trains Program standards to remain more aesthetically integrated with the surroundings of the trail. The trail will be hard surface where necessary (e.g. ditch crossings).

**Discussion: Anticipated commuter and recreational bike use**

A survey previously circulated by the project team indicated a 50/50 commuter versus recreational use breakdown and it is understood that the commuter option may be seasonal in the warmer months. Of the commuters the project team has engaged with, their highest priority is a safe off-street option.

- Connectivity Takeaway: 287 is currently a bike barrier
- Connectivity Takeaway: Detours from the RTD right of way should be assessed for end-to-end commute time, since differences of 5 minutes may be considered negligible
- The group cautioned around making expensive decisions (i.e. longer routes, underpasses, etc.) based on a small percentage of users; important to understand regional trail use data

**Discussion: US-287 Underpass**

- An underpass will require a paved ramp on either side about the length of a football field
- The anticipated high clearance is around 8-9 feet, which should work for cyclists but will require dismounting for any equestrians
- The underpass is not necessary if the trail is routed North to an existing bridge over Boulder Creek
- High groundwater around US-287 may impact underpass construction and maintenance
- The E. Boulder Development near US 287 is also looking at trail options through the property, which may impact possible crossing routes

**Discussion: Trailheads and Access**

- There is some space within RTD ROW to construct trailheads
- There are two existing trailheads managed by Boulder OSMP adjacent to the RTD ROW: Teller (OSMP) and Sawhill (CPW owned, OSMP managed)

**Connectivity Activity**

Attendees separated into two corridor groups (61st-95th, 95th-Erie) to identify any important conditions or challenges in the section, draw out 1-4 potential alignment concepts, and discuss the pros and cons specific to each. Following small group discussion, each group reported out their ideas and gained feedback from others. Discussion and takeaways are summarized in the tables below.



## 61st-95th Discussion

### 61st-75th Considerations

- Sensitive Species located near the RTD ROW may require seasonal closures or adjustments to construction schedules
- RTD ROW is wet near Sawhill Ponds, the adjacent two-track may be a beneficial detour
- There are some safety concerns on the Valmont corridor due to a narrow ROW and steep adjacent slope in this area

### 75th-95th Considerations

- Sensitive Species habitat is present in the RTD ROW and OSMP MOU corridors for consideration between 75th and White Rock Trail
- Sensitive Species located near the RTD ROW may require seasonal closures or adjustments to construction schedules
- RTD ROW is wet through most of this section, an existing OSMP-managed two track adjacent to the ROW may be a beneficial detour
- There is an irrigation area along part of the OSMP MOU corridor, trail may need to be raised in this area
- Many driveways and a narrow ROW along the Valmont corridor present safety concerns and would introduce the need for easements
- The White Rock Trail connection from Teller Farms Trailhead could serve as an earlier connection from Valmont corridor North to the RTD ROW
- There is some recreational shooting on either side of the RTD ROW near 95th

### Actions and Suggested Alignment Concepts for Further Evaluation

- **ACTION:** Clarify ownership of two-track to Sawhill Ponds parking
- **ACTION:** Add sensitive species buffers to our evaluation maps and connect with CPW regarding regulations
- **ACTION:** Connect with OSMP regarding White Rock Trail connection
- **61st-75th:** RTD ROW preferred by group to move forward for further evaluation, Sawhill Ponds road also move forward for further evaluation
- **75th-95th:** All conceptual corridors (Valmont, RTD ROW, OSMP MOU) should move forward for further evaluation, with the addition of the White Rock Trail connection



## 95th-Erie Discussion

### 95th-E County Line Considerations

- In the Valmont-Isabelle corridor driveways, roadway traffic, and areas with narrow ROW present safety and implementation challenges as well as a dampened user experience. There are also ditch and drop-off concerns to the north of the roadway
- There is interest to connect to the Boulder Creek Crossing in the East Boulder Creek Plan, potentially as loop options
- There are a few potential trailhead areas along the RTD ROW between US-287 and 119th
- Developers will be paving part of the area South of RTD ROW between 119th and E County Line as part of an extended trail system in Erie. This provides a good initial trail. Preference to continue that paved trail as far as possible west to US 287
- The RTD ROW presents many opportunities for neighborhood connections
- Generally staying South of rail avoids resources along Boulder Creek
- A few raptor nests along the RTD ROW and other alignment options,

### US-287 Crossing Considerations

- User experience is important to consider for the US-287 underpass, if the crossing there does not maximize convenience, users will find a less safe way to cross 287
- Sensitive Species locations West of US-287 may require seasonal closures or adjustments to construction schedules for North-South part of the Boulder Creek Crossing option
- Boulder Creek crossing option of 287 has some major challenges: hunting on a nearby property, adds mileage, raptor nests in area, users likely would just cross wherever they see a break in the traffic or bike directly on the road
- Anything other than underpass option would have to use the road on the west side due to raptor nests (an option along the creek would not be viable west of 287)
- An underpass presents the challenge of higher construction costs, though grant opportunities may help overcome this barrier

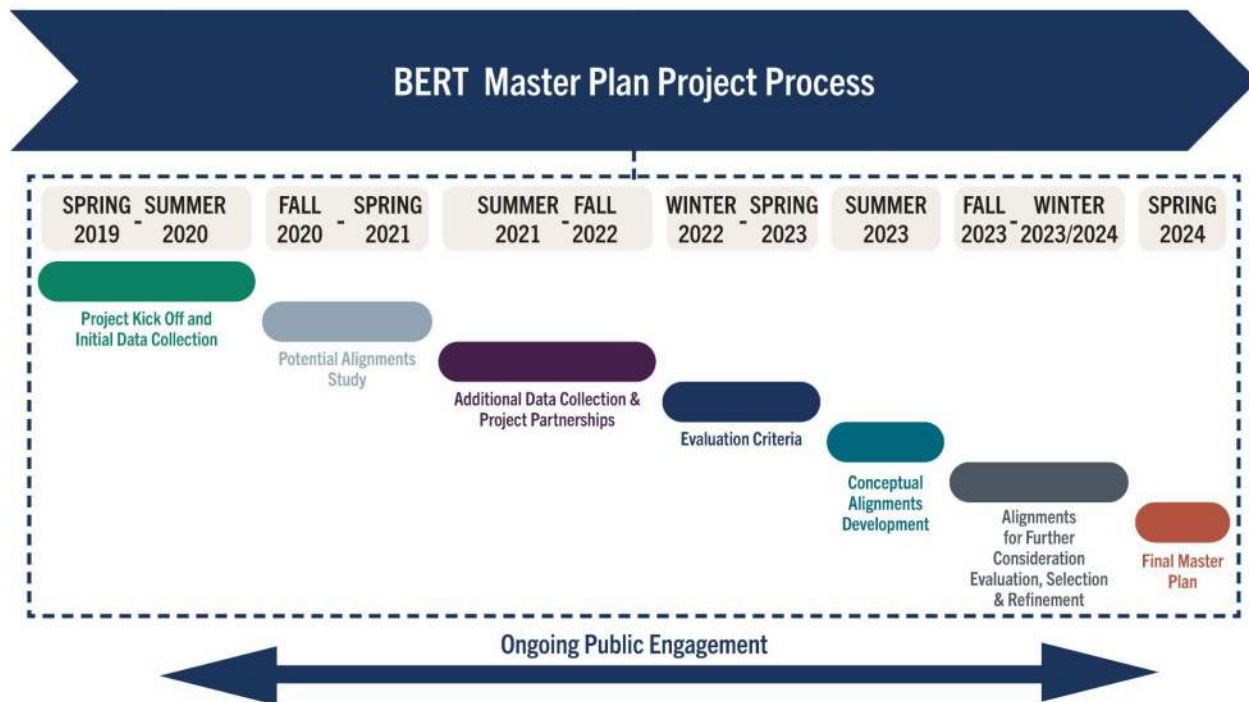
### Actions and Suggested Alignment Concepts for Further Evaluation

- **95th-E County Line:** The RTD ROW is strongly preferred for the entire 95th-E County Line and it is suggested that concepts for further evaluation remain on the South side of rail for the majority of the segment
- **US-287 Crossing:** An underpass at US-287 along the RTD ROW is preferred and it is suggested that concepts for further evaluation consider including loop options to the East Boulder Creek area



### Next Steps

Based on the outcomes of the connectivity workshop, the project team will refine conceptual alignments for further evaluation and create materials for upcoming Public Meetings. Additionally, the project team will meet with stakeholders to clarify and discuss any new and necessary information.



**Attendees**

	<b>Name</b>	<b>Organization</b>
	Tonya Luebbert	Boulder County - CP&P
	Luke Bollinger	Erie Parks & Rec
	Tyler Asnicar	CPW
	Luke Svare	CPW
	Tony Meneghetti	CDOT
	Miguel Aguilar	Erie Transportation
	Jeff Davis	Boulder Public Works
	Jeff Moline	Boulder County Parks and Open Space
	Jarret Roberts	Boulder County Parks and Open Space
	Juliet Bonnell	City of Boulder OSMP
	Alexandra Phillips	Boulder County Parks and Open Space
	Stacey Proctor	Boulder County CP&P
	Lynn Ridel	City of Boulder OSMP
	Don D'Amico	City of Boulder OSMP
	Will Keely	City of Boulder OSMP
	Cliff Lind	Otak
	Kelsey Blaho	Otak
	Melissa Bade	CDR
	Laura Hickey	CDR
	Carrie Tanner	ERO



## Meeting Agenda

### RTD Rail Trail Master Plan

# Community Working Group Meeting

Tuesday, June 16, 2020

4:00 pm – 6:00 pm

Virtual Meeting: [Join Zoom](#) | Phone: 669-900-6833; Meeting ID: 98152932113#

**Meeting Purpose:**

- Review & discuss past actions
- Review & discuss alignments
- Discuss next steps of the project

Time	Agenda Item
2:00 – 2:30 pm	Welcome and Introductions
2:30 – 3:00 pm	Review and Discussion of Project Updates <ul style="list-style-type: none"> <li>● Schedule &amp; Activities</li> <li>● Stakeholder Input                             <ul style="list-style-type: none"> <li>○ OSMP</li> <li>○ CPW</li> <li>○ BoCo POS</li> <li>○ Steering Committee</li> </ul> </li> </ul>
Break - 5 minutes	
3:05 pm – 2:45 pm	Review and Discuss Data Collection and Alignment Options <ul style="list-style-type: none"> <li>● Data Collected</li> <li>● Proposed Alignments</li> <li>● Roadway Crossings</li> </ul>
2:45 pm – 3:00 pm	Next Steps and Action Item Review





## Steering Committee Members

- Luke Bolinger, Town of Erie
- Juliet Bonnell, City of Boulder OSMP
- Kathleen Bracke, Boulder County Community Planning & Permitting
- Aliina Fowler, Project Team
- Kacey French, City of Boulder OSMP
- Al Hardy, Boulder County POS
- Alli Kelly, Boulder County Public Works
- Tonya Luebbert, Boulder County Community Planning & Permitting
- Bill Mangle, Project Team
- Lindsay Merz, City of Boulder Transportation
- Jeffrey Moline, Boulder County POS
- Anthony Pratt, Project Team
- Chris Quinn, RTD
- Jeffrey Range, Project Team
- Matt Spinner, Town of Erie
- Kirk Strand, RTD
- Tim Swope, Boulder County Public Works





# RTD RAIL TRAIL

Community Working Group Meeting #1

250



# AGENDA

- 1. Introductions (25 Min)**
- 2. CWG Purpose and Charge (10 Min)**
- 3. Project Review and Discussion (20 Min)**
- 4. Public Involvement Plan and Review (15 Min)**
- 5. Corridor Goals and Evaluation Criteria (30 Min)**
- 6. Next Steps (5 Min)**

# INTRODUCTIONS

**Name**

**Organization or Affiliation**

**Please tell us one thing you like about the corridor or  
one way in which you use the corridor**

# CWG PURPOSE & CHARGE

- o Identify critical issues and core community values that the Plan must address;
- o Assist with communicating activities of the project in the community;
- o Support Study activity promotion and attendance; and
- o Direct community questions to the Project Team for answers and assistance.

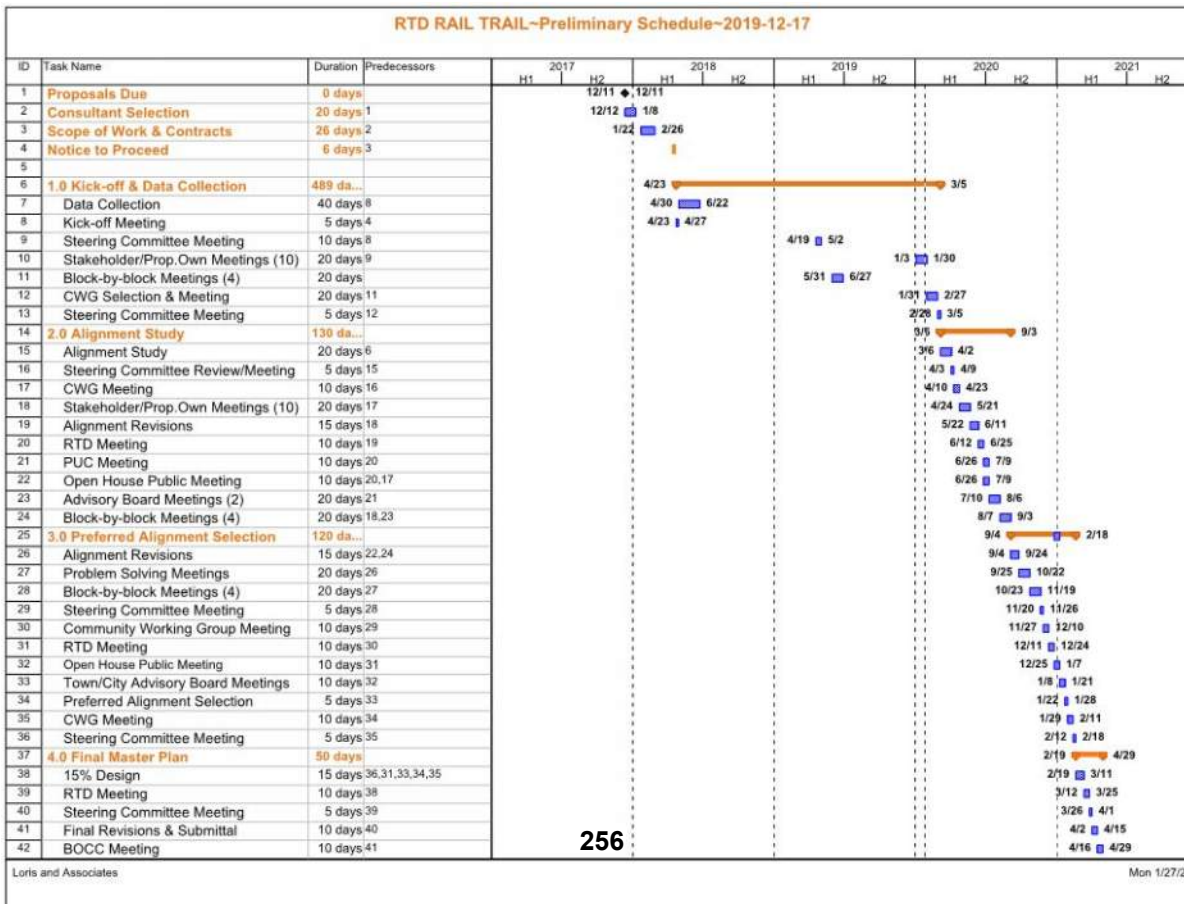
# CWG COMMITMENT

- o **Attend approximately 4 2-hour CWG meetings or send alternate**
- o **Review materials**
- o **Think creatively**
- o **Be constructive and problem-solving**

# PROJECT REVIEW AND DISCUSSION

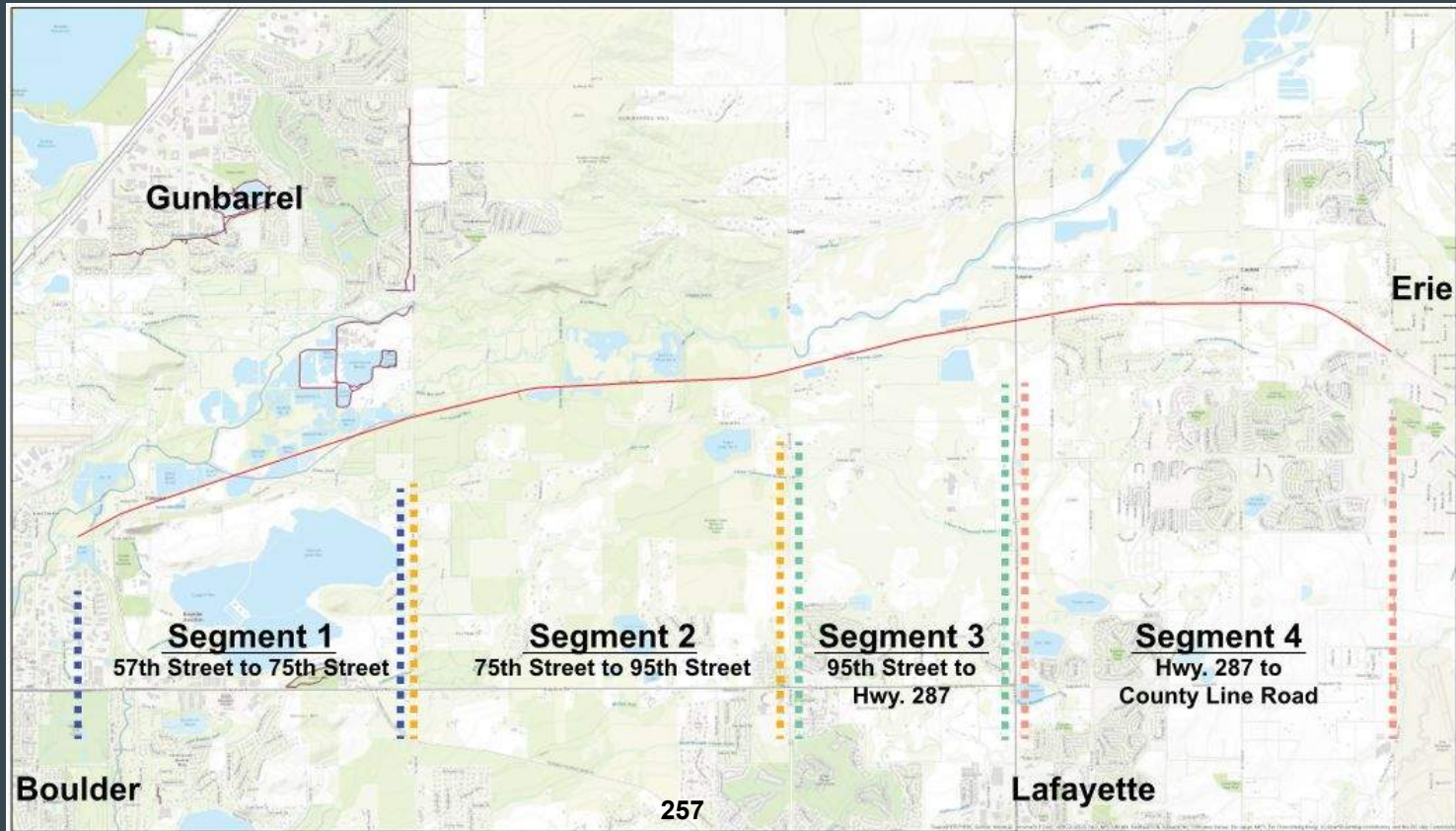
- o High-level objectives and goals for the RTD Rail Trail Master Plan
- o Timeline
- o Environmental Issue Update

# PROJECT REVIEW AND DISCUSSION - SCHEDULE





# PROJECT REVIEW AND DISCUSSION- PROJECT AREA



# PUBLIC INVOLVEMENT PLAN AND REVIEW

- o **Public involvement activities to-date**
- o **Summary of input received to-date**
- o **Upcoming public involvement activities**

# PUBLIC ENGAGEMENT OVERVIEW



Neighborhood Workshops include property owners within 1/4 of a mile of the potential trail

Community Working Group (CWG) meetings include CWG members selected following an application process in Summer 2019

Steering Committee Meetings include RTD, Boulder County Parks & Open Space, City of Boulder Open Space and Mountain Parks, City of Boulder Transportation, Boulder County Transportation, and City of Erie

Policy Decision-Making Meetings include Regional Transportation District (RTD), Public Utilities Commission (PUC), Advisory Board Meetings, and the Board of County Commissioners (BOCC)

Engage online at <https://boco.org/RTDTrail>

# CORRIDOR GOALS AND EVALUATION CRITERIA

- o **Broad categories listed around the room**
- o **Take time to brainstorm corridor goals based on categories**
- o **One idea per sticky note**
- o **Place ideas on categories around the room**

# NEXT STEPS

- o **Feedback will help develop Evaluation Criteria, to be presented at next meeting**
- o **Next CWG Meeting: Late Spring 2020**
- o **Public Meeting: Mid-Summer 2020**



## CONTACT US

Tonya Luebbert, Regional Trails Planner  
[tluebbert@bouldercounty.org](mailto:tluebbert@bouldercounty.org)

Visit the Website: [RTDRailTrail.com](http://RTDRailTrail.com)



CDR ASSOCIATES  
COLLABORATIVE DECISION RESOURCES



# RTD RAIL TRAIL

## COMMUNITY WORKING GROUP SUMMARY

Thursday, January 30, 2020 | 4:00-6:00PM MT

**Meeting Purpose:**

- Form Community Working Group
- Provide Master Plan Process Status Update
- Inform CWG of Environmental Issue Update
- Inform CWG on Current Stakeholder Input and Engagement Plan
- Obtain input from CWG on Approach To-Date

### COMMUNITY WORKING GROUP (CWG) MEETING 1

TIME	AGENDA ITEM
25 MINUTES	Welcome and Agenda Review
10 MINUTES	CWG Purpose and Charge
20 MINUTES	Project Review and Discussion
15 MINUTES	Public Involvement Plan and Review
30 MINUTES	Activity: Corridor Goals and Evaluation Criteria
5 MINUTES	Wrap Up & Next Steps

**ATTENDEES**

Will Chapman  
 Earl Cornelius  
 Jim Pendleton  
 Debi Garrity  
 Roy Burger  
 David Butler  
 Gary McClelland  
 Dave Tazik  
 Ron Blackwelder

Willie Tiefel  
 Richard Mansbach  
 Ruth Mansbach  
 Tim Payne (participated by phone)  
 Tonya Luebbert, Boulder County  
 Anthony Pratt, Otak  
 Aliina Fowler, ERO Resources  
 Jeffrey Range, CDR Associates  
 Melissa Rary, CDR Associates



RTD Rail Trail



## WELCOME AND AGENDA REVIEW

Tonya Luebbert, Boulder County, welcomed the CWG and set the stage for the meeting. Jeffrey Range, CDR Associates, facilitated group introductions where members were asked to share *one thing they like about the corridor or one way in which they use the corridor*. Answers included:

- This corridor could be used to provide a safe commuter route from Erie to Boulder
- Getting bikers off the road, particularly at dangerous intersections like 287/Isabelle and 61st/Valmont, is important for biker and driver safety
- Connectivity to other City and County projects, including the “Bridge to Nowhere” and the future Airport to Andrus trail segment
- Erie and Boulder would benefit from increased connectivity
- Recreation opportunities - including cycling, walking, running
- Desire to have a trail but one that doesn’t impose on the view of the mountains (e.g. overpasses for crossing major intersections)
- Opportunity to create a more trail loops

## CWG PURPOSE AND CHARGE

Jeffrey Range introduced the purpose and charge of the CWG:

- Identify critical issues and core community values that the trail master plan must address;
- Assist with communicating activities of the project in the community;
- Support Study activity promotion and attendance; and
- Direct community questions to the Project Team for answers and assistance.

The CWG was asked to commit to the following:

- Attend approximately 4 2-hour CWG meetings or send alternate
- Review materials
- Think creatively
- Be constructive and problem-solving

**Question:** When meetings were held last year, a number of public meetings were proposed. Have those happened yet?

**Answer:** No. The process needed to focus on working on key issues with property owners, prior to engaging the public.

**Question:** Does this project have an online presence we can point the community to?

**Answer:** Yes, visit RTDRailTrail.com. We are in the process of updating the website.

## PROJECT REVIEW AND DISCUSSION

Anthony Pratt, Otak, reviewed the project purpose with the CWG. The goal of the project is to explore an alignment through the RTD Rail corridor between Boulder and Erie. Boulder County (the County) is

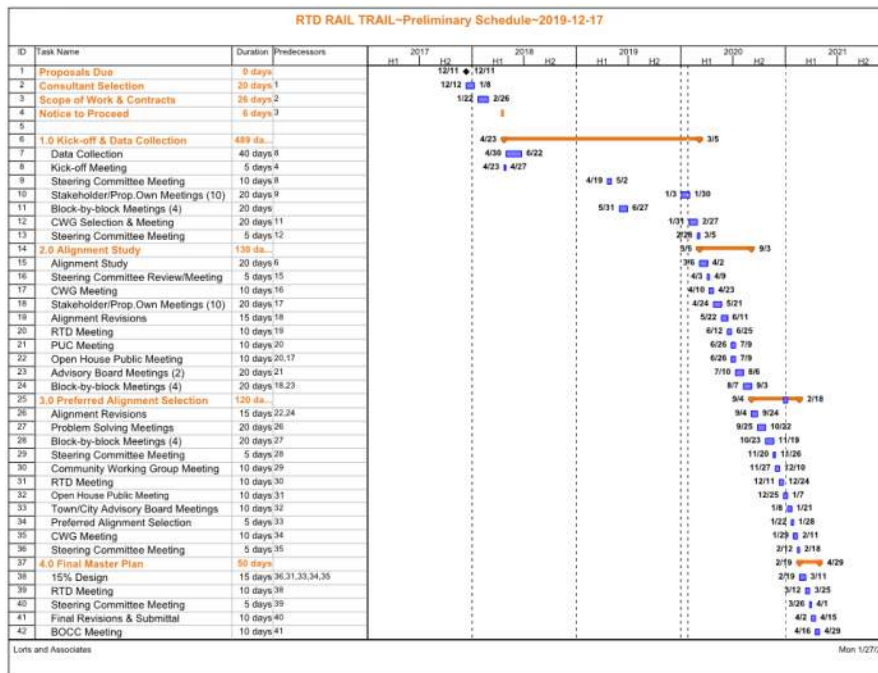


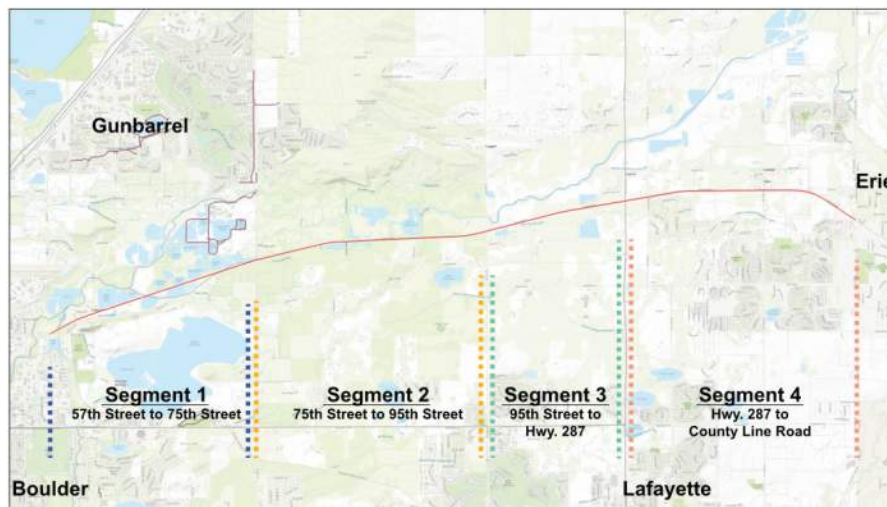


working with RTD on this project, and has agreed to exploring trail options as long as the trail does not preclude a rail option in the future. There are currently no plans for RTD to use the corridor for rail, but this trail study seeks to avoid using or crossing rails where possible (unless a major issue arises, including floodplains or wetlands). Given these considerations, this project is considered “Rails with Trails,” not “Rails to Trails.”

This project is a study, and it will not include construction. It is important for stakeholders to develop a plan for accomplishing a trail prior to next steps. The study is at the beginning of the process, and has not yet considered specifics such as overpass/underpass crossings, alignment on the north or south side of the tracks, etc.

The goal of the CWG meeting is to discuss findings from Neighborhood Workshops (aka Block by Block) meetings and develop goals for the team to consider when evaluating alignment options. The next phase of the study will be development of alignment options and presentation and feedback from stakeholders. Anthony presented an updated timeline and a map of the project area.





**Question:** What is the end date of the study project?

**Answer:** The goal is to finalize the study and findings in May 2021.

**Question:** Is there a plan or timeline for construction?

**Answer:** No, there is no plan for construction at this point. The preferred alignment option will propose a phasing plan for construction.

**Question:** What happened to the funding we were told exists for the corridor?

**Answer:** There is funding from a County-wide Transportation Sales Tax Ballot Issue that was passed in 2001 and renewed in 2007. A portion of the tax is allocated to the Boulder County Regional Trails Program. A prioritization process was completed and adopted and the RTD Rail Trail (then UP Rail Trail) was on a priority list of ten trails/trail segments. The funds go towards planning, designing, constructing, and maintaining multiple regional trails. The sales tax that funds the regional trails program has provided enough funding for a study but is likely not adequate for construction of the full corridor.

Aliina Fowler, ERO Resources, provided a high-level review of environmental issues and considerations along the corridor. Considerations include wetlands, raptor nests, and other resources given dense vegetation and proximity to Boulder Creek.

**Question:** How wide is the buffer zone for the corridor?

**Answer:** Half a mile from the center. In total, a mile across.

**Question:** Will there be places to stop along the Creek?

**Answer:** The Creek is not in the ROW. At this time, the alignment has to stay within or adjacent to the RTD Rail ROW. In some places it may be necessary to look beyond the ROW, but this likely won't be close enough to the Creek for recreation.



RTD Rail Trail



**Question:** What are other property owners' concerns? Is there a way to ensure land owners like OSMP are on board?

**Answer:** There are considerations when crossing into Open Space property, habitat conservation areas, and other considerations. OSMP is participating in the study; they are part of the Steering Committee and are working to provide the County with data and information needed in relation to their properties.

**Question:** Is "Rails to Trails" involved in helping? They could provide funding.

**Answer:** At this point we have not engaged external funders but will look into this opportunity.

**ACTION:** Look into funding sources (Rails to Trails, GOCO, etc.). Having a plan in place first is helpful when seeking funding.

**Question:** Is there a single point of resistance to the trail? Or is there general support for the trail?

**Answer:** To date, most of the feedback has been positive in support of the trail or neutral questions. We will likely hear resistance at some point, so it is important for the process to be transparent and include all voices.

**Question:** Would human traffic have to be closed in consideration of raptor nests? This could cause issues for property owners.

**Answer:** Seasonal closures are in place for places like Sawmill Ponds. Alternatives may have to be considered with low-stress solutions to look at options around raptor areas.

**Question:** Will there be 404 permitting needed?

**Answer:** 404 permitting might be needed, but the type of permitting will depend on the alignment. Whether a nation-wide permit or individual permit will be needed remains to be seen.

## PUBLIC INVOLVEMENT PLAN AND REVIEW

Jeffrey Range reviewed public engagement to-date, which included four Neighborhood Workshops (aka Block by Block Meetings) along the corridor and online (email and comment form) engagement. Key themes include:

- Support for trail in general
- Support for paving trail
- Support for trail as commuting facility
- Support for train in corridor
- Support for trail for cyclists
- Support for bike/ped safety
- Support for horses on trail
- Neutral Questions on: Timing, Properties, 287 crossing



**Question:** Is there a plan to fence off trail from bordering properties?

**Answer:** The project team recognizes the goal around safety. Given precedent in other projects, it is possible there will be fencing for bordering properties. The purpose of this planning process is to work with adjacent properties to determine issues and needs, such as fencing.

**Question:** Are we also focusing on alignment, or can we discuss things beyond alignment such as use?

**Answer:** This study is focused on alignment, but things such as trail use will be considered when establishing evaluation criteria and corridor goals.

**Question:** What is the planned surface of the trail?

**Answer:** Because of funding through the Regional Trails Program, the trail is planned to be a multi-use soft surface trail. Concrete might be prevented in this corridor on certain sections, and concrete is more expensive.

The CWG expressed the need for the trail to be well maintained year-round.

The CWG expressed interest in finding a way to collaborate with the Steering Committee. In the current structure, the CWG relies on the project team to convey the CWG's interests and ideas, and it might be useful to have in-person conversations with the Steering Committee. The CWG is interested in transparency around decision-making. Options might include having one representative at Steering Committee meetings or having one Steering Committee member attend CWG meetings.

**ACTION:** Project team to explore options for connecting CWG and Steering Committee throughout the process and present options to the CWG at the next meeting.

There is an opportunity to market the trail as something greater than a bike trail. Others along the corridor might get different things out of the project, such as recreational opportunities, increased land value, safety, etc. The CWG would like to consider different values and uses of the trail.

Other stakeholders might include Bicycle Colorado, Trust of Public Lands, and other policymakers at the state and county levels.

**ACTION:** CWG to send Tonya an email if they would not like their information shared. Project team to send around email list of CWG members.

**Question:** Is RTD part of the conversation?

**Answer:** Yes, RTD is a member of the Steering Committee and the project team has met with RTD's staff involved with the corridor.

## CORRIDOR GOALS AND EVALUATION CRITERIA



Melissa Rary, CDR Associates, introduced an exercise to capture the CWG goals for the project. The goals developed by the CWG will be used to develop evaluation criteria for alignment options. Key themes from the exercise include:

Trail

- Four-season trail with maintenance in the winter months
- Connect Boulder-Erie Trail Systems
- Scenic overlooks to motivate people to use the trail beyond commuting
- Signage to motivate trail use by identifying historical components, birds, environmental and cultural information, mileage, wayfinding
- Uses: horses (with restricted access); walking; hiking; birders

Relationships

- Build community with neighbors and increase the ability of neighbors to engage with one another
- Use RTD routes nearby to market the corridor and elevate perception of trail as a destination

Environmental

- Ensure trail increases ability to enjoy nature
- Design trail in a way that keeps people on the trail and minimizes social trails
- Promote biological diversity on the trail

Phasing

- ASAP
- 61st/Valmont
- 287
- Involve Rail to Trails
- Consider unique opportunities for funding and marketing
- Plan with Erie Town Center (Erie Parkway) in mind

Adjacent Properties

- Avoid conflicts with adjacent property owners
- Invite land owners by section to CWG meetings
- Research other projects to determine crime/value impact on adjacent properties
- Reduce impact to wildlife
- Work with adjacent property owners to have stands on the trail for things they might grow
- Create way to continue hunting on adjacent properties

Other



- Coordinate CWG with SC
- Promote trail through diverse interests
- Safety of all users (of trail users, access of emergency personnel, etc.)
- Restrooms and other amenities in corridor

**ACTION:** Project team to consider engaging more diverse groups on CWG.

**ACTION:** Project team to begin to develop evaluation criteria for alignment options.

#### **NEXT STEPS**

Anthony Pratt discussed next steps for the project and CWG. The next CWG meeting will be in late Spring, with the next public meeting in mid-Summer.

**ACTION:** Project team to send meeting follow-up including PPT Slides, Notes, and Contact List.

**Question:** Can CWG visit the corridor?

**Answer:** The corridor is dense and this may be difficult. We would need to get permission from the landowner.

**Question:** Is there a drone video of the corridor?

**Answer:** No. This is something we could consider.



## Meeting Agenda

### RTD Rail Trail Master Plan

# Community Working Group Meeting

Tuesday, June 16, 2020

4:00 pm – 6:00 pm

Virtual Meeting: [Join Zoom](#) | Phone: 669-900-6833; Meeting ID: 98152932113#

**Meeting Purpose:**

- Ensure alignment between community goals and the planning process for the RTD Rail Trail
- Review & discuss project updates
- Review & discuss alignments
- Discuss next steps

Time	Agenda Item
2:00 – 2:30 pm	Welcome and Introductions
2:30 – 3:00 pm	Review and Discussion of Project Updates <ul style="list-style-type: none"> <li>● Schedule &amp; Activities</li> <li>● Stakeholder Input                             <ul style="list-style-type: none"> <li>○ OSMP</li> <li>○ CPW</li> <li>○ BoCo POS</li> <li>○ Steering Committee</li> </ul> </li> </ul>
Break - 5 minutes	
3:05 pm – 2:45 pm	Review and Discuss Data Collection and Alignment Options <ul style="list-style-type: none"> <li>● Data Collected</li> <li>● Proposed Alignments</li> <li>● Roadway Crossings</li> </ul>



2:45 pm – 3:00 pm  
 Next Steps and Action Item Review

## Steering Committee Members

- Luke Bolinger, Town of Erie
- Juliet Bonnell, City of Boulder OSMP
- Kathleen Bracke, Boulder County Community Planning & Permitting
- Aliina Fowler, Project Team
- Kacey French, City of Boulder OSMP
- Al Hardy, Boulder County POS
- Alli Kelly, Boulder County Public Works
- Tonya Luebbert, Boulder County Community Planning & Permitting
- Bill Mangle, Project Team
- Lindsay Merz, City of Boulder Transportation
- Jeffrey Moline, Boulder County POS
- Anthony Pratt, Project Team
- Chris Quinn, RTD
- Jeffrey Range, Project Team
- Matt Spinner, Town of Erie
- Kirk Strand, RTD
- Tim Swope, Boulder County Public Works







# RTD RAIL TRAIL

Community Working Group Meeting #2

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# MEETING PURPOSE

- 1. Review and discuss project updates**
- 2. Describe the inclusion of CWG input**
- 3. Review and discuss the alignments**
- 4. Discuss the next steps**

# AGENDA

- 1. Welcome and Introductions (30 mins)**
- 2. Review and Discuss Project Updates (30 mins)**
- 3. Break(5 mins)**
- 4. Data Collection and Alignments (15 mins)**
- 5. CWG Input (30 mins)**

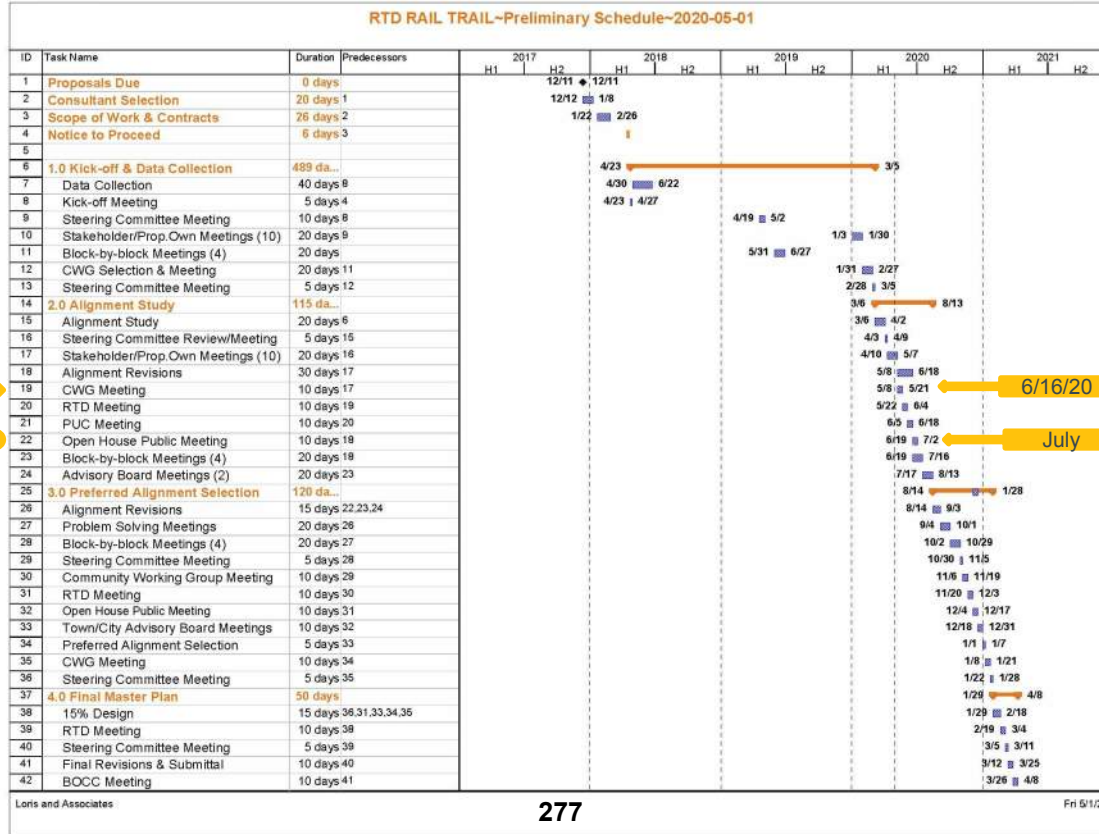
# INTRODUCTIONS

**Name**

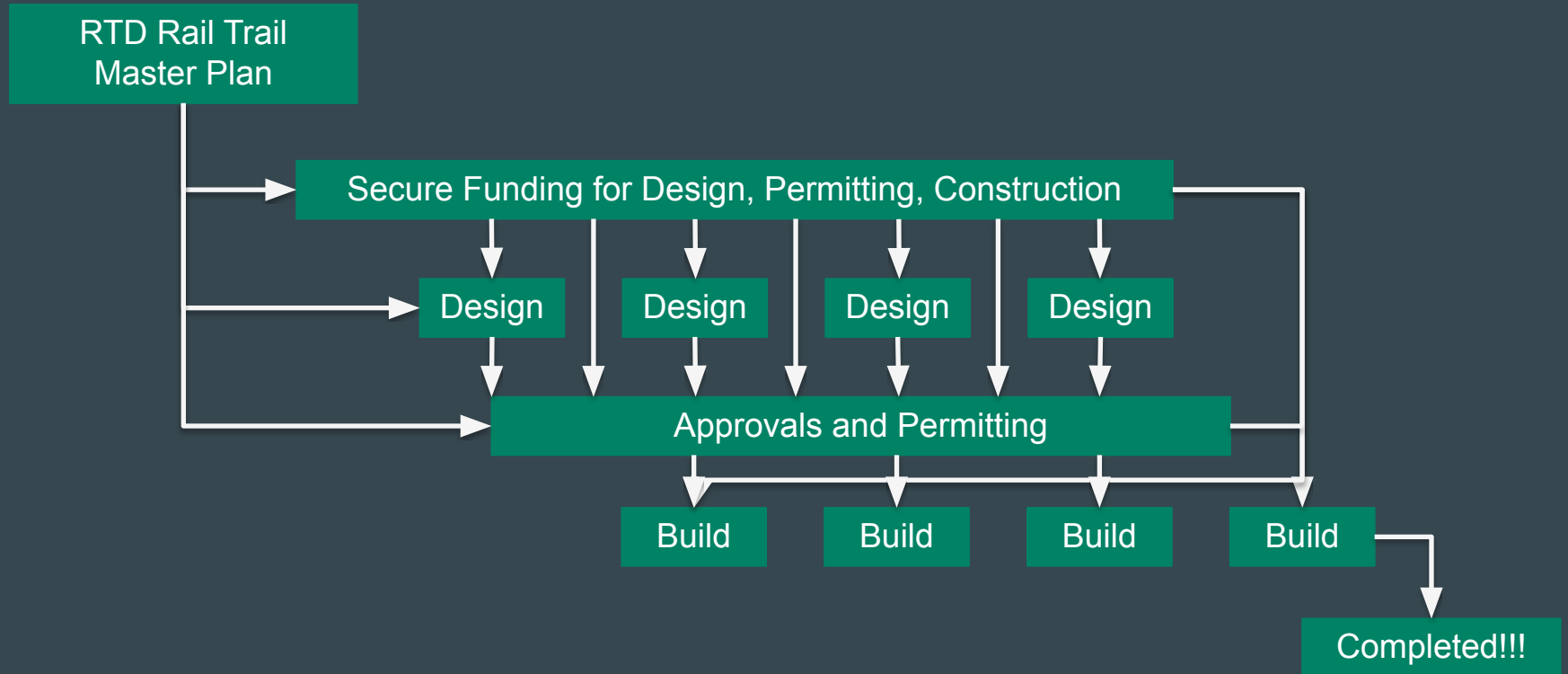
**Organization or Affiliation**

**Any good news?**

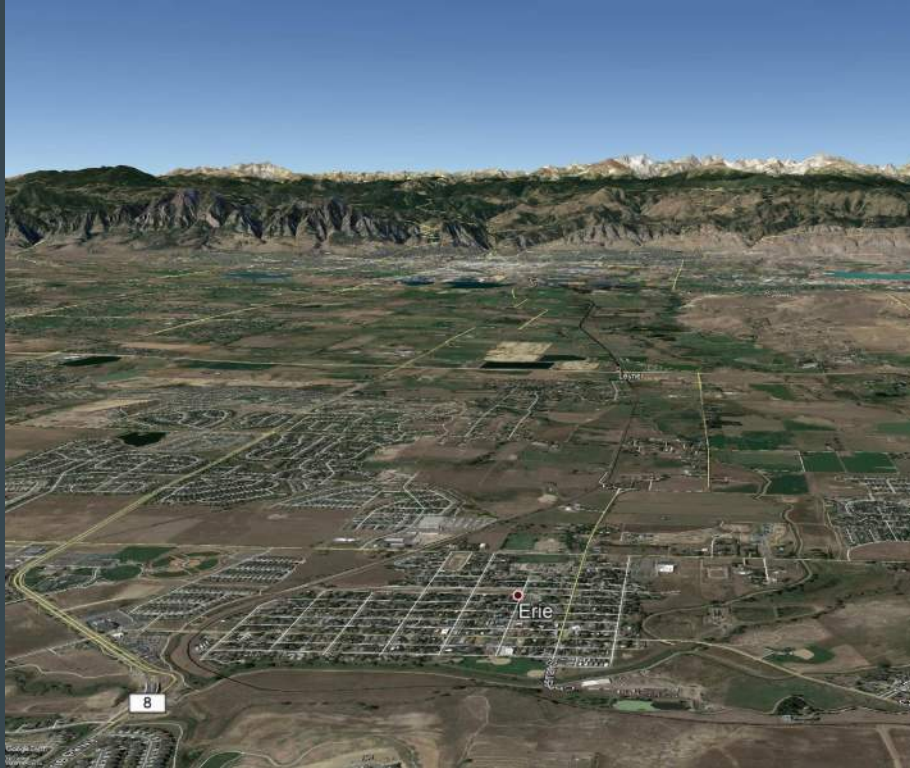
# PROJECT UPDATES: MASTER PLAN SCHEDULE



# PROJECT UPDATES: FROM VISION TO REALITY



# PROJECT UPDATES: CRITICAL TASKS



- RTD Approvals
- CDOT Approvals
- Land Owner Agreements
- Environmental Permitting
- Municipal Approvals
- Design & Engineering
- Construction

# PROJECT UPDATES - INPUT

- **Community Working Group**
- **City of Boulder Open Space and Mountain Parks**
- **Colorado Parks and Wildlife**
- **Boulder County Parks and Open Space**
- **Steering Committee**

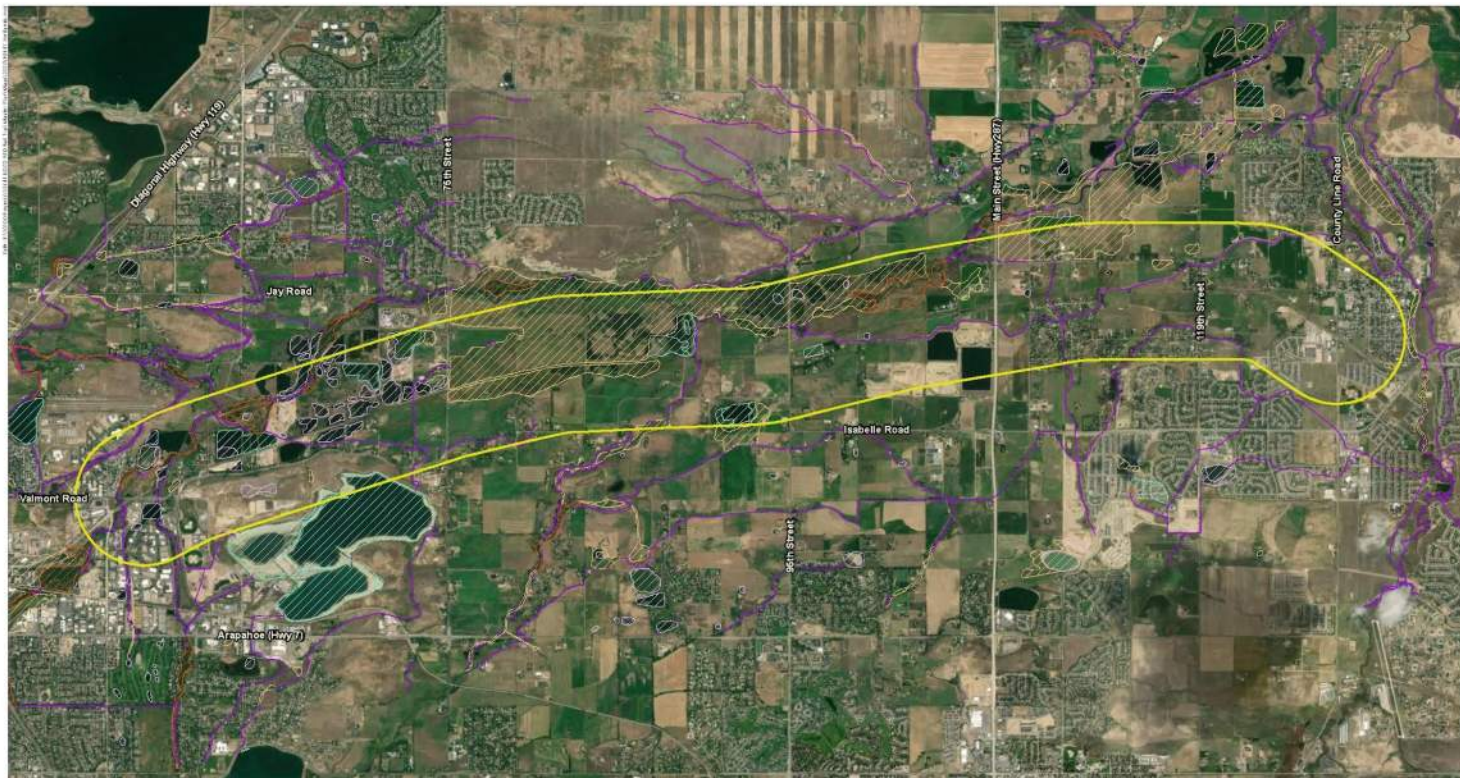


# DATA COLLECTION



- o **Right-of-Way**
- o **Alignment Mapping**
- o **Environmental**
- o **Floodplain**

# DATA COLLECTION



RTD Rail Trail Master Plan

- Analysis Area
- National Wetlands Inventory
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Image Source: DigitalGlobe©, June 2017

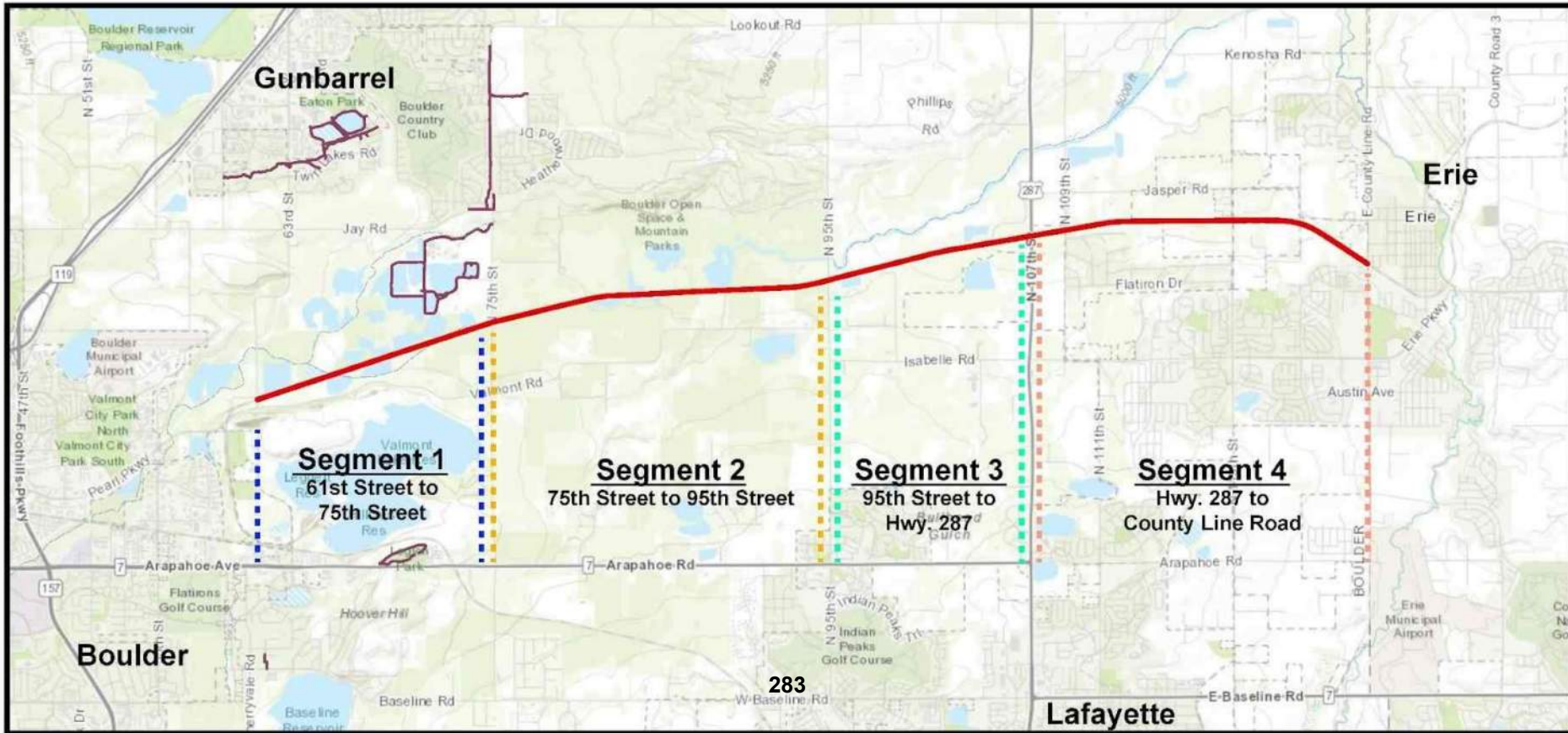
Wetlands



Prepared for: Kohn  
File: 10141 Wetlands.mxd (GD)  
08/06/15, 2015



# ALIGNMENT OPTIONS



# ALIGNMENT OPTIONS

## RTD Rail Trail - Alignments



### Legend

- |                        |                     |                |                    |                       |
|------------------------|---------------------|----------------|--------------------|-----------------------|
| Preliminary Alignments | Crossover Alignment | Parcels        | CITY OF BOULDER    | 287 Crossover Options |
| South                  | 10yr Extents        | BOULDER COUNTY | OTHER PUBLIC LANDS | Option 4              |
| North                  |                     | CITY OF ERIE   |                    |                       |

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# CWG INPUT – HWY 287 CROSSING

## RTD Rail Trail - Alignments



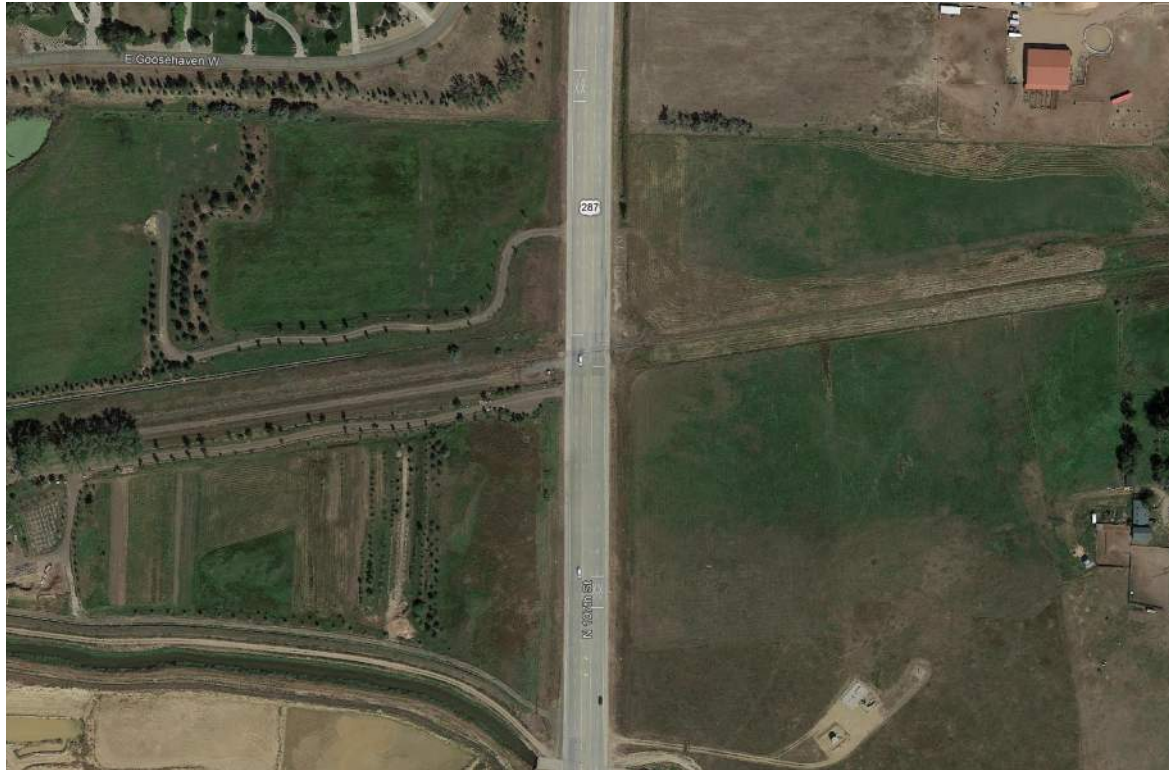
### Legend

- |  |  |  |  |   |
|--|--|--|--|---|
| <span style="color: blue;">—</span> Preliminary Alignments North   | <span style="background-color: purple; border: 1px solid black; width: 15px; height: 10px; display: inline-block;"></span> Crossover Alignment | <span style="border: 1px solid black; width: 15px; height: 10px; display: inline-block;"></span> Parcels                                       | <span style="background-color: lightblue; border: 1px solid black; width: 15px; height: 10px; display: inline-block;"></span> CITY OF BOULDER      | <span style="background-color: yellow; border: 1px solid black; width: 15px; height: 10px; display: inline-block;"></span> 287 Crossover Options Option 3 |
| <span style="background-color: lightgreen; border: 1px solid black; width: 15px; height: 10px; display: inline-block;"></span> South | <span style="background-color: pink; border: 1px solid black; width: 15px; height: 10px; display: inline-block;"></span> 10Yr Extents          | <span style="background-color: lightpurple; border: 1px solid black; width: 15px; height: 10px; display: inline-block;"></span> BOULDER COUNTY | <span style="background-color: lightyellow; border: 1px solid black; width: 15px; height: 10px; display: inline-block;"></span> OTHER PUBLIC LANDS | <span style="background-color: orange; border: 1px solid black; width: 15px; height: 10px; display: inline-block;"></span> Option 4                       |
|  |  | <span style="background-color: lightblue; border: 1px solid black; width: 15px; height: 10px; display: inline-block;"></span> CITY OF ERIE     |  |   |

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# CWG INPUT – HWY 287 CROSSING AT THE TRACKS



# CWG INPUT – HWY 287 CROSSING AT JASPER ROAD



# CWG INPUT – HWY 287 CROSSING AT BOULDER CREEK





# NEXT STEPS

- o **Virtual public meeting**
- o **Additional conversations with stakeholders and property owners**
- o **Advisory Board meetings**
- o **Preferred Alignment Selection Process (Sept-Dec)**



## CONTACT US

Tonya Luebbert, Regional Trails Planner  
tluebbert@bouldercounty.org

Visit the Website: [RTDRailTrail.com](http://RTDRailTrail.com)



CDR ASSOCIATES  
COLLABORATIVE DECISION RESOURCES



## RTD RAIL TRAIL

### COMMUNITY WORKING GROUP MEETING #2 SUMMARY

Tuesday, June 16, 2020, 4:00 pm – 6:00 pm

#### Meeting Purpose:

- Review & discuss project updates
- Describe the inclusion of CWG input on the project
- Review & discuss alignments
- Discuss next steps

#### AGENDA ITEMS

**4:00 – 4:30 pm Welcome and Introductions**

**4:30 – 5:00 pm Review and Discussion of Project Updates**

- Schedule & Activities
  - Just slightly behind, be mostly caught up by beginning of August (hopefully)
    - Slow down due to working out property and ownership in ROW issues → Final say on uses allowed on trail (eg. RTD vs. OSMP)
  - Hope to get feedback on material for potential inclusion at community meeting
  - Vision → Reality
    - RTD Rail Trail Master Plan → Funding for Design, Permitting, Construction → Design → Approvals and Funding → Build → Fun!
  - Critical Tasks
    - PUC
    - RTD Approvals
    - CDOT Approvals
    - Land Owners
    - Environmental
    - CWG Input:
      - The faster the better!
      - Realistic Timeline?
        - 3-5 years
      - Rails to Trails Funding?
        - Not there yet but will be a time for that later on
      - Link to existing projects to get smaller pieces done as applicable (new sewer project in Boulder county) → Building excitement and community support
- Stakeholder Input
  - CWG Input
    - Evaluation Criteria
      - Relationships
      - Environmental
      - Phasing
      - Adjacencies
  - OSMP & CPW
    - Met with both agencies—good & productive meetings



- Will continue to meet and keep them in the loop as the project progresses to mitigate impacts
  - BoCo POS
    - Supportive of project effort
    - Boulder Creek/ Coal Creek Master Plan goes together nicely with alternative crossing option for 287
      - Nice piece of cohesion between plans
  - Steering Committee
    - Luke give update on latest Steering Committee meeting
      - RTD
      - Trailheads
      - Alignments
      - 287 Connection
    - Comments
      - Good to keep tabs on all municipal and county projects going on in the vicinity (eg. Valmont path (Bridge to Nowhere) project, new sewer line, etc.) in order to leverage these existing planning efforts to save on costs  
→ Steering Committee to try and keep project team informed of any work relevant to this project
      - Connection to Erie Town Center
        - More to be done on the Erie trail system side not Boulder County

**5:05 – 5:20 pm Review and Discuss Data Collection and Alignment Options**

- Data Collected
  - ROW
  - Alignment Options
  - Environmental
  - Floodplain
- Proposed Alignments
  - North, South & Crossover Alignments
    - Q: What happens with crossings if Rail goes in?
      - A: Boulder County is fully responsible for moving trail if RTD chooses to put in rail at some point in the future.
    - Walking the corridor would be useful
- Roadway Crossings
  - 287 Crossing Options
    - Option 3
  - Details of crossing at Jasper road TBD, probably wants to be signalized in some way → conversation with CDOT



5:20 – 5:50 pm CWG Input<sup>1</sup>

- **Hwy 287 Crossing Options**
  - How much less work to cross at Boulder Creek?
  - Issues with short cutting and safety
  - Distance of whole option 4 (orange)?
  - Signalization – long term plans for CDOT as Erie grows and the residential population grows → use in one-on-one
  - Other idea/option = cross at Jasper and stay on Jasper, then come back to rail corridor at some point
  - Might be interim solution for crossing 287, might be an eventual underpass
  - Boulder Creek Crossing
    - Occasional flooding a strong possibility
    - How often could it be flooded (in last 50 yrs) → Look into it
    - Trade-offs of commute route vs. scenic route
  - **General Support for a meandering trail that crosses at Boulder Creek**
    - **Benefits: Rely on existing infrastructure, scenic views and rest/recreation areas, increased safety for users, opportunity to market as a recreational trail**
    - **Challenges: Potential for flooding, would need additional signage for flooding instances and alternative routes, potential development of unofficial footpaths, likely more environmental concerns and impacts**
  - **Consider alternative crossing at Isabelle/Erie Parkway**
    - **Benefits: Leverage existing planning efforts to include bike/ped crossing, opportunity to connect with existing trails (Baxter Farm Lane/ Erie Pkwy), less expensive to rely on existing infrastructure**
    - **Challenges: Further out of the way than other options**
  - **Overpass/ Underpass along RR are generally not supported due to expense, time to construct, and potential to obscure viewshed**
  - **Jasper Road crossing could be an alternate for flooding or a quicker commuter path – coordinate with upcoming 287 corridor study**
- **Funding/ Construction:**
  - **Interest in finding the best alignment option to build the trail as soon as possible**
  - **Use visual representation of the trail (photos, videos, Google Earth/ Street View) to enhance public interest and potentially support funding/building**
  - **Leverage eager volunteers to assist in trail construction**
    - **Boulder County currently works with an extensive network of trail volunteers**
    - **Would help build support for the trail**
  - **Support for approaching this as a multi-step, segmented corridor**
- **Trail Use**
  - **Emphasis on trail as educational tool with ample signage and maps (consider geography, biology, history, geology, ecology, etc.)**
  - **Equestrian Use Considerations:**
    - **Underpass crossing is difficult for equestrian users due to height considerations and potential for horse to spook**
    - **Road crossings have the potential to be slippery. Consider a textured road surface for horses**

<sup>1</sup> Bolded notes in this section indicate input received from participants via email following the meeting.



- Important to think about dismounting capabilities at roads
  - Trail width should be wide enough (8-12ft) to accommodate all users, with opportunity to have side dirt path for passing
  - Signage will help to educate all users to be aware of each other
- Ensure all groups (commuters and recreational users) are able to access and enjoy the trail at their leisure
- Consider an extended scenic route that meanders along Boulder Creek to the west of 287 as well as to the east
- While the trail will be used for commuting, commuters will likely adjust their travel times for increased safety. Thus, the route that meanders along Boulder Creek (both east and west of 287) might be a preferred choice for both commuters and recreational users
- Importance to connect trail with existing trail network in the area
- Land
  - Work with landowners to ensure alignment options reflect previous plans and easements
  - Consider impacts of existing irrigation ditches along corridor on alignment options

**5:50 – 6:00 pm Next Steps and Action Item Review**

- Stakeholder Meetings
- RTD Meeting
- Public Meetings and Neighborhood Workshops

**ADDITIONAL QUESTIONS FROM CWG MEMBERS RECEIVED VIA EMAIL BETWEEN 6/16/20 – 6/29/20**

1. **Would it be possible for the proposed alignment to be shared as KML, as input to something like Google Earth?**  
*-A fly-through using Google Earth or other platform will be created for the final draft alignment. Sharing the alignment as a KML will be considered.*
2. **Would it be possible to allow a mapping provider (like Bing or Google) to access to the right of way to generate some Streetview-like views along the corridor?**  
*-The project team will investigate the possibility of drone photography along the corridor. Permissions from adjacent landowners and RTD for the photography may be required. If this is the case, then the current project scope does not include that effort and Boulder County staff does not have the capacity to acquire the permissions.*
3. **Would “Option D” (Using existing bridge at Boulder Creek as a trail underpass) save significantly on project budget?**  
*-Based on the initial assessments, crossing under HWY 287 along Boulder Creek, and adding almost three miles of trail would be cheaper than an underpass within the RTD alignment at HWY 287. There is a significant range of cost associated with a trail under HWY 287 along Boulder Creek, so we don’t have enough information at this time to determine the magnitude of any cost savings.*



4. **If OSMP has already completed studies to support their preliminary plans for a trail in the Boulder Creek area, is that information that can be reused to save costs?**  
*- BOCO Parks and Open Space Dept has a plan (not design) for the trail along Boulder Creek. This is helpful because it establishes plan guidance for the trail to be there and eliminates the additional step of editing the plan to allow for the trail to be there.*
5. **We did not discuss the issue(s) of crossing at 75<sup>th</sup>, 95<sup>th</sup>, and possibly 119<sup>th</sup>. Do these intersections need to be discussed?**  
*- We were limited on time during this meeting and wanted to tackle the most challenging crossing first to get the alignment discussion started. Our discussion of other crossings and alignment options will continue in upcoming meetings.*
6. **Will horse trailer parking be available at spots?**  
*- Parking options or locations have not yet been determined. We will capture the interest to have trailer parking available along the corridor.*
7. **Will it be possible for equestrian users to dismount to cross roads? Will there be dismount infrastructure? Will there be easily accessible road crossing buttons for equestrian use?**  
*- At this time, specific trail usage, regulations, and associated infrastructure have not yet been determined. We will capture the interest to have equestrian-related infrastructure accessible along the corridor, in particular, at road crossings.*
8. **What obstacles would prevent this trail from going north before getting to Goose Haven and following Boulder Creek until it crossed under the bridge and then continuing along Boulder Creek as in Option #4?**  
*- Our general goal was to keep the trail in the RTD ROW as much as possible, so this potential trail route has not been evaluated at this time. Boulder County has a designated easement through Goose Haven, and a different alignment to Boulder Creek would require additional agreements or easements and may slow the implementation of the project.*



## Meeting Agenda

### Boulder to Erie Regional Trail

# Community Working Group Meeting

Thursday, April 13, 2023

4:00 pm - 6:00 pm

Boulder County Recycling Center | 1901 63rd St | Boulder, CO 80301

[\[optional zoom link\]](#)

### Meeting Purpose:

- Update Community Working Group on the project status, progress, and next steps
- Review and discuss evaluation criteria

Time	Agenda Item
4:00 - 4:30 pm	<b>Welcome and Introductions</b>
4:30 - 5:00 pm	<b>Review and Discussion of Project Updates</b> <ul style="list-style-type: none"> <li>● Overview of Project</li> <li>● Where We Left Off</li> <li>● Expanded Scope</li> <li>● OSMP MOU</li> <li>● 2022 Ballot Initiative</li> <li>● Schedule and Activities</li> <li>● Ongoing Outreach</li> </ul>
5:00 - 5:15 pm	<b>Project Update Q + A</b>
5:15 - 5:20 pm	<b>Break</b>
5:20 - 5:55 pm	<b>Evaluation Criteria Overview and Discussion</b> <ul style="list-style-type: none"> <li>● Project Goals and Process</li> <li>● Purpose for Evaluation Criteria</li> <li>● Overview of Evaluation Criteria</li> </ul>
5:55 - 6:00 pm	<b>Wrap Up and Next Steps</b>







# BERT Community Working Group Meeting

## Thursday, April 13, 2023



Boulder to Erie Regional Trail (BERT)

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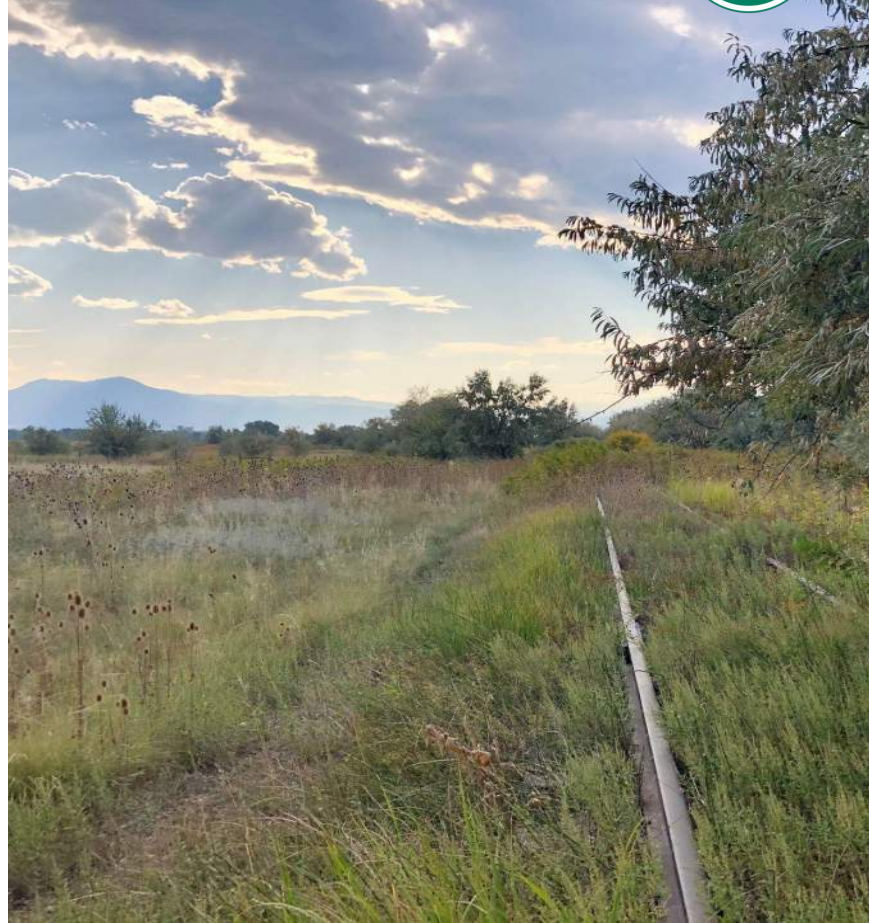
CDR ASSOCIATES  
COLLABORATIVE DECISION RESOURCES



# AGENDA



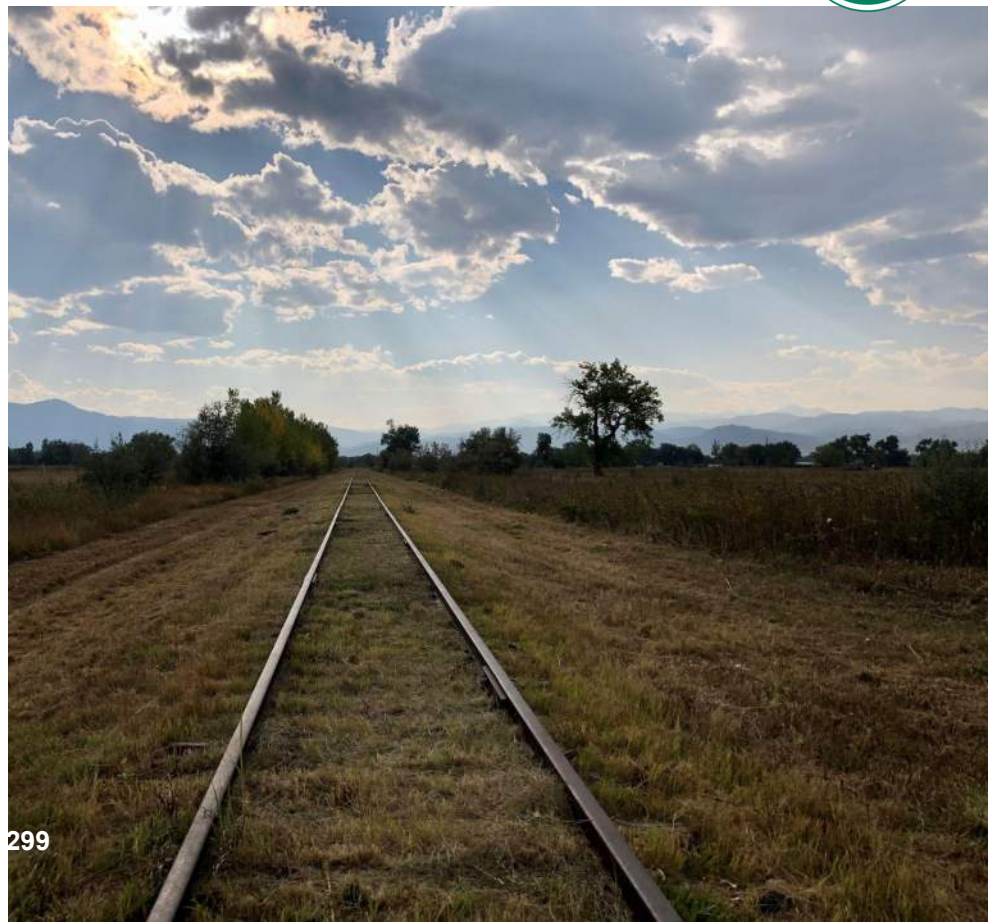
1. Welcome & Introductions
2. Project Updates
3. Evaluation Criteria
4. Wrap Up & Next Steps



# INTRODUCTIONS



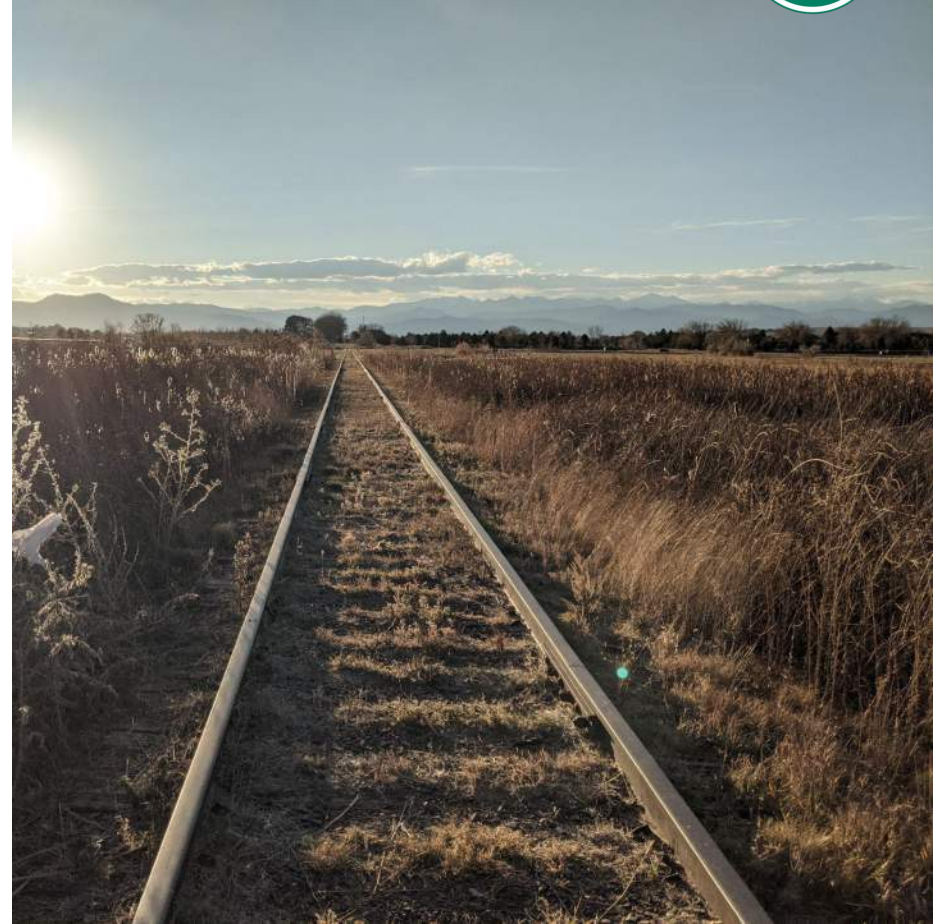
- Name
- Organization or Affiliation
- What is your favorite way to get outdoors?



# PROJECT UPDATES



- Project Overview
- Where We Left Off
- Expanded Scope
- OSMP MOU
- 2022 Ballot Issue
- Schedule and Activities
- Ongoing Outreach



# PROJECT UPDATES: Project Overview



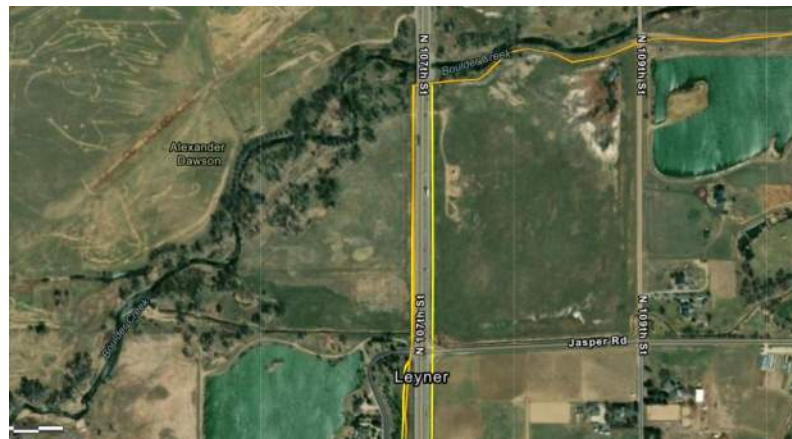
- Evaluating options for the creation of a new soft-surface regional trail linking the City of Boulder and Erie
- Connection identified in the county's regional trails prioritization process in 2003 and is eligible for funding through the Countywide Sales Tax Ballot passed by voters in 2007
- Boulder Valley Comprehensive Plan and Boulder County Transportation Master Plan identify this trail connection as an important link



# PROJECT UPDATES: Where We Left Off



- Last CWG meeting was in Summer of 2020
  - ◆ Virtual meeting after pandemic hit
- Discussion at meeting focused on alignment options, particularly crossings
  - ◆ Discussion of options for 287 crossing
- Some field work done to walk alignment and meet with landowners regarding crossings



# PROJECT UPDATES: Expanded Scope



- Expanded scope considered in 2020 due to concerns from stakeholders and Boulder County BOCC
- Engagement with Native American tribes and community members
- Addressing environmental concerns by considering additional alignments



# PROJECT UPDATES: OSMP MOU



- Signed Fall of 2022
- Resulted in agreement to include City of Boulder-owned and other lands managed by OSMP outside the RTD rail corridor in this process
- Master planning process will explore the RTD rail corridor, Boulder County right-of-way, and alignment options on OSMP property outside the RTD rail corridor





# PROJECT UPDATES: 2022 Ballot Issue



- Signed Fall of 2022
- Resulted in agreement to include City of Boulder-owned and other lands managed by OSMP outside the RTD rail corridor in this process
- Master planning process will explore the RTD rail corridor, Boulder County right-of-way, and alignment options on OSMP property outside the RTD rail corridor

# PROJECT UPDATES: Schedule and Activities



- Development of evaluation criteria
- Performing an alternatives analysis using that evaluation criteria
- Selecting the conceptual trail alignment(s) for further consideration
  - ◆ Not intended to result in preferred alignment



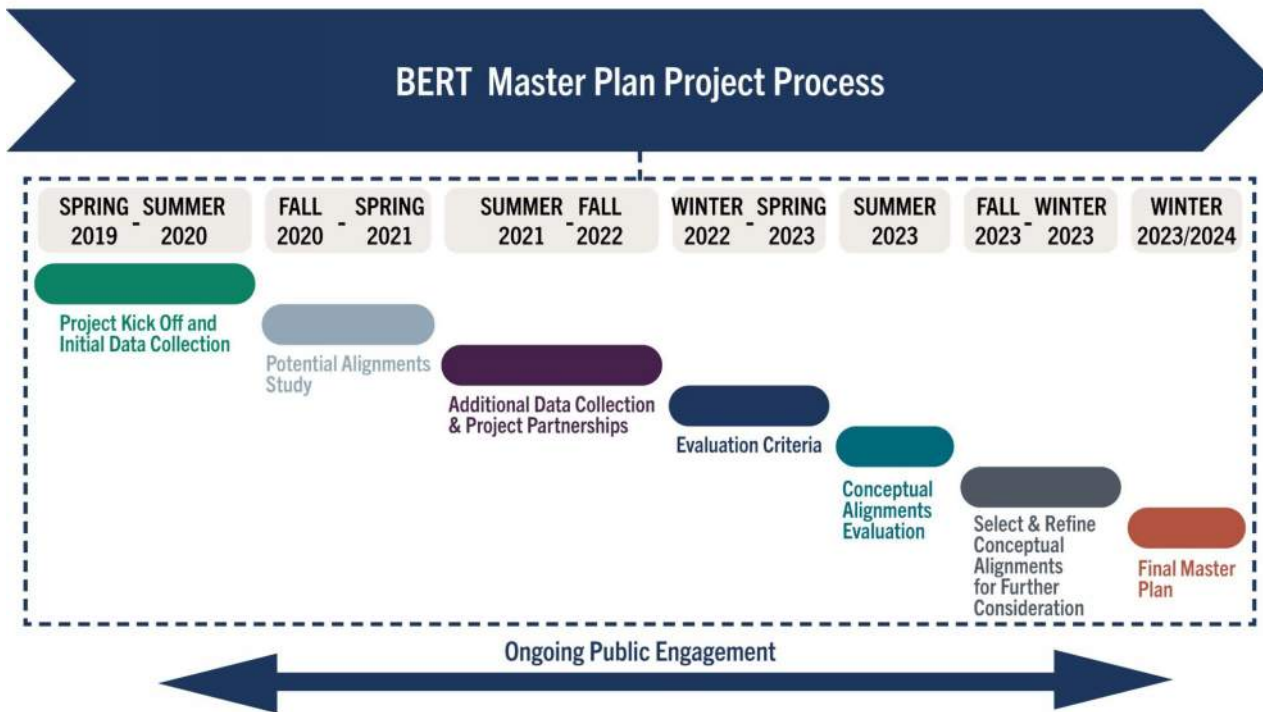
The Boulder to Erie Regional Trail (BERT) Master Plan project is an important step in creating a trail that we can walk, roll, run, ride and enjoy between Boulder and Erie. However, it's not the only step and not the last step. To understand the complex process it will take before a trail is completed and ready to enjoy, take a look at the diagram above.

We're in the BERT Master Plan Project Process phase, which will result in the BERT Final Master Plan. When the Master Plan is completed, we will identify funding sources and potential phasing. After that, we will move into final design and engineering. Throughout this process, Boulder County will work on obtaining all the necessary approvals and permitting. It is likely that the trail will be built in sections as funding allows.

When all segments are built, we'll be able to experience the trail in its entirety.



# PROJECT UPDATES: Schedule and Activities



# PROJECT UPDATES: Schedule and Activities



February 24 <sup>th</sup>	Steering Committee Meeting	Discussion of project updates and introduction of the Evaluation Criteria
March 31st	Evaluation Criteria Review Deadline	Steering Committee to submit response/comments on evaluation criteria to team
4 <sup>th</sup> Week of May	Connectivity Workshop	Workshop to discuss potential conceptual alignments and connectivity options
2 <sup>nd</sup> Week of July	Open House/ Public Meeting	Open house/public meeting around initial conceptual alignments
First 3 weeks of October	Steering Committee Review of Evaluation Criteria Grading	Steering Committee members to have opportunity to review evaluation criteria grading of conceptual alternatives
2 <sup>nd</sup> Week of January 2024	Steering Committee Meeting	Presentation of conceptual alignments for further consideration for review and input. Revisions will be made prior to other outreach and public meeting
First Week of February 2024	Open House Public Meeting	Open house/public meeting around conceptual alignments for further consideration
3 <sup>rd</sup> Week of February 2024	Steering Committee Meeting	Presentation of Final Master Plan for review and input. Revisions will be made prior to other outreach and final submittal
First Week of March 2024	Final Submittal	Final Master Plan submittal

# PROJECT UPDATES: Ongoing Outreach



- Steering Committee
- Native American tribes and community members
- Community Working Group
- Public Meetings
- Ongoing Conversations with Landowners and Neighbors



# RELATED CORRIDOR UPDATES



- East Boulder Creek Management Plan
- Erie Open Space / Trails / Development
- Rail Bike
- Other?



Rail Bike along the Hudson River near New Creek, New York

# EVALUATION CRITERIA: Project Goals and Process



- Identification of reasoning for trail
- Identification of project goals
  - ◆ Transportation and Recreation
  - ◆ Increased Safety
  - ◆ Multi-Use
  - ◆ Low Environmental and Cultural Impacts
  - ◆ Implementable
  - ◆ Low Adjacent Property Impacts
  - ◆ Trail User Experience
- Informs Evaluation Criteria



# EVALUATION CRITERIA: Overview



How the project team will evaluate alignment concepts for further consideration

Safety

Resource  
Considerations

Implementation  
+ Maintenance

Adjacent  
Property  
Considerations

Trail User  
Experience



# EVALUATION CRITERIA: Discussion



- What specific considerations are of interest or concern for these categories?
- Are these categories each of equal importance to you?

*Next Step: The project team will distribute meeting notes*



## CONTACT US

Tonya Luebbert, Regional Trails Planner  
tluebbert@bouldercounty.org

Visit the Website: [RTDRailTrail.com](http://RTDRailTrail.com)



CDR ASSOCIATES  
COLLABORATIVE DECISION RESOURCES



## Meeting Notes

### Boulder to Erie Regional Trail

# Community Working Group Meeting

Thursday, April 13, 2023

4:00 pm - 6:00 pm

Boulder County Recycling Center | 1901 63rd St | Boulder, CO 80301

[Attached: Presentation including maps]

## Meeting Purpose

- Update Community Working Group on the project status, progress, and next steps
- Review and discuss evaluation criteria

## Welcome and Introductions

Melissa Bade and Tonya Luebbert opened the meeting and welcomed all virtual and in-person attendees. Attendees introduced themselves and shared their favorite ways to get outside, highlighting excitement for getting back on trails as spring arrives.

## Review and Discussion of Project Updates

### Overview of Project

- The purpose of this Master Plan is to evaluate options for the creation of a new soft-surface regional trail linking the City of Boulder and Erie.
- The Boulder County Trails Program receives funding from a County Transportation Sales and Use Tax. In the November 2022 election, it was voted to extend this 0.01% tax in perpetuity, and the Trails Program is granted 15% of the tax fund. This fund can be considered as an option for match funding in future grant pursuits.

**Q: Where does BERT fall in the tax fund priority?**

**A:** The system does not order entire trail programs, but instead considers segments across different trails programs. Where BERT segments fall in this order will depend on details determined in design and construction, as well as securing additional funding.

**Q: Who is the final submittal of the plan to?**

**A:** Boulder County Commissioners.

### Where We Left Off with the CWG



Boulder to Erie Regional Trail (BERT)



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- The last time the CWG met in the summer of 2020, the project team was gathering input about alignments and crossings in areas of concern—particularly across US 287

**Q: Is there any coordination with US 287 planning? Specifically in reference to bus stop access to the future trail.**

**A:** Yes, we have been in touch with Transportation Planners from Boulder County for this purpose.

**Q: Access for horseback riding requires parking for trailers—has that been considered?**

**A:** Yes, we have looked at trailhead concepts and the feature options, like trail parking, that may work well in those locations.

**Q: Why does the trail stop at 61st?**

**A:** The Federal Aviation Administration regulations require a certain amount of distance between runways and any trails or sidewalks.

### Expanded Scope

- Concerns from community members prompted the project team to expand our Tribal engagement efforts
- County Commissioners environmental concerns, particularly in the 75th to 95th section, prompted the project team to consider additional alignments

**Q: Have you collected environmental baseline data?**

**A:** No, the intent of this master plan is to evaluate which trail concepts are 1) possible and 2) have community support. Next steps that more specifically route the trail will include more data-gathering.

### OSMP MOU

- The MOU allows us to consider options outside of the RTD corridor and decipher if there are other alignment concepts that are less impactful in environmentally sensitive areas.

**Q: Does the MOU change your previous concepts?**

**A:** Yes—the white dashed lines on Map 1 show the general additional concepts that the MOU allows us to consider.

**Q: How close do we need to stay to the white line?**

**A:** The line represents a concept, not a specific alignment location, and the trail will need to stay close to it. The MOU is specific to the concepts shown on the maps.

**Q: Does the MOU give OSMP authority on trail concepts outside of their property?**

**A:** The MOU ensures OSMP will make decisions regarding the alignment concepts on their property.

**Q: Will e-bikes be allowed on the BERT?**

**A:** The conversation regarding e-bikes is ongoing.



## Ongoing Outreach

- The project team has re-started conversations with the Steering Committee and Community Working Group, will be hosting Public Meetings the the Summer and Winter, and have invited Tribes and Native American groups to participate in the process
- The project team will host open houses/public meetings in both Boulder and Erie to capture both groups

### Q: Is RTD still involved?

A: Yes. They are represented on the Steering Committee, the county will need to go through a license agreement with RTD before construction, and RTD will need the rail to be preserved due to requirements in the deed.

### Q: How are conversations with landowners going since 2020?

A: We will schedule conversations with landowners as any concerns or information needs come up now that engagement efforts have re-started.

*Overall, project overview and discussion highlighted the sentiment that citizens would like to complete the trail as soon as possible because of the opportunity it presents for recreation, enjoyment of nature, and improved transit options.*

## Evaluation Criteria

The project team is in the process of creating evaluation criteria to compare the strengths and weaknesses of trail alignment concepts and support the decision making process of which alignments to include for further consideration in the final Master Plan. The project team shared the evaluation criteria categories and solicited feedback on 1) what considerations the community working group should be evaluated and 2) which categories were most important to them.

Discussion revealed a few priority themes among the CWG:

1. Low barriers to trail construction (i.e. low costs, in compliance with regulations)
2. Safe and enjoyable user experience
3. Balance of recreation and commuter uses
4. Enhancing and not diminishing adjacent properties, both natural and residential

Details of what considerations the CWG suggested to evaluate for each category are as follows:

### Implementation + Maintenance

- Cost of completion (e.g. materials)
- Speed of completion (e.g. lower number of driveways)



Boulder to Erie Regional Trail (BERT)



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- Waste disposal (garbage and animal)
- Regulatory compliance
- Availability of state and federal funding
- Winter maintenance (shade vs. sunlight, grooming after snow)

### Trail User Experience

- Number of gates/access hindrances
- Viewshed and nature-based experience
- Options for commuter alignment (direct paths) and a scenic alignment (spurs/loops)
- Facilities for trail users (restrooms, parking, etc)
- Noise pollution from nearby traffic
- Number of road crossings
- Water accessibility

### Safety

- Distance from roads
- User conflicts and trail etiquette
- Speed for different recreation uses
- All crossings
- Ice and poor drainage
- Sight lines (curved turns vs. right angles)

### Resource Considerations

- Wetland impacts
- Habitat fragmentation
- Flooding/drainage
- Habitat conservation areas

### Adjacent Property Considerations

- Noise
- Number of driveway crossings
- Maximize neighborhood and trail connections
- Consider other recreation uses (e.g. hunting)
- Install boundary fencing
- Incorporate history of landowners
- Assess property value impacts



## Meeting Attendees

First	Last
Timothy	Payne
Will	Chapman
Debi	Garrity
Jim	Pendleton
Kay	Norby Fiar
Ruth	Mansbach
Gary	McClelland
David	Butler
Roy	Burger
Ron	Blackwelder
Gerry	Kelly
Randy	Winter
Suzanne	Weber
Buzz	Burrell
Tonya	Luebbert*
Cliff	Lind*
Kelsey	Blaho*
Melissa	Bade*
Laura	Hickey*
Carrie	Tanner*

\* Project Team Member



## Meeting Agenda

### Boulder to Erie Regional Trail

# Community Working Group Meeting

Thursday, August 17, 2023

4:00 pm - 6:00 pm

[\[zoom link\]](#)

**Meeting Purpose:**

- Update Community Working Group on the project status, progress, and next steps
- Review and discuss alternative concepts

Time	Agenda Item
4:00 - 4:15 pm	<b>Welcome and Introductions</b>
4:15 - 4:45 pm	<b>Project Updates</b> <ul style="list-style-type: none"> <li>● Where We Left Off                             <ul style="list-style-type: none"> <li>○ Evaluation Criteria</li> </ul> </li> <li>● Ongoing Partner Coordination                             <ul style="list-style-type: none"> <li>○ BCPOS East Boulder Creek Site Management Plan</li> <li>○ Site visit with OSMP</li> <li>○ Meeting with RTD</li> <li>○ Rails to Trails</li> </ul> </li> <li>● Connectivity Workshop</li> </ul>
4:45 - 5:30 pm	<b>Presentation + Discussion of Alignments</b> <ul style="list-style-type: none"> <li>● Discuss trade offs of different alignment options</li> </ul>
5:30 - 5:45 pm	<b>Upcoming Public Meeting</b> <ul style="list-style-type: none"> <li>● Details</li> <li>● Request to distribute public meeting information</li> </ul>
5:45 - 6:00 pm	<b>Wrap Up + Next Steps</b> <ul style="list-style-type: none"> <li>● Review schedule</li> <li>● Next CWG meeting</li> </ul>







# BERT Community Working Group Meeting

## Thursday, August 17, 2023



Boulder to Erie Regional Trail (BERT)

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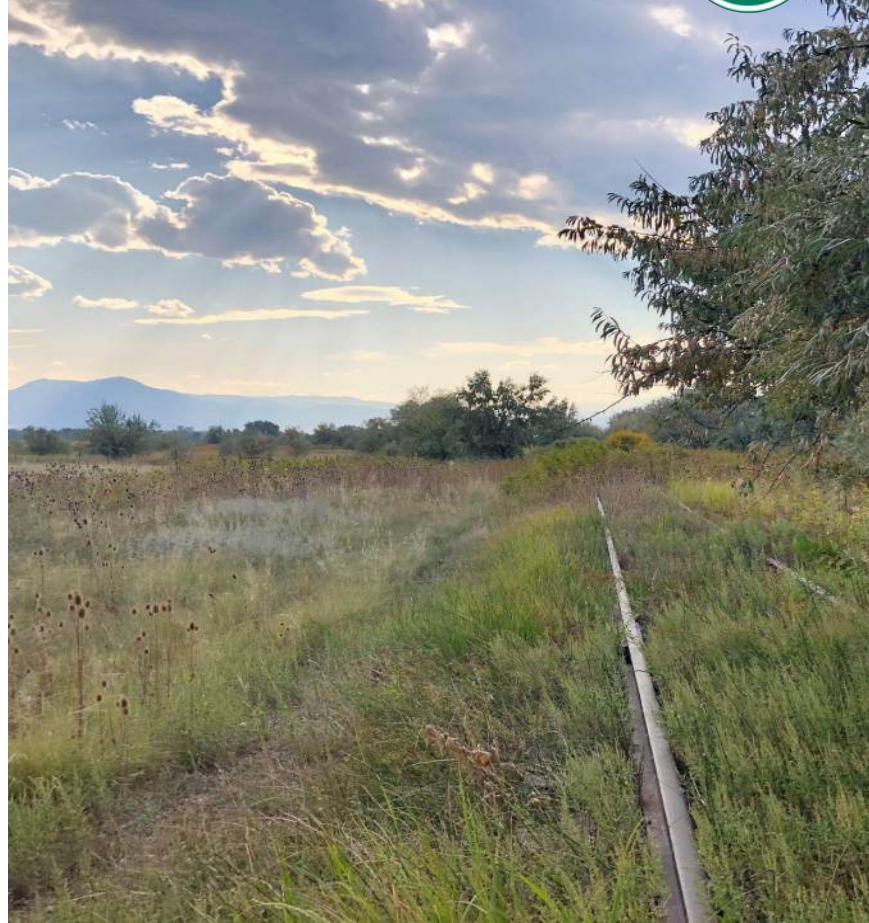
CDR ASSOCIATES  
COLLABORATIVE DECISION RESOURCES



# AGENDA



1. Welcome & Introductions
2. Project Updates
3. Presentation & Discussion of Conceptual Alignments
4. Public Meeting
5. Wrap Up & Next Steps



# INTRODUCTIONS



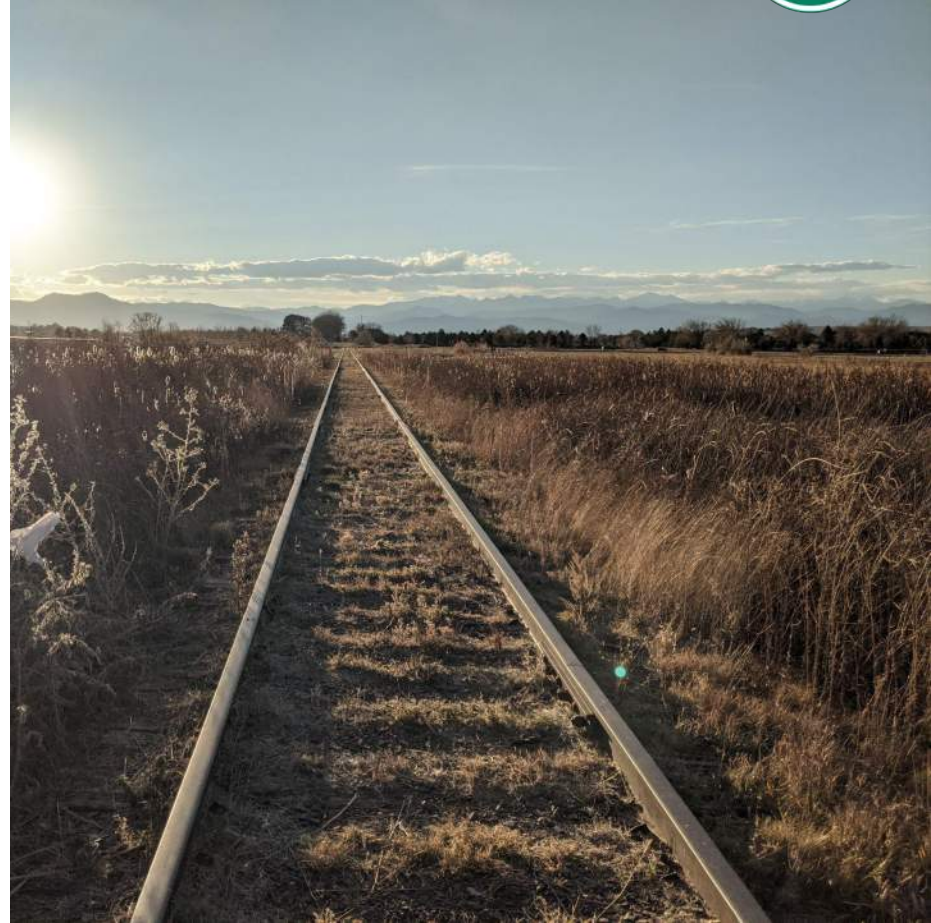
- Name
- Organization or Affiliation
- Icebreaker Question



# PROJECT UPDATES



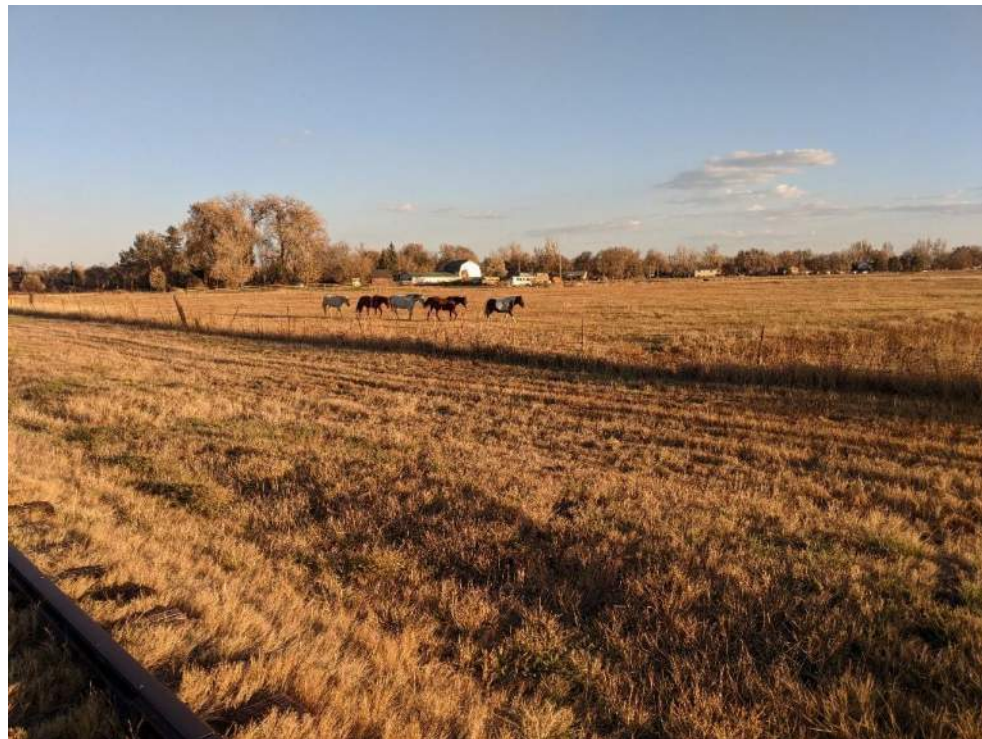
- Where We Left Off
- Ongoing Partner Coordination
- Connectivity Workshop



# PROJECT UPDATES: Where We Left Off



- Last CWG meeting in April 2023
- Discussion at meeting focused on evaluation criteria
- Feedback helped inform considerations



# PROJECT UPDATES: Where We Left Off



## Interests Shared in April for a Successful Trail

- Cost and timeliness of completion
- Access challenges (gates, crossings, etc.)
- Viewshed and nature-based experience
- Options for commuter vs. scenic alignment
- Minimize noise pollution
- Mitigating user conflicts
- Accommodations for equestrian use
- Sight lines on trail
- Wetland impacts
- Habitat fragmentation
- Connectivity to trails and neighborhoods

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As a result of input, the team has added/expanded the following evaluation considerations:

- Driveways and Other Access Crossings
- Construction Costs
- Ease/Speed of Implementation
- Trailheads and Facilities
- Recreational Value

# PROJECT UPDATES: Ongoing Partner Coordination



- East Boulder Creek Site Management Plan
- Walking the OSMP property
- Meeting with RTD
- Rails-to-Trails Conservancy



# PROJECT UPDATES: Connectivity Workshop



- Gathered representatives from Boulder, Erie, OSMP, CDOT, and CPW in May
- **Goal: collaboratively identify two or three conceptual trail alignments**
- Gathered details to understand opportunities and constraints

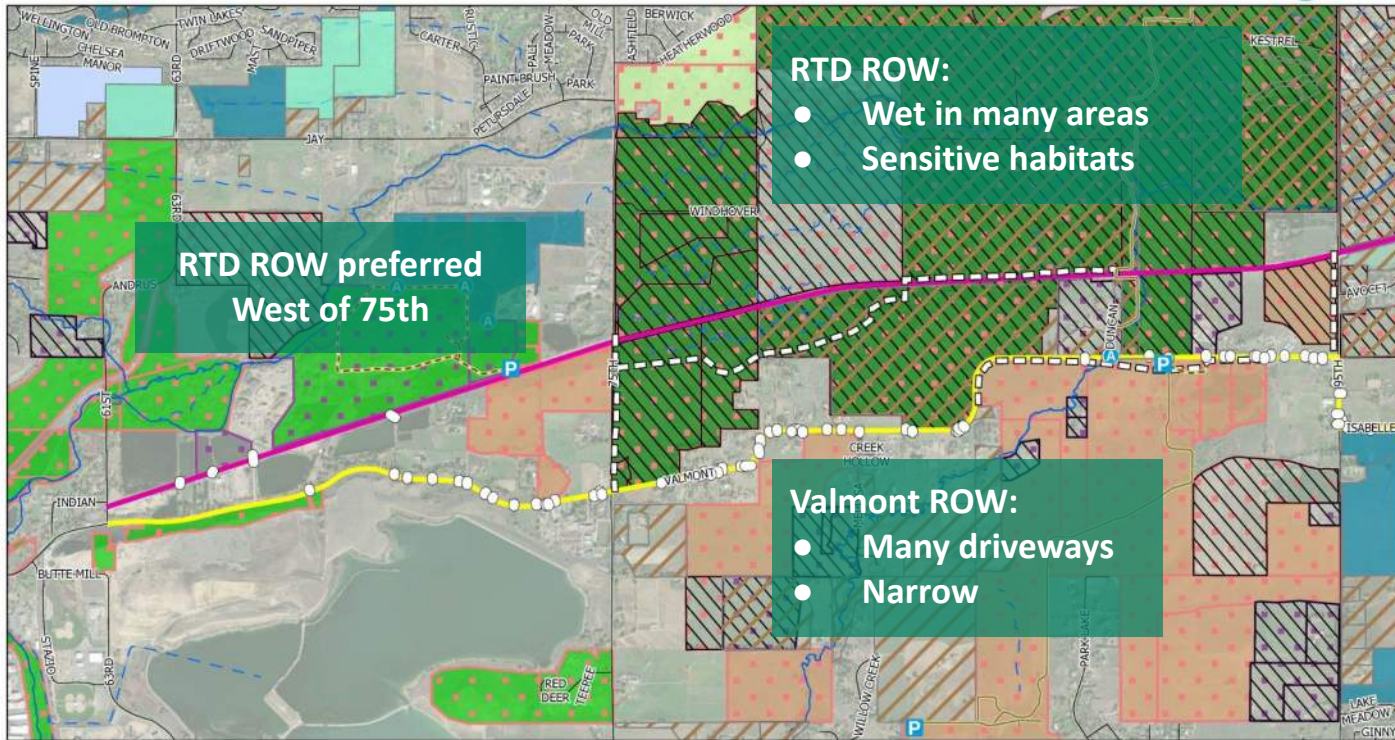




# PROJECT UPDATES: Connectivity Workshop



Photos of Corridors for Consideration in the Project Area - 61st-95th



**Corridors for Consideration**

- OSMP Routes
- RTD Rail Corridor
- Intermodal/Bus/Transit Corridor
- 28F Crossing at Boulder Creek I
- 28F Crossing at Boulder Creek II
- Driveways

**County Open Space**

- County Conservation Easement
- County Managed
- County Owned Open Space
- Joint County and Municipal Open Space
- Miscellaneous Easement

**Linear Hydrology**

- Perennial Stream
- Epithermal and Intermittent Streams

**Managed Trail Access Locations**

- OSMP Trailhead
- OSMP Access Point

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**Managed Trail Access Locations**

- OSMP Trailhead with Designated Parking
- Access Point - Parking Along Public Streets Unless Otherwise Noted

**Trails**

- OSMP Hiking Trail
- OSMP Multi-Use Trail
- OSMP Land
- No Public Access
- OSMP Fee Ownership
- OSMP Joint Ownership

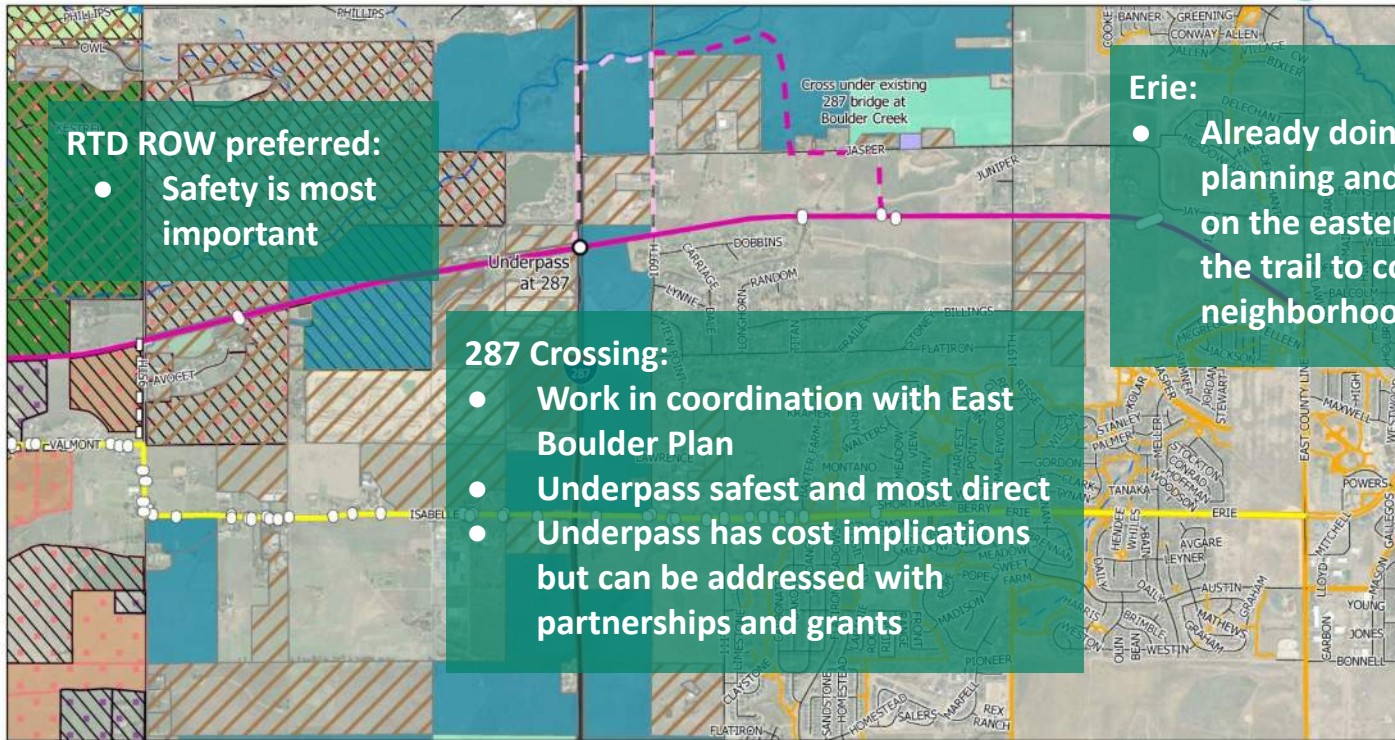
*Note: The Corridors for Consideration on these maps represent general corridors and could contain multiple conceptual trail alignments for further consideration.*



# PROJECT UPDATES: Connectivity Workshop



Photos of Corridors for Consideration in the Project Area - 95th-Erie



**RTD ROW preferred:**

- Safety is most important

**287 Crossing:**

- Work in coordination with East Boulder Plan
- Underpass safest and most direct
- Underpass has cost implications but can be addressed with partnerships and grants

**Erie:**

- Already doing a lot of planning and construction on the eastern portion of the trail to connect to neighborhoods

**Corridors for Consideration**

- RTD Rail Corridor
- Intermodal/Bus/Transit Corridor
- 287 Crossing at Boulder Creek I
- 287 Crossing at Boulder Creek II
- Driveways

**County Open Space**

- County Conservation Easement
- County Managed
- County Owned Open Space
- Joint County and Municipal Open Space
- Miscellaneous Easement

**Linear Hydrology**

- Perennial Stream
- Intermittent and Intermittent Streams

**Managed Trail Access Locations**

- OSMP Trailhead
- OSMP Access Point

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**Managed Trail Access Locations**

- OSMP Trailhead with Designated Parking
- Access Point - Parking Along Public Streets Unless Otherwise Noted

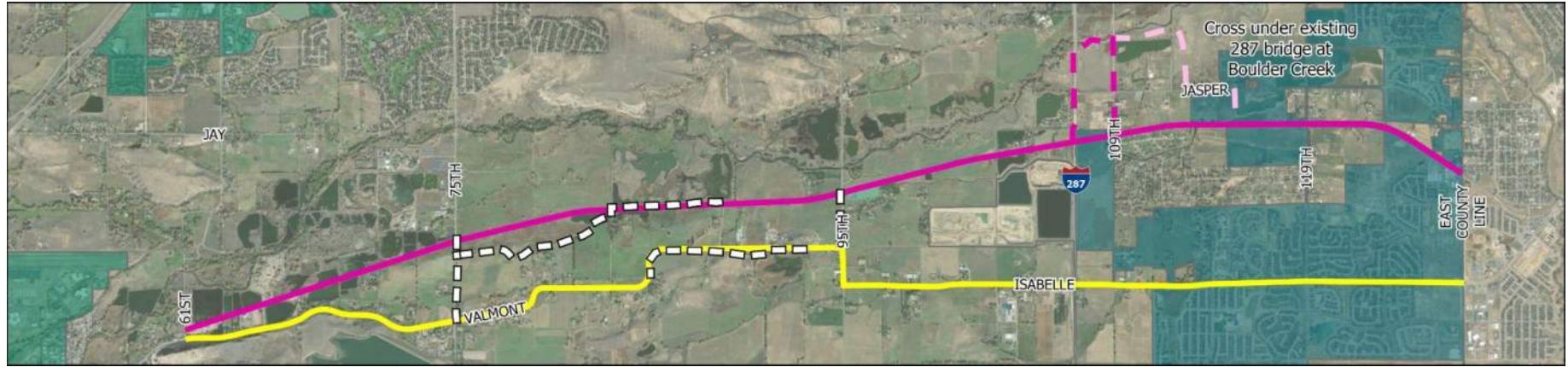
**Trails**

- OSMP Hiking Trail
- OSMP Multi-Use Trail
- OSMP Land
- No Public Access
- OSMP Fee Ownership
- OSMP Joint Ownership

*Note: The Corridors for Consideration on these maps represent general corridors and could contain multiple conceptual trail alignments for further consideration.*



# REVISED ALIGNMENTS:



**4** Conceptual Alignments for Further Consideration & **2** Hwy 287 Crossing Options

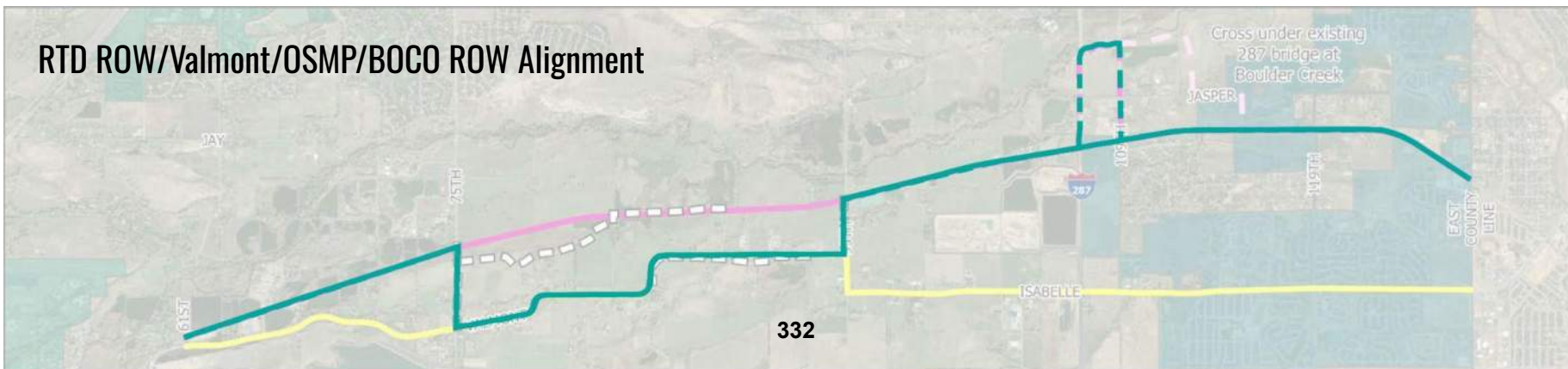
# REVISED ALIGNMENTS:



### RTD ROW Alignments (2)



### RTD ROW/Valmont/OSMP/BOCO ROW Alignment



# REVISED ALIGNMENTS:



### RTD ROW/OSMP Alignment



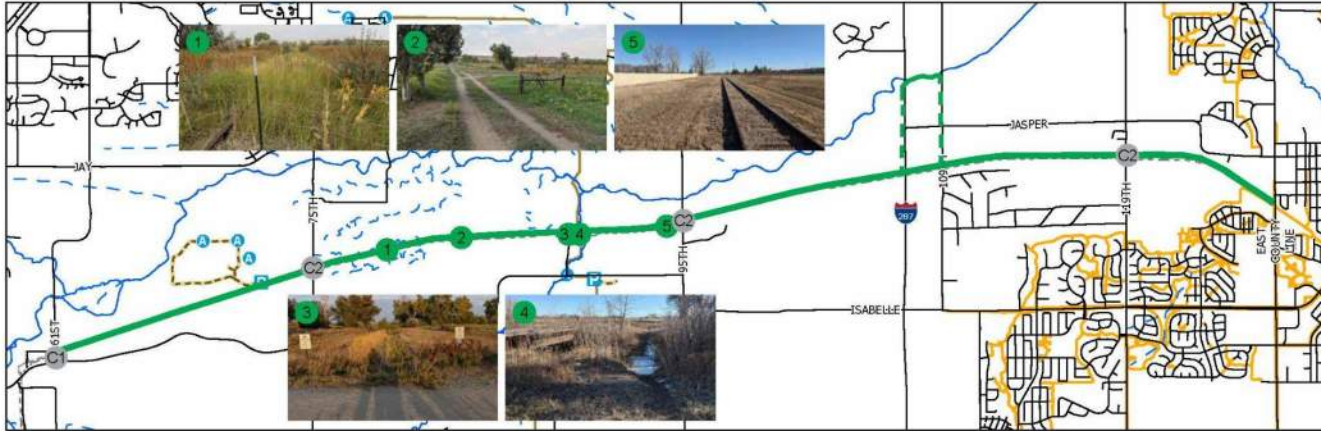
### Hwy 287 Crossing (2)



# REVISED ALIGNMENTS:



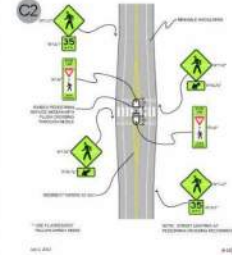
## RTD ROW Alignments (1&2)



### Notes:

- These alignments are fully in the RTD ROW
- There are 2 alignment variations:
  - (1) - trail on top the existing rail bed
  - (2) - the trail in the ROW, not on the rail bed itself, but with crossings of the rail bed as needed

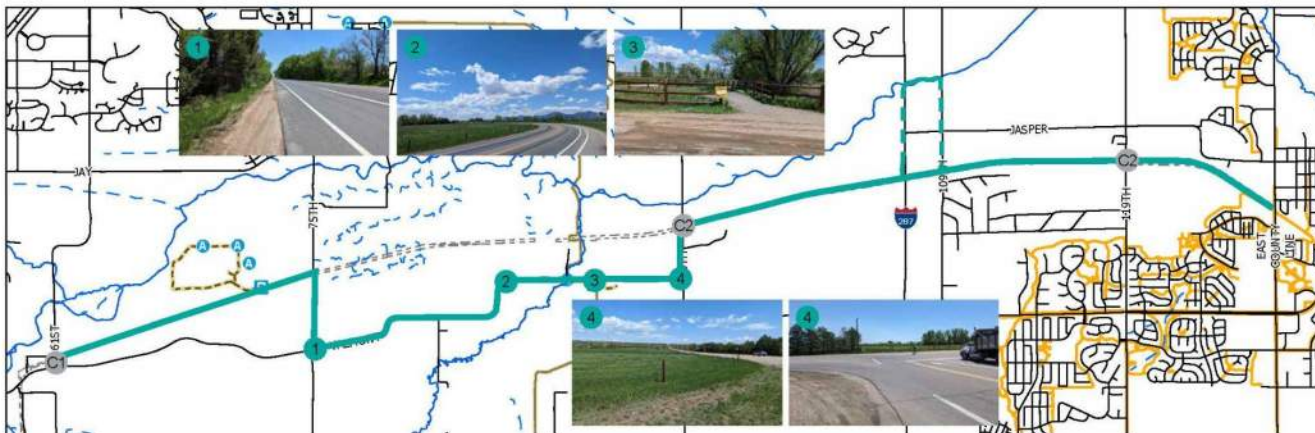
### Crossings:



# REVISED ALIGNMENTS:



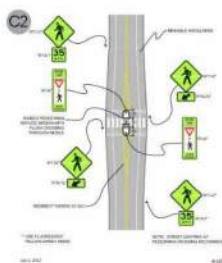
## RTD ROW/Valmont/OSMP/BOCO ROW Alignment (3)



### Notes:

- (3) - alignment is a combination of RTD ROW, OSMP, and BOCO ROW/Valmont around the 75th to 95th section:
  - **61st to 75th** - RTD ROW & CPW/OSMP Road to Sawhill Ponds
  - **RTD ROW to Valmont** - OSMP/BOCO ROW
  - **75th to 95th** - BOCO ROW/OSMP
  - **Valmont to RTD ROW** - BOCO ROW
  - **95th to Erie** - RTD ROW

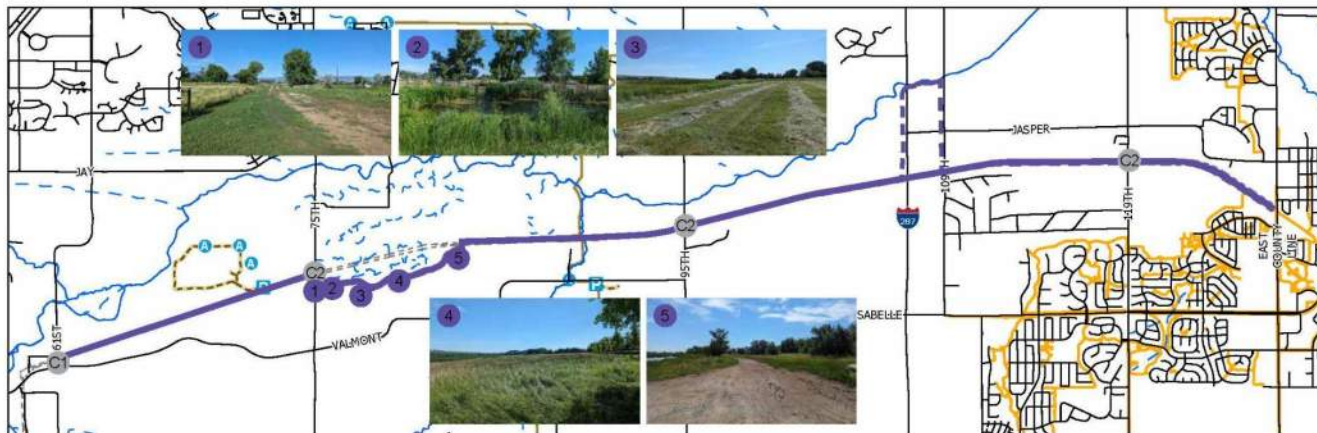
### Crossings:



# REVISED ALIGNMENTS:



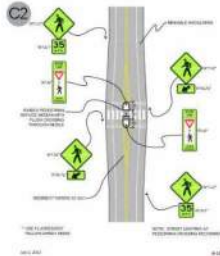
## RTD ROW/OSMP Alignment (4)



### Notes:

- (4) - alignment is a combination of RTD ROW and OSMP:
  - **61st to 75th** - RTD ROW & CPW/OSMP road to Sawhill Ponds
  - **RTD ROW to OSMP Route (along 75th)** - BOCO ROW/OSMP property
  - **75th to 95th** - OSMP property & RTD ROW
  - **95th to Erie** - RTD ROW

### Crossings:

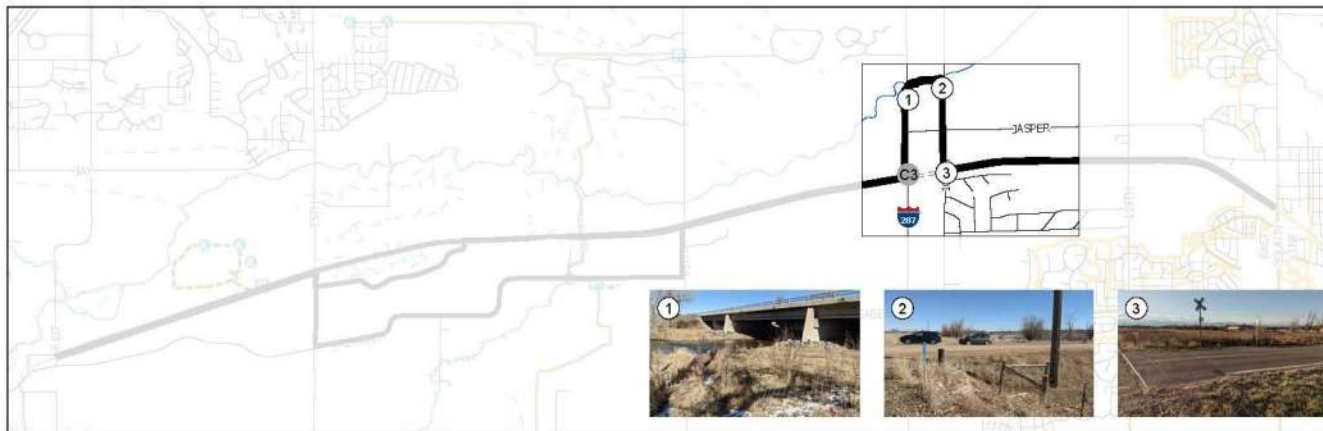




# REVISED ALIGNMENTS:



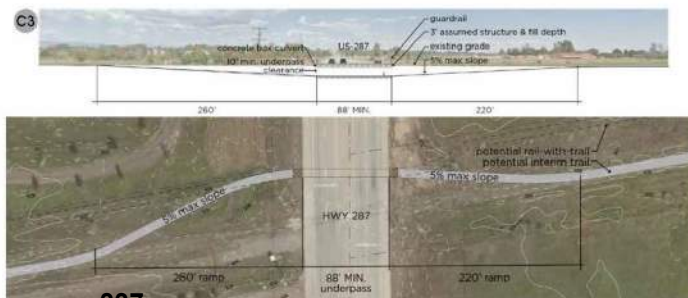
## Hwy 287 Crossing



### Notes:

- Two options are being considered for crossing Hwy 287:
  - One is an underpass in line with the RTD ROW under the road
  - One is a route that goes along Hwy 287 up to the existing Boulder Creek crossing under 287 and uses that to get the trail under 287
    - This route would then go along Boulder Creek until it reached 109th and then take 109th back to the RTD ROW.

### Crossing:



# REVISED ALIGNMENTS: Discussion



Questions?

# REVISED ALIGNMENTS: Discussion



- What trade offs exist between the alignment options?  
Consider: Environmental, Safety, Visitor Experience
- Of the alignment options, which one stands out to you as most appealing? Why?
- What concerns do you have about the alignment options?
- Do you have any recommendations on the best way to discuss these options with the broader public?

# PUBLIC MEETING: Information



## Spread the Word!

Wednesday, September 13

5:00-7:00 PM

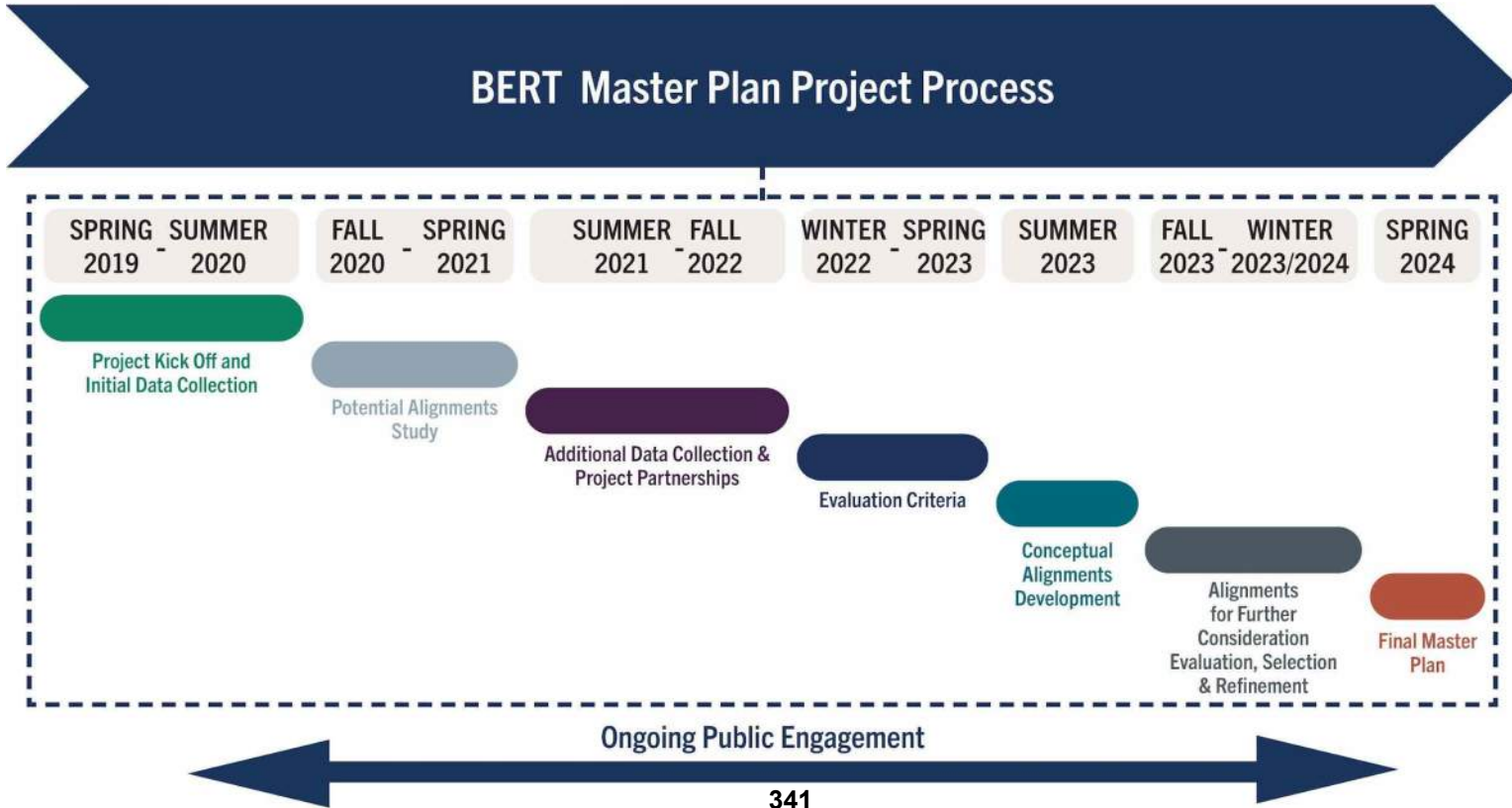
Erie Community Library

Event Space East

(400 Powers St, Erie, CO 80516)



# NEXT STEPS: Schedule and Activities



# NEXT STEPS: Schedule and Activities



Summer 2023	CWG Meeting	Presentation of draft conceptual alignments and feedback gathering
Summer 2023	Open House/Public Meeting	Open house/public meeting around initial conceptual alignments
Fall/Winter 2024	CWG Meeting	Presentation of conceptual alignments for further consideration for review and input.
Spring 2024	Open House Public Meeting	Open house/public meeting around conceptual alignments for further consideration
Spring 2024	Final Submittal	Final Master Plan submittal



## CONTACT US

Tonya Luebbert, Regional Trails Planner  
tluebbert@bouldercounty.gov

Visit the Website: [boco.org/BERT](https://www.boco.org/BERT)



CDR ASSOCIATES  
COLLABORATIVE DECISION RESOURCES



## Meeting Agenda

### Boulder to Erie Regional Trail

# Community Working Group Meeting

Thursday, August 17, 2023

4:00 pm - 6:00 pm

Via Zoom

[Attached: Presentation, Letter from David Butler]

## Meeting Purpose

- Update Community Working Group on the project status, progress, and next steps
- Review and discuss alternative concepts

## Welcome and Introductions

Melissa Bade and Tonya Luebbert opened the meeting and welcomed all attendees to the zoom call. Attendees introduced themselves and shared the highlights of their summer.

## Review and Discussion of Project Updates

### Where We Left Off with the CWG

- The last time the CWG met in April 2023, the project team was gathering input about evaluation criteria. The last CWG meeting helped shape the Evaluation Criteria Considerations to include some of the interests and concerns of the group, such as construction costs, speed of implementation, trailheads and facilities, and recreational value.

### Ongoing Partner Coordination

- **East Boulder Creek Site Management Plan:** Boulder County Parks & Open Space have an ongoing project adjacent to the BERT project area. The BERT project team has been in close coordination with this project team and the Project Manager, Jeff Moline, is part of the BERT Steering Committee. There is potential for an overlap of recreational trails and facilities between the two projects.
- **OSMP:** The project team recently walked along the OSMP trail alignment concepts for further consideration (represented by white dashed line on maps). Discussion was centered around opportunities and constraints and gaining a shared understanding of existing conditions.
- **RTD:** The project team recently met one-on-one with RTD to discuss the potential of aligning the trail on top of the rail bed for relatively short stretches where there are environmental and maintenance constraints— *particularly areas in the right-of-way that are frequently wet*. RTD is willing to consider this concept as an alternative for further evaluation, given a few stipulations, and remains a member of the BERT Steering Committee.





- **Rails-to-Trails Conservancy:** The project team has reached out to the Conservancy to understand what collaboration opportunities exist, but have not heard back. The project team prompted the CWG to share any contact information they might have with the Conservancy.
  - Suzanne Weibel provided the following contact: Yvonne Mwangi
  - **ACTION:** If any other CWG have additional information or contacts, please share!

**Q: Have RTD representatives ever seen a rail trail in person?**

**A:** We are unsure if they have seen a rail trail, but they are familiar with the concept. Their concerns regarding a trail atop the rail bed are around historic preservation of the rails and remaining aware of their underlying right-of-way and land ownership.

**Q: Where does OSMP property interface with BERT?**

**A:** Primarily between 75th and White Rocks Trail, visible as a white dashed line on attached maps of conceptual alignments.

**Q: Any further discussions about connections with RTD bus stops along US 287?**

**A:** Yes we are in contact with the project team and coordination with them has and will be ongoing. However, the project manager recently left the County so there have not been changes since the group last met. Tonya will follow up with the US 287 project team.

**Q: Is there any potential to combine the BERT plan with the East Boulder Creek Site Management Plan?**

**A:** The BERT plan and the East Boulder Creek Plan are distinct processes with unique objectives, goals, and geographic extents but we are working in close coordination where those goals overlap. For example, exploring trail connections or trailhead potential.

**Connectivity Workshop**

The project team hosted a connectivity workshop in May 2023 with members of the Steering Committee to collaboratively identify two or three conceptual trail alignments based on the concepts that were shared with the CWG in April. Discussion was centered around understanding where the Steering Committee’s preferences were clear and where a number of alternatives remain useful to evaluate and compare. At this workshop, the Steering Committee was split into two groups: one looking from 61st-95th, and another from 95th to East County Line Road.

**Takeaways**

- **61st-75th:** RTD right-of-way preferred due to the number of driveways and very narrow right-of-way along Valmont.
- **75th-95th:** This area should explore multiple concepts, including OSMP, RTD, and Valmont Rd right-of-way because all options present constraints. The RTD right-of-way is wet in many areas and may affect sensitive species/habitats and the Valmont Rd right-of-way crosses many driveways and is narrow.
- **95th-East County Line Rd:** RTD right-of-way is preferred for this entire section due to an interest in safety and avoiding traffic along Valmont and Isabelle.



- **US 287 Crossing:** This area should work in coordination with the East Boulder Creek Plan to fully understand opportunities, and a bypass to Boulder Creek is an option. An underpass at US 287 is the safest and most direct option, but may be constrained by cost, implementation, and maintenance.
- **Erie** has progressed in planning and constructing eastern portions of the trail, including trail connections to neighborhoods.

**Q: What do the white oval shapes on the maps represent?**

**A:** The small white oval shapes represent crossings visible from aerial imagery, including driveways, streets, and ditches.

**Q: What came out of the workshop? Anything new or different?**

**A:** The connectivity workshop was an opportunity to gather experts on the area including and surrounding the alignment concepts, and was the first time the group came together to discuss opportunities and constraints since concepts outside of the RTD right-of-way (i.e. Valmont/Isabelle, OSMP lands) were added to the project scope.

## Presentation and Discussion of Alignments

Based on the discussions from the Connectivity Workshop, the project team has narrowed options for further consideration down to **four conceptual alignments and two US 287 crossing options** to present to the public and evaluate further. Below are written descriptions of alignments, visuals are available in the attached presentation.

The first two concepts are contained within the RTD right-of-way:

- **Alignment 1:** Remain primarily beside the rail bed *only sometimes crossing the rail bed* (i.e. entirely rail with trail)
- **Alignment 2:** Remain primarily beside the rail bed *and sometimes within the rail bed where the right-of-way is constrained* (i.e. majority rail with trail, some rail to trail)

One concept would combine all rights-of-way:

- **Alignment 3:** Remain in the RTD right-of-way from 61st-75th and 75th-East County Line Rd. Between 75th and 95th, this concept would divert south to Valmont on 75th potentially on OSMP lands, then back north on 95th within county right-of-way.

Another concept would remain within RTD right-of-way, with one diversion on OSMP land:

- **Alignment 4:** Remain in the RTD right-of-way from 61st-75th, divert slightly onto OSMP lands just east of 75th, then return to the RTD right-of-way before White Rocks Trail for the remainder of the route to Erie.

All concepts include 2 different US 287 crossing options:

- **287 Crossing option 1:** Underpass.
- **287 Crossing option 2:** Diversion North along 287 to the existing Boulder Creek crossing under 287, then back to the RTD right-of-way South along 109th.



**Q: Would the Valmont option be on-street or off-street?**

**A:** Off-street, adjacent to Valmont with a 5-10ft buffer. This is a trail project, not a bike shoulder project, so the goal is a separated multi-use trail.

**Q: What would the height of an underpass at US 287 be? A preferred equestrian height is 12 feet and a minimum of 10.**

**A:** We will evaluate a 10 foot height for the underpass. The existing bridge over Boulder Creek has a 9 foot clearance.

**Q: What are the flooding implications for either 287 crossing options?**

**A:** The Boulder Creek option would flood as the creek does. The area where an underpass might exist has high groundwater, so flooding may be an issue that requires continuous pumping. These nuances will be further quantified and compared using the evaluation criteria.

**Q: Could the trail connect from Valmont to the RTD right-of-way using the White Rocks Trail?**

**A:** That option was discussed during the connectivity workshop, but ultimately not included due to differences in trail regulations between the existing trail and anticipated BERT regulations, most notably allowance of dogs. The connection could still exist, but the project team did not want to explore White Rocks Trail as the main alignment.

**Q: Has a boardwalk option been discussed for wet areas?**

**A:** That is something we will consider further, particularly in design and construction.

**Q: Are the rails planned to be used for trains?**

**A:** RTD completed a feasibility study for this section of the right-of-way and confirmed in our recent meeting that there are no plans for trains on these rails in the foreseeable future.

**Discussion revealed a few priorities and thoughts among the CWG:**

- Flooding is an issue that exists amongst many trails and can be accommodated by user habits (e.g. dismounting bicycles and horses, sharing safe temporary alternatives)
- The **safety** of RTD right-of-way and its separation from vehicular traffic is extremely valuable to the group
- The **visitor experience** of the RTD right-of-way is much better than options adjacent to 287 or Valmont
- The **existing infrastructure** of the RTD right-of-way is cost-efficient, time-efficient, and sustainably-minded
- There is some **recreational and nature viewing value in detours** from the RTD right-of-way

*There is a clear preference for Alignment 1 or 2 that utilize the entire RTD right-of-way, with some support for Alignment 4.*



## Wrap Up + Next Steps

The project team closed the meeting by reviewing the project timeline, planned engagement touchpoints with the CWG and the public, and by announcing an upcoming Public Meeting.

- **REMINDER:** The alignments presented to the CWG will not change before the Public Meeting.

**Boulder to Erie Regional Trail Public Meeting**

**Wednesday, September 13, 2023**

**5:00-7:00 PM**

*A brief project presentation will begin at 5:30 PM followed by an open house*

**Erie Community Library | Event Space East**

**400 Powers St, Erie, CO 80516**

The project team will discuss project updates to-date, evaluation criteria for different trail options, and conceptual alignments.



## Meeting Attendees

First	Last
Timothy	Payne
Will	Chapman
Debi	Garrity
Jim	Pendleton
Kay	Norby Fiar
Gary	McClelland
Ron	Blackwelder
Randy	Winter
Suzanne	Webel
Tonya	Luebbert*
Cliff	Lind*
Kelsey	Blaho*
Melissa	Bade*
Laura	Hickey*
Carrie	Tanner*

\* Project Team Member

David Butler could not attend, but shared thoughts ahead of the meeting. This letter is attached.





# BERT Community Working Group Meeting

## Thursday, August 17, 2023



Boulder to Erie Regional Trail (BERT)

350



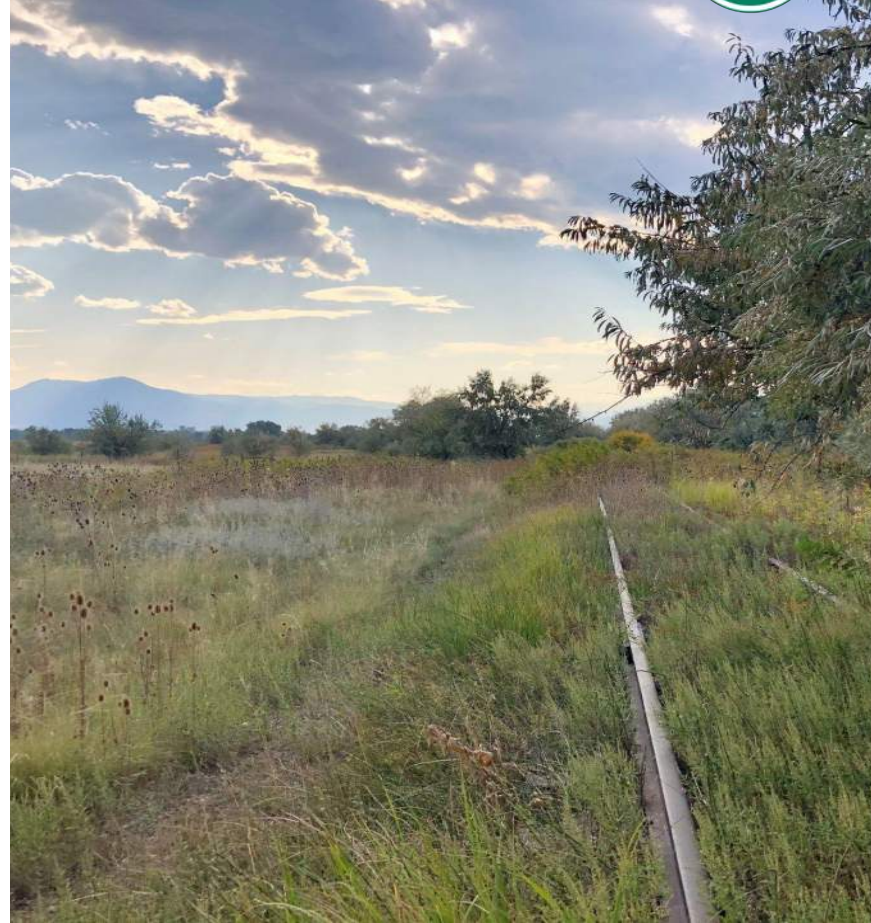
CDR ASSOCIATES  
COLLABORATIVE DECISION RESOURCES



# AGENDA



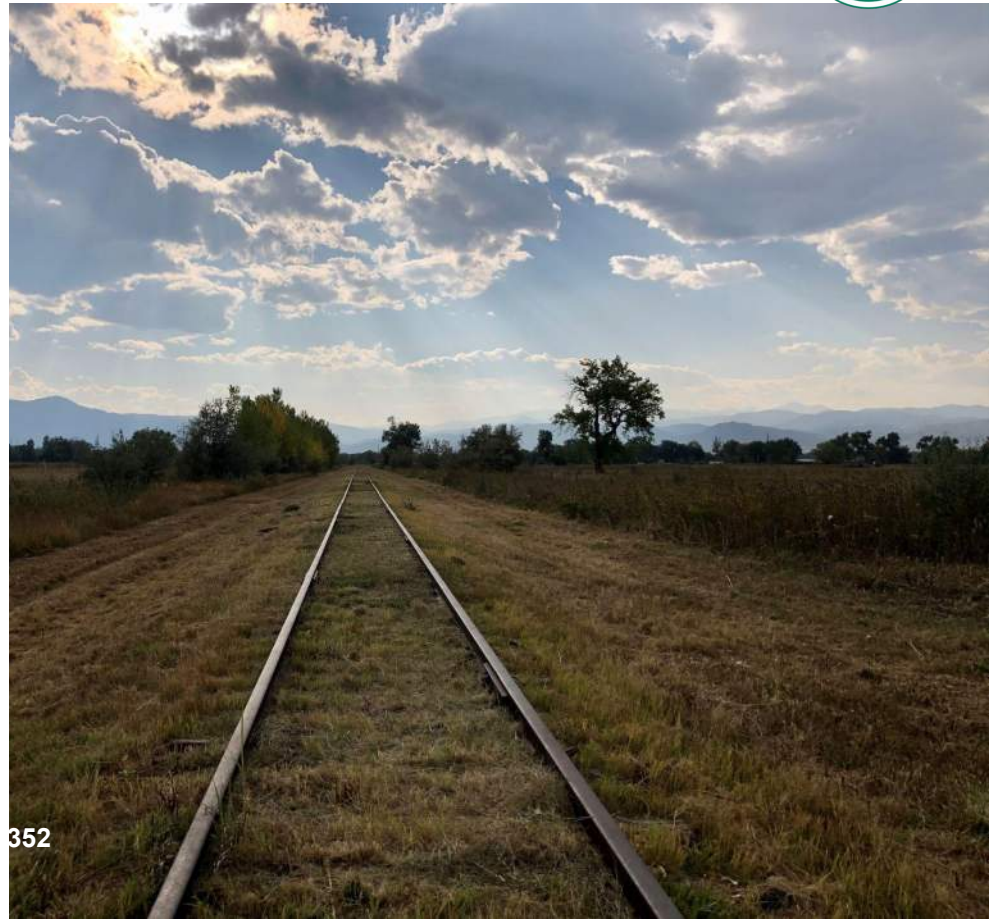
1. Welcome & Introductions
2. Project Updates
3. Presentation & Discussion of Conceptual Alignments
4. Public Meeting
5. Wrap Up & Next Steps



# INTRODUCTIONS



- Name
- Organization or Affiliation
- Icebreaker Question

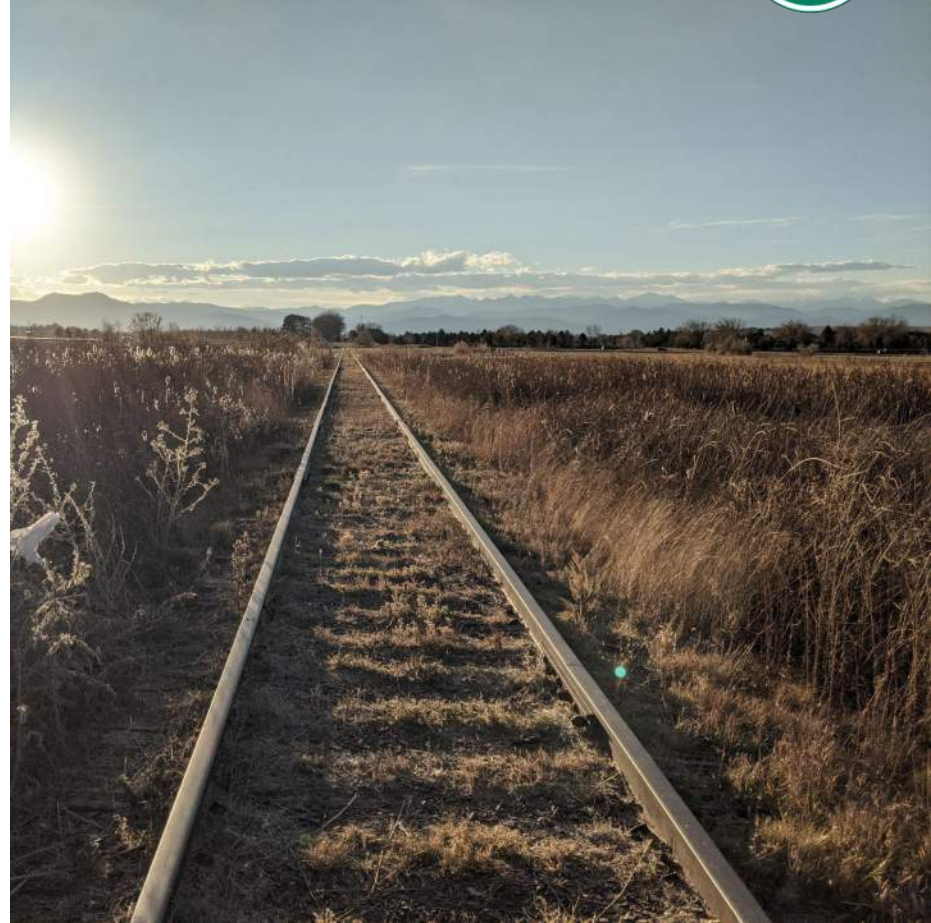




# PROJECT UPDATES



- Where We Left Off
- Ongoing Partner Coordination
- Connectivity Workshop



# PROJECT UPDATES: Where We Left Off



- Last CWG meeting in April 2023
- Discussion at meeting focused on evaluation criteria
- Feedback helped inform considerations



# PROJECT UPDATES: Where We Left Off



## Interests Shared in April for a Successful Trail

- Cost and timeliness of completion
- Access challenges (gates, crossings, etc.)
- Viewshed and nature-based experience
- Options for commuter vs. scenic alignment
- Minimize noise pollution
- Mitigating user conflicts
- Accommodations for equestrian use
- Sight lines on trail
- Wetland impacts
- Habitat fragmentation
- Connectivity to trails and neighborhoods

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As a result of input, the team has added/expanded the following evaluation considerations:

- Driveways and Other Access Crossings
- Construction Costs
- Ease/Speed of Implementation
- Trailheads and Facilities
- Recreational Value

# PROJECT UPDATES: Ongoing Partner Coordination



- East Boulder Creek Site Management Plan
- Walking the OSMP property
- Meeting with RTD
- Rails-to-Trails Conservancy



# PROJECT UPDATES: Connectivity Workshop



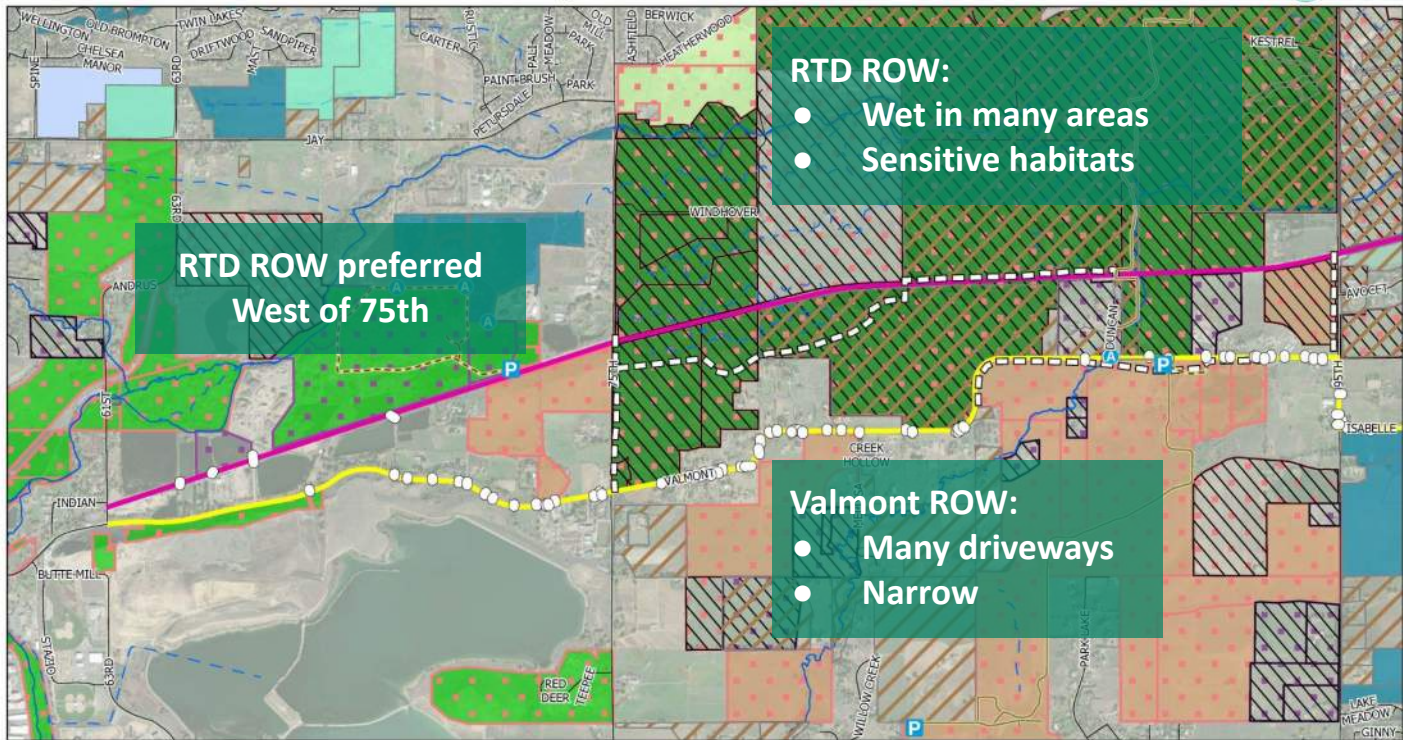
- Gathered representatives from Boulder, Erie, OSMP, CDOT, and CPW in May
- **Goal: collaboratively identify two or three conceptual trail alignments**
- Gathered details to understand opportunities and constraints



# PROJECT UPDATES: Connectivity Workshop



Photos of Corridors for Consideration in the Project Area - 61st-95th



**Corridors for Consideration**  
 ■ Routes on OSMP  
 ■ RTD Rail Corridor  
 ■ Intermodal/Bus/Transit Corridor  
 ■ 28F Crossing at Boulder Creek I  
 ■ 28F Crossing at Boulder Creek II  
 ○ Driveways

**County Open Space**  
 ■ County Conservation Easement  
 ■ County Managed  
 ■ County Owned Open Space  
 ■ Joint County and Municipal Open Space  
 ■ Municipal Easement

**Linear Hydrology**  
 ■ Personal Stream  
 ■ Interpersonal and Intercommunity Streams  
**Managed Trail Access Locations**  
 ■ OSMP Trailhead  
 ■ OSMP Access Point

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**Managed Trail Access Locations**  
 ■ OSMP Trailhead with Designated Parking  
 ■ Access Point - Parking along Public Streets Unless Otherwise Noted  
**Trails**  
 ■ OSMP Hiking Trail  
 ■ OSMP Multi-Use Trail

**Trails**  
 ■ OSMP Hiking Trail  
 ■ OSMP Multi-Use Trail  
**OSMP Land**  
 ■ No Public Access  
 ■ OSMP Fee Ownership  
 ■ OSMP Joint Ownership

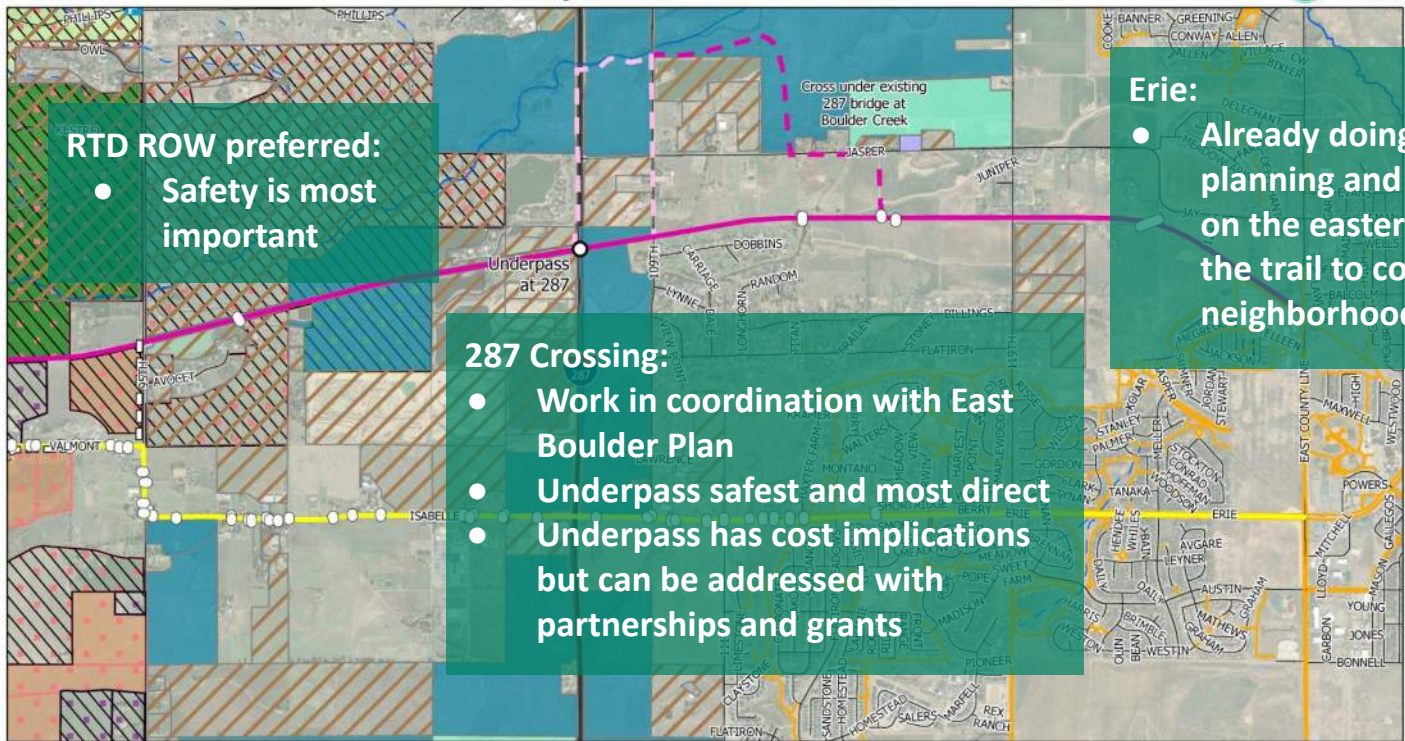
*Note: The Corridors for Consideration on these maps represent general corridors and could contain multiple conceptual trail alignments for further consideration.*



# PROJECT UPDATES: Connectivity Workshop



Photos of Corridors for Consideration in the Project Area - 95th-Erie



**RTD ROW preferred:**

- Safety is most important

**287 Crossing:**

- Work in coordination with East Boulder Plan
- Underpass safest and most direct
- Underpass has cost implications but can be addressed with partnerships and grants

**Erie:**

- Already doing a lot of planning and construction on the eastern portion of the trail to connect to neighborhoods

**Corridors for Consideration**

- RTD Rail Corridor
- Intermodal/Bus/Transit Corridor
- 287 Crossing at Boulder Creek I
- 287 Crossing at Boulder Creek II
- Driveways

**County Open Space**

- County Conservation Easement
- County Managed
- County Owned Open Space
- Joint County and Municipal Open Space
- Miscellaneous Easement

**Linear Hydrology**

- Perennial Stream
- Intermittent and Intermittent Streams

**Managed Trail Access Locations**

- OSMP Trailhead
- OSMP Access Point

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**Managed Trail Access Locations**

- OSMP Trailhead with Designated Parking
- Access Point - Parking along Public Streets (unless Otherwise Noted)

**Trails**

- OSMP Hiking Trail
- OSMP Multi-Use Trail

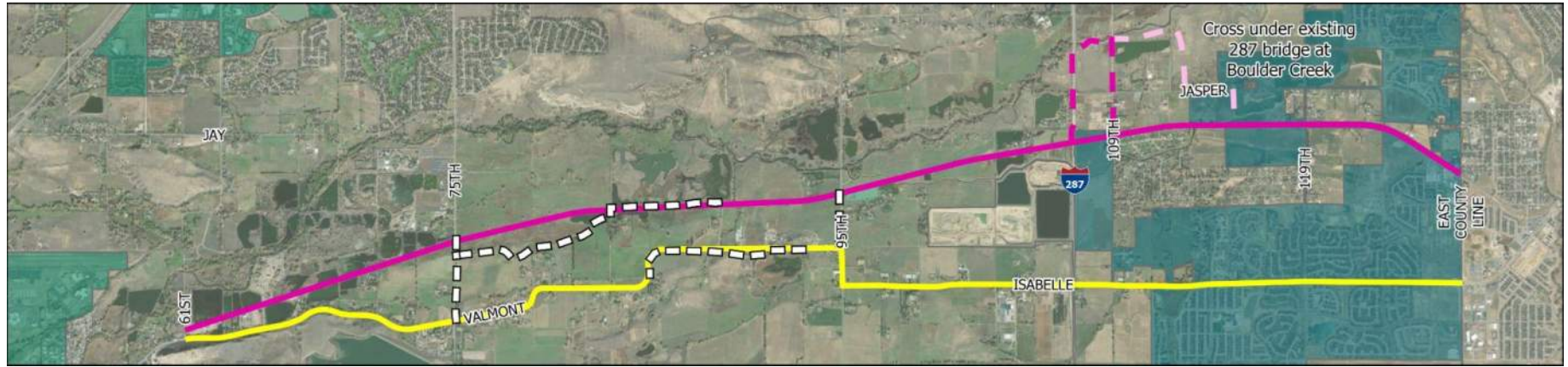
**Trails**

- OSMP Hiking Trail
- OSMP Multi-Use Trail
- OSMP Land
- No Public Access
- OSMP Fee Ownership
- OSMP Joint Ownership

*Note: The Corridors for Consideration on these maps represent general corridors and could contain multiple conceptual trail alignments for further consideration.*



# REVISED ALIGNMENTS:



**4** Conceptual Alignments for Further Consideration & **2** Hwy 287 Crossing Options



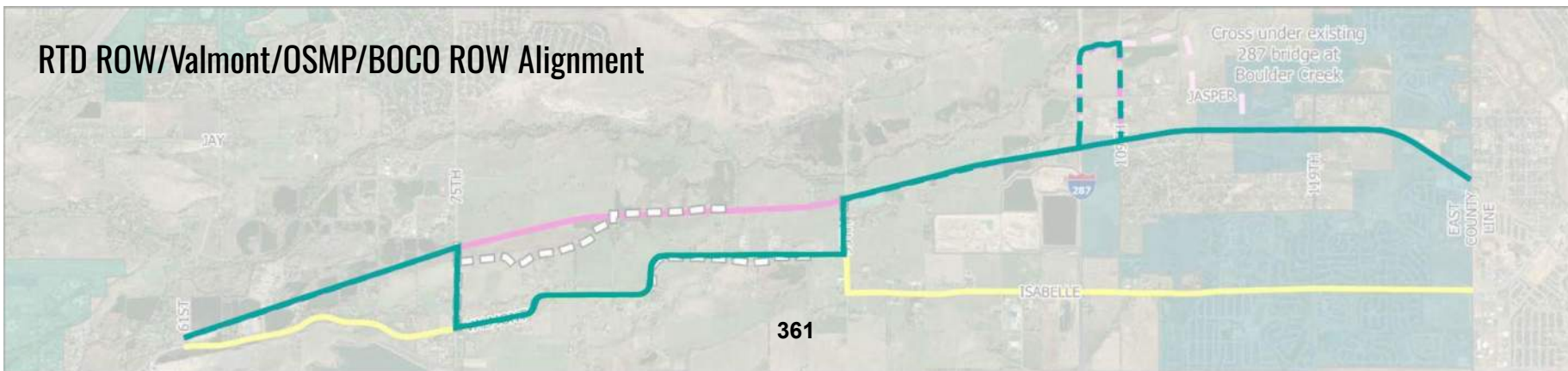
# REVISED ALIGNMENTS:



## RTD ROW Alignments (2)



## RTD ROW/Valmont/OSMP/BOCO ROW Alignment



# REVISED ALIGNMENTS:



### RTD ROW/OSMP Alignment



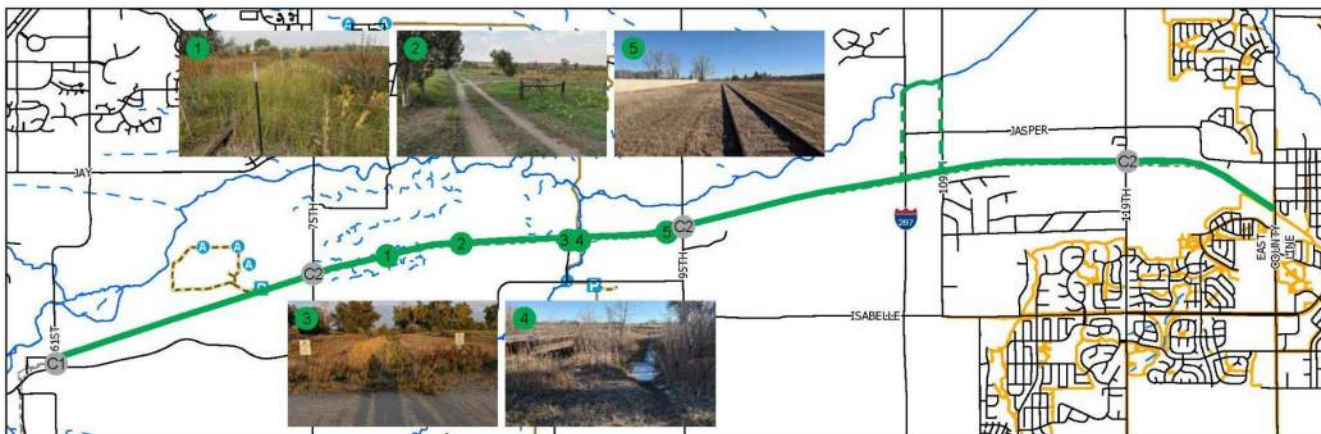
### Hwy 287 Crossing (2)



# REVISED ALIGNMENTS:



## RTD ROW Alignments (1&2)



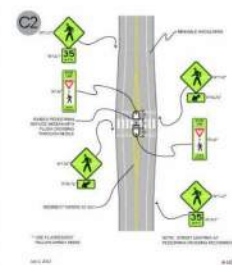
### Notes:

- These alignments are fully in the RTD ROW
- There are 2 alignment variations:
  - (1) - trail on top the existing rail bed
  - (2) - the trail in the ROW, not on the rail bed itself, but with crossings of the rail bed as needed

### Crossings:



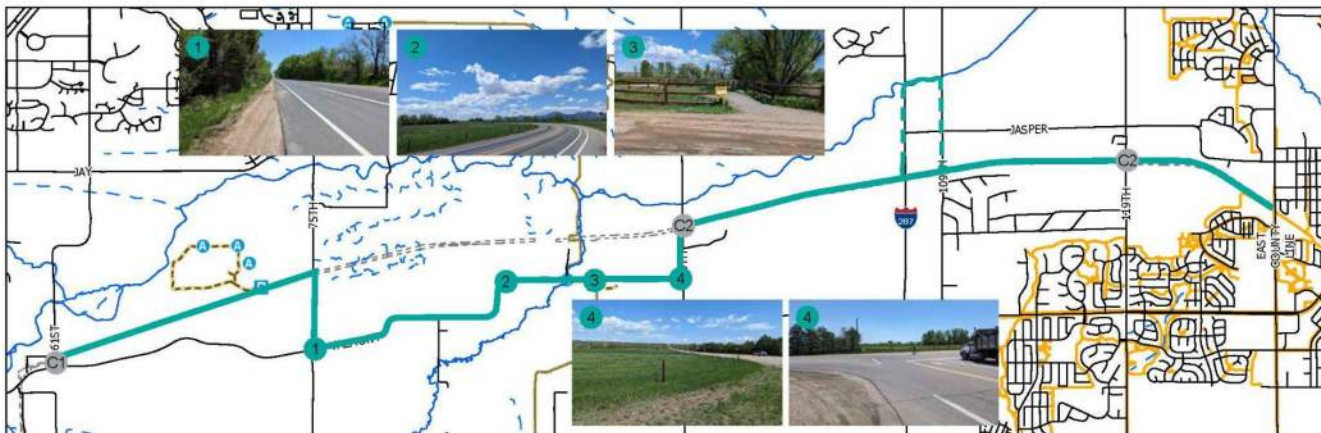
363



# REVISED ALIGNMENTS:



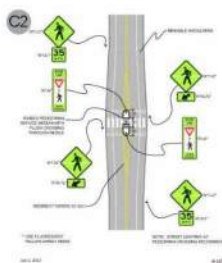
## RTD ROW/Valmont/OSMP/BOCO ROW Alignment (3)



### Notes:

- (3) - alignment is a combination of RTD ROW, OSMP, and BOCO ROW/Valmont around the 75th to 95th section:
  - **61st to 75th** - RTD ROW & CPW/OSMP Road to Sawhill Ponds
  - **RTD ROW to Valmont** - OSMP/BOCO ROW
  - **75th to 95th** - BOCO ROW/OSMP
  - **Valmont to RTD ROW** - BOCO ROW
  - **95th to Erie** - RTD ROW

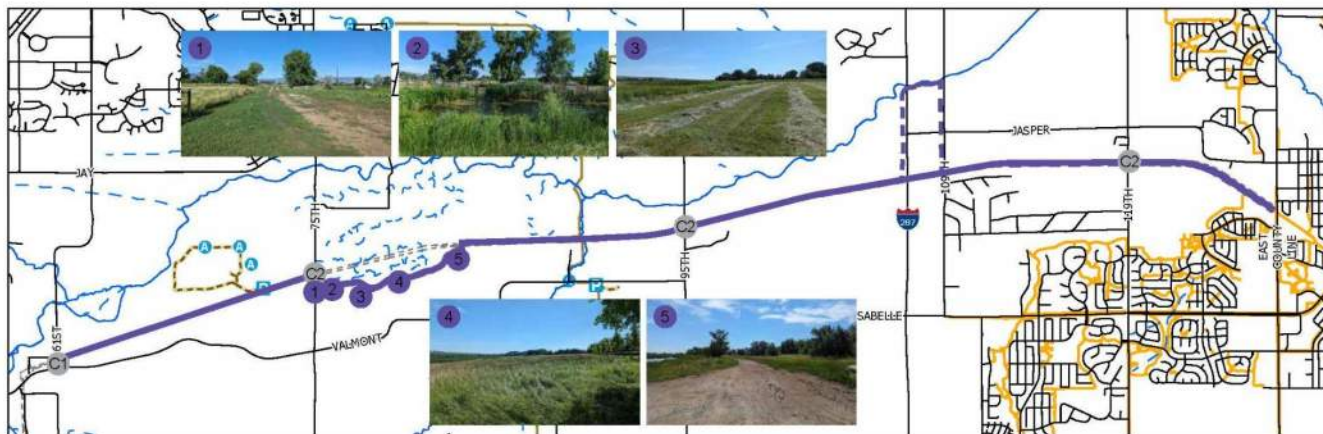
### Crossings:



# REVISED ALIGNMENTS:



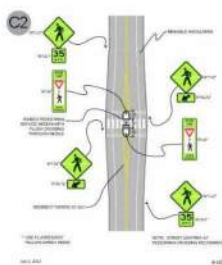
## RTD ROW/OSMP Alignment (4)



### Notes:

- (4) - alignment is a combination of RTD ROW and OSMP:
  - **61st to 75th** - RTD ROW & CPW/OSMP road to Sawhill Ponds
  - **RTD ROW to OSMP Route (along 75th)** - BOCO ROW/OSMP property
  - **75th to 95th** - OSMP property & RTD ROW
  - **95th to Erie** - RTD ROW

### Crossings:



# REVISED ALIGNMENTS:



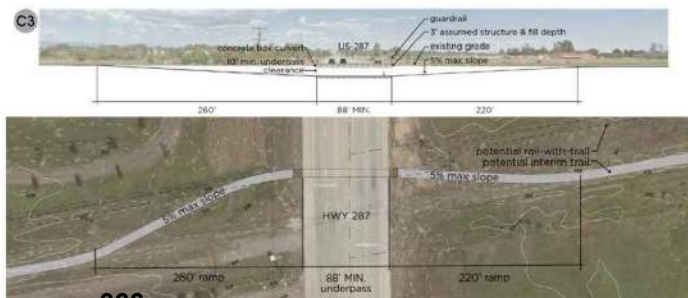
## Hwy 287 Crossing



### Notes:

- Two options are being considered for crossing Hwy 287:
  - One is an underpass in line with the RTD ROW under the road
  - One is a route that goes along Hwy 287 up to the existing Boulder Creek crossing under 287 and uses that to get the trail under 287
    - This route would then go along Boulder Creek until it reached 109th and then take 109th back to the RTD ROW.

### Crossing:



# REVISED ALIGNMENTS: Discussion



Questions?

# REVISED ALIGNMENTS: Discussion



- What trade offs exist between the alignment options?  
Consider: Environmental, Safety, Visitor Experience
- Of the alignment options, which one stands out to you as most appealing? Why?
- What concerns do you have about the alignment options?
- Do you have any recommendations on the best way to discuss these options with the broader public?



# PUBLIC MEETING: Information



## Spread the Word!

Wednesday, September 13

5:00-7:00 PM

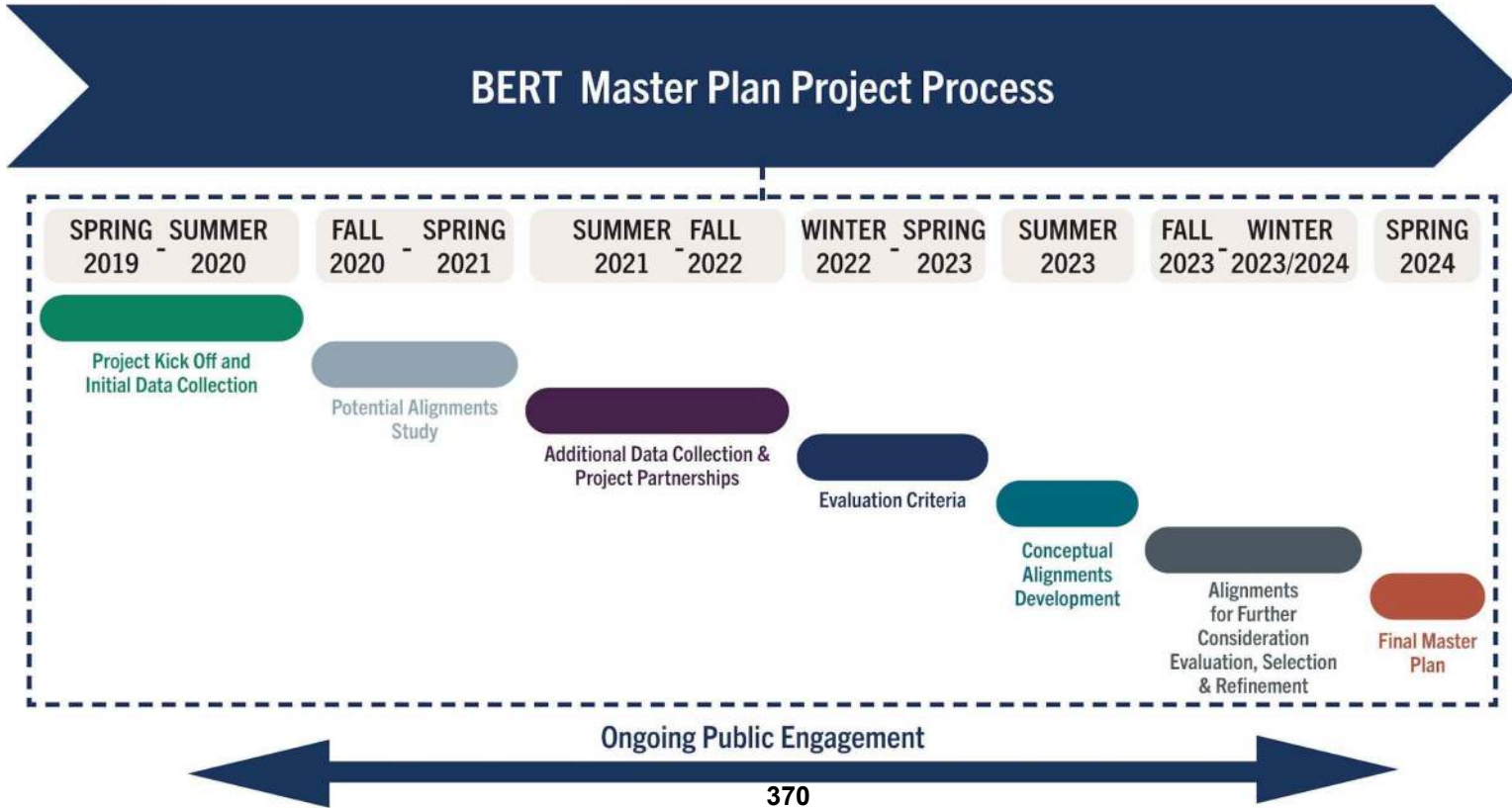
Erie Community Library

Event Space East

(400 Powers St, Erie, CO 80516)



# NEXT STEPS: Schedule and Activities



# NEXT STEPS: Schedule and Activities



Summer 2023	CWG Meeting	Presentation of draft conceptual alignments and feedback gathering
Summer 2023	Open House/Public Meeting	Open house/public meeting around initial conceptual alignments
Fall/Winter 2024	CWG Meeting	Presentation of conceptual alignments for further consideration for review and input.
Spring 2024	Open House Public Meeting	Open house/public meeting around conceptual alignments for further consideration
Spring 2024	Final Submittal	Final Master Plan submittal



## CONTACT US

Tonya Luebbert, Regional Trails Planner  
tluebbert@bouldercounty.gov

Visit the Website: [boco.org/BERT](https://www.boco.org/BERT)



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ERO Resources Corporation

## **Comments regarding the Boulder-Erie Multiuse Trail for the August 17 CWG Meeting**

Because I will probably not be able to attend the August 17 meeting, I am offering here some comments for the discussion.

It appears that the alignment of the trail remains an issue.

In that regard, I would like to say that I share the apparent concern among some people vis-a-vis possible ecological/environmental issues regarding the use of the UP rail bed as a pathway.

However, I think we need to understand a subtle, but important, distinction between “concern” (a worry that is not necessarily substantiated) and actual, objective risk. At this point, I do not think we have a clear understanding of that risk.

Any transformation (such as building a trail) involves changes of some kind. The question for us is whether the construction of BERT on the old UP rail bed poses such significant change that it is not warranted.

Frankly, I doubt that it does.

However, even that statement is simply a judgment on my part (a “concern”). What is needed is a thorough study and understanding of the risks posed by the trail that can be incorporated in any final decision.

I recently talked with a good friend, who is a wildlife biologist and environmental consultant, and he agrees with this opinion. He said that he very much doubted there were significant problems in using the UP alignment, but suggested that a survey of the entire path would be very helpful and would provide a better understanding of any risk.

Thus I would like to ask/propose that the county lead those of us who are interested on a walk along the rail bed to directly assess possible impacts.

My friend also asked if there were either comprehensive photos documenting the UP path or if the county had conducted, or considered conducting, a drone flight with video over the path. (I told him I was not sure what exists.)

In the end, when we have a clearer understanding of the rail bed route (which, to me, at this point, is the obvious, best alternative), it will be up to the county commissioners to make a decision, weighing the true risks against the benefits.

Again, there are *always* risks with change.

Currently, there is no safe route to eastern Boulder County from the city of Boulder. All the roads – Highway 52, Lookout Road, Valmont/Isabelle Road, Arapahoe Road, Baseline Road, and South Boulder Road – convey significant traffic and (except for South Boulder Road, which includes a long, strenuous hill) have small shoulders.

The advantages to the community of a scenic, *off-road* route from the city of Boulder to eastern Boulder County appear to make the UP rail bed easily the best option.

Best regards and many thanks to everyone who has taken the time to become involved in this project.

David Butler

## Meeting Agenda

### Boulder to Erie Regional Trail (BERT) Plan

# Community Working Group Meeting

Thursday, July 25, 2024

4:00pm - 6:00pm

Boulder Public Library - NOBO Branch | 4500 13th St | Boulder, CO

**Meeting Purpose:**

- Update CWG on the project status and progress
- Inform CWG of future engagement opportunities
- Present Preferred Alignment for Further Consideration, discuss any questions/comments

Time	Agenda Item
4:00 - 4:15 pm	<b>Welcome and Attendance</b>
4:15 - 4:30 pm	<b>Project Updates</b> <ul style="list-style-type: none"> <li>● Where we left off with the CWG</li> <li>● Public Engagement</li> <li>● Recent Partner Coordination</li> </ul>
4:30 - 5:30 pm	<b>Preferred Alignment Selection</b> <ul style="list-style-type: none"> <li>● Presentation of evaluation process and results</li> <li>● Questions and Comments</li> </ul>
5:30 - 6:00 pm	<b>Next Steps</b> <ul style="list-style-type: none"> <li>● August 29 - Public Open House</li> <li>● September - BERT Plan Public Comment Period and POSAC, OSTAB, OSBT Board meetings</li> <li>● October - BOCC meeting and Final BERT Plan Document</li> </ul> <p><b>NOTE:</b> BERT Team will follow up with public open house and board meeting time and location details.</p>

Welcome!

BERT Community Working Group  
Thursday, July 25, 2024



Boulder to Erie Regional Trail (BERT)

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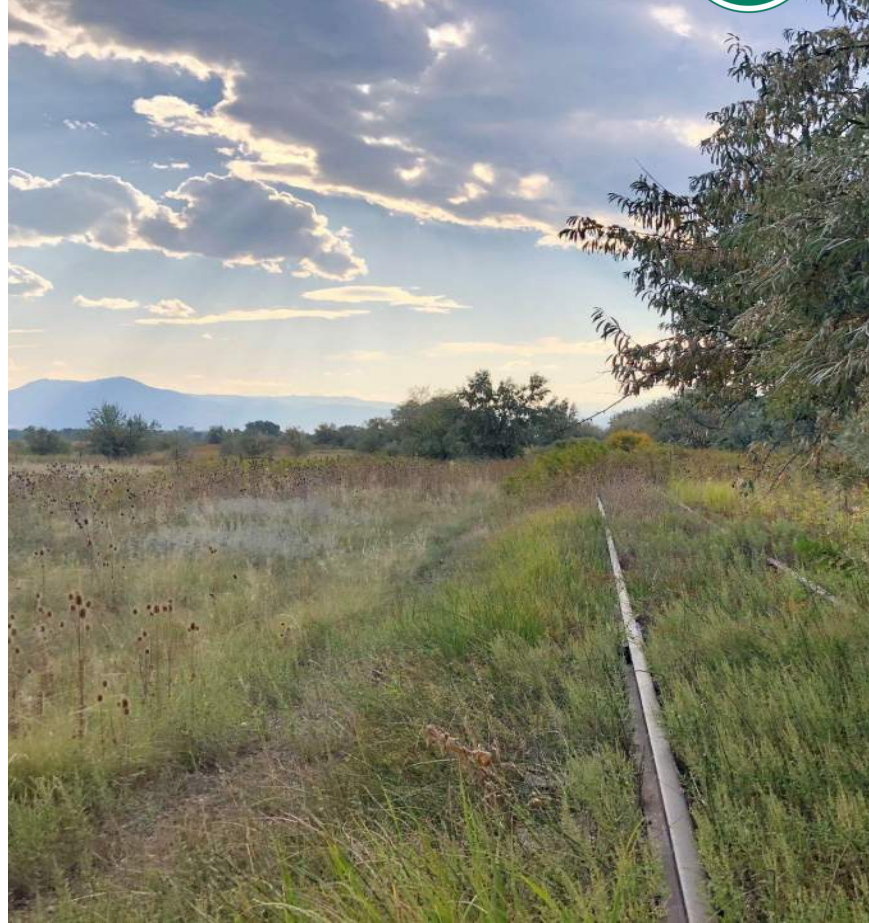




# AGENDA



1. Welcome & Attendance
2. Project Updates
3. Preferred Alignment Selection
4. Wrap Up & Next Steps

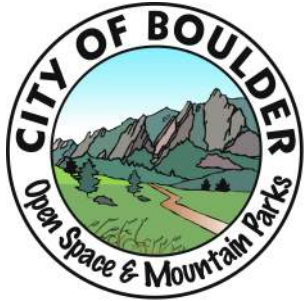


# PROJECT UPDATES: Where We Left Off



- Last CWG meeting was in August 2023
  - ◆ Presented and discussed alignment options for CWG feedback
- CWG Site visit between 61st and 75th in November 2023
  - ◆ Discussed details that could potentially mitigate concerns around the RTD right-of-way between 61st and 75th
- Statistically-valid survey summary posted to website

# PROJECT UPDATES: Recent Partner Coordination



→ Meetings with CPW and OSMP regarding nest locations along alignments for further consideration



→ Steering Committee Meetings in February and July 2024

# PREFERRED ALIGNMENT SELECTION: Details

The background of the slide features a photograph of green trees in the lower-left corner against a light blue sky with soft, wispy clouds. The text is overlaid on this image.

## **BERT PREFERRED ALIGNMENT SELECTION PROCESS SUMMARY**

**July 2024**

# PROJECT UPDATES: Plan Development



## BERT Master Plan Project Process



Ongoing Public Engagement

# NEXT STEPS



August 2024

**Final Public Open House August 29**

Partner Agency BERT Plan Review

September 2024

**Public Comment Period (August 29-September 25)**

**Open Space Board Meetings - Please attend!**

- **Erie OSTAB Sept. 9, 6:30PM**
- **OSBT Sept. 11, 6PM**
- **POSAC Sept. 26, 6:30PM**

October 2024

**Board Meeting - Please attend!**

- **BOCC Hearing Oct. 10, 1-4PM**

Final BERT Plan



## CONTACT US

Tonya Luebbert, Regional Trails Planner  
tluebbert@bouldercounty.gov

Visit the Website: [boco.org/BERT](https://www.boco.org/BERT)



CDR ASSOCIATES  
COLLABORATIVE DECISION RESOURCES



ERO Resources Corporation

## Meeting Summary

### Boulder to Erie Regional Trail (BERT) Plan

# Community Working Group Meeting

Thursday, July 25, 2024

4:00pm - 6:00pm

Boulder Public Library - NOBO Branch | 4500 13th St | Boulder, CO

#### Meeting Purpose

- Update CWG on the project status and progress
- Inform CWG of future engagement opportunities
- Present Preferred Alignment for Further Consideration, discuss any questions/comments

#### Project Updates

The project team last met with the CWG in August 2023 to present and discuss feedback on alignments for further consideration. Additionally, in November 2023 the CWG and CPW took part in a site walk in the RTD right-of-way between 61st and 75th to discuss potential resource concerns raised by some of the members. In early 2024, the project team completed a statistically valid survey regarding BERT alignment option preferences, targeting residences within 0.25 miles of any of the alignments under consideration and 0.5 miles from either end. Results from this survey are available on the [project website](#).

Although no regulatory wildlife buffers (enforced by USFWS) overlap with the RTD right-of-way, the BERT Planning team has been working with Colorado Parks and Wildlife and Boulder Open Space and Mountain Parks to clarify individualized recommendations for wildlife in proximity to the RTD right-of-way. This type of coordination is not typical at this stage of a project, but the project team is committed to exploring options to support implementation, meet community values indicated in our outreach, and best inform the Boulder County Commissioners in their consideration of BERT Plan approval. This additional partner coordination has extended the BERT Plan timeline two months; bringing the conclusion of the planning phase in October 2024.

#### Preferred Alignment Selection

The BERT project team presented details of the process and considerations made to select a preferred BERT alignment for further consideration. This information will be presented again at the public open house in late August and be included in the draft BERT Plan for public comment in September.

The evaluation of alignments for the BERT combined three types of inputs:

1. Technical evaluation of objectives defined by the Steering Committee and Project Team
2. Public preferences and values from extensive outreach including surveys, community member emails, in-person open houses, neighbor interviews, and advising from a Community Working Group
3. Expertise from the Steering Committee and landowners of the rights-of-way under consideration for alignment options



There are four alternatives and two highway 287 crossings that were evaluated using these inputs:

- Two Alternatives are entirely within RTD right-of-way: One stays entirely outside the rail bed (1a), the other utilizes the rail bed in sections as needed (1b, i.e. wet areas). The tradeoff between these two options is that building within the railbed is not straightforward. Benefits of this option include directness of route, strong public support, and separation from roads.
- RTD/Boulder County Valmont Rd rights-of-way: The benefit of this option is that it avoids more environmentally sensitive areas; issues include construction feasibility due to narrow right-of-way, coordination with multiple landowners and driveways, and a strong public dislike of the option due to traffic proximity and perceived safety.
- RTD/OSMP rights-of-way: The intended benefit of this option was to avoid sensitive and/or wet areas in the RTD right-of-way while maintaining some directness and separation from roads; but when compared to other alignment concepts during the evaluation process, the intended/desired benefits were revealed to instead be further operational and environmental resource issues.
- 287 Underpass: The strength of this option is safety and convenience for trail users, but issues include higher cost and additional implementation requirements.
- 287 at Boulder Creek: The strength of this option is potential for faster implementation, but the route is less convenient for trail users, interfaces with more roads, and may need easements.

**RESULT:** The preferred BERT trail alignment for further consideration is a 10ft wide soft surface trail located in the RTD right-of-way off of the rail bed, unless there is a wetland avoidance advantage gained by locating on top of the existing railbed (Alignment 1b). It crosses 75th, 95th, and 119th with Boulder County multi-modal standards crossing A-13 (crossing C2 below), crosses Hwy 287 with an underpass (crossing C3 below). 109th is crossed with a traditional crosswalk due to lower traffic volumes.



→ **CWG Comments and Questions**

- **SUMMARY:** The CWG members were very supportive of selecting Alignment 1b within the RTD right-of-way, encouraging the project team to explore options to construct within the rail bed as much as possible. For the US-287 crossing, there is continued CWG concern for flooding impacts to trail use and maintenance and no clear preference for an underpass or a crossing at Boulder Creek.
- **SUGGESTION:** Where possible in public presentations, include ecological and wildlife information to depict the considerations made during this planning process
- **SUGGESTION:** Explore the estimated numbers of cars the trail might take off the road
- **QUESTION:** Will tax dollars cover the entire cost of the BERT implementation?
  - A: There are *some* tax dollars set aside for the BERT design and construction under the Regional Trails Program funded in part by Boulder County’s Transportation Sales Tax. The County will pursue outside funding to meet the remaining budget needs for the BERT.

### Next Steps

There are many public engagement opportunities to participate in to conclude the BERT Plan process. These include an open house, open space board presentations, a public comment period for the draft BERT Plan, and a Boulder County Board of County Commissioners hearing. Details for each opportunity are as follows:

- Public Open House: Thursday, August 29, 5:00-7:00PM, Via Mobility Service Boulder Facility
- Board Presentations: BERT will be an agenda item at these meetings
  - [Erie Open Space and Trails Advisory Board](#): Monday, September 9, 6:30PM, virtual
  - [City of Boulder Open Space Board of Trustees](#): Wednesday, September 11, 6:00PM, hybrid
  - [Boulder County Parks & Open Space Advisory Committee](#): Thursday, September 26, 6:30PM, hybrid
- [Boulder County Commissioners Hearing](#): BERT Plan approval will be the main topic at this meeting
  - Thursday, October 10, 1:00PM-4:00PM, hybrid
- BERT Plan Public Comment Period: September 3 - 25

### Attendance

- Tonya Luebbert, Boulder County
- Cliff Lind, Project Team
- Kelsey Blaho, Project Team
- Laura Hickey, Project Team
- Randy Winter
- Doug Tiefel
- Ron Blackwelder
- Jim Pendleton
- Gary McClelland
- Linda Andes-Georges (stand-in for Gerry Kelly, BCNA)
- Carthern Smith (stand-in for Bev Baker, Boulder Audubon)
- Kay Norby Fial
- David Butler
- Deb Garrity
- Roy Burger
- Tim Payne

## Boulder to Erie Regional Trail

# 61st-75th Site Tour

Thursday, November 9, 2023

1:00 pm - 3:00 pm

Meet at Valmont Community Presbyterian Church | 3262 N 61st St.

### Attendees:

BERT Project Team, BERT Community Working Group, Audubon Society, Right Relationship Boulder, invited community members who shared interest

### Purpose:

- CWG members and community members at the open house expressed interest in joining a walk of the 61st-75th section
- Clarify and distinguish between the current master planning process and future project phases
- Share project team and partner expertise
- Understand details that could potentially mitigate environmental and cultural concerns **around the RTD right-of-way between 61st and 75th**

### Expectations:

- Come prepared for the weather and dress comfortably for walking
  - [Weather report](#)
- We're all constructive partners in problem solving
- Project Team members may ask for comments from participants with a range of viewpoints
- Listen actively to one another
- Assume positive intent
- Think creatively



## Boulder to Erie Regional Trail 61st-75th Site Tour

Thursday, November 9, 2023

1:00 pm - 3:00 pm

3262 N 61st St.

### PURPOSE

- CWG members and community members at the open house expressed interest in joining a walk of the 61<sup>st</sup> -75<sup>th</sup> section
- Clarify and distinguish between the current master planning process and future project phases
- Share project team and partner expertise
- Understand details that could potentially mitigate environmental and cultural concerns around the RTD right-of-way between 61<sup>st</sup> and 75<sup>th</sup>

### SUMMARY

The tour provided participants the opportunity to ground themselves in the space of the conceptual BERT alignment and understand potential trail interactions and interfaces with neighboring human and wildlife communities. The project team valued the opportunity to hear community interests and ideas to mitigate any potential concerns in the area. Key topics discussed were creating a positive visitor experience, respecting cultural use, supporting adjacent landowners, protecting flora and fauna, promoting safety, and a desire to move towards design and construction.

### TOUR PARTICIPANT INPUT

#### Visitor Experience

- Consider how to mitigate conflicts between user types, particularly the safety implications given the speed differential between people walking and people on bikes/e-bikes
- Desire for a quiet contemplation, cultural, and recreation experiences

#### Support Neighbors (both human and wildlife)

- Explore designated access areas where allowable (e.g. CPW property) to prevent trespassing on private property
- Maintain or enhance natural screening provided by shrubs and vegetation on either side of the trail
- Work with adjacent property owners and wildlife experts to determine best type of fencing during design phase
- Many environmental and wildlife concerns decreased after seeing active wildlife despite industrial, agricultural, rail bed, and mowing disturbances that already exist in the area



### Safety

- A crosswalk over industrial roads that intersect with the right-of-way will be necessary
- Consider how people will continue further into Boulder, including crossing 61<sup>st</sup> and connecting to other trails
  - For more information on potential trail connections east of 61<sup>st</sup> via the Confluence Area Multi-Use Path Projects managed by the City of Boulder, visit their [webpage](#)

### Implementation

- Eagerness to move forward from planning into design and other future phases
- Continue to coordinate with the City of Boulder regarding the ongoing [Sewer Improvements Project](#)
- Continue to coordinate with Boulder County Parks and Open space regarding the [East Boulder Creek Site Management Plan](#)
- Continue to discuss options for rail bed use with RTD
- Reach out to Rails to Trails Conservancy contact provided by CWG as soon as possible

### ATTENDEES

Suzanne Webel (CWG)  
Jim Pendleton (CWG)  
David Butler (CWG)  
Roy Burger (CWG)  
Debi Garrity (CWG)  
Eric Garner (CWG)  
Gary McClelland (CWG)  
Alan Carpenter (community member/ecologist)  
Bev Baker (Audubon Society/BCNA)  
Ilayana Rael (Culture in Place/RRB)  
Tyler Asnicar (Colorado Parks and Wildlife)  
Tonya Luebbert (project team)  
Kelsey Blaho (project team)  
Jeffrey Range (project team)  
Carrie Tanner (project team)  
Laura Hickey (project team)



# APPENDIX E - PUBLIC MEETING MATERIALS & SUMMARIES

This appendix includes:

- Neighborhood Workshops, Block by Block
- Public Meetings

*Para información en español, por favor contacte a 720-564-2754.*

## RTD RAIL TRAIL NEIGHBORHOOD WORKSHOPS

Tell us your priorities for the proposed RTD Rail Trail from Boulder to Erie. Boulder County is hosting neighborhood workshops to gather ideas on the potential trail project. Each meeting will be similar but will focus on feedback from specific neighborhoods and properties adjacent to the rail corridor.



### **SEGMENT 1: Monday, May 13, 4:30-6:00PM // Valmont Presbyterian Church**

Boulder (57th) to 75th

**SEGMENT 2: Monday, May 13, 6:30-8:00PM // Valmont Presbyterian Church**

75th to 95th

**SEGMENT 3: Wednesday, May 15, 4:30-6:00PM // Erie Middle School**

95th to Hwy 287

**SEGMENT 4: Wednesday, May 15, 6:30-8:00PM // Erie Middle School**

Hwy 287 to Erie (County Line Rd.)

**Valmont Presbyterian Church**  
3262 61st St, Boulder, CO 80301

**Erie Middle School**  
650 Main St, Erie, CO 80516



*If you plan to attend a meeting and need special assistance or if you have questions about the process, email [RTDRailTrail@bouldercounty.org](mailto:RTDRailTrail@bouldercounty.org).*

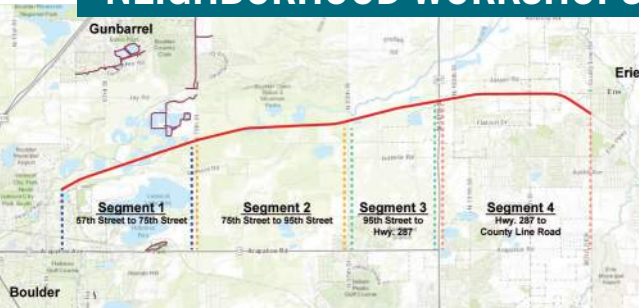
**391**

**MORE INFORMATION:** <https://boco.org/RTDTrail>

Boulder County Transportation  
P.O. Box 471  
Boulder, CO 80306

Monday, May 13 + Wednesday, May 15

# RTD RAIL TRAIL NEIGHBORHOOD WORKSHOPS



*Your designated trail segment is highlighted on the back of this card.  
If you are unable to attend this meeting, we encourage you to attend  
another meeting.*



# MEETING SUMMARY

## Neighborhood Workshop, Segment 1

Monday, May 13, 2019

4:30 - 6:00 PM

Valmont Community Presbyterian Church, 3262 61st St, Boulder, CO 80301

### PROJECT TEAM MEMBERS

Tonya Luebbert (Boulder County)

Andrew Barth (Boulder County)

Tim Swope (Boulder County)

Anthony Pratt (Otak)

Kelsey Blaho (Otak)

Bill Mangle (ERO Resources)

Aliina Fowler (ERO Resources)

Jeffrey Range (CDR Associates)

Melissa Rary (CDR Associates)

### ESTIMATED ATTENDEES 20

### MEETING MATERIALS PRESENTED

Project overview

Project timeline

Public engagement opportunities

Community Working Group information and application

Comment form

Previous study results

Corridor map

Segment 1 map

### KEY MEETING THEMES<sup>1</sup>

- Positive sentiment for building the trail, with some questions about environmental impacts and enforcement
- Trail creates safe transit and recreation opportunity for the community
- Safety of private property (church property and lake, private land) is an important consideration
- Concern that increased pedestrian and bike traffic in the corridor will disturb wildlife

---

<sup>1</sup> The themes listed in this document reflect general interests shared by one or more Neighborhood Workshop attendees. Themes listed do not mean all attendees shared the particular sentiment



- Questions about how trail rules will be enforced, including: prohibiting motorized usage of the trail, preventing vandalism and littering along the corridor, and keeping trail users off private property
- Considerations over protection of vulnerable populations, ie Temple Grandin School, from increased corridor traffic



# MEETING SUMMARY

## Neighborhood Workshop, Segment 2

Monday, May 13, 2019

6:30 - 8:00 PM

Valmont Community Presbyterian Church, 3262 61st St, Boulder, CO 80301

### PROJECT TEAM MEMBERS

Tonya Luebbert (Boulder County)

Andrew Barth (Boulder County)

Tim Swope (Boulder County)

Anthony Pratt (Otak)

Kelsey Blaho (Otak)

Bill Mangle (ERO Resources)

Aliina Fowler (ERO Resources)

Jeffrey Range (CDR Associates)

Melissa Rary (CDR Associates)

### ESTIMATED ATTENDEES 2

### MEETING MATERIALS PRESENTED

Project overview

Project timeline

Public engagement opportunities

Community Working Group information and application

Comment form

Previous study results

Corridor map

Segment 2 map

### KEY MEETING THEMES

- Need to work with land owners to keep private property safe



## MEETING SUMMARY

### Neighborhood Workshop, Segment 3

Wednesday, May 15, 2019

4:30 - 6:00 PM

Erie Middle School, 650 Main St, Erie, CO 80516

#### PROJECT TEAM MEMBERS

Tonya Luebbert (Boulder County)

Andrew Barth (Boulder County)

Anthony Pratt (Otak)

Kelsey Blaho (Otak)

Bill Mangle (ERO Resources)

Aliina Fowler (ERO Resources)

Jeffrey Range (CDR Associates)

Melissa Rary (CDR Associates)

#### ESTIMATED ATTENDEES 10

#### MEETING MATERIALS PRESENTED

Project overview

Project timeline

Public engagement opportunities

Community Working Group information and application

Comment form

Previous study results

Corridor map

Segment 3 map

#### KEY MEETING THEMES

- Positive towards trail construction and adding an access point between Erie and Boulder
- Land owners asked about options for barriers and enforcement to reduce vandalism and trespassing on private property
- Concern about public usage of private property amenities, including private lake and beach



# MEETING SUMMARY

## Neighborhood Workshop, Segment 4

Wednesday, May 15, 2019

6:30 - 8:00 PM

Erie Middle School, 650 Main St, Erie, CO 80516

### PROJECT TEAM MEMBERS

Tonya Luebbert (Boulder County)

Andrew Barth (Boulder County)

Anthony Pratt (Otak)

Kelsey Blaho (Otak)

Bill Mangle (ERO Resources)

Aliina Fowler (ERO Resources)

Jeffrey Range (CDR Associates)

Melissa Rary (CDR Associates)

### ESTIMATED ATTENDEES 35

### MEETING MATERIALS PRESENTED

Project overview

Project timeline

Public engagement opportunities

Community Working Group information and application

Comment form

Previous study results

Corridor map

Segment 4 map

### KEY MEETING THEMES

- Strong interest in building the trail for bike commuter use between Boulder and Erie
- Questions on trail maintenance, particularly maintaining a soft-surface trail for bike usage and ice prevention during the winter months
- Urge to begin trail construction as soon as possible
- Trail provides safe, environmentally friendly option for bike commuters in response to growing traffic concerns along roads
- Concerns about how trail will cross Hwy 287 and N 95th St.
- Recommendations for access points include Teller Lakes, Sawhill Ponds, Rock Creek Trail, and Erie Community Center and schools



# WELCOME TO THE RTD RAIL REGIONAL TRAIL VIRTUAL PUBLIC MEETING

*We would have liked to meet in person, but want to ensure everyone stays healthy and safe, so we are running this meeting virtually instead.*

[SIGN IN](#)

## The Process:

- These meeting materials serve as our “meeting boards.” The boards give you information on various aspects of the project, and each links to additional opportunities to engage and learn more.
- This virtual public meeting will be live, on our website August 17-31.
- Use the engagement box options on the boards to fill out surveys, email us, submit a comment, or give us a call.
- And, if you’d like to have a real time conversation with project team members, we will be hosting virtual “Q&A Sessions” where you can call in and ask questions (no presentation, no agenda, just conversations to answer your questions).

Q&A Session:  
Segments 1 & 2  
Aug. 26: 4:30 - 5:30pm

Q&A Session:  
Segments 3 & 4  
Aug. 26: 5:45 - 6:45pm

Q&A Session:  
General Public  
Aug. 27: 4:30 - 6:00pm



RTD RAIL TRAIL



# RTD RAIL TRAIL PROJECT DESCRIPTION

## PROJECT PURPOSE

Boulder County, in partnership with the City of Boulder and Town of Erie, is evaluating options for the creation of a new soft-surface regional trail connection along the RTD-owned rail corridor, which would provide an important low-stress east-west trail connection in eastern Boulder County.

## ONE STEP IN AN OVERALL PROCESS

The first step in trail development is to conduct a master planning process to identify needs, opportunities, and constraints of constructing the regional trail. The outcome of the RTD Rail Regional Trail is identification of a preferred alternative alignment for the trail corridor. Following this project, the next step is to start the design process for the preferred alternative alignment.

## PROJECT HISTORY

This connection was identified in the county's regional trails prioritization process in 2003 and is one of the regional trails eligible for funding through the Countywide Sales Tax Ballot passed by voters in 2007.

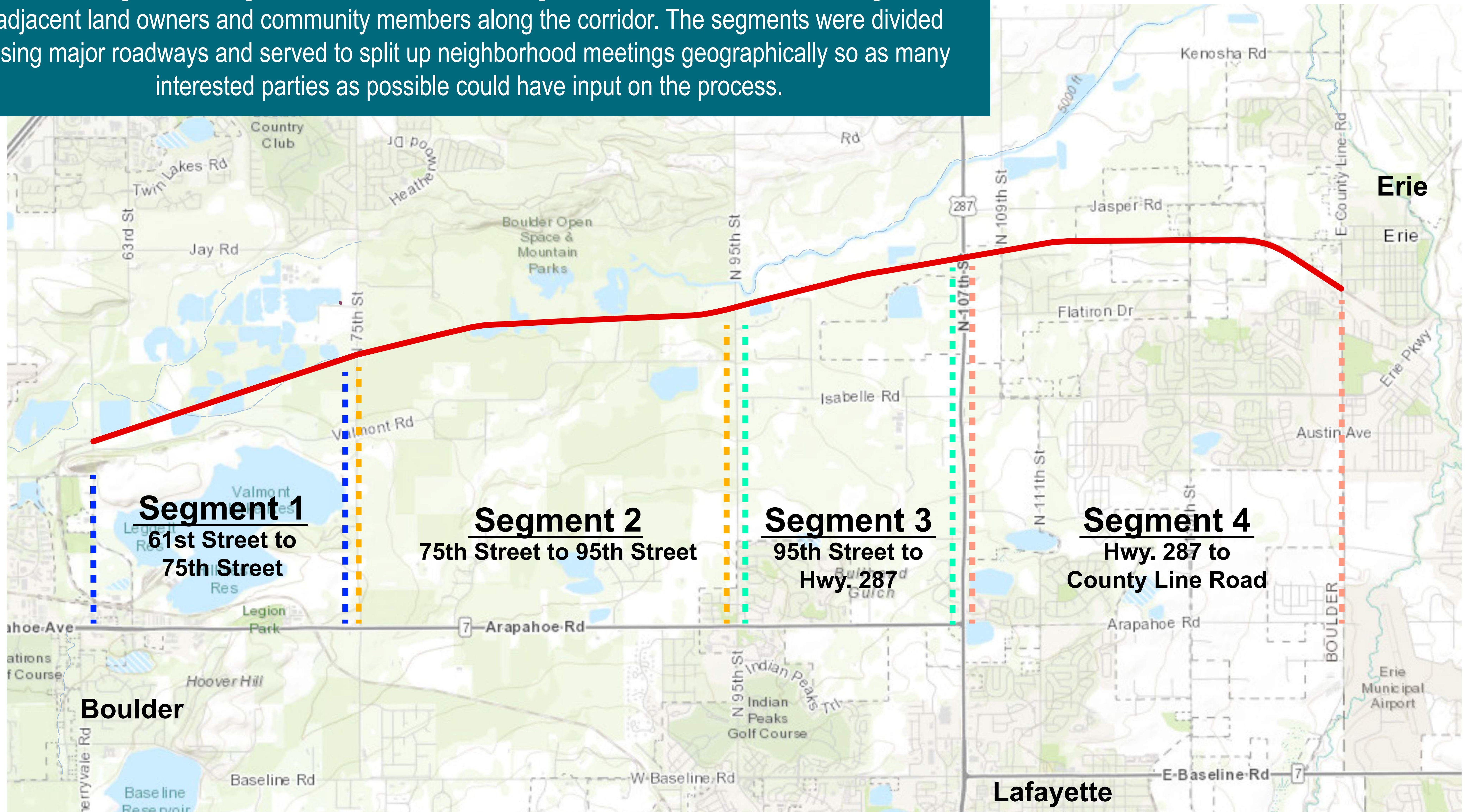


RTD RAIL TRAIL



# PROJECT OVERVIEW - SEGMENTS

The full length of the alignment was divided into 4 segments for ease of communicating with adjacent land owners and community members along the corridor. The segments were divided using major roadways and served to split up neighborhood meetings geographically so as many interested parties as possible could have input on the process.

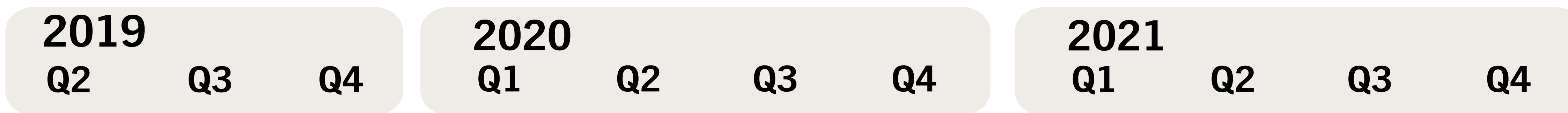


RTD RAIL TRAIL





# PROJECT SCHEDULE



**ENGAGE**

**CLICK HERE**  
Sign up for our notifications list for project updates.

**Data Collection**

- Data Collection and Information
- Public, Stakeholder, Steering Committee Engagement (one on one's, community meetings)

**Alignment Study**

- Alternatives assessment and evaluation
- Public, Community Working Group, Stakeholder, Steering Committee Engagement

**Preferred Alignment**

- Identification of a Preferred Alternative
- Public, Stakeholder, Steering Committee Engagement
- Finalization of a Preferred Alternative

**← WE ARE HERE**

**Final Master Plan**

- Finalized RTD Rail Trail Master Plan
- Conceptual (15%) Design

THE RTD RAIL TRAIL MASTER PLAN PROJECT HAS FOUR MAIN TASKS:

**1**

**DATA COLLECTION**  
Data was collected on things that would inform potential trail alignments, like property ownership, environmental concerns, other trails and trailheads in the area, floodplains, etc. All this data was mapped.

**2**

**ALIGNMENT STUDY**  
Using the data collected and the information gained from the Neighborhood Workshops and other engagement, three preliminary alignments were developed for evaluation.

**3**

**PREFERRED ALIGNMENT SELECTION**  
The preliminary alignments will be evaluated by the public, steering committee, and community working group in order to select one that is preferred and can be refined further.

**4**

**FINAL MASTER PLAN**  
The preferred alignment will be refined and reevaluated with respect to specific environmental interactions, adjacent property, etc. and it will be detailed and presented in the final master plan.

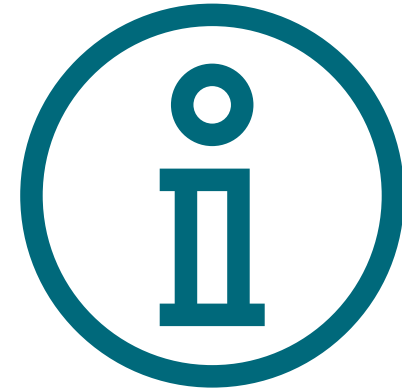


**RTD RAIL TRAIL**



# OVERALL PROCESS - AKA - WHEN CAN WE USE THE TRAIL?!!

## ENGAGE

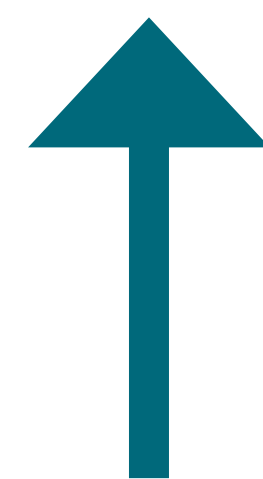


**CLICK HERE**  
for more information  
about the overall  
process.

The RTD Rail Trail Master Plan project is an important step in creating a trail that we can walk, run, ride and enjoy between Boulder and Erie. However, it's not the only step and not the last step. To understand the complex process it will take before a trail is completed and ready to enjoy, take a look at this complex process.

We're in the "RTD Rail Trail Master Plan" phase. When the Master Plan is completed we will identify funding sources and potential phasing. After that we will move into final design and engineering. Throughout this process, Boulder County will work on obtaining all the necessary approvals and permitting. It is likely that the trail will be built in sections as funding allows.

When all segments are built, we'll be able to walk, run, ride, and enjoy the trail in its entirety.



**WE ARE HERE**

**\* CLICK HERE**  
for more information  
about project  
funding.



**RTD RAIL TRAIL**



# PUBLIC ENGAGEMENT

Since the public will be the users and neighbors of the RTD Rail trail, it's critical your input, understanding, concerns, and interests are part of the master planning process.

THERE ARE MULTIPLE WAYS YOU CAN BE ENGAGED IN THE PROJECT THROUGHOUT THE PROJECT. SEE LINKS BELOW.

## ENGAGE



PHONE



EMAIL



COMMENT FORM



COMMUNITY  
WORKING GROUP



NEIGHBORHOOD  
WORKSHOPS



PUBLIC  
MEETINGS



RTD RAIL TRAIL



# ENVIRONMENTAL

## WHAT ARE THE ENVIRONMENTAL CONDITIONS IN THE CORRIDOR?

### WETLANDS AND WATERS

Wetlands, lakes, ponds, streams and riparian areas are located throughout and adjacent to the corridor. The western portion of the corridor has more streams, creeks, ditches and water pipelines, while most of the wetlands are located within the central portion of the corridor.



### CULTURAL RESOURCES

A 'cultural resource' is defined as an archaeological site, structure, or building constructed 50 or more years ago. The corridor and adjacent properties contain resources associated with the early settlement and dry land agriculture of the region.



### WILDLIFE AND HABITAT

The corridor provides habitat for a variety of species - from larger mammals such as mule deer and white-tailed deer, to smaller mammals including prairie dogs and the federally protected Preble's meadow jumping mouse. Raptors including red-tailed hawks, bald eagles, osprey and barn owls can also be seen along the corridor. Other birds seen along the corridor could include red-winged black birds, great blue heron, Canada geese, white pelican, and ring-necked pheasant. Adjacent ponds to the corridor also include known populations of the rare leopard frog.

### AGRICULTURE

Agriculture has a long history within Boulder County and along the corridor. Preservation of agriculture is important for both the City of Boulder and Boulder County.



## WHAT DO THESE RESOURCES MEAN FOR THE PROJECT?

During the selection of a preferred alignment the project team will consider potential adverse impacts to environmental resources. As the planning process progresses, consideration of environmental permits and requirements will also be considered into the project scope and schedule.



**RTD RAIL TRAIL**



# NEIGHBORS/USERS/CONNECTIVITY

## ADJACENT PROPERTIES



## USER TYPES



## CONNECTIVITY



**ENGAGE**



**CLICK HERE**  
to fill out a survey  
for adjacent property  
owners.

**ENGAGE**



**CLICK HERE**  
to fill out a survey for  
trail users.

**ENGAGE**



**CLICK HERE**  
to fill out a survey  
about connectivity.

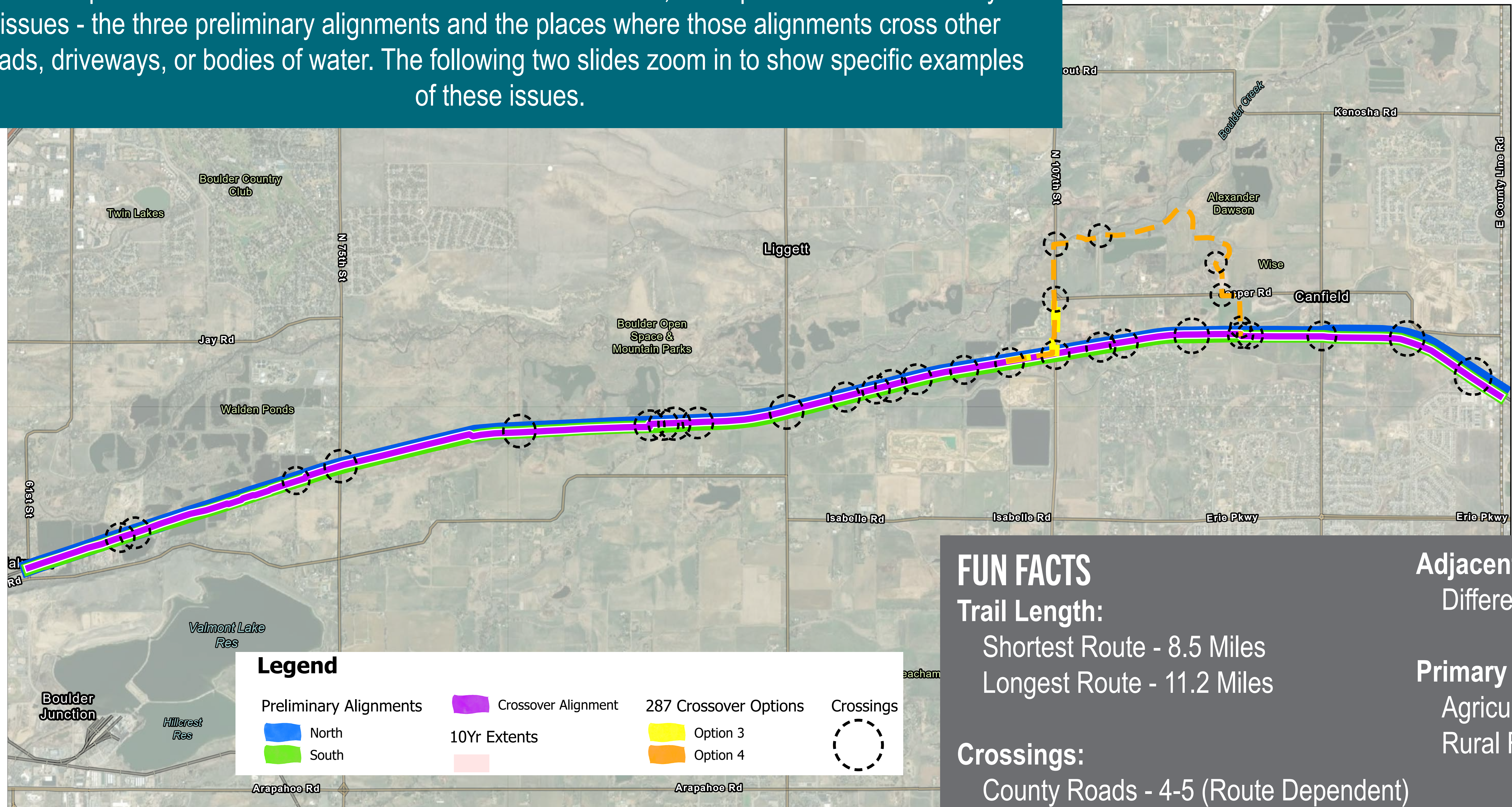


**RTD RAIL TRAIL**



# TRAIL ALIGNMENT OVERVIEW

This map shows an overall view of the RTD Rail Trail corridor, with specific focus on two key issues - the three preliminary alignments and the places where those alignments cross other roads, driveways, or bodies of water. The following two slides zoom in to show specific examples of these issues.



**FUN FACTS**

**Trail Length:**  
 Shortest Route - 8.5 Miles  
 Longest Route - 11.2 Miles

**Crossings:**  
 County Roads - 4-5 (Route Dependent)  
 State Highways - 1  
 Private Road/Driveways - At least 9  
 Rivers/Creeks/Streams - 1  
 Ditches - 7-11 (Route Dependent)

**Adjacent Property:**  
 Different Owners - 59

**Primary Land Uses:**  
 Agricultural  
 Rural Residential



RTD RAIL TRAIL



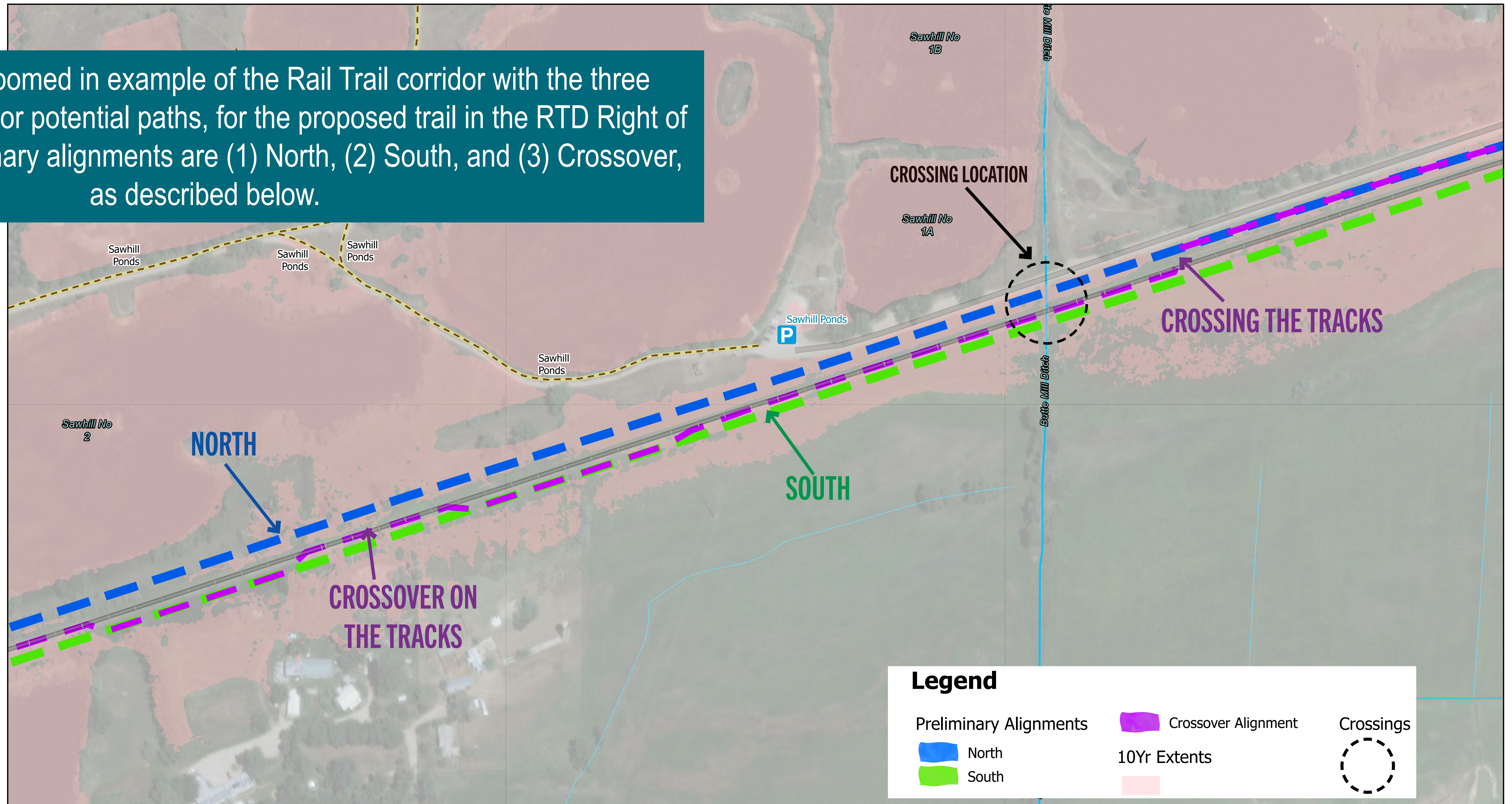
# ALIGNMENT OPTIONS

This map shows a zoomed in example of the Rail Trail corridor with the three preliminary alignments, or potential paths, for the proposed trail in the RTD Right of Way. The three preliminary alignments are (1) North, (2) South, and (3) Crossover, as described below.

**ENGAGE**



**CLICK HERE**  
for detailed  
alignment studies for  
the trail.



**NORTH AND SOUTH ALIGNMENT OPTIONS**

To develop these three preliminary alignments we started with an alignment fully on the north side of the rail bed (blue) and one fully on the south side (green) so as to disrupt the rail bed as little as possible as requested by RTD.

**CROSSOVER ALIGNMENT OPTION**

Then we looked at the floodplain in the area (pink) and developed another alignment (purple) that crosses over the rail bed to avoid floodplain and associated maintenance concerns as much as possible. This alignment also stays on the rail bed for limited stretches where there were floodplain concerns on both sides.



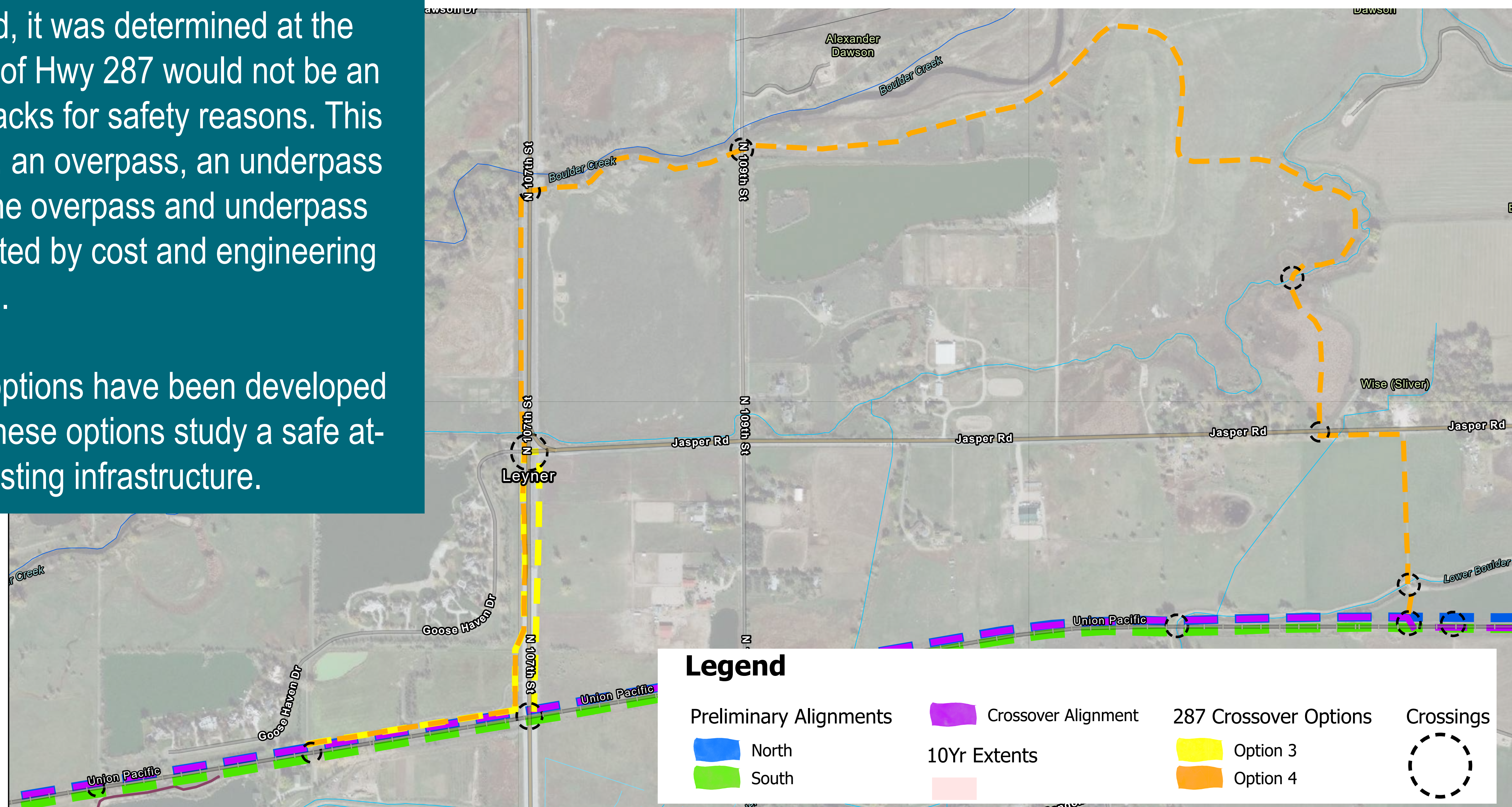
**RTD RAIL TRAIL**



# HWY 287 CROSSING

Due to the traffic volumes and speed, it was determined at the outset of this project that the crossing of Hwy 287 would not be an at-grade crossing along the railroad tracks for safety reasons. This process looks at four crossing options, an overpass, an underpass and two additional routing options. The overpass and underpass options are along a straight route, limited by cost and engineering constraints.

The two additional Hwy 287 crossing options have been developed to provide a wider range of choices. These options study a safe at-grade crossing, and using existing infrastructure.



## ENGAGE



**CLICK HERE**  
to provide input  
about the crossing  
options.

The Yellow crossing option follows an easement along 287 until it ends at Jasper Road. It then crosses 287 at Jasper Rd at grade with a new traffic signal and heads south to meet up with the trail again on the other side. Since Hwy 287 is a state highway, the implementation of a new traffic light and trail crossing would require further study and CDOT approval.  
Total Distance: .87 Miles

The Orange crossing option also follows the easement along 287 up to Jasper Rd, and then continues into Boulder County Open Space property until it reaches Boulder Creek. It then follows the creek for a more scenic route before making it's way back south across Boulder County Open Space with a crossing at Jasper Rd.  
Total Distance: 2.7 Miles



**RTD RAIL TRAIL**





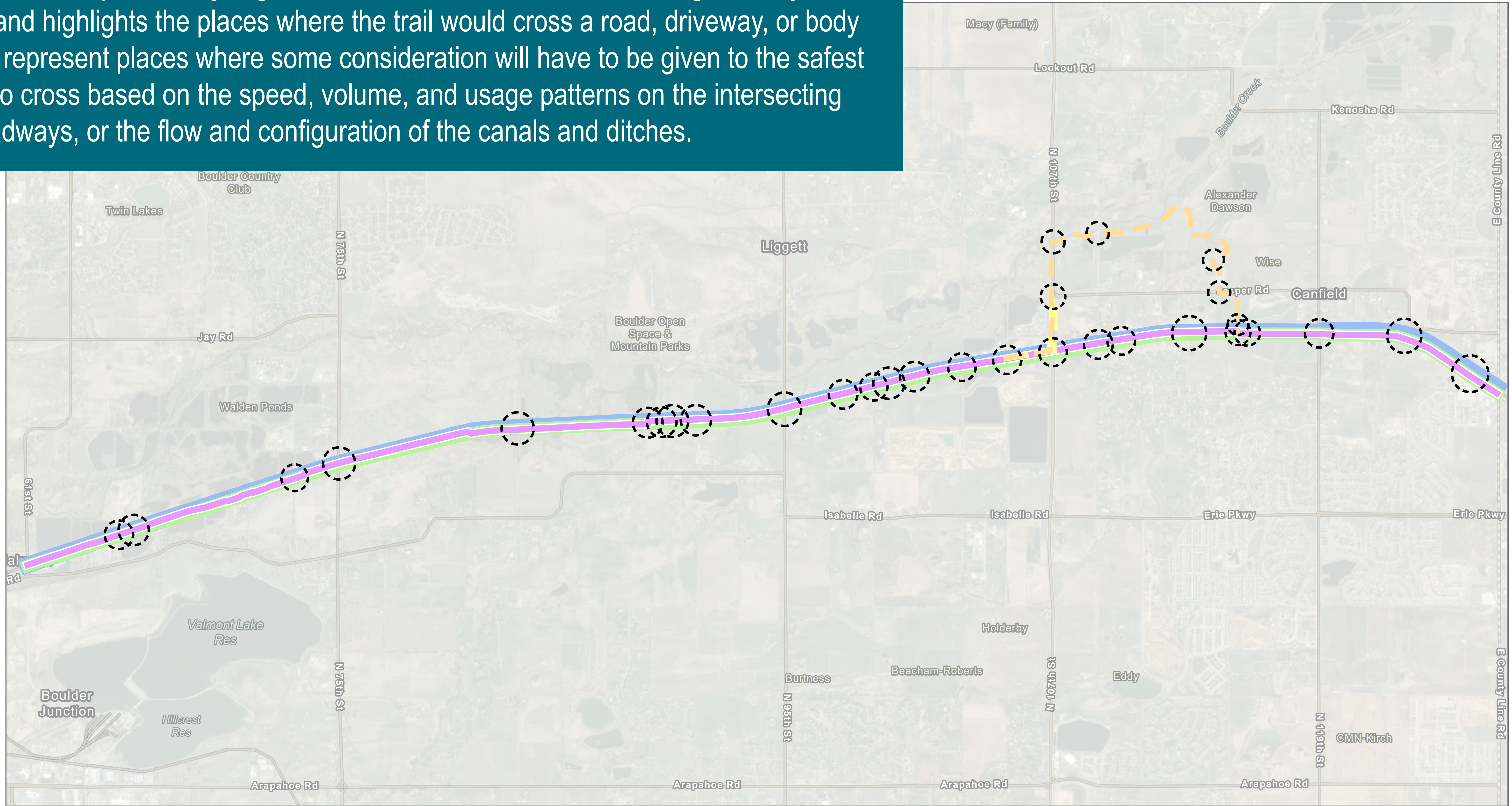
# OTHER CROSSINGS

This map shows the three preliminary alignments for the RTD Rail Trail, including the Hwy 287 crossing options, and highlights the places where the trail would cross a road, driveway, or body of water. These all represent places where some consideration will have to be given to the safest way for the trail to cross based on the speed, volume, and usage patterns on the intersecting roadways, or the flow and configuration of the canals and ditches.

**ENGAGE**



**CLICK HERE**  
to provide input  
about the additional  
crossings.



**RTD RAIL TRAIL**



# OTHER CROSSINGS - EVALUATION APPROACH

The photos on this page represent examples of potential approaches to the various crossings along this trail corridor. Based on average daily traffic (ADT), number of lanes, and posted speed limits, a system will be developed to determine a typical format for crossings given their characteristics. This will be applied to any and all crossings as they are encountered along the trail as it is designed.



Lobo Trail Crossing at 83rd St in Niwot



55th St & White Pl in Boulder



75th St and Clubhouse Rd in Gunbarrel



Niwot Loop Trail Crossing at 79th St



# PROJECT NEXT STEPS

## JOIN OUR Q & A SESSIONS

After reviewing this information, if you have additional questions for the project team, join our zoom conversations by using the information below.

**Q&A Session:  
Segments 1 & 2  
Aug. 26: 4:30 - 5:30pm**

**Link: <https://bit.ly/39OMusE>  
Phone: 669 900 6833  
Meeting ID: 869 9614 9141  
Password: 213966**

**Q&A Session:  
Segments 3 & 4  
Aug. 26: 5:45 - 6:45pm**

**Link: <https://bit.ly/39OMusE>  
Phone: 669 900 6833  
Meeting ID: 869 9614 9141  
Password: 213966**

**Q&A Session:  
General Public  
Aug. 27: 4:30 - 6:00pm**

**Link: <https://bit.ly/33nX3BI>  
Phone: 669 900 6833  
Meeting ID: 873 9311 9659  
Password: 714371**

## NEXT STEPS

- Additional conversations with Stakeholders and Property Owners
  - Advisory Board Meetings
  - Preferred Alignment Selection Process





Welcome!

BERT Public Meeting  
Wednesday, September 13, 2023



Boulder to Erie Regional Trail (BERT)

412



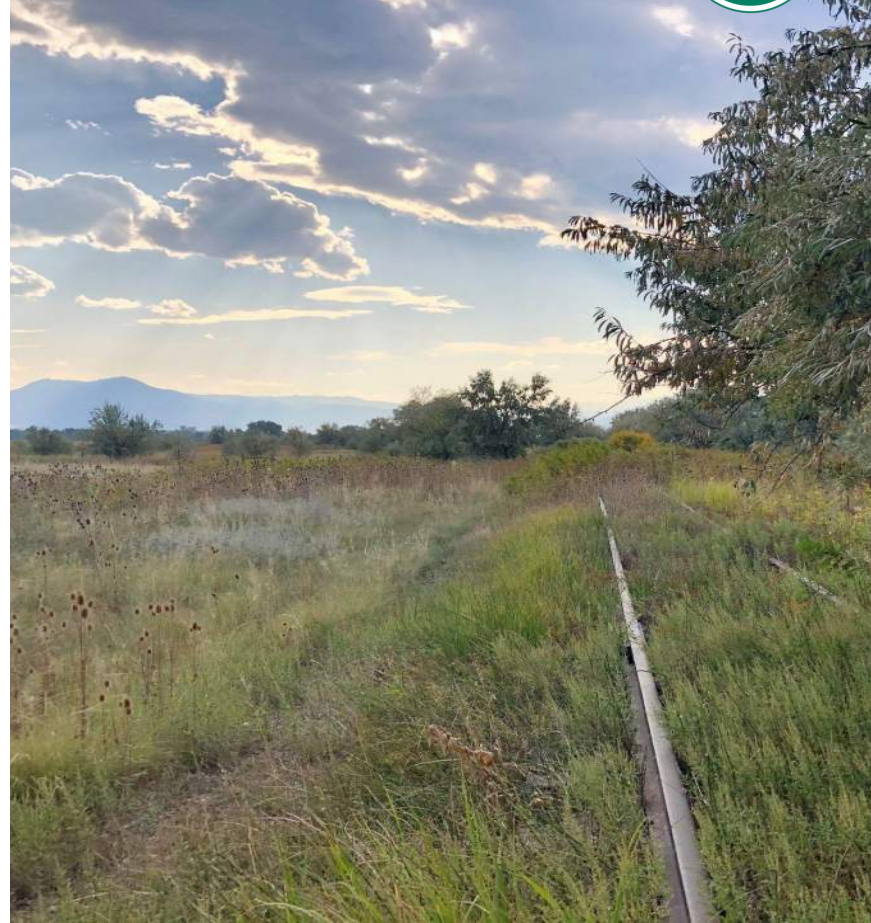
CDR ASSOCIATES  
COLLABORATIVE DECISION RESOURCES



# AGENDA



1. Welcome & Introductions
2. Project Updates
3. Presentation of Conceptual Alignments
4. Open House Discussion
5. Wrap Up & Next Steps



# PROJECT TEAM INTRODUCTIONS



CDR ASSOCIATES  
COLLABORATIVE DECISION RESOURCES



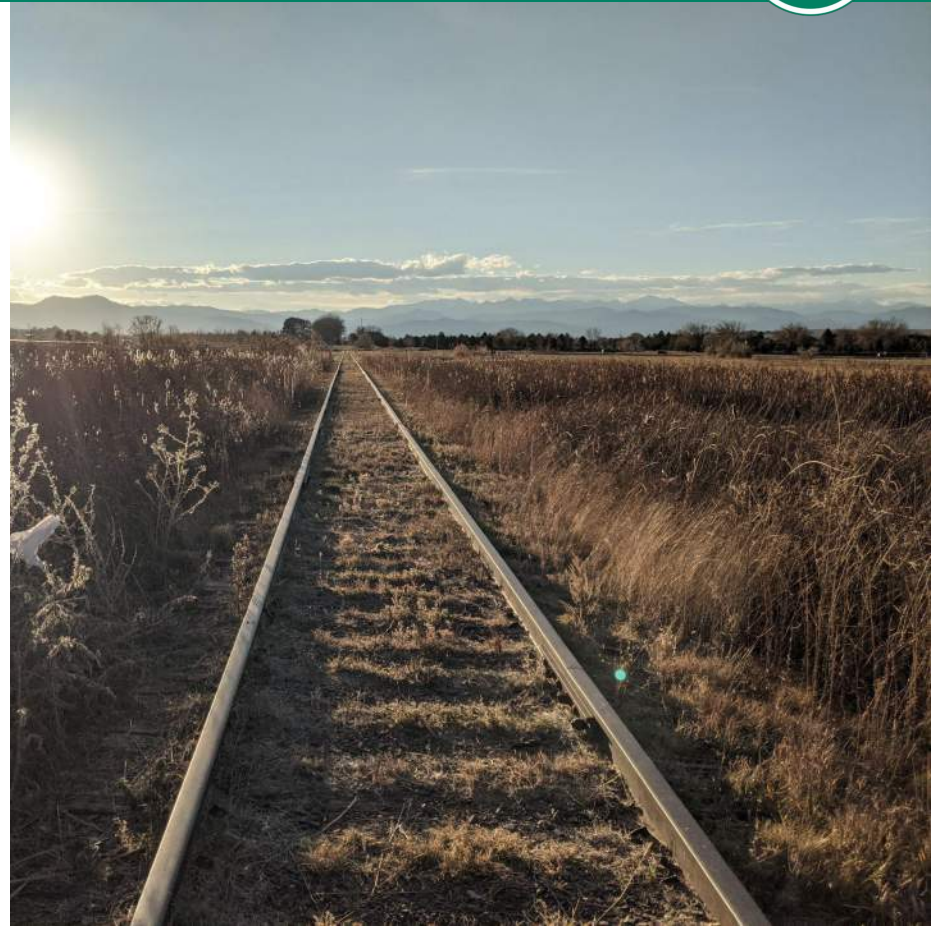
Tonya Luebbert  
*Regional Trails Planner*  
tluebbert@bouldercounty.gov



# PROJECT UPDATES



- Project Overview
- Where We Left Off
- Expanded Scope
- OSMP MOU
- Schedule and Activities
- Ongoing Outreach and Partner  
Coordination
- Evaluation Criteria
- Connectivity Workshop



# PROJECT UPDATES: Project Overview



- Evaluating options for the creation of a new soft-surface regional trail linking the City of Boulder and Erie
- BERT connection identified in the county's regional trails prioritization process in 2003 and is eligible for funding through the Countywide Sales Tax Ballot passed by voters in 2007
- Boulder Valley Comprehensive Plan and Boulder County Transportation Master Plan identify this trail connection as an important link
- 2022 Ballot: Transportation Sales Tax extended in perpetuity





# PROJECT UPDATES: Where We Left Off



- Last public meeting was in Summer of 2020
  - ◆ Virtual meeting after pandemic hit
- Discussion at meeting focused on alignment options, particularly crossings
  - ◆ Discussion of options for 287 crossing
- Some field work done to walk alignment and meet with landowners regarding crossings



# PROJECT UPDATES: Expanded Scope



- Expanded scope considered in 2020 due to concerns from stakeholders and Boulder County Board of County Commissioners
- Addressing environmental concerns by considering additional alignments outside RTD corridor
- Engagement with Native American Tribal Nations and local indigenous groups



# PROJECT UPDATES: OSMP MOU



- Signed late 2022
- Resulted in agreement to include City of Boulder-owned and other lands managed by OSMP outside the RTD rail corridor in this process
- Master planning process is exploring the RTD rail corridor, Boulder County right-of-way, and alignment options on OSMP property outside the RTD rail corridor



# PROJECT UPDATES: Schedule and Activities



- Development of evaluation criteria
- Performing an alternatives analysis using that evaluation criteria
- Selecting the conceptual trail alignment(s) for further consideration
  - ◆ Not intended to result in preferred alignment



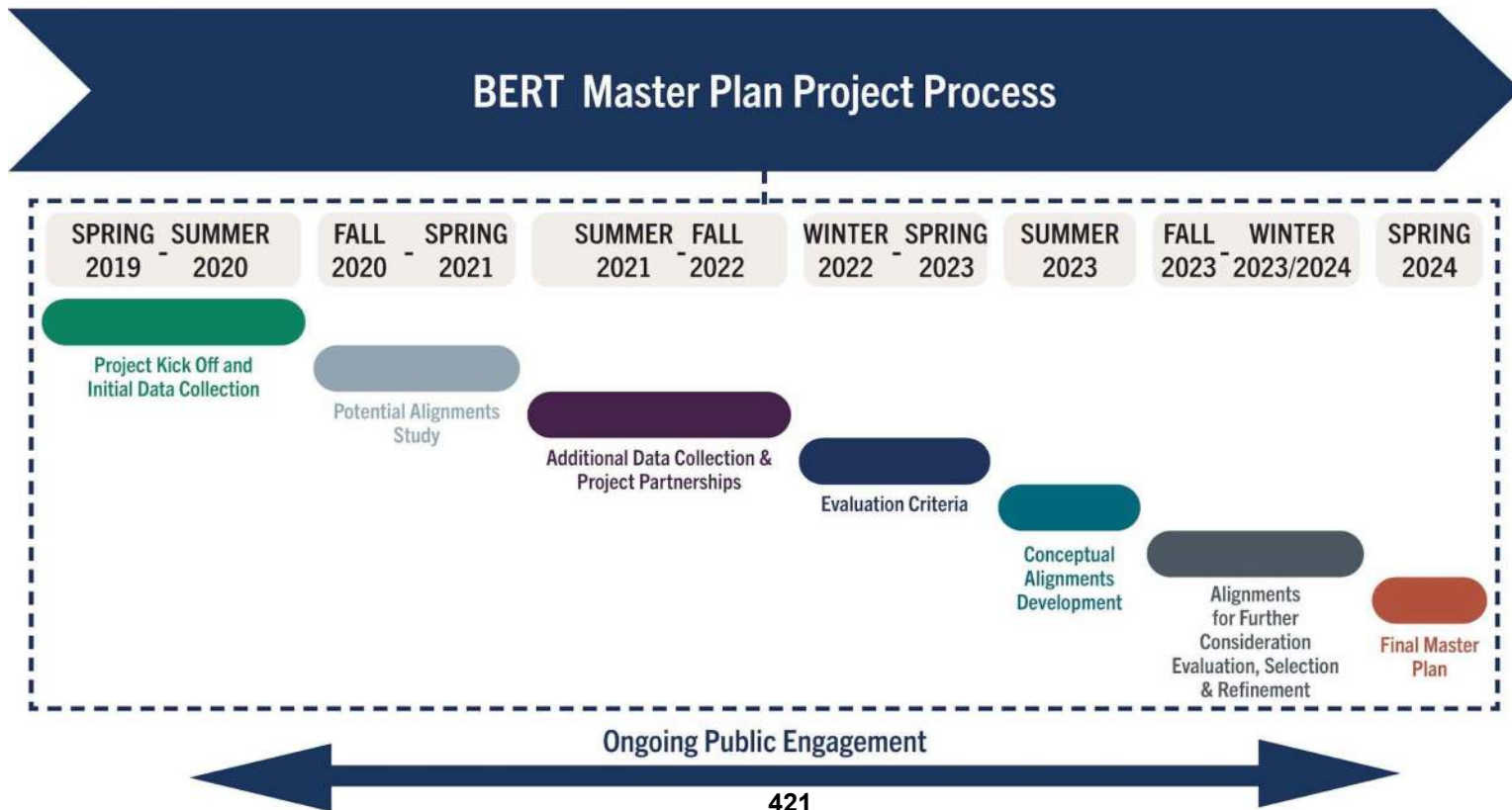
The Boulder to Erie Regional Trail (BERT) Master Plan project is an important step in creating a trail that we can walk, roll, run, ride and enjoy between Boulder and Erie. However, it's not the only step and not the last step. To understand the complex process it will take before a trail is completed and ready to enjoy, take a look at the diagram above.

We're in the BERT Master Plan Project Process phase, which will result in the BERT Final Master Plan. When the Master Plan is completed, we will identify funding sources and potential phasing. After that, we will move into final design and engineering. Throughout this process, Boulder County will work on obtaining all the necessary approvals and permitting. It is likely that the trail will be built in sections as funding allows.

When all segments are built, we'll be able to experience the trail in its entirety.



# PROJECT UPDATES: Schedule and Activities



# PROJECT UPDATES: Ongoing Outreach



- Steering Committee
- Native American Outreach
- Community Working Group
- Public Meetings
- Ongoing Conversations with Landowners and Neighbors



# PROJECT UPDATES: Ongoing Outreach



## BERT Master Plan Engagement & Coordination



**Steering Committee**

**Community Working Group**  
23 Total Members

- Cycling groups
- Environmental nonprofits
- Corridor landowners
- Wildlife groups
- Erie OSTAB
- Trails organizations
- Equestrian users

**Landowner Coordination**

- Local landowner Interviews for those directly adjacent to the corridor

**Additional Partner Meetings**

- Boulder County Departments (Parks and Open Space, Transportation)
- Mile High Flood District
- Site Visit with OSMP
- Coordination with RTD
- Coordination with CPW

**Public Meetings & Neighborhood Workshops**

- Four Neighborhood Workshops
- Virtual Public Meeting
- Two Open Houses
- Online Survey

**Native American Outreach**

- Coordination with local tribal groups and Colorado Commission on Indian Affairs
- 14 Formal Tribal Letters about the project
- Outreach to Native American Community Members

# PROJECT UPDATES: Recent Partner Coordination



- Connectivity Workshop
- East Boulder Creek Site Management Plan
- Walking the OSMP property
- Meeting with RTD
- Rails-to-Trails Conservancy





# PROJECT UPDATES: Evaluation Criteria



- *Evaluation Criteria: tool the project team will use to evaluate alignment concepts*
- Rooted in reasoning for trail and project goals
  - ◆ Transportation and Recreation
  - ◆ Increased Safety
  - ◆ Multi-Use
  - ◆ Low Environmental and Cultural Impacts
  - ◆ Implementable
  - ◆ Low Adjacent Property Impacts
  - ◆ Trail User Experience



# PROJECT UPDATES: Evaluation Criteria Categories



Safety

Resource  
Considerations

Implementation  
+ Maintenance

Adjacent  
Property  
Considerations

Trail User  
Experience

# PROJECT UPDATES: Connectivity Workshop



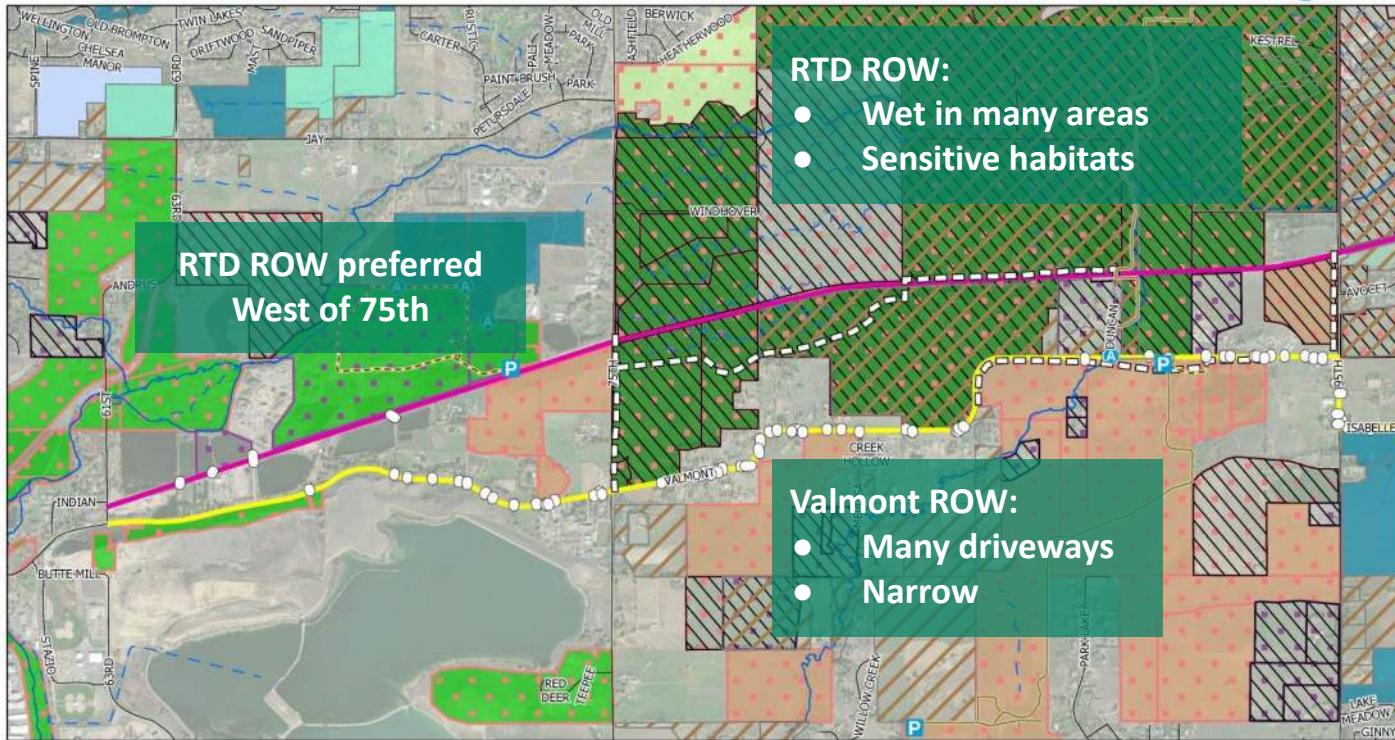
- Gathered representatives from Boulder, Erie, OSMP, CDOT, and CPW in May 2023
- **Goal: collaboratively identify two or three conceptual trail alignments**
- Gathered details to understand opportunities and constraints of each corridor



# PROJECT UPDATES: Connectivity Workshop



## Photos of Corridors for Consideration in the Project Area - 61st-95th



**RTD ROW preferred West of 75th**

**RTD ROW:**

- Wet in many areas
- Sensitive habitats

**Valmont ROW:**

- Many driveways
- Narrow

**Corridors for Consideration**

- Routes on OSMP
- RTD Rail Corridor
- Intermodal/GolfLink Corridor
- 287 Crossing at Boulder Creek I
- 287 Crossing at Boulder Creek II
- Driveways

**County Open Space**

- County Conservation Easement
- County Managed
- County Owned Open Space
- Joint County and Municipal Open Space
- Miscellaneous Easement

**Linear Hydrology**

- Perennial Stream
- Epithermal and Intermittent Streams

**Managed Trail Access Locations**

- OSMP Trailhead
- OSMP Access Point

428

**Managed Trail Access Locations**

- OSMP Trailhead with Designated Parking
- Access Point - Parking Along Public Streets Unless Otherwise Noted

**Trails**

- OSMP Hiking Trail
- OSMP Multi-Use Trail

**Trails**

- OSMP Hiking Trail
- OSMP Multi-Use Trail
- OSMP Land
- No Public Access
- OSMP Fee Ownership
- OSMP Joint Ownership

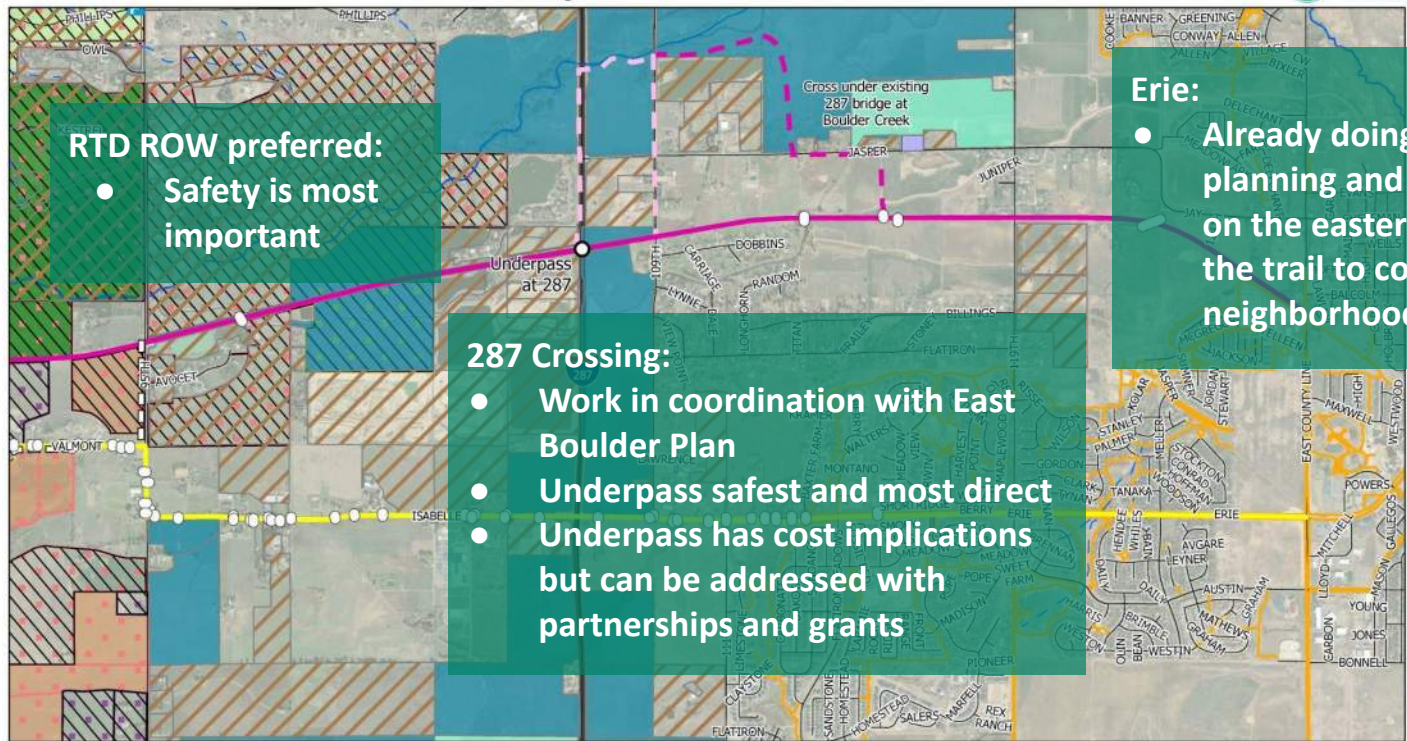
*Note: The Corridors for Consideration on these maps represent general corridors and could contain multiple conceptual trail alignments for further consideration.*



# PROJECT UPDATES: Connectivity Workshop



Photos of Corridors for Consideration in the Project Area - 95th-Erie



**RTD ROW preferred:**

- Safety is most important

**287 Crossing:**

- Work in coordination with East Boulder Plan
- Underpass safest and most direct
- Underpass has cost implications but can be addressed with partnerships and grants

**Erie:**

- Already doing a lot of planning and construction on the eastern portion of the trail to connect to neighborhoods

**Corridors for Consideration**

- RTD Rail Corridor
- Intermodal/Bus Rapid Transit
- 287 Crossing at Boulder Creek I
- 287 Crossing at Boulder Creek II
- Driveways

**County Open Space**

- County Conservation Easement
- County Managed
- County Owned Open Space
- Joint County and Municipal Open Space
- Miscellaneous Easement

**Linear Hydrology**

- Personal Stream
- Intermittent and Intermittent Streams

**Managed Trail Access Locations**

- OSMP Trailhead
- OSMP Access Point

429

**Managed Trail Access Locations**

- OSMP Trailhead with Designated Parking
- Access Point - Parking along Public Streets (unless Otherwise Noted)

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- OSMP Hiking Trail
- OSMP Multi-Use Trail
- OSMP Land
- No Public Access
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- OSMP Joint Ownership

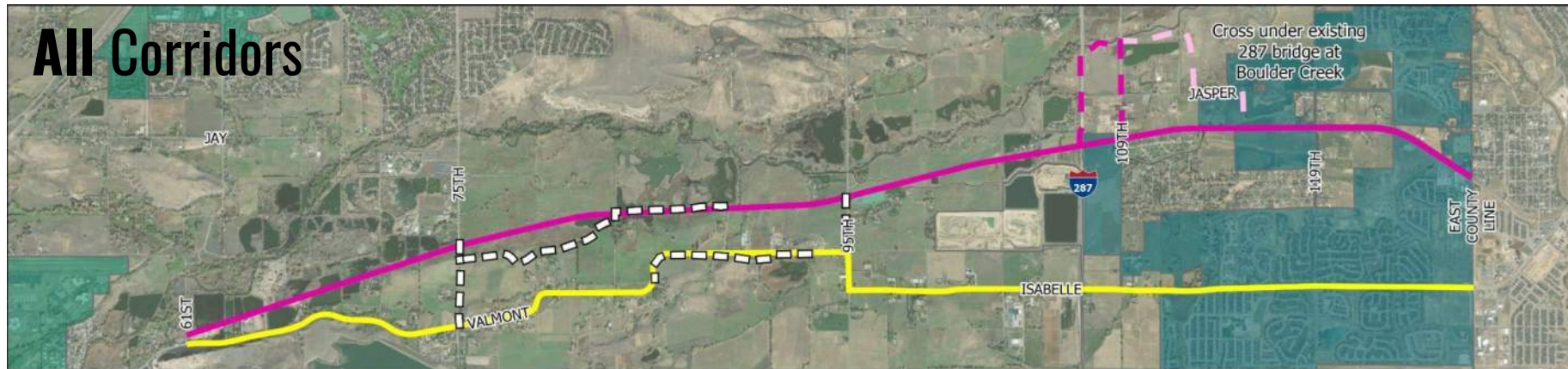
*Note: The Corridors for Consideration on these maps represent general corridors and could contain multiple conceptual trail alignments for further consideration.*



# CONCEPTUAL ALIGNMENTS: Overview



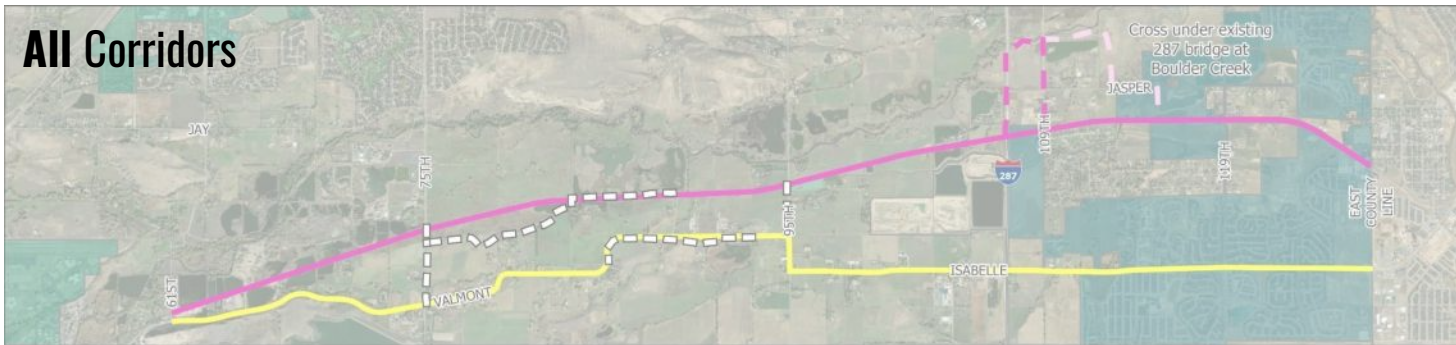
## All Corridors



# CONCEPTUAL ALIGNMENTS: Overview

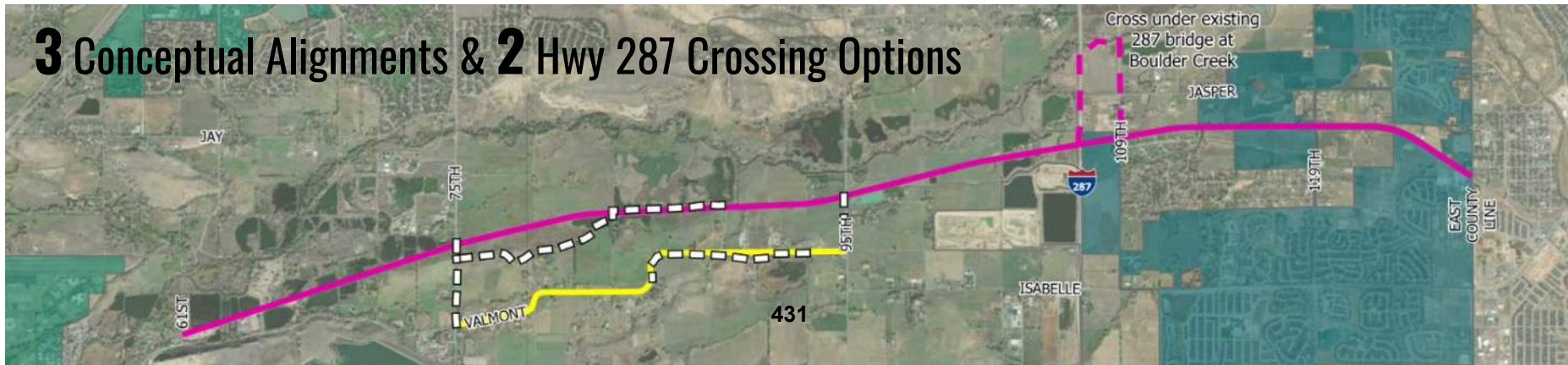


## All Corridors



narrowed into

## 3 Conceptual Alignments & 2 Hwy 287 Crossing Options



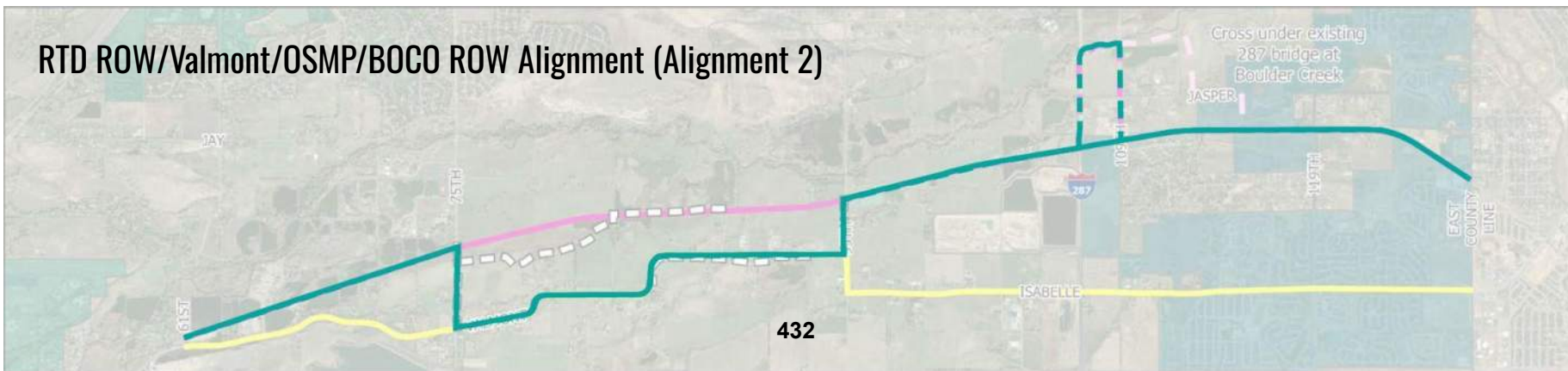
# CONCEPTUAL ALIGNMENTS: Overview



RTD ROW Alignments (Alignments 1a and 1b)



RTD ROW/Valmont/OSMP/BOCO ROW Alignment (Alignment 2)





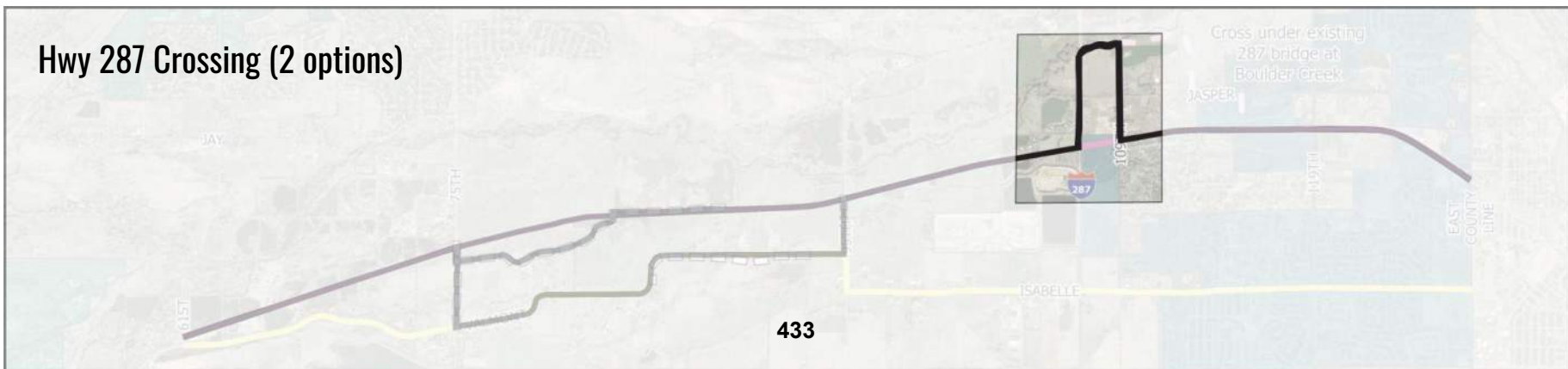
# CONCEPTUAL ALIGNMENTS: Overview



### RTD ROW/OSMP Alignment (Alignment 3)



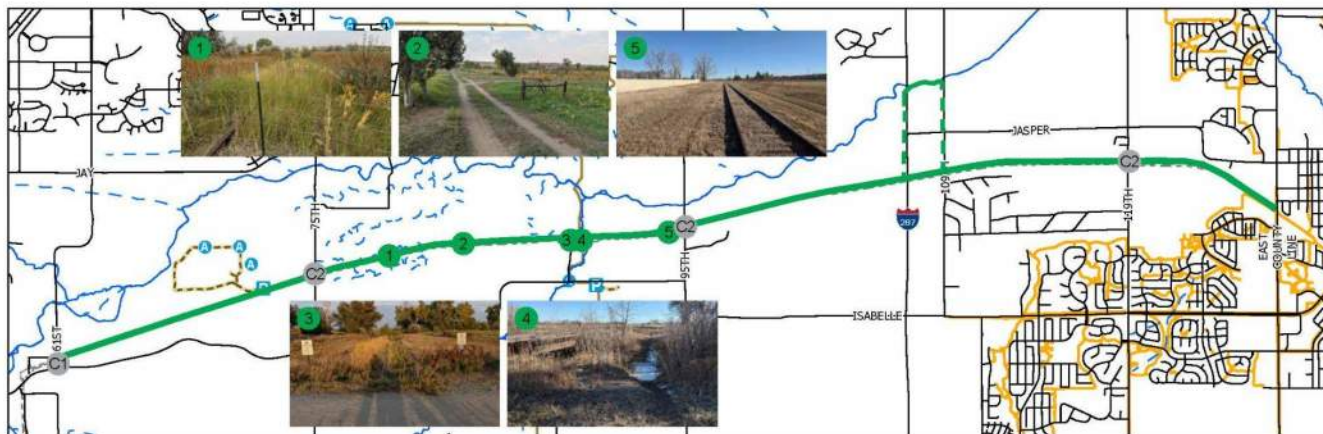
### Hwy 287 Crossing (2 options)



# CONCEPTUAL ALIGNMENTS: 1a & 1b



## RTD ROW Alignments (1a & 1b)



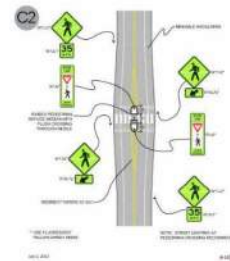
### Notes:

- These alignments are fully in the RTD ROW
- There are 2 alignment variations:
  - (1a) - trail on top the existing rail bed
  - (1b) - the trail in the ROW, not on the rail bed itself, but with crossings of the rail bed as needed

### Crossings:



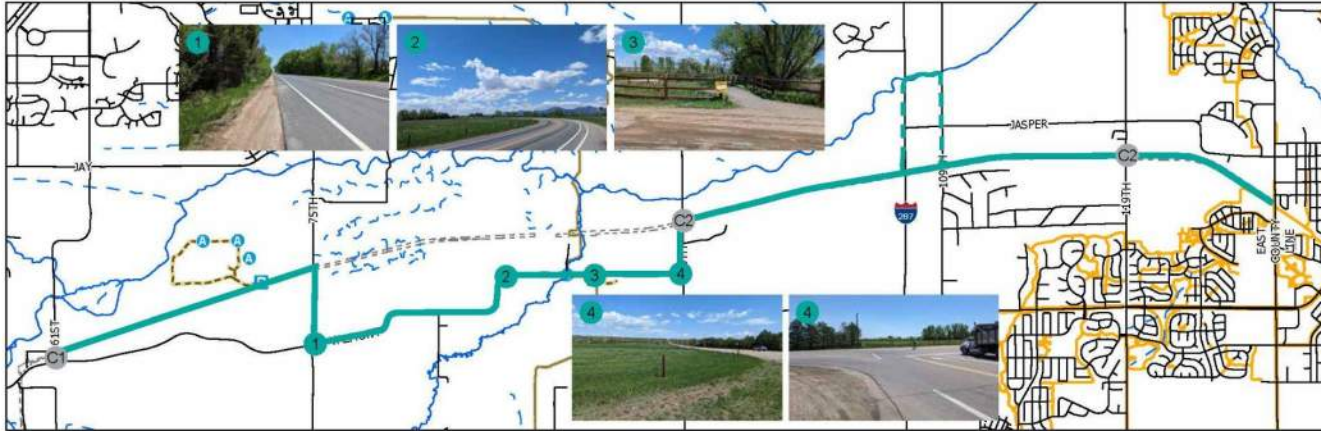
434



# CONCEPTUAL ALIGNMENTS: 2



## RTD ROW/Valmont/OSMP/BOCO ROW Alignment (2)



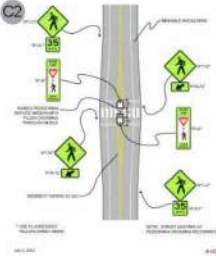
### Notes:

- (2) - alignment is a combination of RTD ROW, OSMP, and BOCO ROW/Valmont around the 75th to 95th section:
  - **61st to 75th** - RTD ROW & CPW/OSMP Road to Sawhill Ponds
  - **RTD ROW to Valmont** - OSMP/BOCO ROW
  - **75th to 95th** - BOCO ROW/OSMP
  - **Valmont to RTD ROW** - BOCO ROW
  - **95th to Erie** - RTD ROW

### Crossings:



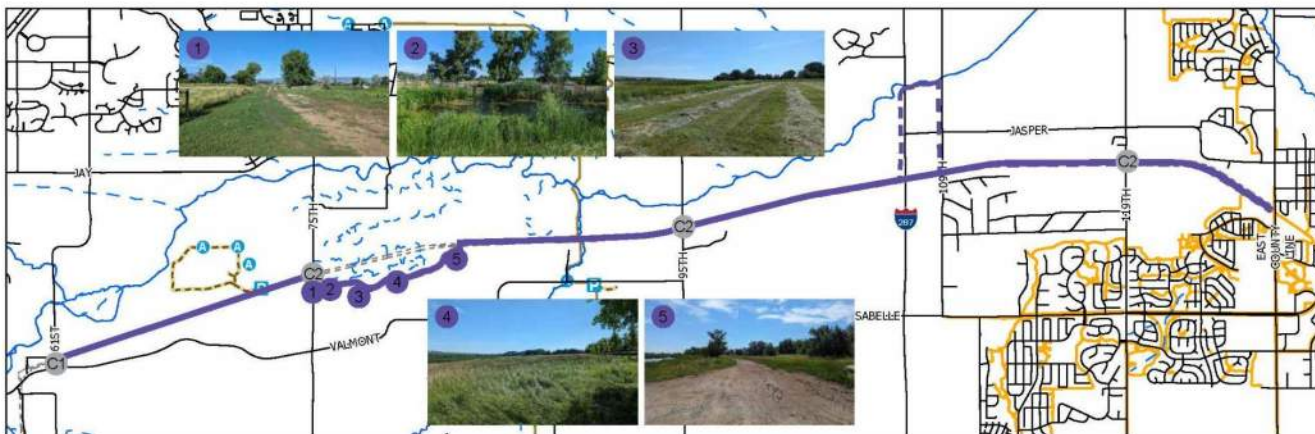
435



# CONCEPTUAL ALIGNMENTS: 3



## RTD ROW/OSMP Alignment (3)



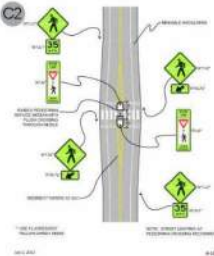
### Notes:

- (3) - alignment is a combination of RTD ROW and OSMP:
  - **61st to 75th** - RTD ROW & CPW/OSMP road to Sawhill Ponds
  - **RTD ROW to OSMP Route (along 75th)** - BOCO ROW/OSMP property
  - **75th to 95th** - OSMP property & RTD ROW
  - **95th to Erie** - RTD ROW

### Crossings:



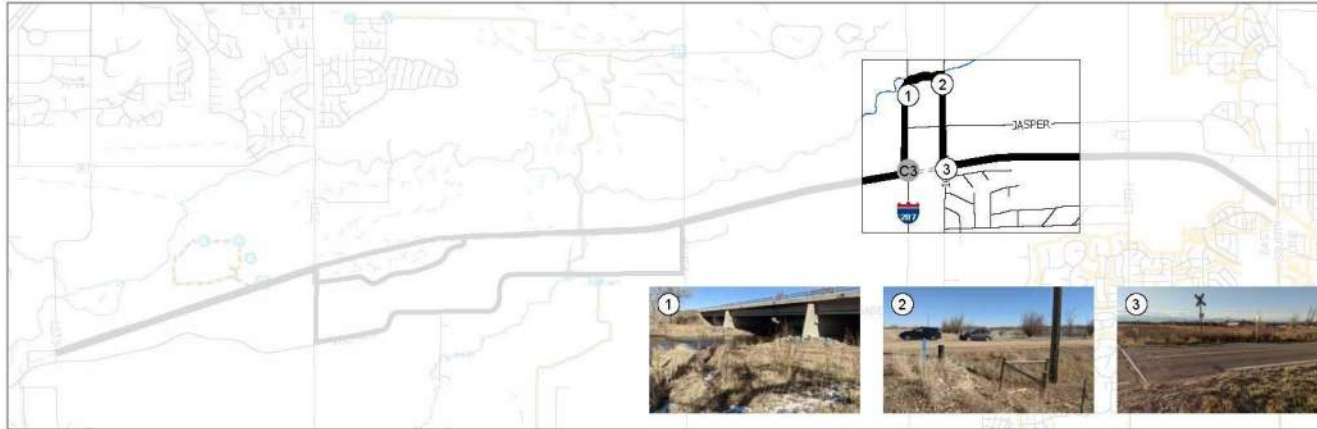
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# CONCEPTUAL ALIGNMENTS: Hwy 287 Crossing



## Hwy 287 Crossing (2 options)



### Notes:

- Two options are being considered for crossing Hwy 287:
  - One is an underpass in line with the RTD ROW under the road
  - One is a route that goes along Hwy 287 up to the existing Boulder Creek crossing under 287 and uses that to get the trail under 287
    - This route would then go along Boulder Creek until it reached 109th and then take 109th back to the RTD ROW.

### Crossing:



# OPEN HOUSE DISCUSSION



- What trade offs exist between the alignment concepts?  
Consider: Environmental, Safety, Visitor Experience
- Of the alignment options, which one stands out to you as most appealing? Why?
- What concerns do you have about the alignment options?

# NEXT STEPS: Next Steps



Fall 2023	Online Survey	Online survey to gauge local public attitudes towards each conceptual trail alignment under consideration
Fall 2023	Alignments for further consideration evaluation and selection	Conceptual alignments will be evaluated and alignments for further consideration will be selected and reviewed
Spring 2024	Open House/Public Meeting	Open house/public meeting to present conceptual alignments for further consideration before final report submittal to Boulder County
Spring 2024	Final Submittal	Final Master Plan submittal



## CONTACT US

Tonya Luebbert, Regional Trails Planner  
tluebbert@bouldercounty.gov

Visit the Website: [boco.org/BERT](http://boco.org/BERT)



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COLLABORATIVE DECISION RESOURCES



ERO Resources Corporation



## Boulder to Erie Regional Trail

# Public Meeting Takeaways

### OVERVIEW

The second BERT public meeting and open house focused on updating the public on progress made since the last virtual public meeting in 2020 and presenting the proposed alignment concepts that will be evaluated in Fall 2023. The event was held on the evening of Wednesday, September 13, 2023 at the Erie Community Library. The meeting presentation focused on educating the public about the various partners, outreach, and planning processes that have taken place since the last public meeting, as well as detailing the alignment concepts. The first half of this meeting was dedicated to presenting and the second half of the meeting took place in an open house format. The open house included printed boards of information shared during the presentation. Feedback and input were collected by speaking with the project team, leaving thoughts and comments on alignments via sticky notes on maps, and writing thoughts through anonymous comment cards.

### The key goals were:

- Provide progress updates on the BERT Master Plan to the Public
- Share the outcomes of previous processes, notify the Public of next steps for the Master Plan, and clarify the scope of future processes
- Share the current conceptual alignments for further evaluation
- Collect public feedback and input on alignment concepts

### Project Updates

- Project Overview
- Where We Left Off
- Expanded Scope
- OSMP MOU
- Schedule and Activities
- Ongoing Outreach and Partner Coordination
- Evaluation Criteria
- Connectivity Workshop

### Presentation of Conceptual Alignments

- 3 alignment concepts
- 2 concepts for 287 crossing

### Open House Discussion

- Feedback on alignment concepts



## OUTREACH

The Public Meeting was marketed to the public through a variety of communication channels. The project team relied heavily on Community Working Group Members, Steering Committee Members, and local Agency distribution of the engagement information. The following tools were used:

- **Press Release:** Email to listserv and newsletters from Boulder County and Town of Erie
- **Local Agency Websites:** Banners on relevant Erie and Boulder webpages
- **Social Media:** Nextdoor, Facebook, Twitter, and Instagram posts from community members and local agencies
- **Postcards:** Mailed to addresses within 0.25 mile of alignment concepts, approximately 900 mailed
- **Steering Committee and Community Working Group:** Both the SC and CWG were asked to distribute the meeting information through their networks

## Bi-lingual Engagement

The project team identified the importance of offering bi-lingual engagement opportunities for Spanish-speaking populations in Boulder and Erie. The following efforts were made to ensure bi-lingual engagement:

- Translation of all communication materials shared with the CWG, Steering Committee, and local agency partners
- Email outreach with materials to the Latino Chamber of Commerce in Boulder and Erie
- Email outreach to HOAs in dominantly Spanish-speaking communities
- Spanish language translator at the open house

## ATTENDANCE

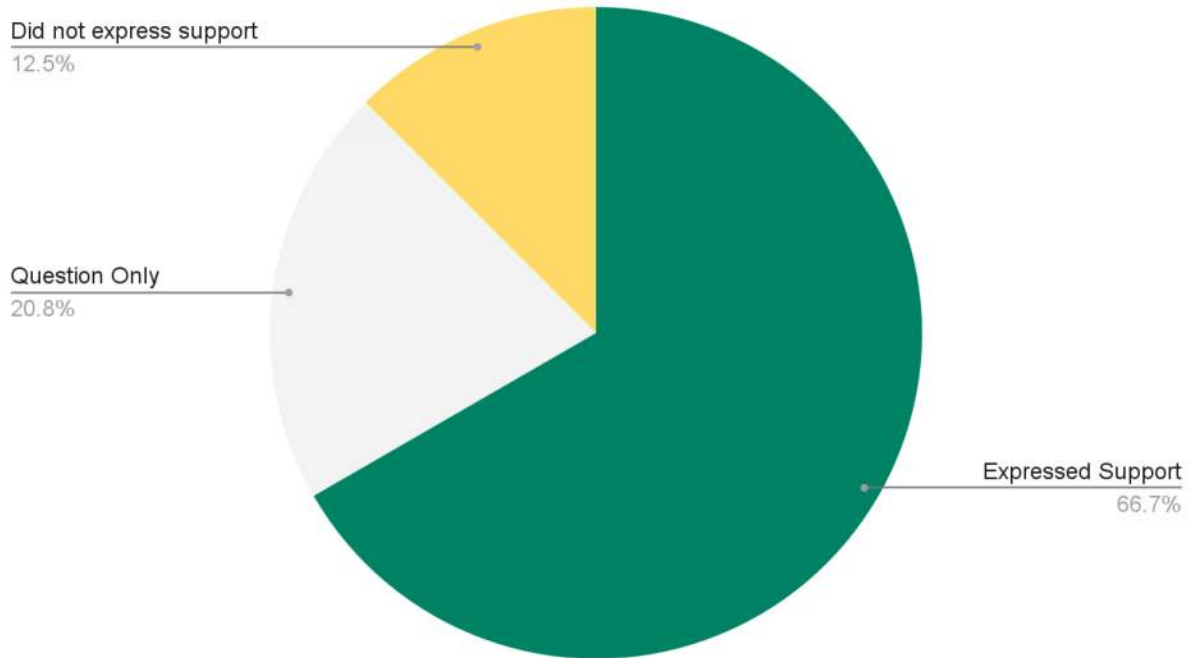
103 community members signed in and shared emails. An estimated additional 25 community members were present who did not sign in.



KEY THEMES

	Summary	Themes
<b>Support</b>	The majority of supportive feedback expressed interest in alignment 1 (A/B) with open mindedness to alignment 3. These preferences were due to route directness, the safety of being removed from road traffic, and an anticipated enjoyable viewshed in the RTD right of way. Property owners adjacent to the RTD right-of-way in attendance were supportive of the trail.	<ul style="list-style-type: none"> <li>● Alignment 1 or 3</li> <li>● Direct route</li> <li>● Safety</li> <li>● Visitor Experience</li> </ul>
<b>Concerns</b>	Comments cards expressing solely concern were regarding perception of sensitive ecosystems, wildlife, and/or culturally significant sites near the RTD right of way between 61st and 75th. Other concerns shared during the open house included flooding impacts to trail use, an urgency to get the trail to construction, and how cost differences between different alignment concepts may impact speed of implementation.	<ul style="list-style-type: none"> <li>● Environmental impacts</li> <li>● Cultural sites</li> <li>● Flooding</li> <li>● Project speed</li> <li>● Cost</li> </ul>
<b>Alignment 1</b>	Very supported due to direct route and safety of separation from vehicular traffic.	<ul style="list-style-type: none"> <li>● Direct route</li> <li>● Safety</li> </ul>
<b>Alignment 2</b>	Least supported due to proximity to vehicular traffic on Valmont and less direct route.	<ul style="list-style-type: none"> <li>● Direct route</li> <li>● Safety</li> </ul>
<b>Alignment 3</b>	Supported due to safety of separation from vehicular traffic and general directness of route.	<ul style="list-style-type: none"> <li>● Direct route</li> <li>● Safety</li> </ul>
<b>287 Crossing</b>	There was support for both the Boulder Creek and Underpass alignments as well as concern for flooding impacts to trail use at both. Generally, interests for either option were safety-related. There was a slight preference for an underpass due to the directness of the route.	<ul style="list-style-type: none"> <li>● Flooding</li> <li>● Direct route</li> </ul>
<b>Comment Cards &amp; Sticky Notes</b>	Out of 48 written comments collected during the meeting, 32 expressed general support, 6 expressed solely concerns, and the remaining 10 were questions for the project team.	<ul style="list-style-type: none"> <li>● Public Support</li> </ul>

## Written Feedback Summary



## FAQs

### Construction / Alignment

- What is the estimated timeline for construction?
- At which end will construction begin?
- Where will the trail be in relation to the rail bed/tracks?
- Why can't the trail be on the rail bed the entire way?

### Environmental

- Was Boulder Creek recently restored? If so, will a 287 crossing detour impact the restoration?
- In the event of flooding at either US-287 crossing, what is the anticipated alternate route?
- Is the 75th to 95th route too wet and/or sensitive to support a trail?
- Why is Valmont ROW not considered an option on the far east section of the trail to avoid environmental impacts?

### Safety

- Which US-287 crossing option is safer for visitors?
- How would a BERT Valmont alignment compete with an expanded paved infrastructure?
- How would the trail cross Jasper Rd at 109th?

### Partner Coordination

- Will RTD ever develop the right-of-way as a passenger rail line?

- How will regulations be managed on different properties (e.g. OSMP versus RTD right-of-ways)

# APPENDIX F - SURVEY MATERIALS & SUMMARIES

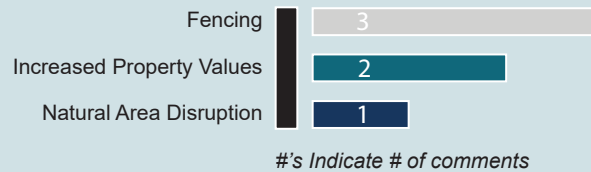
This appendix includes:

- Online Survey
- Statistically Valid Survey

**Adjacent Property Owner Survey**

Summary: Through this survey we learned that there are a few places where crossings of the trail would be relatively frequent, therefore proper crossing treatments will need to be considered for these locations. We also learned that the primary concern for adjacent property owners was trespassing so fencing will be an important consideration. Natural area disruption was also of concern, and every effort will be made to minimize disruption to natural areas moving forward as well. Property owners in the area were also positive about the increased trail access, connectivity between Boulder and Erie and the associated increase in property values that are anticipated.

**Q: How will a potential trail and the activity on the trail affect your property and its use?**



**General Crossing Info Survey**

Summary: Safety is the primary consideration for trail crossing locations on the trail. Signalized crosswalks were the most popular option as they could be used for safe crossings when needed but not cause additional disruption to traffic when not necessary. Yield signs were also suggested for a similar reason, they could provide an indication of potential cross traffic but not otherwise disrupt traffic flows. Stop signs were mentioned as less ideal due to the high likelihood of them being ignored. Bridges on particularly busy roads, like 287, were also mentioned to provide a safe crossing that does not require any interaction with the road at all. Moving forward, the crossing locations will be evaluated further and a template for safe crossings that can be applied throughout the trail alignment will be developed and discussed.

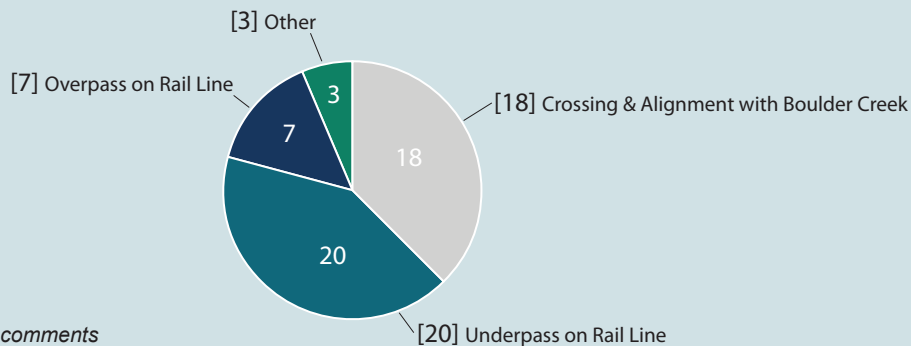
**Q: Do you have any suggestions or considerations for any of the indicated crossing locations?**



**Hwy 287 Crossing Survey**

Summary: The Hwy 287 crossing option that was most preferred was the underpass. There were numerous reasons why this was the preferred option, among them the directness and safety of the option was favored along with its lack of interruption to traffic on 287. The crossing and alignment with Boulder Creek was the second most preferred option, especially for recreational use. The relative costs of the different options, along with the ease and speed of construction were frequently mentioned as deciding factors so moving forward in the process both options will be explored, and the relative costs and associated constructibility issues will be further researched and discussed.

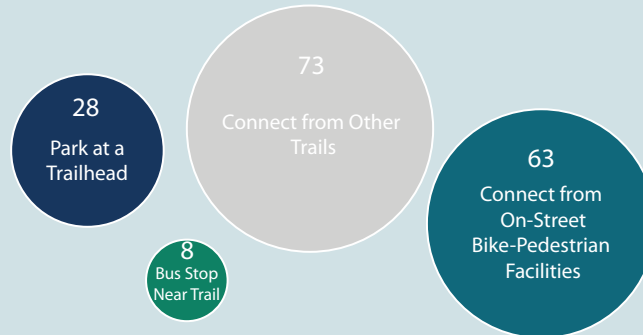
**Q: Which crossing option do you prefer?**



**Trail Connectivity Survey**

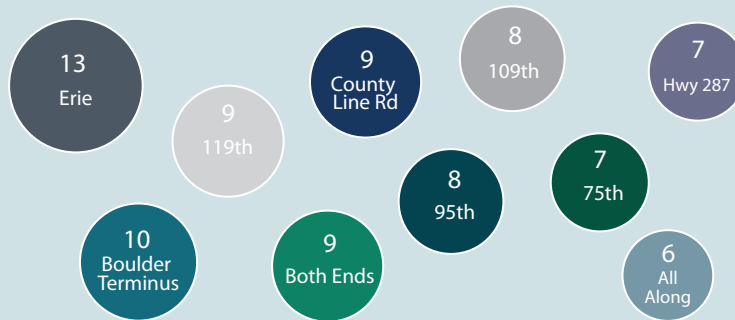
Summary: RTD Rail Trail users primarily hope to access the trail from other trails, on-street bike/pedestrian facilities or from trailheads. They also will most likely be getting on and off the trail at the Erie and Boulder terminus points. Moving forward with the trail study, it will be important to make sure that existing trails and bike/pedestrian facilities are accurately mapped and known, especially at both ends of the trail, so that connections between them and the trail right-of-way can be considered, discussed and recommended. Existing trails of particular interest for connection are the Coal Creek Trail, Boulder Creek Path, Teller Farm/ Trail System and White Rocks Trail.

**Q: How do you hope to access the trail in the future? (Select all that apply)**



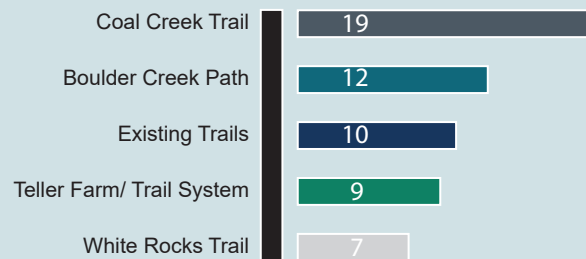
#'s Indicate # of comments

**Q: Where will you get on the trail and off the trail? Top 10 locations**



#'s Indicate # of comments

**Q: What other nearby trails would you like to connect to the RTD Rail Trail? Top 5 desired trail connections.**



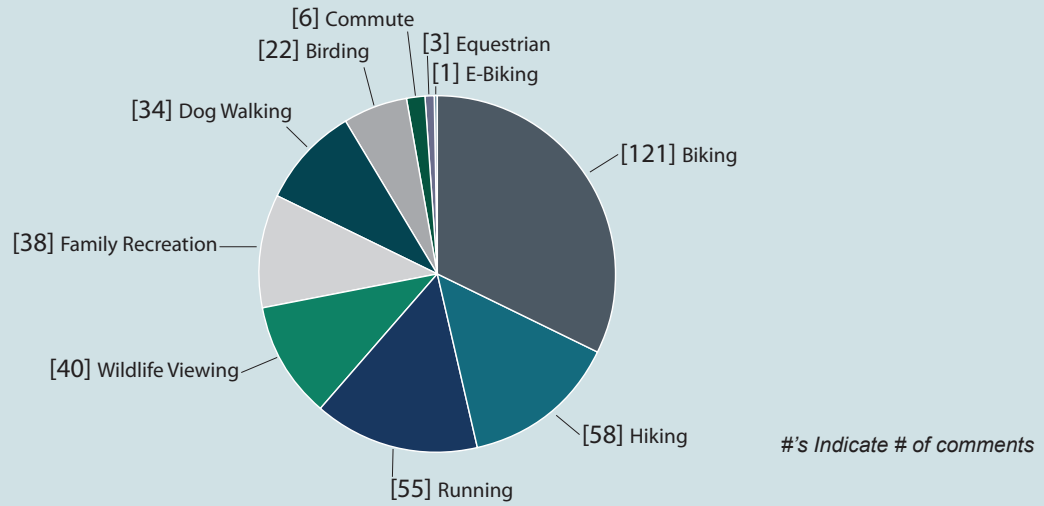
#'s Indicate # of comments

**Trail User Survey**

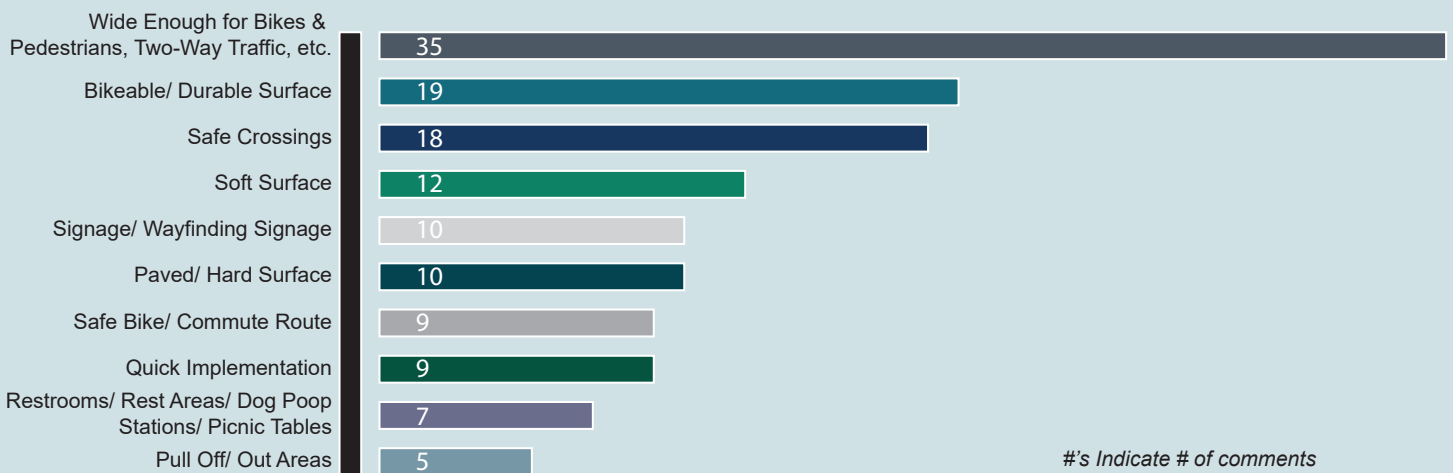
Summary: This trail would be used in a variety of ways by users. However, greatest numbers of trail users plan to use the trail for biking, hiking and running. It is therefore also highly desirable for the trail to be wide enough to accommodate both bikes and pedestrians, two-way traffic or other “multi-lane” traffic of differing speeds comfortably. Durable, bikeable surfaces and safe crossings will also be very important to consider as this planning process moves forward, and more physical details of the trail are discussed. Based on this survey, a soft surface trail is only slightly preferred over a hard surface trail, although some discussion of a trail with both side by side options was brought up. This survey also indicated a greater preference for recreational use over commuting use, so this will be important to consider moving forward as different surfaces, configurations and amenities are discussed.



**Q:** How are you planning to use the trail? (Select all that apply)



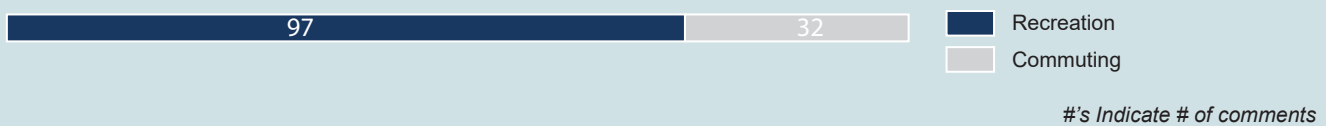
**Q:** What trail design features do you need for your intended use? Top 10 Desired Design Features



**Soft Surface vs Hard Surface**



**Q:** Will you more frequently use this trail for recreation or commuting?



# BOULDER TO ERIE REGIONAL TRAIL ONLINE SURVEY

You were chosen as part of a sample of landowners near the proposed Boulder to Erie Regional Trail to complete a brief questionnaire. Your responses will provide information about how members of the public feel about the trail. Your responses are voluntary and will be kept confidential and your name will never be associated with your answers. Your individualized link to the survey is on the opposite side of this postcard.

**YOUR RESPONSE IS IMPORTANT!!  
PLEASE HAVE AN ADULT IN YOUR HOUSEHOLD  
COMPLETE THE SURVEY.**

Please complete the survey ASAP  
but no later than November 10, 2023



If you have questions about the process, email Tonya Luebbert  
at [tluebbert@bouldercounty.gov](mailto:tluebbert@bouldercounty.gov)

450



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[boco.org/BERT](http://boco.org/BERT)

# APPENDIX F - STATISTICALLY VALID SURVEY 2023

## BOULDER TO ERIE REGIONAL TRAIL ONLINE SURVEY

Boulder County Transportation  
P.O. Box 471  
Boulder, CO 80306

Type this personalized survey link  
into your web browser to participate:

PROPERTY OWNER or CURRENT RESIDENT  
Street address  
County, CO ZIP

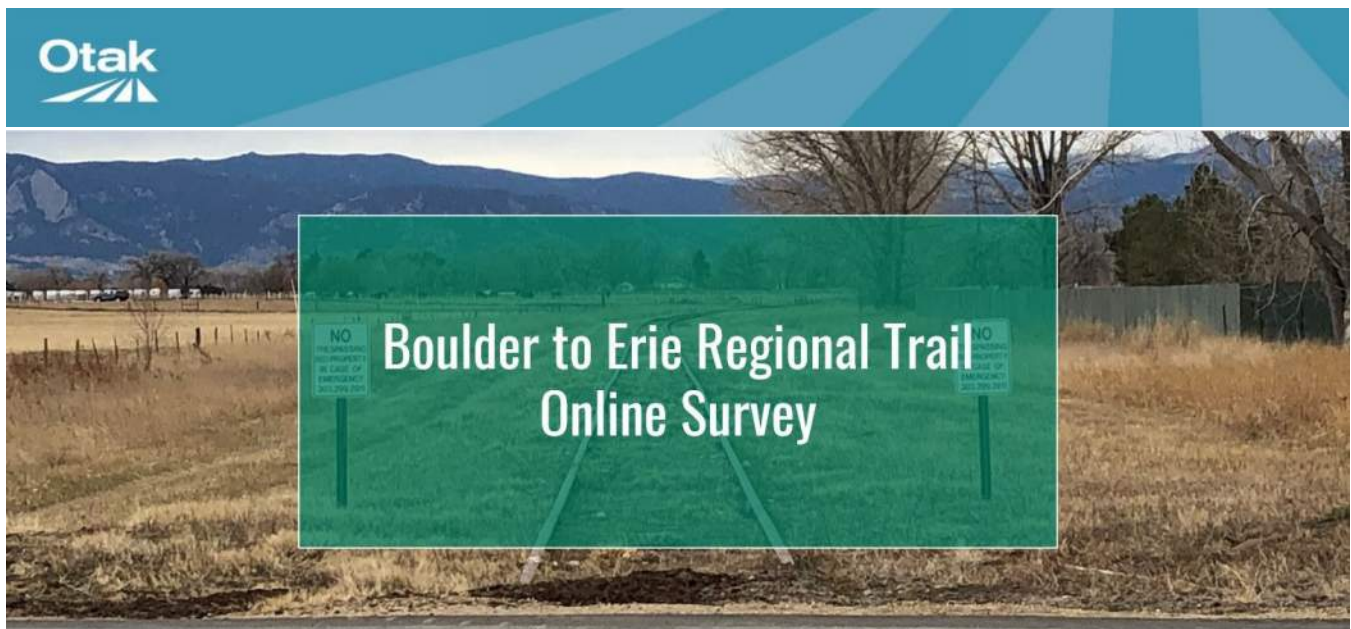


If you have questions about the process, email Tonya Luebbert  
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[boco.org/BERT](http://boco.org/BERT)



Boulder to Erie Regional Trail (BERT)



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COLLABORATIVE DECISION RESOURCES



## Boulder to Erie Regional Trail (BERT)

# Online Survey

## Summary Report

**Submitted to:**

Boulder County Community Planning & Permitting  
Transportation Planning Division  
2045 13<sup>th</sup> Street  
Boulder, CO 80302

**Prepared by:**

Otak, Inc.  
11241 Willows Road NE, Suite 200  
Redmond, WA 98052

March 2024

Project No. 018509.C00

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## Executive Summary

Boulder County, in partnership with the City of Boulder and Town of Erie, is evaluating options for the creation of a new soft-surface regional trail connection linking the City of Boulder and Erie.

This connection was identified in the county's regional trails prioritization process in 2003 and is eligible for funding through the Countywide Sales Tax which was extended in perpetuity in 2022. The Boulder Valley Comprehensive Plan and Boulder County Transportation Master Plan identify this trail connection as an important link in the Boulder Valley and regional trails systems.

The purpose of this survey was to provide public input into the selection of conceptual trail alignment(s) for further consideration and understand how members of the public who live near the proposed trail alignments feel about the proposed trail. An online survey was developed to gather the following information:

- current activity participation and frequency of activities that would align with the proposed trail;
- current commuting behavior using transportation options that could be accommodated on the proposed trail;
- support for or opposition to the trail in the proposed corridor;
- preferred trail alignment(s) for further consideration from three proposed alignments;
- preferred US 287 crossing option;
- intent to use the trail, and intended use and use frequency;
- proximity of residence to the proposed trail corridor
- participation in public outreach opportunities about the trail's development; and
- respondent characteristics.

The survey succeeded in reaching many new residents and property owners in the area immediately around the trail who had not been previously involved with the BERT master plan process. Results indicated strong support with approximately 91% of respondents in favor the trail's development and indicating interest in using the trail for both recreation and commuting. Respondents also expressed a desire to protect the environment and balance/mitigate potential environmental impacts to the area that could result from trail construction and use. Of the options presented, respondents expressed a strong dislike for the trail alignment route involving sections on Valmont Rd and a preference for an underpass for the crossing of US 287. However, it is important to note that the survey was administered prior to completion of the alignments evaluation, before impacts of each of the alignments were fully understood. Potential impacts from this are discussed further in the results section of the following report.

Selection of alignment(s) for further consideration will be based on detailed alignment evaluation, steering committee and partner input, and public input gathered throughout the entirety of the BERT master planning process. As part of this public input received over years of community outreach, these survey results will be carefully considered when selecting alignment(s) for further consideration but the primary selection tool will be the detailed evaluation which is the result of extensive collaboration and has been reviewed and refined in collaboration with the BERT Steering Committee.

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**APPENDICES**

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A copy of the questionnaire used to record responses.
- Appendix B *Online Survey Postcard Invitation*  
A copy of the postcard used to invite respondents to participate in the online survey.



## Section 1. Introduction

Boulder County, in partnership with the City of Boulder and Town of Erie, is evaluating options for the creation of a new soft-surface regional trail connection linking the City of Boulder and Erie.

This connection was identified in the county's regional trails prioritization process in 2003 and is eligible for funding through the Countywide Sales Tax which was extended in perpetuity in 2022. The Boulder Valley Comprehensive Plan and Boulder County Transportation Master Plan identify this trail connection as an important link in the Boulder Valley and regional trails systems.

The purpose of this survey is to provide public input into the selection of conceptual trail alignment(s) for further consideration and understand how members of the public who live near the proposed trail alignments feel about the proposed trail. An online survey was developed to gather the following information:

- current activity participation and frequency of activities that would align with the proposed trail;
- current commuting behavior using transportation options that could be accommodated on the proposed trail;
- support for or opposition to the trail in the proposed corridor;
- preferred trail alignment(s) for further consideration from three proposed alignments;
- preferred US 287 crossing option;
- intent to use the trail, and intended use and use frequency;
- proximity of residence to the proposed trail corridor
- participation in public outreach opportunities about the trail's development; and
- respondent characteristics.

The research conducted to achieve the study purpose and presented in this report includes an online survey distributed to residents and landowners near the proposed trail corridor.

### Organization of the Report

The report is organized into four sections.

**Introduction:** This section discusses the purpose and intent of the study, the organization of this report, and general information about how to interpret study results.

**Methods:** This section discusses the survey design and administration procedures, and limitations that may affect the results of the study.

**Results:** This section provides summary information for questions in the study questionnaire. It presents results from the online survey including information about the respondent's current activities and commuting behavior that might align with trail use, level of support or opposition to the trail, preferred trail alignment(s) for further consideration, intended use of the trail, participation in the trail planning process, and respondent characteristics.

#### Appendices:

Appendix A     *BERT Trail Alignment Online Survey: Survey Instrument*  
A copy of the questionnaire used to record responses.

Appendix B *Online Survey Postcard Invitation*

A copy of the postcard used to invite respondents to participate in the online survey.

### Presentation of the Survey Results

Survey results are represented in the form of figures (see Figure 1 below), tables, and/or text.

**SAMPLE ONLY**

1. The figure caption describes the figure’s information.
2. Listed above the figure, the “N” shows the number of individuals responding to the question.

\*appears when total percentages do not equal 100 due to rounding.

\*\*appears when total percentages do not equal 100 because respondents could select more than one answer.

3. Vertical information (y-axis) describes the response categories.
4. Horizontal information (x-axis) shows the number of responses in each category.
5. The proportion of visitor groups/visitors who selected each category.

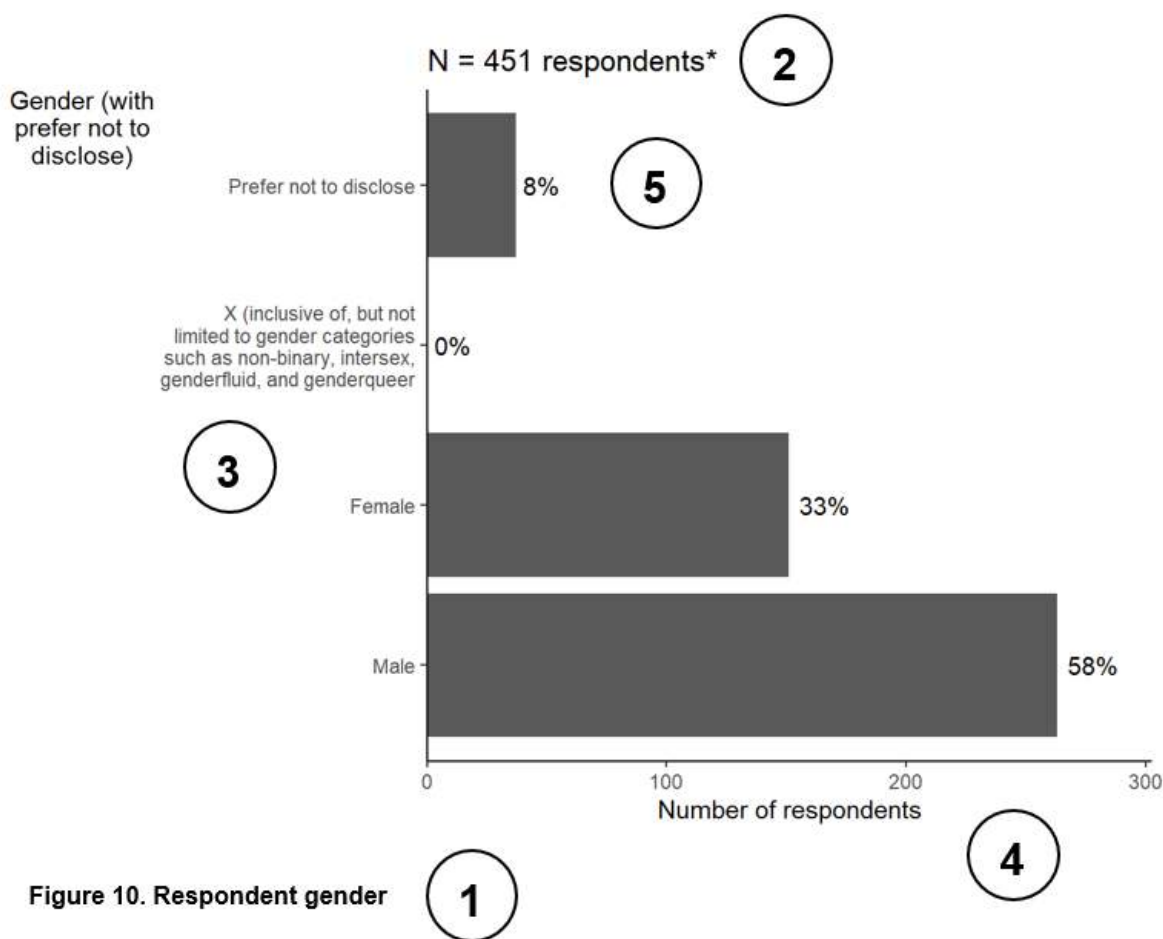


Figure 1. Example figure

## Section 2. Methods

The online survey was designed to collect information about respondent's current activities and commuting behavior that might align with trail use, level of support or opposition to the trail, preferred trail alignment(s) for further consideration, intended use and frequency of use of the trail if constructed, participation in the trail planning process, and respondent characteristics. This section of the report describes the methods used to accomplish each of these objectives.

### Survey Methods

An online survey was offered to residents and landowners near the proposed trail corridor. More specifically, the survey was administered online using the Qualtrics survey platform. The survey was self-administered on respondents' personal internet connected devices.

### Sampling Effort

The visitor survey was available for completion online during a 13-day sampling period, from October 31, 2023 through November 12, 2023.

### Survey Instrument Design

The purpose of the survey was to collect information about respondent's current activities and commuting behavior that might align with trail use, level of support or opposition to the trail, preferred trail alignment(s) for further consideration, intended use and frequency of use of the trail if constructed, participation in the trail planning process, and respondent characteristics.

The survey instrument was designed by the project team in coordination with Boulder County community planners. Questions included in the questionnaire were designed using best practices for standard survey design. The majority of the questions included in the survey instrument asked visitors to choose answers from a list of response options, providing an open-ended option, where appropriate, to ensure that question prompts allowed for inclusive answers. Appendix A contains a copy of the survey instrument. Once the survey instrument was finalized, it was programmed into the Qualtrics survey platform.

### Sampling Procedures

As mentioned above, the online survey was administered to residents and landowners near the proposed trail corridor. A list of 2,823 nearby properties, and associated mailing addresses was obtained from the Boulder County land records office. Each address on the list was mailed a postcard inviting an adult at each address to respond to the online survey, using a unique survey URL provided on the postcard. Appendix B contains a copy of the postcard invitation. The postcard invitation also briefly explained why the household was chosen for the survey. If an individual at an address completed and submitted a survey response, no other submissions were accepted from that URL, that is, only one response from each address was allowed.

The online survey contained a brief introduction to the purpose of the study and the BERT trail proposal. Respondents were then asked questions about current activities and commuting behavior that might align with trail use, their level of support or opposition to the trail, their preferred trail alignment(s) for further consideration, their intended type of use and frequency of use of the trail if constructed, their participation in the trail planning process, and relevant demographic questions.

## Sampling Results

During the 13-day sampling period, 482 respondents participated in the online survey, with a total of 452 respondents completing the survey, meaning survey estimates have a margin of error of +/- 5%. The sampling frame contained 2,823 addresses, meaning the survey achieved a response rate of 16%.

## Limitations

This study has limitations to consider when interpreting the results.

1. The sample was drawn from landowners and residents proximate to the proposed trail corridor. Therefore, the responses represent that group of residents, and don't necessarily represent other residents outside the sample area.
2. The response rate for the survey was 16%, meaning 84% of the sampling frame chose not to respond to the survey. There is a possibility of non-response bias, that is the members of the sampling frame who chose not to respond to the survey, may differ in meaningful ways from those who chose to respond.
3. Sample size may vary for some questions due to item non-response (i.e., one or more questions skipped by a respondent or based on skip logic programmed into the questionnaire), or as a result of data cleaning procedures. Therefore, refer to both the percentage and sample values when interpreting the results.
4. The survey was administered prior to the completion of the alignments evaluation before impacts of each of the alignments was clearly understood. The description of Alignment C inaccurately represented the level of impacts to natural resources associated with this alignment making it unclear whether support for this alignment would be as strong if the extent of the impacts had been understood and communicated at the time of the survey.

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## Section 3. Results

This section of the report presents the results of the online survey. The results are generally presented in questionnaire order and include the question number, the question sub-sample, the question text, select bulleted information, and data figures and tables.

It should be noted, due to rounding, the percentages summarized in the bulleted information may not exactly match manual summation of the percentages presented in the tables. The percentages in figures and tables may not sum to 100 percent due to rounding, or in cases where survey respondents were instructed to select all response options that apply.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Current Activity Participation

Question 1

Question 1 was asked of all respondents.

Do you currently enjoy any of the following activities? (Select all that apply)

Results (Figure 2 and Table 1)

- A majority of respondents currently enjoy walking or rolling (93%) and bicycling (77%), while more than one-third of respondents reported running or jogging (45%) and cross-country skiing or snowshoeing (34%).
- Less than one in five respondents reported E-biking (18%), and an even smaller percentage reported horseback riding as an activity in which they participate.
- Table 1 lists other activities respondents mentioned. Notably, nine respondents mentioned running or walking with their dogs.

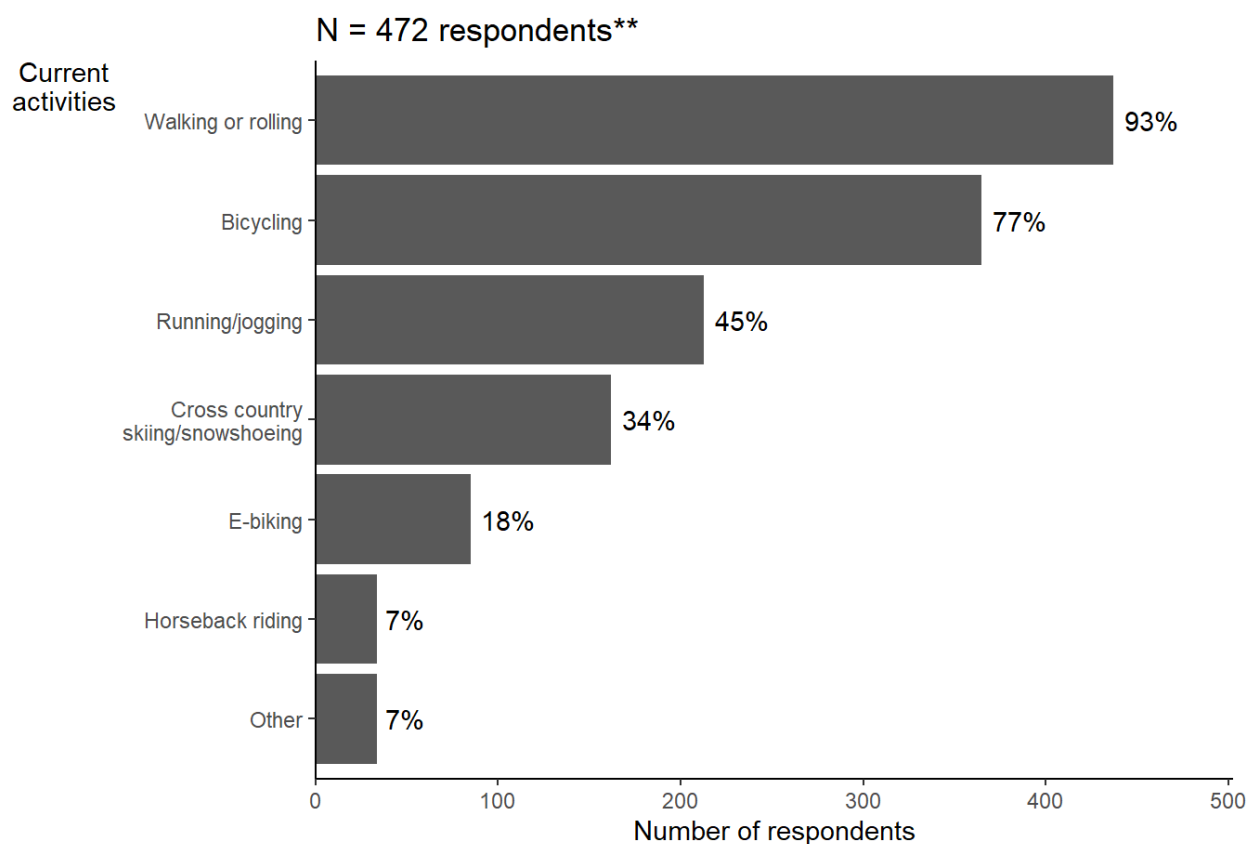


Figure 2. Current activity participation

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**Table 1. Other activities listed.**

OTHER ACTIVITIES
BIG PICKUPS
BIKING, SKIING, PADDLEBOARDING
BIRDWATCHING (3)
CARTWHEELS
DISC GOLF
DOG WALKING/RUNNING (9)
DOWNHILL SKIING
DRONE PHOTOGRAPHY
ELECTRIC SKATEBOARD
EVERYTHING OUTSIDE
FISHING
GOLFING
HIKING (4)
LLAMA PACKING/TRAINING WALKS
MAKE THE BED
PICKLEBALL
ROCK CLIMBING
SKATEBOARDING (3)
SWIMMING, WATER SKIING

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer



Question 1a

Question 1a was asked of respondents who indicated they participated in an activity in Question 1.

How often do you typically participate in any of these activities? (Select one)

Results (Figure 3)

- Respondents tend to be active in the activities in which they participate. Nearly half of respondents (47%) reported participating in the activities listed above five or more days per week, while about eight out of ten respondents (79%) indicated they participated in activities three or more days per week.

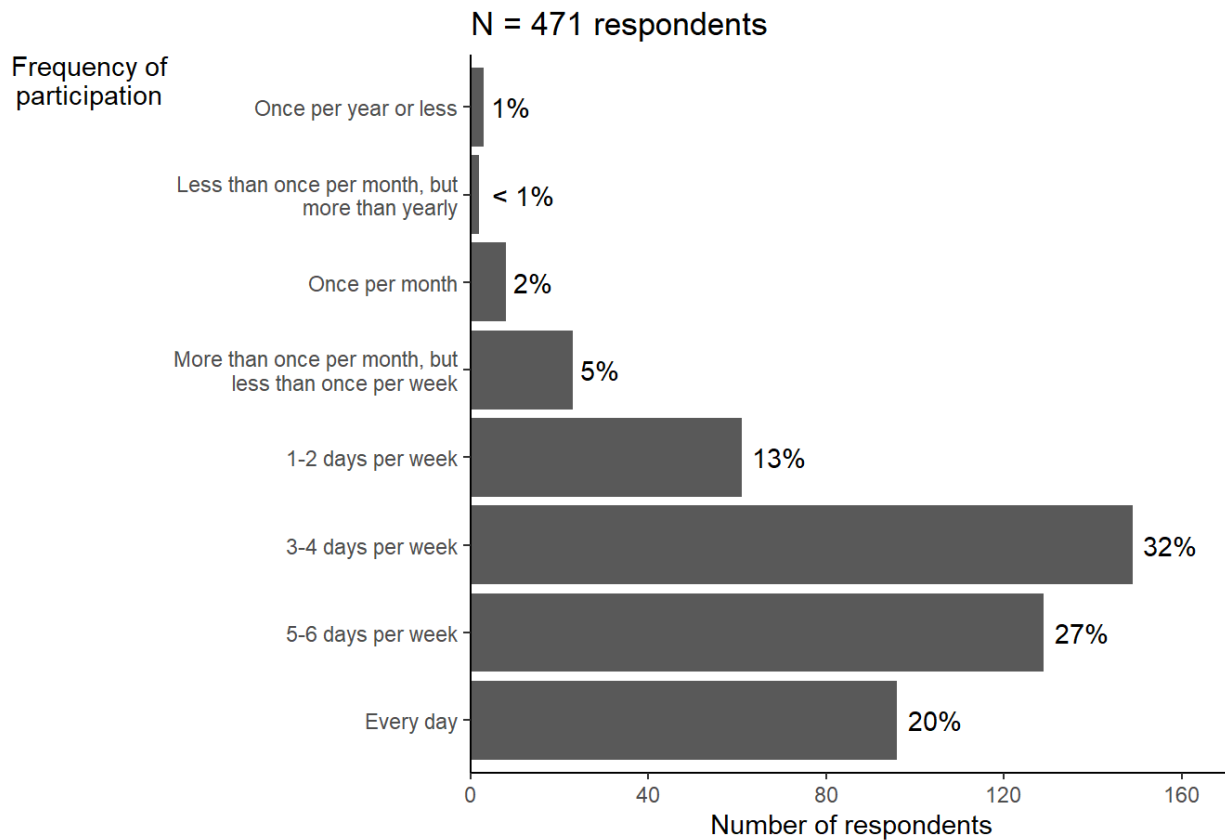


Figure 3. Frequency of participation in selected activities.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Commuting Behavior

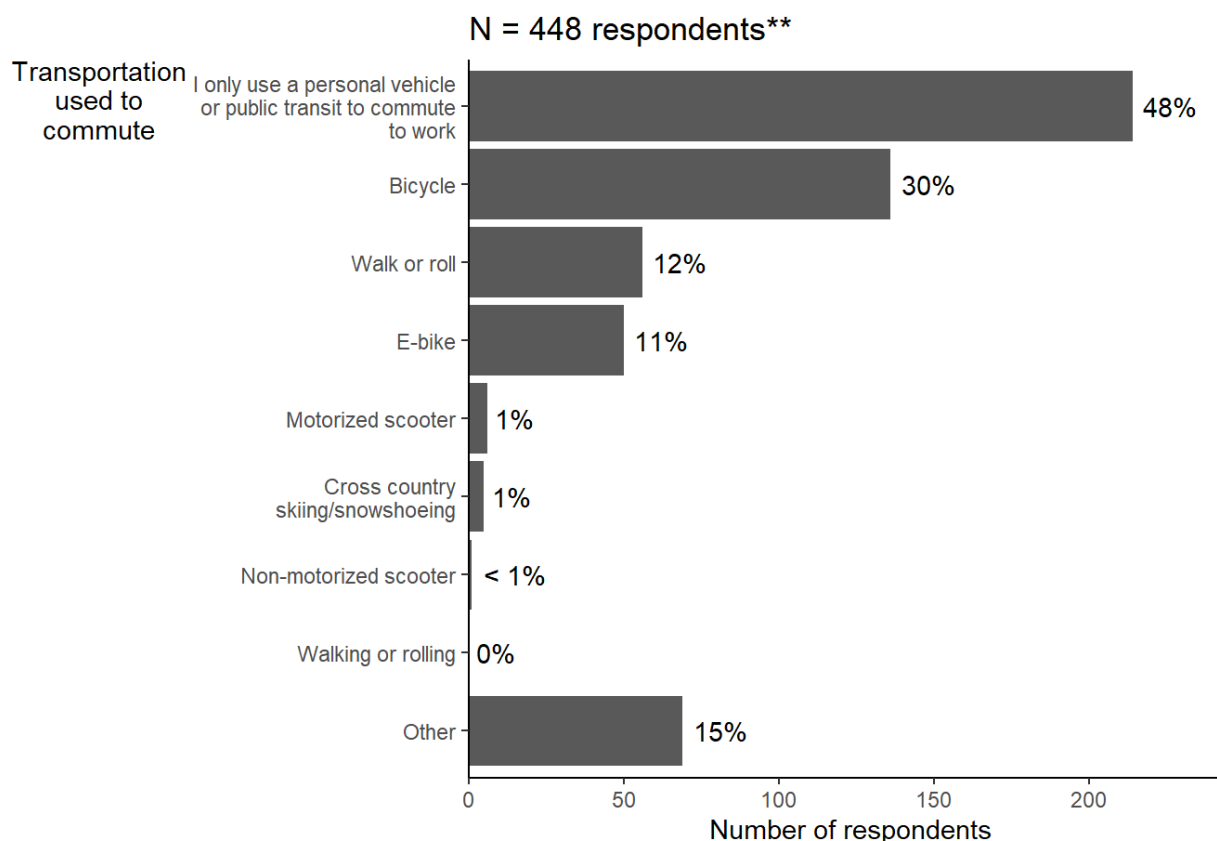
### Question 2

Question 2 was asked of all respondents.

Please select the forms of transportation other than a personal vehicle or public transit that you use to commute to work. (Select all that apply)

Results (Figure 4 and Table 2)

- Respondents were asked about their commuting behavior. Nearly half of all respondents (48%) indicated that they only commute to work either in a personal vehicle (car, truck, or SUV), or using public transit. However, nearly one-third of respondents (30%) indicated they use a bicycle to commute to work, while 12% walk or roll, and 11% use an E-bike.
- Table 2 lists other responses about commuting behavior. Roughly 12% of respondents indicated they don't commute to work. Notably, 33 respondents indicated that they are retired and therefore no longer commute to work, while 16 respondents indicated they work from home and therefore don't commute to work.



**Figure 4. Transportation other than personal vehicle or public transportation used to commute to work.**

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**Table 2. Other responses about commuting behavior.**

OTHER COMMUTING RESPONSES
ASSIGNED WORK VEHICLE
CURRENTLY I WFH - BUT I WOULD LOVE TO EBIKE COMMUTE IN THE FUTURE
DOES NOT APPLY
DON'T WORK (4)
I DO NOT WORK OUTSIDE THE HOME
I DON'T COMMUTE TO WORK
INNER TUBE (JK... JUST A CAR)
LIVE QUIET RURAL
MOTORCYCLE (3)
NONE
RETIRED (33)
RUN COMMUTING FROM TIME TO TIME.
VALMONT IS VERY DANGEROUS FOR CYCLING DURING RUSH HOUR GIVEN THE LARGER TRACTOR TRAILORS, DUMP TRUCKS AND TRASH TRUCKS THAT TRAVEL VALMONT
VEHICLE
WORK FROM HOME (16)

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Support for BERT Trail

### Question 3

Question 3 was asked of all respondents.

In concept, do you support a trail in the general corridor described above? (Select one)

Results (Figure 5)

- Nine out of ten respondents support the BERT trail in concept, with 78% strongly supporting it, and an additional 13% somewhat supporting the trail.

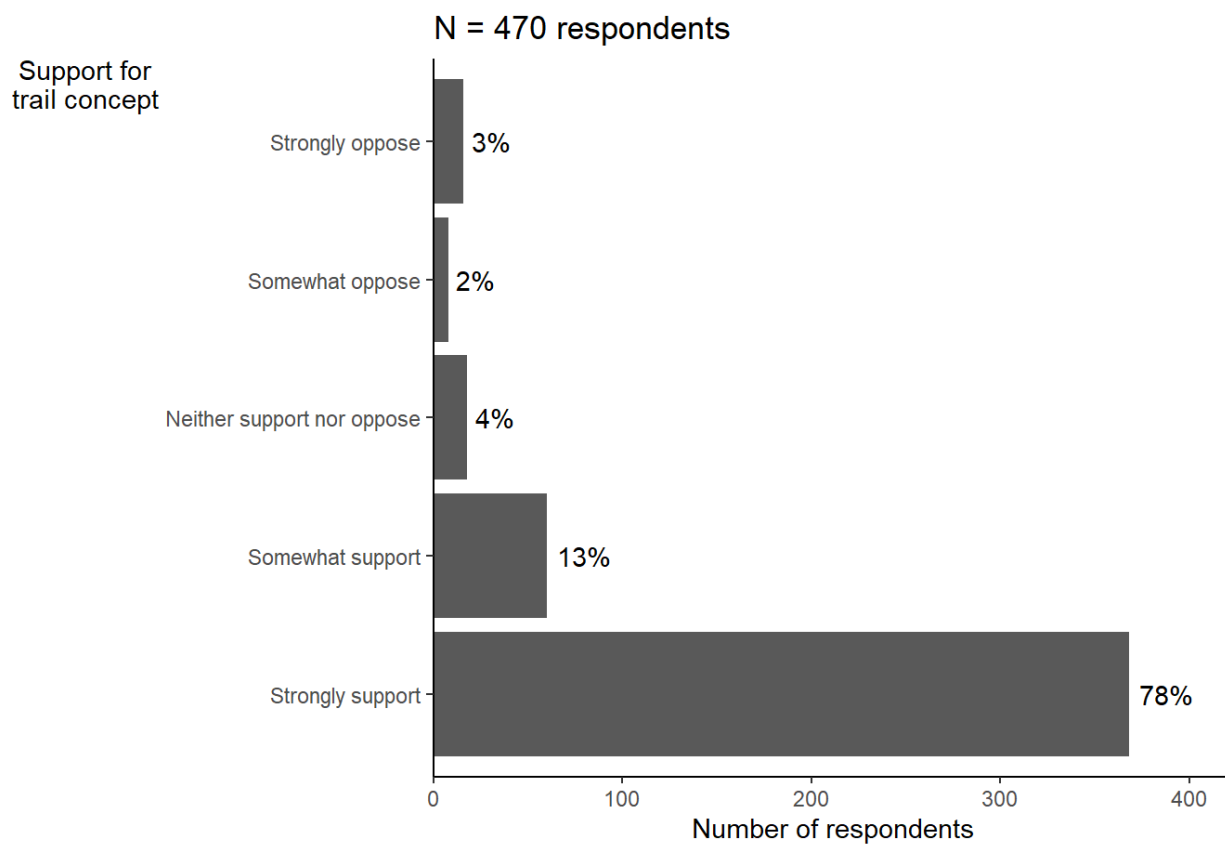


Figure 5. Level of support for BERT trail.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Trail Alignment Ranking

### Question 4

*Question 4 was asked of all respondents.*

Please rank the trail alignment options from most preferred to least preferred by moving each trail alignment into your preferred order. To rank the trail alignment options, drag the preferred option to the top of the list, your second choice to the middle of the list, and your least preferred option to the bottom of the list.

*Note: It is important to note that the description of Alignment C overstated the benefits to ecological resources in the area and makes it seem like it is more environmentally/habitat friendly than Alignment A. When proposing the routes outside of the RTD ROW (Alignment A), the primary goal was to explore other potential options in the hope of finding a less ecologically impactful way to connect Erie and Boulder with a regional trail. Because Alignment C avoided areas of ecological concern in the RTD ROW, it was initially believed that Alignment C could be less ecologically impactful option. After studying the alignments with project partners, it was determined that Alignment C likely has the greatest ecological impact based on existing data.*

Results (Figure 6, Figure 8, Figure 10, and Table 3)

- Figure 6, Figure 8, and Figure 10 show the results of how respondents ranked each of three proposed trail alignments. Trail Alignment C (alignment partially on OSMP lands between 75<sup>th</sup> and 95<sup>th</sup>) was ranked the highest with a majority of respondents (56%) ranking it as their top choice.
- Trail Alignment A (alignment entirely within RTD right-of-way) was the second most highly ranked proposed trail alignments, with 37% ranking it as their top choice.
- Trail Alignment B (alignment on Valmont between 75<sup>th</sup> and 95<sup>th</sup>) was the least preferred of the three trail alignments with only 7% of respondents ranking it as their top choice, and 72% ranking it as their third choice.
- Table 3 further shows that Trail Alignment C was preferred by respondents with the lowest mean and median ranking score, demonstrating a higher percentage of respondents ranked it as their number one choice, followed by Trail Alignment A which respondents ranked as their second choice, followed Trail Alignment B which respondents ranked as their third choice.
- While it is clear from the survey that Alignment B was the least preferred (considering on-trail safety and visitor experience), it is less clear that Alignment C would still be the most preferred considering its impacts to natural resources because two of the four top factors respondents indicated influenced their choice of the preferred alignment(s) for further consideration were: protection of wildlife habitat (40%) and protection of the environment (35%). The detailed evaluation of the alignments conducted with project partners is in progress and will be available as part of the final planning documents for the BERT project.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

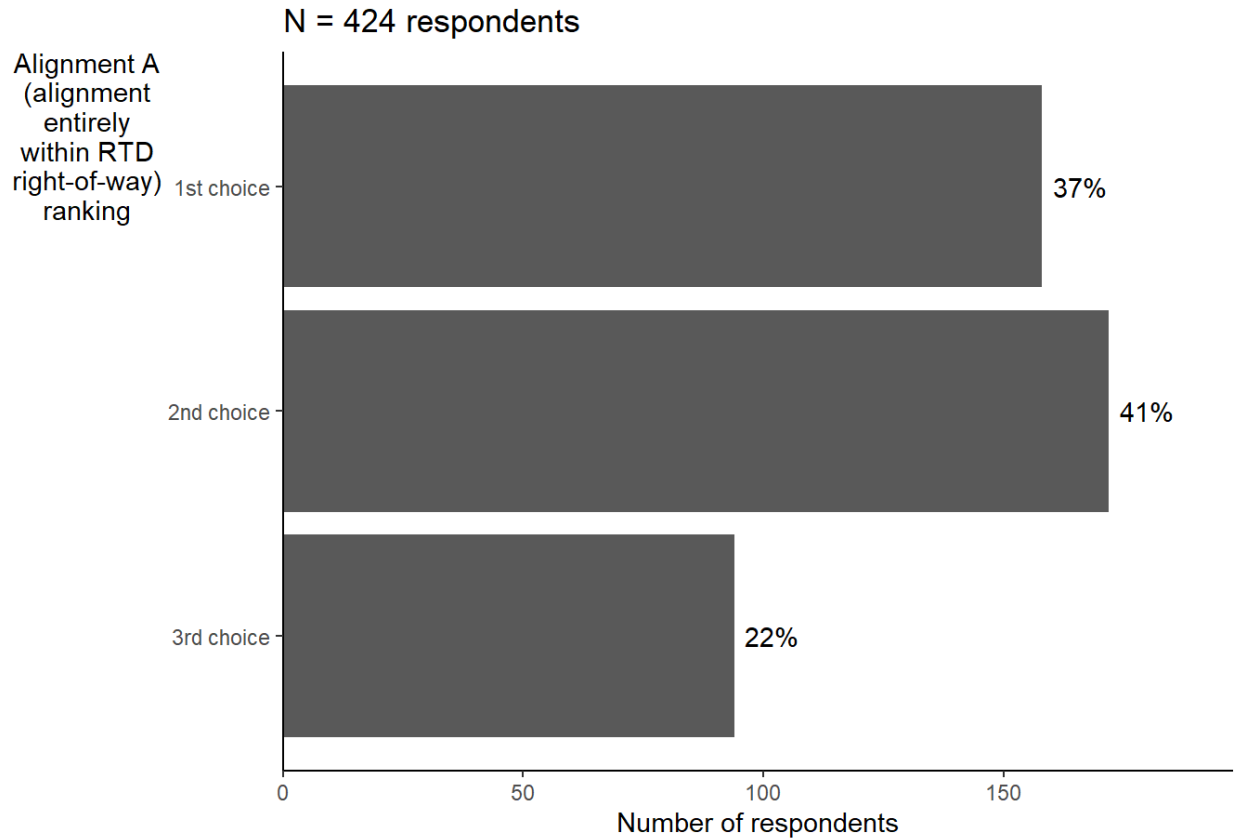


Figure 6. Ranked preference for Trail Alignment A.

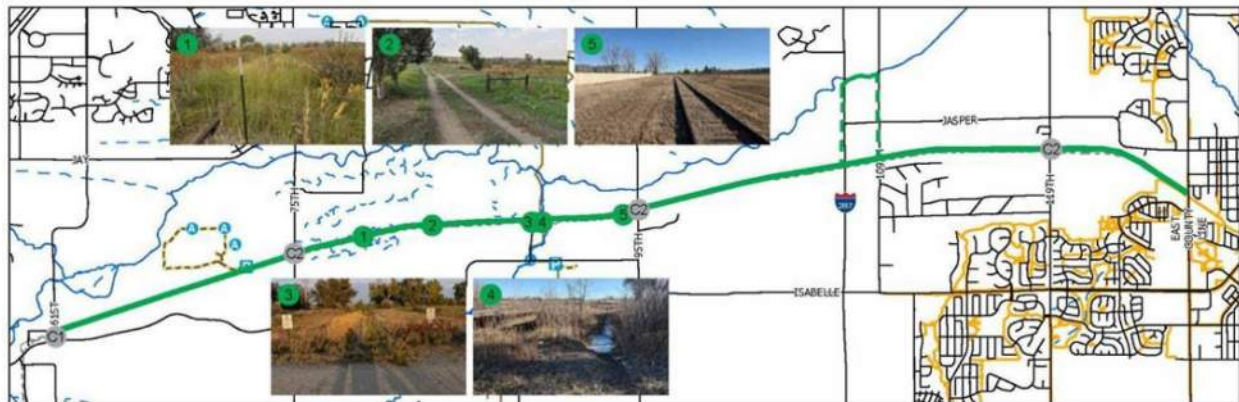


Figure 7. Trail Alignment A

- This alignment is fully in the Regional Transportation District (RTD) right-of-way.
- The trail is on top of the existing rail bed in certain sections.
- East of 75th the RTD right-of-way is wet in many areas.
- East of 75th the RTD right-of-way crosses sensitive habitats.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

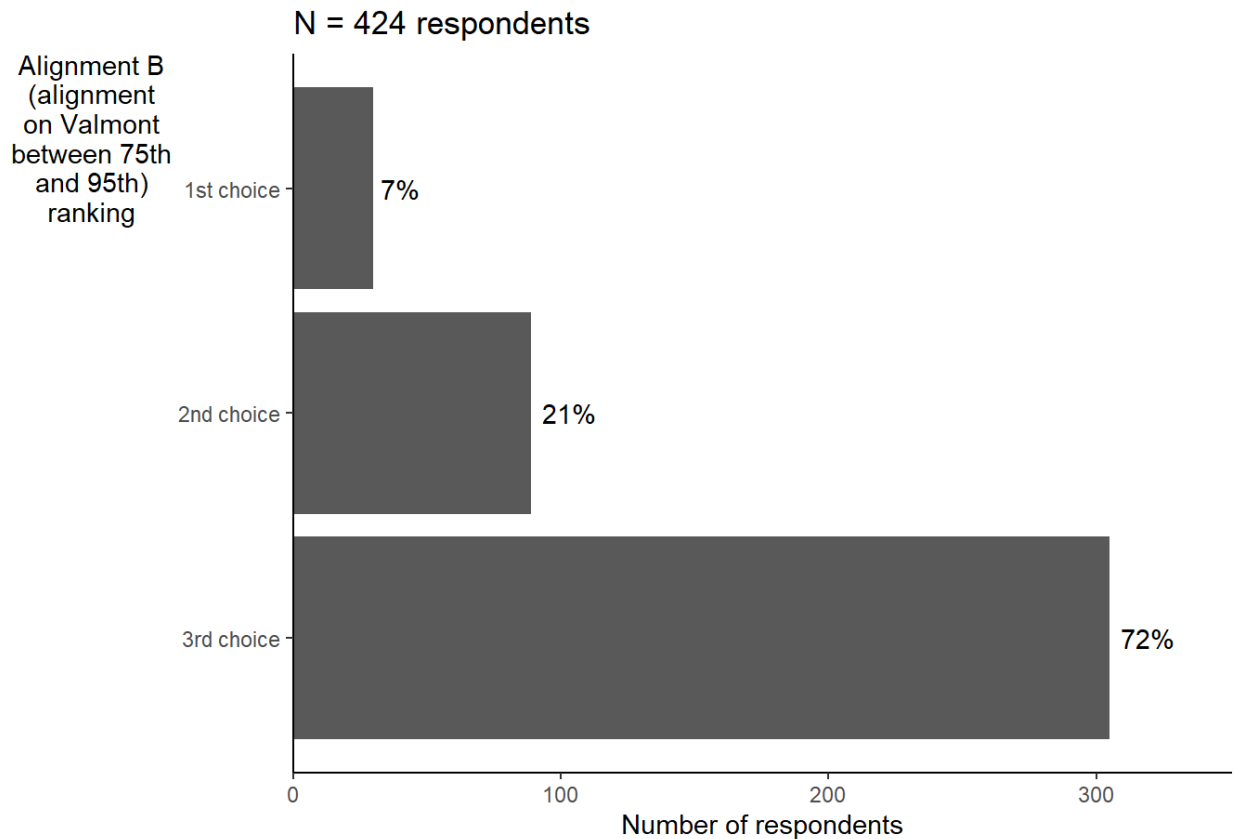


Figure 8. Ranked preference for Trail Alignment B.

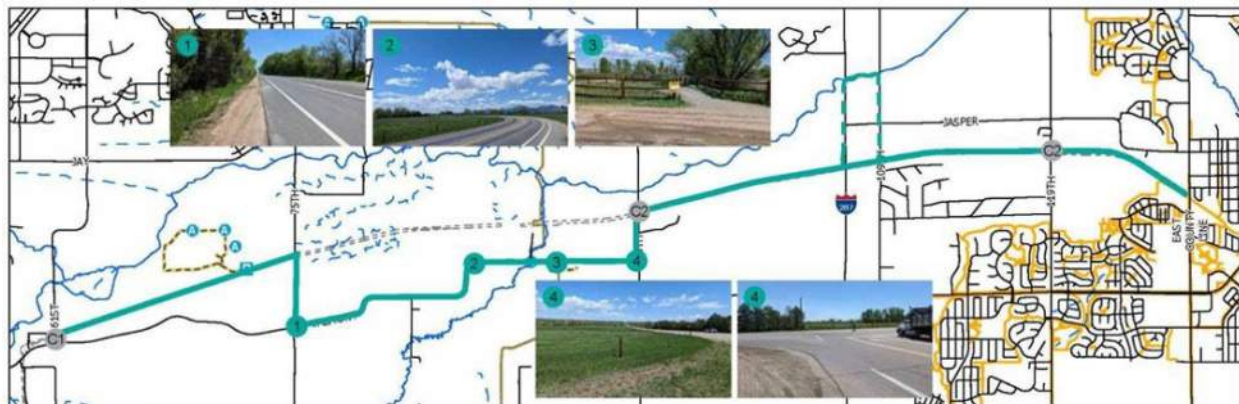


Figure 9. Trail alignment B

- This alignment is in the RTD right-of-way from 61st to 75th.
- Uses the City of Boulder Open Space and Mountain Parks (OSMP), and Boulder County (BOCO) rights-of-way/Valmont around the 75th to 95th section to avoid wet areas and sensitive habitats.
- Valmont right-of-way is narrow and has many driveways.
- The trail when in the RTD right-of-way is on top of the existing rail bed in certain sections.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

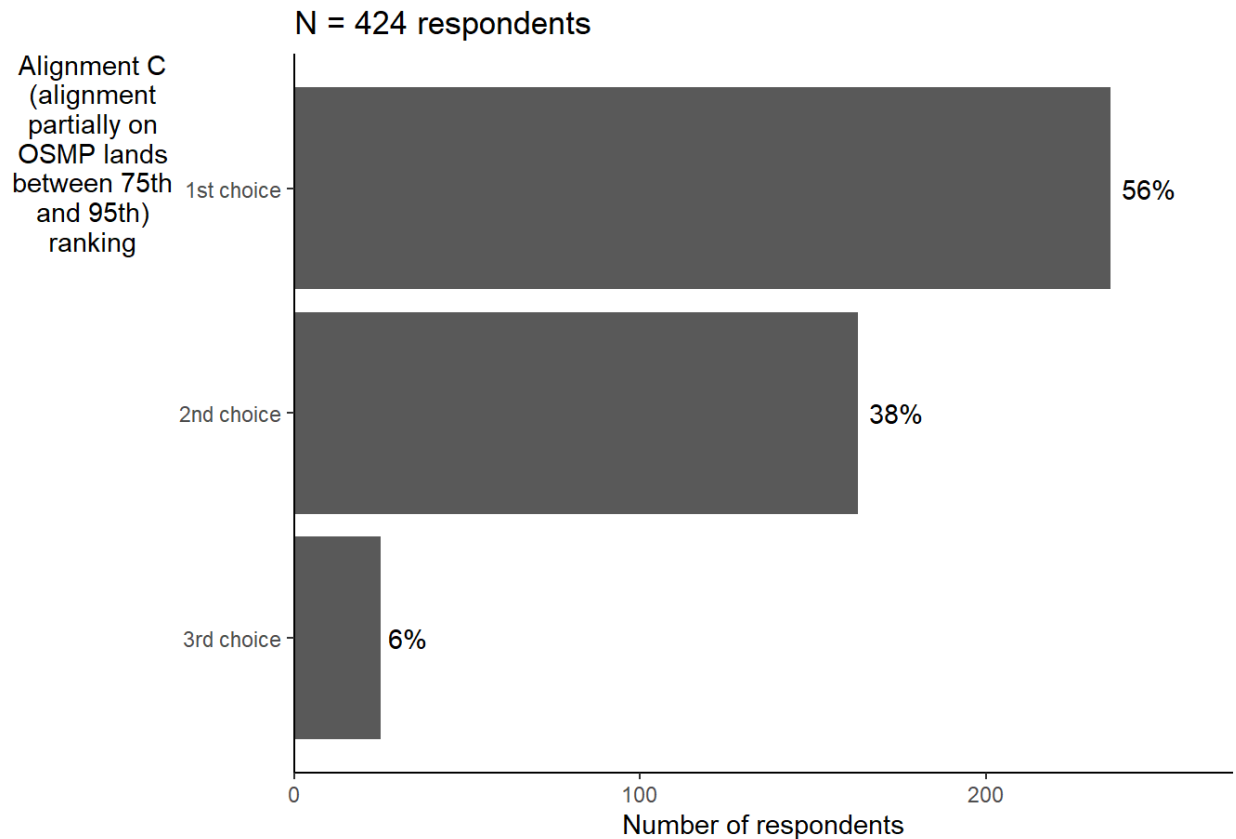


Figure 10. Ranked preference for Trail Alignment C.

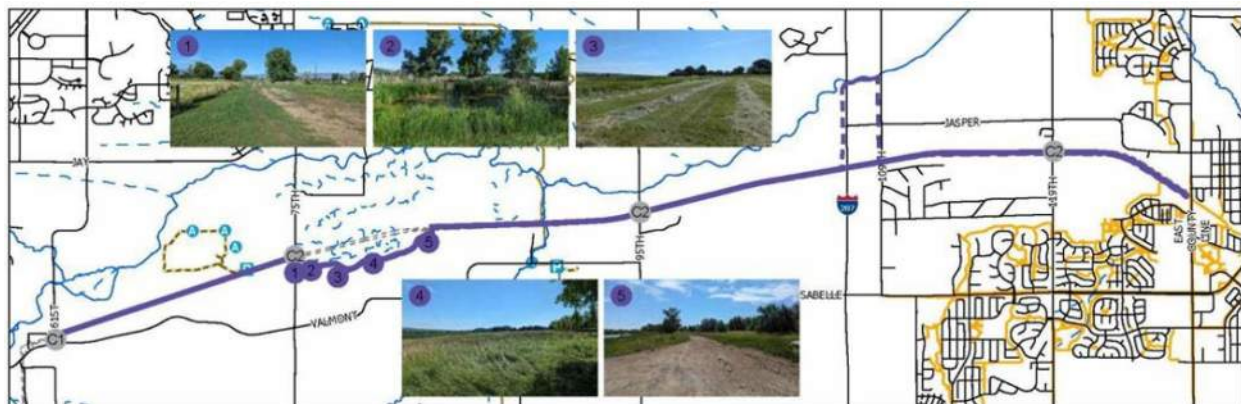


Figure 11. Trail alignment C

- This alignment uses the RTD right-of-way from 61st to 75th.
- Uses BOCO, OSMP, and RTD rights-of-way from 75th to 95th section to avoid some wet areas and sensitive habitats.
- The trail when in the RTD right-of-way is on top of the existing rail bed in certain sections.

*Note: This description does not reflect the findings of the analysis that indicate that Alignment C is more impactful to sensitive habitats and in some areas more wet than the other alignments.*

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer



**Table 3. Trail alignment ranking statistics. Lower mean values indicate a higher preference for the trail alignment.**

ALIGNMENT	N	MEAN	MEDIAN	STD. DEVIATION
Alignment A	424	1.85	2	0.76
Alignment B	424	2.65	3	0.61
Alignment C	424	1.50	1	0.61

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Trail Alignment Decision Factors

### Question 5

Question 5 was asked of all respondents.

Please choose no more than three of the factors from the list below that influenced your decision about your preferred trail alignment option (your top choice in the previous question). (Select up to three factors)

Results (Figure 12 and Table 4)

- Respondents were asked to indicate up to three decision factors that influenced their choice of top trail alignments in the previous question. A majority of respondents (57%) indicated that on-trail safety influenced their choice of preferred trail alignment(s) for further consideration. More than one-third of respondents also indicated that protection of wildlife habitat (40%), recreational value (38%), and protection of the environment (35%) influenced their choice of preferred trail alignment(s) for further consideration.
- Table 4 lists other decision factors that influenced some respondents' choice of preferred trail alignment(s) for further consideration.

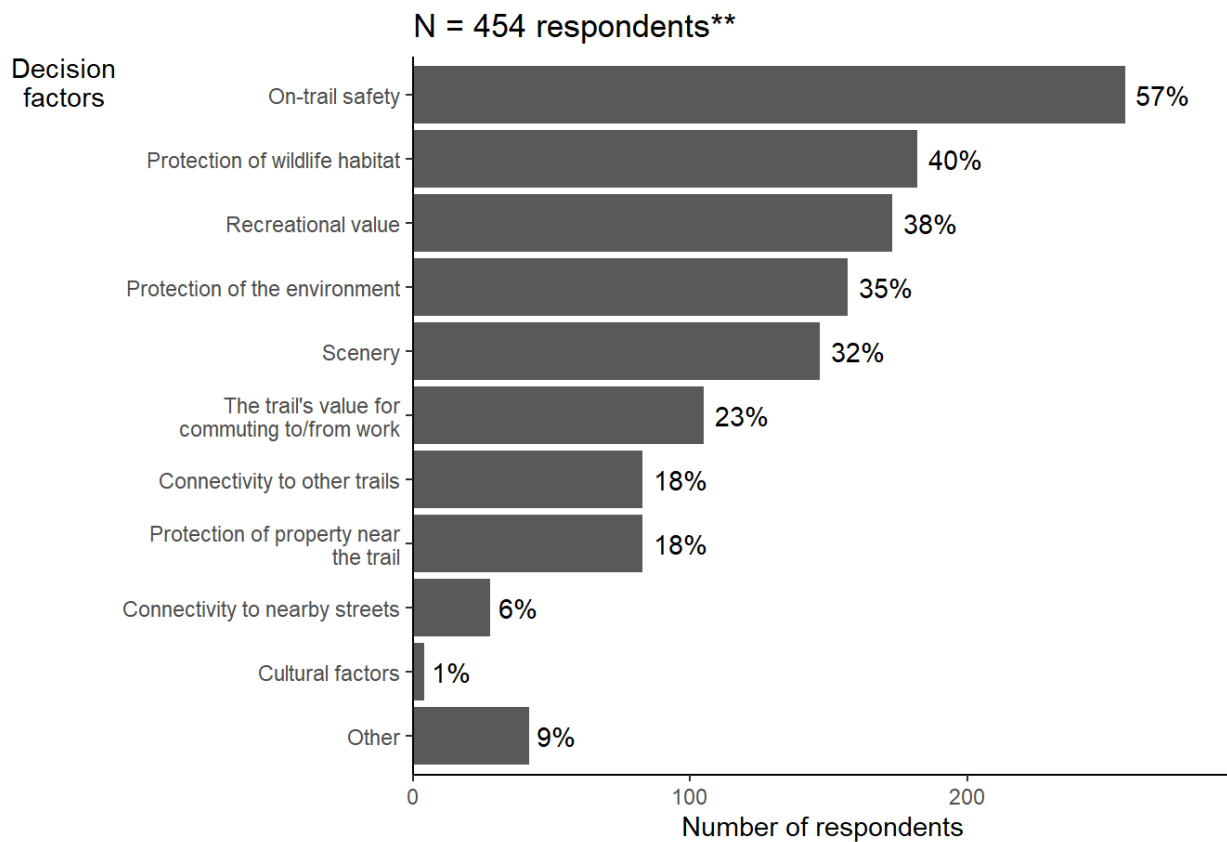


Figure 12. Top three decision factors used to choose preferred trail alignment(s) for further consideration.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**Table 4. Other decision factors used to choose preferred trail alignment(s) for further consideration.**

OTHER DECISION FACTORS
ABILITY TO AVOID TRAIL CLOSURES RELATED TO WET-SEASON OVERFLOW.
AMOUNT OF TRAIL NEXT TO HEAVILY TRAVELED ROADS
AVOID VEHICLE PROXIMITY
AVOIDANCE OF ROADS
AVOIDS HAVING TO USE VALMONT WHERE CARS INCREASE RISK TO CYCLISTS
AWAY FROM ROADS AS MUCH AS POSSIBLE
CLOSENESS TO OUR HOUSE
CONTINUITY
COST OF ON-GOING MAINTENANCE
COST TO BUILD/ QUICKER COMPLETION
DIRECTNESS
EASE OF USE AND AVOIDING TRAFFIC
EASE TO MOVE FROM ONE SIDE TO THE OTHER
FOLLOWS RR TRACKS
FURTHER FROM ME
I DO NOT KNOW ENOUGH ABOUT THE AREAS WEST OF 287 TO MAKE AN ACCURATE JUDGEMENT
I DON'T CARE BUT IT WILL CAUSE TRAFFIC IN MY AREA SO I AM AGAINST IT
I LIVE OFF VALMONT, AND I DON'T WANT MORE RIDING ON VALMONT. ITS DANGEROUS. I'D LIKE TO BE IN A PROTECTED MORE NATURAL AREA.
I WOULD LIKE TO BIKE MY KIDS AND THE ROADS ARE NOT SAFE FROM MY HOUSE. WOULD LIKE TO AVOID AS MUCH ROAD RIDING AS POSSIBLE
MAINTAINING PRIVACY FOR ALL HOME OWNERS
MINIMIZE TRAVEL DISTANCE.
NARROW AND MANY DRIVEWAYS IS A NEGATIVE FACTOR
OFF OF THE ROAD WHERE SHARING WITH MOTOR VEHICLES.
OPTION B IS RIDING ON VALMONT AND THAT IS THE WHOLE REASON FOR NOT RIDING MY BIKE. IT WOULD BE GREAT TO STAY OFF OF ALL MAJOR ROADS WITH CHILDREN.
PEOPLE WILL TRY TO FISH IN THE PROTECTED BOULDER CREEK. KEEP THE TRAIL FAR AWAY
PROTECTION OF THE WETLANDS SUGGESTED IN TRAIL B. B WOULD NEGATIVELY IMPACT THE WILDLIFE AND PROTECTED WETLANDS. I STRONGLY SUPPORT PROPOSED TRAIL A.
SEEMINGLY QUICKEST
SHORTER DISTANCE TO/FROM BOULDER/ERIE - SIMPLER PATH
SHORTEST / MOST COMPACT
SIMPLE CROSSING AT 75TH ST / C2
SOME CONCRETE
STAYING OUT OF WET AREAS. I LIKE A DRY TRAIL WHEN WALKING OR EBIKING.
STRAIGHT PATH, RATHER THAN GOING AROUND . . .
SUFFICIENTLY SMOOTH FOR EASY BICYCLING
THE EXISTING RAIL BED IS ALREADY RAISED ABOVE THE WETLANDS
THE STRAIGHTEST SHOT
USING THE EXISTING RAILED WOULD SEEM PRACTICAL
VALMONT HAS GOTTEN QUITE BUSY WITH LOTS OF CARS PASSING DANGEROUSLY
WET, WANT TO BE ABLE TO USE IT ALL YEAR
WETNESS
WOULD NOT USE THIS TRAIL
YEAR-ROUND USABILITY - LESS WET

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Preferred US 287 Crossing Option

Question 6

Question 6 was asked of all respondents.

Which of the two options for crossing US 287 do you prefer? (Select one)

Results (Figure 13)

- Most respondents (86%) preferred the underpass option in the RTD right-of-way for crossing US 287.
- See Appendix A for a diagram of the two crossing options.

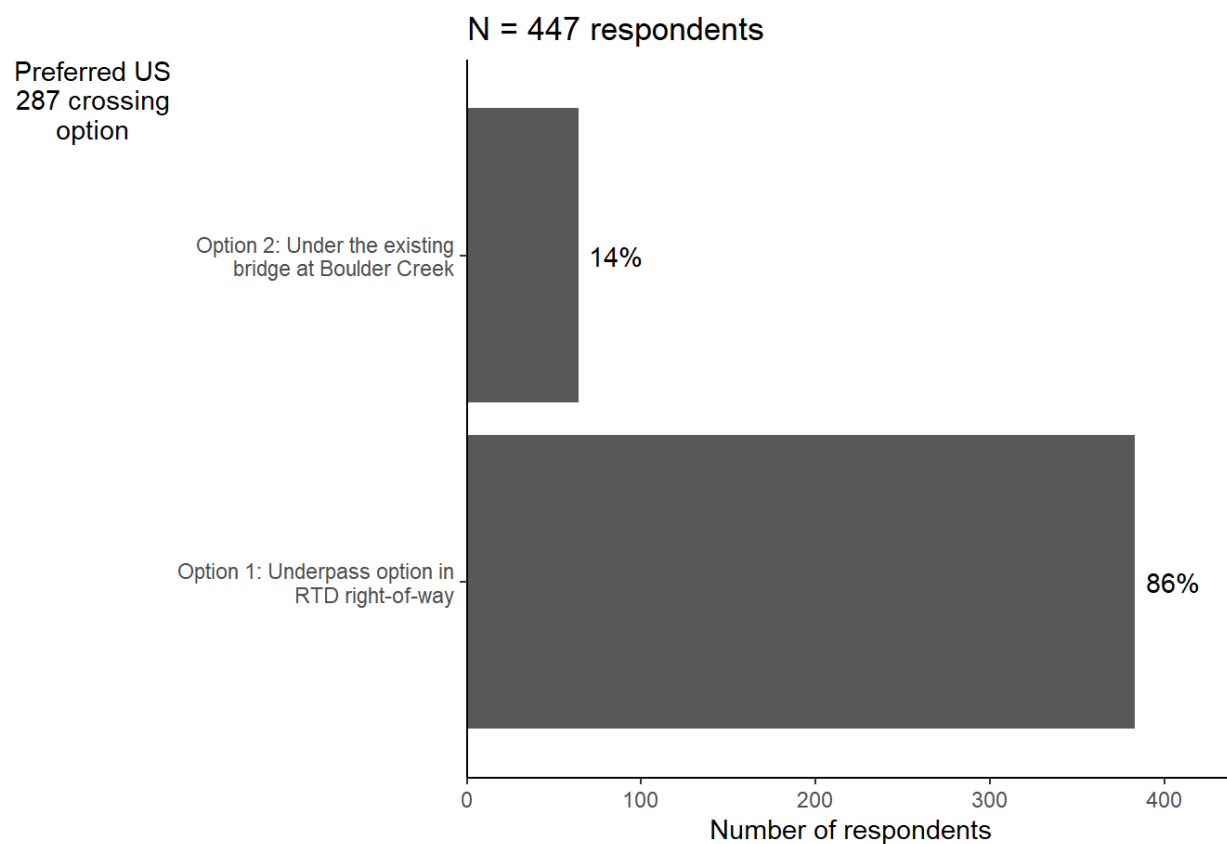


Figure 13. Preferred US 287 crossing option.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Intention to Use BERT Trail

### Question 7

Question 7 was asked of all respondents.

Would you use the trail if built? (Select one)

Results (Figure 14)

- Most respondents (93%) indicated that they intended to use the BERT trail if it is built.

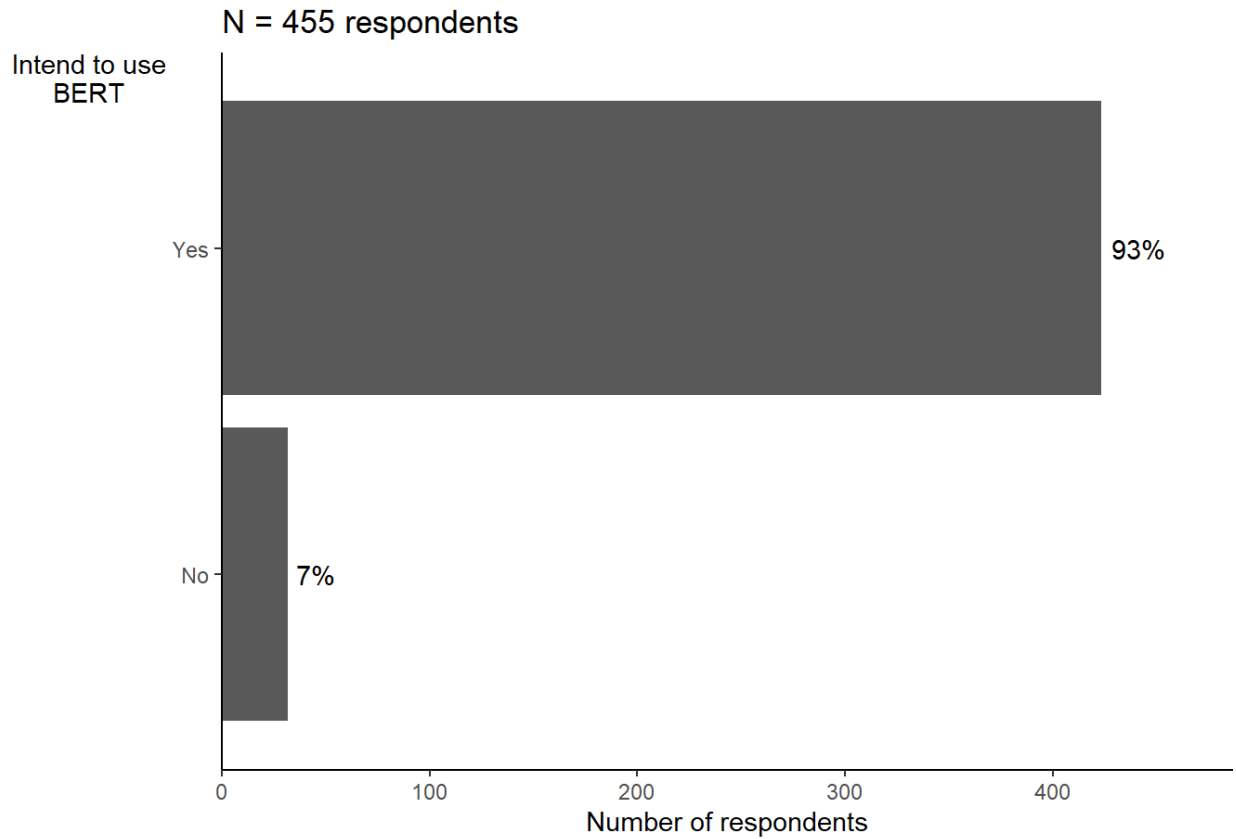


Figure 14. Intention to utilize the BERT trail if built.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

Question 7a

Question 7a was asked of respondents who indicated they intended to use the trail in Question 7.

How would you use the trail? (Select all that apply)

Results (Figure 15 and Table 5)

- Nearly all respondents who indicated they intended to use the BERT trail (99%) indicated that they intended to use the trail for recreation/exercise.
- Smaller percentages of respondents indicated that they intended to use the trail for commuting to/from work (30%), to visit family/friends (28%), to run errands (24%), and to access services (15%). Less than 10% of respondents indicated any other intended used of the trail.
- Table 5 shows other potential uses for the BERT trail that respondents listed.

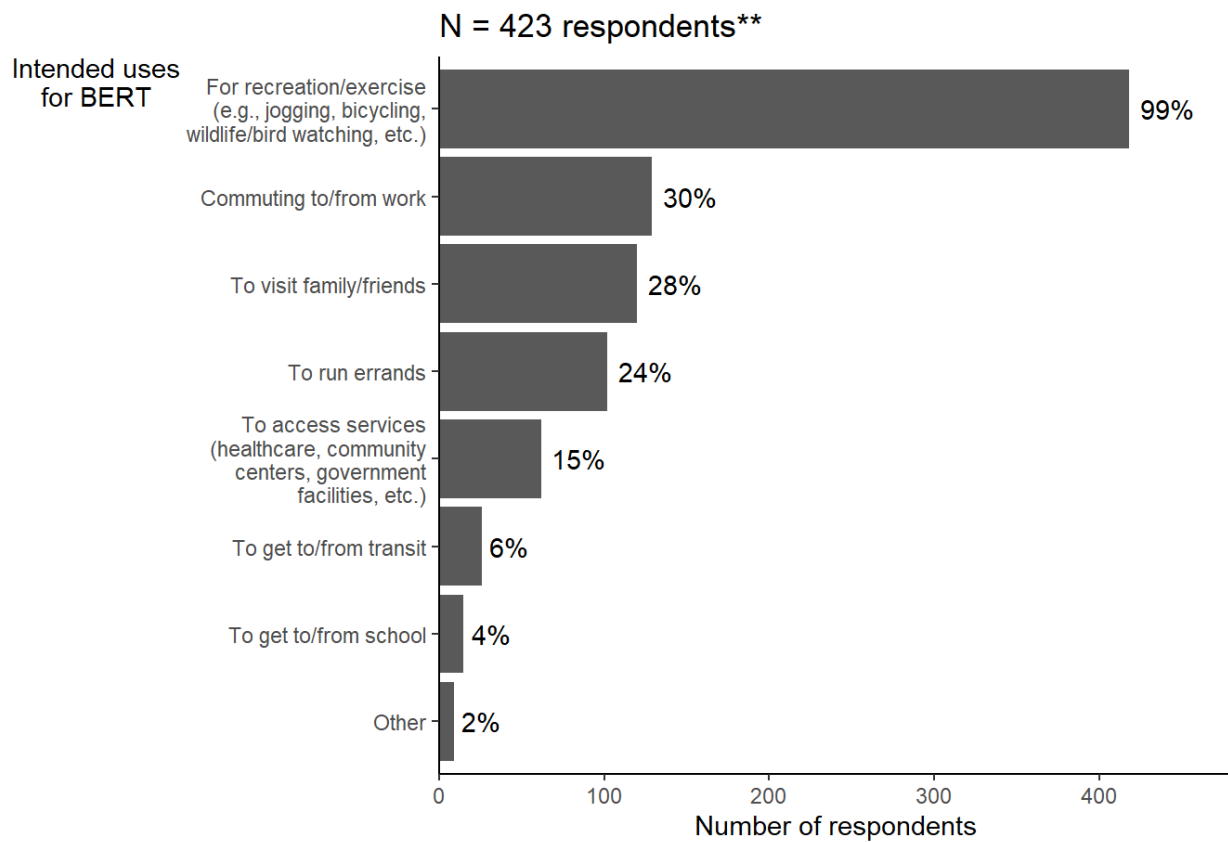


Figure 15. Types of uses for the BERT trail.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**Table 5. Listed other uses for the BERT trail.**

OTHER USES OF THE BERT TRAIL
CARTWHEELS
ENJOY NATURE IN EAST COUNTY
GET TO DOWNTOWN BOULDER FOR FOOD AND DRINK ALL THE TIME. WE LOVE RIDING OUR E-BIKES BUT CAN'T GET TO BOULDER FROM ERIE SAFELY.
I WOULD USE IT TO COMMUTE TO WORK IF I WORKED IN BOULDER.
MAYBE TO COMMUTE TO WORK SINCE MY WORK LOCATION MIGHT BE CHANGING
TO RIDE TO BOULDER FOR ENJOYMENT
TO TRAIN MY PACK LLAMAS IF ALLOWED
TRAVEL TO BOULDER FOR CU GAMES, CONCERTS, DINNER, FESTIVALS AND EVENTS AT CHAUTAUQUA
WALK DOGS

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

Question 7b

Question 7b was asked of respondents who indicated they intended to use the trail in Question 7.

Do you intend to use the trail more for transportation or for recreation/exercise? (Select one)

Results (Figure 16)

- A majority of respondents (79%) indicated they would use the BERT trail primarily for recreation/exercise, with 33% indicating they would use the trail exclusively for recreation/exercise, while 46% indicated they would use the trail mostly for recreation/exercise, but might also use the trail for transportation purposes.

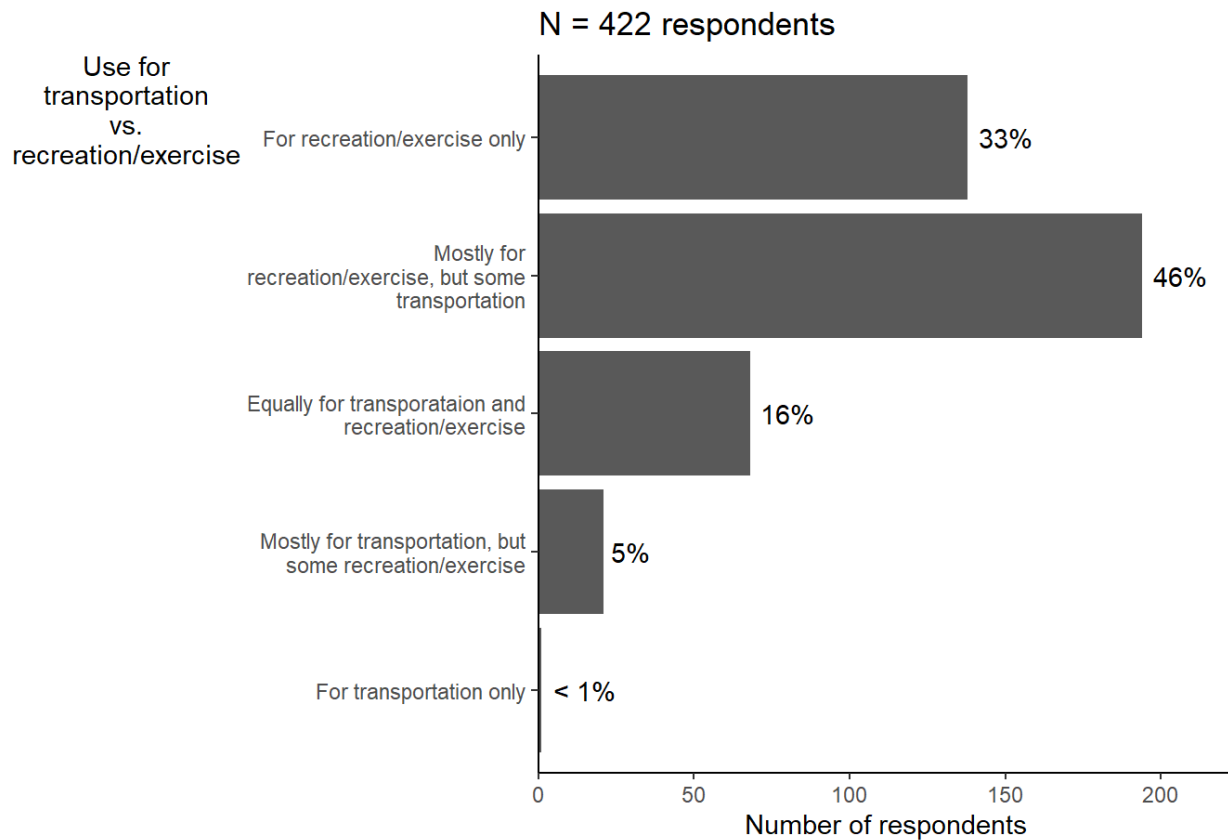


Figure 16. Intended transportation or recreational use of the BERT trail.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer



Question 7c

Question 7c was asked of respondents who indicated they intended to use the trail in Question 7.

About how often would you use the trail if it were built? (Select one)

Results (Figure 17)

- A majority of respondents (52%) indicated that they expect to use the BERT trail between one and four days per week, with 26% indicating 1-2 days per week, and 26% indicating 3-4 days per week. An additional 24% of respondents indicated they expect to use the trail more than once per month, but less than once per week. In all, 90% of respondents expect to use the trail more than once per month.

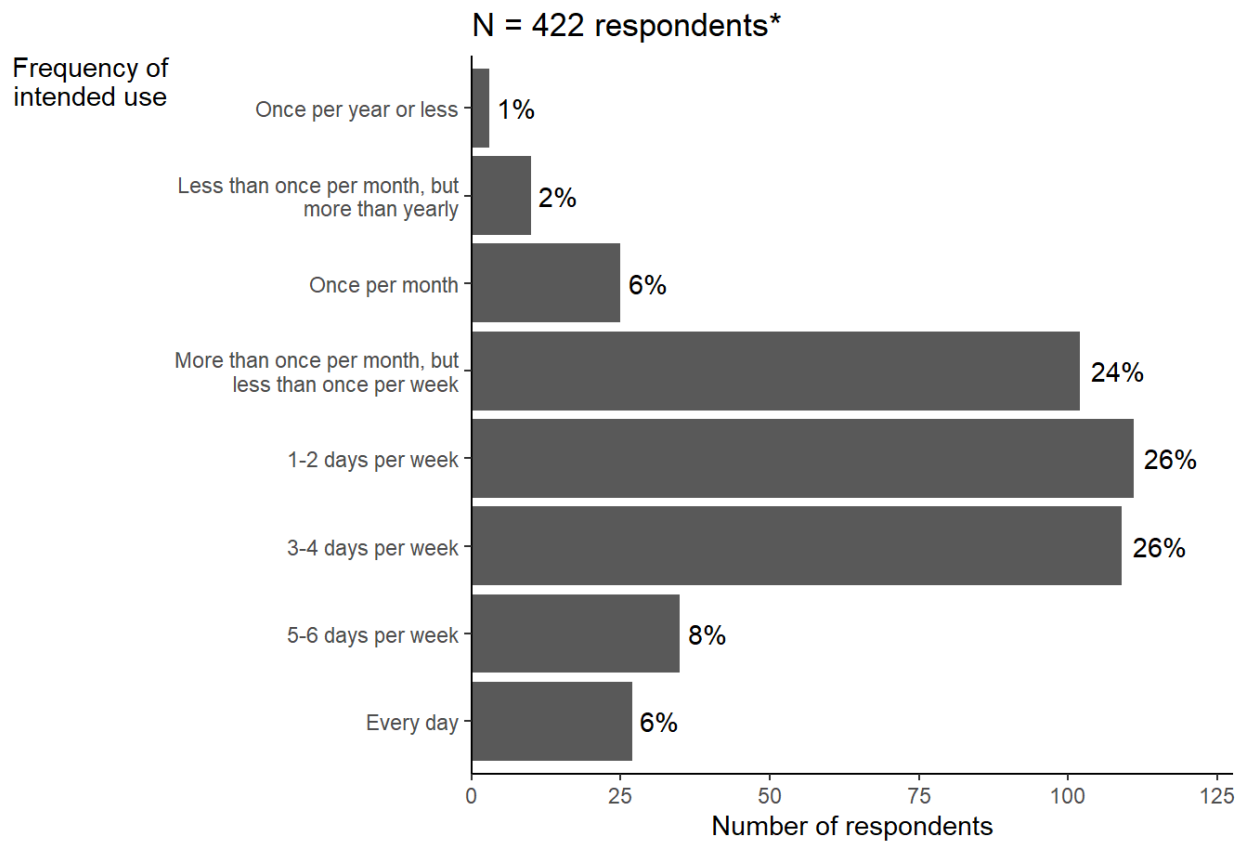


Figure 17. Intended frequency of use of the BERT trail.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

Question 7d

Question 7d was asked of respondents who indicated they did not intend to use the trail in Question 7.

Why would you choose not to use the trail? (Select all that apply)

Results (Figure 18 and Table 6)

- The small number of respondents who indicated they do not intend to use the BERT trail were asked to indicate some of their reasons for not using it. Nearly a quarter of respondents who do not intend to use the trail (22%) indicated that they would not feel safe on the trail.
- A majority of respondents who indicated they do not intend to use the BERT trail (62%) listed another reason for not using the trail. These reasons are shown in Table 6.

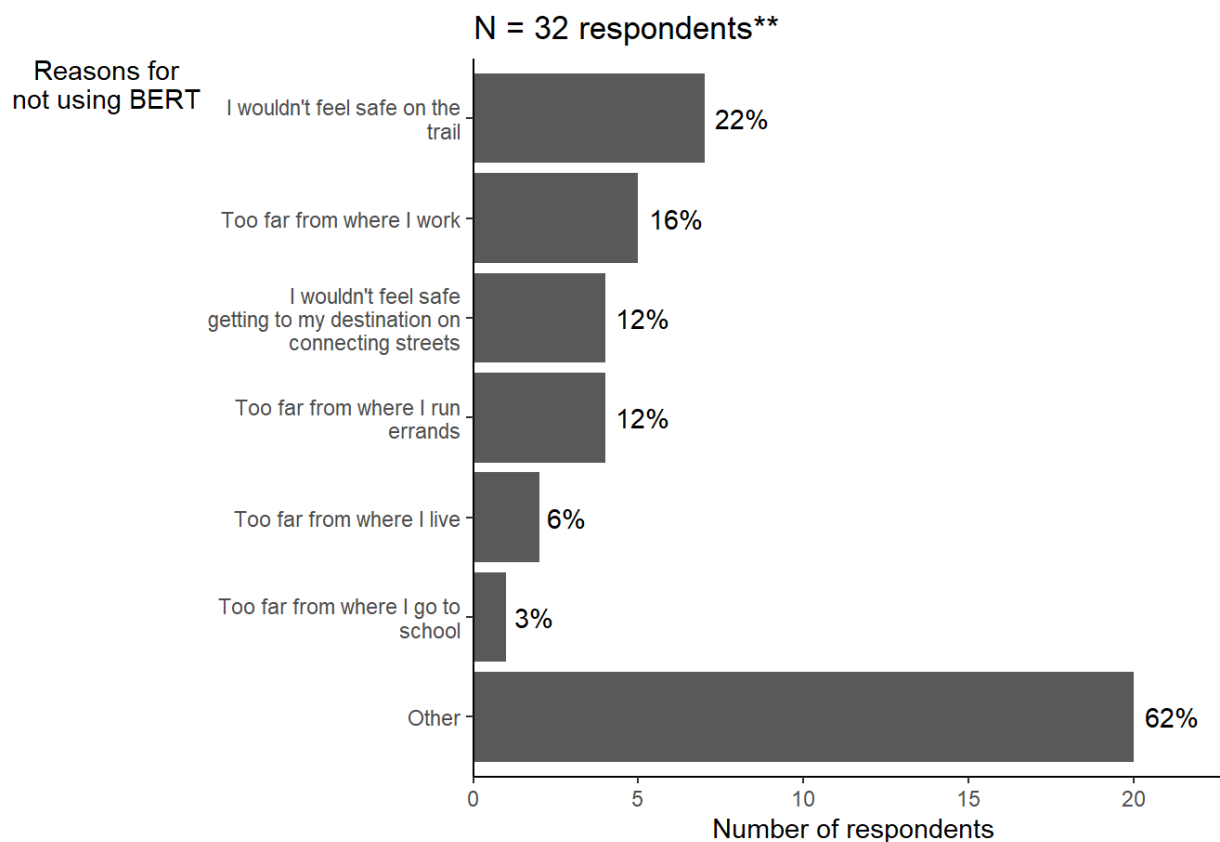


Figure 18. Reasons respondents did not intend to use the BERT trail.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**Table 6. Other reasons listed for not using the BERT trail.**

OTHER REASONS
ADJACENT PROPERTIES AFFECTED
DON'T WANT BOULDERS HOMELESS EASILY WALKING TO ERIE.
I DO NOT HAVE TIME TO GET TO TRAIL HEADS I RECREATE IN MOUNTAINS
I DON'T BIKE OR USE TRAILS
I DON'T WANT TO DISTURB WILDLIFE AND ENVIRONMENT
I HAVE NO NEED TO USE THIS TRAIL. I DO NOT BELIEVE THAT IT IS REALISTIC TO BELIEVE THAT EIRE OR BOULDER RESIDENTS ARE GOING TO FORGO THEIR CARS AND COMMUTE VIA BIKE. MONEY WOULD BE BETTER INVESTED IN OTHER PROJECTS
I HAVE OTHER OPTIONS BESIDE THE TRAIL.
I PREFER TO HIKE IN THE MOUNTAINS
I WALK DAILY BUT WOULD WALK ALL THE WAY TO BOULDER. I MAY USE PARTS OF THE TRAIL BUT THERE ARE OTHER TRAILS NEAR ME I AM HAPPY WITH.
II LIKE PAVED PATHS FOR MY ROAD BIKE.
IT IS TOO CLOSE TO MY HOME I DON'T WANT ALL THAT TRAFFIC
IT WILL BRING HOMELESS AND OBNOXIOUS BIKERS FROM BOULDER TO ERIE
MIGHT USE ONCE JUST FOR RECREATION
NO DESIRE TO GO TO BOULDER
NO NEED TO TRAVERSE BOULDER TO ERIE!
NOT ON MY COMMUTE NOR DO I ANTICIPATE ERIE VISITS
PLENTY OF OTHER TRAIL OPTIONS. NO NEED.
PRINCIPAL
THIS WOULD BE FOR RECREATIONAL USE ONLY. THERE IS NOTHING IN BETWEEN FOR ERRANDS, ETC. I BELIEVE IT IS TOO LONG FOR FAMILY RECREATION SO THERE WOULD BE LIMITED HARD CORE BIKE USERS AND RUNNERS (IF CORRECT RUNNING SURFACE). ALSO CURRENTLY THERE IS SO MUCH INTERFERENCE BETWEEN BIKERS AND WALKERS. BIKES BOTH STANDARD AND ELECTRIC ARE COMING UP SO FAST ONTO WALKERS, WALKERS GET LIMITED NOTICE OF THEM COMING. THIS COULD BE HARMFUL. CAN EMERGENCY VEHICLES GO ON THIS PATH? PATH WOULD NEED TO HAVE NUMEROUS SIGNS ABOUT SPEED, PASSING, ETC.
TOTALLY UNNECESSARY

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Proximity to BERT Trail

### Question 8

Question 8 was asked of all respondents.

Approximately how close do you live to any of the proposed trail alignments? (Select one)

Results (Figure 19)

- A majority of respondents (61%) live within a half mile of one of the proposed trail alignments.

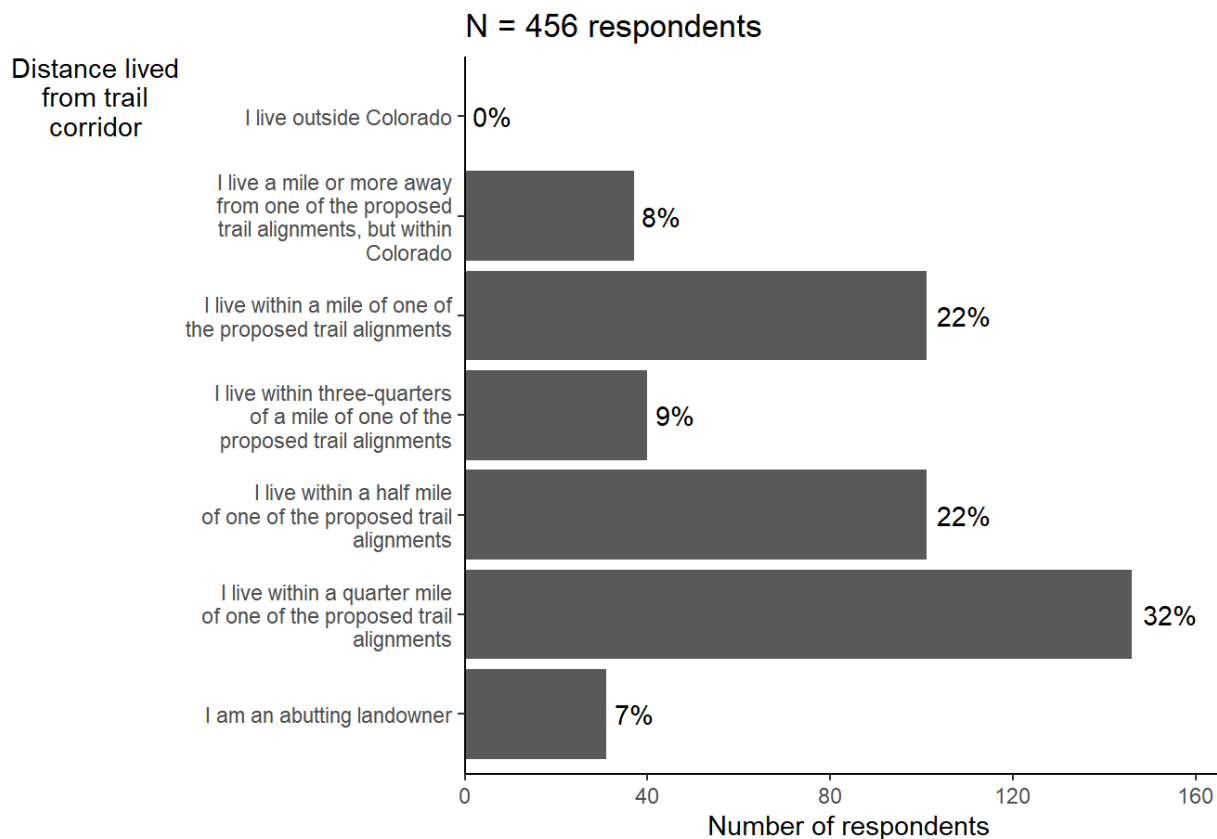


Figure 19. Distance lived away from the BERT trail.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Participation in Public Outreach Opportunities

### Question 9

Question 9 was asked of all respondents.

Have you participated in any of the public outreach opportunities about the development of this trail? (Select one)

Results (Figure 20)

- A relatively small percentage of respondents (14%) have previously participated in any of the public outreach opportunities about the development and planning of the BERT trail.

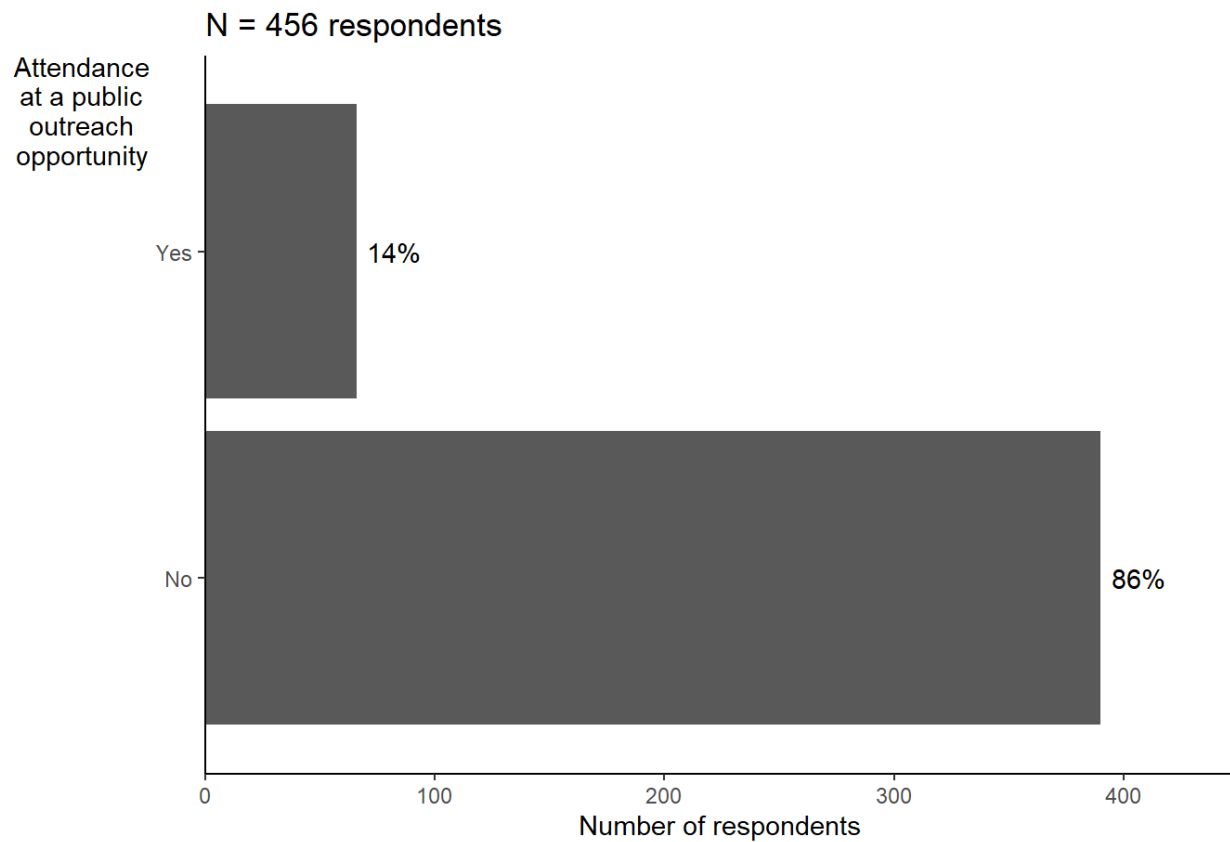


Figure 20. Participation in public outreach about the BERT trail.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Respondent Age

Question 10

Question 10 was asked of all respondents.

What is your age?

Results (Figure 21)

- Some respondents (13%) preferred not to disclose their age.
- Among those respondents who disclosed their age, there is a broad distribution of age among respondents, with similar percentages of respondents across age categories from 35 years old to over 70 years old.
- Only a small percentage of respondents (6%) reported ages under 35 years old, with no one under the age of 25 responding to the survey.

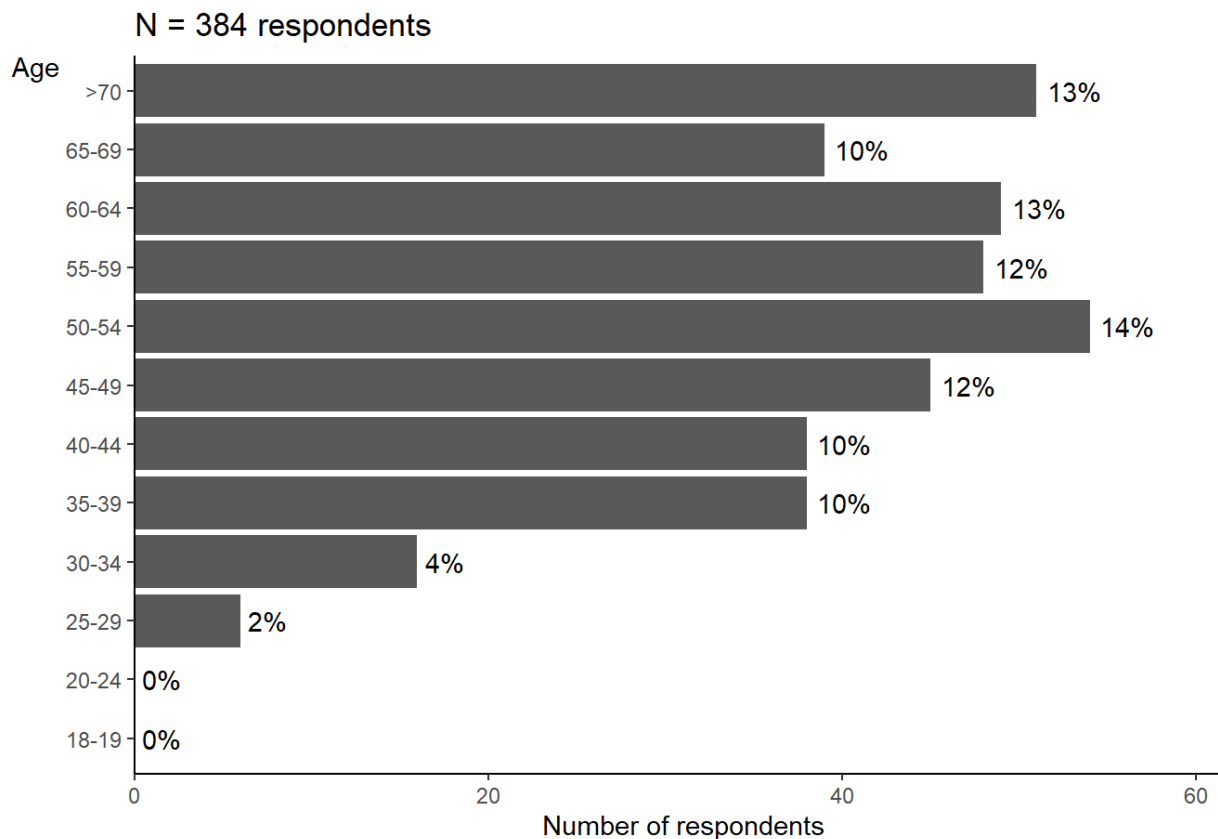


Figure 21. Respondent age.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Respondent Gender

Question 11

Question 11 was asked of all respondents.

What is your gender identity? (Select one)

Results (Figure 22)

- A majority of respondents (58%) were male, while one-third (33%) were female.
- A small percentage of respondents (8%) preferred not to disclose their gender identity.

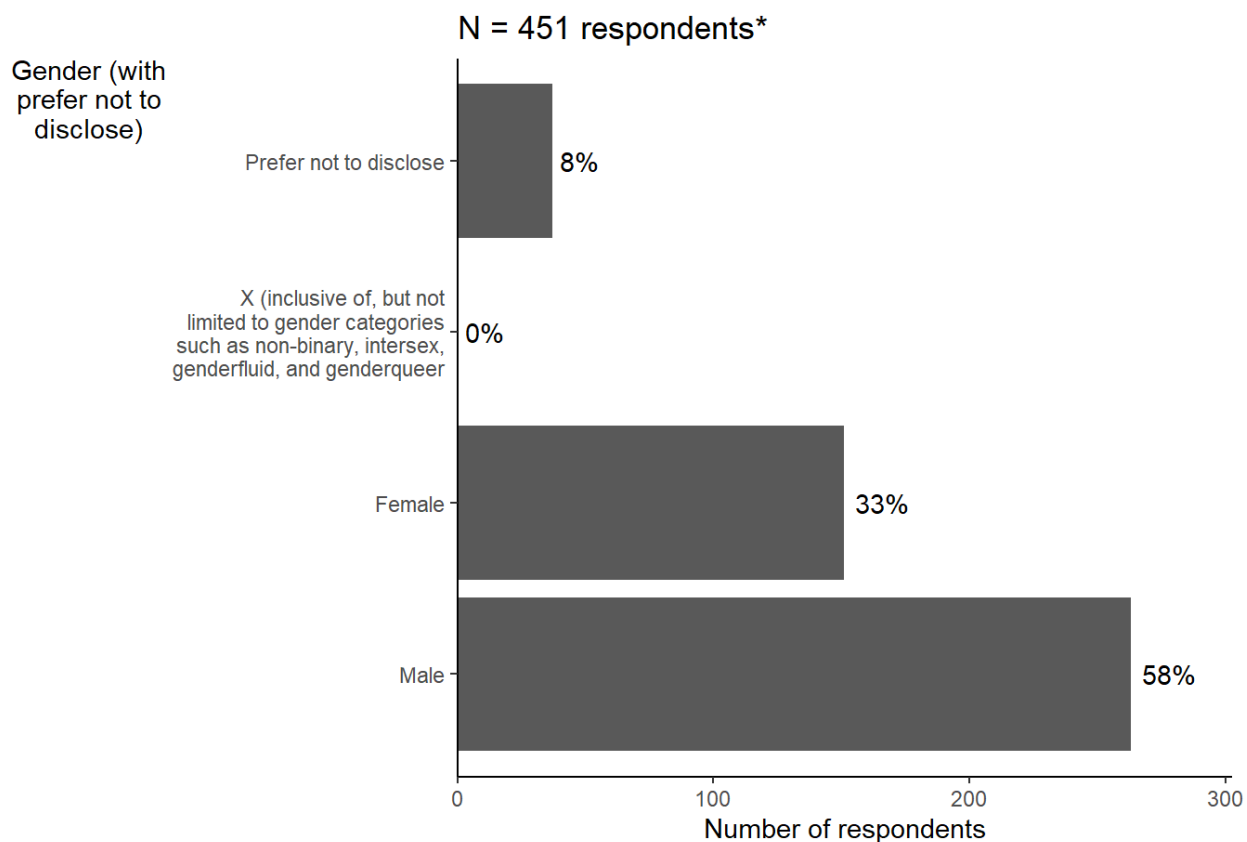


Figure 22. Respondent gender identity.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Respondent Race/Ethnicity

Question 12

Question 12 was asked of all respondents.

What ethnic and/or racial groups do you belong to? (Select all that apply)

Results (Figure 23 and Table 7)

- Most respondents (81%) were White or Caucasian, while 2% of respondents indicated were Asian, and 2% indicated they were of Hispanic, Latino, or Spanish origin.
- A relatively small percentage of respondents (14%) preferred not to disclose their race or ethnicity.
- The list of self-described race or ethnicities provided by respondents (1%) is shown in Table 7.

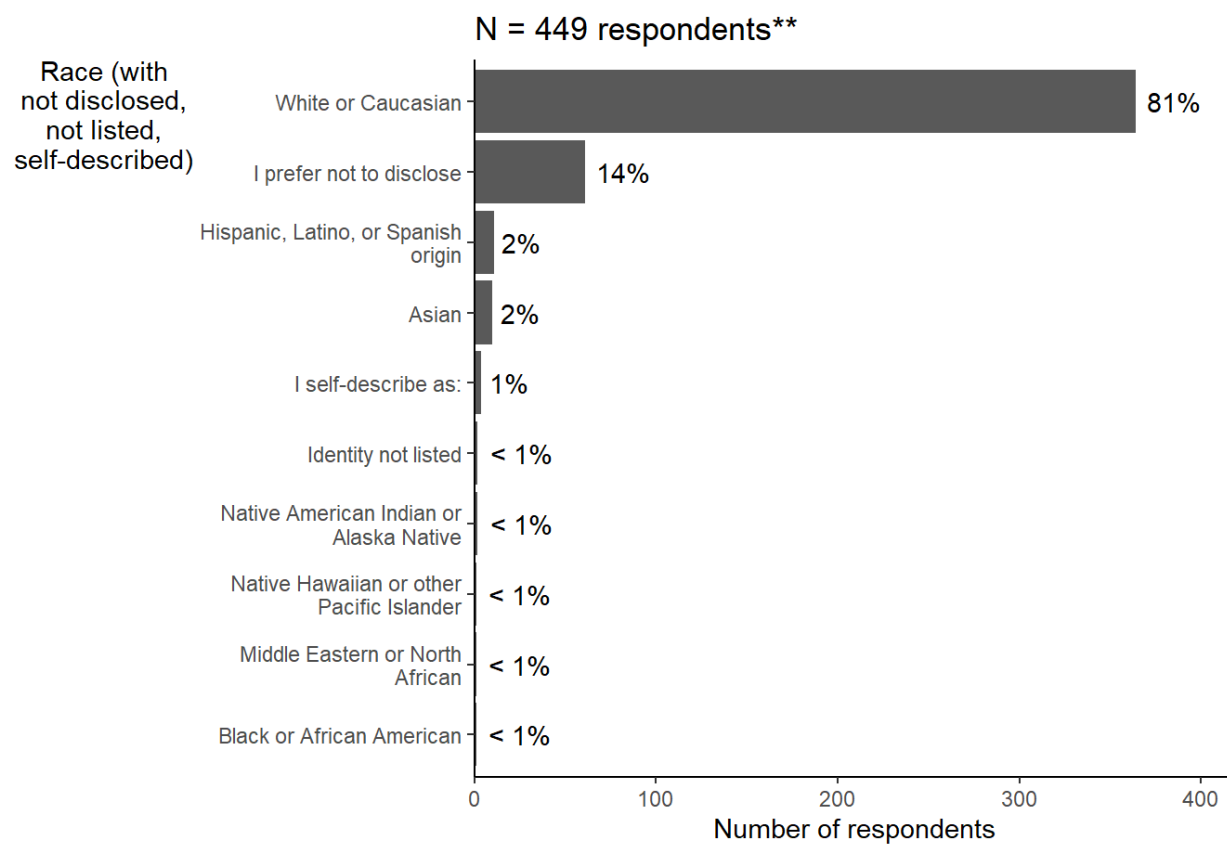


Figure 23. Respondent race/ethnicity.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer



**Table 7. Self-described race/ethnicity.**

RACE/ETHNICITY
GERMANIC-SCANDINAVIAN
I AM HUMAN
IRISH AMERICAN
MULTIPLE

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Languages Other than English

### Question 13

Question 13 was asked of all respondents.

Do you speak a language other than English at home? (Select one)

Results (Figure 24 and Table 8)

- Most respondents (89%) do not speak a language other than English at home.
- Within the 11% of respondents who do speak a language other than English at home, a wide variety of languages are spoken. The languages listed by respondents are shown in Table 8

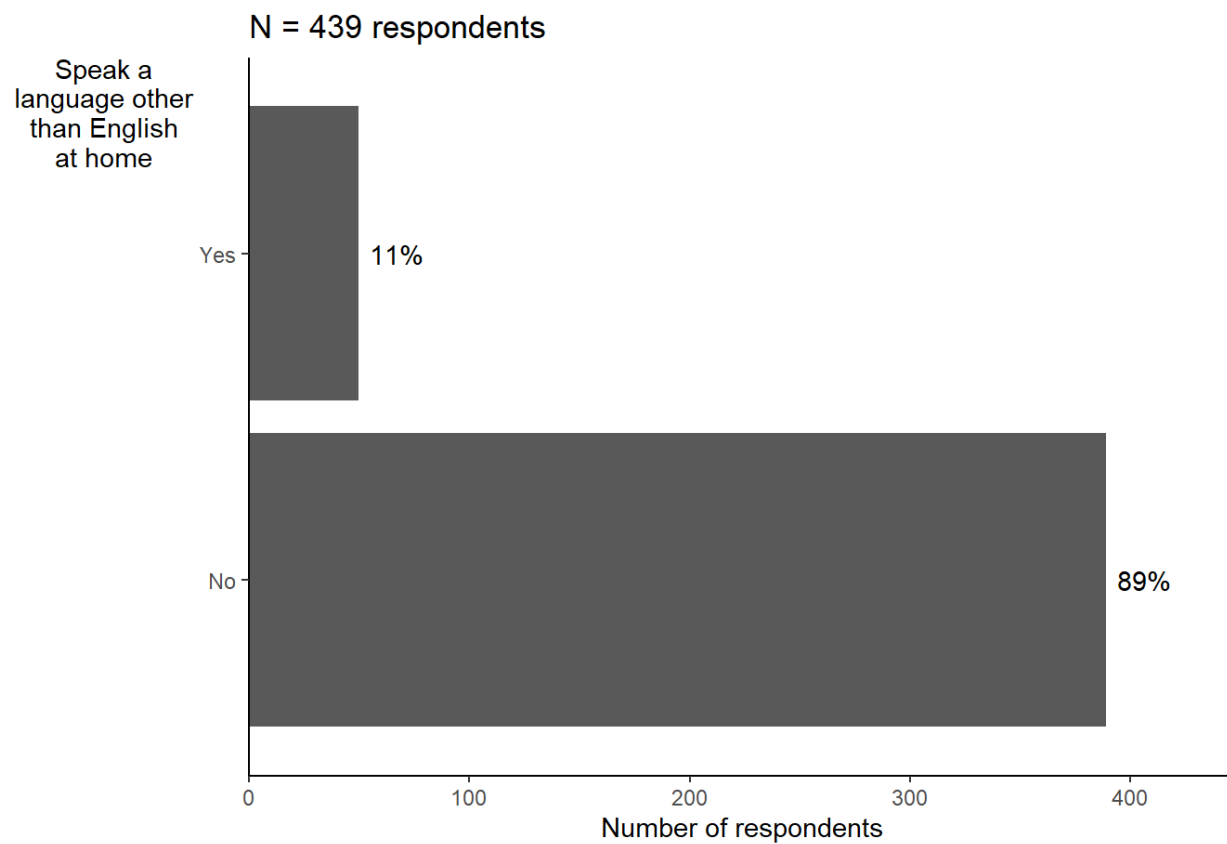


Figure 24. Other languages spoken.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**Table 8. Other language(s) spoken at home.**

LANGUAGE(S)
CHINESE (2)
DUTCH
FRENCH (5)
FRENCH, GERMAN
GERMAN (2)
GERMAN AND JAPANESE
GREEK, FRENCH, ITALIAN, SPANISH, ENGLISH, PORTUGUESE
HINDI, PUNJABI (2)
ITALIAN
KLINGON
KONKANI
KOREAN
MALAYALAM
MY WIFE BELIEVES I DO
NOT RELEVANT TO TRAIL DEVELOPMENT
PORTUGUESE (3)
PREFER NOT TO DISCLOSE
SIGN
SLOVAK
SPANISH (7)
SPANISH AND DANISH
SPANISH AND GERMAN
SPANISH, FRENCH
SPANISH, PORTUGUESE, UKRANIAN
TELUGU

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Section 4. Appendices

Appendix A *BERT Trail Alignment Online Survey: Survey Instrument*

A copy of the questionnaire used to record responses.

Appendix B *Online Survey Postcard Invitation*

A copy of the postcard used to invite respondents to participate in the online survey.

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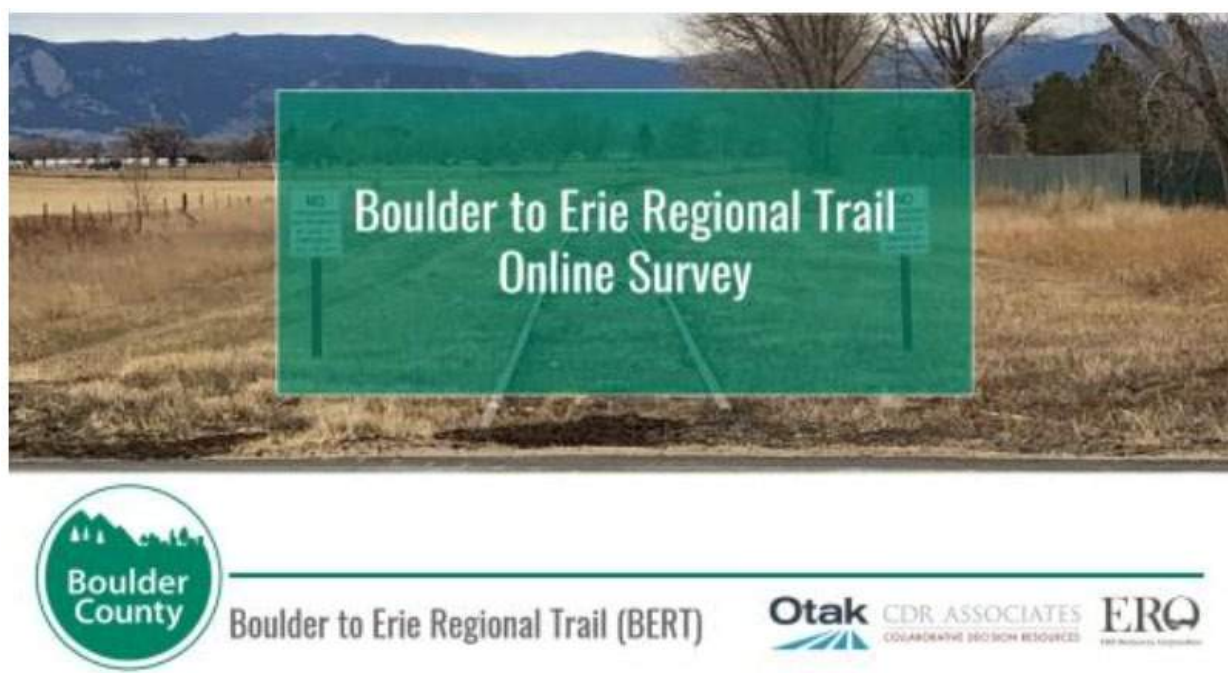
## **Appendix A**

BERT Trail Alignment Online Survey:  
Survey Instrument



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## Boulder to Erie Regional Trail (BERT) Survey



### Start of Block: Current Activities

#### Intro

***Boulder County, in partnership with the City of Boulder and Town of Erie, is evaluating options for the creation of a new soft-surface regional trail connection linking the City of Boulder and Erie.***

***This connection was identified in the county's regional trails prioritization process in 2003 and is eligible for funding through the Countywide Sales Tax which was extended in perpetuity in 2022. The Boulder Valley Comprehensive Plan and Boulder County Transportation Master Plan identify this trail connection as an important link in the Boulder Valley and regional trails systems.***

***The purpose of this survey is to provide public input into the selection of a trail alignment and understand how members of the public who live near the proposed trail alignments feel about the proposed trail.***

***You have been asked to participate in this survey because you are a landowner or resident near the proposed trail corridor. Your opinions are important to the planning of this project. Please answer the online survey questions to the best of your ability and as soon as possible. The survey***



*will only be available for a short time. All of your answers can be recorded by clicking one or more of the buttons for each question. In some cases, you may be asked to type in a short answer to provide clarifying information. The survey should only take a few minutes to complete, and the information you provide will be valuable to the planning process.*

*We hope you will find the experience of answering the questions interesting and thought provoking.*

---



q01 First we would like to ask you some questions about some of the types of things you currently enjoy doing.

**1. Do you currently enjoy any of the following activities?** (Select all that apply)

- Bicycling (1)
  - E-biking (2)
  - Running/jogging (3)
  - Walking or rolling (4)
  - Horseback riding (5)
  - Cross country skiing/snowshoeing (6)
  - Other (please specify:) (7) \_\_\_\_\_
-

*Display This Question:*

*If First we would like to ask you some questions about some of the types of things you currently enj... = Bicycling*

*Or First we would like to ask you some questions about some of the types of things you currently enj... = E-biking*

*Or First we would like to ask you some questions about some of the types of things you currently enj... = Running/jogging*

*Or First we would like to ask you some questions about some of the types of things you currently enj... = Walking or rolling*

*Or First we would like to ask you some questions about some of the types of things you currently enj... = Cross country skiing/snowshoeing*

*Or First we would like to ask you some questions about some of the types of things you currently enj... = Horseback riding*

*Or First we would like to ask you some questions about some of the types of things you currently enj... = Other (please specify:)*

**q01a How often do you typically participate in any of these activities? (Select one)**

- Every day (1)
- 5-6 days per week (2)
- 3-4 days per week (3)
- 1-2 days per week (4)
- More than once per month, but less than once per week (5)
- Once per month (6)
- Less than monthly, but more than yearly (7)
- Once per year or less (8)



q02 **2. Please select the forms of transportation other than a personal vehicle or public transit that you use to commute to work?** (Select all that apply)

- Bicycle (1)
- E-bike (2)
- Walk or roll (3)
- Non-motorized scooter (4)
- Motorized scooter (5)
- Cross country skiing/snowshoeing (6)
- Other (please specify:) (7) \_\_\_\_\_
- I only use a personal vehicle or public transit to commute to work (8)

End of Block: Current Activities

---

Start of Block: Trail alignment

bert

***The Boulder to Erie Regional Trail (BERT) would be a new soft-surface regional trail linking the City of Boulder and Erie.***

---



q03 3. In concept, do you support a trail in the general corridor described above? (Select one)

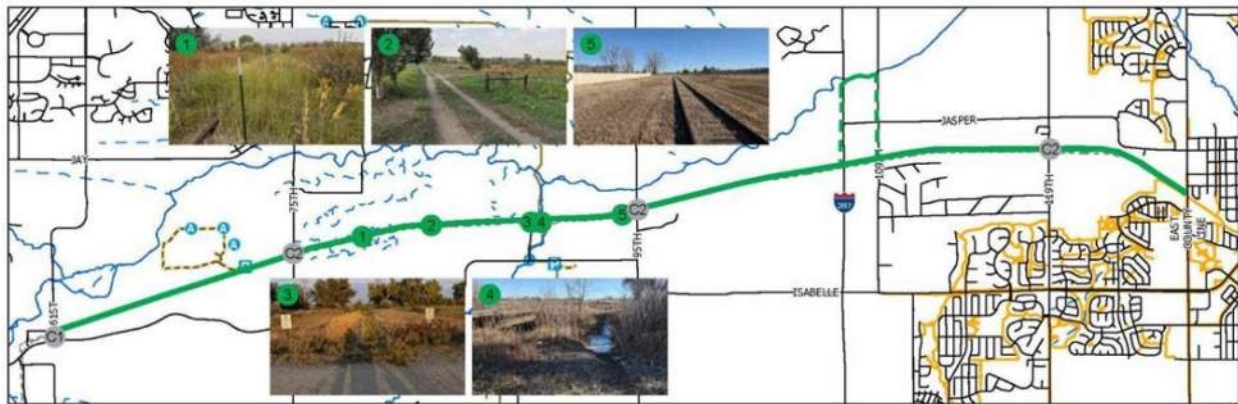
- Strongly support (1)
- Somewhat support (2)
- Neither support nor oppose (3)
- Somewhat oppose (4)
- Strongly oppose (5)

---

Page Break

Below are maps and descriptions of each potential trail alignment. Please look at each potential alignment carefully, noting any differences between each alignment. Once you have looked at all the alignments, please answer the questions below.

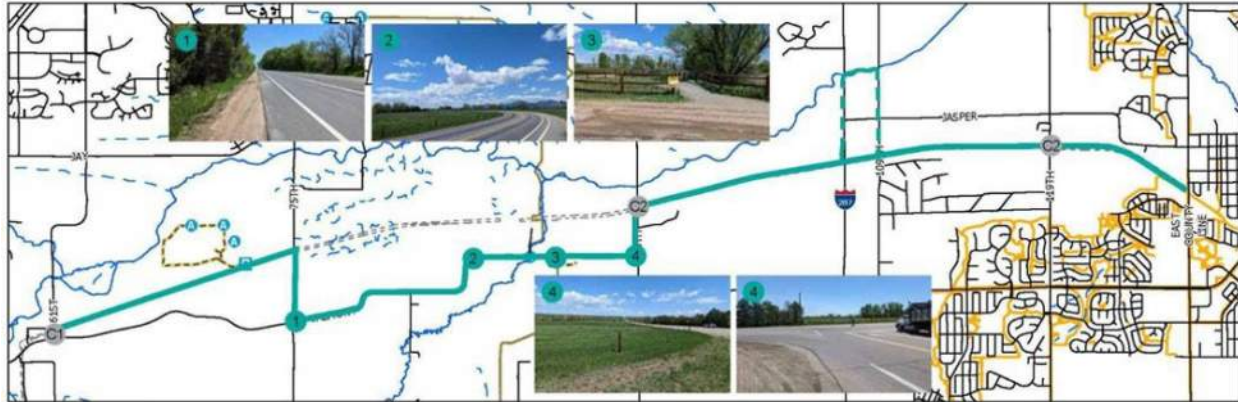
alignment 1



**Trail alignment A (map above)**

- This alignment is fully in the Regional Transportation District (RTD) right-of-way.
- The trail is on top of the existing rail bed in certain sections.
- East of 75th the RTD right-of-way is wet in many areas.
- East of 75th the RTD right-of-way crosses sensitive habitats.

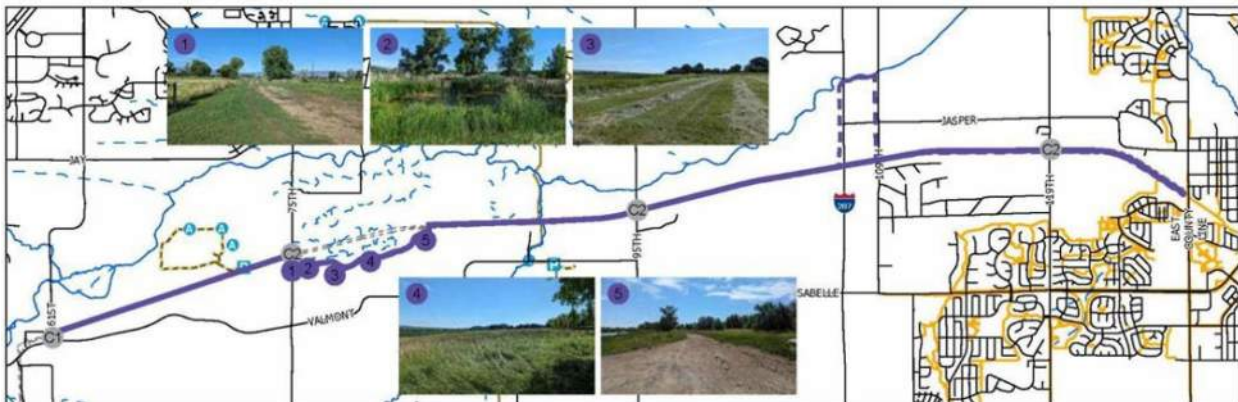
alignment 2



**Trail alignment B (map above)**

- This alignment is in the RTD right-of-way from 61st to 75th.
- Uses the City of Boulder Open Space and Mountain Parks (OSMP), and Boulder County (BOCO) rights-of-way/Valmont around the 75th to 95th section to avoid wet areas and sensitive habitats.
- Valmont right-of-way is narrow and has many driveways.
- The trail when in the RTD right-of-way is on top of the existing rail bed in certain sections.

alignment 3



**Trail alignment C (map above)**

- This alignment uses the RTD right-of-way from 61st to 75th.
- Uses BOCO, OSMP, and RTD right-of-ways from 75th to 95th section to avoid some wet areas and

sensitive habitats.

- The trail when in the RTD right-of-way is on top of the existing rail bed in certain sections.

*Note: This description in the survey language does not reflect the findings of the analysis that indicate that Alignment C is more impactful to sensitive habitats and in some areas more wet than the other alignments.*

---

**q04 4. Please rank the trail alignment options from most preferred to least preferred by moving each trail alignment into your preferred order.**

**To rank the trail alignment options, drag the preferred option to the top of the list, your second choice to the middle of the list, and your least preferred option to the bottom of the list.**

\_\_\_\_\_ Trail alignment A (1)

\_\_\_\_\_ Trail alignment B (2)

\_\_\_\_\_ Trail alignment C (3)

---

Page Break

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q05 **5. Please choose no more than three of the factors from the list below that influenced your decision about your preferred trail alignment option (your top choice in the previous question)?**  
(Select up to three factors)

- On-trail safety (1)
- Protection of property near the trail (2)
- Scenery (3)
- Connectivity to other trails (4)
- Connectivity to nearby streets (5)
- The trail's value for commuting to/from work (6)
- Recreational value (7)
- Protection of the environment (8)
- Protection of wildlife habitat (9)
- Cultural factors (10)
- Other (please specify:) (11) \_\_\_\_\_

---

Page Break





287crossing ***There are two options available to allow the BERT to cross 287. We would like to know which of these two options is most appealing to you.***

**Option 1 (solid line):** One option is for BERT to cross 287 with an underpass which is the safest and most direct route. However, the underpass option has added cost implications which will require partnerships and grants.

**Option 2 (dashed line):** The second option is for BERT to cross 287 under an existing bridge at Boulder Creek. This option creates a less direct route for the trail and requires trail users to turn onto nearby roads. A trail under the existing bridge may have impacts to the floodplain and may require additional maintenance due to seasonal flooding.

q06 **6. Which of the two options for crossing 287 do you prefer?** (Select one)

- Option 1: Underpass option within the Regional Transportation District right-of-way (1)
- Option 2: Under the existing bridge at Boulder Creek (2)

Page Break

q07 7. **Would you use the trail if built?** (Select one)

- Yes (1)
- No (2)

---

*Display This Question:*

*If 7. Would you use the trail if built? (Select one) = Yes*

q07a **How would you use the trail?** (Select all that apply)

- Commuting to/from work (1)
- To get to/from transit (2)
- To get to/from school (3)
- To run errands (4)
- To visit family/friends (5)
- To access services (healthcare, community centers, government facilities, etc.) (6)
- For recreation/exercise (e.g., jogging, bicycling, wildlife/bird watching, etc.) (7)
- Other (please specify:) (8) \_\_\_\_\_

---

*Display This Question:*

*If 7. Would you use the trail if built? (Select one) = Yes*

q07b **Do you intend to use the trail more for transportation or for recreation/exercise?** (Select one)

- For transportation only (1)
  - Mostly for transportation, but some recreation/exercise (2)
  - Equally for transportation and recreation/exercise (3)
  - Mostly for recreation/exercise, but some transportation (4)
  - For recreation/exercise only (5)
- 

*Display This Question:*

*If 7. Would you use the trail if built? (Select one) = Yes*

q07c **About how often would you use the trail if it were built?** (Select one)

- Every day (1)
  - 5-6 days per week (2)
  - 3-4 days per week (3)
  - 1-2 days per week (4)
  - More than once per month, but less than once per week (5)
  - Once per month (6)
  - Less than once per month, but more than yearly (7)
  - Once per year or less (8)
-

Display This Question:

If 7. Would you use the trail if built? (Select one) = No

q07d **Why would you choose not to use the trail?** (Select all that apply)

- Too far from where I live (1)
- Too far from where I work (2)
- Too far from where I go to school (3)
- Too far from where I run errands (4)
- I wouldn't feel safe getting to my destination on connecting streets (5)
- I wouldn't feel safe on the trail (6)
- Other (please specify:) (7) \_\_\_\_\_

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Page Break

q08 **8. Approximately how close do you live to any of the proposed trail alignments?** (Select one)

- I am an abutting landowner (1)
- I live within a quarter mile of one of the proposed trail alignments (2)
- I live within a half mile of one of the proposed trail alignments (3)
- I live within three-quarters of a mile of one of the proposed trail alignments (4)
- I live within a mile of one of the proposed trail alignments (5)
- I live a mile or more away from one of the proposed trail alignments but within Colorado (6)
- I live outside Colorado (7)

---

Page Break

q09 **9. Have you participated in any of the public outreach opportunities about the development of this trail?** (Select one)

- Yes (1)
- No (2)

End of Block: Trail alignment

---

Start of Block: demographics

q10 **10. What is your age?** (Select one)

- My age is: (1) \_\_\_\_\_
- I prefer not to disclose (2)

-----

q11 **11. What is your gender identity?** (Select one)

- Male (1)
  - Female (2)
  - X (inclusive of, but not limited to gender categories such as Non-binary, Intersex, Genderfluid, and Genderqueer) (3)
  - Prefer not to disclose (4)
-

q12 **12. What ethnic and/or racial groups do you belong to?** (Select all that apply.)

- Asian (1)
  - Black or African American (2)
  - Hispanic, Latino, or Spanish origin (3)
  - Middle Eastern or North African (4)
  - Native American Indian or Alaska Native (5)
  - Native Hawaiian or other Pacific Islander (6)
  - White or Caucasian (7)
  - I prefer not to disclose (8)
  - Identity not listed (9)
  - I self-describe as (please describe:) (10) \_\_\_\_\_
- 

q13 **13. Do you speak a language other than English at home?** (Select one)

- Yes (please specify:) (1) \_\_\_\_\_
- No (2)

End of Block: demographics

---

# Appendix B

Online Survey Postcard Invitation



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## BOULDER TO ERIE REGIONAL TRAIL ONLINE SURVEY

You were chosen as part of a sample of landowners near the proposed Boulder to Erie Regional Trail to complete a brief questionnaire. Your responses will provide information about how members of the public feel about the trail. Your responses are voluntary and will be kept confidential, and your name will never be associated with your answers. Your individualized link to the survey is on the opposite side of this postcard.

**YOUR RESPONSE IS IMPORTANT!!  
PLEASE HAVE AN ADULT IN YOUR HOUSEHOLD  
COMPLETE THE SURVEY.**

Please complete the survey ASAP  
but no later than November 10, 2023



If you have questions about the process, email Tonya Luebbert at [tluebbert@bouldercounty.gov](mailto:tluebbert@bouldercounty.gov)  
Si tiene preguntas o necesita esta encuesta en español, envíe un correo electrónico a Tonya Luebbert, [tluebbert@bouldercounty.gov](mailto:tluebbert@bouldercounty.gov)



FOR MORE INFORMATION VISIT  
[boco.org/BERT](http://boco.org/BERT)

## BOULDER TO ERIE REGIONAL TRAIL ONLINE SURVEY

Boulder County  
P.O. Box 471  
Boulder, CO 80306

Type this personalized survey link  
into your web browser to participate:

CURRENT RESIDENT



If you have questions about the process, email Tonya Luebbert at [tluebbert@bouldercounty.gov](mailto:tluebbert@bouldercounty.gov)  
Si tiene preguntas o necesita esta encuesta en español, envíe un correo electrónico a Tonya Luebbert, [tluebbert@bouldercounty.gov](mailto:tluebbert@bouldercounty.gov)



FOR MORE INFORMATION VISIT  
[boco.org/BERT](http://boco.org/BERT)

# APPENDIX G - CORRIDOR NEST RECOMMENDATIONS & COMMENTS

This appendix includes:

- ERO Original Raptor Analysis Approach
- OSMP Comments on Raptor Analysis Approach
- ERO Response to OSMP Comments
- CPW Comments on Raptor Analysis Approach
- ERO Response to CPW Comments
- Revised CPW Recommendations Letter with Email Clarifications
- Revised ERO Raptor Analysis Approach
- ERO Northern Leopard Frog Evaluation

June 24, 2024

**TO:** OTAK  
371 Centennial Parkway,  
Suite 210  
Louisville, CO 80027

**FROM:** Ron Beane, ERO Senior Wildlife Biologist

**RE:** Raptor and Great Blue Heron Nest Evaluation, Boulder to Erie Regional Trail, Boulder County, Colorado

## **Introduction**

The Boulder County, in partnership with the City of Boulder and Town of Erie, is evaluating options for the creation of a new soft-surface regional trail connection (the Boulder to Erie Regional Trail - BERT) linking Boulder and Erie via the RTD rail ROW corridor, which is near several City of Boulder Open Space and Mountain Park (OSMP) properties and easements. The analysis area for this trail provides habitat for numerous nesting raptors and two great blue heron rookeries (heron rookeries). ERO Resources Corporation (ERO) has been tasked with developing tailored buffered zones and other mitigation methods for existing raptor nests and the heron rookeries. Following a systematic step-by-step evaluation approach described in the following sections, ERO developed tailored buffer recommendations and other mitigation methods for nest sites and heron rookeries based on site-specific conditions.

## **Background**

Migratory birds, including raptors and great blue herons, are regulated by two main federal regulations: 1) the Migratory Bird Treaty Act; 2) the Bald and Golden Eagle Protection Act. These acts are administered by the U.S. Fish and Wildlife Service (USFWS). Colorado Parks and Wildlife (CPW) has adopted guidelines that recommend restrictions on human disturbance within specified buffer zones surrounding raptor nests (CPW 2020). CPW also provides recommended buffers for other avian species, such as great-blue herons (Jason Surface, pers. comm. 2024). OSMP has also adopted wildlife buffers/closures to protect raptors and other sensitive species on open space properties. OSMP and CPW provided buffer locations for raptor nests and great blue heron rookeries in the BERT analysis area (Figure 1). According to the CPW guidelines,

raptor species and individual raptors vary in their tolerance limits to disturbance. In April 2024, the USFWS revised the regulations for the issuance of permits for eagle incidental take and eagle nest take under the Bald and Golden Eagle Protection Act. Under the revised regulation, the USFWS has specified a 660 foot bald eagle nest buffer for various activities including building construction, linear infrastructure construction and maintenance, alteration of vegetation, motorized recreation, and nonmotorized recreation.

ERO has more than 40 years of experience working with raptors and colonial nesting species, such as great blue herons, double-crested cormorants, and other species in urban and suburban environments where these species demonstrate a tolerance to frequent nonthreatening human disturbance. As stated in the CPW raptor buffer guidelines (CPW 2020), “Some individuals habituate and tolerate human activity at a proximity that would cause the majority of the species to abandon their nests. Other individuals become sensitized to repeated encroachment and react at greater distances. Thus, CPW recommends a “holistic” approach when protecting raptor habitat that protects both nest sites and important foraging areas that support the pairs’ nesting effort.” CPW further states that “Measurements of nest success and productivity are somewhat imprecise and reflect the need to maintain some flexibility to adjust buffer zones depending upon intervening terrain and vegetation screens that obscure human activity” (CPW 2020).

### Approach for the Raptor and Heron Nest Evaluation

Starting with the OSMP nest map (Figure 1), ERO evaluated each nest site/heron rookery using the following criteria:

1. Surrounding level of human disturbance.
2. Distance to the nearest disturbance.
3. Adoption of OSMP tailored spatial buffers for osprey nests.
4. Evaluation of red-tailed hawks and northern harriers on a breeding territory basis.
5. Presence of visual screening.
6. Applying a tiered buffer approach of great blue heron rookeries buffers.

These criteria were calculated for each nest in a step-by-step process and recorded in Table 1 as described in the following sections.

#### 1. Surrounding Level of Human Disturbance

ERO evaluated existing levels of human disturbance by applying standard disturbance buffers used for parks and open space planning. Existing human disturbance in the analysis area was categorized into three disturbance levels: High, Medium, and Low (Figure 2), based on the following criteria:

High Disturbance

- 330-foot impact zone
- Existing homes (address points)
- Highways/primary roads/state highways
- Primary roads including county roads (main arterials), 75th Street, 95th Street, etc.
- Industrial sites (quarry, batch plant, etc.)

#### Medium Disturbance

- 330-foot impact zone
- Existing trails
- Secondary roads (subdivision and trailhead access roads)
- Trailheads

#### Low Disturbance

- Existing trails (+1,320 feet)
- Existing highways and roads, industrial sites (+1,320 feet)

The disturbance level immediately surrounding each mapped nest and heron rookery is shown in Table 1.

## 2. Distance to the Nearest Disturbance

Once disturbance levels were identified, the distance from each raptor nest was calculated by measuring the distance from the center of each raptor buffer to the nearest existing disturbance element (roads, trails, residences, industrial areas, etc.). A similar measurement was calculated from the approximate center of each heron rookery and recorded in Table 1. For ease of viewing, nest disturbance levels near bald eagle and osprey nests are shown on Figure 3 and disturbance levels near red-tailed hawk and northern harrier nests are shown on Figure 4. The distance to disturbance elements for almost all nesting raptors and heron rookeries is less than the recommended buffer distances, indicating some tolerance to human activities.

## 3. Adoption of OSMP-Tailored Spatial Buffers for Osprey Nests

Boulder OSMP evaluated existing levels of disturbance to osprey nests on two occasions; 1) when the artificial nest platform was installed and 2) when seasonal closures were instituted (Figure 2).

**APPENDIX G - ERO ORIGINAL RAPTOR ANALYSIS APPROACH**

**Table 1. BERT nesting raptor and heron impact evaluation.**

Species	Nest #	Disturbance		Breeding Territory		Visual Buffer	Tailored Buffer	Comments
		Level (H,M,L)	Distance (feet)	#	Acres			
Bald Eagle	1	L*	630	N/A	N/A	Yes	1/4-mile	Distance to nearest disturbance for all eagle nests falls between the U.S. Fish and Wildlife Service (USFWS) 660-foot regulatory buffer and 1/4-mile.
Bald Eagle	2	M*	730	N/A	N/A	Partial	1/4-mile	
Bald Eagle	3	M*	940	N/A	N/A	Proposed	1/4-mile	
Bald Eagle	4	M*	950	N/A	N/A	Yes	1/4-mile	
Red-Tailed Hawk	1	H	0	1	460	Proposed	Territory –	Territory provides abundant nesting substrate, food resources, and opportunities to select nest sites. No adverse effect.
Red-Tailed Hawk	2	M	400					
Red-Tailed Hawk	3	M	850					
Red-Tailed Hawk	4	H	85	2	223	Proposed	1/4 -mile buffer to visual screen.	1/4 -mile buffer to visual screen. Territory provides abundant resources. No adverse effect.
Red-Tailed Hawk	5	H*	340					
Red-Tailed Hawk	6	None*	1,285	3	223	Yes	1/4 -mile buffer to visual screen.	1/4 -mile buffer to visual screen. Territory provides abundant resources. No adverse effect.
Red-Tailed Hawk	7	M	180	4	223	Partial	Territory	Nest is less than 200 feet from existing year-round trail - Territory provides abundant resources. No adverse effect.
Red-Tailed Hawk	8	None	385	5	223	Partial	Territory to visual screen	Territory provides abundant resources. No adverse effect.
Red-Tailed Hawk	9	None	750	6	293	Proposed	Territory to visual screen	Territory provides abundant resources. No adverse effect.
Red-Tailed Hawk	10	None	1,635					
Northern Harrier	1	None*	703	1	151	Yes	Territory	Nests low in dense vegetation that provides security and visual screen - north boundary cut is at railroad grade.
Northern Harrier	2	None*	598					
Northern Harrier	3	None*	457					
Osprey	1	M*	69	N/A	N/A	Yes	OSMP	Consistent with OSMP closure boundaries.
Osprey	2	M*	247	N/A	N/A	Partial	OSMP	
Osprey	3	H*	122	N/A	N/A	Proposed	OSMP	
Osprey	4	None*	1,727	N/A	N/A	Proposed	OSMP	
Great Blue Heron Rookery	1	H/M	165	N/A	N/A	Partial	Tiered	165 feet to Lefler Lane; 595 feet to North 95th Street. Tiered at CPW buffer (985 feet) and 650 feet.
Great Blue Heron Rookery	2	M	275	N/A	N/A	Partial	Tiered	275 feet to access road; 1,390 feet to residence. Tiered at CPW buffer (985 feet) and 650 feet.

Disturbance Level: H = High, M = Medium, L= Low, None = Nest is greater than 1,320 feet from disturbance  
 Disturbance levels do not include agricultural activities

\*Nest is within seasonal closure.

Note:



#### 4. Evaluation of Red-Tailed Hawks and Northern Harriers on a Breeding Territory/Complex Basis

As described above, CPW (2020) recommends “a “holistic” approach when protecting raptor habitat that protects both nest sites and important foraging areas that support the pairs’ nesting effort.” Three keys to successful raptor nesting are (1) suitable substrate for building nests, (2) sufficient and available food resources, and (3) security from predators and human disturbance, often achieved by establishing disturbance buffers. ERO understands that northern harriers nesting in the analysis area have multiple alternate nests within an overall nesting territory and that not all nests mapped for this species on Figures 1 and 2 are “in use” during a breeding season. The same is also likely for the 10 red-tailed hawk nests mapped on Figure 2, although OSM staff checked all of these nests in the field on 4/10 and confirmed that all of them are occupied by nesting red-tailed hawks. This density of occupied or “in use” nests of the same species is unusual and indicates a high abundance of the resources needed for nesting. Competition for these resources, particularly food and nesting sites, is likely to be intense between all of the predatory bird species nesting in the analysis area. In times of food scarcity, it is likely that not all of the mapped nests would be productive.

The goal of nest buffers is to provide the resources needed to support a viable breeding raptor pair. An individual nest or nest tree can be destroyed by storms or lost due to disease or any number of stressors. Specific nest location may also change over time. Thus, it is more important to protect the resources within a nesting territory than an individual nest site. Based on the distribution of red-tailed hawk nests, ERO has identified six areas, or complexes, of individual and strongly overlapping territories for red-tailed hawks (mapped as nest complexes) and one nest territory for northern harriers (Figure 5). ERO presumes that each of these complexes provide all the chemical, physical, and biological attributes needed for successful breeding, including the three keys listed in the previous paragraph.

#### 5. Presence of Visual Screening

CPW (2020) further states that “Measurements of nest success and productivity are somewhat imprecise and reflect the need to maintain some flexibility to adjust buffer zones depending upon intervening terrain and vegetation screens that obscure human activity” (CPW 2020). Applying this principle, ERO identified trees and large shrubs that provide a visual screen to the proposed trail alignments. These vegetation screens were defined as essentially contiguous lines of tall woody vegetation greater than 100 feet long.

It is important to that the foreground between a nest and the disturbance element and the background behind a disturbance element also moderates the disturbance impact. Taking a conservative analysis approach, other forms of visual/physical buffers, such as industrial/residential foregrounds and backgrounds and intervening open water that can provide an increased sense of security for breeding raptors and herons are not included in this analysis are.

## 6. Great Blue Heron Rookery Tiered Buffer Approach

The most current CPW recommended buffer for heron rookeries is 985 feet (300 meters) (Surface, pers. comm. 2024). The USFWS references a tiered buffer system for great blue heron rookeries developed in Vermont (VFWD 2002). The tiered buffer approach has three buffer zones:

1. Primary buffer zone – 300 feet
  - All human use should be avoided during the nesting season (March 15 – August 15).
  - Recreational activities (hiking, hunting, fishing, biking, etc.) are allowed outside of the nesting season.
2. Secondary buffer zone – 300 to 650 feet
  - There should be no mining, land clearing, or construction of permanent structures year round.
  - Existing agricultural activities, footpaths, and nonmotorized activities are allowed during the nesting period.
3. Tertiary buffer zones – 650 to 1,300 feet
  - Land clearing, timber harvesting, and construction may be feasible outside of the nesting season after consultation with a wildlife biologist.
  - Recreational activities (hiking, hunting, fishing, biking, etc.) may occur in this zone.

Figure 6 shows both a 985-foot CPW buffer and the 650-foot secondary buffer. A 300-foot primary buffer is not shown because no trail alignments occur in this zone.

### Analysis and Conclusions by Species

ERO evaluated the criteria described above and proposes tailored buffers for raptor nest sites and heron rookeries potentially impacted by the proposed trail alignments. The results of the evaluation are provided in Table 1. The tailored buffers based on the evaluation are shown on Figure 6 for eagles and osprey and one Figure 7 for red-tailed hawk, northern harrier and herons. ERO's analysis is described below by species:

#### Bald Eagle

Nest 1 through Nest 3 occur in areas experiencing medium disturbance, and the distance to the nearest disturbance for all four nests is less than 1,000 feet. Three of the four nest sites are also partially to fully visually screened from the proposed trail alignments. Because the distance to the nearest disturbance for all eagle nests falls between the USFWS 660-foot regulatory buffer (1/8-mile) and 1/4-mile buffer, combined with the existing visual screening, a reasonable site-specific buffer for bald eagles is 1/4 mile.

#### Red-tailed Hawk and Northern Harrier Individual Nest Sites

Although protecting ample resources within a territory/complex is the most effective way to maintain breeding raptors, ERO evaluated tailored buffers for all existing nest sites. All Red-tailed hawk and

northern harrier nests are less than ¼-mile from a disturbance element and most of the nests are less than 1/8-mile(660 feet) to a disturbance element (Table 1). Many of the nests are also fully or partially visually screened from the proposed trail alignments. Because the proximity of all nests indicate tolerance to human activities equal or greater in intensity to a regional trail, the first step in developing a tailored nest buffer is to reduce nest buffers for red-tailed hawks and northern harriers to ¼-mile. The next step is to look at the proximity of disturbance to individual nest sites. Red-tailed hawk nest sites 1, 4 and 7 are all less than 200 feet from residences, trails and access roads and exhibit a strong tolerance to human disturbance.

### **Red-tailed Hawk and Northern Harrier Territories/Complexes**

The goal of nest buffers are to provide the resources needed for successful breeding. To accomplish this goal, ERO identified six red-tailed hawk and one northern harrier breeding territories/complexes that are all generally equal to, or larger in overall acreage than CPW and OSMP buffers (Figures 5 and 7). The past success of raptors breeding in these territories and complexes are evidence that the analysis area provides abundant nesting substrate and food resources. Recognizing the fact that existing nest sites may change between now and actual trail construction, protecting territories/complexes would provide the resources necessary for successful nesting regardless of nest location. All of these complexes provide numerous trees for red-tailed hawks and extensive tall marsh vegetation for northern harriers that provide abundant opportunities to select nest sites as distant or as close to any existing or new disturbance as needed. Some of these complexes are bisected by the proposed regional trail. However, based on the demonstrated tolerance of these breeding pairs to human disturbance and the apparent abundance of resources, we see no evidence that a soft-surface regional trail running through their territories/complexes would have an adverse effect on breeding red-tailed hawks or northern harriers.

### **Osprey**

Osprey nests 1 through 3 are less than 250 feet from a disturbance element. Tailored nest buffers for the BERT alignment would adopt the existing OSMP closure buffers for ospreys. Placement of a regional trail along the proposed trail alignments would have no adverse effect on breeding ospreys.

### **Great Blue Heron Rookeries**

Both heron rookeries are less than 275 feet from a disturbance element. Heron rookery 2 is more than the CPW-recommended 985 feet from the proposed trail alignments. Heron rookery 1 is about 580 feet from the proposed trail alignments, which fall within the 300- to 650-foot secondary buffer where existing agricultural activities, footpaths, and nonmotorized activities are allowed during the nesting period. Based on the tiered approach to rookery buffers, placement of a regional trail along the proposed trail alignments would have no adverse effect on heron rookery 1.

## Recommendations

OSMP, Boulder County and private conservation easements has preserved and protected the resources within the analysis area needed for successful raptor and heron breeding. These resources include abundant food, water and sufficient nesting opportunities to allow for nest movement in response to a changing environment. Based on this analysis a soft-surface regional trail would not adversely affect the overall breeding success of the raptors and herons nesting in the analysis area or contribute to an overall decline in the species locally or regionally. The installation of a new soft-surface trail will be a new activity in the analysis area and ERO recommends the following to reduce and minimize any potential disturbance:

1. Complete all construction activities outside of the active breeding season, generally extending from December 1 through July 15. Because species distribution and nest site locations are likely to change between now and the initiation of construction, nesting surveys would be completed prior to construction and construction activities phased and scheduled to minimize impacts to specific nest sites.
2. Much of the existing visual screening is composed of Russian Olive, a non-native noxious species. ERO recommends enhance and expanding these visual buffers by replacing the Russian olive and planting additional native tree and shrub species to provide visual screening along the trail. The species to be planted and exact locations should be developed in coordination with project partners and adjacent property owners as part of the next stage of the project during design.

### SIGNED:

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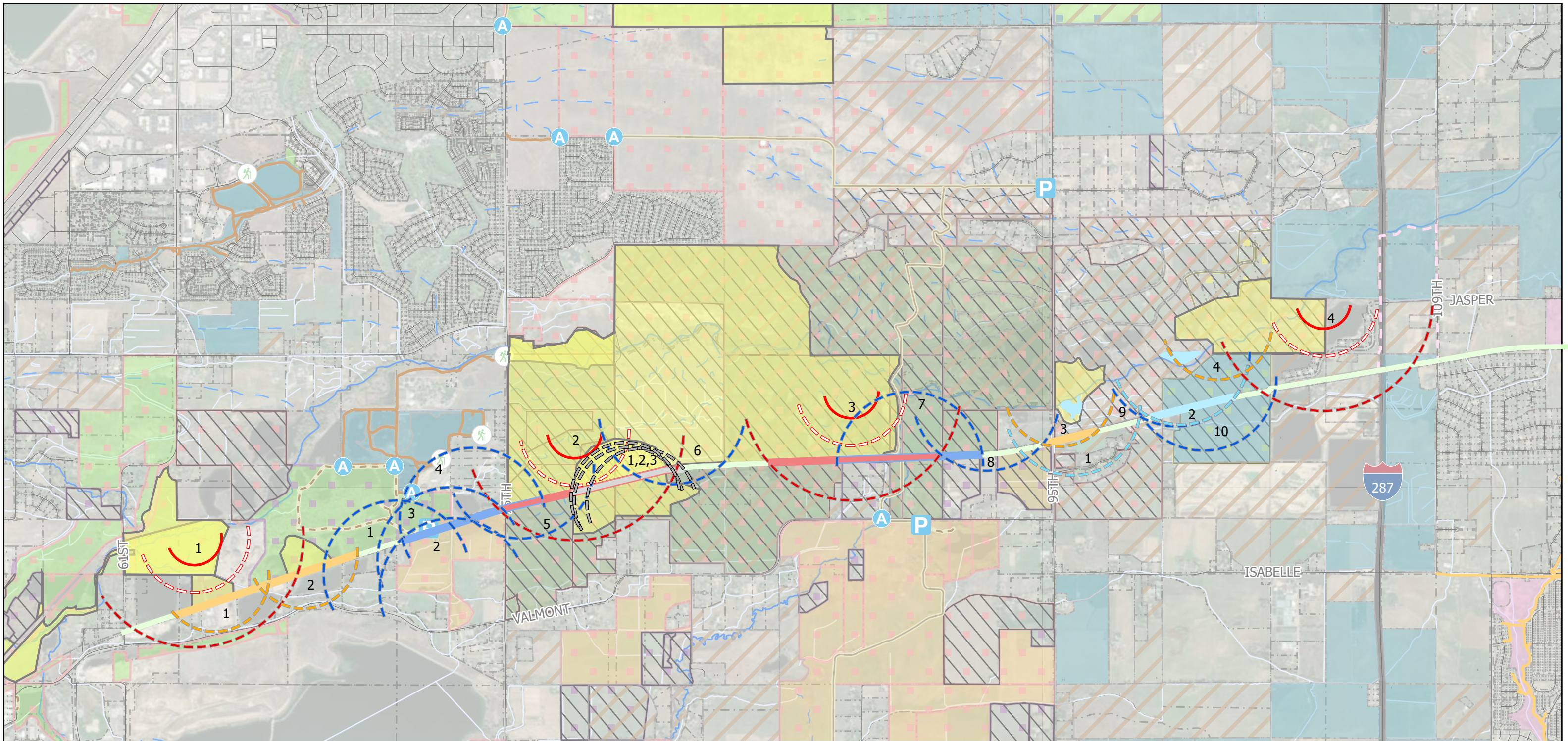
Ronald Beane, Senior Wildlife Biologist

Attachments: Figures 1, 2, 3, 4, 5, and 6

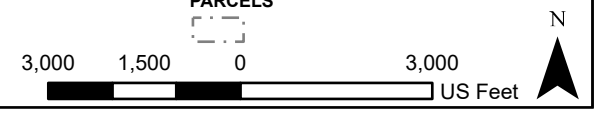
## References

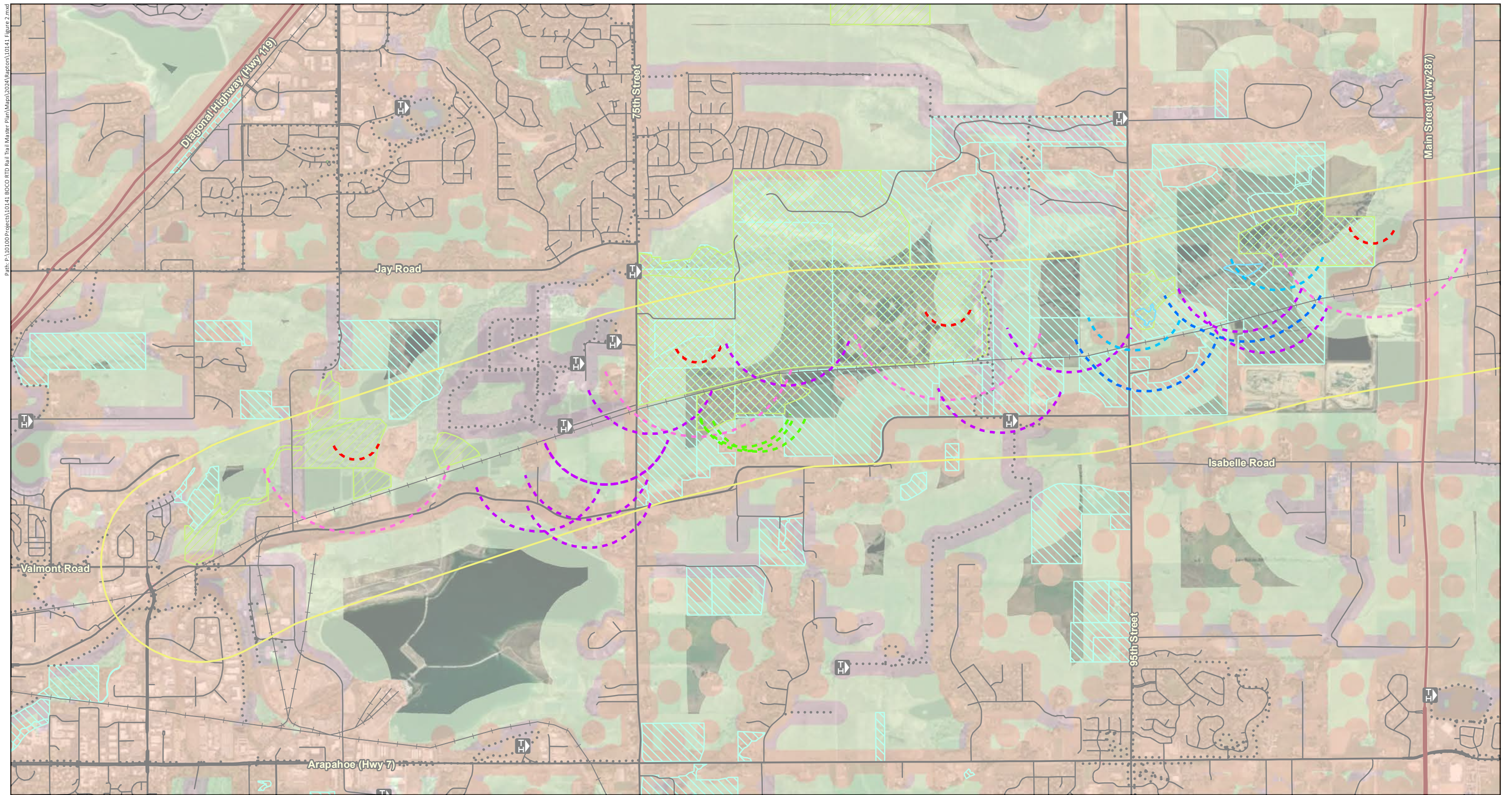
- Colorado Parks and Wildlife (CPW). 2020a. Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors. May.
- Surface, J. 2024. Email from Jason Surface, CPW Area Wildlife Manager, Area 4, to Chad Kemper, Town of Timnath. June 5.
- Vermont Fish and Wildlife Department (VFWD). 2002. Guidelines for protecting and Mitigation of Impacts to Great Blue Heron Rookeries in Vermont.

# Map Depicting All BERT Corridor Nest Buffers



<p><b>Legend</b></p> <p><b>PREFERRED ALIGNMENT FOR FURTHER CONSIDERATION</b></p> <p> PREFERRED ALIGNMENT FOR FURTHER CONSIDERATION</p> <p><b>REGULATORY NEST BUFFERS</b></p> <p> Bald Eagle Nests 1/8 Mile Buffer</p> <p><b>RECOMMENDED NEST BUFFERS</b></p> <p> Osprey 1/4 Mile Buffer (OSMP &amp; CPW)</p> <p> Northern Harrier 1/4 Mile Buffer (OSMP)</p> <p> Red Tail Hawk 1/3 Mile Buffer (OSMP &amp; CPW)</p> <p> Bald Eagle 1/2 Mile Buffer (OSMP &amp; CPW)</p> <p> Great Blue Heron 1/3 Mile Buffer (CPW)</p>	<p> Bald Eagle 1/4 Mile Buffer (OSMP &amp; CPW)</p> <p><b>GREAT BLUE HERON ROOKERIES</b></p> <p> GREAT BLUE HERON ROOKERIES</p> <p><b>MANAGED TRAIL ACCESS LOCATIONS</b></p> <p> OSMP Trailhead with Designated Parking</p> <p> Access Point - Parking Along Public Streets Unless Otherwise Posted</p> <p><b>BOULDER COUNTY TRAILHEADS</b></p> <p> TRAILS</p> <p> OSMP Hiking Trail</p>	<p> OSMP Multi-Use Trail</p> <p><b>BOULDER COUNTY TRAILS</b></p> <p> ERIE TRAILS</p> <p><b>287 CROSSING AT BOULDER CREEK</b></p> <p> 287 CROSSING AT BOULDER CREEK</p> <p><b>LINEAR HYDROLOGY</b></p> <p> Ephemeral Stream</p> <p> Intermittent Stream</p> <p> Perennial Stream</p>	<p> Ditches and Field Laterals</p> <p><b>ERIE GREEN SPACE OWNERSHIP</b></p> <p> OSMP Fee Ownership</p> <p> OSMP Joint Ownership</p> <p> OSMP Joint Easement</p> <p> OSMP Easement</p> <p> OSMP Wildlife Closures</p>	<p> No Public Access</p> <p><b>OSMP MANAGEMENT AREA DESIGNATIONS</b></p> <p> Agricultural Area</p> <p> Habitat Conservation Area</p> <p> Natural Area</p> <p><b>COUNTY OPEN SPACE</b></p> <p> County Conservation Easement</p> <p> County Owned Open Space</p> <p> Trail Easement</p> <p><b>PARCELS</b></p> <p> PARCELS</p>
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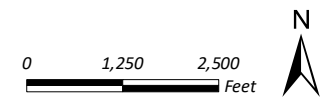
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**Boulder to Erie Regional Trail (BERT)**

- |  |  |                       |                    |
|--|--|-----------------------|--------------------|
| <b>Regulatory Nest Buffers</b>   | <span style="color: magenta;">- - -</span> Bald Eagle 1/2-Mile Buffer (OSMP & CPW) | Railroad Grade        | Analysis Area      |
| <span style="color: red;">- - -</span> Bald Eagle 1/8-Mile Buffer (USFWS)              | <span style="color: cyan;">- - -</span> Osprey 1/4-Mile Buffer (OSMP & CPW)        | Existing Trail        | High Disturbance   |
| <b>Recommended Nest Buffers</b>  | <span style="color: blue;">- - -</span> Great Blue Heron 1/3-Mile Buffer (CPW)     | OSMP Wildlife Closure | Medium Disturbance |
| <span style="color: purple;">- - -</span> Red-Tailed Hawk 1/3-Mile Buffer (OSMP & CPW) | Great Blue Heron Rookery   | OSMP No Public Access | Low Disturbance    |
| <span style="color: green;">- - -</span> Northern Harrier 1/4-Mile Buffer (OSMP)       |  |                       |                    |

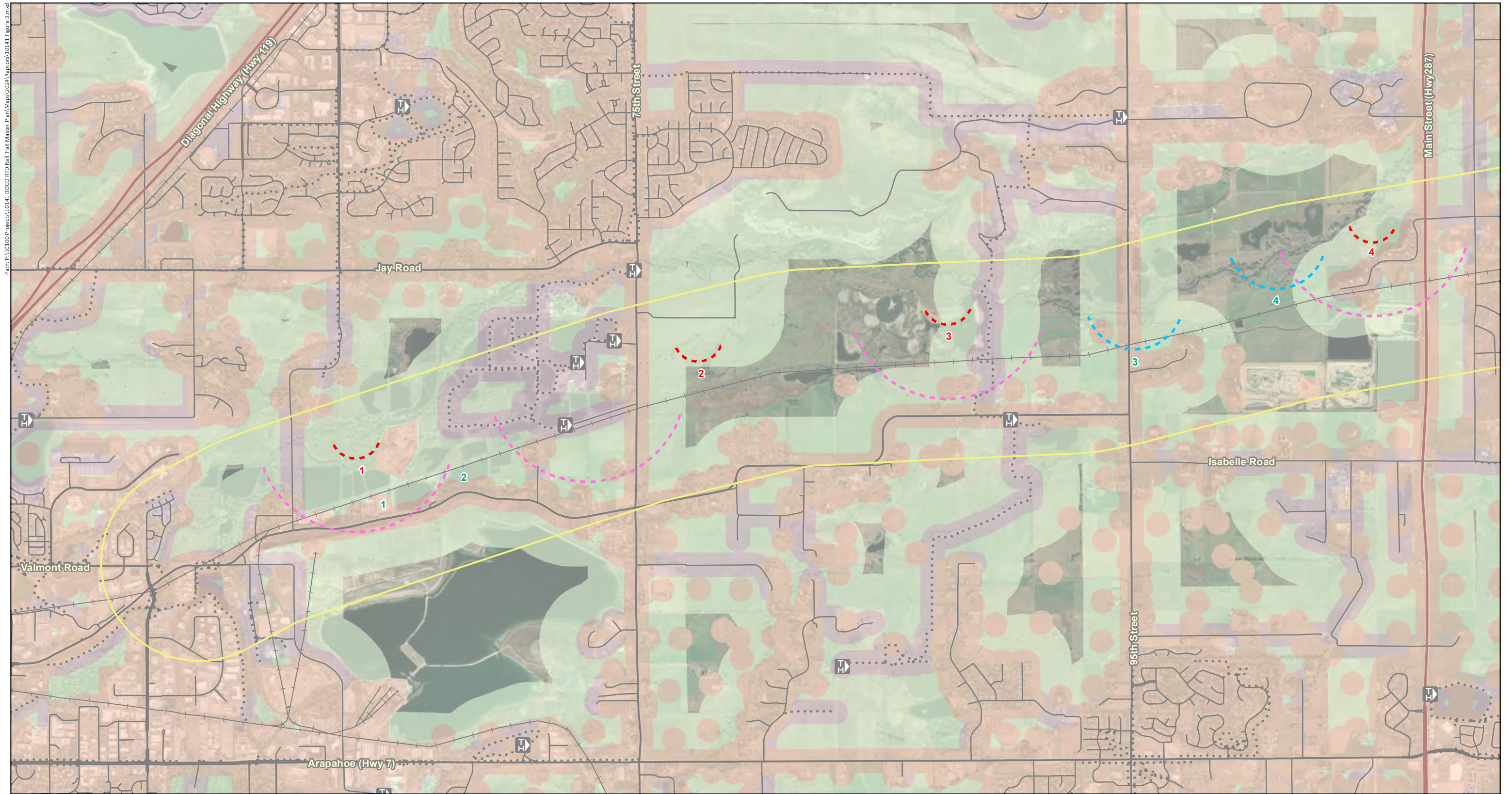
Image Source: Maxar Technologies©, April 17, 2022

**Figure 2**  
Raptor Nests and Great Blue Heron Rookeries in the BERT Analysis Area and Associated Buffers



Prepared for: Loris  
File: 10141 Figure 2.mxd (GS)  
September 10, 2024





**Boulder to Erie Regional Trail (BERT)**

**Regulatory Nest Buffers**

--- Bald Eagle 1/8-Mile Buffer

**Recommended Nest Buffers**

--- Bald Eagle 1/2-Mile Buffer (OSMP & CPW)

--- Osprey 1/4-Mile Buffer (OSMP & CPW)

--- Railroad Grade

--- Existing Trail

□ Analysis Area

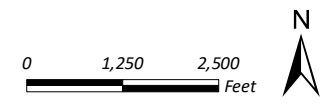
High Disturbance

Medium Disturbance

Low Disturbance

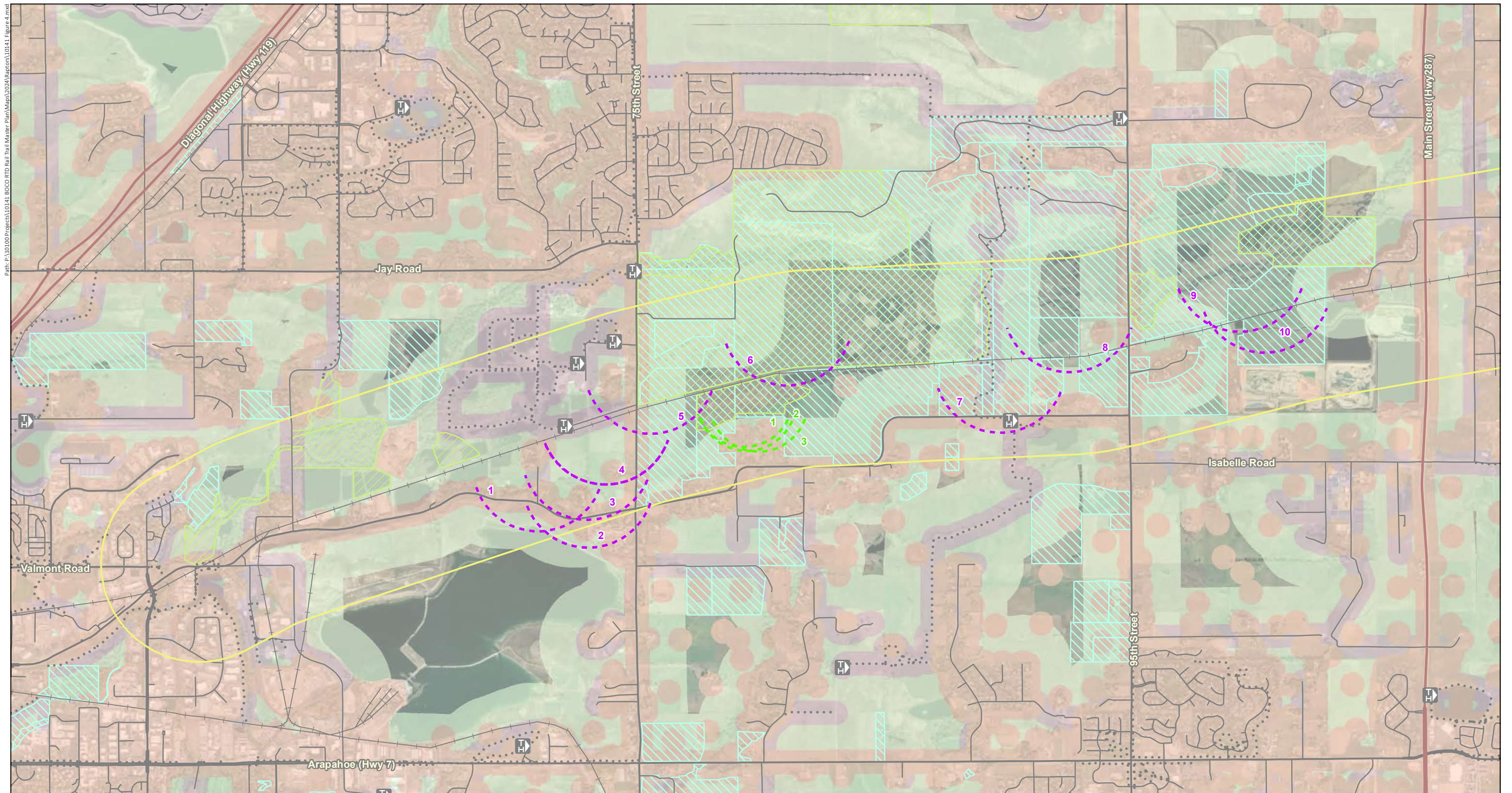
Image Source: Maxar Technologies©, April 17, 2022

**Figure 3**  
Eagle and Osprey Nests  
Distance to Disturbance



Prepared for: Loris  
File: 10141 Figure 3.mxd (GS)  
September 6, 2024





**Boulder to Erie Regional Trail (BERT)**

**Recommended Nest Buffers**

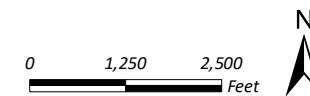
- - - - - Red-Tailed Hawk 1/3-Mile Buffer (OSMP & CPW)
- - - - - Northern Harrier 1/4-Mile Buffer (OSMP)
- Railroad Grade

- Existing Trail
- OSMP Wildlife Closure
- OSMP No Public Access
- Analysis Area

- High Disturbance
- Medium Disturbance
- Low Disturbance

Image Source: Maxar Technologies©, April 17, 2022

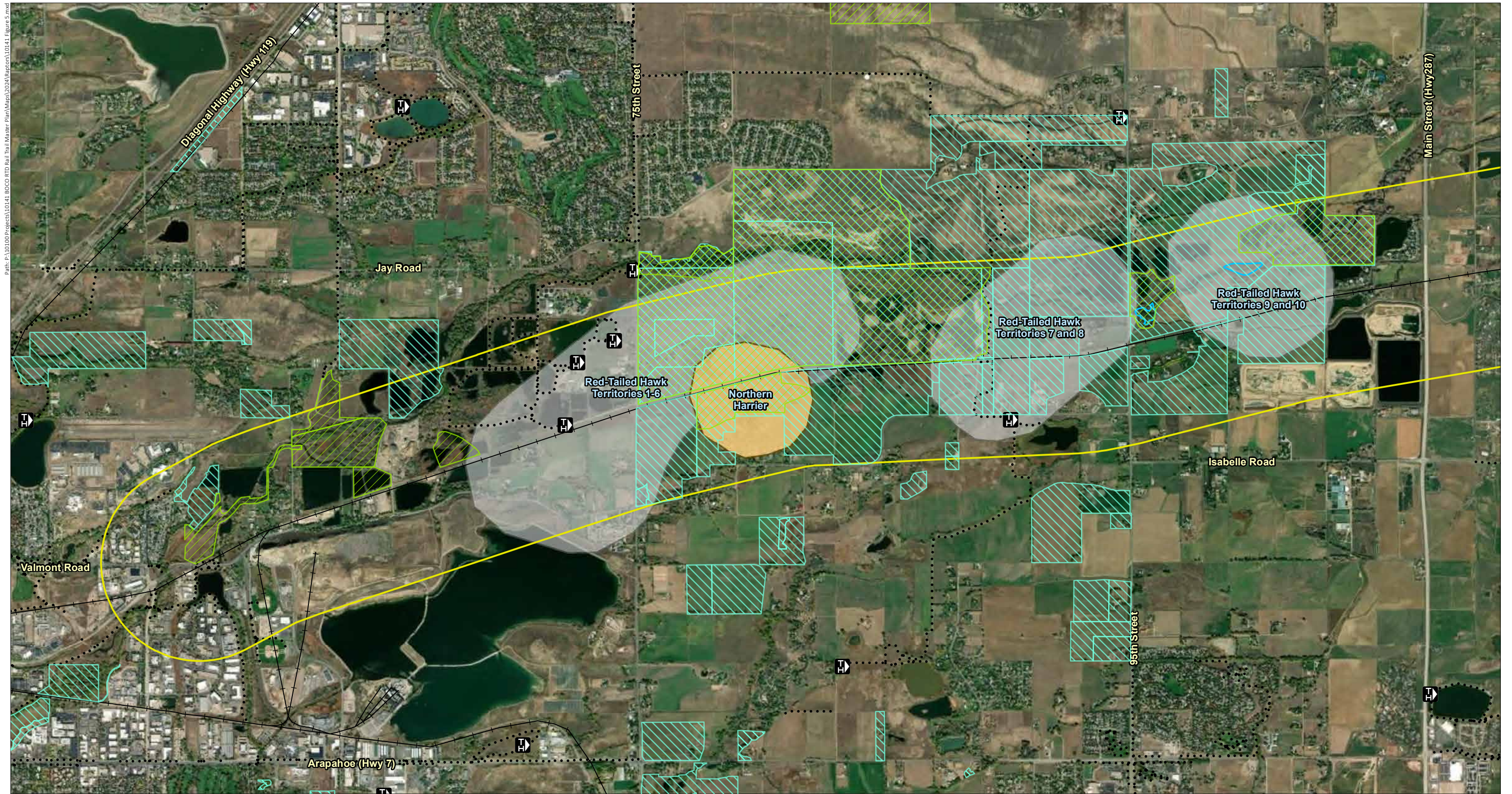
**Figure 4**  
**Red-Tailed Hawk and**  
**Northern Harrier Nests**  
**Distance to Disturbance**



Prepared for: Loris  
 File: 10141 Figure 4.mxd (GS)  
 September 10, 2024







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**Boulder to Erie Regional Trail (BERT)**









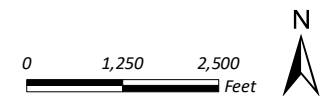
 Great Blue Heron Rookery	 Red-Tailed Hawk Breeding Territory Complex
 Railroad Grade	 OSMP Wildlife Closure
 Existing Trail	 OSMP No Public Access
 Northern Harrier Breeding Territory Complex	 Analysis Area

Image Source: Maxar Technologies©, April 17, 2022

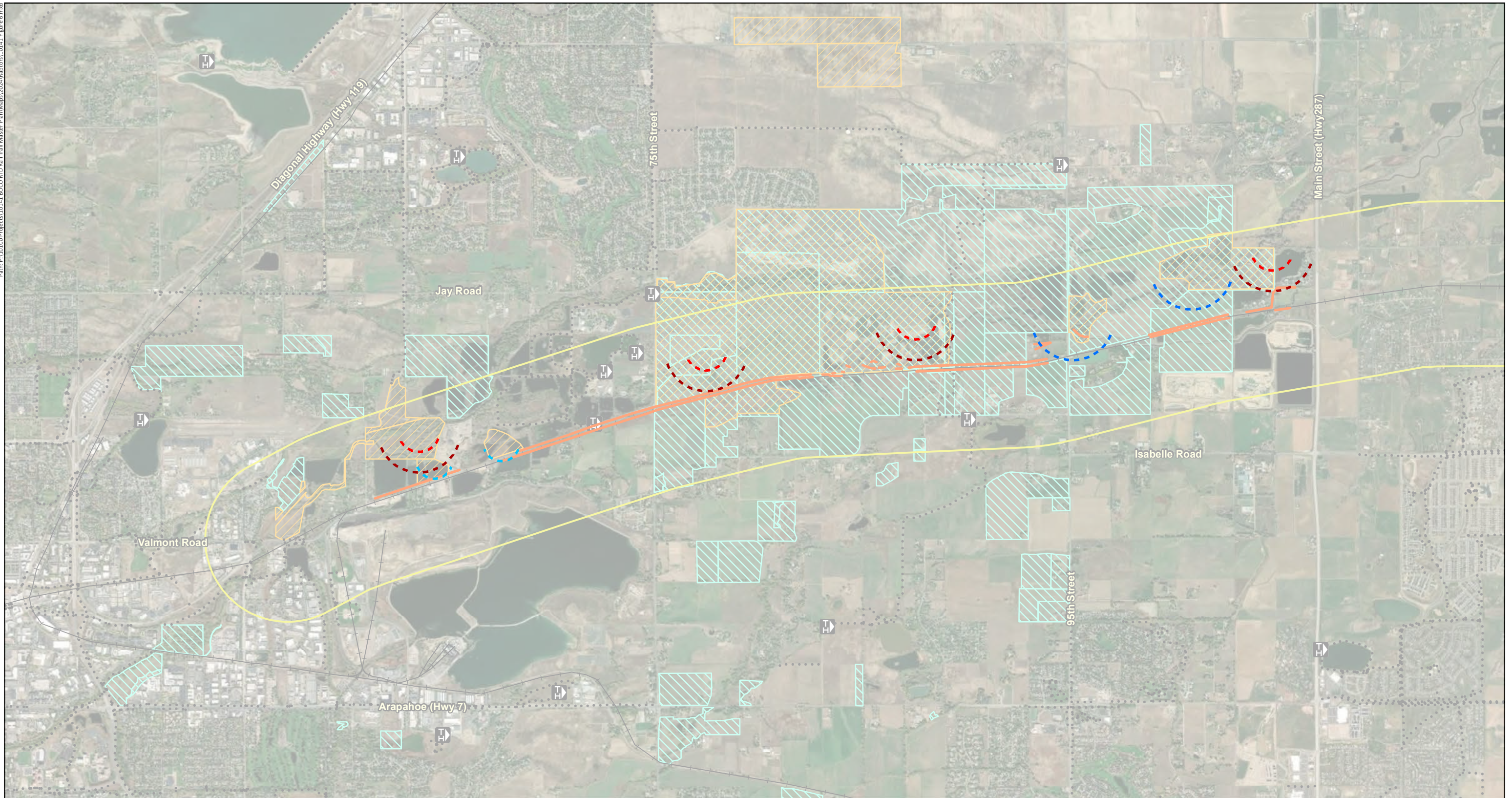
**Figure 5**  
Red-Tailed Hawk and Northern Harrier Likely Breeding Territories



Prepared for: Loris  
File: 10141 Figure 5.mxd (GS)  
September 10, 2024



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**Boulder to Erie Regional Trail (BERT)**

- +—+ Railroad Grade
- ..... Existing Trail
- Proposed and Enhanced Visual Screening
- ▨ OSMP Wildlife Closure
- ▨ OSMP No Public Access
- ▭ Analysis Area
- Bald Eagle 1/8-Mile Buffer
- Osprey 1/4-Mile Buffer
- Bald Eagle 1/4-Mile Buffer
- Osprey 575-Foot Buffer

Image Source: Maxar Technologies©, April 17, 2022

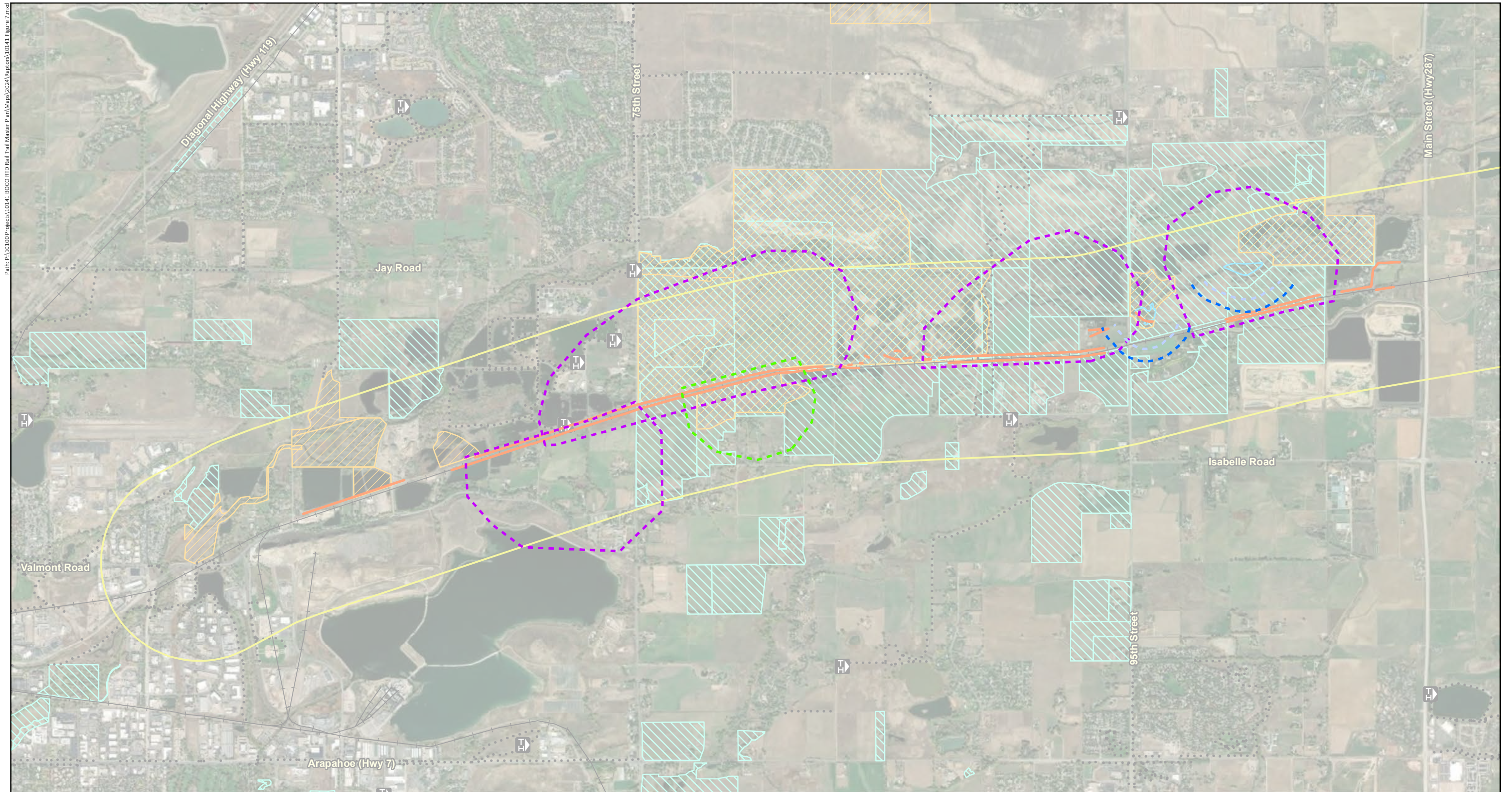
**Figure 6**  
Eagle and Osprey  
Site-Specific Tailored  
Raptor Nest Buffers

0 1,250 2,500  
Feet



Prepared for: Loris  
File: 10141 Figure 6.mxd (GS)  
September 10, 2024





**Boulder to Erie Regional Trail (BERT)**

- Great Blue Heron Rookery
- Railroad Grade
- Existing Trail
- Proposed and Enhanced Visual Screening
- Red-Tailed Hawk (OSMP & CPW)
- Northern Harrier (OSMP)
- Great Blue Heron 650-Foot Buffer
- Great Blue Heron 985-Foot Buffer
- OSMP Wildlife Closure
- OSMP No Public Access
- Analysis Area

Image Source: Maxar Technologies©, April 17, 2022

**Figure 7**  
 Red-Tailed Hawk, Northern Harrier  
 and Great Blue Heron Site-Specific  
 Tailored Raptor Nest Buffers

0 1,250 2,500 Feet

Prepared for: Loris  
 File: 10141 Figure 7.mxd (GS)  
 September 10, 2024

ERO Resources Corp.

### 7.1.2024 OSMP Comments on ERO's Raptor and Great Blue Heron Nest Evaluation, Boulder to Erie Regional Trail (BERT) Boulder County

#### Overarching Comments:

**OSMP believes ERO's evaluation and conclusion that seasonal closures are not needed for wildlife protection along the potential trail corridor are inconsistent with CPW's guidelines and OSMP's best practices and overall approach to wildlife protection. OSMP believes the use of CPW guidelines and recommendations will be necessary for the protection of raptors on adjacent OSMP lands. More details below:**

- On page 2, the evaluation references differences in tolerance to human disturbance among raptor species and individuals. CPW (2020) has categorized bald eagles based on the amount of existing disturbance within ¼ mile of their nest, with the reasoning that if there is more human activity within this buffer when the eagles nest, then the eagles can tolerate some level of human disturbance to a greater degree
  - According to CPW, if 10 or more daily occupied facilities are within ¼ mile of the nest, then the nest is in a "Highly Developed Area" and thus a reduced buffer can be employed (1/4 mile)
  - Alternatively, if this metric is not attained, then the nest is not in a Highly Developed Area and the recommendation is that these eagles are less tolerant to human disturbance and the ½ mile buffer is recommended.
  - None of the bald eagle nests on OSMP would be considered situated in a Highly Developed Area; thus OSMP staff uses the ½ mile buffer recommendation for eagle nests.
- For all raptor species, the evaluation measures *existing* uses as potential disturbance sources. If a raptor chooses to nest with an existing use nearby, some ecologists may consider those individuals to be tolerant of that use. The evaluation does not adequately account for the potential impacts that would occur with the *introduction of a new trail and its associated use* to these nests in addition to the existing uses. New uses with considerable human use may impact raptors to a greater extent than uses that existed prior to them nesting at that location.
- Cumulative impacts: similar to above, some raptor species or individuals may tolerate a certain level of human presence near their nest site, particularly if prey resources are abundant. However, a threshold exists where new impacts and additional human presence render previously occupied territories unusable. This may be especially pertinent with the increased human presence (i.e. new disturbance) that use of a regional trail would introduce and that may not be tolerated during the nesting season.
- Vehicles vs. people: in the field of raptor behavioral ecology, it is commonly known that raptors react differently to predictable mediums than unpredictable ones. Predictable causes of potential disturbance like vehicles and trains are less likely to evoke a nest

defense response if they are continuous and foreseeable. However, when a person stops their vehicle and exits it, it is more likely to disturb nesting raptors. Similarly, raptor observations from a vehicle are far less likely to elicit a behavioral response if the observer stays in the vehicle than when the observer leaves their vehicle. ERO's disturbance analysis characterizes the impacts from vehicles as being the same as impacts from visitor use of a trail and these impacts may not be equal.

- The evaluation includes application of disturbance buffers around access roads and other features, but a buffer was not applied around the proposed trail alignment. For accuracy and consistency in evaluating disturbances, a buffer should also have been placed around the proposed trail alignment and distances from each nest measured to the edge of this buffer to factor into level of disturbance. It is not only the presence of the soft-surface trail that is the source of disturbance, it is the human use of the trail and the concomitant change in nearby habitat conditions that comprise the impacts and disturbance.
- ERO's conclusions rest strongly on the effectiveness of their proposed vegetation screening. This may need to be reconsidered because shrub species may not offer cover from a nest 30 ft high to the proposed alignment and trees and shrubs take a decade or longer to mature. OSMP has concerns about the feasibility of trees/shrubs successfully maturing in this area and therefore this recommendation's usefulness in mitigating potential human disturbance.
- For all species analyzed, the report notes that "...nests are fully or partially visually screened from the proposed alignments". This statement is partially inaccurate as foliage that would provide a visual screen is not present during nest-site selection (Feb for bald eagles, March for red-tailed hawks, April for northern harriers) and nest-site selection is one of the most sensitive times in a raptor nesting cycle. Including this factor into increasing disturbance tolerance may need to be reconsidered for the reasons stated above.
- ERO's evaluation states that "it's more important to protect the resources within a nesting territory than an individual nest site" and that the breeding territories/"complexes provide numerous trees for red-tailed hawks and extensive tall marsh vegetation for northern harriers that provide abundant opportunities to select nest sites as distant or as close to any existing or new disturbances as needed." This evaluation includes reasoning and a management approach for red-tailed hawk and northern harrier nesting territories that does not align with CPW's nest-specific guidelines for wildlife habitat protection.

**Specific Comments and Questions are included in the attached evaluation document.**

June 24, 2024

**TO:** OTAK  
371 Centennial Parkway,  
Suite 210  
Louisville, CO 80027

**FROM:** Ron Beane, ERO Senior Wildlife Biologist

**RE:** Raptor and Great Blue Heron Nest Evaluation, Boulder to Erie Regional Trail, Boulder County, Colorado

## Introduction

The Boulder County, in partnership with the City of Boulder and Town of Erie, is evaluating options for the creation of a new soft-surface regional trail connection (the Boulder to Erie Regional Trail - BERT) linking Boulder and Erie via the RTD rail ROW corridor, which is near several City of Boulder Open Space and Mountain Park (OSMP) properties and easements. The analysis area for this trail provides habitat for numerous nesting raptors and two great blue heron rookeries (heron rookeries). ERO Resources Corporation (ERO) has been tasked with developing tailored buffered zones and other mitigation methods for existing raptor nests and the heron rookeries. Following a systematic step-by-step evaluation approach described in the following sections, ERO developed tailored buffer recommendations and other mitigation methods for nest sites and heron rookeries based on site-specific conditions.

## Background

Migratory birds, including raptors and great blue herons, are regulated by two main federal regulations: 1) the Migratory Bird Treaty Act; 2) the Bald and Golden Eagle Protection Act. These acts are administered by the U.S. Fish and Wildlife Service (USFWS). Colorado Parks and Wildlife (CPW) has adopted guidelines that recommend restrictions on human disturbance within specified buffer zones surrounding raptor nests (CPW 2020). CPW also provides recommended buffers for other avian species, such as great-blue herons (Jason Surface, pers. comm. 2024). OSMP has also adopted wildlife buffers/closures to protect raptors and other sensitive species on open space properties. OSMP and CPW provided buffer locations for raptor nests and great blue heron rookeries in the BERT analysis area (Figure 1). According to the CPW guidelines,

raptor species and individual raptors vary in their tolerance limits to disturbance. In April 2024, the USFWS revised the regulations for the issuance of permits for eagle incidental take and eagle nest take under the Bald and Golden Eagle Protection Act. Under the revised regulation, the USFWS has specified a 660 foot bald eagle nest buffer for various activities including building construction, linear infrastructure construction and maintenance, alteration of vegetation, motorized recreation, and nonmotorized recreation.

ERO has more than 40 years of experience working with raptors and colonial nesting species, such as great blue herons, double-crested cormorants, and other species in urban and suburban environments where these species demonstrate a tolerance to frequent nonthreatening human disturbance. As stated in the CPW raptor buffer guidelines (CPW 2020), “Some individuals habituate and tolerate human activity at a proximity that would cause the majority of the species to abandon their nests. Other individuals become sensitized to repeated encroachment and react at greater distances. Thus, CPW recommends a “holistic” approach when protecting raptor habitat that protects both nest sites and important foraging areas that support the pairs’ nesting effort.” CPW further states that “Measurements of nest success and productivity are somewhat imprecise and reflect the need to maintain some flexibility to adjust buffer zones depending upon intervening terrain and vegetation screens that obscure human activity” (CPW 2020).

## Approach for the Raptor and Heron Nest Evaluation

Starting with the OSMP nest map (Figure 1), ERO evaluated each nest site/heron rookery using the following criteria:

1. Surrounding level of human disturbance.
2. Distance to the nearest disturbance.
3. Adoption of OSMP tailored spatial buffers for osprey nests.
4. Evaluation of red-tailed hawks and northern harriers on a breeding territory basis.
5. Presence of visual screening.
6. Applying a tiered buffer approach of great blue heron rookeries buffers.

These criteria were calculated for each nest in a step-by-step process and recorded in Table 1 as described in the following sections.

### 1. Surrounding Level of Human Disturbance

ERO evaluated existing levels of human disturbance by applying standard disturbance buffers used for parks and urban space planning. Existing human disturbance in the analysis area was categorized into three disturbance levels: High, Medium, and Low (Figure 2), based on the following criteria:

High Disturbance

- 330-foot impact zone
- Existing homes (address points)
- Highways/primary roads/state highways
- Primary roads including county roads (main arterials), 75th Street, 95th Street, etc.
- Industrial sites (quarry, batch plant, etc.)

#### Medium Disturbance

- 330-foot impact zone
- Existing trails
- Secondary roads (subdivision and trailhead access roads)
- Trailheads

#### Low Disturbance

- Existing trails (+1,320 feet)
- Existing highways and roads, industrial sites (+1,320 feet)

The disturbance level immediately surrounding each mapped nest and heron rookery is shown in Table 1.

## 2. Distance to the Nearest Disturbance

Once disturbance levels were identified, the distance from each raptor nest was calculated by measuring the distance from the center of each raptor buffer to the nearest existing disturbance element (roads, trails, residences, industrial areas, etc.). A similar measurement was calculated from the approximate center of each heron rookery and recorded in Table 1. For ease of viewing, nest disturbance levels near bald eagle and osprey nests are shown on Figure 3 and disturbance levels near red-tailed hawk and northern harrier nests are shown on Figure 4. The distance to disturbance elements for almost all nesting raptors and heron rookeries is less than the recommended buffer distances, indicating some tolerance to human activities.

## 3. Adoption of OSMP-Tailored Spatial Buffers for Osprey Nests

Boulder OSMP evaluated existing levels of disturbance to osprey nests on two occasions; 1) when the artificial nest platform was installed and 2) when seasonal closures were instituted (Figure 2).



**Table 1. BERT nesting raptor and heron impact evaluation.**

Species	Nest #	Disturbance		Breeding Territory		Visual Buffer	Tailored Buffer	Comments
		Level (H,M,L)	Distance (feet)	#	Acres			
Bald Eagle	1	L*	630	N/A	N/A	Yes	1/4-mile	Distance to nearest disturbance for all eagle nests falls between the U.S. Fish and Wildlife Service (USFWS) 660-foot regulatory buffer and 1/4-mile.
Bald Eagle	2	M*	730	N/A	N/A	Partial	1/4-mile	
Bald Eagle	3	M*	940	N/A	N/A	Proposed	1/4-mile	
Bald Eagle	4	M*	950	N/A	N/A	Yes	1/4-mile	
Red-Tailed Hawk	1	H	0	1	460	Proposed	Territory –	Territory provides abundant nesting substrate, food resources, and opportunities to select nest sites. No adverse effect.
Red-Tailed Hawk	2	M	400					
Red-Tailed Hawk	3	M	850					
Red-Tailed Hawk	4	H	85	2	223	Proposed	1/4 -mile buffer to visual screen.	1/4 -mile buffer to visual screen. Territory provides abundant resources. No adverse effect.
Red-Tailed Hawk	5	H*	340					
Red-Tailed Hawk	6	None*	1,285	3	223	Yes	1/4 -mile buffer to visual screen.	1/4 -mile buffer to visual screen. Territory provides abundant resources. No adverse effect.
Red-Tailed Hawk	7	M	180	4	223	Partial	Territory	Nest is less than 200 feet from existing year-round trail - Territory provides abundant resources. No adverse effect.
Red-Tailed Hawk	8	None	385	5	223	Partial	Territory to visual screen	Territory provides abundant resources. No adverse effect.
Red-Tailed Hawk	9	None	750	6	293	Proposed	Territory to visual screen	Territory provides abundant resources. No adverse effect.
Red-Tailed Hawk	10	None	1,635					
Northern Harrier	1	None*	703	1	151	Yes	Territory	Nests low in dense vegetation that provides security and visual screen - north boundary cut is at railroad grade.
Northern Harrier	2	None*	598					
Northern Harrier	3	None*	457					
Osprey	1	M*	69	N/A	N/A	Yes	OSMP	Consistent with OSMP closure boundaries.
Osprey	2	M*	247	N/A	N/A	Partial	OSMP	
Osprey	3	H*	122	N/A	N/A	Proposed	OSMP	
Osprey	4	None*	1,727	N/A	N/A	Proposed	OSMP	
Great Blue Heron Rookery	1	H/M	165	N/A	N/A	Partial	Tiered	165 feet to Lefler Lane; 595 feet to North 95th Street. Tiered at CPW buffer (985 feet) and 650 feet.
Great Blue Heron Rookery	2	M	275	N/A	N/A	Partial	Tiered	275 feet to access road; 1,390 feet to residence. Tiered at CPW buffer (985 feet) and 650 feet.

Disturbance Level: H = High, M = Medium, L= Low, None = Nest is greater than 1,320 feet from disturbance  
 Disturbance levels do not include agricultural activities

\*Nest is within seasonal closure.

Note:

#### 4. Evaluation of Red-Tailed Hawks and Northern Harriers on a Breeding Territory/Complex Basis

As described above, CPW (2020) recommends “a “holistic” approach when protecting raptor habitat that protects both nest sites and important foraging areas that support the pairs’ nesting effort.” Three keys to successful raptor nesting are (1) suitable substrate for building nests, (2) sufficient and available food resources, and (3) security from predators and human disturbance, often achieved by establishing disturbance buffers. ERO understands that northern harriers nesting in the analysis area have multiple alternate nests within an overall nesting territory and that not all nests mapped for this species on Figures 1 and 2 are “in use” during a breeding season. The same is also likely for the 10 red-tailed hawk nests mapped on Figure 2, although OSMP staff checked all of these nests in the field on 4/10 and confirmed that all of them are occupied by nesting red-tailed hawks. This density of occupied or “in use” nests of the same species is unusual and indicates a high abundance of the resources needed for nesting. Competition for these resources, particularly food and nesting sites, is likely to be intense between all of the predatory bird species nesting in the analysis area. In times of food scarcity, it is likely that not all of the mapped nests would be productive.

The goal of nest buffers is to provide the resources needed to support a viable breeding raptor pair. An individual nest or nest tree can be destroyed by storms or lost due to disease or any number of stressors. Specific nest location may also change over time. Thus, it is more important to protect the resources within a nesting territory than an individual nest site. Based on the distribution of red-tailed hawk nests, ERO has identified six areas, or complexes, of individual and strongly overlapping territories for red-tailed hawks (mapped as nest complexes) and one nest territory for northern harriers (Figure 5). ERO presumes that each of these complexes provide all the chemical, physical, and biological attributes needed for successful breeding, including the three keys listed in the previous paragraph.

#### 5. Presence of Visual Screening

CPW (2020) further states that “Measurements of nest success and productivity are somewhat imprecise and reflect the need to maintain some flexibility to adjust buffer zones depending upon intervening terrain and vegetation screens that obscure human activity” (CPW 2020). Applying this principle, ERO identified trees and large shrubs that provide a visual screen to the proposed trail alignments. These vegetation screens were defined as essentially contiguous lines of tall woody vegetation greater than 100 feet long.

It is important to that the foreground between a nest and the disturbance element and the background behind a disturbance element also moderates the disturbance impact. Taking a conservative analysis approach, other forms of visual/physical buffers, such as industrial/residential foregrounds and backgrounds and intervening open water that can provide an increased sense of security for breeding raptors and herons are not included in this analysis are.

## 6. Great Blue Heron Rookery Tiered Buffer Approach

The most current CPW recommended buffer for heron rookeries is 985 feet (300 meters) (Surface, pers. comm. 2024). The USFWS references a tiered buffer system for great blue heron rookeries developed in Vermont (VFWD 2002). The tiered buffer approach has three buffer zones:

1. Primary buffer zone – 300 feet
  - All human use should be avoided during the nesting season (March 15 – August 15).
  - Recreational activities (hiking, hunting, fishing, biking, etc.) are allowed outside of the nesting season.
2. Secondary buffer zone – 300 to 650 feet
  - There should be no mining, land clearing, or construction of permanent structures year round.
  - Existing agricultural activities, footpaths, and nonmotorized activities are allowed during the nesting period.
3. Tertiary buffer zones – 650 to 1,300 feet
  - Land clearing, timber harvesting, and construction may be feasible outside of the nesting season after consultation with a wildlife biologist.
  - Recreational activities (hiking, hunting, fishing, biking, etc.) may occur in this zone.

Figure 6 shows both a 985-foot CPW buffer and the 650-foot secondary buffer. A 300-foot primary buffer is not shown because no trail alignments occur in this zone.

### Analysis and Conclusions by Species

ERO evaluated the criteria described above and proposes tailored buffers for raptor nest sites and heron rookeries potentially impacted by the proposed trail alignments. The results of the evaluation are provided in Table 1. The tailored buffers based on the evaluation are shown on Figure 6 for eagles and osprey and one Figure 7 for red-tailed hawk, northern harrier and herons. ERO's analysis is described below by species:

#### Bald Eagle

Nest 1 through Nest 3 occur in areas experiencing medium disturbance, and the distance to the nearest disturbance for all four nests is less than 1,000 feet. Three of the four nest sites are also partially to fully visually screened from the proposed trail alignments. Because the distance to the nearest disturbance for all eagle nests falls between the USFWS 660-foot regulatory buffer (1/8-mile) and 1/4-mile buffer, combined with the existing visual screening, a reasonable site-specific buffer for bald eagles is 1/4 mile.

#### Red-tailed Hawk and Northern Harrier Individual Nest Sites

Although protecting ample resources within a territory/complex is the most effective way to maintain breeding raptors, ERO evaluated tailored buffers for all existing nest sites. All Red-tailed hawk and

northern harrier nests are less than ¼-mile from a disturbance element and most of the nests are less than 1/8-mile(660 feet) to a disturbance element (Table 1). Many of the nests are also fully or partially visually screened from the proposed trail alignments. Because the proximity of all nests indicate tolerance to human activities equal or greater in intensity to a regional trail, the first step in developing a tailored nest buffer is to reduce nest buffers for red-tailed hawks and northern harriers to ¼-mile. The next step is to look at the proximity of disturbance to individual nest sites. Red-tailed hawk nest sites 1, 4 and 7 are all less than 200 feet from residences, trails and access roads and exhibit a strong tolerance to human disturbance.

### **Red-tailed Hawk and Northern Harrier Territories/Complexes**

The goal of nest buffers are to provide the resources needed for successful breeding. To accomplish this goal, ERO identified six red-tailed hawk and one northern harrier breeding territories/complexes that are all generally equal to, or larger in overall acreage than CPW and OSMP buffers (Figures 5 and 7). The past success of raptors breeding in these territories and complexes are evidence that the analysis area provides abundant nesting substrate and food resources. Recognizing the fact that existing nest sites may change between now and actual trail construction, protecting territories/complexes would provide the resources necessary for successful nesting regardless of nest location. All of these complexes provide numerous trees for red-tailed hawks and extensive tall marsh vegetation for northern harriers that provide abundant opportunities to select nest sites as distant or as close to any existing or new disturbance as needed. Some of these complexes are bisected by the proposed regional trail. However, based on the demonstrated tolerance of these breeding pairs to human disturbance and the apparent abundance of resources, we see no evidence that a soft-surface regional trail running through their territories/complexes would have an adverse effect on breeding red-tailed hawks or northern harriers.

### **Osprey**

Osprey nests 1 through 3 are less than 250 feet from a disturbance element. Tailored nest buffers for the BERT alignment would adopt the existing OSMP closure buffers for ospreys. Placement of a regional trail along the proposed trail alignments would have no adverse effect on breeding ospreys.

### **Great Blue Heron Rookeries**

Both heron rookeries are less than 275 feet from a disturbance element. Heron rookery 2 is more than the CPW-recommended 985 feet from the proposed trail alignments. Heron rookery 1 is about 580 feet from the proposed trail alignments, which fall within the 300- to 650-foot secondary buffer where existing agricultural activities, footpaths, and nonmotorized activities are allowed during the nesting period. Based on the tiered approach to rookery buffers, placement of a regional trail along the proposed trail alignments would have no adverse effect on heron rookery 1.


## Recommendations

OSMP, Boulder County and private conservation easements has preserved and protected the resources within the analysis area needed for successful raptor and heron breeding. These resources include abundant food, water and sufficient nesting opportunities to allow for nest movement in response to a changing environment. Based on this analysis a soft-surface regional trail would not adversely affect the overall breeding success of the raptors and heron nesting in the analysis area or contribute to an overall decline in the species locally or regionally. The installation of a new soft-surface trail will be a new activity in the analysis area and ERO recommends the following to reduce and minimize any potential disturbance:

1. Complete all construction activities outside of the active breeding season, generally extending from December 1 through July 15. Because species distribution and nest site locations are likely to change between now and the initiation of construction, nesting surveys would be completed prior to construction and construction activities phased and scheduled to minimize impacts to specific nest sites.
2. Much of the existing visual screening is composed of Russian Olive, a non-native noxious species. ERO recommends enhance and expanding these visual buffers by replacing the Russian olive and planting additional native tree and shrub species to provide visual screening along the trail. The species to be planted and exact locations should be developed in coordination with project partners and adjacent property owners as part of the next stage of the project during design.

### SIGNED:

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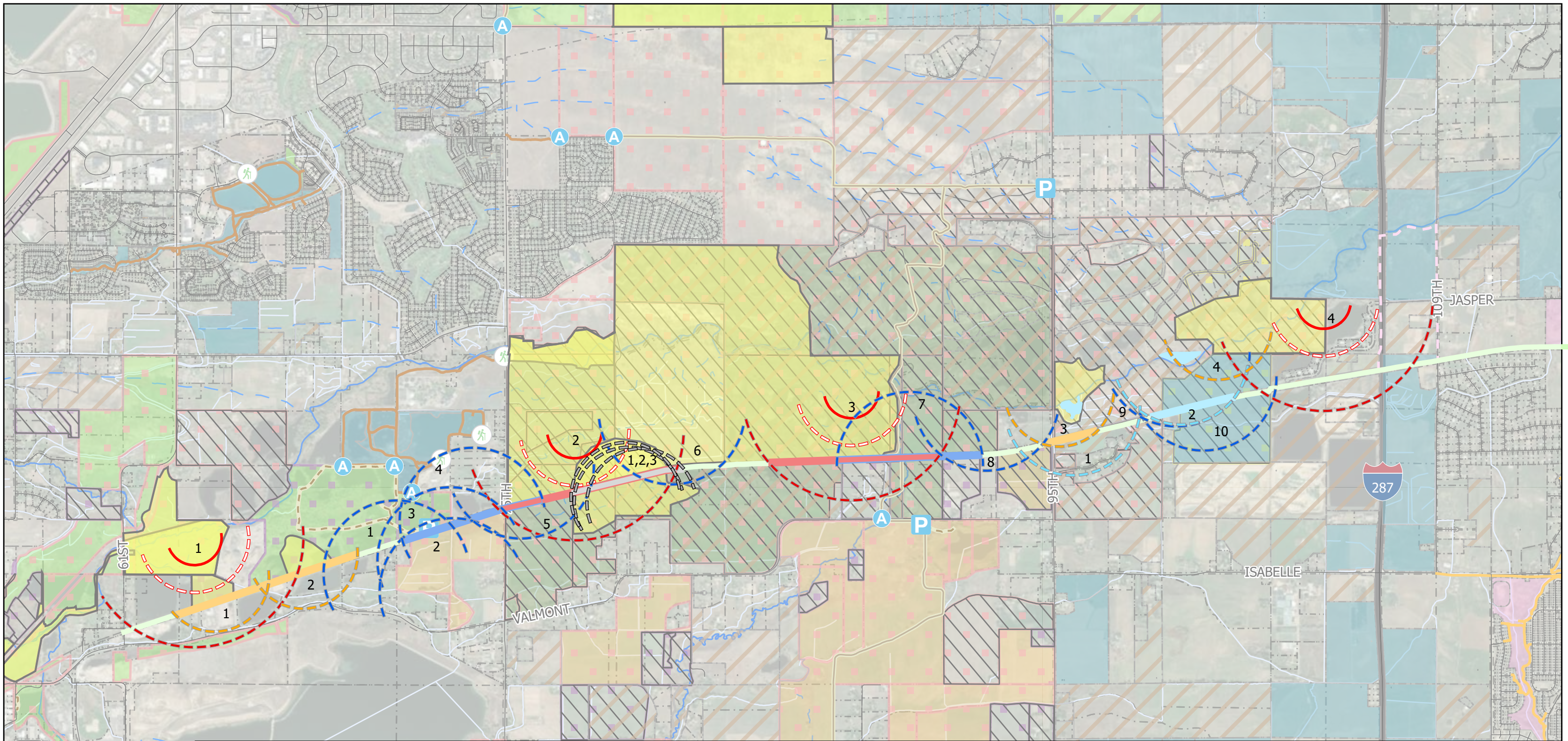
Ronald Beane, Senior Wildlife Biologist

Attachments: Figures 1, 2, 3, 4, 5, and 6

## References

- Colorado Parks and Wildlife (CPW). 2020a. Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors. May.
- Surface, J. 2024. Email from Jason Surface, CPW Area Wildlife Manager, Area 4, to Chad Kemper, Town of Timnath. June 5.
- Vermont Fish and Wildlife Department (VFWD). 2002. Guidelines for protecting and Mitigation of Impacts to Great Blue Heron Rookeries in Vermont.

# Map Depicting All BERT Corridor Nest Buffers



## Legend

### PREFERRED ALIGNMENT FOR FURTHER CONSIDERATION

### REGULATORY NEST BUFFERS

Bald Eagle Nests 1/8 Mile Buffer

### RECOMMENDED NEST BUFFERS

Osprey 1/4 Mile Buffer (OSMP & CPW)

Northern Harrier 1/4 Mile Buffer (OSMP)

Red Tail Hawk 1/3 Mile Buffer (OSMP & CPW)

Bald Eagle 1/2 Mile Buffer (OSMP & CPW)

Great Blue Heron 1/3 Mile Buffer (CPW)

Bald Eagle 1/4 Mile Buffer (OSMP & CPW)

### GREAT BLUE HERON ROOKERIES

### MANAGED TRAIL ACCESS LOCATIONS

OSMP Trailhead with Designated Parking

Access Point - Parking Along Public Streets Unless Otherwise Posted

### BOULDER COUNTY TRAILHEADS



OSMP Hiking Trail

OSMP Multi-Use Trail

### BOULDER COUNTY TRAILS

### ERIE TRAILS

### 287 CROSSING AT BOULDER CREEK

### LINEAR HYDROLOGY

Ephemeral Stream

Intermittent Stream

Perennial Stream

542

Ditches and Field Laterals

### ERIE GREEN SPACE OWNERSHIP

### OSMP LAND

OSMP Fee Ownership

OSMP Joint Ownership

OSMP Joint Easement

OSMP Easement

OSMP Wildlife Closures

No Public Access

### OSMP MANAGEMENT AREA DESIGNATIONS

Agricultural Area

Habitat Conservation Area

Natural Area

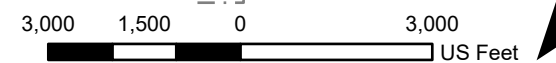
### COUNTY OPEN SPACE

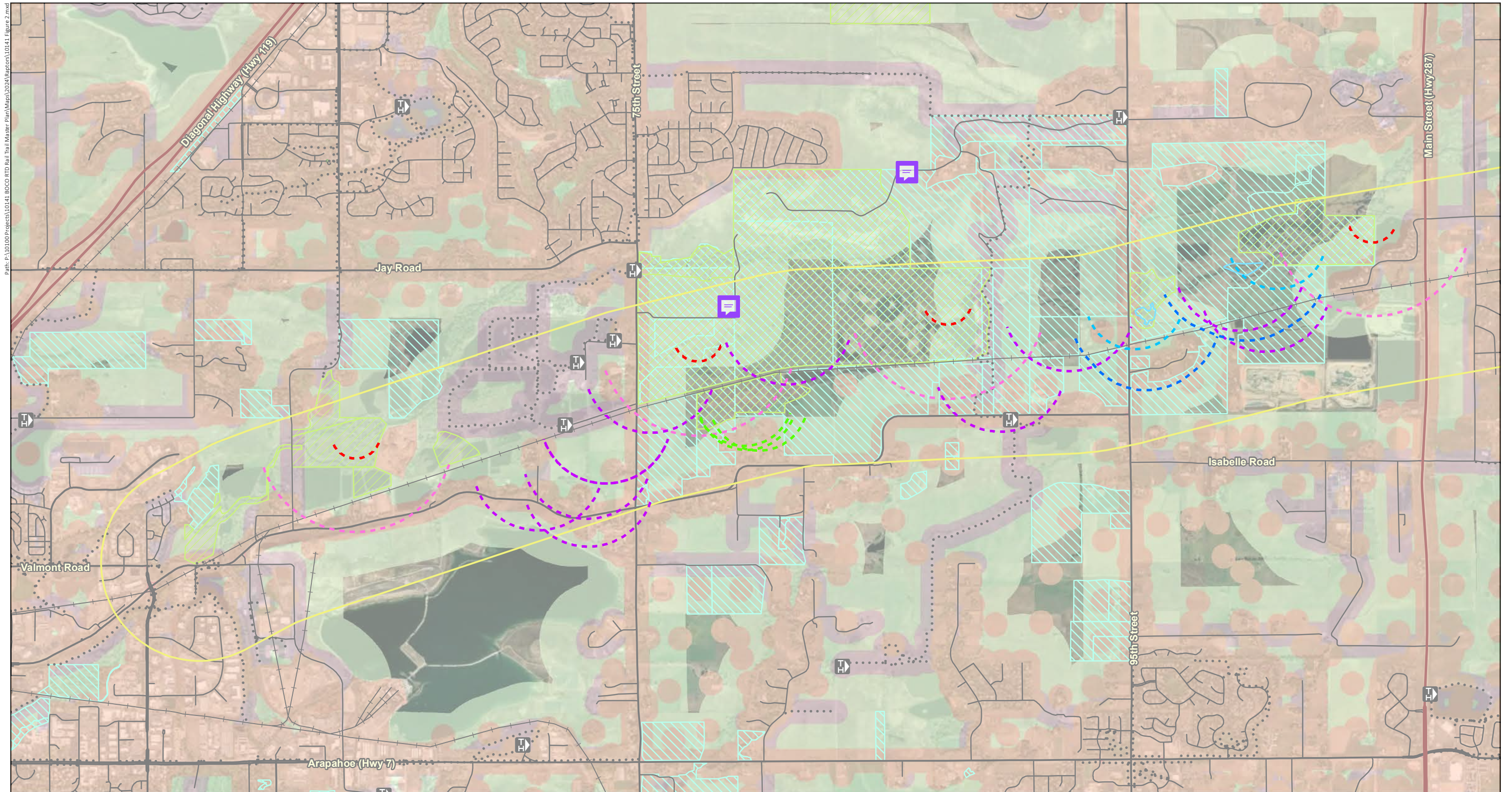
County Conservation Easement

County Owned Open Space

Trail Easement

### PARCELS





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**Boulder to Erie Regional Trail (BERT)**

**Regulatory Nest Buffers**

--- Bald Eagle 1/8-Mile Buffer (USFWS)

**Recommended Nest Buffers**

--- Red-Tailed Hawk 1/3-Mile Buffer (OSMP & CPW)

--- Northern Harrier 1/4-Mile Buffer (OSMP)

--- Bald Eagle 1/2-Mile Buffer (OSMP & CPW)

--- Osprey 1/4-Mile Buffer (OSMP & CPW)

--- Great Blue Heron 1/3-Mile Buffer (CPW)

--- Great Blue Heron Rookery

--- Railroad Grade

--- Existing Trail

--- OSMP Wildlife Closure

--- OSMP No Public Access

--- Analysis Area

--- High Disturbance

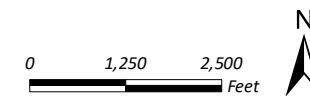
--- Medium Disturbance

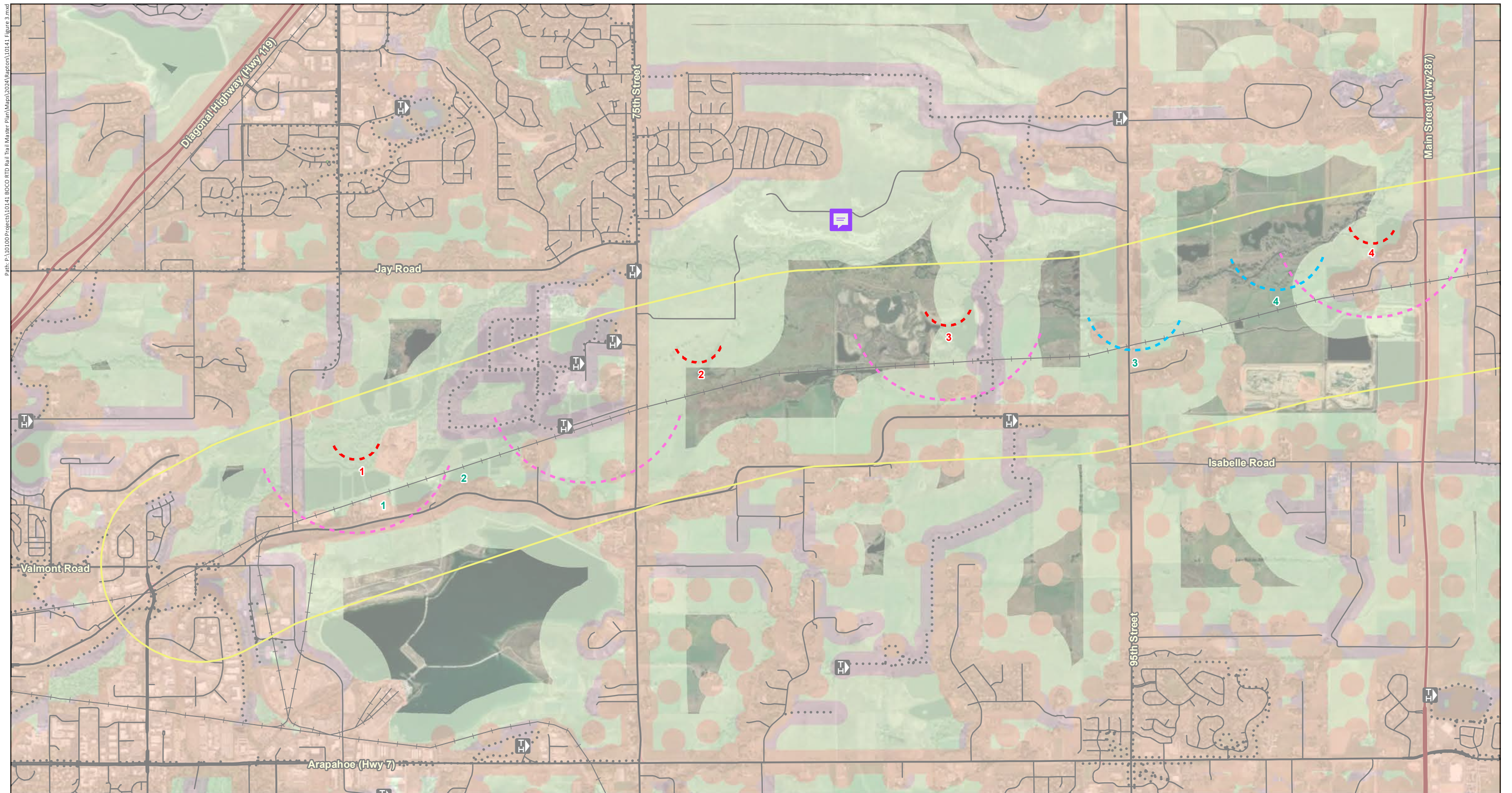
--- Low Disturbance

Image Source: Maxar Technologies©, April 17, 2022

**Figure 2**  
Raptor Nests and Great Blue Heron Rookeries in the BERT Analysis Area and Associated Buffers

Prepared for: Loris  
File: 10141 Figure 2.mxd (GS)  
September 10, 2024



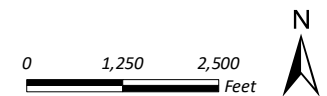


**Boulder to Erie Regional Trail (BERT)**

<b>Regulatory Nest Buffers</b>	<b>Recommended Nest Buffers</b>	<b>Railroad Grade</b>	<b>High Disturbance</b>
Bald Eagle 1/8-Mile Buffer	Bald Eagle 1/2-Mile Buffer (OSMP & CPW)	Existing Trail	Medium Disturbance
	Osprey 1/4-Mile Buffer (OSMP & CPW)	Analysis Area	Low Disturbance

Image Source: Maxar Technologies©, April 17, 2022

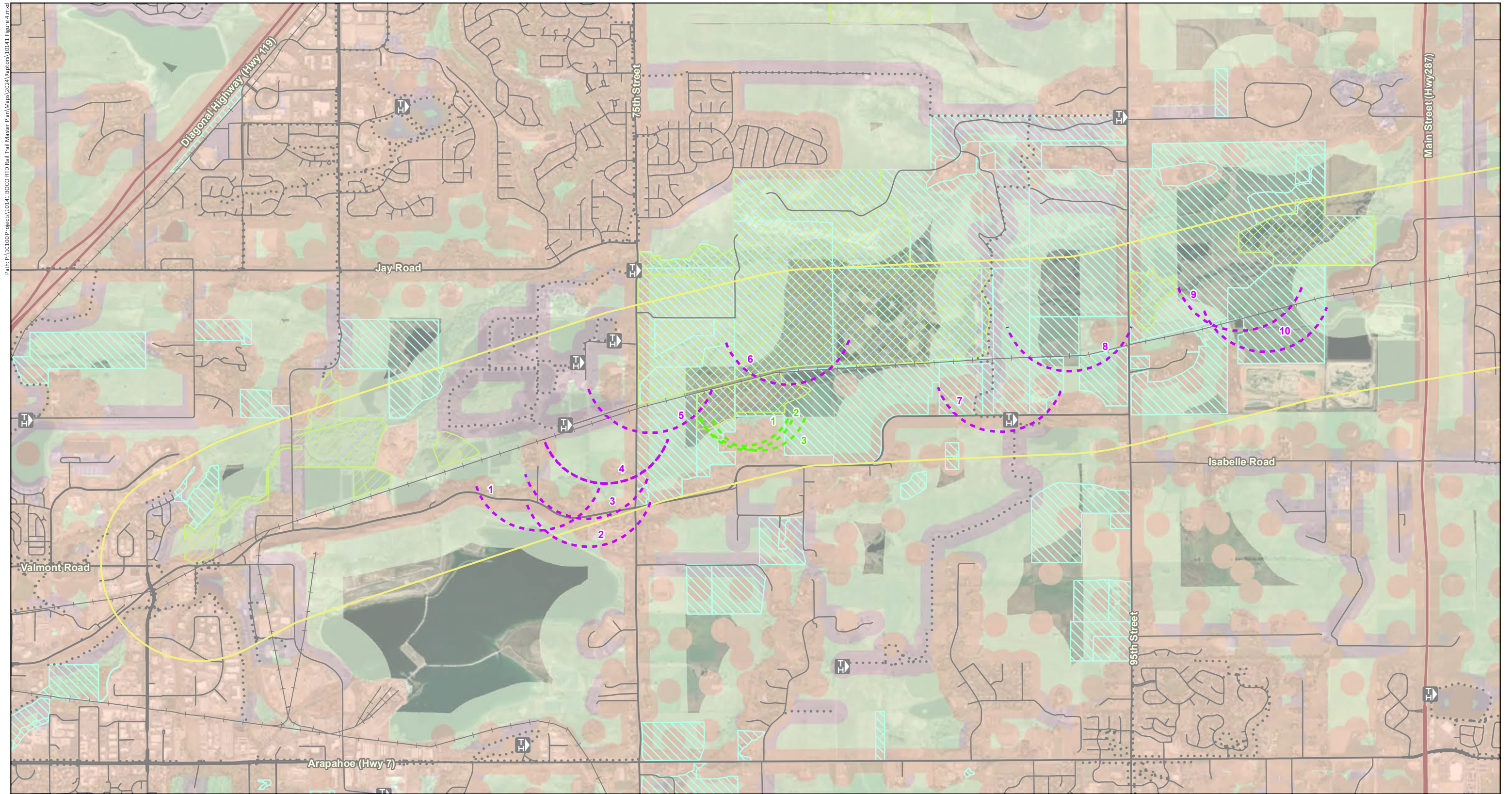
**Figure 3**  
Eagle and Osprey Nests  
Distance to Disturbance



Prepared for: Loris  
File: 10141 Figure 3.mxd (GS)  
September 6, 2024







**Boulder to Erie Regional Trail (BERT)**

**Recommended Nest Buffers**

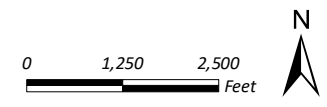
- - - - - Red-Tailed Hawk 1/3-Mile Buffer (OSMP & CPW)
- - - - - Northern Harrier 1/4-Mile Buffer (OSMP)
- Railroad Grade

- Existing Trail
- OSMP Wildlife Closure
- OSMP No Public Access
- Analysis Area

- High Disturbance
- Medium Disturbance
- Low Disturbance

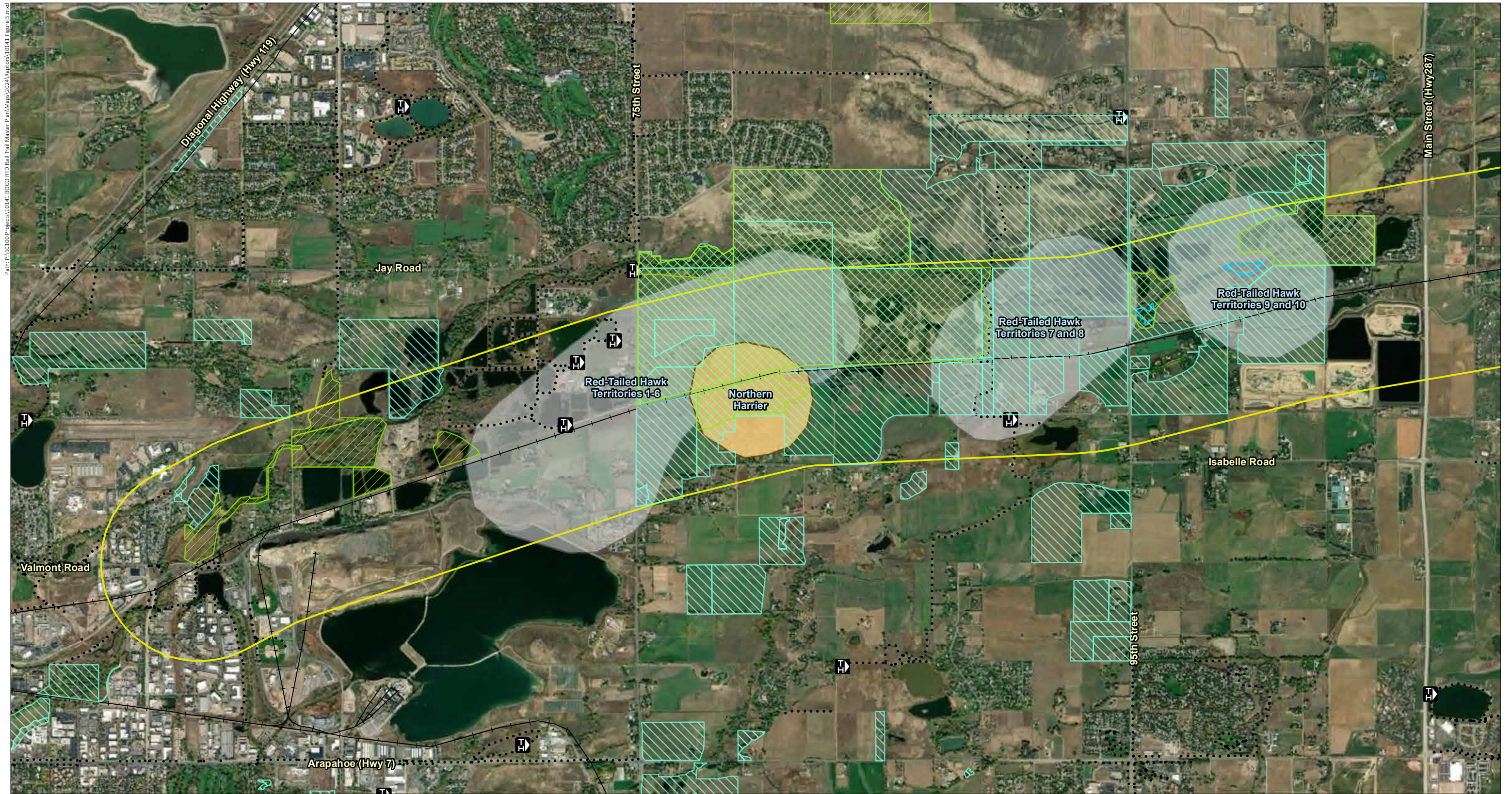
Image Source: Maxar Technologies©, April 17, 2022

**Figure 4**  
**Red-Tailed Hawk and Northern Harrier Nests**  
**Distance to Disturbance**



Prepared for: Loris  
 File: 10141 Figure 4.mxd (GS)  
 September 10, 2024





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**Boulder to Erie Regional Trail (BERT)**









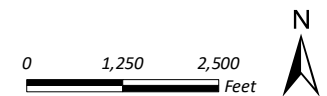
 Great Blue Heron Rookery	 Red-Tailed Hawk Breeding Territory Complex
 Railroad Grade	 OSMP Wildlife Closure
 Existing Trail	 OSMP No Public Access
 Northern Harrier Breeding Territory Complex	 Analysis Area

Image Source: Maxar Technologies©, April 17, 2022

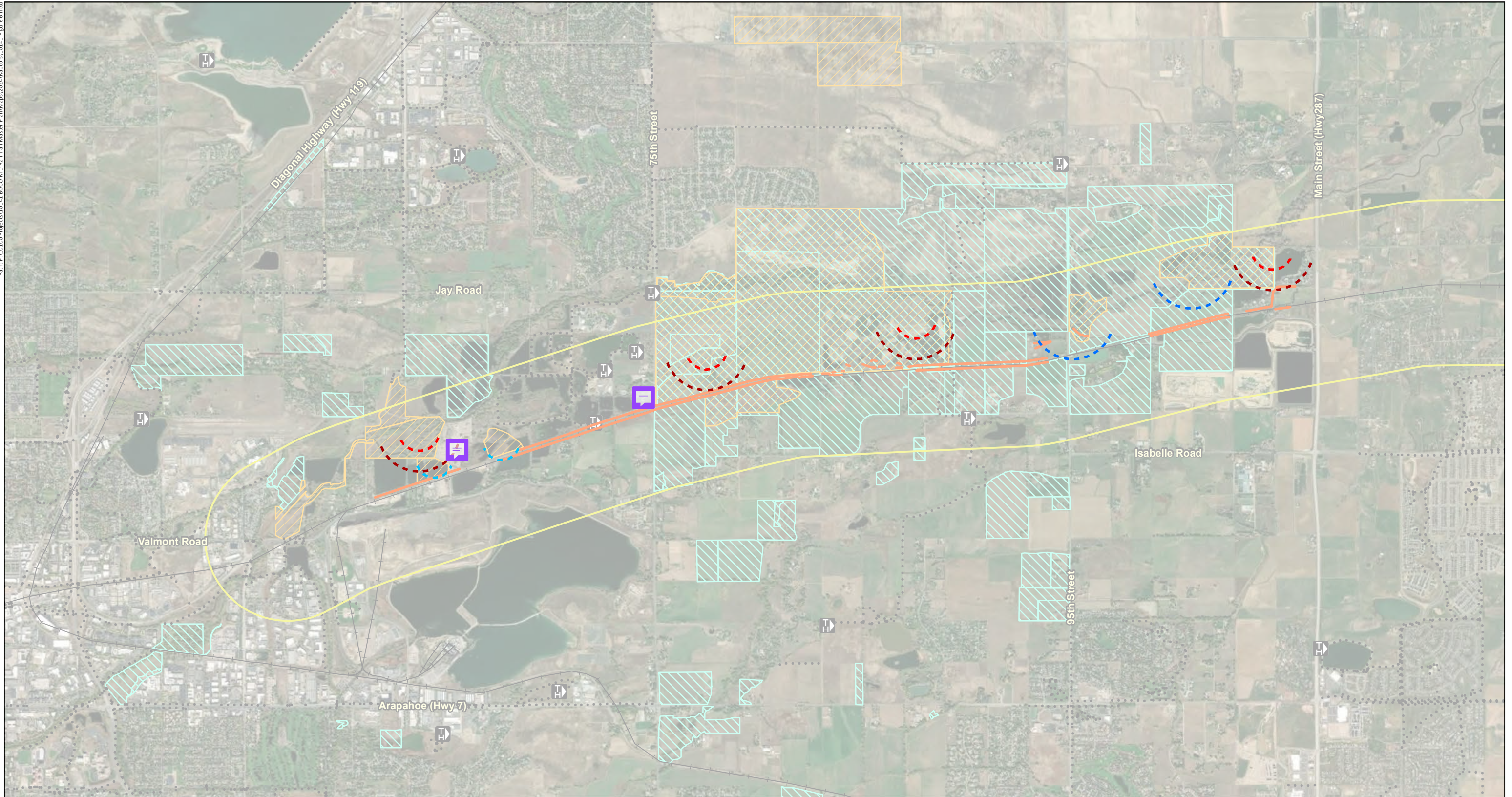
**Figure 5**  
Red-Tailed Hawk and Northern Harrier Likely Breeding Territories



Prepared for: Loris  
File: 10141 Figure 5.mxd (GS)  
September 10, 2024



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**Boulder to Erie Regional Trail (BERT)**

- +—+ Railroad Grade
- ..... Existing Trail
- Proposed and Enhanced Visual Screening
- ▨ OSMP Wildlife Closure
- ▨ OSMP No Public Access
- ▭ Analysis Area
- Bald Eagle 1/8-Mile Buffer
- Osprey 1/4-Mile Buffer
- Bald Eagle 1/4-Mile Buffer
- Osprey 575-Foot Buffer

Image Source: Maxar Technologies©, April 17, 2022

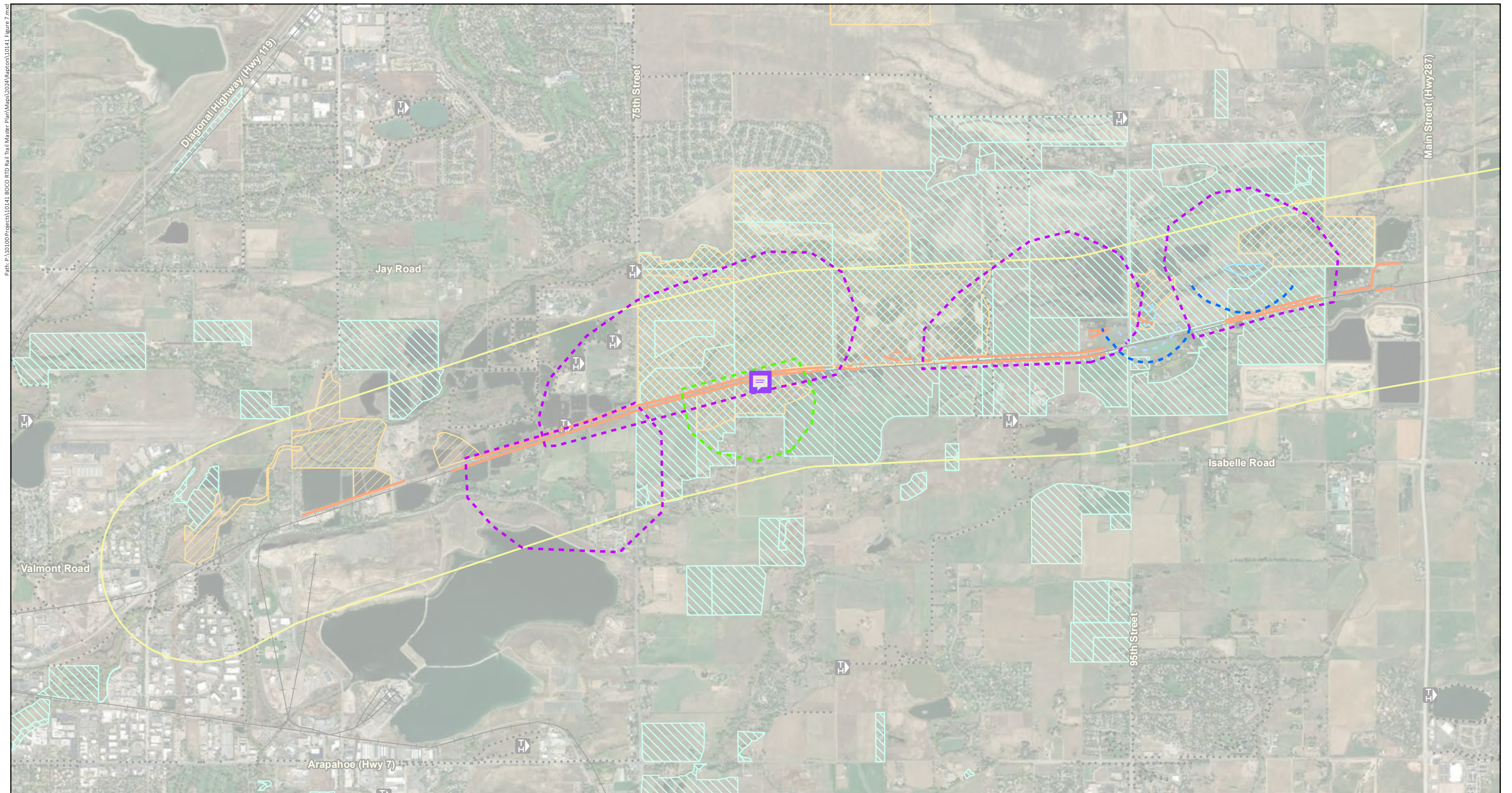
**Figure 6**  
Eagle and Osprey  
Site-Specific Tailored  
Raptor Nest Buffers

0 1,250 2,500  
Feet



Prepared for: Loris  
File: 10141 Figure 6.mxd (GS)  
September 10, 2024



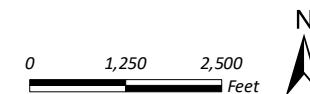


**Boulder to Erie Regional Trail (BERT)**

- |  |                                  |                       |
|--|----------------------------------|-----------------------|
| Great Blue Heron Rookery               | Red-Tailed Hawk (OSMP & CPW)     | OSMP Wildlife Closure |
| Railroad Grade                         | Northern Harrier (OSMP)          | OSMP No Public Access |
| Existing Trail                         | Great Blue Heron 650-Foot Buffer | Analysis Area         |
| Proposed and Enhanced Visual Screening | Great Blue Heron 985-Foot Buffer |                       |

Image Source: Maxar Technologies©, April 17, 2022

**Figure 7**  
 Red-Tailed Hawk, Northern Harrier  
 and Great Blue Heron Site-Specific  
 Tailored Raptor Nest Buffers



Prepared for: Loris  
 File: 10141 Figure 7.mxd (GS)  
 September 10, 2024



July 8, 2024

**TO:** OTAK  
371 Centennial Parkway,  
Suite 210  
Louisville, CO 80027

**FROM:** Ron Beane, ERO Senior Wildlife Biologist

**RE:** Response to Boulder OSMP Raptor Analysis Comments, Boulder to Erie Regional Trail, Boulder County, Colorado.

ERO has reviewed the comments on ERO's Raptor and Great Blue Heron Nest Evaluation, Boulder to Erie Regional Trail (BERT) Boulder County provided by Boulder Open Space and Mountain Parks (OSMP) on 7.1.2024. Responses to the overarching comments are provided below. Most comments provided in the text of the document are captured by the overarching comments, therefore direct responses to most of the in-text comments are not being provided at this time. However, a few general responses to in-text comments that are not addressed by the overarching comment responses are provided.

### **Overarching Comments**

#### ***Comment:***

On page 2, the evaluation references differences in tolerance to human disturbance among raptor species and individuals. CPW (2020) has categorized bald eagles based on the amount of existing disturbance within ¼ mile of their nest, with the reasoning that if there is more human activity within this buffer when the eagles nest, then the eagles can tolerate some level of human disturbance to a greater degree.

- According to CPW, if 10 or more daily occupied facilities are within ¼ mile of the nest, then the nest is in a "Highly Developed Area" and thus a reduced buffer can be employed (1/4 mile)
- Alternatively, if this metric is not attained, then the nest is not in a Highly Developed Area and the recommendation is that these eagles are less tolerant to human disturbance and the ½ mile buffer is recommended.
- None of the bald eagle nests on OSMP would be considered situated in a Highly Developed Area; thus OSMP staff uses the ½ mile buffer recommendation for eagle nests.

#### ***Response:***

Colorado Parks and Wildlife (CPW) applies this metric on a statewide scale. On a regional scale, other metrics may be more appropriate. For example, the area from Pueblo to Fort Collins is often referred to as the Front Range Urban Corridor where rapid urbanization occurs. Here, the surrounding levels of

human disturbance and the distance to the nearest disturbance are used in the analysis. ERO has used this approach, in consultation with the U.S. Fish and Wildlife Service (USFWS) and CPW, for regional trails, such as the Front Range and Peaks to Plains trails that encroached on eagle, red-tailed hawk, and heron nest sites that maintained territories and successfully produced young, even with reduced, site-specific buffers. It is ERO's understanding that a similar approach was used by OSMP for eagle nests 1 and 3 based on the proximity of existing trails and gravel mines.

**Comment:**

For all raptor species, the evaluation measures *existing* uses as potential disturbance sources. If a raptor chooses to nest with an existing use nearby, some ecologists may consider those individuals to be tolerant of that use. The evaluation does not adequately account for the potential impacts that would occur with the *introduction of a new trail and its associated use* to these nests in addition to the existing uses. New uses with considerable human use may impact raptors to a greater extent than uses that existed prior to them nesting at that location.

**Response:**

This evaluation process aims to find suitable buffers around raptor nests to develop a baseline understanding of effective habitat needs and does not yet analyze impacts within or adjacent to the buffers themselves. Future phases of the project will apply a buffer to the new trail and evaluate effective habitat to more concretely understand impacts. The evaluation of breeding territories/complexes looks at three keys to successful raptor nesting which are (1) suitable substrate for building nests, (2) sufficient and available food resources, and (3) security from predators and human disturbance, often achieved by establishing disturbance buffers. The Raptor and Great Blue Heron Nest Evaluation was done as part of a regional trail planning process for both trail construction and trail use, with the assumption that specific nest sites and territories are likely to change prior to, and after establishment and use of a soft-surface regional trail. The conclusion of the analysis is that sufficient land area and key resources have long-term protections that will support a healthy, sustainable avian community, including eagles, hawks, and herons, after a trail is constructed and new human disturbance are introduced. Completing a detailed analysis of effects from the introduction of a new trail and its associated use and other cumulative impacts would be the next step in the process. Once the trail concept is approved, appropriate avoidance, minimization, and additional mitigations can be developed in consultation with stakeholders based on the nest site locations at the time of actual trail construction.

**Comment:**

Cumulative impacts: similar to above, some raptor species or individuals may tolerate a certain level of human presence near their nest site, particularly if prey resources are abundant. However, a threshold exists where new impacts and additional human presence render previously occupied territories unusable. This may be especially pertinent with the increased human presence (i.e., new disturbance) that use of a regional trail would introduce and that may not be tolerated during the nesting season.

**Response:**

See response above.

**Comment:**

Vehicles vs. people: in the field of raptor behavioral ecology, it is commonly known that raptors react differently to predictable mediums than unpredictable ones. Predictable causes of potential disturbance like vehicles and trains are less likely to evoke a nest defense response if they are continuous and foreseeable. However, when a person stops their vehicle and exits it, it is more likely to disturb nesting raptors. Similarly, raptor observations from a vehicle are far less likely to elicit a behavioral response if the observer stays in the vehicle than when the observer leaves their vehicle. ERO's disturbance analysis characterizes the impacts from vehicles as being the same as impacts from visitor use of a trail and these impacts may not be equal.

**Response:**

Agreed, raptors react differently to predictable mediums than unpredictable ones. ERO also understands that roads in Boulder County are frequently used by bicyclists, pedestrians, and runners (75<sup>th</sup>, 95<sup>th</sup>, and Valmont are known to be popular cycling routes, while the White Rocks Trail is heavily used by walkers, runners, and cyclists). Additionally, nearly all the eagle, hawk, and heron territories experience impacts from visitor use of the existing OSMP trails, parking lots, and other amenities (that are not seasonally closed) to the extent that recreational use of trails could be considered a predictable medium.

**Comment:**

The evaluation includes application of disturbance buffers around access roads and other features, but a buffer was not applied around the proposed trail alignment. For accuracy and consistency in evaluating disturbances, a buffer should also have been placed around the proposed trail alignment and distances from each nest measured to the edge of this buffer to factor into level of disturbance. It is not only the presence of the soft-surface trail that is the source of disturbance, it is the human use of the trail and the concomitant change in nearby habitat conditions that comprise the impacts and disturbance.

**Response:**

The evaluation of disturbance buffers provides an index to the magnitude of existing disturbance as a baseline. As stated above, additional analyses, such as applying disturbance buffers for the new trail disturbance and evaluating effective habitat would be evaluated in the next phase of the project.

The evaluation of distance to existing disturbance was made from the center of the nest buffer to the edge of the actual disturbance element, be it a road, trail, industrial use, etc. Most existing nest sites were closer to existing disturbance than to the proposed trail alignment. ERO apologizes if this was not clear in the analysis and will add a column to Table 1 that shows the distance from the nest site to the alignment in addition to the distance to the existing disturbance element for an equal comparison. ERO will also revise the figures to remove some of the background clutter and provide a clearer picture of the analysis.

**Comment:**

ERO's conclusions rest strongly on the effectiveness of their proposed vegetation screening. This may need to be reconsidered because shrub species may not offer cover from a nest 30 ft high to the proposed alignment and trees and shrubs take a decade or longer to mature. OSMP has concerns about the feasibility of trees/shrubs successfully maturing in this area and therefore this recommendation's usefulness in mitigating potential human disturbance.

**Response:**

The evaluation of vegetation screens was made from a desk-top study of vegetation along the trail alignment and was unable to evaluate the density of the vegetation in winter or other intervening layers of vegetation that would contribute to the effectiveness of screening. ERO also acknowledged that the analysis did not account for other forms of screening such as backgrounds and intervening open water that can provide an increased sense of security for breeding raptors and herons. As stated in the recommendations, the species to be planted and exact locations should be developed in coordination with project partners and adjacent property owners as part of the next stage during project design. This step in the process would also evaluate all form and function of visual, audio, and security screening, not just trail-side vegetation.

The Project Team would appreciate any additional input into this recommendation and other mitigation opportunities to make this a successful project.

**Comment:**

For all species analyzed, the report notes that "...nests are fully or partially visually screened from the proposed alignments." This statement is partially inaccurate as foliage that would provide a visual screen is not present during nest-site selection (Feb for bald eagles, March for red-tailed hawks, April for northern harriers) and nest-site selection is one of the most sensitive times in a raptor nesting cycle. Including this factor into increasing disturbance tolerance may need to be reconsidered for the reasons stated above.

**Response:**

See response above.

**Comment:**

ERO's evaluation states that "it's more important to protect the resources within a nesting territory than an individual nest site" and that the breeding territories/"complexes provide numerous trees for red-tailed hawks and extensive tall marsh vegetation for northern harriers that provide abundant opportunities to select nest sites as distant or as close to any existing or new disturbances as needed." This evaluation includes reasoning and a management approach for red-tailed hawk and northern harrier nesting territories that does not align with CPW's nest-specific guidelines for wildlife habitat protection.

**Response:**

ERO disagrees. The evaluation and conclusions align precisely with CPW's statement that "Measurements of nest success and productivity are somewhat imprecise and reflect the need to maintain some flexibility to adjust buffer zones depending upon intervening terrain and vegetation screens that obscure human activity" (CPW 2020).

**Additional Comments****Comment:**

Referencing a citation for categorizing disturbance would be useful here.



**Response:**

For the baseline disturbance analysis (high, medium, low) ERO's has taken a holistic approach to create standard disturbance buffers commonly used for recreation planning around wildlife. There are other arguments made specifically for raptors that could be applied in future stages of this project. Citations for disturbance categories can be found on page 6.

**Comment:**

The osprey buffers are based on OSMP ownership and management. The buffers are cut off on the southern end not because that is where protection should end, but it is where our jurisdiction ends.

**Response:**

ERO understands that some area closures are cut off at where jurisdiction ends but reviewing Figure 1 it is clear that none of the closures surrounding osprey nests cover the full extent of the CPW recommended buffers, even when within OSMP jurisdiction. Several osprey closures also appear to be cut off at existing disturbance such as mine sites, existing OSMP trails, and 95th Street. Acknowledging the jurisdictional limits of the closures, the analysis and conclusion rely on the tiered approach and the distances to existing disturbance.

**Comment:**

Two comments noted that some of the disturbance elements used in the analysis are obstructed by topography (White Cliffs) or the actual use of certain roads is over-stated in the analysis.

**Response:**

Disturbance elements and buffers were evaluated based on a desktop GIS analysis and as such, are subject to some errors in interpretation. ERO appreciates the comments and will incorporate changes into the revised analysis and mapping to improve accuracy.

**SIGNED:**

---



Ronald Beane, Senior Wildlife Biologist

### References for Existing Disturbance Analysis

- Cassirer, E. Frances, D. J. Freddy, E. D. Ables. 1992. Elk Responses to Disturbance by Cross-Country Skiers in Yellowstone National Park. *Wildlife Society Bulletin*, Vol. 20, No. 4, (Winter, 1992), pp. 375-381.
- Colorado Parks and Wildlife (CPW). 2021. Colorado's Guide to Planning Trails with Wildlife in Mind. Developed by the Colorado Trails with Wildlife in Mind Task Force. June 2021. Accessed at: <https://cpw.state.co.us/aboutus/Pages/Planning-Trails-for-Wildlife.aspx>
- Gaines, W.L., P.H. Singleton, and R.C. Ross. 2003. Assessing the cumulative effects of linear recreation routes on wildlife habitats on the Okanogan and Wenatchee National Forests. Gen. Tech. Rep. PNW-GTR-586. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 79 p.
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- Malone, D. G., and J. C. Emerick. 2003. Impacts of Trails and Recreationists on Wildlife. Aspen Wilderness Workshop. EPA Project Number: MM988655-01.
- Miller, Scott G., R. L. Knight, and C. K. Miller. 2001. Wildlife responses to pedestrians and dogs. *Wildlife Society Bulletin* 2001, 29(1): 124-132.
- Miller, A.B.; King, D.; Rowland, M.; Chapman, J.; Tomosy, M.; Liang, C.; Abelson, E.S.; Truex, R. 2020. Sustaining wildlife with recreation on public lands: a synthesis of research findings, management practices, and research needs. Gen. Tech. Rep. PNW-GTR-993. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 226 p.
- Naylor, L. M., M. J. Wisdom, and R. G. Anthony. 2009. Behavioral Responses of North American Elk to Recreational Activity. *Journal of Wildlife Management*. 73, 328-338.
- Stankowich, T. 2008. Ungulate flight response to human disturbance: a review and meta-analysis. *Biological Conservation* 141:2159-2173.
- Taylor, Audrey R., and R. L. Knight. 2003. Wildlife responses to recreation and associated visitor perceptions. *Ecological Applications*, 13(4), 2003, pp. 951-963.



**COLORADO**

**Parks and Wildlife**

Department of Natural Resources

Northeast Regional Office  
6060 Broadway  
Denver, CO 80216  
P 303.291.7227

July 19, 2024

Kelsey Blaho  
AICP | Planner  
OTAK

Re: BERT Corridor Nest Recommendations analysis and report - Colorado Parks and Wildlife response

Dear Kelsey,

Thank you for the opportunity for Colorado Parks and Wildlife (CPW) to comment on the Boulder to Erie Region Trail (BERT) nest recommendations analysis and report that has been produced by ERO for the BERT Corridor. CPW has previously provided preliminary comments on the trail alignment. We understand that this request is specifically to address the analysis and report produced by ERO on nest buffer guidelines that you provided to us on July 8, 2024. CPW understands that ERO determined in their analysis that the “soft-surface regional trail would not adversely affect the overall breeding success of the raptors and herons nesting in the analysis area or contribute to an overall decline in the species locally or regionally.” CPW is responding to that statement with our recommendations below.

The mission of CPW is to perpetuate the wildlife resources of the state, to provide a quality state parks system, and to provide enjoyable and sustainable outdoor recreation opportunities that educate and inspire current and future generations to serve as active stewards of Colorado’s natural resources. CPW has a statutory responsibility to manage all wildlife species in Colorado and to promote a variety of recreational opportunities throughout Colorado. One way we achieve this goal is by responding to referral comment requests, as is the case for this project.

Colorado Parks and Wildlife Area 2 and regional staff have reviewed the proposed site for the trail and are familiar with the area. Previously, CPW gave recommendations on trail alignment, including variances on seasonal closures and distances from nests based on the alignments and location and circumstances surrounding the individual nest. The following are



Jeff Davis, Director, Colorado Parks and Wildlife  
Parks and Wildlife Commission: Dallas May, Chair · Richard Reading, Vice-Chair · Karen Bailey, Secretary · Jessica Beaulieu  
Marie Haskett · Jack Murphy · Gabriel Otero · Duke Phillips, IV · James Jay Tutchtton · Eden Vardy

concerns and recommendations for the alignment that the BERT team has identified to us in a previous meeting as the preferred alignment that follows the existing Right of Way (ROW) concerning the nests in the trail alignment vicinity:

### Recommendations

#### Bald Eagle Nests

An active Bald eagle nest site is a specific location in which a pair of bald eagles has at least attempted to nest within the last five years. Any nest location that can be directly tied to courtship, breeding, or brooding behavior is considered active. A buffer zone extends ½-mile around a known active nest. CPW has two recommendations to protect these sites: of a) no surface occupancy (NSO) within ¼-mile of any active bald eagle nest site, and b) no human encroachment or permitted/authorized human activities within ½-mile of any active bald eagle nest site from December 1 to July 31 of each year.

For the nests identified within the project area and the ¼-mile nest buffer, we provided the following comments previously: For the nest on the most western side of the trail (identified on the map provided at Bald Eagle Nest 1), we evaluated its location, and regardless of the alignment chosen, we would not recommend a seasonal closure in this particular nest because of the amount of existing disturbance around the nest. This pair of eagles started nesting while the gravel mine to the southeast was active, so they chose to nest even with the disturbance of the mine and the 61st Street daily traffic. Regardless of the trail alignment, we would not recommend a seasonal closure on the most eastern Bald Eagle nest (identified on the map given as Bald Eagle nest 4). This nest is close to HWY 287, 15 houses, and an access road the neighborhood uses daily, so this pair is also very tolerant of disturbance. This pair has an alternate nest that is very close to the active nest that was displayed on the map we showed during the initial meeting, and we are not concerned with this nest unless it becomes active. For all alignments, we recommend constructing the trail outside the nesting season (December 1- July 31). CPW's least preferred alignment would be the one that follows the existing right of way. This alignment is within the ¼-mile buffer of 2 Bald Eagle nests (identified as Bald Eagle nests 2 and 3 on the map provided), and we recommend no surface occupancy within that ¼-mile buffer year-round.

#### Red-Tailed Hawk

This alignment is also within the ⅓-mile buffer for the Red-tailed hawk nests, which we recommend avoiding construction during the nesting season (Feb 15- July 15).

#### Osprey

CPW recommends no surface occupancy (beyond that which historically occurred in the area) within ¼ mile (1320 feet, 400 meters) radius of active nests. CPW recommends no permitted, authorized, or human encroachment activities within ¼ mile (1320 feet, 400 meters) radius of

active nests from March 15 through August 15. Some osprey populations are habituated to and tolerant of human activity in the immediate vicinity of their nests. ERO's analysis and report state that the BERT alignment would adopt the existing OSMP closure buffers for osprey (OSMP's website states that OSMP has a closure every year from March 15 to Sept. 10 for Osprey nesting), and CPW agrees with this recommendation.

Great Blue Heron

CPW recommends a 300-meter no-surface occupancy buffer zone during the nesting season, which is from mid-March to mid-August, but the trail alignment is outside of this buffer, so CPW has no further concerns.

Thank you again for including CPW in the review of this Project. If you have any additional questions regarding wildlife concerns for this property, please contact Lexi Hamous, NE Land Use Coordinator, at [lexi.hamous-miller@state.co.us](mailto:lexi.hamous-miller@state.co.us) or by phone at 303-916-2987.

Respectfully,

A handwritten signature in black ink, appearing to read "Chris Mettenbrink". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Chris Mettenbrink  
Area 2 Assistant Area Wildlife Manager

Cc: Mark Leslie, Jason Duetsch, Tyler Asnicar, Cassy Penn, Lexi Hamous, Lucas Svare, and file.

August 2, 2024

**TO:** OTAK  
371 Centennial Parkway,  
Suite 210  
Louisville, CO 80027

**FROM:** Ron Beane, ERO Senior Wildlife Biologist

**RE:** Response to Colorado Parks and Wildlife (CPW) on the BERT Corridor Nest Recommendations Analysis and Report dated July 19, 2024.

The OTAK team has reviewed the comments on ERO's Raptor and Great Blue Heron Nest Evaluation, Boulder to Erie Regional Trail (BERT) Boulder County provided by Colorado Parks and Wildlife (CPW). Responses to the CPW recommendations are provided below.

***Recommendation – Bald Eagle Nests:***

CPW would not recommend seasonal closures for Bald Eagle Nests 1, 4. For all alignments, CPW recommends constructing the trail outside the nesting season (December 1- July 31). CPW's least preferred alignment would be the one that follows the existing right-of-way (ROW). This alignment is within the ¼-mile buffer of 2 Bald Eagle nests (identified as Bald Eagle nests 2 and 3 on the map provided), and we recommend no surface occupancy within that ¼-mile buffer year-round.

***Response:***

We agree that all alignments would not adversely affect Nests 1 and 4. We also agree that construction of the trail would occur outside of the nesting season. Additionally, all trail alignments will make every attempt possible to stay outside of if the ¼-mile buffer year-round. The existing RTD ROW alignment is on the very edge of the ¼-mile buffers for Nests 2 and 3 and the Team feels that adjustments can be made to this alignment to comply with the recommended buffer. Additional tree and shrub plantings are also proposed to visually screen the trail from active eagle nests, further diminishing trail impacts.

***Recommendation – Red-tailed Hawk:***

This alignment is also within the 1/3-mile buffer for the Red-tailed hawk nests, which we recommend avoiding construction during the nesting season (Feb 15- July 15).

***Response:***

We agree, and all construction of the trail would occur outside of the nesting season for all raptors.

**Recommendation – Osprey:**

Some osprey populations are habituated to and tolerant of human activity in the immediate vicinity of their nests. ERO's analysis and report state that the BERT alignment would adopt the existing OSMP closure buffers for osprey (OSMP's website states that OSMP has a closure every year from March 15 to Sept. 10 for Osprey nesting), and CPW agrees with this recommendation.

**Response:**

We agree. No trails would be located within existing OSMP mapped buffers and no construction would occur from March 15 to September 10 near osprey nests.

**Recommendation – Great Blue Heron:**

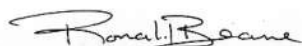
CPW recommends a 300-meter no-surface occupancy buffer zone during the nesting season, which is from mid-March to mid-August, but the trail alignment is outside of this buffer, so CPW has no further concerns.

**Response:**

We agree that the eastern rookery as shown on Figure 7 or ERO's analysis is outside of the 300-m buffer. However, the western rookery is approximately 175 meters from the proposed RTD ROW alignment. This rookery appears to be partially to fully screened from the trail alignment and the distance is comparable to the distance to 95<sup>th</sup> Street, which is less than the access road to the Lower Boulder Ditch. ERO is not aware of the status of this rookery (active or inactive) and the rookery is not shown on CODEX, although it is visible on Google Earth aerial imagery. Although the RTD ROW alignment is less than 300-m from this rookery, ERO has determined, based on the existing levels of human disturbance along 95<sup>th</sup> Street and Lower Boulder Ditch as well as the apparent intervening vegetative screening, that this alignment would not adversely affect the rookery.

**SIGNED:**

---



Ronald Beane, Senior Wildlife Biologist



**COLORADO**

**Parks and Wildlife**

Department of Natural Resources

Northeast Regional Office  
6060 Broadway  
Denver, CO 80216  
P 303.291.7227

July 19th, 2024

Kelsey Blaho  
AICP | Planner  
OTAK

Re: BERT Corridor Nest Recommendations analysis and report - Colorado Parks and Wildlife response- **Updated August 9th, 2024**

Dear Kelsey,

Thank you for the opportunity for Colorado Parks and Wildlife (CPW) to comment on the Boulder to Erie Region Trail (BERT) nest recommendations analysis and report that has been produced by ERO for the BERT Corridor. CPW has previously provided preliminary comments on the trail alignment. We understand that this request is specifically to address the analysis and report produced by ERO on nest buffer guidelines that you provided to us on July 8, 2024. CPW understands that ERO determined in their analysis that the “soft-surface regional trail would not adversely affect the overall breeding success of the raptors and herons nesting in the analysis area or contribute to an overall decline in the species locally or regionally.” CPW is responding to that statement with our recommendations below. **We have included updates/clarification to the letter in red text as is here, otherwise, the letter has remained the same.**

The mission of CPW is to perpetuate the wildlife resources of the state, to provide a quality state parks system, and to provide enjoyable and sustainable outdoor recreation opportunities that educate and inspire current and future generations to serve as active stewards of Colorado’s natural resources. CPW has a statutory responsibility to manage all wildlife species in Colorado and to promote a variety of recreational opportunities throughout Colorado. One way we achieve this goal is by responding to referral comment requests, as is the case for this project.

Colorado Parks and Wildlife Area 2 and regional staff have reviewed the proposed site for the trail and are familiar with the area. Previously, CPW gave recommendations on trail



Jeff Davis, Director, Colorado Parks and Wildlife  
Parks and Wildlife Commission: Dallas May, Chair · Richard Reading, Vice-Chair · Karen Bailey, Secretary · Jessica Beaulieu  
Marie Haskett · Jack Murphy · Gabriel Otero · Duke Phillips, IV · James Jay Tutchtton · Eden Vardy



alignment, including variances on seasonal closures and distances from nests based on the alignments and location and circumstances surrounding the individual nest. The following are concerns and recommendations for the alignment that the BERT team has identified to us in a previous meeting as the preferred alignment that follows the existing Right of Way (ROW) concerning the nests in the trail alignment vicinity:

## Recommendations

### Bald Eagle Nests

An active Bald eagle nest site is a specific location in which a pair of bald eagles has at least attempted to nest within the last five years. Any nest location that can be directly tied to courtship, breeding, or brooding behavior is considered active. A buffer zone extends ½-mile around a known active nest. CPW has two recommendations to protect these sites: of a) no surface occupancy (NSO) within ¼-mile of any active bald eagle nest site, and b) no human encroachment or permitted/authorized human activities within ½-mile of any active bald eagle nest site from December 1 to July 31 of each year.

For the nests identified within the project area and the ¼-mile nest buffer, we provided the following comments previously: For the nest on the most western side of the trail (identified on the map provided at Bald Eagle Nest 1), we evaluated its location, and regardless of the alignment chosen, we would not recommend a seasonal closure in this particular nest because of the amount of existing disturbance around the nest. This pair of eagles started nesting while the gravel mine to the southeast was active, so they chose to nest even with the disturbance of the mine and the 61st Street daily traffic. Regardless of the trail alignment, we would not recommend a seasonal closure on the most eastern Bald Eagle nest (identified on the map given as Bald Eagle nest 4). This nest is close to HWY 287, 15 houses, and an access road the neighborhood uses daily, so this pair is also very tolerant of disturbance. This pair has an alternate nest that is very close to the active nest that was displayed on the map we showed during the initial meeting, and we are not concerned with this nest unless it becomes active. For all alignments, we recommend constructing the trail outside the nesting season (December 1- July 31). CPW's least preferred alignment would be the one that follows the existing right of way. This alignment is within the ¼-mile buffer of 2 Bald Eagle nests (identified as Bald Eagle nests 2 and 3 on the map provided), and we recommend no surface occupancy within that ¼-mile buffer year-round. **This year-round ¼ mile buffer would include a seasonal closure between December 1- July 31 on both of the nests identified, but first and foremost, we stand by our recommendation that there be no surface occupancy of any kind within ¼ mile of the identified Bald Eagle nests 2 and 3.**

### Red-Tailed Hawk

This alignment is also within the ½-mile buffer for the Red-tailed hawk nests, which we recommend avoiding construction during the nesting season (Feb 15- July 15).

Specific to the nest identified as Red Tailed Hawk nests 4 and 7, while it is by our own definition in a "highly developed area", we would recommend a seasonal closure of the trail in both places, given 1) the extreme proximity of the trail alignment to the nest (over/next to the RTD track) and 2) the documented cases of red-tailed hawks attacking people in defense of their nests.

### Osprey

CPW recommends no surface occupancy (beyond that which historically occurred in the area) within ¼ mile (1320 feet, 400 meters) radius of active nests. CPW recommends no permitted, authorized, or human encroachment activities within ¼ mile (1320 feet, 400 meters) radius of active nests from March 15 through August 15. Some osprey populations are habituated to and tolerant of human activity in the immediate vicinity of their nests. ERO's analysis and report state that the BERT alignment would adopt the existing OSMP closure buffers for osprey (OSMP's website states that OSMP has a closure every year from March 15 to Sept. 10 for Osprey nesting), and CPW agrees with this recommendation. CPW has reviewed this comment and stands by our previous statement that we agree with adopting the existing OSMP closure buffers.

### Great Blue Heron

CPW recommends a 300-meter no-surface occupancy buffer zone during the nesting season, which is from mid-March to mid-August, but the trail alignment is outside of this buffer, so CPW has no further concerns.

The proposed alignment is outside the 985-foot (300m) buffer for Rookery 1, which we agreed with in our previous comments. However, ERO's report did not address Rookery 2, rendering our previous comment incomplete. The trail alignment is 580 feet from Rookery 2. Rookery 2 is also approximately 400 feet from 95th Street. However, roads are not a part of the CPW definition of a highly developed area, so we would maintain the 300m recommendation (which is a seasonal closure only from mid-March to mid-August).

### Northern Leopard Frogs

Northern Leopard Frogs were identified in the project area, but they were not included in ERO's review. CPW recommends maintaining a 300-foot buffer around northern leopard frog breeding sites.

Thank you again for including CPW in the review of this Project. If you have any additional questions regarding wildlife concerns for this property, please contact Lexi Hamous, NE Land Use Coordinator, at [lexi.hamous-miller@state.co.us](mailto:lexi.hamous-miller@state.co.us) or by phone at 303-916-2987.

**APPENDIX G - REVISED CPW RECOMMENDATIONS LETTER WITH EMAIL CLARIFICATIONS**

Respectfully,

A handwritten signature in black ink, appearing to read "Chris Mettenbrink". The signature is fluid and cursive, with a long horizontal stroke at the end.

Chris Mettenbrink  
Area 2 Assistant Area Wildlife Manager

Cc: Mark Leslie, Jason Duetsch, Tyler Asnicar, Cassy Penn, Lexi Hamous, Lucas Svare, and file.

**APPENDIX G - REVISED CPW RECOMMENDATIONS LETTER WITH EMAIL CLARIFICATIONS**

**From:** [Hamous-Miller - DNR, Lexi](#)  
**To:** [French, Kacey](#)  
**Cc:** [Kelsey Blaho](#); [Keeley, Will](#); [Swanson, Heather](#); [Tyler Asnicar](#); [Penn - Dnr, Cassandra](#); [chris.mettenbrink@state.co.us](#); [Svare- DNR, Luke](#); [Jeffrey Range](#); [Laura Hickey](#); [rbeane@eroresources.com](#); [bmangle](#); [ctanner](#); [Luebbert, Tonya](#); [Cliff Lind](#); [Bonnell, Juliet](#)  
**Subject:** Re: BERT Nest Discussion - 8/6/24  
**Date:** Tuesday, August 13, 2024 1:16:26 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)

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Hi Kacey,

Please add this email to the packet you are putting together for clarification on the 1/2 mile buffer recommendations that we stated in original and edited letter as we will not be resending a new edited letter: As stated in our letters "CPW has two recommendations to protect these sites: of a) no surface occupancy (NSO) within ¼-mile of any active bald eagle nest site, and b) no human encroachment or permitted/authorized human activities within ½-mile of any active bald eagle nest site from December 1 to July 31 of each year." We clarified with Nests 1 and 4 that "we would not recommend a seasonal closure in this particular nest because of the amount of existing disturbance around the nest," our original recommendation above stands for Nests 2 and 3 for a 1/2 mile buffer seasonal closure and we would recommend this closure based on not addressing it otherwise in our letter.

**-Sincerely,**

**Lexi Hamous, MS (She/Her)**  
**Northeast Region Land Use Coordinator**  
**Colorado Parks and Wildlife**



[6060 Broadway, Denver, CO 80216](#)  
303-916-2987  
[Lexi.Hamous-Miller@state.co.us](mailto:Lexi.Hamous-Miller@state.co.us)  
[CPW's Energy Webpage](#)



On Mon, Aug 12, 2024 at 12:10 PM French, Kacey <[FrenchK@bouldercolorado.gov](mailto:FrenchK@bouldercolorado.gov)> wrote:

Hi Lexi,

Thanks for clarifying. Will you or could you update the letter to reflect that recommendation? I think having a clear record of CPW's recommendations will help all of us moving forward in this process.

**APPENDIX G - REVISED CPW RECOMMENDATIONS LETTER WITH EMAIL CLARIFICATIONS**

Thanks again,

-Kacey

---

**From:** Hamous-Miller - DNR, Lexi <[lexi.hamous-miller@state.co.us](mailto:lexi.hamous-miller@state.co.us)>

**Sent:** Friday, August 9, 2024 1:58 PM

**To:** French, Kacey <[FrenchK@bouldercolorado.gov](mailto:FrenchK@bouldercolorado.gov)>

**Cc:** Kelsey Blaho <[Kelsey.Blaho@otak.com](mailto:Kelsey.Blaho@otak.com)>; Keeley, Will <[KeeleyW@bouldercolorado.gov](mailto:KeeleyW@bouldercolorado.gov)>; Swanson, Heather <[SwansonH@bouldercolorado.gov](mailto:SwansonH@bouldercolorado.gov)>; Tyler Asnicar <[tyler.asnicar@state.co.us](mailto:tyler.asnicar@state.co.us)>; Penn - Dnr, Cassandra <[cassy.penn@state.co.us](mailto:cassy.penn@state.co.us)>; [chris.mettenbrink@state.co.us](mailto:chris.mettenbrink@state.co.us); Svare- DNR, Luke <[lucas.svare@state.co.us](mailto:lucas.svare@state.co.us)>; Jeffrey Range <[jrange@mediate.org](mailto:jrange@mediate.org)>; Laura Hickey <[lhickey@mediate.org](mailto:lhickey@mediate.org)>; [rbeane@eroresources.com](mailto:rbeane@eroresources.com); bmangle <[bmangle@eroresources.com](mailto:bmangle@eroresources.com)>; ctanner <[ctanner@eroresources.com](mailto:ctanner@eroresources.com)>; Luebbert, Tonya <[tluebbert@bouldercounty.gov](mailto:tluebbert@bouldercounty.gov)>; Cliff Lind <[cliff.lind@otak.com](mailto:cliff.lind@otak.com)>; Bonnell, Juliet <[BonnellJ@bouldercolorado.gov](mailto:BonnellJ@bouldercolorado.gov)>

**Subject:** Re: BERT Nest Discussion - 8/6/24

Hi Kasey,

Our first recommendation would be to stay out of the 1/4 mile buffer and for a seasonal closure within the 1/2 mile buffer for nests 2 and 3.

-Stay Wild,

**Lexi Hamous, MS (She/Her)**

**Northeast Region Land Use Coordinator**

**Colorado Parks and Wildlife**

\_\_\_\_\_

[6060 Broadway, Denver, CO 80216](#)

303-916-2987

[Lexi.Hamous-Miller@state.co.us](mailto:Lexi.Hamous-Miller@state.co.us)

[CPW's Energy Webpage](#)



On Fri, Aug 9, 2024 at 1:12 PM French, Kacey <[FrenchK@bouldercolorado.gov](mailto:FrenchK@bouldercolorado.gov)> wrote:

Thanks for the response Lexi. And thanks for clarifying the ¼ mile no surface occupancy, I think we are all on the same page around that. I think where there may not still be a shared understanding is where the preferred alignment is relative to the ¼ mile buffer. Our understanding is that the preferred alignment is and/or can stay outside of the ¼ buffer (as shown on page 14 of the ERO report). Due to that understanding OSMP has an interest in understanding what CPW would recommend as far as seasonal trail closures for those nests. I don't want to overstep here, so I'll defer to the project management team to clarify the trail alignment relative to the ¼ mile buffer. If the preferred alignment is/can stay outside of the ¼ mile buffer I'll just reiterate OSMP does have interest in knowing/clarifying what CPW's seasonal trail closure recommendations would be (1/2? or ¼? mile buffer for nests 2 and 3).

Thanks again,

-Kacey

---

**From:** Hamous-Miller - DNR, Lexi <[lexi.hamous-miller@state.co.us](mailto:lexi.hamous-miller@state.co.us)>

**Sent:** Friday, August 9, 2024 12:34 PM

**To:** French, Kacey <[FrenchK@bouldercolorado.gov](mailto:FrenchK@bouldercolorado.gov)>

**Cc:** Kelsey Blaho <[Kelsey.Blaho@otak.com](mailto:Kelsey.Blaho@otak.com)>; Keeley, Will <[KeeleyW@bouldercolorado.gov](mailto:KeeleyW@bouldercolorado.gov)>;

Swanson, Heather <[SwansonH@bouldercolorado.gov](mailto:SwansonH@bouldercolorado.gov)>; Tyler Asnicar

<[tyler.asnicar@state.co.us](mailto:tyler.asnicar@state.co.us)>; Penn - Dnr, Cassandra <[cassy.penn@state.co.us](mailto:cassy.penn@state.co.us)>;

[chris.mettenbrink@state.co.us](mailto:chris.mettenbrink@state.co.us); Svare- DNR, Luke <[lucas.svare@state.co.us](mailto:lucas.svare@state.co.us)>; Jeffrey Range

<[jrange@mediate.org](mailto:jrange@mediate.org)>; Laura Hickey <[lhickey@mediate.org](mailto:lhickey@mediate.org)>; [rbeane@eroresources.com](mailto:rbeane@eroresources.com);

[bmangle@eroresources.com](mailto:bmangle@eroresources.com); ctanner <[ctanner@eroresources.com](mailto:ctanner@eroresources.com)>; Luebbert,

Tonya <[tluebbert@bouldercounty.gov](mailto:tluebbert@bouldercounty.gov)>; Cliff Lind <[cliff.lind@otak.com](mailto:cliff.lind@otak.com)>; Bonnell, Juliet

<[BonnellJ@bouldercolorado.gov](mailto:BonnellJ@bouldercolorado.gov)>

**Subject:** Re: BERT Nest Discussion - 8/6/24

Hi Kacey,

The conversation went back and forth on that subject. Ultimately when asked “no matter the outcome, what are our recommendations” and our verbal response was no surface occupancy within the 1/4 mile buffer year round. We were asked to clarify that in the letter so in the letter we clarified that we recommend no surface occupancy of 1/4 mile, that is separate from the seasonal closure within the 1/2 mile buffer (but in reality if we recommend 1/4 mile buffer year round then there would be no need for the 1/2 mile buffer seasonal closure because the preferred alignment occurs within the 1/4 mile buffer). We wanted to make sure that it was clear no matter what we recommend no surface occupancy year round within the 1/4 mile buffer, but that would include season closure because it’s included in the 1/2 mile buffer if the trail is to go through.

**-Stay Wild,**

**Lexi Hamous, MS (She/Her)**

**Northeast Region Land Use Coordinator**

**Colorado Parks and Wildlife**

\_\_\_\_\_

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[CPW's Energy Webpage](#)

□ □ □ □ \_\_\_\_\_

On Fri, Aug 9, 2024 at 12:27 PM French, Kacey <[FrenchK@bouldercolorado.gov](mailto:FrenchK@bouldercolorado.gov)> wrote:

Hi Lexi [et.al.](#),

We have one clarification just to make sure we are clear on and understand CPW's eagle nest recommendations. At the meeting we were discussing and understood CPW's verbal recommendation to be a ½ mile seasonal trail closure for eagle nests 2 and 3. The letter references ¼ mile seasonal trail closure for those nests. So just wanted to confirm CPW's recommendation for those.

Thank you.

-Kacey

**Kacey French**

**Planning and Design Senior Manager**

(Pronouns: she/her/hers [What's This?](#))

*Please note my work schedule is 7:30 – 5:30 Mon.-Thurs.and 8-12 on Fridays.*



**City of Boulder  
Open Space & Mountain Parks**

C: # 303-517-7156

[frenchk@bouldercolorado.gov](mailto:frenchk@bouldercolorado.gov)

2520 55th St. | Boulder, CO 80301

[Bouldercolorado.gov](http://Bouldercolorado.gov)

The City of Boulder acknowledges the city is on the ancestral homelands and unceded territory of Indigenous Peoples who have traversed and lived in the Boulder Valley since time immemorial. Those Indigenous Nations include the: Di De'i (Apache), Hinono'eiteen (Arapaho), Tsistsistas (Cheyenne), Numanaa (Comanche), Kiowa, Čariks i Čariks (Pawnee), Sosonih (Shoshone), Oc'eti S'akowin (Sioux) and Nūuchiu (Ute). The City of Boulder recognizes that those now living and working on these ancestral lands have a responsibility to acknowledge and address the past and must work to build a more just future. [Read our full staff land acknowledgement.](#)



**From:** Hamous-Miller - DNR, Lexi <[lexi.hamous-miller@state.co.us](mailto:lexi.hamous-miller@state.co.us)>  
**Sent:** Friday, August 9, 2024 10:57 AM  
**To:** Kelsey Blaho <[Kelsey.Blaho@otak.com](mailto:Kelsey.Blaho@otak.com)>  
**Cc:** French, Kacey <[FrenchK@bouldercolorado.gov](mailto:FrenchK@bouldercolorado.gov)>; Keeley, Will <[KeeleyW@bouldercolorado.gov](mailto:KeeleyW@bouldercolorado.gov)>; Swanson, Heather <[SwansonH@bouldercolorado.gov](mailto:SwansonH@bouldercolorado.gov)>; Tyler Asnicar <[tyler.asnicar@state.co.us](mailto:tyler.asnicar@state.co.us)>; Penn - Dnr, Cassandra <[cassy.penn@state.co.us](mailto:cassy.penn@state.co.us)>; [chris.mettenbrink@state.co.us](mailto:chris.mettenbrink@state.co.us); Svare- DNR, Luke <[lucas.svare@state.co.us](mailto:lucas.svare@state.co.us)>; Jeffrey Range <[jrange@mediate.org](mailto:jrange@mediate.org)>; Laura Hickey <[lhickey@mediate.org](mailto:lhickey@mediate.org)>; [rbeane@eroresources.com](mailto:rbeane@eroresources.com); [bmangle@eroresources.com](mailto:bmangle@eroresources.com); ctanner <[ctanner@eroresources.com](mailto:ctanner@eroresources.com)>; Luebbert, Tonya <[tluebbert@bouldercounty.gov](mailto:tluebbert@bouldercounty.gov)>; Cliff Lind <[cliff.lind@otak.com](mailto:cliff.lind@otak.com)>; Bonnell, Juliet <[BonnellJ@bouldercolorado.gov](mailto:BonnellJ@bouldercolorado.gov)>  
**Subject:** Re: BERT Nest Discussion - 8/6/24

**External Sender Notice** This email was sent by an external sender.

Hi Kelsey,

Here is our updated letter. Please let us know if you have any questions.

-Stay Wild,

**Lexi Hamous, MS (She/Her)**  
**Northeast Region Land Use Coordinator**  
**Colorado Parks and Wildlife**

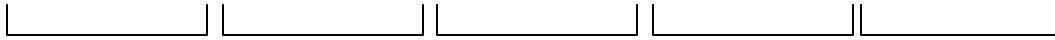


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[Lexi.Hamous-Miller@state.co.us](mailto:Lexi.Hamous-Miller@state.co.us)

[CPW's Energy Webpage](#)



On Fri, Aug 2, 2024 at 1:39 PM Kelsey Blaho <[Kelsey.Blaho@otak.com](mailto:Kelsey.Blaho@otak.com)> wrote:

Hi all

In preparation for our Tuesday (8/6) discussion of nests on the BERT corridor I wanted to send a basic agenda as well as all of the recommendations and responses that we have received so that we can be sure everyone is on the same page. Some of these, like the original memo of ERO's recommendations, you already received as part of your review and they have not changed but I just wanted to make sure everyone had everything in one place to review as desired before we discuss.

The general agenda for the meeting is:

- Introductions
- Response to Comments on Raptor Recommendations Discussion
- Next Steps
  - Updates to original memo and maps
  - Incorporation of memo, maps, and all comments and responses into BERT Plan

There are also four files attached containing recommendations and responses, these files are:

- **Raptor Analysis Approach 06\_24** – this is the original memo of ERO's

recommendations that was sent to all

- **OSMP Raptor Analysis Comments Final 7.2.2024** – comments from OSMP on the “Raptor Analysis Approach 06\_24”
- **Response to comments OSMP Raptor Analysis Approach\_07.08.24** – responses from ERO to OSMP comments
- **CPW Comments and Response – BERT Corridor Nest Recommendations Analysis and Report – 7-19-24** – comments/recommendations from CWP on the “Raptor Analysis Approach 06\_24”

Let me know if you have any questions and we look forward to discussing next week.

Thanks,



**Kelsey Blaho, AICP | Planner**

Direct: 303.575.4406 | Cell: 970.420.6112

[kelsey.blaho@otak.com](mailto:kelsey.blaho@otak.com) | [www.otak.com](http://www.otak.com)

August 12, 2024

**TO:** OTAK  
371 Centennial Parkway,  
Suite 210  
Louisville, CO 80027

**FROM:** Ron Beane, ERO Senior Wildlife Biologist

**RE:** Raptor and Great Blue Heron Nest Evaluation, Boulder to Erie Regional Trail, Boulder County, Colorado

## Introduction

The Boulder County, in partnership with the City of Boulder and Town of Erie, is evaluating options for the creation of a new soft-surface regional trail connection (the Boulder to Erie Regional Trail - BERT) linking Boulder and Erie via the RTD rail ROW corridor, which is near several City of Boulder Open Space and Mountain Parks (OSMP) properties and easements. The analysis area for this trail provides habitat for numerous nesting raptors and two great blue heron rookeries (heron rookeries). ERO Resources Corporation (ERO) has been tasked with developing tailored buffered zones and other mitigation methods for existing raptor nests and heron rookeries. Following a systematic step-by-step evaluation approach described in the following sections, ERO developed tailored buffer recommendations and other mitigation methods for nest sites and heron rookeries based on site-specific conditions. This memo has been revised from an earlier draft after receiving comments from OSMP and Colorado Parks and Wildlife (CPW).

## Background

Migratory birds, including raptors and great blue herons, are regulated by two main federal regulations: 1) the Migratory Bird Treaty Act; 2) the Bald and Golden Eagle Protection Act. These acts are administered by the U.S. Fish and Wildlife Service (USFWS). Colorado Parks and Wildlife (CPW) has adopted guidelines that recommend restrictions on human disturbance within specified buffer zones surrounding raptor nests (CPW 2020). CPW also provides recommended buffers for other avian species, such as great-blue herons (Jason Surface, pers. comm. 2024). OSMP has also adopted wildlife buffers/closures to protect raptors and other sensitive species on open space properties. OSMP and CPW provided buffer locations for raptor nests and great blue heron rookeries in the BERT analysis area (Figure 1). According to the CPW guidelines, raptor species and individual raptors vary in their tolerance limits to disturbance. In April 2024, the USFWS revised the regulations for the issuance of permits for eagle incidental take and eagle nest take under the Bald and Golden Eagle Protection Act. Under the revised regulation, the USFWS has specified a 660-foot bald eagle nest buffer for various activities

including building construction, linear infrastructure construction and maintenance, alteration of vegetation, motorized recreation, and nonmotorized recreation.

ERO has more than 40 years of experience working with raptors and colonial nesting species, such as great blue herons, double-crested cormorants, and other species in urban and suburban environments where these species demonstrate a tolerance to frequent nonthreatening human disturbance. As stated in the CPW raptor buffer guidelines (CPW 2020), “Some individuals habituate and tolerate human activity at a proximity that would cause the majority of the species to abandon their nests.” Other individuals become sensitized to repeated encroachment and react at greater distances. Thus, CPW recommends a “holistic” approach when protecting raptor habitat that protects both nest sites and important foraging areas that support the pairs’ nesting effort.” CPW further states that “Measurements of nest success and productivity are somewhat imprecise and reflect the need to maintain some flexibility to adjust buffer zones depending upon intervening terrain and vegetation screens that obscure human activity” (CPW 2020).

## Approach for the Raptor and Heron Nest Evaluation

Starting with the OSMP nest map (Figure 1), ERO evaluated each nest site/heron rookery using the following criteria:

1. Surrounding level of human disturbance.
2. Distance to the nearest disturbance.
3. Adoption of OSMP tailored spatial buffers for osprey nests or distance to nearest disturbance.
4. Evaluation of red-tailed hawks and northern harriers on a breeding territory basis.
5. Presence of visual screening.
6. Applying a tiered buffer approach of great blue heron rookeries buffers.

These criteria were calculated for each nest in a step-by-step process and recorded in Table 1 as described in the following sections.

### 1. Surrounding Level of Human Disturbance

ERO evaluated existing levels of human disturbance by applying frequently used disturbance buffers used for parks and open space planning based on a synthesis of resources that provides a spectrum of disturbance (see Reference section). Existing human disturbance in the analysis area was categorized into three disturbance levels: High, Medium, and Low (Figure 2), based on the following criteria:

#### High Disturbance

- 330-foot impact zone
- Existing homes (address points)
- Highways/primary roads/state highways
- Primary roads including county roads (main arterials), 75th Street, 95th Street, etc.
- Industrial sites (quarry, batch plant, etc.)

#### Medium Disturbance

- 330-foot impact zone

- Existing trails
- Secondary roads (subdivision and trailhead access roads)
- Trailheads

#### Low Disturbance

- Existing trails (+1,320 feet)
- Existing highways and roads, industrial sites (+1,320 feet)

The disturbance level immediately surrounding each mapped nest and heron rookery is shown in Table 1.

## 2. Distance to the Nearest Disturbance

Once disturbance levels were identified, the distance from each raptor nest was calculated by measuring the distance from the center of each raptor buffer to the nearest existing disturbance element (roads, trails, residences, industrial areas, etc.). A similar measurement was calculated from the approximate center of each heron rookery and recorded in Table 1. For ease of viewing, nest disturbance levels near bald eagle and osprey nests are shown on Figure 3, and disturbance levels near red-tailed hawk and northern harrier nests are shown on Figure 4. The distance to disturbance elements for almost all nesting raptors and heron rookeries is less than the recommended buffer distances, indicating some tolerance to human activities.

## 3. Adoption of OSMP-Tailored Spatial Buffers or Distance to nearest Disturbance for Osprey Nests

Boulder OSMP has seasonal closures for osprey platforms. OSMP-tailored spatial buffers and closures are not in conformance with CPW ¼-mile buffer recommendations. It appears that these buffers take other factors into account, such as nearby disturbance (N 95<sup>th</sup> Street, mine sites, property boundaries, etc.). ERO has applied a similar approach for osprey nests, recommending larger buffers for nest sites in low disturbance areas and (nest 3 and 4) and approximate distance to nearest disturbance for nests 1 and 2.

**APPENDIX G - ERO REVISED RAPTOR ANALYSIS APPROACH**

**Table 1. BERT nesting raptor and heron impact evaluation.**

Species	Nest #	Nearest Disturbance Element	Disturbance		Distance to Trail **	Breeding Territory		Visual Buffer	Tailored Buffer	Comments
			Level (H,M,L)*	Distance (feet)		#	Acres			
Bald Eagle	1	Mine	H*	820	1535	N/A	N/A	Yes	.25 mile	Distance to nearest high or medium disturbance for all eagle nests falls between the USFWS 660- ft. buffer and 0.25-mile buffer
Bald Eagle	2	N 75th St.	H*	1300	1255	N/A	N/A	Partial	.25 mile	
Bald Eagle	3	Year-round Trail	M*	954	1640	N/A	N/A	Proposed	.25 mile	
Bald Eagle	4	Residential	H*	950	1915	N/A	N/A	Yes	.25 mile	
Red-Tailed Hawk	1	Residential	H	0	765	1	460	Proposed	Territory	Territory larger than CPW buffer and provides abundant nesting substrate, food resources and opportunities to select nest sites. No adverse effect.
Red-Tailed Hawk	2	Dog Kennel	H	295	1580					
Red-Tailed Hawk	3	Farm	H	725	940					
Red-Tailed Hawk	4	Sawmill Ponds	H	80	30	2	223	Proposed		
Red-Tailed Hawk	5	N 75th St.	H*	270	970					
Red-Tailed Hawk	6	Dirt Road	L*	1300	1410	3	223	Yes	Territory	CPW buffer to visual screen
Red-Tailed Hawk	7	Year-round Trail	M	<100	<100	4	223	Partial	Territory	Territory larger than CPW buffer. No adverse effect.
Red-Tailed Hawk	8	Residential	H	815	1420	5	223	Partial		
Red-Tailed Hawk	9	Residential	H	2103	1810	6	293	Proposed	Territory	Territory larger than CPW buffer. No adverse effect.
Red-Tailed Hawk	10	Residential	H	1680	585					
Northern Harrier	1	Residential	H*	586	485	1	151	Yes	Territory	No CPW Buffer. Nests low in dense vegetation that provides security and visual screen - north boundary cut at RR grade
Northern Harrier	2									
Northern Harrier	3									
Osprey	1	Mine	H*	69	610	N/A	N/A	Yes	575 FT.	Nest is less than 70 to mine site
Osprey	2	Year-round Trail	M*	575	490	N/A	N/A	Partial	575 FT.	New trail is comparable distance to existing trail and will be visually screened
Osprey	3	N 95th St.	H*	122	1185	N/A	N/A	Proposed	BCOS	Trail is outside of OSMP closure

**APPENDIX G - ERO REVISED RAPTOR ANALYSIS APPROACH**

Species	Nest #	Nearest Disturbance Element	Disturbance		Distance to Trail **	Breeding Territory		Visual Buffer	Tailored Buffer	Comments
			Level (H,M,L)*	Distance (feet)		#	Acres			
Osprey	4	None	None*	1727	1610	N/A	N/A	Proposed	BCOS	Trail is outside of CPW buffer
Great Blue Heron Rookery	1	N 95th St.	H*	595	575	N/A	N/A	Partial	Tiered	Trail is less than the 595 ft. to N. 95th St. Tiered at CPW buffer (985 ft) and 650 ft.
Great Blue Heron Rookery	2	Residential	H	1390	1210	N/A	N/A	Partial	Tiered	275 feet to access road; 1,390 feet to residence. Tiered at CPW buffer (985 feet) and 650 feet.

Disturbance Level: H = High, M = Medium, L= Low, None = Nest is greater than 1,320 feet from disturbance; Disturbance levels do not include agricultural activities

\*Nest is within seasonal closure.

\*\*Measured to approximate center of RTD right-of-way



#### 4. Evaluation of Red-Tailed Hawks and Northern Harriers on a Breeding Territory/Complex Basis

As described above, CPW (2020) recommends a “holistic” approach when protecting raptor habitat that protects both nest sites and important foraging areas that support the pairs’ nesting effort.” Three key elements for successful raptor nesting are (1) suitable substrate for building nests, (2) sufficient and available food resources, and (3) security from predators and human disturbance, often achieved by establishing disturbance buffers. ERO understands that northern harriers nesting in the analysis area have multiple alternate nests within an overall nesting territory and that not all nests mapped for this species on Figures 1 and 2 are “in use” during a breeding season. The same is also likely for the 10 red-tailed hawk nests mapped on Figure 2, although OSMP staff checked all of these nests in the field on 4/10 and confirmed that all of them are occupied by nesting red-tailed hawks. This density of occupied or “in use” nests of the same species is unusual and indicates a high abundance of the resources needed for nesting. Competition for these resources, particularly food and nesting sites, is likely to be intense between all the predatory bird species nesting in the analysis area. In times of food scarcity, it is likely that not all the mapped nests would be productive.

The goal of nest buffers is to provide the resources needed to support a viable breeding raptor pair. An individual nest or nest tree can be destroyed by storms or lost due to disease or any number of stressors. Specific nest location may also change over time. Thus, it is more important to protect the resources within a nesting territory than an individual nest site. Based on the distribution of red-tailed hawk nests, ERO has identified six areas, or complexes, of individual and strongly overlapping territories for red-tailed hawks (mapped as nest complexes) and one nest territory for northern harriers (Figure 5). ERO presumes that each of these complexes provides all the chemical, physical, and biological attributes needed for successful breeding, including the three key elements for success listed in the previous paragraph.

#### 5. Presence of Visual Screening

CPW (2020) further states that “Measurements of nest success and productivity are somewhat imprecise and reflect the need to maintain some flexibility to adjust buffer zones depending upon intervening terrain and vegetation screens that obscure human activity” (CPW 2020). Applying this principle, ERO identified trees and large shrubs that provide a visual screen to the proposed trail alignments. These vegetation screens were defined as essentially contiguous lines of tall woody vegetation greater than 100 feet long.

It is important to that the foreground between a nest and the disturbance element and the background behind a disturbance element also moderates the disturbance impact. Taking a conservative analysis approach, other forms of visual/physical buffers, such as industrial/residential foregrounds and backgrounds and intervening open water that can provide an increased sense of security for breeding raptors and herons are not included in this analysis are.

## 6. Great Blue Heron Rookery Tiered Buffer Approach

The most current CPW recommended buffer for heron rookeries is 985 feet (300 meters) (Surface, pers. comm. 2024). The USFWS references a tiered buffer system for great blue heron rookeries developed in Vermont (VFWD 2002). The tiered buffer approach has three buffer zones:

1. Primary buffer zone – 300 feet
  - All human use should be avoided during the nesting season (March 15 – August 15).
  - Recreational activities (hiking, hunting, fishing, biking, etc.) are allowed outside of the nesting season.
2. Secondary buffer zone – 300 to 650 feet
  - There should be no mining, land clearing, or construction of permanent structures year round.
  - Existing agricultural activities, footpaths, and nonmotorized activities such as hiking and biking, are allowed during the nesting period.
3. Tertiary buffer zones – 650 to 1,300 feet
  - Land clearing, timber harvesting, and construction may be feasible outside of the nesting season after consultation with a wildlife biologist.
  - Recreational activities (hiking, hunting, fishing, biking, etc.) may occur in this zone.

Figure 6 shows both a 985-foot CPW buffer and the 650-foot secondary buffer. A 300-foot primary buffer is not shown because no trail alignments occur in this zone.

### Analysis and Conclusions by Species

ERO evaluated the criteria described above and proposes tailored buffers for raptor nest sites and heron rookeries potentially impacted by the proposed trail alignments. The results of the evaluation are provided in Table 1. The tailored buffers based on the evaluation are shown on Figure 6 for eagles and osprey, and on Figure 7 for red-tailed hawk, northern harrier, and herons. ERO's analysis is described below by species:

#### Bald Eagle

Nest 1 through Nest 3 occur in areas experiencing medium disturbance, and the distance to the nearest disturbance for all four nests is less than 1,000 feet. Three of the four nest sites are also partially to fully visually screened from the proposed trail alignments. Because the distance to the nearest disturbance for all eagle nests falls between the USFWS 660-foot regulatory buffer (1/8-mile) and 1/4-mile buffer, combined with the existing visual screening, a reasonable site-specific buffer for bald eagles is 1/4 mile.

#### Red-tailed Hawk and Northern Harrier Individual Nest Sites

Although protecting ample resources within a territory/complex is the most effective way to maintain breeding raptors, ERO evaluated tailored buffers for all existing nest sites. All Red-tailed hawk and

northern harrier nests are less than ¼-mile from a disturbance element and most of the nests are less than 1/8-mile (660 feet) to a disturbance element (Table 1). Many of the nests are also fully or partially visually screened from the proposed trail alignments. Because the proximity of all nests indicate tolerance to human activities equal or greater in intensity to a regional trail, the first step in developing a tailored nest buffer is to reduce nest buffers for red-tailed hawks and northern harriers to ¼-mile. The next step is to look at the proximity of disturbance to individual nest sites. Red-tailed hawk nest sites 1, 2, 4, 5, and 7 are all less than 300 feet from residences, trails, and access roads and exhibit a strong tolerance to human disturbance. Nests 3 and 8 are less than 1,000 feet from human disturbance.

### **Red-tailed Hawk and Northern Harrier Territories/Complexes**

The goal of nest buffers is to provide the resources needed for successful breeding. To accomplish this goal, ERO identified six red-tailed hawks and one northern harrier breeding territories/complexes that are all generally equal to, or larger in overall acreage than CPW and OSMP buffers (Figures 5 and 7). The past success of raptors breeding in these territories and complexes is evidence that the analysis area provides abundant nesting substrate and food resources. Recognizing the fact that existing nest sites may change between now and actual trail construction, protecting territories/complexes would provide the resources necessary for successful nesting regardless of nest location. All of these complexes provide numerous trees for red-tailed hawks and extensive tall marsh vegetation for northern harriers that provide abundant opportunities to select nest sites as distant or as close to any existing or new disturbance as needed. Some of these complexes are bisected by the proposed regional trail. However, based on the demonstrated tolerance of these breeding pairs to human disturbance and the apparent abundance of resources, we see no evidence that a soft-surface regional trail through their territories/complexes would have an adverse effect on breeding red-tailed hawks or northern harriers.

### **Osprey**

Osprey nests 1 through 3 are less than 600 feet from a disturbance element. Tailored nest buffers for the BERT alignment take existing disturbance factors into account, such as nearby disturbance (N 95th Street, mine sites, property boundaries, etc.). Applying this approach ERO recommends larger buffers for osprey nest sites in low disturbance areas (nest 3 and 4) and approximate distance to nearest disturbance for nests 1 and 2 (Figure 6). Additional vegetation screening is also proposed along the alignment to further reduce visual impacts. Placement of a regional trail along the proposed trail alignments would have no adverse effect on breeding ospreys.

### **Great Blue Heron Rookeries**

Both heron rookeries exhibit some tolerance to human disturbance. Heron rookery 2 is more than the CPW-recommended 985 feet from the proposed trail alignments. Heron rookery 1 is about 595 feet from the proposed trail alignments, which fall within the 300- to 650-foot secondary buffer where existing agricultural activities, footpaths, and nonmotorized activities are allowed during the nesting period. Based on the tiered approach to rookery buffers, placement of a regional trail along the proposed trail alignments would have no adverse effect on heron rookery 1.


## Recommendations

OSMP, Boulder County, and private conservation easements have preserved and protected the resources within the analysis area needed for successful raptor and heron breeding. These resources include abundant food, water, and sufficient nesting opportunities to allow for nest movement in response to a changing environment. Based on this analysis, a soft-surface regional trail would not adversely affect the overall breeding success of the raptors and herons nesting in the analysis area or contribute to an overall decline in the species locally or regionally. The installation of a new soft-surface trail will be a new activity in the analysis area and ERO recommends the following to reduce and minimize any potential disturbance:

1. Complete all construction activities outside of the active breeding season, generally extending from December 1 through July 15. Nesting surveys should be completed prior to construction since it is likely that species distribution and nest site locations could change between now and the initiation of construction, and construction activities should be phased and scheduled to minimize impacts to specific nest sites.
2. Much of the existing visual screening is composed of Russian Olive, a non-native noxious species. ERO recommends enhance and expanding these visual buffers by replacing the Russian olive and planting additional native tree and shrub species to provide visual screening along the trail. The species to be planted and exact locations should be developed in coordination with project partners and adjacent property owners as part of the next stage of the project during design.

### SIGNED:

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Ronald Beane, Senior Wildlife Biologist

Attachments: Figures 1, 2, 3, 4, 5, 6, and 7.

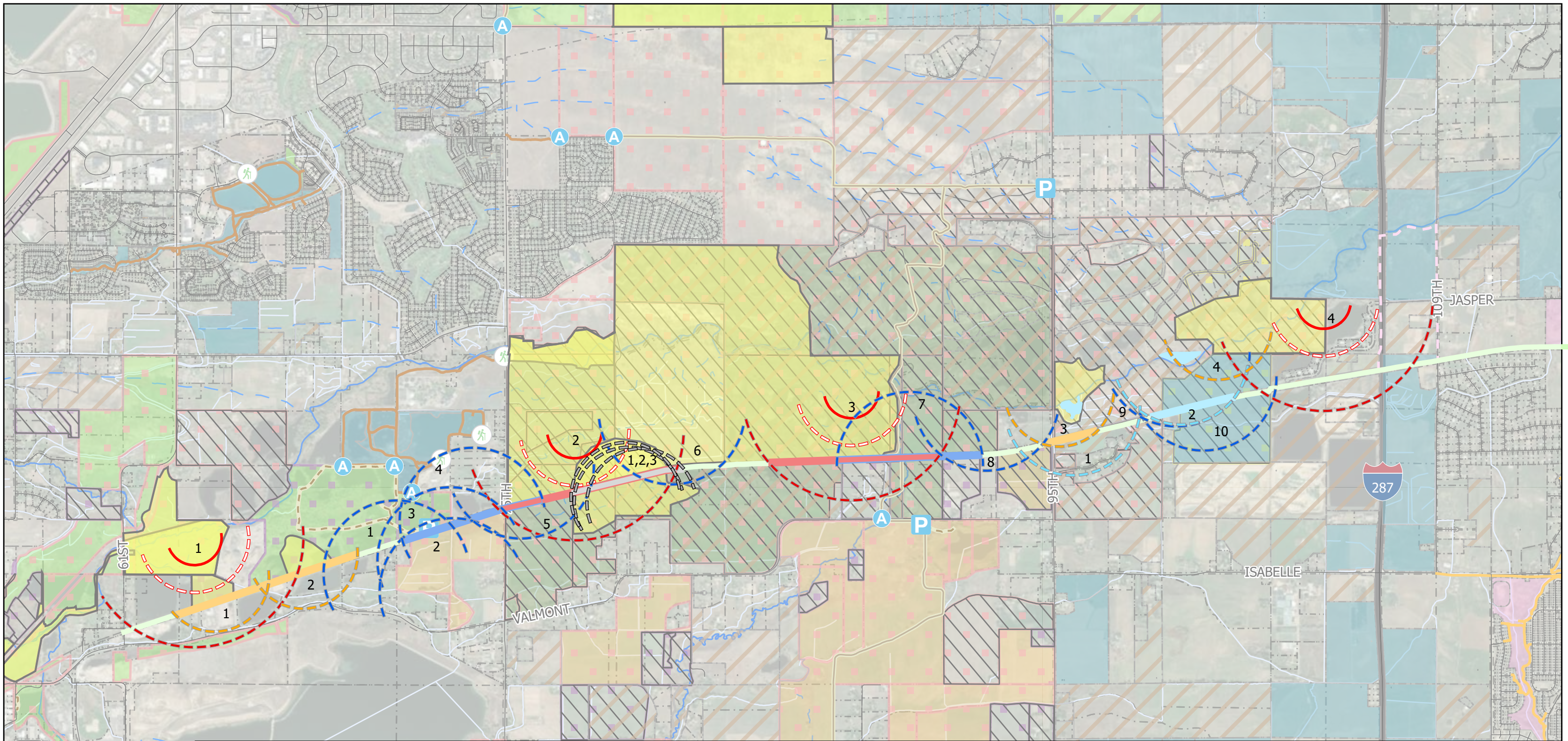
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### Resources used for Disturbance Buffers

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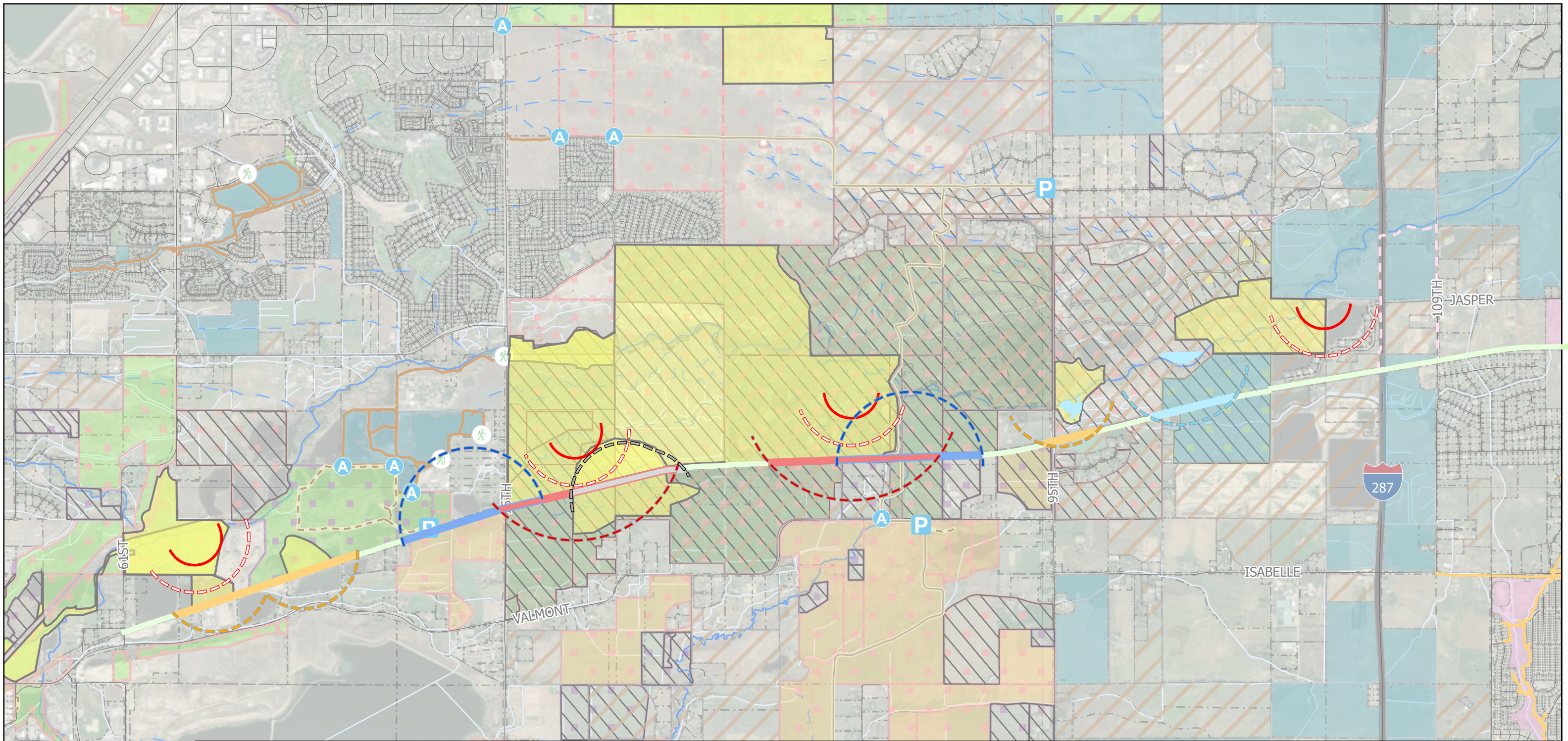
# Map Depicting All BERT Corridor Nest Buffers



<p><b>Legend</b></p> <p><b>PREFERRED ALIGNMENT FOR FURTHER CONSIDERATION</b></p> <p> Preferred Alignment for Further Consideration</p>		<p> Bald Eagle 1/4 Mile Buffer (OSMP &amp; CPW)</p>		<p> OSMP Multi-Use Trail</p>		<p> Ditches and Field Laterals</p>		<p> No Public Access</p>	
<p><b>REGULATORY NEST BUFFERS</b></p> <p> Bald Eagle Nests 1/8 Mile Buffer</p>		<p><b>GREAT BLUE HERON ROOKERIES</b></p> <p> Great Blue Heron Rookeries</p>		<p><b>BOULDER COUNTY TRAILS</b></p> <p> Boulder County Trails</p>		<p><b>ERIE GREEN SPACE OWNERSHIP</b></p> <p> Erie Green Space Ownership</p>		<p><b>OSMP MANAGEMENT AREA DESIGNATIONS</b></p> <p> Agricultural Area</p>	
<p><b>RECOMMENDED NEST BUFFERS</b></p> <p> Osprey 1/4 Mile Buffer (OSMP &amp; CPW)</p>		<p><b>MANAGED TRAIL ACCESS LOCATIONS</b></p> <p> OSMP Trailhead with Designated Parking</p>		<p><b>ERIE TRAILS</b></p> <p> Erie Trails</p>		<p><b>OSMP LAND</b></p> <p> OSMP Fee Ownership</p>		<p> Habitat Conservation Area</p>	
<p> Northern Harrier 1/4 Mile Buffer (OSMP)</p>		<p> Access Point - Parking Along Public Streets Unless Otherwise Posted</p>		<p><b>287 CROSSING AT BOULDER CREEK</b></p> <p> 287 Crossing at Boulder Creek</p>		<p> OSMP Joint Ownership</p>		<p><b>COUNTY OPEN SPACE</b></p> <p> County Conservation Easement</p>	
<p> Red Tail Hawk 1/3 Mile Buffer (OSMP &amp; CPW)</p>		<p><b>BOULDER COUNTY TRAILHEADS</b></p> <p> Boulder County Trailheads</p>		<p><b>LINEAR HYDROLOGY</b></p> <p> Ephemeral Stream</p>		<p> OSMP Joint Easement</p>		<p> County Owned Open Space</p>	
<p> Bald Eagle 1/2 Mile Buffer (OSMP &amp; CPW)</p>		<p><b>TRAILS</b></p> <p> OSMP Hiking Trail</p>		<p> Intermittent Stream</p>		<p> OSMP Easement</p>		<p> Trail Easement</p>	
<p> Great Blue Heron 1/3 Mile Buffer (CPW)</p>				<p> Perennial Stream</p>		<p> OSMP Wildlife Closures</p>		<p><b>PARCELS</b></p> <p> Parcels</p>	

3,000 1,500 0 3,000 US Feet

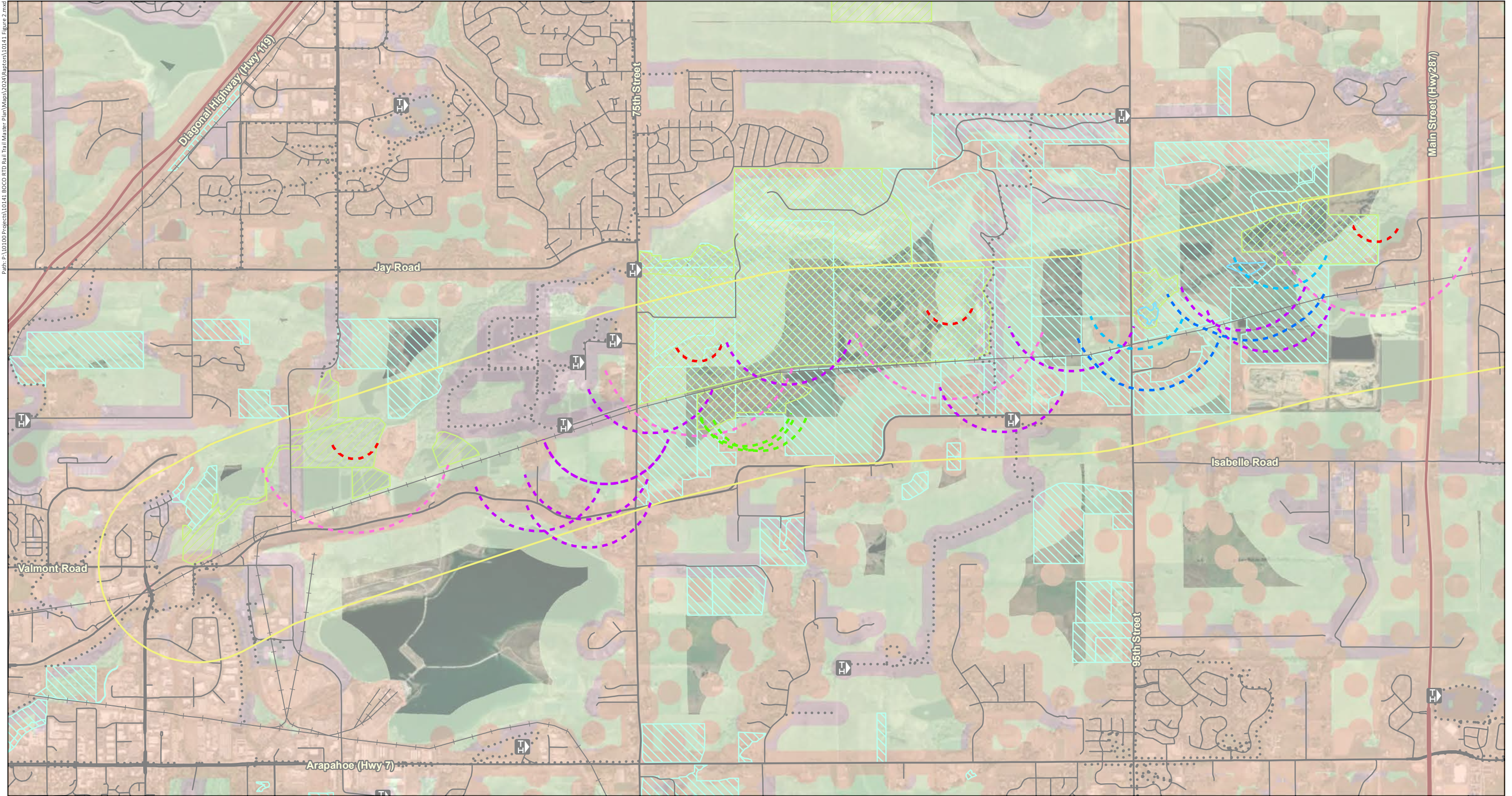
# Map Depicting Nest Buffers for which CPW & OSMP Recommend Seasonal Closures



<b>Legend</b> <b>PREFERRED ALIGNMENT FOR FURTHER CONSIDERATION</b> 		Bald Eagle 1/4 Mile Buffer (OSMP & CPW)		OSMP Multi-Use Trail		Ditches and Field Laterals		No Public Access	
<b>REGULATORY NEST BUFFERS</b> Bald Eagle Nests 1/8 Mile Buffer		<b>GREAT BLUE HERON ROOKERIES</b> 		<b>BOULDER COUNTY TRAILS</b> 		<b>ERIE GREEN SPACE OWNERSHIP</b> 		<b>OSMP MANAGEMENT AREA DESIGNATIONS</b> Agricultural Area	
<b>RECOMMENDED NEST BUFFERS</b> Osprey 1/4 Mile Buffer (OSMP & CPW)		<b>MANAGED TRAIL ACCESS LOCATIONS</b> OSMP Trailhead with Designated Parking		<b>ERIE TRAILS</b> 		<b>OSMP LAND</b> OSMP Fee Ownership		Habitat Conservation Area	
Northern Harrier 1/4 Mile Buffer (OSMP)		Access Point - Parking Along Public Streets Unless Otherwise Posted		<b>287 CROSSING AT BOULDER CREEK</b> 		OSMP Joint Ownership		<b>COUNTY OPEN SPACE</b> County Conservation Easement	
Red Tail Hawk 1/3 Mile Buffer (OSMP & CPW)		<b>BOULDER COUNTY TRAILHEADS</b> 		<b>LINEAR HYDROLOGY</b> Ephemeral Stream		OSMP Joint Easement		County Owned Open Space	
Bald Eagle 1/2 Mile Buffer (OSMP & CPW)		<b>TRAILS</b> OSMP Hiking Trail		Intermittent Stream		OSMP Easement		Trail Easement	
Great Blue Heron 1/3 Mile Buffer (CPW)				Perennial Stream		OSMP Wildlife Closures		<b>PARCELS</b> 	

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APPENDIX G - ERO REVISED RAPTOR ANALYSIS APPROACH

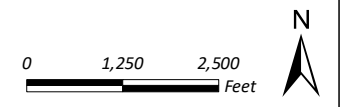


**Boulder to Erie Regional Trail (BERT)**

- |  |   |                       |                    |
|--|---|-----------------------|--------------------|
| <b>Regulatory Nest Buffers</b>               | Bald Eagle 1/2-Mile Buffer (OSMP & CPW) | Railroad Grade        | Analysis Area      |
| Bald Eagle 1/8-Mile Buffer (USFWS)           | Osprey 1/4-Mile Buffer (OSMP & CPW)     | Existing Trail        | High Disturbance   |
| <b>Recommended Nest Buffers</b>              | Great Blue Heron 1/3-Mile Buffer (CPW)  | OSMP Wildlife Closure | Medium Disturbance |
| Red-Tailed Hawk 1/3-Mile Buffer (OSMP & CPW) | Great Blue Heron Rookery                | OSMP No Public Access | Low Disturbance    |
| Northern Harrier 1/4-Mile Buffer (OSMP)      |   |                       |                    |

Image Source: Maxar Technologies©, April 17, 2022

**Figure 2**  
Raptor Nests and Great Blue Heron Rookeries in the BERT Analysis Area and Associated Buffers

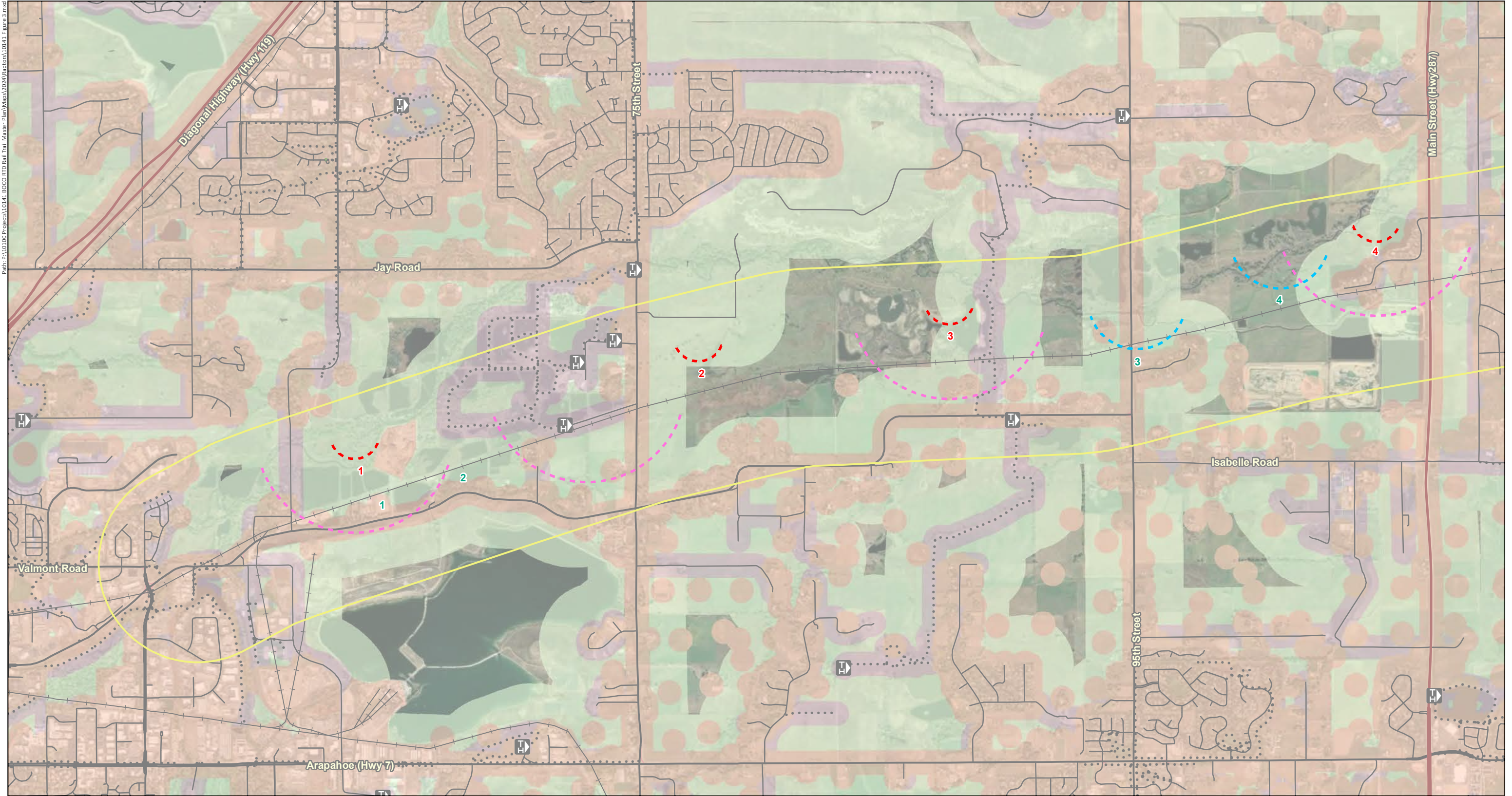


Prepared for: Loris  
File: 10141 Figure 2.mxd (GS)  
September 10, 2024





APPENDIX G - ERO REVISED RAPTOR ANALYSIS APPROACH



Boulder to Erie Regional Trail (BERT)

Regulatory Nest Buffers

--- Bald Eagle 1/8-Mile Buffer

Recommended Nest Buffers

--- Bald Eagle 1/2-Mile Buffer (OSMP & CPW)

--- Osprey 1/4-Mile Buffer (OSMP & CPW)

--- Railroad Grade

--- Existing Trail

□ Analysis Area

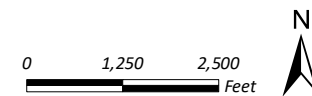
High Disturbance

Medium Disturbance

Low Disturbance

Image Source: Maxar Technologies©, April 17, 2022

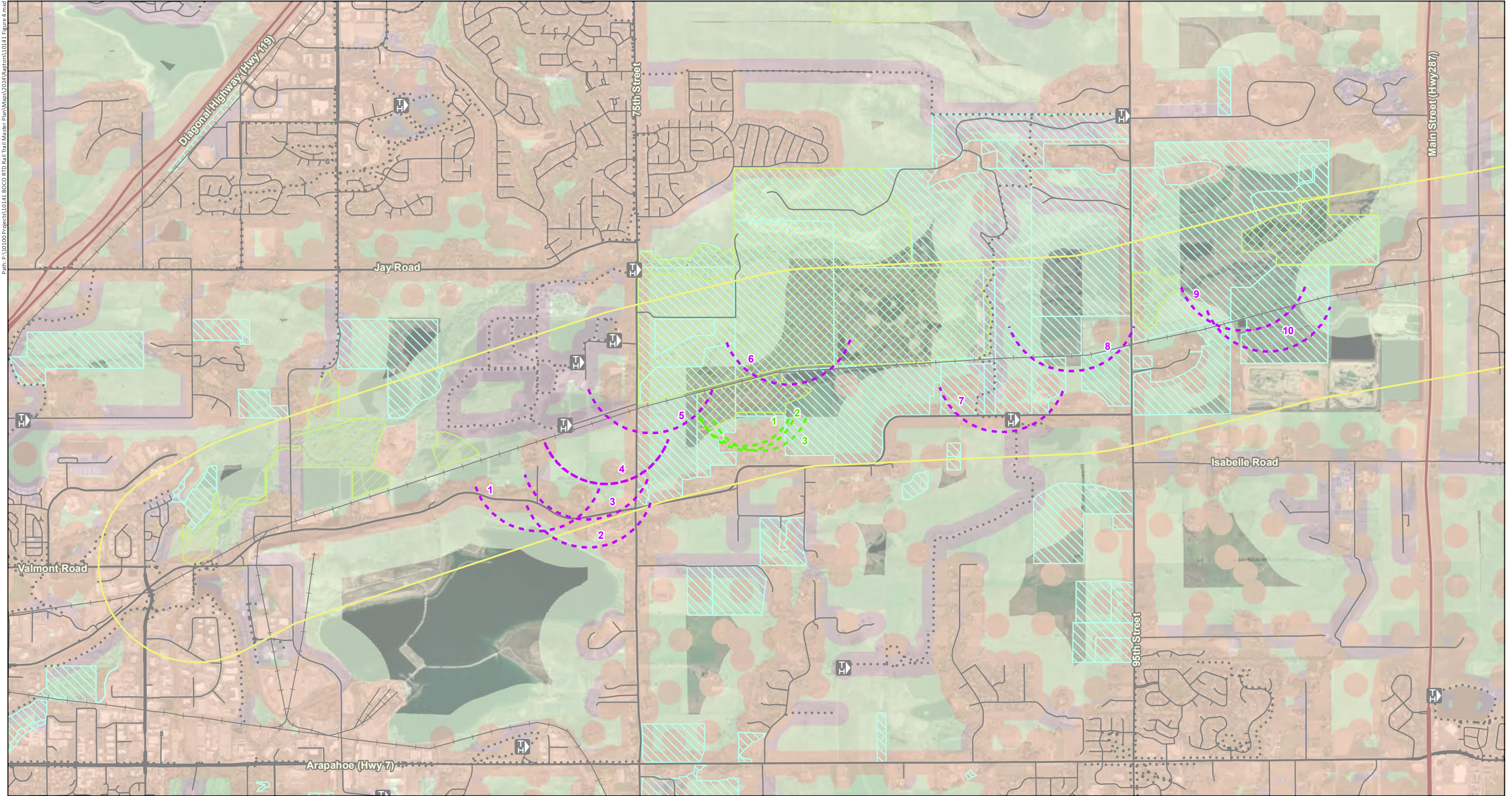
Figure 3  
Eagle and Osprey Nests  
Distance to Disturbance



Prepared for: Loris  
File: 10141 Figure 3.mxd (GS)  
September 6, 2024



APPENDIX G - ERO REVISED RAPTOR ANALYSIS APPROACH



Boulder to Erie Regional Trail (BERT)

Recommended Nest Buffers

- - - - - Red-Tailed Hawk 1/3-Mile Buffer (OSMP & CPW)
- - - - - Northern Harrier 1/4-Mile Buffer (OSMP)
- Railroad Grade

Existing Trail

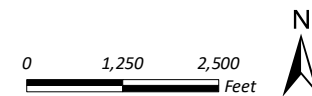
- OSMP Wildlife Closure
- OSMP No Public Access
- Analysis Area

- High Disturbance
- Medium Disturbance
- Low Disturbance

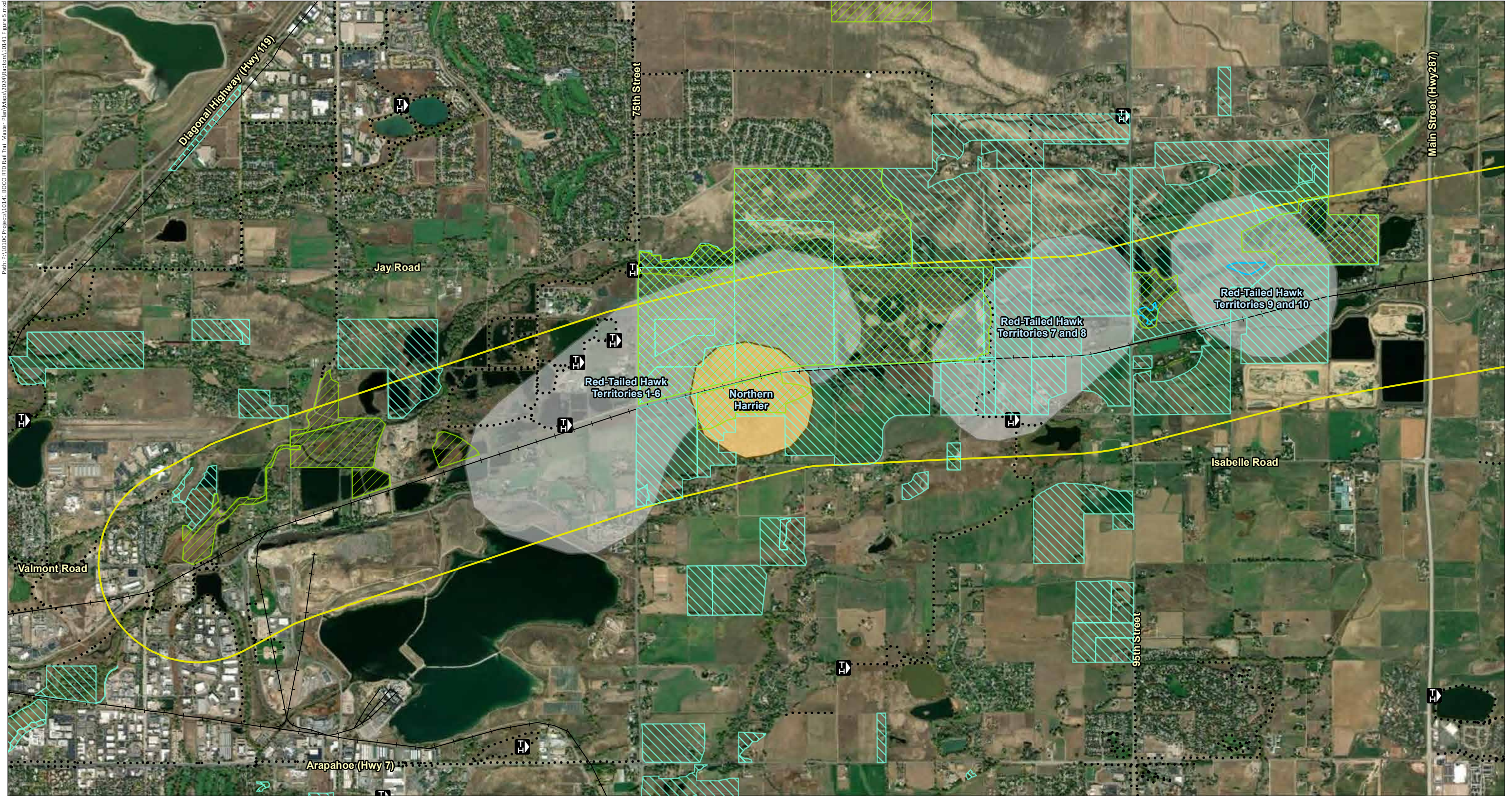
Image Source: Maxar Technologies©, April 17, 2022

**Figure 4**  
Red-Tailed Hawk and Northern Harrier Nests Distance to Disturbance

Prepared for: Loris  
File: 10141 Figure 4.mxd (GS)  
September 10, 2024



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**Boulder to Erie Regional Trail (BERT)**









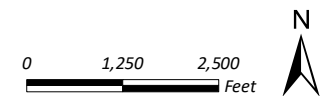
 Great Blue Heron Rookery	 Red-Tailed Hawk Breeding Territory Complex
 Railroad Grade	 OSMP Wildlife Closure
 Existing Trail	 OSMP No Public Access
 Northern Harrier Breeding Territory Complex	 Analysis Area

Image Source: Maxar Technologies©, April 17, 2022

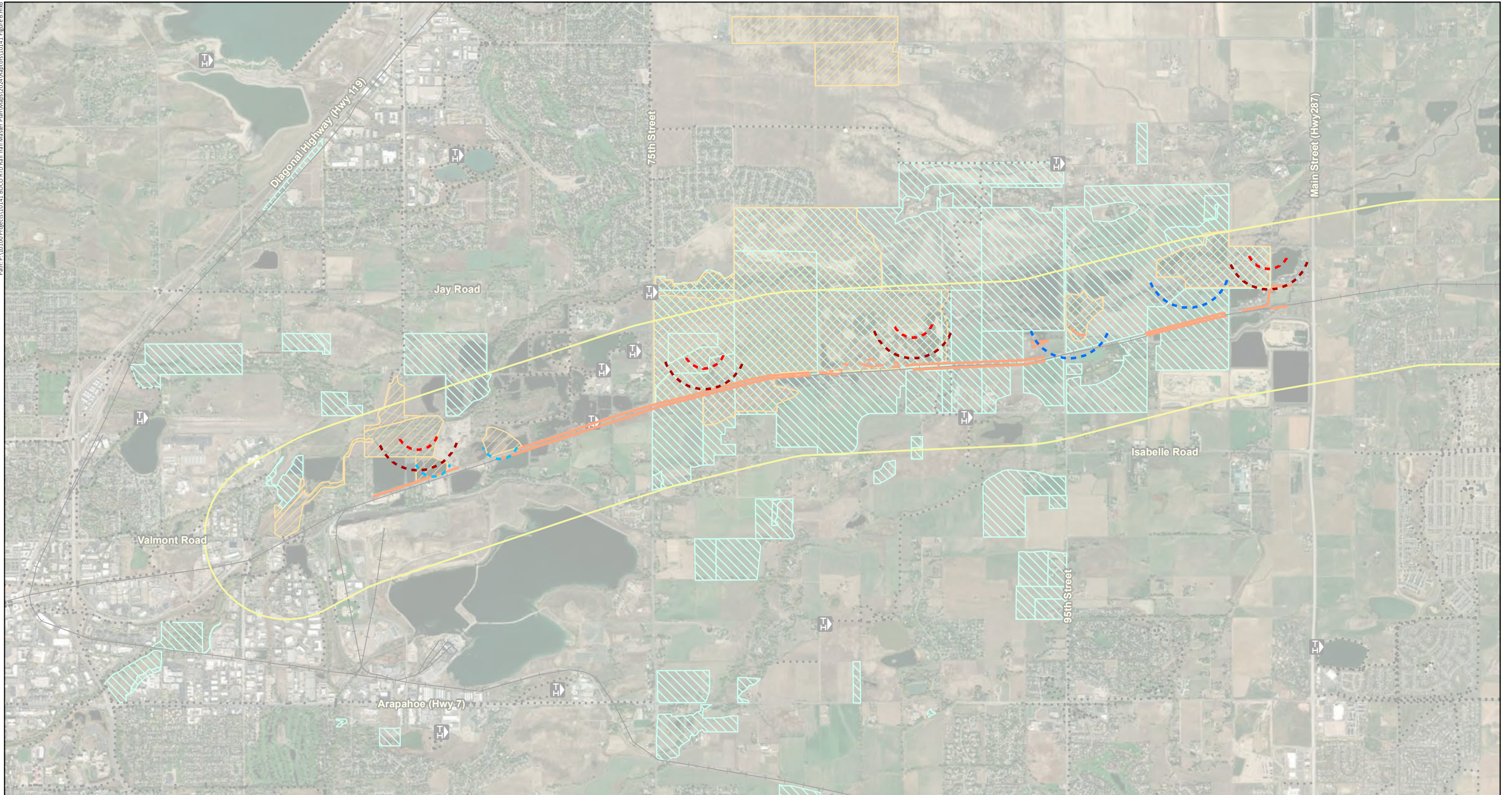
**Figure 5**  
Red-Tailed Hawk and Northern Harrier Likely Breeding Territories



Prepared for: Loris  
File: 10141 Figure 5.mxd (GS)  
September 10, 2024



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**Boulder to Erie Regional Trail (BERT)**

- +—+ Railroad Grade
- ..... Existing Trail
- Proposed and Enhanced Visual Screening
- ▨ OSMP Wildlife Closure
- ▨ OSMP No Public Access
- ▭ Analysis Area
- Bald Eagle 1/8-Mile Buffer
- Osprey 1/4-Mile Buffer
- Bald Eagle 1/4-Mile Buffer
- Osprey 575-Foot Buffer

Image Source: Maxar Technologies©, April 17, 2022

**Figure 6**  
Eagle and Osprey  
Site-Specific Tailored  
Raptor Nest Buffers

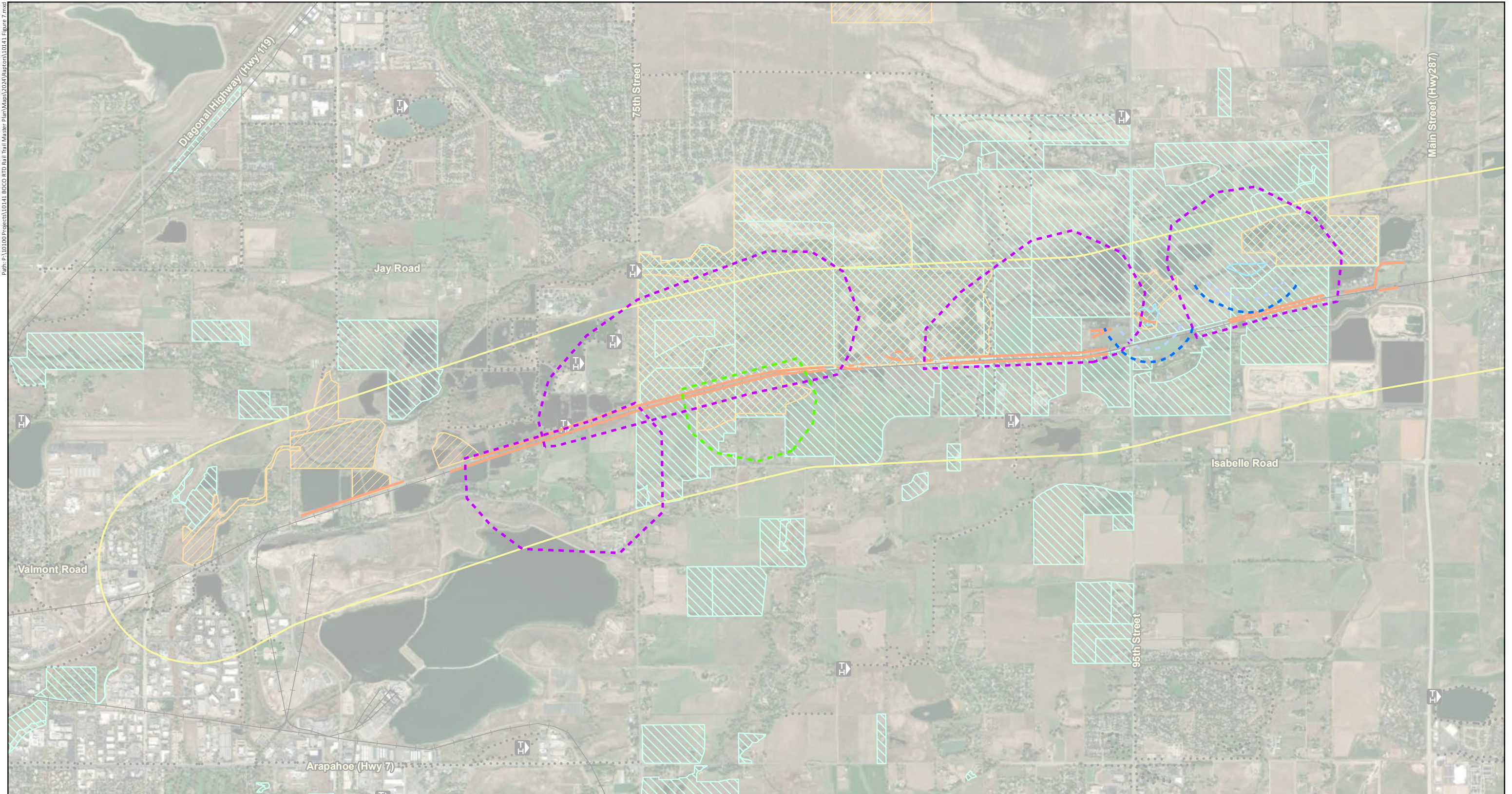
0 1,250 2,500  
Feet



Prepared for: Loris  
File: 10141 Figure 6.mxd (GS)  
September 10, 2024



APPENDIX G - ERO REVISED RAPTOR ANALYSIS APPROACH



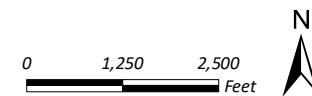
Boulder to Erie Regional Trail (BERT)

- |  |                                  |                       |
|--|----------------------------------|-----------------------|
| Great Blue Heron Rookery               | Red-Tailed Hawk (OSMP & CPW)     | OSMP Wildlife Closure |
| Railroad Grade                         | Northern Harrier (OSMP)          | OSMP No Public Access |
| Existing Trail                         | Great Blue Heron 650-Foot Buffer | Analysis Area         |
| Proposed and Enhanced Visual Screening | Great Blue Heron 985-Foot Buffer |                       |

Image Source: Maxar Technologies©, April 17, 2022

**Figure 7**  
Red-Tailed Hawk, Northern Harrier and Great Blue Heron Site-Specific Tailored Raptor Nest Buffers

Prepared for: Loris  
File: 10141 Figure 7.mxd (GS)  
September 10, 2024



August 20, 2024

**TO:** OTAK  
371 Centennial Parkway,  
Suite 210  
Louisville, CO 80027

**FROM:** Ron Beane, ERO Senior Wildlife Biologist

**RE:** Northern Leopard Frog Evaluation, Boulder to Erie Regional Trail, Boulder County, Colorado

## Introduction

Boulder County, in partnership with the City of Boulder and Town of Erie, is evaluating options for the creation of a new soft-surface regional trail connection (the Boulder to Erie Regional Trail - BERT) linking Boulder and Erie via the RTD rail ROW corridor, which is near several City of Boulder Open Space and Mountain Park (OSMP) properties and easements. The analysis area for this trail provides habitat for the northern leopard frog (leopard frog). This memo provides an analysis of impacts and proposed conservation measures to reduce threats to the leopard frog and result in a net benefit for the species along the trail.

## Background

The leopard frog inhabit permanent and ephemeral streams, ponds lakes, and irrigation ditches up to 11,000 feet in elevation and are a Colorado Tier 1 Species of Greatest Conservation Need. The northern leopard frog prefers the banks and shallow portions of marshes, wet meadows, ponds, lakes, and streams particularly where rooted aquatic vegetation is present (Hammerson 1999). Leopard frogs also require upland grassland habitat for their highly terrestrial foraging. This species is in serious decline in Boulder County and threats include invasive species and disease, habitat loss and intensive grazing (Boulder County 2021).

## Potential impacts

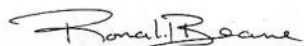
The proposed trail alignment is on an elevated railroad grade that passes alongside numerous freshwater wetlands, ponds, and water bodies that provide suitable habitat for leopard frogs. Some of these water features and wetlands are known breeding habitat areas for the leopard frog, specifically the area around Heatherwood Lake. Human disturbance along the trail may cause slight changes in leopard frog behavior, such as alteration of calling patterns and disruption of breeding. Human disturbance already occurs in this leopard frog habitat area from existing access roads and year-round trails closer to Heatherwood Lake. The trail would be constructed outside of the breeding season and would avoid all wetlands to the greatest extent possible. As is the case with the existing roads and trails, individual frogs could be inadvertently run over by bicycles along the trail between dusk and dawn.

## Conservation Recommendations

The year-round use of the proposed trail would likely have an additive impact on leopard frog breeding and calling behaviors and could result in a slight increase in inadvertent mortality and injury. To offset these impacts ERO recommends working with OSMP, CPW, the Colorado Northern Leopard Frog Working Group, and others to reduce the threats of invasive species and disease. Per the Boulder County Species Conservation and Recovery Plan (Boulder County 2021), removal of adult bullfrogs would reduce disease transmission, predation, and competitive pressure on leopard frogs. Habitat alteration and removal of invasive cattails combined with planting native vegetation would restore leopard frog breeding habitat and reduce the suitability of these areas for bullfrogs. Reducing these primary threats to leopard frogs would more than offset adverse impacts from the trail and result in a net benefit to native frogs, including leopard frogs.

**SIGNED:**

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Ronald Beane, Senior Wildlife Biologist

## References

Boulder County. 2021. Northern Leopard Frog. <https://assets.bouldercounty.gov/wp-content/uploads/2024/05/northern-leopard-frog.pdf>

Hammerson, G. 1999. Amphibians and Reptiles in Colorado. Colorado Division of Wildlife.

# APPENDIX H - PLAN COMMENTS

This appendix includes:

- Public Comments - ***In Progress***
- Board Comments (if applicable) - ***In Progress***





Boulder County  
Community Planning & Permitting