

CO 119 Safety and Mobility Improvements Project and CO 119 Bikeway Project



1041 APPLICATION
December 2022

Prepared For:



COLORADO
Department of Transportation
Region 4



Prepared By:

CDOT Region 4 Environmental Unit, Greeley, CO

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Abbreviations and Acronyms

AJD	Approved Jurisdictional Determination
APE	area of potential effect
BCCP	Boulder County Comprehensive Plan
Bikeway Project	CO 119 Bikeway Project
BRT	Bus Rapid Transit
CDOT	Colorado Department of Transportation
CDPHE	Colorado Department of Public Health and Environment
CFR	Code of Federal Regulations
CLG	Certified Local Government
CLOMR	Conditional Letter of Map Revisions
CNHP	Colorado Natural Heritage Program
County	Boulder County
CO	carbon monoxide
CO ₂	carbon dioxide
CO 119	Colorado Highway 119
CO 52	Colorado Highway 52
Commissioners	Boulder County Board of County Commissioners
CPW	Colorado Parks and Wildlife
CPW/CDOT SB40 MOU	Colorado Parks and Wildlife and CDOT SB40 Memorandum of Understanding
CRS	Colorado Revised Statute
CTIO	Colorado Transportation Investment Office
Diagonal Corridor	CO 119 between Longmont and Boulder
DRCOG	Denver Regional Council of Governments
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIR	Field Inspection Review
FOR	Final Office Review
GHG	greenhouse gas
INWMP	Integrated Noxious Weed Management Plan
IPaC	Information for Planning and Consultation

LOS	Level of Service
LTS	Level of Traffic Stress
Mobility Project	CO 119 Safety and Mobility Project
MP	milepost
MS4	Municipal Separate Storm Sewer System
MTBA	Migratory Bird Treaty Act
msl	mean sea level
NAAQS	National Ambient Air Quality Standards
NAMS	Northwest Area Mobility Study
NEPA	National Environmental Policy Act
NWI	National Wetlands Inventory
OAHP	Office of Archeology and Historic Preservation
OTIS	Online Transportation Information System
Park-n-Ride	Park and Ride
PEL	Planning and Environmental Linkages
PEM	Palustrine Emergent
PFO	Palustrine Forested
PM	particulate matter
PMJM	Preble's meadow jumping mouse
Project Area	Environmental Study Area
Project	CO 119 Safety Mobility Bikeway Project
PSS	Palustrine Scrub-Shrub
R	Riverine
RIRO	right-in right-out
ROW	Right of Way
RTD	Regional Transportation District
RTP	Regional Transportation Plan
SB40	Senate Bill 40
sf	square feet
SHPO	State Historic Preservation Office(r)
SSC	Species of Special Concern (Boulder County)
STIP	Statewide Transportation Improvement Program
SWMP	Stormwater Management Plan
TIP	Transportation Improvement Program

TMP	Transportation Master Plan
TSP	Transit Signal Priority
UA	Urbanized Area
ULTO	Ute ladies' tresses orchid
US 287	United States Highway 287
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
VMT	vehicle miles traveled
V/C ratio	volume to capacity ratio
VOCs	volatile organic compounds
1041 Applicants	Boulder County, Colorado Department of Transportation, and Regional Transportation District
1041 Permit	Areas and Activities of State Interest

1. Application and Mineral Interest Form

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Boulder County Land Use Department

Courthouse Annex Building
2045 13th Street • PO Box 471 • Boulder, Colorado 80302
Phone: 303-441-3930
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Office Hours: Mon., Wed., Thurs., Fri. 8 a.m. to 4:30 p.m.
Tuesday 10 a.m. to 4:30 p.m.

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Planning Application Form

The Land Use Department maintains a submittal schedule for accepting applications. Planning applications are accepted on Mondays, by appointment only. Please call 303-441-3930 to schedule a submittal appointment.

Project Number		Project Name					
<input type="checkbox"/> Appeal <input type="checkbox"/> Correction Plat <input type="checkbox"/> Exemption Plat <input type="checkbox"/> Final Plat <input type="checkbox"/> Limited Impact Special Use <input type="checkbox"/> Limited Impact Special Use Waiver <input type="checkbox"/> Location and Extent		<input type="checkbox"/> Modification of Site Plan Review <input type="checkbox"/> Modification of Special Use <input type="checkbox"/> Preliminary Plan <input type="checkbox"/> Resubdivision (Replat) <input type="checkbox"/> Rezoning		<input type="checkbox"/> Road Name Change <input type="checkbox"/> Road/Easement Vacation <input type="checkbox"/> Site Plan Review <input type="checkbox"/> Site Plan Review Waiver <input type="checkbox"/> Sketch Plan <input type="checkbox"/> Special Use/SSDP		<input type="checkbox"/> Special Use (Oil & Gas development) <input type="checkbox"/> State Interest Review (1041) <input type="checkbox"/> Subdivision Exemption <input type="checkbox"/> Variance <input type="checkbox"/> Other:	
Location(s)/Street Address(es) Colorado Highway 119 (CO 119) between the cities of Longmont and Boulder							
Subdivision Name N/A							
Lot(s)	Block(s)	Section(s)	Township(s)	Range(s)			
Area In Acres	Existing Zoning	Existing Use of Property State Highway Corridor		Number of Proposed Lots			
Proposed Water Supply N/A		Proposed Sewage Disposal Method see Environmental Impact Analysis- Water Resource					

Applicants:

Applicant/Property Owner CDOT- Adnana Murtic		Email adnana.murtic@state.co.us	
Mailing Address 1050 Lee Hill Drive			
City Boulder	State CO	Zip Code 80302	Phone 303-546-5657
Applicant/Property Owner/Agent/Consultant Boulder County		Email sproctor@bouldercounty.org	
Mailing Address Community Planning and Permitting- PO Box 471			
City Boulder	State CO	Zip Code 80306	Phone 303-441-1107
Agent/Consultant RTD= Ali Imansephahi		Email ali.imangepahi@rtd-denver.com	
Mailing Address 1560 Broadway, Suite 700, FAS-72			
City Denver	State CO	Zip Code 80202	Phone 303-916-6600

Certification (Please refer to the Regulations and Application Submittal Package for complete application requirements.)

I certify that I am signing this Application Form as an owner of record of the property included in the Application. I certify that the information and exhibits I have submitted are true and correct to the best of my knowledge. I understand that all materials required by Boulder County must be submitted prior to having this matter processed. I understand that public hearings or meetings may be required. I understand that I must sign an Agreement of Payment for Application processing fees, and that additional fees or materials may be required as a result of considerations which may arise in the processing of this docket. I understand that the road, school, and park dedications may be required as a condition of approval. I understand that I am consenting to allow the County Staff involved in this application or their designees to enter onto and inspect the subject property at any reasonable time, without obtaining any prior consent.

All landowners are required to sign application. If additional space is needed, attach additional sheet signed and dated.

Signature of Property Owner <i>Adnana Murtic</i>	Printed Name Adnana Murtic	Date December 19, 2022
Signature of Property Owner <i>Stacey Proctor</i>	Printed Name Stacey Proctor	Date December 19, 2022

The Land Use Director may waive the landowner signature requirement for good cause, under the applicable provisions of the Land Use Code.

Form: P/01 • Rev. 07.23.18 • g:/publications/planning/p01-planning-application-form.pdf

Ali Imansephahi

Ali Imansephahi

December 20, 2022

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 10 a.m.-4:30 p.m. Tuesday

Intake Stamp

Docket#:

Applicant's Mineral Rights Certification of Compliance

With Article 65.5 of Title 24, Colorado Revised Statutes (H.B. 01-1088, Effective July 1, 2001).

Note to Applicant & Land Use Department:

This form must be completed for any application for development under the Boulder County Land Use Code which (1) requires a public hearing before the Planning Commission or Board of County Commissioners, and which (2) is either (a) any kind of planned unit development, subdivision, or resubdivision/replat sketch plan, preliminary plan, or final plat application, or (b) an application for any other type of Land Use Code approval which anticipates new surface development ("a Subject Application").

- I. The Applicant must complete the following certification as a prerequisite to the Land Use Department accepting as complete any Subject Application which is tendered for processing to the Land Use Department on or after July 1, 2001. [Applicants for an approval of an application such as Site Plan Review, which is granted administratively and may not require a public hearing, do not need to complete the following certifications unless and until their application is appealed to or called up for a public hearing]:

I, Adnana Murtic CDOT, Applicant for the following named development under the Boulder County Land Use Code CO 119 Project (Docket # _____) ("the proposed Development"), hereby certify that I or my agent have examined the records in the Office of the Boulder County Clerk and Recorder to determine if any owners or lessees of any severed mineral estate in the property which is the subject of the Proposed Development ("the Subject Property") (i.e., owners or lessees of mineral rights constituting less than full fee title in the Subject Property) can be identified, as required by Article 65.5 of Title 24, Colorado Revised Statutes (also known as "H.B. 01-1088" ("the Act")). Further, based on this examination, I have determined that (check applicable entry):

- No such mineral estate owners or lessees exist in the Subject Property.
 Mineral estate owners or lessees exist in the Subject Property to whom notice of the County's initial public hearing on my application will need to be sent as required by the Act.

Certification:

I certify that the information and exhibits I have submitted are true and correct to the best of my knowledge.

Applicant Signature: <i>Adnana Murtic</i>	Applicant Name: Adnana Murtic	Date: December 19, 2022
Applicant Signature: <i>Stacey Proctor</i>	Applicant Name: Stacey Proctor	Date: December 19, 2022

Note: The same person(s) signing the development/docket application form on behalf of the Applicant must also sign the foregoing certification.

Ali Imansephahi

Ali Imansephahi

December 20, 2022

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- II. If the Applicant has certified above that mineral estate owners or lessees exist in the Subject Property to whom notice of the County's initial public hearing on the Subject Application will need to be sent as required by Article 65.5 of Title 24, Colorado Revised Statutes (H.B. 01-1088, effective July 1, 2001) ("the Act"), then the Applicant must complete the following additional certification as a prerequisite to the Land Use Department proceeding with the initial public hearing (before the Planning Commission or Board of County Commissioners, as applicable) on the Subject Application:

I, _____, Applicant for the following named development under the Boulder County Land Use Code _____ (Docket # _____) ("the Proposed Development"), hereby certify that I or my agent have sent a notice, by first-class mail, not less than thirty days before the date scheduled for the initial public hearing on the Subject Application/Proposed Development, to: (1) all mineral estate owners or lessees in the Subject Property, containing the time and place of the initial public hearing, the nature of the hearing, the location of the Subject Property, and the name of the Applicant, and (2) the County, containing the name and address of all mineral estate owners or lessees in the Subject Property, all as required by the Act. I further acknowledge and agree that while the County has no obligation whatsoever to check or independently determine my compliance with the Act, to the extent information becomes known to the County indicating that I have failed to comply with the public hearing notice requirement of the Act, the County may, in its discretion, refuse to set, continue, reschedule, or vacate any public hearing on the Subject Application to enable proper notice to mineral estate owners or lessees under the Act, and may take such other action regarding any approval of the Subject Application as authorized by the Act. I further acknowledge and agree that to the extent any other state statute or provision of the County's Land Use Code purport to entitle me to action or a decision on the Subject Application within a designated period of time, this certification and agreement constitute a written waiver of any such entitlement to the extent necessary for me to comply with the public hearing notice requirements of the Act.

Certification:

I certify that the information and exhibits I have submitted are true and correct to the best of my knowledge.

Applicant Signature:	Applicant Name:	Date:
Applicant Signature:	Applicant Name:	Date:

Note: The same person(s) signing the development/docket application form on behalf of the Applicant must also sign the foregoing certification.

Applicant will send this once public hearing dates have been scheduled.

2. Application Submittal Requirements (8-507)

Boulder County (County), the Colorado Department of Transportation (CDOT), and the Regional Transportation District (RTD), prepared the Areas and Activities of State Interest (Colorado House Bill 1041; 1041 Regulations) permit application (1041 Application) per the requirements outlined in *Boulder County Land Use Code, Article 8*. The County, CDOT, and RTD (1041 Applicants) are providing project information, figures, and materials, which are hereby incorporated into and made part of the Application below in order to comply with the approval criteria for the Areas of State Interest (*Section 8-308B and Section 8-405 C.E. - Other Designated Areas and Activities Requiring a Permit*).

2.1 A Written Description of the Proposal (8-507.A.C)

The Colorado Highway 119 (CO 119) Multi-Modal Planning and Environmental Linkages (PEL) Study established a multimodal corridor vision and identified numerous project elements that CO 119 local agency stakeholders are advancing as separate but coordinated projects. CDOT and RTD are leading the CO 119 Safety and Mobility Improvements Project (Mobility Project). Boulder County is leading the CO 119 Bikeway Project (Bikeway Project). The 1041 Applicants are submitting the Areas and Activities of State Interest application as a combined effort for both projects.

For the purposes of this 1041 Application, both projects (i.e., Mobility Project and Bikeway Project), will collectively be referred to as the “Project”. The Project is located along the CO 119 corridor between Longmont and Boulder, often referred to as the Diagonal corridor (Figure 1, CO 119 Project Corridor). The Applicants propose to begin construction of the Project in 2024.

The Mobility Project will create a more reliable and equitable regional transportation system by incorporating safe, efficient vehicular travel choices, with enhanced transit infrastructure (Figure 2, CO 119 Project Schematics). The Mobility Project intersection and transit improvements are located entirely within CDOT right-of-way (ROW).

The Bikeway Project adds a safe transportation option within the CO 119 corridor, which is critical to increase connectivity. The bikeway is a proposed 12-foot-wide multi-use path between Boulder and Longmont primarily within the median of CO 119. The bikeway will be paved and plowed in the winter to facilitate year-round use. The goal of the bikeway is to create a safe, direct, and accessible bicycle facility. The 9-mile facility will connect into the existing multi-use path networks within the City of Boulder and the City of Longmont. The Bikeway Project will require easements within the Cities of Boulder and Longmont as well as a small section within unincorporated Boulder County.

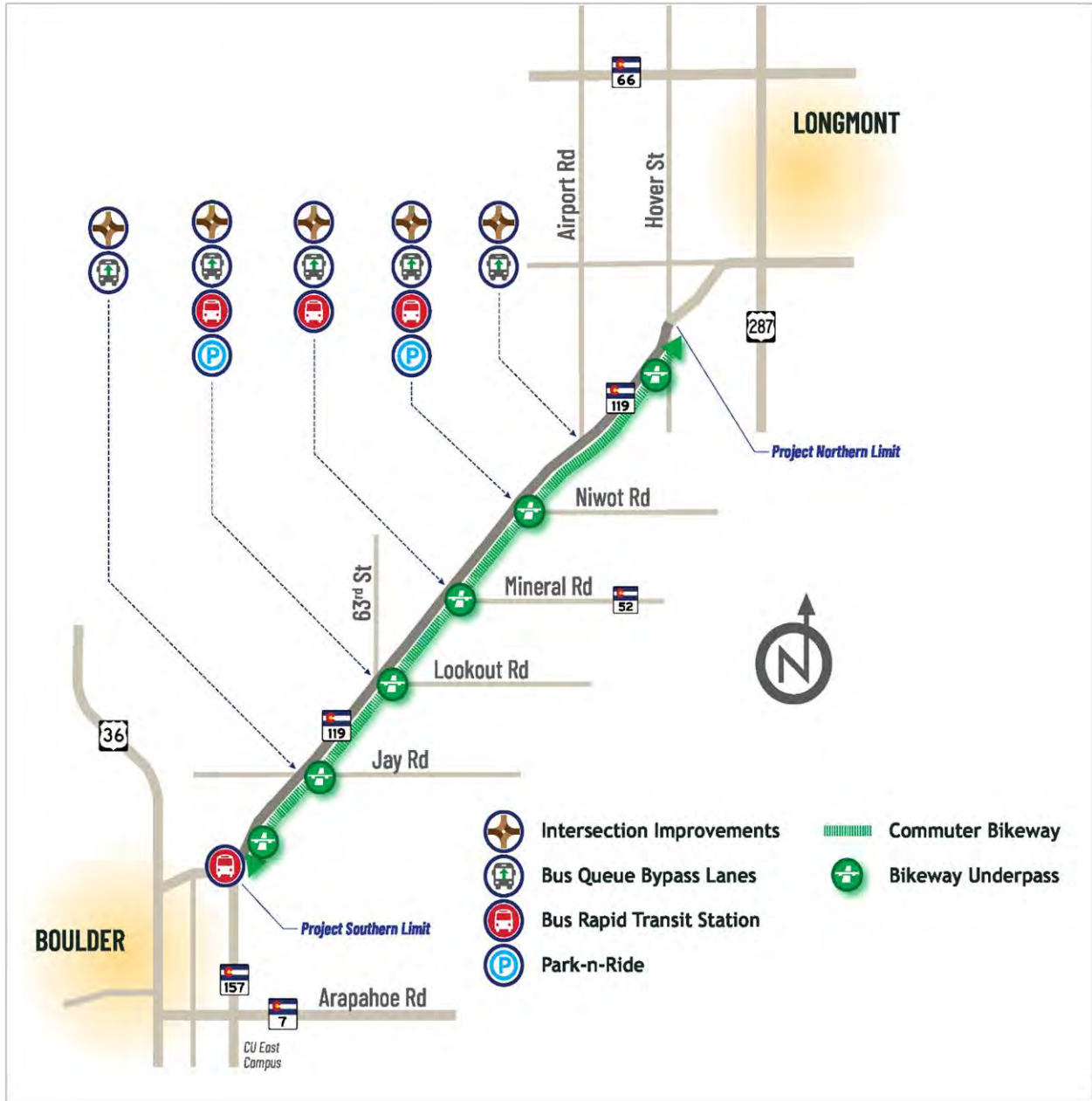


FIGURE 1. CO 119 PROJECT CORRIDOR

Project corridor-wide elements include:

- Bus Rapid Transit (BRT) service.
- Synchronized traffic signals that optimize the length of green lights and promote traffic flow.
- Adaptive signal technology that detects when vehicles, pedestrians, and bicyclists are present and adjusts the signal accordingly.
- Intelligent Transportation Systems that enhance safety and provide real-time information to travelers.
- Signage and pavement markings to make intersections safer and improve multimodal access.
- Separated bikeway.

Project intersection-specific elements include:

- Physical reconfiguration of the Colorado Highway 52 (CO 52) intersection to reduce congestion and improve operations.
- Park-n-Rides consist of bicycle and pedestrian facilities (i.e., shelters, seating, emergency phones, security cameras), local transit service (BRT stations), parking lot, and connections to the bikeway at 63rd Street and Niwot Road.
- The BRT stations include bus platforms and bus queue bypass lanes (CO 52, 63rd Street, & Niwot Road).
- Elimination of left turns at CO 119 and Airport Road.
- Traffic signal poles will be upgraded at six signalized intersections (i.e., Jay Road, 63rd Street, CO 52, Niwot Road, Airport Road, and Hover Street).
- Pedestrian safety and access will be improved at all six signalized intersections, including signing, striping, and lighting.
- Four planned bikeway under/overpasses to be constructed below/above cross streets and two park-n-rides which will directly interface with the proposed bikeway under/overpasses.
- Additional intersection safety improvements under consideration:
 - Reviewing options related to restricting 55th Street movements across CO 119 and making both 55th Street approaches right-in right-out (RIRO).
 - Reviewing options to convert Monarch Road and CO 119 to RIRO intersections in both directions.
 - Reviewing feasibility of a RIRO out at 83rd and CO 119 intersection.
 - Reviewing options related to northbound CO 119 left-turn to northbound Fordham Street.

The Project improvements promote safe, efficient, and equitable mobility options for people and goods traveling by car, truck, transit, bicycle, and on foot. The Project is in the early stages of design and has included the preliminary 30 percent design drawings (Appendix 1 - CO 119 Project Field Inspection Review (FIR) Plan Set(s)). Prior to site disturbance, the Applicants will obtain and comply with the required approvals pertaining to county, state, and federal regulatory authorities for the construction, operation, and maintenance of the Project in Boulder County.

FIGURE 2. CO 119 PROJECT SCHEMATICS



CO 119 AND 63rd STREET



CO 119 AND NIWOT ROAD

FIGURE 2. CO 119 PROJECT SCHEMATICS (CONTINUED)

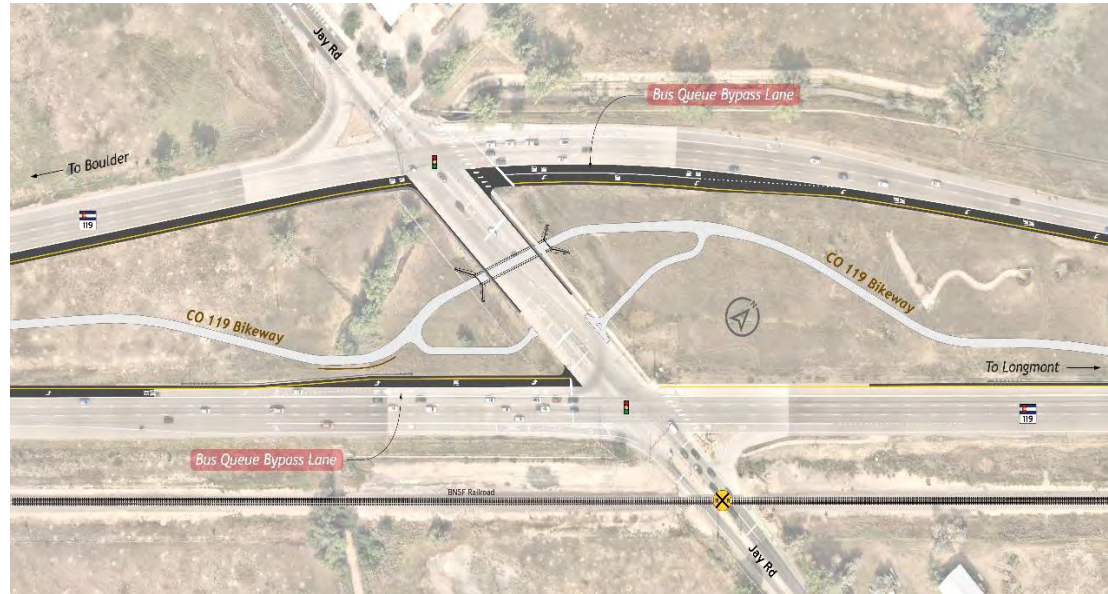


CO 119 AND CO 52

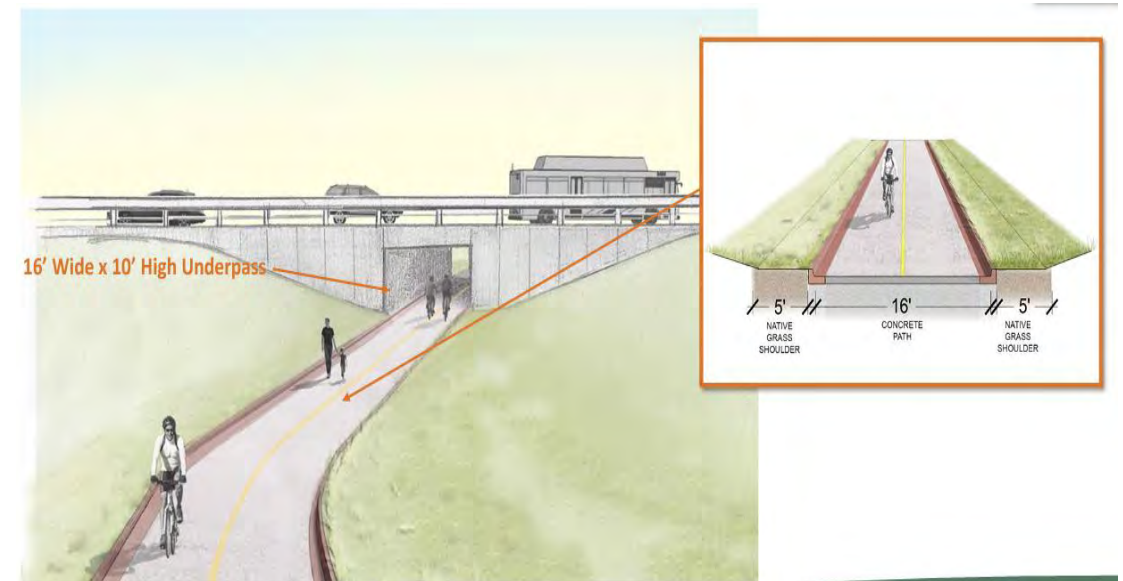


CO 119 AND AIRPORT ROAD

FIGURE 2. CO 119 PROJECT SCHEMATICS (CONTINUED)



CO 119 AND JAY ROAD



CO 119 BIKEWAY SCHEMATIC

2.1.1 Federal, State, and County Project Permitting Overview

As part of the county permitting process, the Project has been communicating with Boulder County regarding applicable 1041 Application requirements (Table 1). As noted above, the Project is submitting this 1041 Application for the construction, operation, and maintenance of both the Mobility Project and the Bikeway Project. On November 2, 2022, Sam Walker with the Boulder County Community Planning and Permitting Office provided the revised highlighted version of Land Use Code Article 8 and a revised Referral Agency List that is applicable to this Project. This 1041 Application was also prepared with concurrence from the Boulder County Community Planning and Permitting Office for submittal of the 1041 Application with 30 percent design plans (Appendix 2, Record of Communications).

TABLE 1. BOULDER COUNTY COMMUNICATION REGARDING 1041 APPLICATION DATA NEEDS

AGENCY	BOULDER COUNTY CONTACT	COMMUNICATION ¹		
		DATE	TYPE	SUMMARY
Boulder County	Dale Case, Community Planning and Permitting	9/2020	Meeting	Pre-Application
Boulder County	Dale Case, Summer Frederick, Community Planning and Permitting Kathleen Bracke, Deputy Director of Transportation Planning	6/21/2022	Meeting	1041 Process Discussion
		6/25/2022	Meeting	1041 Process Discussion
Boulder County	Sam Walker, Planner Community Planning and Permitting	11/2/2022	Meeting	Provided revised highlighted version of the Land Use Code Article 8 and Referral Agency List
Boulder County	Dale Case, Sam Walker, Community Planning and Permitting	11/08/2022	Email	1041 Questions for Boulder County Development Review Staff: Confirmed 30 percent plans are adequate for submission of application, areas within other jurisdictions, construction funds, etc.
Boulder County	Ron West, Natural Resource Planner	7/14/2022	Email	Provided data for consideration in the 1041 application
		10/13/2022	Meeting	Environmental resources meeting to discuss data needs in the 1041 application
Boulder County	Mike Thomas, County Engineer	9/9/2022	Meeting	Meeting regarding drainage – Also with Wright Water Engineers
		10/28/2022	Email	Response to Stacey P. email 10/25 confirming that FIR drainage plans are sufficient for 1041 application

AGENCY	BOULDER COUNTY CONTACT	COMMUNICATION ¹		
		DATE	TYPE	SUMMARY
Boulder County	Jennifer Keyes, Andrew Earles, Stacey Proctor, Mike Thomas, Allison Kelly, Alexandra Phillips Ron West	9/9/2022	Meeting	Stormwater detention: Discussed solutions to manage runoff long term for overarching project goals, completion of stormwater design, etc.
Boulder County	Kelly Watson, Floodplain Program Planner	10/14/2022	Meeting	Floodplains meeting and details of 1041 submission
Boulder County, City of Boulder OSMP, CDOT, USFWS	Alexandra Phillips, etc.	11/17/2022	Email chain	Inquiry and discussion about opportunities to relocate prairie dogs. City of Boulder does not have receiving sites available. Can request relocation with the City of Boulder by or before March 1 for relocations between June and Oct of the same year. Suggested US Army Pueblo Chemical Depot for relocation and provided USFWS contact (Ricky Jones).
Boulder County	Dale Case, Sam Walker	11/08/2022	Email(s)	1041 Questions for Boulder County Development Review Staff: Confirmed 30 percent plans are adequate for submittal of application, areas within other jurisdictions, construction funds, etc.
Boulder County, City of Longmont, CDOT, Boulder County, RTD	Jennifer Keyes, Allison Kelley, Tyler Dell, Judah Gaioni, Scott Coulson,	12/1/2022	Meeting	Boulder County, City of Longmont, City of Boulder, CDOT, RTD Meeting on MS4 Requirements for the CO 119 Project.

¹ Records of the communications are included in Appendix 2.

The Federal Highway Administration (FHWA) is the federal agency responsible for evaluating and authorizing the Project (both the Mobility and Bikeway Projects). As such, FHWA is the lead federal agency responsible for the preparation of the documents and materials to fulfill the requirements of the National Environmental Policy Act (NEPA) (40 Code of Federal Regulations [CFR] Parts 1500-1508), and FHWA regulations implementing NEPA (23 CFR 771). The Project is at the preliminary stage of design (30 percent) and as a result, surveys and agency coordination are still ongoing within the Project corridor to assess potential environmental effects. As the design progresses, the Project will continue to coordinate with federal, state, and county permitting agencies. All required permits, certifications, or approvals will be completed prior to construction.

2.2 Professional Qualifications (8-507.B)

Should any questions arise concerning the submittal or other consideration related to this 1041 Application, please contact the following representatives:

APPLICANT(S)

Boulder County

APPLICANT REPRESENTATIVE

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2.2.1 Professional Qualifications Required for Improvement Plans, Roads, Transportation Modeling and Transportation Planning (8-507. B.1a)

The materials submitted with the 1041 Application were prepared by individuals who meet Boulder County's professional qualifications. These documents include the required transportation plans, modeling, and bikeway design.

CONSULTANT

Muller Engineering - CDOT/RTD Consultant Lead

Muller Engineering - Boulder County Consultant Lead

CONSULTANT REPRESENTATIVE

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2.3 Map and Plan Requirements (8-507. D.1)

The 1041 Applicants have prepared 30 percent design plans for the Project (Appendix 2). The Project will submit the final design once completed, including the Stormwater Management Plan with the applicable environmental protections (erosion controls and restoration requirements). Once constructed, the Mobility Project will encompass 71 acres, and the Bikeway Project will encompass 86 acres.

2.4 Historical and Archeological Resource Area of Statewide Importance (8-507. D.4)

Resources within the Project are currently being evaluated for historic significance. Research has included the following:

- The Office of Archeology and Historic Preservation's (OAHP)/ State Historic Preservation Office (SHPO) Compass Database (OAHP 2022);
- The CO 119 PEL's selective survey of architectural resources in the corridor (PEL 2019);
- CDOT's Online Transportation Information System (CDOT 2022a) and Historic Sites Viewer (CDOT 2022b);
- Historic topographic maps and aerial photography (Historic Aerials 2022); and
- Boulder County Assessor records (Boulder County Assessor 2022).

There is ongoing coordination with CDOT Region 4 Historians to determine eligibility and effects, and any mitigation that may be required for potential impacts for historic resources. In addition, to account for a shifting construction horizon, linear resources and buildings/structures 45-years of age or older (established in 1977 or prior) will be considered in this evaluation. Site forms have been submitted to CDOT and are currently in review. An Area of Potential Effect

(APE) was determined in March 2022 between Boulder County, CDOT Region 4 Historians and the Consultant.

As part of the NEPA and Section 106 of the National Historic Preservation Act of 1966, a letter and materials, including site forms, photographs and an APE map, will be sent to SHPO for concurrence on the eligibility and effects to identified historic properties. In addition, a request for comments on the eligibility and effects, and the APE, will be sent to the Certified Local Government (CLG), Boulder Historic Preservation Advisory Board. Boulder County and CDOT will work together to identify potential impacts and mitigation required. All required coordination with Boulder County historic preservation staff will also be completed prior to construction.

The Bikeway Project will cross an Archeological Sensitive Travel Area that is mapped in *Boulder County's Comprehensive Plan* (Boulder County 2020a). As design progress and impacts are known, the Project will coordinate with SHPO and Boulder County Archeological staff to determine required mitigation (Figure 3).

2.5 Natural Hazard Areas (8-507. D.6)

The Project is located within areas considered low risk for geologic hazards. The topography has fairly level relief (0-10 percent slope), with gently rolling terrain and flood plains interspersed by drainages with steeper side slopes. The occurrence of major landslides within the Project corridor has not been recorded, although the potential for sheet and rill erosion and gully formation may be moderate to severe in some areas. Geotechnical investigations are currently underway for the Project corridor and recommendations will be made for any cut and fill activities within these areas. For seismic purposes, Colorado is considered a region of minor earthquake activity, although there are many uncertainties because of the very short time period for which historic data is available. This portion of Colorado and Boulder County can be considered aseismic. Refer to *Section 3.2.6.1* for details on potential impacts and locations of geological hazards.

A flood hazard report will be completed once the Project design progresses. In addition, a Floodplain Development Permit will be obtained if the ground surface within floodplains or floodways is disturbed. Refer to *Section 3.2.2* for additional information regarding floodplains and flood hazard areas.

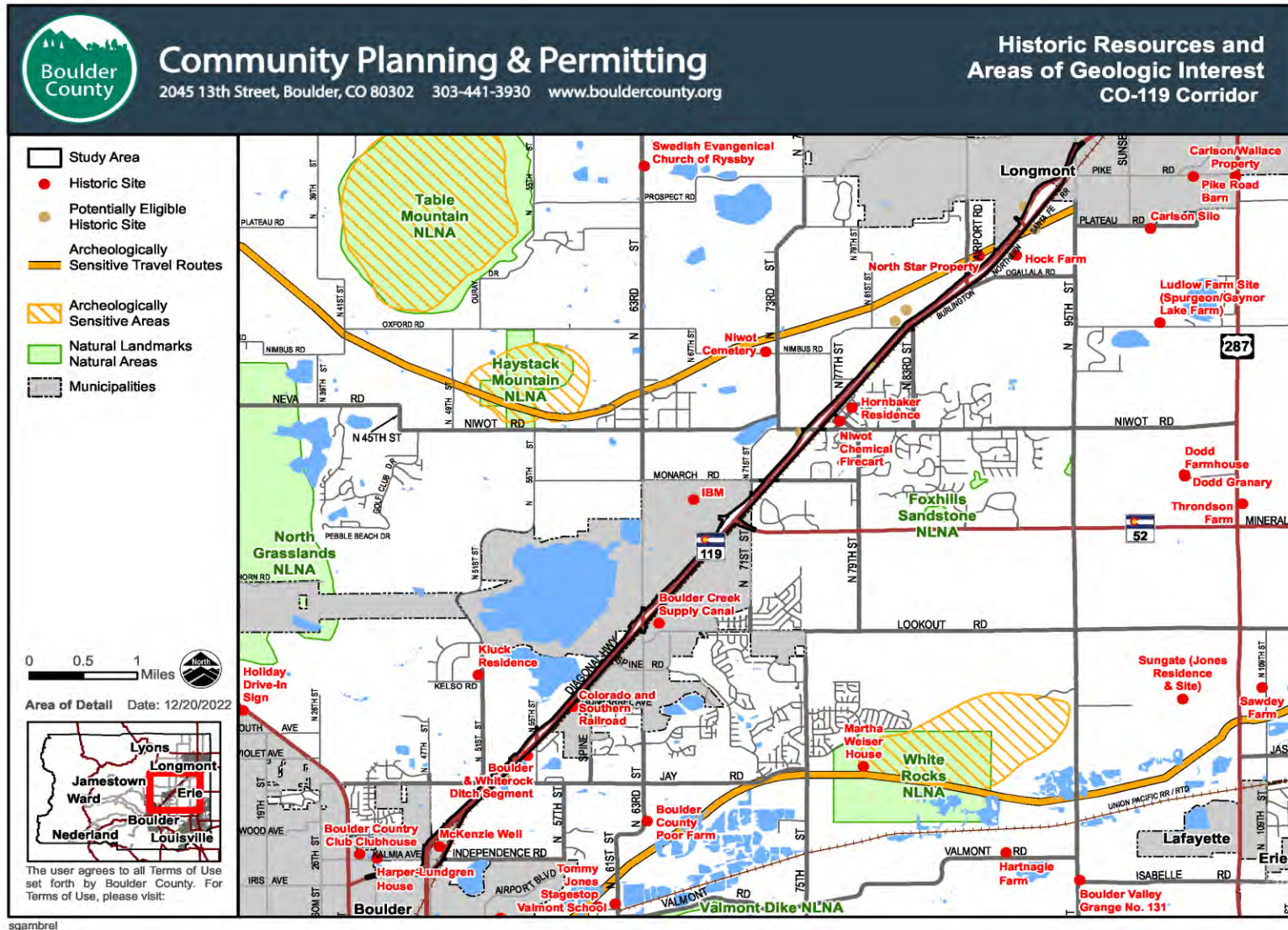


FIGURE 3. CO 119 AND BOULDER COUNTY COMPREHENSIVE PLAN ARCHEOLOGICAL, HISTORIC, AND NATURAL AREAS

3. Requirements Applicable to All Applicants (8-507)

3.1 Detailed Description of the Need for the Proposed Development or Activity (8-507 D.7.a)

The Project corridor is a vital regional transportation corridor serving the economic health of Boulder County, and CO 119 is the primary connection between Boulder County's two largest municipalities, the Cities of Boulder and Longmont. Together, the Cities of Boulder and Longmont makeup close to two-thirds of the total population of Boulder County. Daily travel volumes demonstrate the importance of this corridor: it has the second highest travel volumes in Boulder County behind only US Highway 36 (US 36), connecting Boulder and Denver.

The CO 119 corridor was originally designed to connect less populated rural communities, but subsequent regional development has produced safety and traffic flow issues. Long traffic backups are common as motorists wait multiple traffic signal light cycles to get through intersections. Crashes frequently occur due to vehicles backed up well ahead of the intersections. The increased travel volumes, coupled with safety and traffic flow issues, have resulted in CO 119 being the second highest accident corridor between 2015 and 2019 for motorists and bicyclists in unincorporated Boulder County (RTD 2019). Boulder County's Traffic Crash Analysis identified the Project corridor as having the highest number of serious injury and fatal crashes in unincorporated Boulder County, and the second highest number of bicycle and pedestrian injury and fatal crashes. From 2015 to 2019, 929 vehicle crashes occurred within the Project corridor, resulting in 446 injuries and three fatalities (RTD 2019). Two pedestrian and 17 bicycle crashes occurred in that same period (Boulder County 2021).

The majority of safety issues along the Project corridor are directly influenced by weekday peak hour congestion at the six signalized intersections: Jay Road, 63rd Street, CO 52, Niwot Road, Airport Road (southbound), and Hover Street. The intersections of CO 119 and Airport/Ogallala Roads compound corridor-wide safety and mobility issues and have specific safety challenges. Eighty-five percent of the crashes on southbound Airport Road and CO 119 result in injury. Most of these are sideswipe crashes that occur when vehicles turn from Airport Road onto northbound CO 119 (RTD 2019).

Due to concern over broadside crashes along the Project corridor, the Applicants are reviewing four unsignalized intersections for opportunities to improve safety. The following intersections are under consideration for addition to the Project's scope of work (and are not included in Appendix 1 CO 119 Project FIR Plans):

1. At CO 119 and 55th Street intersection the Applicants are considering restricting 55th Street movements across CO 119 and making both 55th Street approaches RIRO. This means southbound 55th Street traffic would make a right onto southwest-bound CO 119 and use the Jay Road signalized intersection to U-turn if going north. Northbound 55th

Street traffic would make a right onto northeast-bound CO 119 and use a median U-Turn that will be constructed approximately 2,500 feet north of 55th Street to travel south.

2. At CO 119 and Monarch Road intersection, the Applicants are reviewing options related to restricting movements to address crash patterns involving westbound Monarch Road traffic. This may include converting Monarch Road to RIRO intersections in both directions, and a more targeted improvement of limiting the eastbound approach to RIRO while still allowing westbound left-turns. The CO 52 and Niwot Road intersections would accommodate U-Turn movements in lieu of the direct turns at Monarch Road, depending on the configuration.
3. At Fordham and CO 119, the Applicants are reviewing options related to eliminating the northbound CO 119 left-turn to northbound Fordham Street. Northbound CO 119 traffic heading towards Longmont would instead use the preceding Airport Road intersection, while southbound Fordham Street would still be allowed to access both directions of CO 119. This option requires coordination with the City of Longmont before it is progressed any further.
4. The Applicants are also reviewing the feasibility of a RIRO intersection at 83rd Street.

By 2040, the corridor is projected to see a 25 percent increase in vehicular traffic. Increased traffic can result in more congestion, delay, accidents, and greenhouse gas emissions. The Mobility Project intersection improvements address many key infrastructure deficiencies that will foster a safer driving environment. By adding a BRT system, it provides an opportunity to use CDOT's new Adaptive Signal Control System to reduce queues and alleviate recurring congestion. This will address the pattern of congestion-related crashes due to speed differential times for emergency services. Upgrades to the signal equipment, including proven safety countermeasures (e.g., highly reflective backplates and adjustments to the clearance intervals) and additional features (e.g., dynamic signal warning systems) will improve signal visibility, reducing crashes.

Current bus service can be slow and unreliable, and the Project corridor also lacks a safe and direct bicycle connection between Longmont and Boulder. In 2014, RTD completed the Northwest Area Mobility Study (NAMS), which focused on developing consensus among RTD, CDOT, and northwest area stakeholders on cost-effective, immediate-term mobility improvements that address growing travel demand and improve mobility in the northwest region. The Project will optimize regional connectivity and mobility between and within Boulder and Longmont by providing improvements that result in faster and more reliable transit travel in accordance with the NAMS recommendations.

The Bikeway Project will significantly reduce conflicts between cyclists and motor vehicles by physically separating the bikeway from the highway. It will address the primary reason people cite for not commuting by bicycle: fear of interacting with much faster moving motor vehicle traffic (Boulder County et al. 2022).

Local agencies and area stakeholders have long advocated for improvements to this corridor and are investing in the Project to foster responsible growth that improves safety, reliability, sustainability, and travel options.

3.1.1 Present Population of Area to be Served and the Population to be Served

The Project is a critical travel way for commuter and freight between the rural communities and urban centers within northern Colorado. As a four-lane limited access highway, CO 119 is the preferred route for regional commuters accessing employment, educational, retail, medical, and social service opportunities in the region.

The Project is located within both the Longmont and Boulder census designated Urbanized Areas (UAs) as shown in Figure 4 - CO 119 Project and Population of Census Designated Urban Areas. Nine of Boulder County's 11 Denver Regional Council of Governments (DRCOG) designated urban centers lie directly on the CO 119 corridor. Boulder County recently used StreetLight data (a "big data" company that uses cell phone data to analyze travel metrics) and found that the City of Longmont is the largest source of "in-commuters" (i.e., people who work and live in different municipalities) to the City of Boulder (DRCOG 2022). In 2020, there were 57,000 households and 136,000 jobs within a 0.5-mile buffer of the Project that extends from Longmont to Boulder and almost 30 percent of the total trips through the Project corridor are associated with vehicles from other municipalities.

The Project corridor also connects Boulder County to both Larimer and Weld Counties. Travel forecast models showed between 2015 and 2045 there will be large increases in the proportion of trips that cross into and out of Boulder County (RTD 2019). Currently, there are 31,000 trips per day coming to and from Larimer County to Boulder County and those trips are forecasted to increase by approximately 43,000 trips per day by 2040 (Boulder County 2020a). Approximately, 69,000 trips per day occur along CO 119 between Weld County and Boulder County, which is forecasted to more than double to 143,000 trips per day by 2040. Weld County is one of the fastest growing counties in the state, where many people are moving for more affordable housing options and, consequently, commuting to Boulder County for jobs and education opportunities. The University of Colorado-Boulder, the state's largest university, is accessible via CO 119.

The traffic analysis along CO 119 also shows that one percent – or about 500 trips a day – start or end their trip using the US 36 corridor to travel to the Denver metropolitan area (DRCOG 2022). This suggests commuters from both Broomfield and Adams Counties take US 36 and connect to CO 119 through Boulder, rather than utilizing other routes such as United States Highway 287 (US 287) or Interstate 25.

Improvements to this corridor will have benefits to tens of thousands of people across the northern Front Range. The FLEX bus route – operated by the City of Fort Collins – connects Fort Collins (and Colorado State University) to Boulder (and University of Colorado) via Loveland and Longmont. This inter-regional route will see an approximate delay reduction of 5.1 minutes for each trip within Boulder County once all transit queue bypass lanes are completed through the Project. In addition, future CO 119 BRT service is planned to extend east from Longmont to connect with Interstate 25 and CDOT's new mobility hub linking the CO 119 corridor with CDOT's Bustang, an inter-regional bus service primarily operating on Interstate 25.

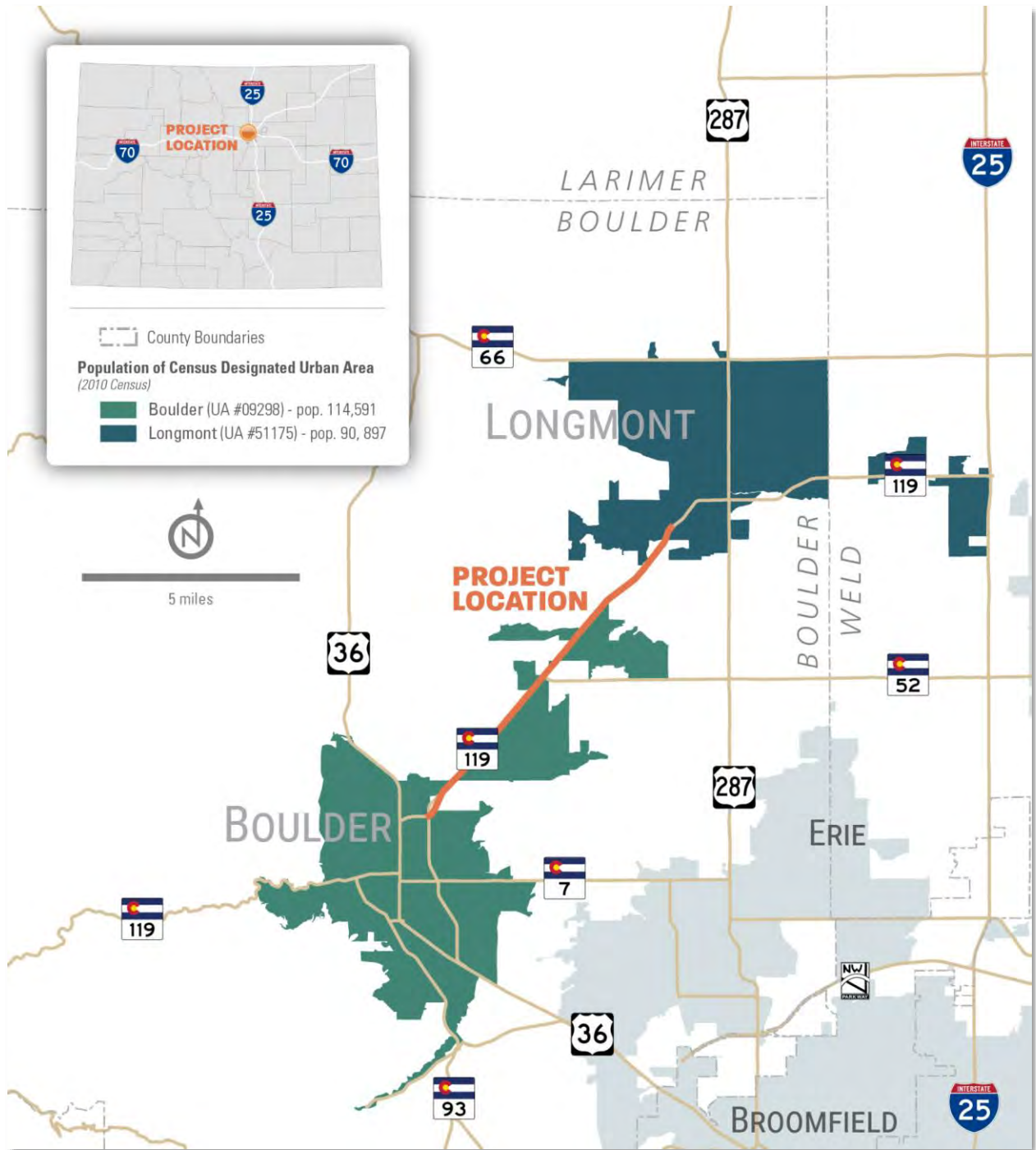


FIGURE 4. CO 119 PROJECT POPULATION CENSUS DEVELOPMENT OF URBAN AREAS

3.1.2 Predominant Types of Users or Communities to be Served By the Proposal

A primary goal of the Project is to provide multimodal options that are safe, efficient and cost effective for all users of the CO 119 corridor. Transportation often accounts for the second largest share of household spending and traveling in a private vehicle is an expensive way to commute (Boulder County et al. 2022). Using the DRCOG region average of 25.5 miles per day per person (DRCOG 2017), and the IRS mileage rate of 59 cents per mile, individual annual transportation costs for private vehicle travel averages between \$4,200- \$5,200 per year. By contrast, 12 months of an RTD regional monthly pass costs \$2,400 per year, and the Victoria Transport Policy Institute has estimated the cost of bicycle commuting at 5-15 cents per mile, or roughly six times less expensive than motor vehicle travel (Victoria Transport Policy Institute 2022). By improving the efficiency, safety, and ease of access to less expensive modes of travel, the Project will serve low-income and housing cost-burdened populations and those without a personal vehicle.

Transit boardings are expected to increase by 33 percent with the proposed multimodal improvements of the Project (Commuting Solutions 2022; RTD 2019). The Bikeway Project will provide a safer option for bicyclists compared to the current use of the CO 119 shoulders, considering the high vehicular traffic speeds along the corridor. Investing in this vital corridor will help connect individuals of all backgrounds with employment and higher educational opportunities.

The Project will benefit a wide range of local, regional, and inter-regional travelers. Improving transit reliability, travel times, and corridor safety will specifically provide enhanced transportation options to underserved populations in Boulder County, including older adults, low-income and housing cost-burdened households, minority populations, and people with disabilities. There are multiple census block groups adjacent to or surrounding the CO 119 Corridor that meet the CDPHE criteria for Disproportionately Impacted Communities. Disproportionately Impacted Communities include low-income populations, populations that identify as minority, and housing cost-burdened households.

Low-income and minority Disproportionately Impacted Communities are concentrated at the western and eastern termini of the Project in Boulder and Longmont. Latinos are the largest minority population in Boulder County (Community Foundation Boulder County 2019). According to the 2015 American Community Survey estimates, 27 percent of Longmont residents identify as Latino, compared to 21 percent of Colorado's overall population. Additionally, communities that are housing cost-burdened (spend 30 percent or more of their income on housing costs) are located along and near the corridor in Gunbarrel and within the cities of Boulder and Longmont (CDPHE 2021). Project benefits will serve these communities, and public engagement has been conducted to ensure Project elements meet the needs of underserved communities.

Diverse and Equitable Public Engagement

The Project has initiated a robust outreach and public engagement program. This effort has included virtual and in-person meetings with bicycle and mobility advocacy organizations and businesses along the CO 119 corridor. The Project has included Spanish language interpretation

to virtual public meetings and provided written materials in Spanish. The Project has also created two advisory committees, the Community Advisory Committee, and the Spanish Language Equity Committee (Boulder County 2022c). The seats on the Community Advisory Committee were selected through an application process and including diverse perspectives was a priority when recruiting community members. The 11-person committee includes residents from different communities along the CO 119 corridor as well a range of age, race, gender, and ability.

At least one person from the following communities is represented on the Community Advisory Committee:

- Community member who resides or works in or near Longmont.
- Community member who resides or works in or near Boulder.
- Community member who resides or works in or near Niwot or Gunbarrel.
- Business owner on or near the corridor that employs workers with transportation challenges.
- Employee on or near the corridor who has transportation challenges commuting to work.
- Cyclist who uses or crosses the corridor as part of their regular bike commute route
- Recreational cyclist.
- Current public transit user along the corridor.
- Person with mobility challenges.
- Liaison from Spanish Language Equity Committee (Boulder County 2022c).

The Spanish Language Equity Committee is made up of eight members from the County's Spanish speaking community. The purpose of this committee is to effectively reach Spanish speaking residents in the area. The goal is to identify and address the mobility needs of the Latino community along CO 119. Meetings are held in Spanish with English interpretation for staff members who do not speak Spanish.

The virtual meetings conducted by the Project include:

- On August 30, 2021, Boulder County's Community Planning & Permitting Department and CDOT invited the public to a virtual presentation about the Project. The Project team discussed the conceptual design of the Bikeway Project and potential connections at the north and south ends of the Project. Participants had an opportunity to ask questions and provide feedback on the design concepts at the meeting (Boulder County 2022c).
- On April 24, 2022, Boulder County Board of County Commissioners (Commissioners) hosted a Town Hall Webinar to discuss the Project. Boulder County residents were invited to join the Commissioners to review the Project design. After the presentation by the Project team, staff from the Boulder County Transportation Planning Unit hosted a question-and-answer session. Commissioners also fielded public comments on general transportation issues (Boulder County 2022c).
- On June 27, 2022, Boulder County's Community Planning & Permitting Department, CDOT, and RTD hosted a community meeting to discuss the Project. The meeting included a presentation by the Project team members on design plans and an overview of how both the Project will work to improve safety and enhance multimodal connectivity corridor (Boulder County 2022c).

The public has also been encouraged to provide input on the vision for the CO 119 corridor during all of the planning phases, including as part of the studies listed above in *Section 8-507.D.7.a.* and during the development of the Boulder County Transportation Master Plan and CDOT 10-Year Strategic Project Pipeline. During the planning phase of the PEL, three rounds of in-person meetings were held in Boulder, Longmont, and Niwot between 2017 and 2019 (RTD 2019). These meetings were a combination of both “open house” and “public hearing” formats. During this time, RTD also conducted an on-board survey of users of the BOLT and J bus lines, an online survey for the general public, community events, and several riders “pop up” events, with materials available in English and Spanish. Together, it was estimated that over 1,000 individuals were reached during this early planning phase.

When developing an outreach and engagement plan, the Applicants utilized the Boulder County Racial Equity Toolkit and presented the plan at a Racial Equity Panel. Key Project materials have been translated into Spanish, including public meeting presentation materials, press releases and emails. In addition, the public meetings in 2021 and 2022 included Spanish interpretation. Moving forward, key materials will continue to be translated into Spanish and Spanish interpretation will be provided at public meetings.

The Project team has led two bicycle rides with Explorando Senderos, a Latino community group that explores outdoor recreational facilities in Boulder County (CLACE 2022). Through these rides, community members were able to experience various bicycle facilities first-hand and the project team was able to hear and see what can be incorporated into the Project.

3.1.3 Percentage of the Design Capacity at Which the Current System is Operating

The current volume to capacity ratio (v/c ratio) information is shown below in Table 2. The v/c ratio, also referred to as degree of saturation, represents the sufficiency of an intersection to accommodate the vehicular demand. A v/c ratio less than 0.85 generally indicates that adequate capacity is available, and vehicles are not expected to experience significant queues and delays. As the v/c ratio approaches 1.0, traffic flow may become unstable, and delay and queuing conditions may occur. Once the demand exceeds the capacity (a v/c ratio greater than 1.0), traffic flow is unstable and excessive delay and queuing is expected. Under these conditions, vehicles may require more than one signal cycle to pass through the intersection (known as a cycle failure). For design purposes, a v/c ratio between 0.85 and 0.95 generally is used for the peak hour of the horizon year. The current v/c ratio for the Project is generally around 0.80, however, the v/c ratio is anticipated to be at capacity or exceed capacity in future years as noted in the table below.

TABLE 2 CO 119 CORRIDOR VEHICLE VOLUME TO CAPACITY RATIO

STARTING MILEPOST	END MILEPOST	LENGTH EVALUATED (MILES)	ROUTE CAPACITY	VOLUME TO CAPACITY RATIO	ESTIMATED VOLUME TO CAPACITY RATIO FOR NEXT 20 YEARS
CO 119 Project					
45.766	46.067	0.338	7700	0.84	0.95
46.067	48.209	2.091	6100	0.80	0.91
48.209	49.543	1.365	6050	0.80	0.90
49.543	52.681	3.170	6000	0.69	0.78
52.681	54.413	1.681	5100	0.87	0.96
54.413	55.072	0.702	5000	0.51	0.60

3.1.4 The Relationship of the Proposal to the Applicant's Long-Range Planning and Capital Improvements Programs, Including Specific Reference to the Master Plan(s) Required to be Submitted Under Subsections 8-501. D.1.e

This Project is a result of numerous studies that helped to identify, clarify, and inform the need and scope for the CO 119 corridor. The studies included:

- The 2014 *Northwest Area Mobility Study* determined that implementation of BRT on CO 119 between Boulder and Longmont will support and increase transit usage along CO 119, increase mobility, improve travel time reliability, and was feasible for implementation in the near-term (Commuting Solutions 2022). The study also recommended a separated bicycle trail.
- The 2019 PEL study recommended managed lanes for the CO 119 corridor between Colorado Highway 157 and Hover Street (RTD 2019). The PEL modeling also showed similar travel improvements for both the transit and general-purpose traffic with the recommendation of transit queue bypass lanes at the signalized intersections on the CO 119 corridor (i.e., Jay Road, North 63rd Street, CO 52, Niwot Road, and Airport Road). The PEL also recommended a 12-foot-wide separated multi-use path.
- The 2019 *CDOT State Highway 119 Bicycle and Pedestrian Connectivity Study* developed a conceptual design for a bikeway in the median spanning the entire CO 119 corridor to connect bicyclists to downtown Boulder, Longmont, and BRT stations (OV Consulting 2019).

- CO 119 is prominently featured in the *Regional Multimodal Freight Plan* as critical facilities needing improvements to ensure optimal and safe regional freight movement (DRCOG 2020).
- CO 119 Boulder to Longmont Traffic Analysis, detailed analysis for several alternatives to understand how the operations along the corridor could improve person throughput along the corridor (CDM Smith 2021).
- The 2021 *CO 119 Bikeway Concept Design Validation Memo* refined the results of the 2019 CDOT State highway 119 Bicycle and Pedestrian Connectivity Study (OTAK 2021).

The improvements identified in the Northwest Area Mobility Study and the PEL were also included as recommendations in the *Boulder County Transportation Master Plan*, which was adopted by the Commissioners in February 2020 (Boulder County 2020a). All the recommendations in the Boulder County Transportation Master Plan are consistent with the transportation elements of the *Boulder County Comprehensive Plan* (BCCP) and is Boulder County's guiding document for mobility improvements.

The planned Project improvements support the goals outlined in Boulder County's Transportation Master Plan (TMP), including minimizing the environmental impacts of transportation, ensuring safety for all modes, and ensuring equitable access to the transportation system.

The Project is listed in *CDOT's 10-year Project Pipeline* (CDOT 2022c). CDOT released a new statewide 10-Year Plan for the future of Colorado's transportation system. This effort, known as Your Transportation Priorities, presents a comprehensive picture of the state's highest priorities for transportation and provides a list of projects needed to achieve that vision. CDOT began the process to build this planning document in 2019, meeting with Coloradans in every county in the state and connecting with residents in their communities. Thousands of comments and ideas became the basis for a prioritized list of transportation projects. The resulting plan included the proposed Project.

3.2 Environmental Impact Analysis (8-507.7. b)

The Environmental Study Area (Project Area) included an approximate 250-foot buffer on either side of the CO 119, approximately totaling a 500-foot-wide corridor. The Project Area corridor-review approach is not assuming that all resources within the 500-foot-wide corridor will be impacted. It is, however, allowing the environmental team to review a larger swath of land to help address and minimize potential impacts as design progresses.

3.2.1 Land Use (8-507.7. b(i))

3.2.1.1 Specify Whether the Proposal Conforms to Local Governments Planning Policies and Master Plans

The planned improvements for this Project are included as recommendations in the *2020 Boulder County Transportation Master Plan*, which was adopted by the Commissioners in February 2020. The planned Project improvements support the goals outlined in Boulder County's TMP, including minimizing the environmental impacts of transportation, ensuring safety for all modes, and ensuring equitable access to the transportation system. In addition, this Project is key to helping Boulder County achieve several of the performance metrics identified in the TMP.

- Cap Vehicle Miles Traveled (VMT) per Capita- providing multimodal transportation options is essential to reducing VMT. This Project will provide improved transit service as well as a separated bicycle facility.
- Increase Transit Ridership- The improvements proposed on this corridor will lessen transit travel times to make them more comparable to personal vehicle driving times. This removes a significant barrier to transit adoption.
- Eliminate Serious Injury and Fatal Traffic Crashes- CO 119 is a high-crash corridor and reducing accidents will help achieve Boulder County's Vision Zero goal to eliminate serious injuries and fatal traffic crashes in unincorporated Boulder County by 2035.
- Complete the Bike Vision Network- Boulder County's goal is to create a "low-stress" bicycle facility between each of the municipalities in the county. The Project will accomplish this goal between Boulder and Longmont, Boulder County's two largest municipalities.

All of the recommendations in the TMP are consistent with the transportation elements of the Boulder County Comprehensive Plan and is Boulder County's guiding document for mobility improvements. The Project will also be consistent with the BCCP because the Project will be evaluated by the Boulder County 1041 Regulations.

3.2.1.2 Detail the Agricultural Productivity Capability of the Land Affected by the Proposal

The Mobility Project will be completed entirely within the existing CDOT ROW and will not impact any agricultural land. The Bikeway Project may require temporary and permanent easements to connect to existing trails, including areas outside unincorporated Boulder County which will be coordinated with the appropriate jurisdiction. While there is significant agricultural land of national, statewide, and local importance adjacent to portions of the CO 119 corridor, there is no agricultural productivity capability within the Project limits (Figure 5).

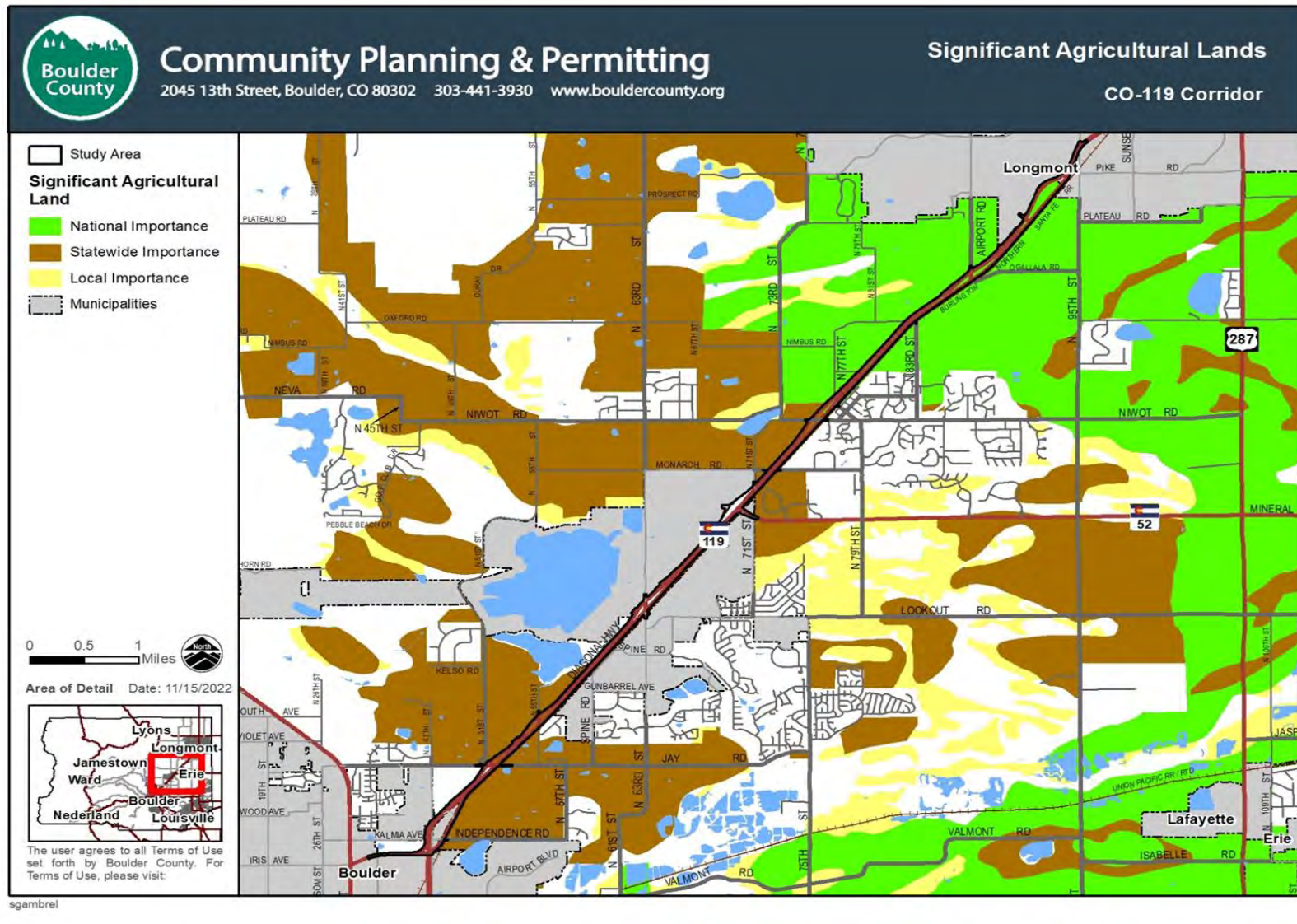


FIGURE 5. CO 119 AND BOULDER COUNTY COMPREHENSIVE PLAN SIGNIFICANT AGRICULTURAL LAND

3.2.1.3 Specify how the proposed development will utilize existing easements or rights-of-way for any associated transmission, distribution, or collector networks

There are no transmission, distribution or collector networks included in this proposal.

3.2.1.4 Specify any additional right-of-way or easements for new or expanded transportation facilities

Over 98 percent of the Project is within the existing CDOT ROW. ROW impacts will be minimized where feasible and portions of the Bikeway Project will require easements (refer to Appendix 3 – CO 119 Corridor and ROW Plans). The easements will be located within the Cities of Boulder and Longmont and one area in unincorporated Boulder County. ROW will be obtained in accordance with 49 CFR part 24, 23 CFR part 710 and the Federal Relocation Act. The easements within the Cities of Boulder and Longmont are not within unincorporated Boulder County, they are therefore not subject to this 1041 Application. However, the easements have been noted and included for context of the full Project.

3.2.2 Water Resources (8-507.7. b(ii))

3.2.2.1 Map and indicate any flood hazard area associated with the proposal

The Bikeway Project will impact three Federal Emergency Management Agency (FEMA) regulated flood hazard areas, including Fourmile Canyon Creek, Dry Creek No. 2, and Left Hand Creek. The Mobility Project also includes work in the Left-Hand Creek flood hazard area.

The Bikeway Project improvements consist of a bridge designed to span Fourmile Canyon Creek with the required freeboard. Freeboard is the additional amount of height above the Base Flood Elevation used as a factor of safety. The aforementioned bridge will be within the Fourmile Canyon Creek flood hazard area, with impacts limited to bridge abutment placement and minor grading.

A spur is proposed connecting the proposed bikeway and existing LoBo Trail near Dry Creek No. 2. This connection lies in the CO 119 median and much of the spur is proposed within the Dry Creek No. 2 flood hazard area. Improvements include a concrete trail, walls, and minor grading at or below the existing grades resulting in negligible impacts to the flood hazard area.

The Project will include work in the Left-Hand Creek flood hazard area, in the vicinity of Airport Road. Mobility Project impacts consist of minor sidewalk improvements and traffic and utility work with no significant grading anticipated. Bikeway Project impacts consist of trail and underpass improvements within the Creek flood hazard area, which may cause changes in the regulatory water surface elevations. A Conditional Letter of Map Revision is anticipated for the Bikeway improvements because the work is anticipated to cause a rise in the regulatory floodway water surface elevation.

The Project will conform to the Boulder County and FEMA floodplain permitting processes.

The Project will result in local increases of impervious surface area at all five intersections, with corresponding increases in surface runoff flow rates and amounts. These local increases will not change the larger design flows at any of the regulated flood hazard areas.

3.2.2.2 Map and describe all surface water, including applicable state water quality standards, to be affected by the project

See Figure 6 for delineation of basins draining to various Colorado Department of Public Health and Environment (CDPHE) designated stream segments throughout the corridor. Per CDOT and Boulder County’s respective Municipal Separate Storm Sewer System (MS4) permits, it is anticipated that permanent water quality requirements will not be applicable to the detached trail portion of the bikeway. Portions of the trail that are attached to streets for connections to surrounding intersections will be included in the roadway permitting as described in the paragraph below. The 30 percent drainage report contains full details on the MS4 criteria and on CDPHE standards for stormwater quality during construction (Appendix 1 – CO 119 Project Drainage Report(s)).

All work for the Mobility Project is within CDOT ROW; the applicable construction stormwater and permanent water quality standard is CDOT’s MS4 permit issued July 28, 2015. Based on this permit, permanent water quality requirements may be triggered for the portions of the Project that drain to Left Hand Creek. The 30 percent drainage report contains full details on the MS4 criteria and on CDPHE standards for stormwater quality during construction.

3.2.2.3 Describe the immediate and long-term impact and net effects that the activity will have on the quantity and quality of surface water under both average and worst-case scenarios

In terms of surface water runoff quantity, the project will include a local increase in impervious surface area, with corresponding increases in surface runoff flow rates and amounts. The preliminary evaluation included estimated flood frequency flow rates for 5- to 10-year events to consider “average” conditions, and for less frequent 100-year events to consider “worst-case” conditions.

The most significant areas of increase correspond to two proposed park-n-ride sites. The preliminary design proposed two full spectrum detention ponds to address concentrated runoff impacts from the two new park-n-ride facilities. The full spectrum detention concept includes overflow design for certain “worst case” events such as an event greater than a 100-year storm, or a scenario with a blocked pond outlet.

Outside of the park-n-ride facilities, no additional runoff mitigation was shown in the preliminary design documents. Additional mitigation is proposed with final design where appropriate. These areas consist of the following:

- The Mobility Project includes an increase in impervious areas on the order of 10 to 15 percent more pavement.
- The Bikeway Project includes an increase in impervious areas on the order of 15 to 20 percent more pavement.
- These increases are distributed over many separate discharge points and are not released to a single outfall.

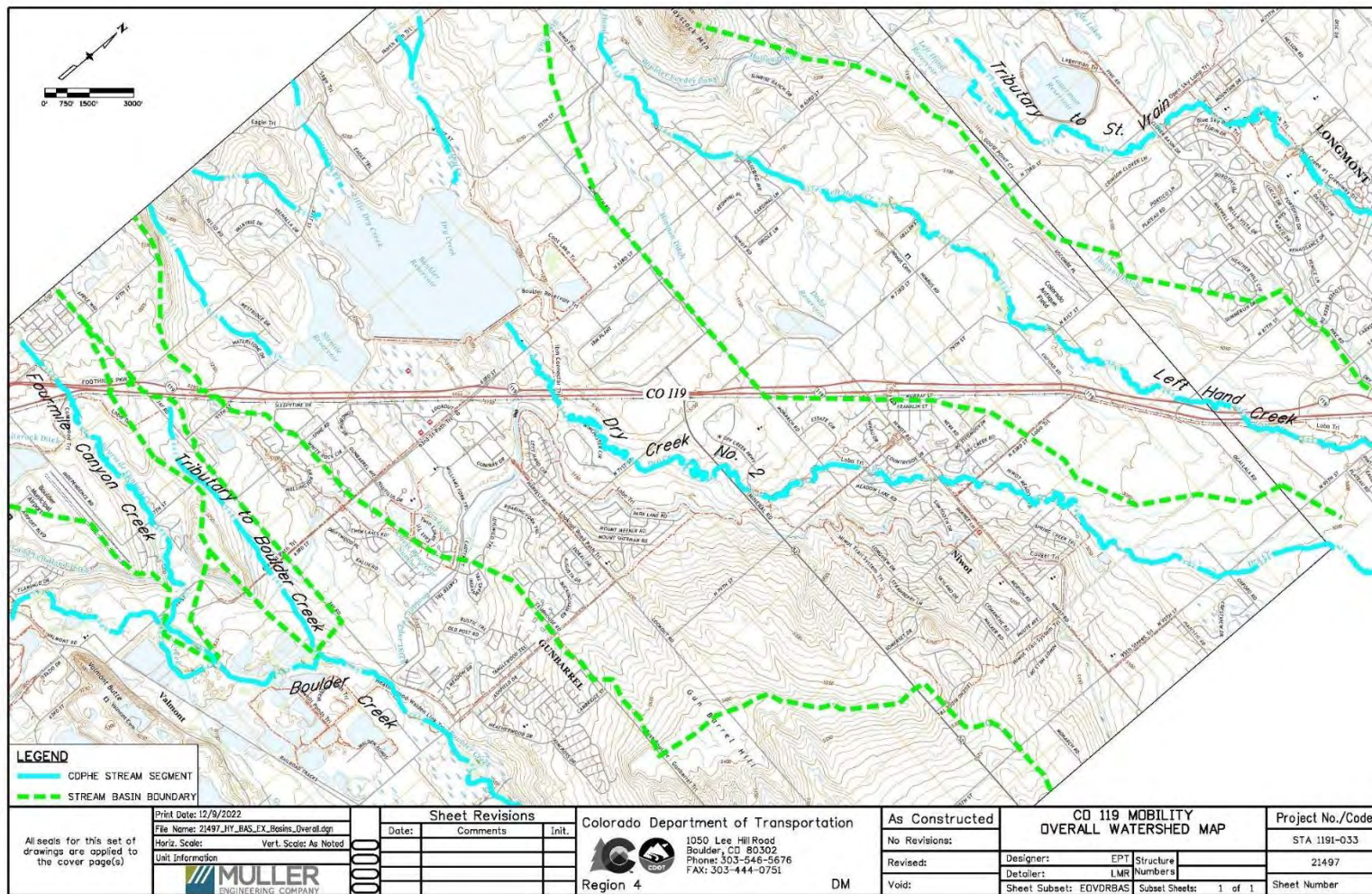


FIGURE 6. DELINEATION OF BASINS DRAINING TO VARIOUS COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT STREAM SEGMENTS THROUGHOUT THE PROJECT CORRIDOR

The Project engaged the 1041 review referral personnel at Boulder County in September 2022 to confirm the approach for these areas going into final design (Appendix 2). The following approach was identified:

- The local increases will be reviewed for impacts to downstream facilities, properties or communities.
- Existing pervious receiving areas are present. These areas may serve to mitigate parts of the proposed pavement and will be presented on a case-by-case basis at final design. For example, if a disconnected impervious area drains to a receiving area twice the size of the impervious area, it will not require further mitigation.
- Small, minimal runoff areas could be acceptable with no additional stormwater facilities. For example, areas that increase the flow less than 1 cubic foot per second and do not present a hazard to the receiving facilities will not require further mitigation.
- Other numerical increases in runoff will be evaluated on a case-by-case basis to identify the potential for impacts and net effects on surface water.
- Any impacts identified as significant, following the approach in the previous bullet points, will be mitigated by providing drainage facilities such as detention ponds, soil amendments for infiltration, or bioretention/rain gardens.
- Provide permanent water quality treatment facilities in accordance with CDOT's MS4 permit, where applicable.

Construction Related Water Quality

The Project proposes to address surface water quality concerns through the following approach:

- Maintain existing patterns of runoff.
- Manage changes in stormwater runoff flows as described above.
- The Project will obtain and comply with a state-issued Stormwater Construction Permit
- A Stormwater Management Plan (SWMP) and SWMP Site Maps are required per the CDOT Stormwater Construction Permit. These documents will be included with the final construction documents. *CDOT Standard Specifications for Road and Bridge Construction*, dated 2022 (CDOT 2022d), include contractual requirements for erosion and sediment control, which are implemented on all projects and are compliant with the Stormwater Construction Permit. CDOT Specifications that are required include: *Section 208 - Erosion Control, Section 212 - Seeding, Fertilizer, Soil Conditioner, and Sodding, Section 213 – Mulching, and Section 216 – Soil Retention Covering.*
- CDOT MS4 permit requires CDOT to audit construction projects for Stormwater Construction Permit compliance. With written permission from each jurisdiction, it is anticipated that CDOT will also audit the areas outside of the CDOT ROW for MS4 permit compliance.

3.2.2.4 Map and describe all groundwater, including aquifers. Describe impacts and net effect of the activity on groundwater

Groundwater measurements were collected in April 2022 at seven locations along the corridor as part of the Project's geotechnical engineering analysis. These locations coincide with the

proposed Bikeway underpass locations as shown on Figure 7. Groundwater levels typically ranged from 10 to 14 feet below the native ground surface, or approximately 12 to 16 feet below the roadway surface. Groundwater quality, classification and flow direction were not measured.

The construction of the Bikeway Project may have a temporary impact on localized groundwater at the underpass locations due to dewatering operations during construction. The current Project designs include providing a waterproof membrane in the lower portion of each underpass to minimize groundwater infiltration after construction. The bottom of the underpasses will be approximately 15 feet below the surface of the roadway, likely penetrating two to three feet below the groundwater surface.

In addition to waterproofing the bottoms, underdrains and a pump system will be installed at each underpass to remove occasional groundwater seepage into the underdrains as well as storm runoff. The water will be pumped to the ground surface away from the underpasses. The outfall locations of the pumped water have not yet been determined but the outfalls will be located far enough away from the underpasses so as not to directly recycle back into the underdrain/pump system. The pumped water is expected to infiltrate back into the ground, but not in the immediate vicinity of the underpasses.

Figure 7 also shows the limits of the South Platte Alluvial Aquifer. This aquifer generally follows the alignment of Left Hand Creek. Aside from construction of abutments for the proposed bikeway bridge over Left Hand Creek, there are no other significant subsurface project elements that would impact the aquifer. The bridge abutments will require dewatering during construction but will not impact aquifer levels or water quality. Dewatering of the bridge abutments and underpasses during construction will be done in accordance with *CDOT Standard Specifications* and CDPHE regulations.

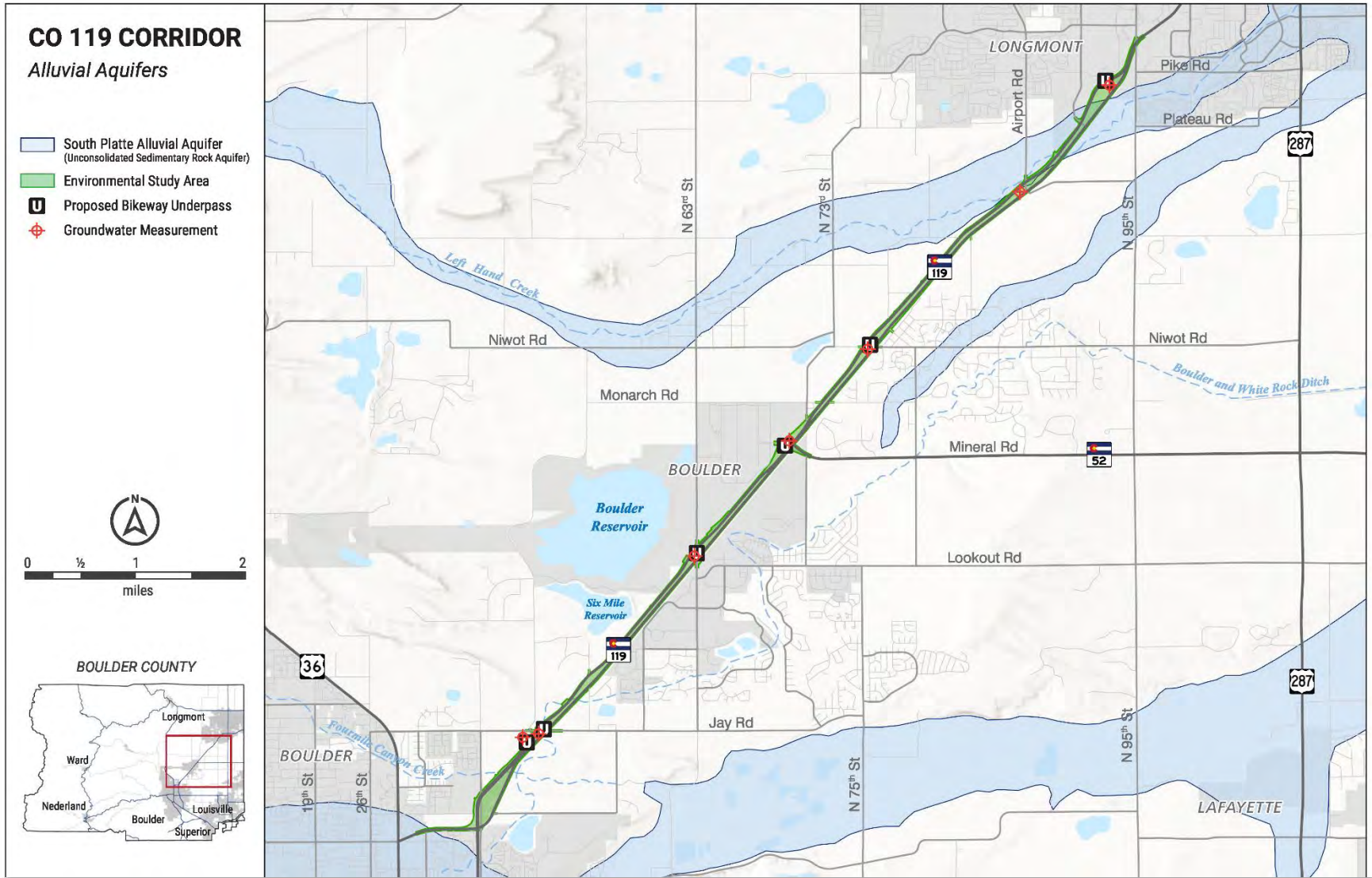


FIGURE 7. CO 119 PROJECT CORRIDOR GROUNDWATER AND ALLUVIAL AQUIFER

3.2.2.5 Describe the impacts and net effect of the activity on wetlands and riparian areas

Wetlands

Wetland surveys and delineations were conducted in 2020 within CDOT ROW across the entire Project Area. Any open waters (or dry irrigation ditches) within the Project Area that did not contain all three wetland indicators were mapped as other water features. Several named and unnamed drainages cross the Project Area corridor, which are combinations of perennial, intermittent, and ephemeral discharges. The named drainages (which generally flow west to east across the corridor) from north to south include Left Hand Creek, Dry Creek, Boulder and White Rock Ditch, and Fourmile Canyon Creek.

The wetland investigation identified several Palustrine and Riverine wetland systems scattered across the project. No obvious surface connection to off-site wetlands or other significant water features was observed in many of the Palustrine wetlands. Some of the Palustrine wetlands and most of the Riverine wetlands/systems, including all of the named Creeks that cross the Project Area, eventually discharge into the South Platte River via St. Vrain Creek.

Wetlands delineated across the corridor varied with regard to localized conditions, including soil type, hydrology, topography, tree cover, etc. Most of the wetlands were classified as Palustrine emergent or Riverine, with smaller instances of Palustrine forested. Some of the wetlands, especially those south of 63rd Street, exhibited saline/salt deposits on the surface. The Riverine wetlands are all associated with streams or ditches which cross the project corridor. Dominant vegetation within the project wetlands predominantly consists of *Phalaris arundinacea* (reed canarygrass), *Juncus arcticus* (mountain rush), *Carex aquatilis* (water sedge), *Distichlis spicata* (saltgrass), *Schoenoplectus pungens* (common three-square), *Typha* spp. (cattails), *Populus angustifolia* (narrowleaf cottonwood), and/or *Salix exigua* (coyote willow). Common species identified on wetland fringes/transition zones included *Elymus repens* (quackgrass), *Cirsium arvense* (Canada thistle), *Dipsacus fullonum* (Fuller's teasel), and *Elaeagnus angustifolia* (Russian olive). Dominant species observed at upland areas consist of *Bromus inermis* (smooth brome), quackgrass, *Agropyron cristatum* (crested wheatgrass), and *Bromus tectorum* (cheatgrass). Soils were determined to be predominantly moist silty or sandy loams, often containing oxidized root channels and/or reduced matrices within the top 10 inches. Hydrology indicators typically included some combinations of saturation, high water table, oxidized rhizospheres on living roots, geomorphic position, and FAC-neutral test. A total of approximately 16.64 acres of wetlands were delineated at the project.

The U.S. Army Corp of Engineers (USACE) issued an *Approved Jurisdictional Determination (AJD)* on July 27, 2022, for all aquatic resources covering both projects within the ROW of the CO 119 corridor. According to the AJD; Left Hand Creek, Dry Creek, Little Dry Creek, Fourmile Canyon Creek, Wonderland Creek (originally part of the Project, but subsequently removed from scope of work), and all abutting wetlands to those Creeks were determined to be jurisdictional waters of the United States (WUS) (Appendix 4 – AJD). The remaining wetlands and ditches identified in the Project Area were not determined to be WUS.

Impacts to jurisdictional and non-jurisdictional water features affected by the Project were estimated based on the 30 percent design plans (Table 3). According to the estimates, the Mobility Project will result in approximately 0.01 acre of temporary and 0.17 acre of permanent impacts to non-jurisdictional wetlands. No jurisdictional waters are proposed to be affected by the Mobility Project (Figure 9).

The Bikeway Project will result in approximately 0.66 acre of temporary and 0.21 acre of permanent impacts to non-jurisdictional wetlands (Table 3). Less than 0.02 acre (<0.01 acre temporary and permanent, respectively) of jurisdictional waters are proposed to be affected by the Bikeway Project (Figure 9). Assuming further design can't eliminate the jurisdictional WUS impacts, the Bikeway Project will be submitting a Pre-Construction Notification to the USACE and anticipates a Nationwide Permit 14 will be issued for construction.

All temporary wetland impacts from both portions of the Project will be returned to pre-existing grades and seeded with a native wetland seed mix following construction. For non-jurisdictional permanent wetland impacts from both portions of the Project, construction activities involving at least 500 square feet of permanent impacts, or 1,000 square feet of combined temporary and permanent impacts will be mitigated at a 1:1 ratio per FHWA requirements.

TABLE 3 CO 119 PROJECT WETLAND FEATURE IMPACTS

WETLAND/ FEATURE ID	JURISDICTIONAL STATUS ¹	TEMPORARY IMPACTS TO BE RESORTED POST CONSTRUCTION (ACRES) ²	PERMANENT IMPACTS/MITIGATED OFF-SITE (ACRES) ³
Bikeway Project			
1-A-2	Non	0.14	0.08
1-C-1	Non	0.19	0.01
1-D-3	Non	0.01	0.01
1-E-2	Non	0.01	0.00
1-F-2	Non	0.01	0.00
2-A-1	Non	0.01	0.01
2-B-1	Non	0.01	0.00
2-C-1	Non	0.01	0.01
2-D-2	Non	0.01	0.01
2-D-5	Jurisdictional	0.01	0.01
3-A-2	Non	0.05	0.01
3-B-2	Non	0.08	0.03
3-C-3	Non	0.05	0.01
3-C-7	Non	0.03	0.02
3-C-8	Non	0.02	0.01
3-D-2	Non	0.01	0.01

WETLAND/ FEATURE ID	JURISDICTIONAL STATUS ¹	TEMPORARY IMPACTS TO BE RESORTED POST CONSTRUCTION (ACRES) ²	PERMANENT IMPACTS/MITIGATED OFF-SITE (ACRES) ³
3-D-3	Non	0.03	0.02
Bikeway Project Subtotal ⁴		0.68	0.25
Mobility Project			
2-E-1	Non	0.01	0.01
3-A-2	Non	0.01	0.17
Mobility Project Subtotal ⁴		0.02	0.18

1 Jurisdictional Status based on the Approved Jurisdictional Determination from the U.S. Army Corp of Engineers.

2 All areas to be temporarily disturbed during construction.

3 All areas to be permanently disturbed during construction.

4 Totals are an approximation based on 30 percent Design Plans.

Riparian Areas

As identified in the Boulder County Comprehensive Plan, the Project will have impacts to the draft 2020 mapped Wetlands and Riparian Areas (Boulder County 2020). Impacts to riparian areas are subject to compliance with Senate Bill 40 (SB40) (33-5-101-107, CRS 1973 as amended). SB40 requires any agency of the state to obtain wildlife certification from Colorado Parks and Wildlife when the agency plans construction in "...any stream or its bank or tributaries..." The Bikeway portion of the Project will be subject to SB40 certification since the majority of the Project is within the State highway ROW. An SB40 certification will be issued for construction and will include general conditions that are designed to minimize or avoid potential negative impacts from the Project to aquatic systems and riparian areas. Refer to Section 3.2.3.2 for Best Management Practices (BMPs) and general conditions of the Colorado Parks and Wildlife and CDOT Memorandum of Understanding guidelines for the SB40 (CPW/CDOT SB40 MOU). Temporary and permanent impacts to specific riparian features are summarized in Table 4.

TABLE 4 CO 119 PROJECT RIPARIAN FEATURE IMPACTS

RIPARIAN FEATURE ¹	TEMPORARY IMPACT (ACRES) ²	PERMANENT IMPACT (ACRES) ³
Bikeway Project		
Little Dry Creek (SW of 63rd Street)	0.00	0.02
Boulder White Rock Ditch (SW of 55th Street – NE of Jay Road)	0.13	0.04
North of Fourmile Canyon Creek	0.05	0.02

RIPARIAN FEATURE ¹	TEMPORARY IMPACT (ACRES) ²	PERMANENT IMPACT (ACRES) ³
Bikeway Project Subtotal ⁴	0.18	0.08
Mobility Project		
Little Dry Creek (SW of 63rd Street)	0.00	0.12
Mobility Project Subtotal ⁴	0.00	0.12

1 Riparian Feature is based on the Boulder County Comprehensive Plan 2014 Map showing the Riparian Areas along CO 119

2 All areas to be temporarily disturbed during construction.

3 All areas to be permanently disturbed during construction.

4 Totals are an approximation based on 30 percent Design Plans.

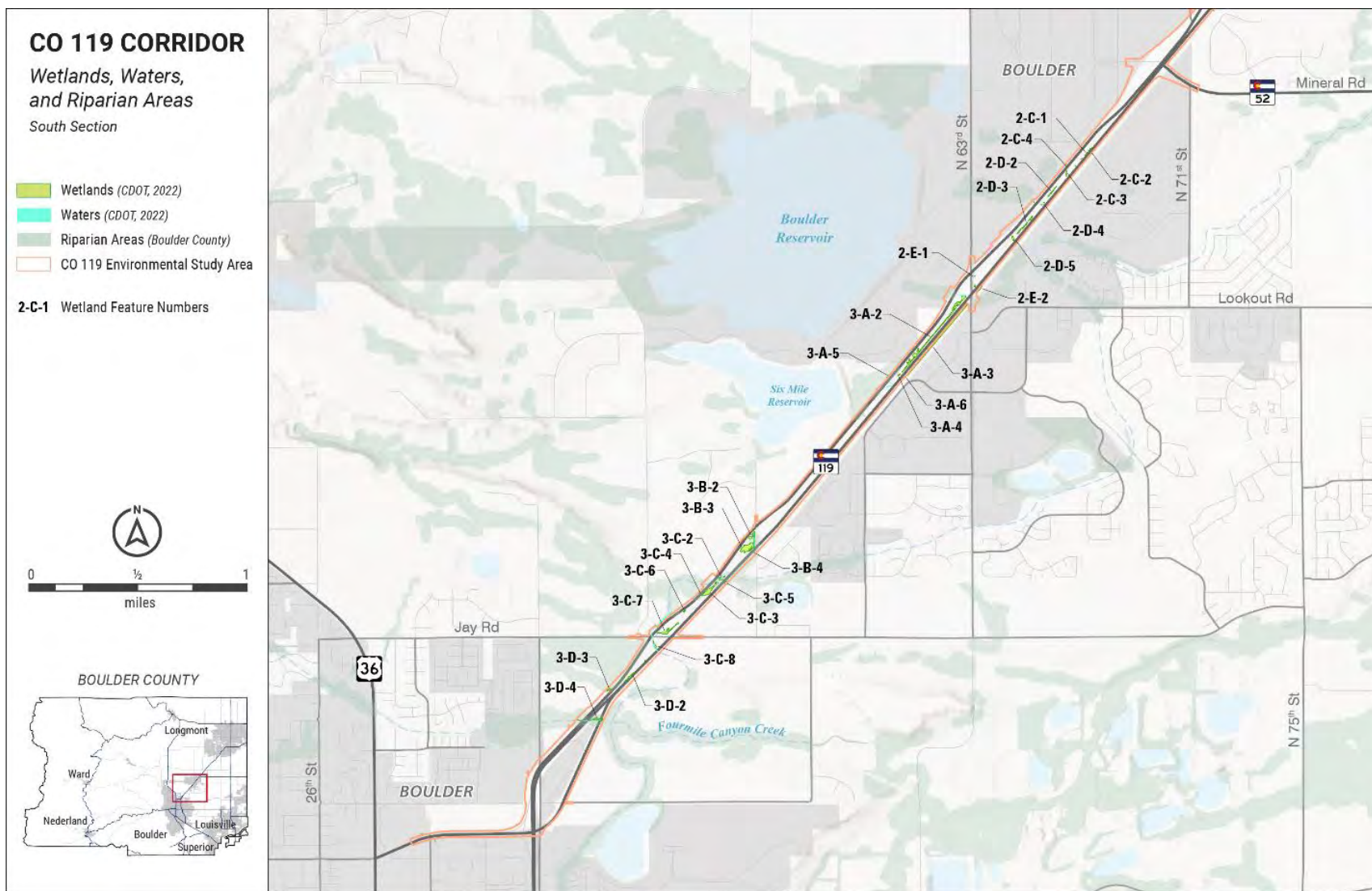


FIGURE 8. CO 119 PROJECT DELINEATED WETLAND AND RIPARIAN AREAS (MAP 1 OF 2)

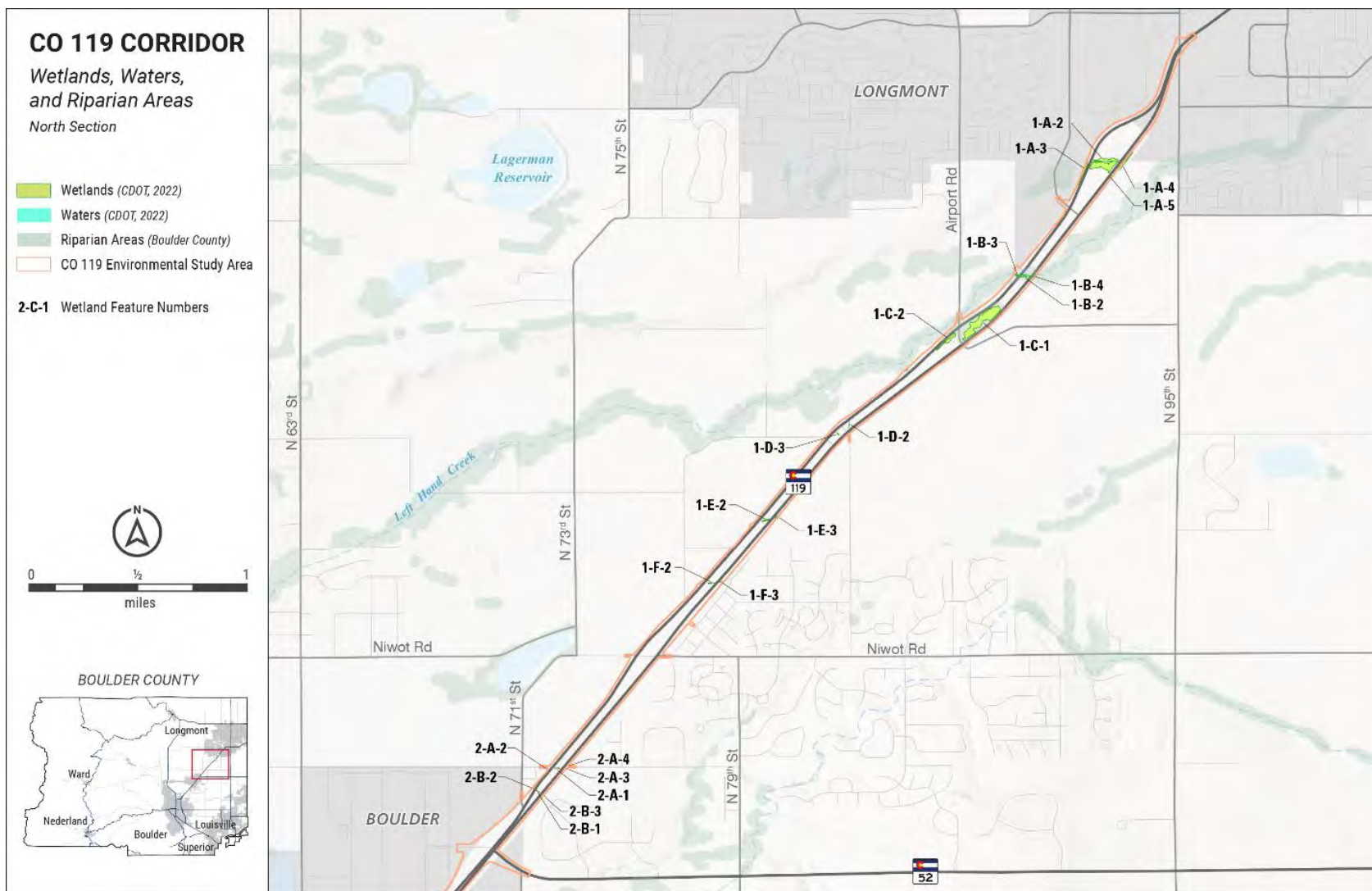


FIGURE 8. CO 119 PROJECT DELINEATED WETLAND AND RIPARIAN AREAS (MAP 2 OF 2)

3.2.3 Terrestrial and Aquatic Animals and Habitat (8-507.7. b(iii))

3.2.3.1 Map and describe the terrestrial and aquatic animals including the status and relative importance of game and nongame wildlife, livestock and other animals; a description of streamflows and lake levels needed to protect the aquatic environment; description of threatened or endangered animal species and their habitat

This section describes terrestrial and aquatic species, and associated habitat in the Project Area. Data for the Project was drawn from various sources, including the following:

- Boulder County Species of Special Concern (Boulder County 2013)
- Boulder County Comprehensive Plan Maps (BCCP 2017)
- Colorado Natural Heritage Program (CNHP 2022)
- Colorado Department of Agriculture, Colorado Noxious Weeds (CDA 2020)
- Colorado Parks and Wildlife (CPW) Threatened and Endangered List (CPW 2022a)
- CPW National Diversity Information Source (CPW 2022b)
- FEMA Floodplains (FEMA 2022)
- United States Department of Agriculture Plant Database (USDA 2022)
- United States Fish and Wildlife Service (USFWS) Information, Planning and Consultation System (IPaC 2022)
- USFWS National Wetland Inventory (USFWS 2022)
- CO 119 PEL Study (RTD 2019)

Regulations

Federally Threatened and Endangered (T&E) Species and Habitat

Under the ESA, federal agencies, in consultation with the USFWS, are required to ensure that any action they authorize, fund, or carry out will not jeopardize the continued existence of a federally listed Threatened or Endangered Species or result in the destruction or adverse modification of designated or proposed critical habitat. As the lead federal agency, FHWA is responsible for consulting with USFWS under Section 7 of the ESA. In accordance with FHWA's regulations contained in 50 CFR Section 402.08, CDOT has been designated as FHWA's non-federal representative for purposes of informal consultation with USFWS.

Table 5 lists the federally listed terrestrial and aquatic species with the potential to occur in the Project Area (IPaC 2022). No designated critical habitat occurs within the Project Area (USFWS 2022a). Data provided by USFWS also included site-specific species occurrence data and a five-mile area buffer to account for potential movement by species into the Project Area (USFWS 2022c). For the purpose of this study, this information is not used as a substitute for a presence/absence survey but as an indication of previous occurrences within suitable habitat for the species.

At the time of this 1041 Application, the Applicants are developing a Biological Assessment and agency recommended surveys will be determined in consultation with USFWS, as applicable. A

copy of the Biological Assessment and Biological Opinion will be provided to Boulder County prior to construction.

Colorado Parks and Wildlife Threatened and Endangered Species

The Colorado Non-game, Endangered, and Threatened Species Conservation Act establishes the State's intent to protect endangered, threatened, or rare species, which are listed by CPW.

The Applicants will be coordinating with CPW as design progresses and anticipate mitigation measures designed to improve fish and wildlife habitat. A copy of the SB40 certification will be provided to Boulder County prior to construction.

Colorado Department of Agriculture, Noxious Weeds

Regulations are in place to protect habitat from plant species determined to be “noxious”. The Colorado Department of Agriculture Noxious Weed Act of 2003 (Colorado Revised Statutes [CRS] 35-5-101; CRS 35-5.5-101; Executive Order D-006-99), defines and prioritizes management objectives for State-designated noxious weeds. An Integrated Noxious Weed Management Plan (INWMP) will be prepared for the Project. This INWMP will fulfill State, County, and municipal noxious weed management requirements and recommendations and will comply with the following statutes, executive orders and guidance:

- Federal Executive Order 13112 on Invasive Species (Federal Register 1999), amended in 2016;
- FHWA Guidance on Invasive Species (FHWA 1999);
- Colorado Noxious Weed Act (§ 35-5.5-115, C.R.S.), revised by the Colorado Legislature in 2016 (Colorado Department of Agricultural 2016);
- State of Colorado Executive Order D 006 99 Development and Implementation of Noxious Weed Management Programs;
- Weed Management Programs (State of Colorado 1999);
- CDOT National Environmental Policy Act Management Version 5, guidance on Incorporating Noxious Weed Management (CDOT 2020); and
- Boulder County Noxious Weed and Invasive Species Management (Boulder County 2022b).

The INWMP will comply with *CDOT Standard Specifications for Road and Bridge Construction*, dated 2022 (CDOT 2022d), specifically:

- Section 208 - Erosion Control
- Section 212 - Seeding, Fertilizer Soil Conditioner, and Sodding
- Section 213 - Mulching
- Section 217 - Herbicide Treatment
- Revision of Section 218 – Noxious Weed Management, Standard Specification.

Boulder County Species of Special Concern and Mapped Environmental Designations

Boulder County maintains a Species of Special Concern (SSC) list that includes terrestrial and aquatic animals and their associated habitat that are protected by federal and state law or otherwise afforded special consideration by Boulder County. The SSC list includes:

- Species listed under the provisions of the Endangered Species Act (ESA);
- Species listed by the CPW as threatened or endangered; and
- Species listed by the Colorado Natural Heritage Program as state or globally imperiled or critically imperiled.

The SSC was developed as part of the Boulder County Comprehensive Plan (BCCP). The policy for regulation of the SCC is within the BCCP (*ER 1.01 Regulations*) and affords Boulder County the ability to review projects as part of the 1041 process to ensure that land uses avoid, where possible, and otherwise minimize, the destruction or adverse modifications of environmental resources. Boulder County does not have a county-level statutory requirement for the jurisdiction or protection of terrestrial or aquatic animals, however, the BCCP does include a General Policy (*ER 1.05 Stakeholder Entities*) to work with federal and/or state entities that have jurisdiction on species listed by Boulder County. The BCCP also provides environmental maps that show the magnitude, scope and location of the land protected from development in Boulder County (BCCP 2017).

Per the BCCP, the Project will have no impacts to the following eight mapped designations: (1) BCCP Preble's Meadow Jumping Mouse Conservation Areas; (2) BCCP Natural Areas and Natural Landmarks; (3) BCCP High Biodiversity Areas; (4) BCCP Wildlife Migration Corridors; (5) BCCP Environmental Conservation Areas; (6) Rare Plant Areas & Significant Natural Communities; (7) Significant Agricultural Lands Map; or (8) Critical Wildlife Habitats & Wildlife Migration Corridors. The Applicants have coordinated with Ron West, Boulder County Natural Resources Specialist, to confirm the mapped designations for animals, plants, and other resources discussed below are not a concern based on the BCCP mapped designations (refer to communications in Appendix 2).

Boulder County has also developed Conservation Plans for priority species on the SCC list to help private land owners and managers make balanced management decisions. The two priority terrestrial species on the SCC do not occur in the Project Area.

Existing Conditions

In addition to a desktop analysis of existing data and mapping, field surveys were completed for the entire Project corridor in 2019, 2021, and 2022 to identify and map terrestrial and aquatic habitat features (PEL 2019; CDOT 2021; and CDOT/USFWS 2022) (Table 5).

Dominant grasses of the upland habitats at the Project corridor were observed to be smooth brome and crested wheatgrass. Common herbaceous species included kochia (*Bassia scoparia*), field bindweed (*Convolvulus arvensis*), and curly dock (*Rumex crispus*). Scattered shrubs and trees in these areas included rabbitbrush (*Chrysothamnus nauseosus*), Siberian elm (*Ulmus pumila*), and plains cottonwood (*Populus deltoides ssp. monilifera*) (RTD 2019). Refer to the Water Resource Section (8-507.7. *b(ii)*) for a description of the riparian and wetland vegetation communities.

Other Wildlife and Livestock

Other wildlife not discussed on the aforementioned federal, state, or Boulder County SCC lists which are expected to occur in this Project Area include mule deer (*Odocoileus hemionus*), raccoon (*Procyon lotor*), coyote (*Canis latrans*), red fox (*Vulpes vulpes*), and rabbits (*Sylvilagus spp.*). The Project is predominately within CDOT ROW and as a result no animal husbandry and livestock production can occur within the corridor.

Streamflows and Lake Levels

As discussed in the Water Resources section (8-507.7. *b(ii)*), water runoff would increase due to the addition of impervious surfaces. This additional runoff will be mitigated with detention features in areas of significant increase. Other areas of minor local runoff increases are not anticipated to change the overall flow rates in downstream drainages. Streamflow, lake levels, or aquatic species are not anticipated to be adversely impacted by the Project.

Aquatic Species

Table 5 lists potential aquatic species within the Project Area. As indicated above, no adverse impacts are anticipated to aquatic species at, or downstream of the Project.

Raptors and Other Migratory Birds

In addition to the federal and state-listed avian species discussed in the previous section, other bird species protected by the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act have the potential to occur in the Project Area. The Project Area, including structures such as bridges and culverts, provide foraging and nesting habitat for migratory birds and raptors. No active raptor nests were identified in the Project Area (CPW 2022c). CPW guidelines recommend a buffer around raptor nests, which will be followed for this Project (CPW 2020d).

To avoid affecting migratory birds, it is suggested to remove trees and clear and grub outside of the general nesting season: April 1st to August 31st. If it is not possible to remove trees or clear and grub outside of this timeframe, a thorough nest survey shall be conducted within seven days of removal to ensure no active nests are present within, or adjacent to, the Project. Surveys should start earlier for bald eagle winter roost (November 1st through March 31st) if construction is to occur during this time. In addition to following the CPW recommended nest buffer zones, the *CDOT Specification 240* will also be included in the Project plans. The *CDOT Specification 240* outlines the CPW nest buffer recommendation(s), in addition to other strategies to protect raptors and other migratory birds during construction activities.

Federal, State, and Boulder County SCC

Table 5 lists the federal, state, and Boulder County SCC terrestrial and aquatic species with the potential to occur in the Project Area and indicates whether potential habitat for each species was identified (Figure 9). Potential impacts to State and Federally listed species will be coordinated with CPW and USFWS to impose responsible avoidance and/or mitigation measures during design and construction.

TABLE 5. FEDERAL, STATE, AND BOULDER COUNTY LISTED SPECIES WITH POTENTIAL TO OCCUR WITHIN THE PROJECT AREA

COMMON NAME	SPECIES	STATUS ¹	HABITAT	POTENTIAL FOR OCCURRENCE IN THE PROJECT AREA ²
Amphibians				
Boreal Toad	<i>Anaxyrus boreas</i>	SC, SSC	Typically lives in damp conditions in the vicinity of marshes, wet meadows, streams, beaver ponds, glacial kettle ponds, and lakes interspersed in subalpine forest (lodgepole pine, Engelmann spruce, subalpine fir, and aspen). Restricted to the southern part of the Rocky Mountains. The elevational range is mainly 8,500–11,500 feet above mean sea level (ft msl).	None. Suitable habitat does not occur in the Project Area. Elevations in the Project Area are lower than the species' range .
Birds				
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	SC, SSC	Found in open country, cliffs, and sometimes cities. Over its wide range, it is found in a wide variety of open habitats, from tundra to desert mountains. Limited by availability of nest sites and prey; thus, it often moves into cities, nesting on building ledges and feeding on pigeons.	Moderate. Potential habitat occurs in the Project Area; however, the last sighting in the vicinity was documented in 2017 (eBird 2022).
Bald Eagle	<i>Haliaeetus leucocephalus</i>	ST, SSC	Habitat includes reservoirs and rivers, and other bodies of water with abundant fish populations. In winter, they may also occur locally in semi-deserts and grasslands, especially near prairie dog towns.	High. Suitable habitat occurs in the Project Area. CPW reports current sightings in the vicinity.
Burrowing Owl	<i>Athene cunicularia</i>	ST, SSC	Primarily found in grasslands and mountain parks, usually in or near burrows that have been started by colonies of burrowing mammals, such as prairie dogs. Habitat also includes areas with openness, short vegetation, and well-drained soils (e.g., steppes, prairies, and agricultural lands).	Moderate. Prairie dog colonies are present in the immediate vicinity and provide suitable habitat. The last sightings in the vicinity were documented in 2020 (eBird 2022).
Loggerhead Shrike	<i>Lanius ludovicianus</i>	SSC	Found in open pastures or grasslands with shorter vegetation and appear to prefer red-cedar and hawthorn trees for nesting, fencerows, or hedgerows near open pastures. Requires elevated perches as lookout points for hunting.	High. Suitable habitat was observed in the Project Area. The last sighting in the vicinity was documented in 2021 (eBird 2022).

COMMON NAME	SPECIES	STATUS ¹	HABITAT	POTENTIAL FOR OCCURRENCE IN THE PROJECT AREA ²
Northern Harrier	<i>Circus hudsonius</i>	SC, SSC	Most common in large, undisturbed tracts of wetlands and grasslands with low, thick vegetation. They breed in freshwater and brackish marshes, lightly grazed meadows, old fields, tundra, dry upland prairies, drained marshlands, high-desert shrub steppe, and riverside woodlands. In winter they use a range of habitats with low vegetation, including deserts, dunes, pasturelands, croplands, dry plains, grasslands, old fields, estuaries, open floodplains, and marshes.	High. Suitable habitat was observed in the Project Area. The last sighting in the vicinity was documented in 2022 (eBird 2022).
Piping Plover	<i>Charadrius melodus</i>	FE, ST	Wintering piping plovers use a variety of habitats and move among these patches in response to local weather and tidal conditions. Coastal habitats include sand spits, small islands, tidal flats, shoals and sandbars with inlets.	None. The Project Area is outside species' current known range.
Whooping Crane	<i>Grus americana</i>	FE, SE	The whooping crane breeds, migrates, winters, and forages in a variety of wetland and other habitats, including coastal marshes and estuaries, inland marshes, lakes, ponds, wet meadows and rivers, and agricultural fields. Nest sites are primarily located in shallow diatom ponds that contain bulrush. During migration, whooping cranes use a variety of habitats; however, wetland mosaics appear to be the most suitable.	Moderate. Potential habitat occurs in the Project Area.
Willow Flycatcher	<i>Empidonax traillii</i>	SSC	Inhabits deciduous thickets, particularly willows, which are frequently found near bodies of water.	High. Suitable habitat was observed in the Project Area. The last sighting in the vicinity was documented in 2022 (eBird 2022).
Fish				
Brassy Minnow	<i>Hybognathus hankinson</i>	ST, SC, SSC	Habitat includes small, clear, sluggish weedy creeks or small rivers with sand, gravel, or mud bottom overlain with organic sediment; this species also is common in cool, stained or acid waters of boggy streams, ponds, and lakes, and it is common in overflow ponds near rivers. Spawning occurs among vegetation in shallows and in flooded marshes.	Low. Marginally suitable habitat occurs in the Project Area.

COMMON NAME	SPECIES	STATUS ¹	HABITAT	POTENTIAL FOR OCCURRENCE IN THE PROJECT AREA ²
Common Shiner	<i>Notropis cornutus</i>	ST, SC, SSC	Found in moderate-gradient streams with gravel substrate, cool, clear water, and overhanging riparian vegetation.	Moderate. Suitable habitat does occur in the Project Area.
Greenback Cutthroat trout	<i>Oncorhynchus clarki ssp. stomias</i>	FT, ST, SSC	Although native to the South Platte River Basin, recent research indicates that stocking played a major role in the historical and current distribution of the species (Rogers 2012; USFWS 2012). Currently, descendants of the native South Platte population are only found in Bear Creek, of the Arkansas River Basin, west of Colorado Springs. Requires clear, cold, well-oxygenated streams of moderate gradient with habitat heterogeneity for different life stages.	None. The Project Area is outside species' current known range.
Lake Chub	<i>Couesius plumbeus</i>	SE, SSC	Colorado is the southern range for the species. The fish has been collected from the Platte River drainage west of Boulder and St Vrain Creek. Commonly found in large lakes and rivers. Prefer clear water and substrate composed of large sand and gravel, not mud.	Low. Marginal habitat observed in the Project Area.
Northern Redbelly Dace	<i>Phoxinus eos</i>	SE, SSC	Native to the South Platte River Basin, and recently found in the Plum Creek drainage, south of Denver. The species requires vegetation and slow flowing streams. The pond where the fish was documented has a sand substrate along the shoreline with submerged vegetation covering a substrate of decomposing material in the middle.	None. The Project Area is outside the species' known range.
Pallid Sturgeon	<i>Scaphirhynchus albus</i>	FE	Pallid sturgeon is a bottom-oriented, large river obligate fish inhabiting the Missouri and Mississippi rivers and some tributaries from Montana to Louisiana. During winter and spring, a mixture of sand, gravel and rock substrates are used and during the summer and fall, sand substrate is most often used.	None. The Project Area is outside the species' known range.
Plains Topminnow	<i>Fundulus sciadicus</i>	SC, SSC	In Colorado, this species occurs in the South Platte River main stem and its tributaries. Inhabits clear streams that have a sandy or silt substrate, creeks, and small to medium rivers with moderate to rapid currents. Prefers areas near overhanging vegetation and filamentous algae.	Moderate. Suitable habitat does occur in the Project Area.

COMMON NAME	SPECIES	STATUS ¹	HABITAT	POTENTIAL FOR OCCURRENCE IN THE PROJECT AREA ²
Stonecat	<i>Noturus flavus</i>	SC, SSC	Found in fast water riffles and runs of streams, hiding under rocks, woody debris, or along sandbars. In Colorado only collected a few times from the Republican River near the eastern border, and the St. Vrain River near Longmont.	None. Project Area is outside the species' known range .
Mammals				
Black-tailed Prairie Dog	<i>Cynomys ludovicianus</i>	SC, SSC	Form large colonies or "towns" in shortgrass or mixed prairie. Common in most of the counties of the eastern plains, especially those immediately along the Front Range. Some of the highest densities presently found in Colorado are on lands held by developers adjacent to or within urban areas such as Denver, Boulder, and Aurora.	High. Colonies and individuals were observed in the vicinity of Project Area.
Gray Wolf	<i>Canis lupus</i>	FE, SE	Habitat generalists and have historically lived throughout the northern hemisphere. Require ungulate prey, but also readily scavenge.	Low. While suitable habitat may exist within the Project Area, no known populations of gray wolf have been recently noted in the Project Area.
Preble's meadow jumping mouse	<i>Zapus hudsonius preblei</i>	FT, ST, SSC	Occurs on the Front Range of Colorado along permanent or intermittent streams in areas with herbaceous cover and adequate cover of shrubs and trees adjacent to undisturbed upland meadow areas.	Moderate. Suitable habitat was identified in the Project Area.
White-tailed Jackrabbit	<i>Lepus townsendii</i>	SSC	Habitat consists of hilly, bunchgrass grasslands. In winter, rabbits descend to sagebrush flats and valley bottoms. They rest by day in shallow holes dug in the ground at the bases of rocks or shrubs, and in winter rest in underground cavities and tunnels.	Low. Marginal suitable habitat was identified in the vicinity of the Project Area.
Mollusks				
Banded Physa (Utah Physa)	<i>Physa utahensis</i>	SSC	Occupies creeks, springs, and lakes in shallow water. Found in Utah Lake and its tributaries. Native to the Saint Vrain and Big Thompson watersheds but may have been extirpated in Colorado.	Low. The Project Area is partially in the Saint Vrain and Big Thompson watersheds; however, species is possibly extirpated in the state.

COMMON NAME	SPECIES	STATUS ¹	HABITAT	POTENTIAL FOR OCCURRENCE IN THE PROJECT AREA ²
Cylindrical Papershell	<i>Anodontooides ferussacianus</i>	SC, SSC	Preferred habitat is shallow water near shore in silty substrates. It is thought to inhabit small streams, creeks, and lakes in sand or fine gravel. In Colorado, this species reaches the edge of its western range and has declined to just a couple sites in the South Platte River drainage.	Low. Although habitat occurs in the Project Area, the species has possibly been extirpated from Boulder County.
Sharp Sprite	<i>Promenetus exacuous</i>	SSC	Found in various aquatic habitats, including pools, springs, streams and other shallow water habitats with mud substrates and submerged vegetation.	Low. Although marginal habitat was observed in the Project Area, the species has possibly been extirpated from Boulder County.
Reptiles				
Lined Snake	<i>Tropidoclonion lineatum</i>	SSC	Habitat includes prairie grasslands, scattered oak forests, and residential and suburban areas; however, most literature suggests this species inhabits remnant, undisturbed prairies along woodland corridors.	Moderate. Suitable habitat does occur in the Project Area.
Short-horned Lizard	<i>Phrynosoma hernandesi</i>	SSC	Habitat includes shortgrass prairie and sagebrush habitats, and open pine-spruce, pinon-juniper, and spruce-fir forests with stony, sandy, or loose soil for burrows.	None. Habitat does not occur in the Project Area.
Insects				
Lake Darner	<i>Aeshna eremita</i>	SSC	Habitat includes lakes, ponds, marshes, fens, bogs as well as slow moving streams. Prefers habitats with sparse or open vegetation.	Low. Marginally suitable habitat was observed in the Project Area.
Monarch Butterfly	<i>Danaus plexippus</i>	FC, SC, SSC	Found within a wide variety of terrestrial habitats that feature milkweeds (<i>Asclepias</i> spp.), their obligate larval host plant.	Moderate. Suitable habitat for larvae occurs in the Project Area. Milkweed is present in low densities. Monarch butterflies could migrate through.

COMMON NAME	SPECIES	STATUS ¹	HABITAT	POTENTIAL FOR OCCURRENCE IN THE PROJECT AREA ²
Moss' Elfin or Schryver's Elfin	<i>Callophrys mossii schryveri</i>	SC, SSC	Occupies a variety of habitats ranging from cliffs to grasslands to forests. Typically found in mountainous areas with steep topography.	None. Habitat does not occur in the Project Area.
Mottled Dusky Wing	<i>Erynnis martialis</i>	SC, SSC	Found in the foothills of Colorado at elevations between 5,800 and 8,200 ft msl. Habitat includes shrub areas and oak woodlands.	None. Elevations in the Project Area lower than species' range and habitat not observed.
Ottoo Skipper	<i>Hesperia ottoe</i>	SC, SSC	Grassland butterfly that inhabits mid-grass to tallgrass, undisturbed, prairies. In the Colorado Front Range, found in association with isolated stands of big bluestem (<i>Andropogon gerardii</i>) along the foothills.	None. Stands of undisturbed big bluestem grass were not observed in the Project Area; therefore, habitat is not present.
Regal Fritillary	<i>Speyeria idalia</i>	SSC	Occupies open, grassy habitats ranging from bogs and fens to dry fields and savannas.	Moderate. Areas of suitable habitat observed in the Project Area.
Vampire Ant	<i>Stigmatomma pallipes</i>	SSC	Habitat is typically wooded areas, in damp soil and leaf litter. Nests are usually found in soil under rocks, rotting logs, or at the base of trees.	Low. Marginally suitable habitat occurs sparingly in the Project Area.
Western Bumble Bee	<i>Bombus occidentalis</i>	SSC	Bumble bees require above and below-ground micro-sites for overwintering and nesting, including logs, stumps, and abandoned rodent and ground-nesting bird nests. Bumble bees do not require native vegetation but depend on habitats with rich floral resources throughout the nesting season, and many species select specific suites of plants for obtaining nectar and pollen.	Low. Marginally suitable habitat occurs sparingly in the Project Area.
Plants				
Alpine Tundra Draba (Whitlow Grass)	<i>Draba streptobrachia</i>	SSC	Species occurs in alpine tundra, typically in talus or rock scree in areas above tree line in Colorado.	None. Elevations in the Project Area lower than species' range and habitat not observed.

COMMON NAME	SPECIES	STATUS ¹	HABITAT	POTENTIAL FOR OCCURRENCE IN THE PROJECT AREA ²
Bell's Twinpod	<i>Physaria bellii</i>	SC, SSC	Found along the Front Range foothills often in shale and limestone soils of the Fountain/Ingleside, Lykins, Niobrara, and Pierre formations. This species is found in association with grassland and shrubland habitats, in rocky areas and road cuts.	Low. Marginally suitable habitat occurs sparingly in the Project Area.
Clawless Draba	<i>Draba exunguiculata</i>	SSC	Species occurs in alpine tundra, typically in talus or rock scree and stripes (ridges), 10,000-12,000 ft msl.	None. Elevations in the Project Area lower than species' range and habitat not observed.
Colorado Aletes	<i>Aletes humilis</i>	SSC	Cracks and cliffs of Silver Plume granite faces. Mostly in cracks in massive rocks or between boulders and in duff with Ponderosa pine. Found largely on sites that do not receive continual direct sunlight. Elevational range 6500-8700 ft msl.	None. Elevations in the Project Area lower than species' range and habitat not observed.
Colorado Butterfly plant	<i>Oenothera coloradensis</i>	SC, SSC	Stream channel sites that are periodically disturbed, sub-irrigated alluvial soils along streams; open meadows on floodplains including riparian areas. Colonies are often found in low depressions or along bends in wide, active, meandering stream channels a short distance upslope of the actual channel. The plant requires early- to mid-succession riparian habitat.	Low. While marginally suitable habitat was observed in the Project Area, the nearest known population is approximately eight miles to the southeast of the Project Area (CPW 2022).
Colorado Tansyaster	<i>Machaeranthera coloradoensis</i>	SSC	Species occurs in gravelly areas in mountain parks, slopes, and rock outcrops up to dry tundra at 8,500-12,500 ft msl.	None. Elevations in the Project Area lower than species' range and habitat not observed.
Colorado Wood-rush	<i>Luzula subcapitata</i>	SSC	Habitat includes subalpine wet to moist grassy slopes, meadows, streambanks, and fens above 10,000 ft msl.	None. Elevations in the Project Area lower than species' range and habitat not observed.
Downy Indian Paintbrush	<i>Castilleja puberula</i>	SSC	Rocky tundra, high peaks of the Continental Divide.	None. Elevations in the Project Area lower than species' range and habitat not observed.

COMMON NAME	SPECIES	STATUS ¹	HABITAT	POTENTIAL FOR OCCURRENCE IN THE PROJECT AREA ²
Forkleaved Moonwort	<i>Botrychium furcatum</i>	SSC	Habitat includes wet to moist grassy slopes, meadows, streambanks, and roadsides.	None. Habitat does not occur in the Project Area.
Gray's Draba	<i>Draba grayana</i>	SSC	Occurs in gravelly alpine slopes and fellfields at 11,500 - 14,000 ft msl.	None. Elevations in the Project Area lower than species' range and habitat not observed.
James' Telesonix	<i>Telesonix jamesii</i>	SSC	Occurs from montane to alpine climate zones above 6,500 ft msl. It is found on cliffs, ledges, rock outcrops, boulders, and scree slopes in alpine areas and in coniferous or aspen forests with varying amounts of shade.	None. Elevations in the Project Area lower than species' range and habitat not observed.
Narrowleaf Grapefern	<i>Botrychium lineare</i>	SC, SSC	Habitat includes wet to moist grassy slopes, meadows, streambanks, and roadsides from 3,750 - 11,910 ft msl.	Low. Marginally suitable habitat occurs in the Project Area.
Pale Blue-eyed Grass	<i>Sisyrinchium pallidum</i>	SSC	Habitat includes wet to moist grassy slopes, meadows, streambanks, and roadsides at 7,000 - 9,500 ft msl.	None. Elevations in the Project Area lower than species' range and habitat not observed.
Pale Moonwort	<i>Botrychium pallidum</i>	SSC	Habitat includes wet to moist grassy slopes, meadows, streambanks, and roadsides, and mossy woods, generally above 6,000 ft msl.	None. Elevations in the Project Area lower than species' range and habitat not observed.
Prairie Moonwort	<i>Botrychium campestre</i>	SSC	Habitat includes wet to moist grassy slopes, meadows, streambanks, and roadsides.	Low. Marginally suitable habitat occurs in the Project Area.
Redbank Moonwort	<i>Botrychium furculatum</i>	SSC	Habitat includes wet to moist grassy slopes, meadows, streambanks, and roadsides, and mossy woods.	None. Habitat does not occur in the Project Area.
Reflected Moonwort	<i>Botrychium echo</i>	SSC	Habitat includes wet to moist grassy slopes, meadows, streambanks, and roadsides, and mossy woods.	None. Habitat does not occur in the Project Area.

COMMON NAME	SPECIES	STATUS ¹	HABITAT	POTENTIAL FOR OCCURRENCE IN THE PROJECT AREA ²
Rockleaf Cinquefoil	<i>Potentilla rupincola</i>	SSC	Found on granite shelves, in crevices of granite rock outcrops, and on cliff faces. Almost exclusively on granite or metamorphic rocks with composition similar to granite or in shallow soils derived from such rocks at 6,461-10,926 ft msl.	None. Elevations in the Project Area lower than species' range and habitat not observed.
Rocky Mountain Blue Columbine	<i>Aquilegia saximontana</i>	SSC	Habitat includes cliffs and rocky slopes, subalpine and alpine at 9,000-12,300 ft msl.	None. Elevations in the Project Area lower than species' range and habitat not observed.
Rocky Mountain Monkey Flower	<i>Mimulus gemmiparus</i>	SSC	Habitats include cool, high marshes, meadows and areas near the streams. They can grow on sandy, rocky, wet or dry soil, exposed to direct sunlight or in the partial shade.	None. Elevations in the Project Area lower than species' range and habitat not observed.
Rocky Mountain Phacelia	<i>Phacelia denticulata</i>	SC, SSC	Found in sandy and rocky soils, typically in lightly disturbed areas such as loose soil on the sides of recently constructed trails, along gullies, or steep forested mountainsides with boulders and rocky outcrops. Above 5,500 ft msl.	Low. Elevations in the Project Area lower than species' range and habitat not observed.
Rocky Mountain Polypody	<i>Polypodium saximontanum</i>	SSC	Habitat includes shaded, wet to moist grassy slopes, meadows, streambanks, and roadsides.	None. Habitat does not occur in the Project Area.
Silkyleaf Cinquefoil	<i>Potentilla ambigens</i>	SSC	Habitat includes grassy or colluvial slopes and montane woods commonly near, but not in, forests dominated by <i>Pinus ponderosa</i> (ponderosa pine) at 6,608 - 9,062 ft msl.	None. Elevations in the Project Area lower than species' range and habitat not observed.
Thickleaf Draba	<i>Draba crassa</i>	SSC	Species occurs in alpine tundra, typically in talus or rock scree.	None. Elevations in the Project Area lower than species' range and habitat not observed.
Ute Ladies'-tresses Orchid	<i>Spiranthes diluvialis</i>	FT, SC, SSC	Sub-irrigated alluvial soils along streams; open meadows on floodplains including riparian areas.	Moderate. Marginally suitable habitat occurs in the Project Area along the various streams and canals.

COMMON NAME	SPECIES	STATUS ¹	HABITAT	POTENTIAL FOR OCCURRENCE IN THE PROJECT AREA ²
Wavy-leaf Stickleaf	<i>Nuttallia multiflora</i>	SSC	Found along the Front Range foothills in full sun with sandy or clay substrate. This species is found in association with grassland and shrubland habitats.	Moderate. Areas of suitable habitat exist in the Project Area.
Western Prairie Fringed Orchid	<i>Platanthera praeclara</i>	FT	Found most often in tallgrass prairie, particularly unplowed, calcareous prairies and sedge meadows. Soil moisture is a critical determinant of growth, flowering, and distribution. Dependent on mycorrhizal fungi, especially for seed germination and for nutritional support before plants are capable of photosynthesis.	Moderate. Marginally suitable habitat occurs in the Project Area near open prairie and nearby meadows.
White Adder's-mouth orchid	<i>Malaxis monophyllos</i> ssp. <i>brachypoda</i> (<i>Malaxis monophyllos</i> var. <i>brachypoda</i>)	SSC	This plant primarily occurs in undisturbed, forested bogs and wet meadows in fairly remote areas.	None. Habitat does not occur in the Project Area.

¹ FT = federally listed as threatened, FC = candidate species not yet listed or proposed for listing under the Endangered Species Act, FE = federally listed as endangered

SC = State special concern or State Wildlife Action Plan Species of Greatest Conservation Need (not a statutory category), ST = State listed as threatened, SE = State listed as endangered, SSC = Species of local concern (not including those known or listed as extirpated).

² High – has been observed in the Project Area or vicinity or is known to occur in the Project Area. Moderate – has not been observed, but project area is within species range and suitable or potential habitat occurs.

Low – although the Project Area is within the species' range, there is little or marginal habitat, or in the case of migratory bird species, may occur in the Project Area during migration. None – Project Area outside species range, no suitable habitat occurs, or has been extirpated from the Project Area.

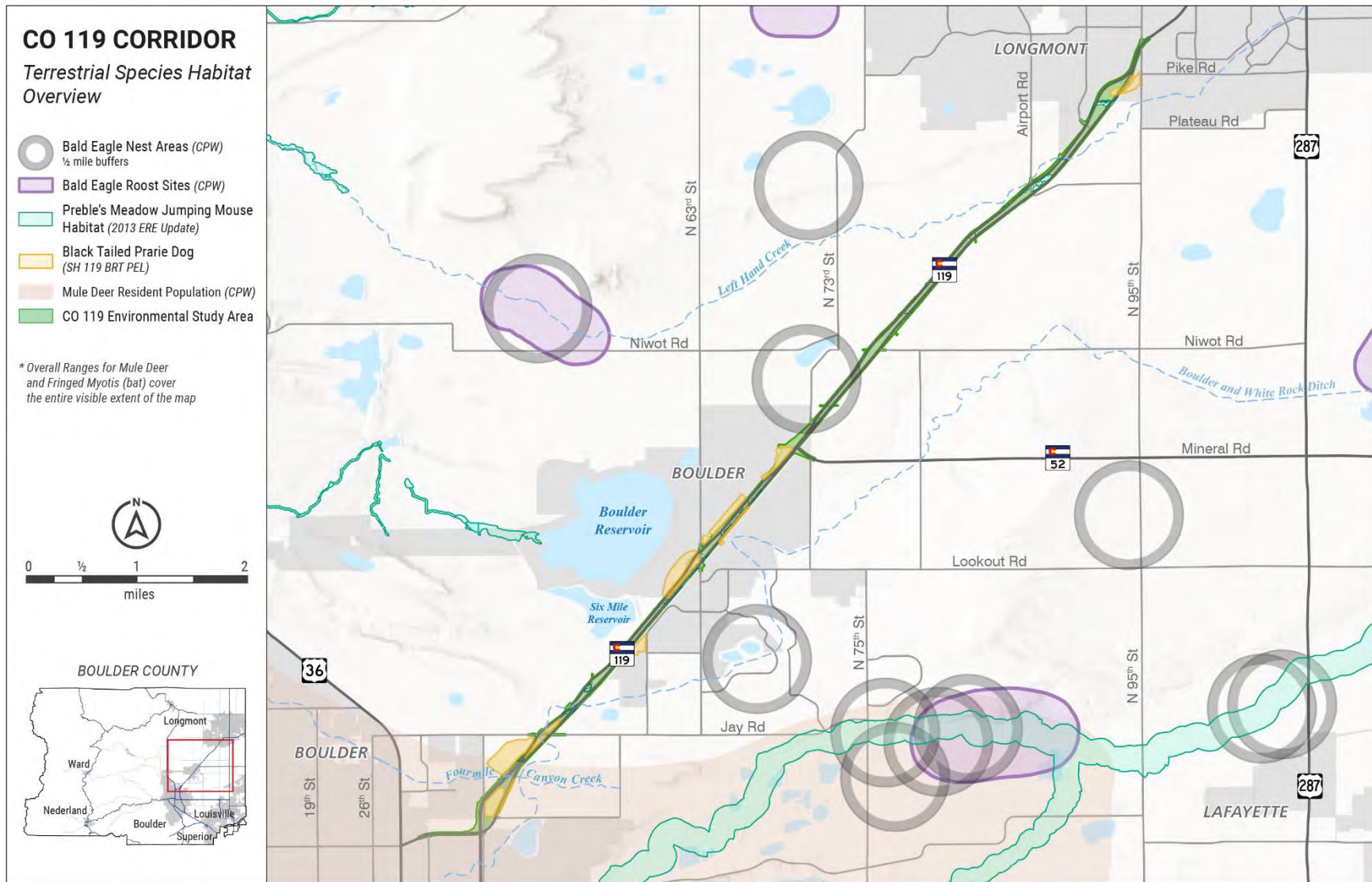


FIGURE 9. CO 119 AND BOULDER COUNTY COMPREHENSIVE PLAN TERRESTRIAL SPECIES HABITAT OVERVIEW

Preble's Meadow Jumping Mouse

The BCCP Preble's Meadow Jumping Mouse Conservation Area will not be impacted by the Project (BCCP 2017). The Project Area is located within the overall range (i.e., the area that encompasses probable range) for the Preble's meadow jumping mouse (*Zapus hudsonius preblei*) (PMJM). Habitat for the PMJM consists of areas with herbaceous cover and adequate cover of shrubs and trees along permanent or intermittent streams. Suitable habitat for the PMJM may occur in the riparian areas and surrounding upland habitats associated with Fourmile Canyon Creek; Boulder and White Rock Ditch; and Left Hand Creek. Only the Bikeway Project has the potential to impact the potential PMJM habitat locations. As design progresses, the Bikeway Project team will continue to coordinate with Boulder County and USFWS to confirm potentially impacts to PMJM habitat and impose responsible avoidance and/or mitigation measures.

Black-tailed Prairie Dogs and Burrowing Owls

Several black-tailed prairie dog colonies with multiple burrows are present at locations with ideal habitat conditions within the Project Area. Based on observations, most or all of these colonies appear to extend to adjacent properties. Prairie dog burrows also serve as suitable habitat for burrowing owls (*Athene cunicularia*), which are a state-listed threatened species and also protected under the MBTA.

The Project will have a direct impact on the prairie dog colonies and ongoing coordination has been occurring with the City of Boulder and USFWS regarding potential relocation opportunities (Figure 9). The City of Boulder has indicated that relocation onto their property is unlikely, but the Project can apply for consideration in March of 2024. The Applicants have inquired about a potential relocation site in Pueblo, Colorado. A record of the communications regarding the prairie dogs can be found in Table 1 and Appendix 2.

At the time of this 1041 Application submittal, no adjacent landowners have provided permission for the Project to passively relocate (push) prairie dogs to locations outside the CDOT ROW. If relocation is not determined a viable option, humane euthanization in accordance with Boulder County's (Boulder County Parks and Open Space 2022) and CDOT's Black-Tailed Prairie Dog policies (CDOT 2009) will be the preferred course of action.

The Applicants will utilize the following guidelines (Boulder County Parks and Open Space 2022; and CDOT 2009):

1. The Projects will be designed and constructed in an effort to minimize impacts to prairie dog colonies;
2. The Applicants will consider relocation of colonies, assuming this will not negatively impact other resources and is not cost prohibitive;
3. The area of prairie dog colonies that will be affected by the Project will be calculated before construction begins;

4. If a relocation site cannot be located, the prairie dogs will be captured and donated to raptor rehabilitation facilities or donated to the black-footed ferret reintroduction program;
5. At no time will earth-moving activities result in burying of living prairie dogs;
6. If relocation and/or donation options are exhausted/deemed infeasible, euthanization of prairie dogs will be the preferred option utilizing humane techniques following CPW guidance; and
7. Coordination with the CPW District Wildlife Manager will be initiated before any manipulation of prairie dogs or their colonies.

CDOT will also implement Revision of Section 201 Specification *Prairie Dog Management*, that includes the methodology for implementing the guidelines discussed above for the construction team. The specification will include survey protocol(s), burrowing owl survey, relocation, donation, and/or eradication procedures, and reporting requirements.

3.2.3.2 Map and describe critical wildlife habitat and livestock range to be affected by the activity including migration routes, calving areas, summer and winter range, and spawning beds

Critical Habitat

The ESA also provides for the conservation of “designated critical habitat,” which is defined by the USFWS as the areas of land, water, and air space that an endangered species needs for survival. Designated critical habitat includes sites with food and water, breeding areas, cover or shelter sites, and sufficient habitat to provide for normal population growth and behavior for the species. USFWS data regarding designated critical habitat areas were reviewed (USFWS 2022a). No designated critical habitat areas were identified within the Project Area.

The BCCP designated Left Hand Creek Cottonwood Groves (and associated wetlands) Critical Habitat is not within the Project Area. However, this BCCP critical habitat is located adjacent to the Project Area (Figure 10). General threats to plant and animal species and their habitats include habitat fragmentation, displacement, and injury/death. Although direct impacts to individuals and the habitat may be limited, indirect impacts may arise from increased human presence, fugitive dust generation, introduction of invasive species, soil and water contamination, and soil compaction. Refer to *Section 3.2.3.2* for Best Management Practices that will be implemented to address any potential indirect impacts to this adjacent habitat.

Livestock Range

No significant livestock ranges are located within the Project Area.

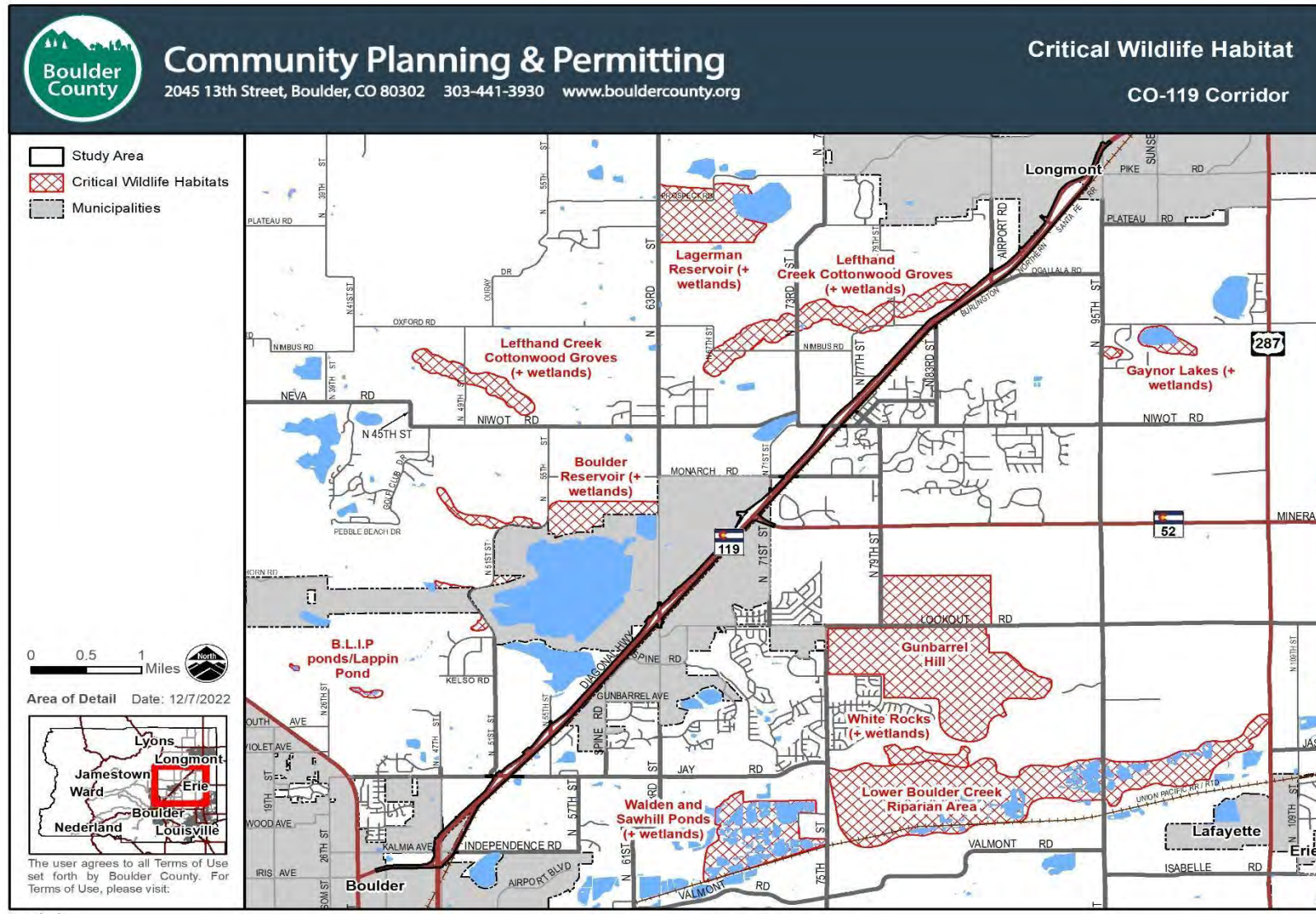


FIGURE 10. CO 119 AND BOULDER COUNTY COMPREHENSIVE PLAN CRITICAL WILDLIFE MAP

3.2.3.2 Describe the impacts and net effect that the activity will have on terrestrial and aquatic animals, habitat, and food chain.

Wildlife species that may occur within the Project Area include those adapted to the habitats present. Species composition is limited due to the Project being predominantly within an existing transportation ROW. The primary impacts of construction activities on terrestrial wildlife species are typically associated with temporary disturbances from construction activities, and with the removal of vegetation. Increased noise and equipment movement during construction may temporarily displace mobile wildlife species from the immediate workspace area. These impacts are considered short-term in duration and normal wildlife movements are expected to resume after construction is completed.

Construction activities might also impact small, immobile, or fossorial (living underground) animal species through incidental takes or from the alteration of local habitats. Incidental takes of these species might occur due to equipment or vehicular movement on the ROW by direct impact or due to the compaction of the soil if the species is fossorial. Potential impacts of this type are not typically considered significant and are not likely to have an adverse effect on any species population dynamics. It is anticipated that increased noise and human activity during construction will discourage wildlife from entering Project work sites.

Implementation of the following Best Management Practices (BMPs) will minimize potential impacts to terrestrial and aquatic animals and associated habitats. The practices discussed below are guidelines specified in the CDOT documents: *Erosion Control and Stormwater Quality Guide*, *Standard Specifications for Road and Bridge Construction*; *Bridge Design Manual* and *Drainage Design Manual*. BMPs described below are extrapolated from the above-mentioned documents or relevant materials such as the CPW/CDOT MOU guidelines for the SB40.

- If construction is to occur during the nesting season for migratory birds (between April 1 and August 31), *CDOT Specifications - Project Special Provision 240* shall be followed. Vegetation removal activities shall be timed to avoid the migratory bird breeding season which begins on April 1 and runs to August 31. All areas scheduled for clearing and grubbing between April 1 and August 31 shall first be surveyed within the work limits for active migratory bird nests. The biologist will also survey for active migratory bird nests within 50 feet outside of the work limits.
- If an active nest containing eggs or nesting/fledgling birds is found, the tree or shrub containing the active nest shall remain undisturbed and protected until the nest becomes inactive. The nest shall be protected by placing a fence (plastic) a minimum distance of 50 feet away. This buffer dimension may be changed if determined appropriate by the CDOT biologist and approved by the Engineer. Work shall not proceed within the fenced buffer area until the young have fledged or the nests have become inactive. If the fence is knocked down or destroyed by the Contractor, the Engineer will suspend the work, wholly or in part, until the fence is satisfactorily repaired at the Contractor's expense.
- Bald Eagles are protected by the Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act. The CPW recommends no surface occupancy (beyond that which historically occurred in the area) within ¼ mile radius of active nests. No

human encroachment within ½ mile radius on active nests from October 15 through July 31. Winter Night Roost: No human encroachment from November 15 through March 15 within ¼ mile radius of an active winter night roost if there is no direct line of sight between the roost and the encroachment activities. No human encroachment from November 15 through March 15 within ½ mile radius of an active winter roost if there is a direct line of sight between the roost and the encroachment activities. If Bald Eagles are spotted on or adjacent to the project, CDOT Region 4 Environmental Unit shall be notified immediately.

- Burrowing owls are a state threatened species and are protected under the Migratory Bird Treaty Act. No human encroachment or disturbance within 150 feet of a burrowing owl nest site from March 15 through October 31. If project activities are to take place between these times, a burrowing owl survey must be completed before construction activities take place. If burrowing owls are identified on or adjacent to the project, CDOT R4 Environmental Unit shall be notified immediately.
- Raptors are protected by the Migratory Bird Treaty Act. The CPW recommended no surface occupancy will be implemented. If raptors are identified on or adjacent to the Project, CDOT R4 Environmental Unit shall be notified immediately.
- Stream crossing structures shall not degrade the stream or fish habitat or block fish movement, including constricting stream flows that increase water velocities, nor shall such structures unnecessarily widen streams and thereby decrease water velocities and increase sediment deposition.
- Discharge of water directly into the stream from coffer dams or new channel construction (i.e., the Bikeway Project) shall be in accordance with applicable CDPHE guidelines and permits as well as Clean Water Act Sections 401, 402, and 404 regulations and permits. In some instances, such water must be treated prior to discharge.
- Unless otherwise stipulated, temporary or permanent culverts shall be embedded and backfilled 12 inches into the channel substrate. Design and use of such diversions shall be mindful of fish movement requirements.
- Temporary fills, such as coffer dams and temporary crossings, using imported material shall utilize clean, chemically-free fill to avoid increasing suspended solids or pollution.
- In clearing trees and shrubs to facilitate work in riparian areas and associated wetlands, plants shall be trimmed above the ground without removing the root mass.
- All reasonable measures shall be taken to avoid excess application and introduction of chemicals into aquatic ecosystems and adjacent riparian areas, including wetlands. The use of chemicals such as soil stabilizers, dust palliatives, herbicides, sterilants, growth inhibitors, fertilizers, deicing salts, etc., during construction and maintenance operations shall be in accordance with the manufacturer's recommended application rates, frequency, and instructions. These chemicals shall not be used, stored, or stockpiled within 50 horizontal feet of the ordinary high-water mark of any state waters, including wetlands, except when otherwise specified in the Project contract.
- All equipment shall be free of noxious weed seed and reproductive vegetative plant parts prior to use of that equipment in aquatic ecosystems and riparian areas, including wetlands. Such equipment shall be maintained in good working

order to avoid unnecessary discharge of harmful materials used in the operation of that equipment, including petroleum products, radiator fluid, hydraulic fluid, etc.

- No wet concrete from placement of forms, washing of trucks or equipment, or concrete saw water shall be allowed in aquatic ecosystems and riparian areas, including wetlands. Concrete washout activities may occur only within approved, designated areas per CDOT specifications.
- Erosion control is required on all Projects. Erosion control is particularly important around aquatic ecosystems and riparian areas, including wetlands, because of their sensitivity to sediments and pollution in roadway runoff. Temporary and permanent erosion and sediment control measures shall be installed at the earliest practicable time consistent with permit requirements and good construction practices. Such measures shall be properly monitored and maintained throughout the operation of the Project.
- Under current CDOT policies, instream work is limited to specific periods in order to avoid disruption of fish migration and spawning seasons. Under certain circumstances, instream work during such periods may be allowed. Special construction techniques are required during such situations and shall be pursued in consultation with CPW staff. The timing of such activities shall be based on the species, elevation, and location of the Project after consultation with CPW staff.
- During the planning and construction of the Project, all practicable measures shall be taken to avoid disturbance to existing vegetation. The length of time that disturbed areas are left exposed shall be as short as practicable and the extent of such disturbed areas shall be as small as practicable. Limitations on the duration and extent of disturbed areas lessen the potential for erosion and runoff of sediments into adjacent areas. Sensitive areas requiring avoidance shall be fenced off as necessary. Particular attention shall be paid to protecting aquatic ecosystems, riparian areas, wetlands, and habitats for threatened and endangered species from such impacts and unnecessary disturbance. Once earthwork has begun on a section, it shall be pursued until complete. Per CDOT Specification, final stabilization shall begin within 48 hours after topsoil placement, soil conditioning, or combination thereof starts and shall be pursued to completion. Disturbed areas where work is temporarily halted shall be temporarily stabilized immediately after the activity ceases for the day. Disturbed surfaces outside the pavement limits slope shall be left in a surface roughened or vertically tracked condition at the end of each shift.
- All disturbed areas above the ordinary high-water mark shall be revegetated with appropriate native plant species to provide bank stabilization, erosion control, and habitat replacement. These activities shall be conducted according to specifications approved by the CDOT Landscape Architect or CDOT Biologist. The opportunity will be given to CPW and Boulder County for review of the seed mix. Temporary seeding shall be done where necessary, and all practicable efforts shall be expended to control the spread of weeds. Only certified weed-free hay and straw shall be used. Locations under bridges where vegetation will not grow are exempt as long as an alternate bank stabilizing material (e.g., rip rap) is used. The use of alternative bank stabilizing material shall be evaluated to determine if there is the potential to impact habitat or impede wildlife movement under the structure.

- All practicable effort shall be expended to avoid unnecessary destruction of trees and shrubs in the vicinity of streams and in riparian areas. Trees removed should be considered for use on-site in a manner that improves riparian and instream habitat and for bank stabilization purposes. Trees removed during construction, whether native or non-native, shall be replaced with a goal of 1:1 replacement based on a stem count of all trees with diameter at breast height of two inches or greater. Tree replacements shall be considered successful per *CDOT Specification 214, Planting*.
- Voids within the bank stabilizing material (e.g., rip rap) above the ordinary high-water mark shall be filled and revegetated as specified by the CDOT Landscape Architect and in compliance with the Stormwater Permit. Where appropriate, streamside areas at the ordinary high-water mark should be revegetated with brush layer cuttings and/or containerized plantings or other acceptable bioengineering methods of planting native riparian species. Supplemental watering may be needed until the plantings have become established. Locations under bridges where vegetation will not grow are exempt only from revegetation.
- Waste concrete is not acceptable and shall not be used to stabilize channel banks for new construction. Such material does not meet current CDOT specifications for riprap material and may cause water quality problems. Preference shall be given to bioengineering solutions for stream stabilization projects and for improving stream and riparian habitat values. Use of such techniques, however, should be mindful that appropriate growing conditions exist. Bioengineering techniques, such as native riparian shrub plantings, are required for all bank protection activities that exceed 50 linear feet in important spawning areas.
- Stream crossing structures shall not degrade the stream or fish habitat or block fish movement, including constricting stream flows that increase water velocities, nor shall such structures unnecessarily widen streams and thereby decrease water velocities and increase sediment deposition.
- Highway runoff shall be diverted away from the stream channel and associated wetlands to avoid siltation and other pollution problems.
- In order to avoid the spread of invasive aquatic species including, but not limited to, Eurasian watermilfoil, zebra mussel, quagga mussel, and New Zealand mudsnail, the following BMPs shall be practiced:
 - If tools, construction mats, and/or heavy equipment are to be used for instream work that were previously working in another stream, river, lake, pond, or wetland, remove all mud, plants, and organic materials away from water bodies, and apply one of the following procedures to prevent the spread of Aquatic Nuisance Species and other pathogens:
 - Immerse tools and/or other equipment in a solution of a quaternary ammonium-based institutional cleaner and clean water (six ounces of Green Solutions High Dilution Disinfectant 256 or Super HDQ Neutral per gallon of clean water) for at least ten minutes prior to, and after, work within a waterway. Rinse with clean water, and dispose of chemicals properly, away from water bodies.
 - Spray or soak tools and/or equipment with clean water (must be 140°F or warmer) for at least ten minutes prior to, and after, work within a waterway. Gear and equipment should be sprayed or

soaked away from water bodies. All equipment should be completely drained of water and dried. Tools and/or equipment should be completely dried between each use.

- To reduce wildlife entrapment, all erosion control blankets will be biodegradable and will not contain plastic monofilament netting.

3.2.4 Terrestrial and Aquatic Plant Life

3.2.4.1 Map and describe terrestrial and aquatic plant life including the type and density and threatened or endangered plant species and habitat.

The majority of the Project work areas will be limited to the intersections and median. The CO 119 median consists mainly of upland grassland habitat with scattered riparian areas and stream crossings. Refer to the Water Resource Section (8-507.7.b(ii)) for a description of the riparian and wetland vegetation communities and the Terrestrial and Aquatic Animals (8-507.7.b(iii)) for discussion of upland vegetation communities.

Federal, State, and Boulder County SCC

Table 5 lists the federal, state, and Boulder County SCC terrestrial and aquatic plant species with the potential to occur in the Project Area and indicates whether potential habitat for each species was identified (Figure 9). Potential impacts to State and Federally listed species will be coordinated with CPW and USFWS to impose responsible avoidance and/or mitigation measures during design and construction.

Ute Ladies'-Tresses Orchid

Habitat for Ute ladies' tresses orchid (*Spiranthes diluvialis*) (ULTO) includes sub-irrigated alluvial soils along streams and open meadows on floodplains, including riparian areas (CNHP 2014). Potential habitat for ULTO may be present along several waterways that cross the Project area. The habitat in these areas may include sub-irrigated alluvial soils and adjacent open meadows on a relatively flat floodplain. These early successional wet meadow environments could provide suitable habitat for ULTO. As such, the potential for ULTO to occur in the Project Area is moderate. The Project will consult with USFWS to determine potential survey requirements.

3.2.4.2 Describe the impacts and net effect that the activity will have on terrestrial and aquatic plant life

Direct impacts to vegetation will result from ground surface disturbances such as mechanical grading, clearing, and equipment and vehicle compaction. Vegetation will be permanently removed for areas around the existing intersections identified for improvements as part of the Mobility Project. In addition, the Bikeway Project will result in permanent loss of vegetation for the installation of the bikeway pavement in the median.

Temporary impacts will be focused in certain locations, and the disturbed areas will be returned to pre-existing grades, if necessary, and re-seeded with approved CDOT native seed mixes after construction.

Impacts to vegetation will be minimized by implementing CDOT's 2022 *Standard Specifications for Road and Bridge Construction* as discussed in detail under the Terrestrial and Aquatic Animals (8-507.7. b(iii) - 201.2 –*Clearing and Grubbing*, 212-*Seeding Fertilizer, Soil Conditioner, and Sodding*, 213– *Mulching Planting*, 214.04- *Landscape Establishment*, 215 - *Transplanting and 216 – Soil Retention Covering*).

Disturbance related to construction or maintenance activities has the potential to increase infestations of noxious weed species. Following construction and seeding, native species and noxious weeds will compete for re-establishment. Soils and mud on vehicle and equipment tires, tracks, and undercarriages have the potential to transport weed seeds and plant materials to other areas. Invasive and/or non-native species can then be spread along access roads and Project work areas, increasing the likelihood of introducing new populations or increasing existing populations.

Prevention is the primary control for weed management as outlined in CDOT's 2022 *Standard Specifications for Road and Bridge Construction*. The following practices will be included in the INWMP during construction to minimize new infestations and the spread of current weed populations:

- All vehicles and equipment entering the Project Area will be clean of noxious weeds and are subject to inspection.
- All construction equipment will be washed thoroughly to remove all dirt, plant, and other foreign material prior to entering the Project Area. Particular attention will be shown to the under-carriage and any surface where soil containing exotic seeds may exist.
- Arrangements will be made for inspections of each piece of equipment before entering the Project. Records of inspections will be maintained. Equipment found operating on the Project that has not been inspected will be shut down.
- To minimize the possibility of importing noxious weeds, trucks and construction equipment will be dedicated to the Project and not interchanged with other projects when possible.
- Drivers and operators will avoid driving through areas where noxious weeds may be present to reduce the possibility of spreading seeds or other propagules. Construction vehicles and equipment should park in designated areas or in unvegetated areas.
- **Staging Area:** Weed management practices for staging areas are to be approved by the Engineer prior to their construction. Materials staging areas will be cleared of noxious weeds prior to mobilization of construction equipment. Weed infested staging areas shall be mowed with treatment of noxious weeds, if necessary.
- **Topsoil:** If imported topsoil is used for any part of the Project, the topsoil shall be inspected and certified noxious weed free by the Noxious Weed Management Supervisor. If CDA List A or List B noxious weeds are found in the topsoil, the material shall not be used on the project. Any topsoil infested with List A and List B noxious weeds shall be disposed of at a solid waste disposal facility.

- **Borrow Material:** If borrow material is used for any part of the Project, the borrow material shall be weed-free and shall be obtained from a site pre-approved by the Engineer. If the borrow is stockpiled it shall be stabilized and remain weed free for the duration of the Project.

3.2.5 Air Quality

3.2.5.1 Detail how many average daily trips will be generated by the proposal

It is anticipated that the project will decrease VMT as more people will choose to use transit and/or the Bikeway, rather than single-occupancy vehicles. In 2018, CO 119 carried 1,500 transit riders per day. Boardings are expected to increase by 33 percent with the proposed multimodal improvements (Commuting Solutions 2022). It is estimated that there are currently 250 daily bicyclists using CO 119. The construction of the protected Bikeway Project will be a safer and more attractive route compared to the existing shoulders and is projected to double bicycle use on CO 119 initially (DRCOG 2022).

Utilization of park-n-rides is likely to increase after construction. The intersections associated with the Project park-n-rides at 63rd Street and Niwot Road may require additional analysis to determine the localized effects of the facilities on traffic patterns and air quality.

3.2.5.2 Explain any other adverse impacts on air quality anticipated from the proposal

The proposed Project elements are not expected to have net adverse impacts on air quality. These Projects are anticipated to reduce emissions and improve air quality, due to increasing use of more efficient multimodal options (bikeway and transit improvements). These improved multimodal options will encourage walking, biking, and public transit uses. Additionally, the mobility improvements for the roadway will reduce congestion and vehicle emissions. Temporary adverse impacts to air quality resulting from construction activities are discussed below in Section 3.2.5.5.

3.2.5.3 Describe how any state or federal air quality standards will be impacted and if the proposed transportation facility has been included in the region's air quality models to verify conformity with the air quality plan

The Clean Air Act addresses criteria for air pollutants through National Ambient Air Quality Standards (NAAQS). Criteria air pollutants are six common air pollutants that are harmful to human health and regulated by the EPA. Areas that do not currently or have not previously met the NAAQS are designated as nonattainment or attainment/maintenance areas, respectively, and are subject to Transportation Conformity Regulations (40 CFR 93). The proposed Project is not located in a carbon monoxide (CO) or particulate matter (PM) nonattainment or maintenance area and is therefore not required to determine air quality conformity for these pollutants.

The proposed Project is in a nonattainment area for the eight-hour ozone criteria pollutant standard. However, DRCOG has demonstrated, through qualitative conformity analysis, that its fiscally constrained 2050 Metro Vision Regional Transportation Plan (RTP) will not cause a

violation of federal air quality standards, including the eight-hour ozone standard (DRCOG 2021). The proposed Project elements are included in both DRCOG’s RTP and CDOT’s 10 Year Plan. Since the Project is included in the fiscally constrained, air quality conforming transportation plan, no further action is required to demonstrate air quality conformity with state and federal air quality standards.

In addition to federal air quality regulations, CDOT’s Greenhouse Gas (GHG) Pollution Reduction Planning Standard (2021) requires all projects included in the RTP and CDOT 10 Year Plan to achieve GHG reduction levels for four different milestones: 2025, 2030, 2040 and 2050. On September 21, 2022, the DRCOG Board adopted an update to the RTP and a Mitigation Action Plan demonstrating federal air quality conformity and compliance with the GHG Pollution Reduction Planning Standard. On September 15, 2022, the Colorado Transportation Commission voted to approve CDOT’s updated 10 Year Plan (CDOT 2022c) and associated “Greenhouse Gas Transportation Report” (CDOT 2022e), which demonstrates compliance with the GHG Pollution Reduction Planning Standard.

Air quality measures from Colorado Senate Bill 21-260, codified in CRS 43-1-128, apply to the proposed Project, because it meets the criteria for a “Regionally Significant Transportation Capacity Project” (23 CFR Title 23, Chapter I, Subchapter E, Part 450). Parts 4(a), 4(b), and 4(c) of CRS 43-1-128 require CDOT to model criteria air pollutants prior to construction activities and develop and implement a PM construction plan, including continuous monitoring, public alerts if a PM exceedance event occurs, and actions to address emission levels prior to exceedances. Additionally, the Project will be required to develop and implement a plan to mitigate air quality impacts, with a focus on Disproportionately Impacted Communities. CDOT Environmental Programs Branch, in coordination with the State Attorney General’s Office, is currently developing guidance on how to implement these new regulations. The Project team will follow the most up to date CDOT guidance with more detailed information on the elements of project-level air quality monitoring, types of plans, and mitigation strategies.

3.2.5.4 Describe the airsheds to be affected by the activity, including the seasonal pattern of air circulation and microclimates.

Weather patterns at the Project Area are influenced by the Rocky Mountains to the west. In the colder seasons, the area is prone to high winds due to air pressure differences. Cold, high-pressure weather systems moving eastward across the local Rocky Mountain range can create strong downdrafts on the leeward side. These weather events can create high winds from the west/northwest to the plains at speeds sometimes ranging from 60 to 100 miles per hour near the foothills in Boulder (National Weather Service n.d.).

Boulder climate data was used to characterize the Project Area’s microclimate. Average monthly maximum temperatures in Boulder (1991-2020) ranged from 46.2°F in December, to 87.8°F in July. Average monthly minimum temperatures in Boulder (1991-2020) ranged from 21.7°F in February, to 57.5°F in July. Average monthly precipitation in Boulder (1991-2020) ranged from a low of 0.8” in January to a high of 3.2” in May, with a yearly total average of 21.2.” Average yearly snowfall in Boulder totals 89.7” (NOAA Physical Sciences Laboratory 2022a).

3.2.5.5 Describe the impacts and net effect that the activity will have on air quality during both construction and operation under both average and worst case conditions

Construction

Construction emissions are considered temporary compared to standard traffic emissions and are not anticipated to cause violations to air quality standards. The timing and emission totals from construction vehicle and equipment sources will vary depending on the phasing of the activities and will not all occur simultaneously. Typical sources of transportation project construction emissions include:

- Fugitive dust generated during excavation, grading, loading, and unloading activities.
- Dust generated during demolition of structures and pavement.
- Engine exhaust emissions from construction vehicles, worker vehicles, and diesel fuel powered construction equipment.
- Motor vehicle emissions associated with increased traffic congestion during construction.
- Vehicles traveling to and from the construction site.
- Volatile organic compounds (VOCs) and odorous compounds emitted during asphalt paving.

Air emissions associated with the Project will be short-term, localized, and consist predominantly of mobile construction equipment and low-level fugitive dust. As outlined in CDOT's 2022 *Standard Specification 209*, the Project will primarily use water from a truck as a fugitive dust control measure during the construction period.

To address the short-term impacts associated with mobile construction equipment, *pursuant to CRS 43-1-128, Parts 4(a), 4(b), and 4(c)*, criteria pollutant emissions will be monitored. The monitoring will include capturing a baseline of criteria pollutant emissions before construction, monitoring PM emissions during construction, and creating a plan to publicly report PM concentrations and mitigate air quality impacts on communities adjacent to the project. While the Project is not expected to result in air quality violations, these required actions will provide additional monitoring, planning, mitigation (if necessary), as well as greater public transparency.

Operations

A recent evaluation of the projects recommended in the Boulder County TMP determined that the Project will reduce carbon dioxide (CO₂) by over 2,500 metric tons between 2024 and 2040 due to anticipated mode shift to transit and active transportation modes. Additionally, intersection and mobility improvements that alleviate traffic congestion will lead to more consistent vehicular traveling speeds and more efficient use of fuel, thereby reducing emissions (Boulder County 2022).

A Benefit-Cost Analysis (AECOM 2022) that evaluated a build scenario of mobility improvements on CO 119 demonstrated emissions reductions in VOCs, nitrogen oxides (NO_x), PM_{2.5}, PM₁₀, and CO₂. However, the Benefit-Cost Analysis build scenario included more mobility elements than the proposed Project (e.g., an additional park-n-ride and improvements at additional intersections) anticipates. While the proposed Project does not include all of the

elements assessed in the Benefit-Cost Analysis build scenario, it is still anticipated that the Project will result in the reduction of the aforementioned pollutants.

Pursuant to CRS 43-1-128, Part 4(a), the Project will be required to model criteria pollutant emissions impacts. This required modeling will provide additional data on the net impact of the Project on air quality.

3.2.6 Environmental Resources and significant environmentally sensitive factors

3.2.6.1 Identify and locate on a map, potential natural areas, public outdoor recreations and open space areas, unique areas of geological, historic, and archeological importance, and environmental resources as defined by Article 18 of the Boulder County Land Use Code.

To calculate potential impacts, the Project Applicants developed a preliminary construction footprint for both the Mobility Project and the Bikeway Project. The preliminary construction footprint assumed a 20-foot buffer from preliminary cut/fill lines of the preliminary plans for each project. As both designs are refined, temporary and permanent impacts will be minimized and avoided if possible.

The Project has the potential to cross BCCP mapped Natural Hazard Areas (Table 6 and Figure 11). Refer to Appendix 3 for all milepost locations within the Project Area.

TABLE 6. POTENTIAL NATURAL HAZARDS WITHIN THE PRELIMINARY CONSTRUCTION FOOTPRINT FOR BOTH THE MOBILITY PROJECT AND BIKEWAY PROJECT

TYPE OF NATURAL HAZARD	BIKEWAY PROJECT CONSTRUCTION FOOTPRINT	MOBILITY PROJECT CONSTRUCTION FOOTPRINT	POTENTIAL IMPACTS
Landslide High Susceptibility Area	150,280 SF	169,563 SF	<p>Landslide High Susceptibility Areas along the corridor are located at:</p> <p>MP 45.2 MP 48.1-48.6 MP 45.5 MP 48.7-48.9 MP 45.7 MP 49.1-49.4 MP 46.1 MP 49.8 MP 46.3 MP 53.2 MP 47.5</p> <p>These areas are concentrated in the southern half of the corridor. Potential impacts will be coordinated with Boulder County.</p>

TYPE OF NATURAL HAZARD	BIKEWAY PROJECT CONSTRUCTION FOOTPRINT	MOBILITY PROJECT CONSTRUCTION FOOTPRINT	POTENTIAL IMPACTS
Very High Swelling Soil Potential	0	0	There were no Very High Swelling Soil Potential areas identified within the preliminary construction footprints.
High Swelling Soil Potential	1,404,789 SF	649,396 SF	High Swelling Soil Areas were identified within the preliminary construction footprint at the following locations: MP 45.5-45.6 MP 46-49 MP 54-54.2 Geotechnical investigations have taken place for the corridor. Recommendations will be made for any cut and fill activities within these areas.
Moderate Swelling Soil Potential	0	0	There were no Moderate Swelling Soil Potential areas identified within the preliminary construction footprints.
Floodway	207,811 SF	396 SF	Floodway Areas were identified within the preliminary construction footprints at the following locations: <ul style="list-style-type: none"> • MP 45.6 (Four Mile Canyon Creek crossing) • MP 52.7 (At Airport Rd intersection; part of Left Hand Creek) • MP 53.1-53.7(Left Hand Creek crossing) A flood hazard impact report and flood permits will be completed with Boulder County prior to construction.
100-year floodplain – Zones AE, A, AO, and AH	See Section 4. Floodplain Permit & Flood Hazard Impact Report section for more information.		A flood hazard impact report and flood permits will be completed with Boulder County prior to construction.
500-Year Floodplain – Zone X500			

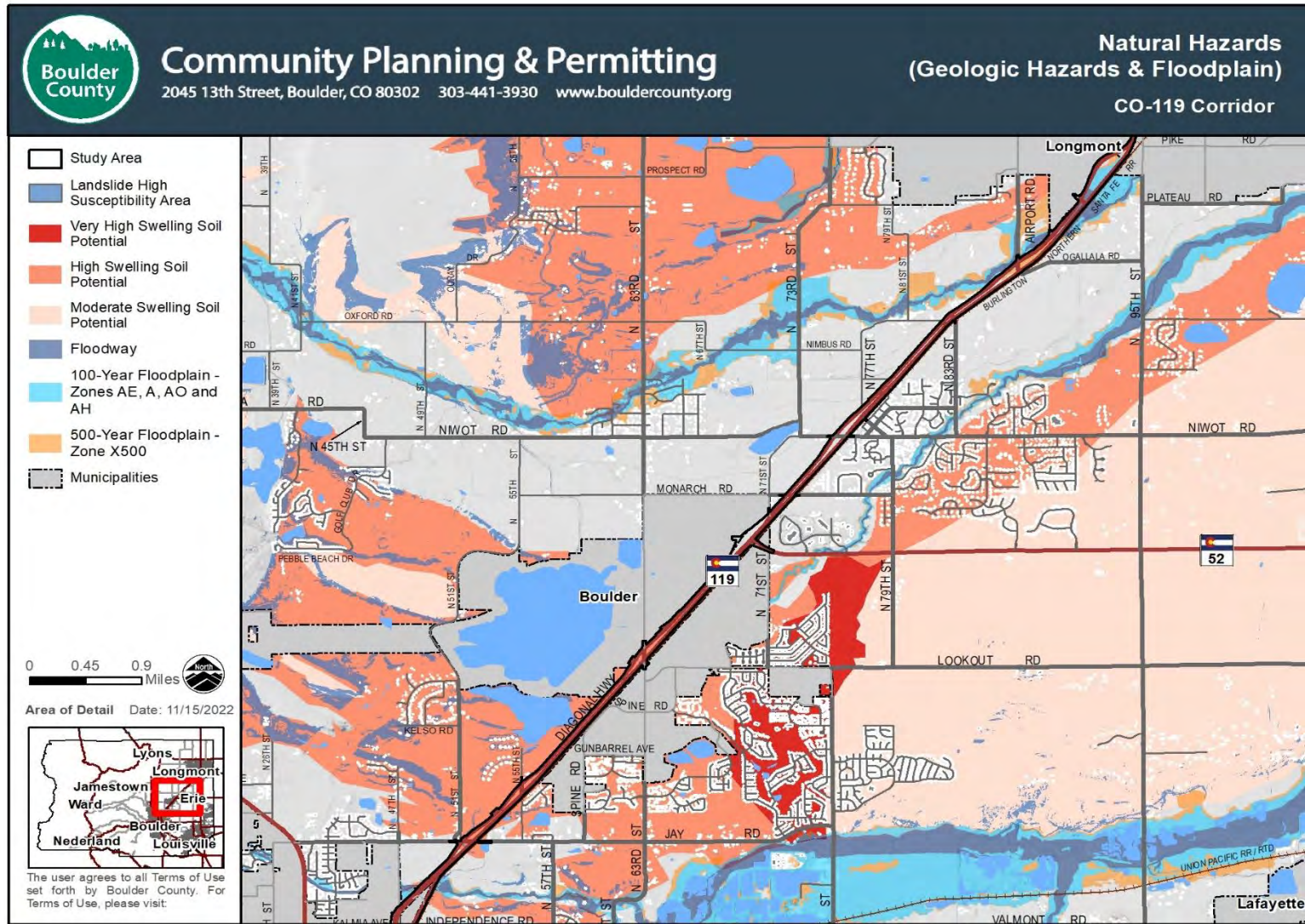


FIGURE 11. CO 119 AND BOULDER COUNTY COMPREHENSIVE PLAN POTENTIAL NATURAL HAZARDS WITHIN THE PRELIMINARY CONSTRUCTION FOOTPRINT

The Project has the potential to cross BCCP mapped Outdoor Recreation and Open Space Areas (Table 7 and Figure 12). Refer to Appendix 3 for all milepost locations within the Project Area.

TABLE 7. BOULDER COUNTY PUBLIC OUTDOOR RECREATION AND OPEN SPACE AREAS

TYPE OF PUBLIC LAND	BIKEWAY PROJECT CONSTRUCTION FOOTPRINT	MOBILITY PROJECT CONSTRUCTION FOOTPRINT	POTENTIAL IMPACTS
Open Space/Parks and Recreation	26,478 SF	0	<p>Open Space/Parks and Recreation areas within the Bikeway Project construction footprints is located at:</p> <ul style="list-style-type: none"> • MP 45.2 (Pleasant View Sports MP Complex, City of Boulder) • MP 45.3-45.8 (Belgrove, OSMP) • At MP 53.6 there is an Open Space area shown within the median that is an art installation for the City of Longmont. This area will be avoided during construction. <p>Potential impacts were calculated using the preliminary construction footprint and County/City Open Space data. In areas where surveyed CDOT ROW was available, spatial intersections were modified to account for inaccuracies in the Open Space parcel lines.</p>
County Conservation Easement	0	0	<p>There were no County Conservation Easement areas identified within the preliminary construction footprints.</p>

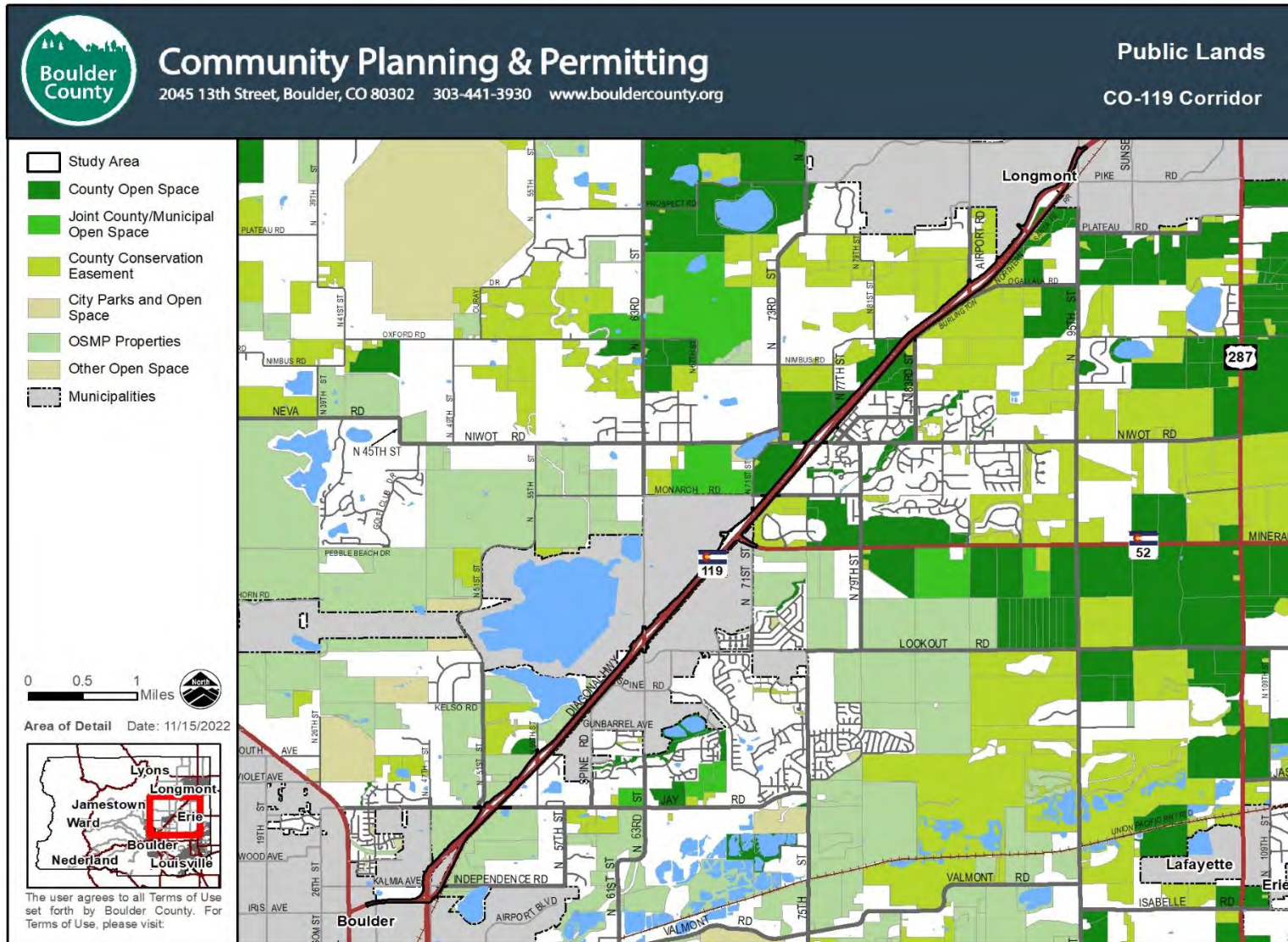


FIGURE 12. CO 119 AND BOULDER COUNTY PUBLIC OUTDOOR RECREATION AND OPEN SPACE AREAS

The Project has the potential to cross BCCP mapped Historic, Natural Areas and Archaeological Resources (Table 8) and see Figure 3 shown above. Refer to Appendix 3 for all milepost locations within the Project Area.

TABLE 8. NATURAL LANDMARK AREAS, HISTORIC AND ARCHAEOLOGICAL IMPORTANCE AS DEFINED BY BOULDER COUNTY

HISTORIC RESOURCES AND AREAS OF GEOLOGIC INTEREST	BIKEWAY PROJECT CONSTRUCTION FOOTPRINT	MOBILITY PROJECT CONSTRUCTION FOOTPRINT	POTENTIAL IMPACTS
Historic Sites	0	0	There were no Boulder County Historic Sites identified within the preliminary construction footprints.
Archaeologically Sensitive Travel Routes	72 LF	0	One archaeologically sensitive travel route was identified at MP 53.2 near Left Hand Creek. The preliminary design of a single-span pedestrian bridge may avoid the archaeologically sensitive area. The project team will work with Boulder County to mitigate potential impacts.
Archaeologically Sensitive Areas	0	0	There were no archaeologically sensitive areas identified within the preliminary construction footprints.
Natural Landmarks and Areas	0	0	There were no natural landmarks or areas identified within the preliminary construction footprints.

Environmental Resources as defined in Article 18 of the Boulder Land Use Code include the following resources:

Air, water, soil, native plant and animal populations and their associated habitat, and the unique, distinctive, or significant natural features of the County’s landscapes and related ecosystems, including but not limited to:

- BCCP Critical Wildlife Habitats and Wildlife Migration Corridors
- BCCP Environmental Conservation Areas
- BCCP High Biodiversity Areas
- BCCP Natural Landmarks and Natural Areas
- BCCP Preble’s Meadow Jumping Mouse Conservation Areas
- BCCP Rare Plant Areas and Significant Natural Communities
- BCCP Wetlands and Riparian Areas
- BCCP Boulder County Species of Special Concern

Environmental Resources encompass those resources identified and mapped in the current and any updated version of the Environmental Resources element of the BCCP, as well as similar resources that may be identified on or in the vicinity of the Project is provided below in Table 9 and Figure 13.

TABLE 9. ENVIRONMENTAL RESOURCES AS DEFINED IN ARTICLE 18

RESOURCE	BIKEWAY PROJECT CONSTRUCTION FOOTPRINT	MOBILITY PROJECT CONSTRUCTION FOOTPRINT	POTENTIAL IMPACTS
Rare Plant Areas	0	0	There were no rare plant areas identified within the preliminary construction footprints.
Critical Wildlife Habitats	0	0	There were no critical wildlife habitat areas identified within the preliminary construction footprints. The Left-Hand Creek Cottonwood Groves area was identified adjacent to the CO 119 ROW. Critical wildlife habitat is not mapped within the CDOT CO 119 ROW.
Prairie Dog Habitats	337,645 SF	550,024 SF	Black-tailed Prairie Dog Habitat was identified within the preliminary construction footprints at the following locations: MP 45.8-46.3 MP 47.7-48.3 MP 49.1-49.5 Please refer to ‘ Terrestrial and Aquatic Animals, Plant Life and Habitat ’, subsection ‘ Black-tailed Prairie Dogs and Burrowing Owls ’ for more information on mitigation guidelines.
Environmental Conservation Areas	0	0	There were no Environmental Conservation areas identified within the preliminary construction footprints.

RESOURCE	BIKEWAY PROJECT CONSTRUCTION FOOTPRINT	MOBILITY PROJECT CONSTRUCTION FOOTPRINT	POTENTIAL IMPACTS
Riparian Areas	See Water Resources, Subsection 'Wetlands and Riparian Areas' for more information.		Potential impacts and mitigation to wetlands and riparian areas are detailed in section 6.B. 'Water Resources' of this application.
Wetlands			
Significant Natural Communities	13,424 SF	0	One Significant Natural Community was identified within the preliminary construction footprints. This area is located at MP 45.8. The Bikeway Project team will coordinate any potential impacts with Boulder County.
Riparian Habitat Connectors	85 SF	0	One riparian habitat connector was identified within the preliminary construction footprints. This area is located at MP 53.15 (Left Hand Creek). The Bikeway Project team will coordinate any potential impacts with Boulder County.
High Biodiversity Areas	0	0	No high biodiversity areas were identified within or adjacent to the preliminary construction footprints of the projects.

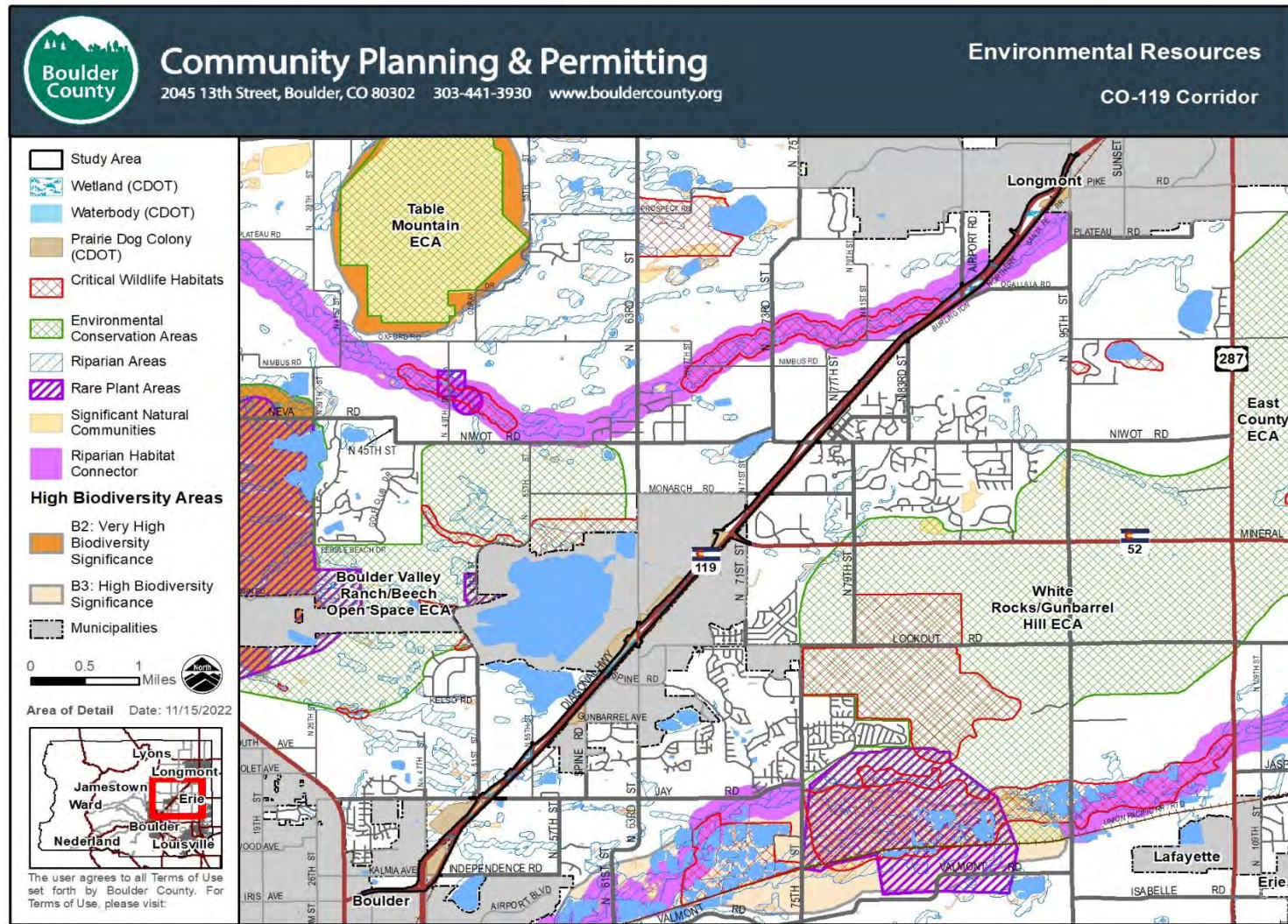


FIGURE 13. CO 119 AND BOULDER COUNTY COMPREHENSIVE PLAN ENVIRONMENTAL RESOURCES AS DEFINED IN ARTICLE 18

3.2.7 Visual aesthetics and nuisance factors

3.2.7.1 Identify viewsheds, scenic vistas, unique landscapes or land formations

The Project is predominantly located in the existing CO 119 ROW and all work will be limited to the median and existing intersections. Users of the corridor have views of the grasslands, foothills, and Rocky Mountains. There are agricultural, commercial, industrial, institutional, and residential land uses adjacent to the corridor, in addition to county and city open spaces, a railroad, parks, and trails. The vegetation throughout the corridor comprises mostly grasses, with scattered shrubs and trees. Boulder Reservoir and Sixmile Reservoir are located west of CO 119 at the southern portion of the Project but are difficult to view from the roadway due to the landscape and embankments in the surrounding area. Figure 14 locates the visual aesthetics and nuisance factors for the Project.

The BCCP has designated Natural Landmarks that are identified for their visual and scenic prominence as landscape features. The Project will not impact the mapped designated BCCP Natural Areas and Natural Landmarks (Figure 3), BCCP High Biodiversity Areas, or BCCP Environmental Conservation Areas (Figure 13).

Boulder County and the City of Boulder own and manage open space areas adjacent to the CO 119 corridor and Project (Figure 12). These open space areas include conservation easements, agricultural areas, fee properties, and natural lands. Some properties are open to the public, but many are not. The visual character and viewsheds of these properties along the CO 119 corridor are not anticipated to be impacted by the Project elements.

Boulder County Open Space properties adjacent to the Project Area (Figure 12):

- Waterstone Nupud, Conservation Easement/Agriculture
- Dodd Farm, Agriculture
- Chandler, Agriculture
- Jay Road Church of Christ, Agriculture
- Fitzgerald, Conservation Easement
- Nelson (Bert)-LoBo Trail
- Bielins-Hock
- Russell-Anderson-Schmidt
- Peck, Agriculture
- Boulder Tech Center, Conservation Easement

City of Boulder Open Space and Mountain Parks properties adjacent to the Project Area (Figure 12):

- Belgrove, Fee Property
- Mckenzie, Fee Property
- Nu-West, Fee Property
- Seigle, Fee Property
- Celestial Seasonings CE, Conservation Easement
- Boulder Reservoir Natural Area, Natural Lands

- Hart-Jones, Fee Property
- Greens Industrial Park, Fee Property
- I.B.M. OS Easement, Conservation Easement
- I.B.M. CE, Conservation Easement
- I.B.M., Fee Property

Additionally, Pleasant view Fields Sports Complex, a City of Boulder Parks and Recreation property, is adjacent to the Project.

3.2.7.2 Identify any significant deterioration of existing natural aesthetics, creation of visual blight, noise pollution or obnoxious odors which may stem from the proposal

The proposed Project is expanding the existing infrastructure by adding non-motorized underpasses, a new hardscaped pathway, retaining walls along the bikeway, park-n-ride parking lots, BRT lanes, bus stations, signals, and signing. Vegetation will be disturbed and paved over at permanent impact areas of the Project, which will reduce on-site natural features but enhance the built infrastructure adjacent to the corridor. Non-motorized users of the corridor currently travel along the existing CO 119 shoulder, which does not have visual barriers. The underpasses and retaining walls will cause brief disturbances to the viewshed during non-motorized uses.

CDOT has developed Visual Impact Assessment Guidelines (2020), that build on FHWA's guidance on visual resources. CDOT will follow these guidelines in the NEPA study process, which involves completing a Visual Resources Scoping Questionnaire to determine if a Visual Impact Assessment technical study will be warranted for the Project.

Multiple elements of the project will require additional analysis to determine the effects of noise pollution. Type I projects established in Part 772 of Title 23 of the Code of Federal Regulations (23 CFR 772) require traffic noise analysis. The park-n-ride lots and bus lanes qualify as Type I projects because they meet the following criteria:

- The addition of a through-traffic lane(s). This includes the addition of a through-traffic lane that functions as a high-occupancy vehicle lane, high-occupancy toll lane, bus lane, or truck climbing lane that is greater than 2,500 feet.
- The addition of a new or substantial alteration of a weigh station, rest stop, ride-share lot (including park-n-ride lots), or toll plaza.

Therefore, these project elements require analysis for noise impacts. A traffic noise analysis will be conducted by CDOT during the NEPA study to determine the degree of noise impacts that may occur, and whether noise abatement is warranted.

No obnoxious odors are anticipated to result from the proposed Project.

3.2.7.3 Identify and describe any structures, excavations and embankments that will be visible as a result of this project.

The Project includes the addition of two park-n-rides at the 63rd Street and Niwot Road intersections, in addition to bus stations for users of the BRT system (63rd Street, CO 52, and

Niwot Road). The bus stations will be located on the left side of the travel lanes with a separate drive from CO 119. The stations will be adjacent to the park-n-ride lots with awnings for pedestrian shelter. Additional signals and signs for the BRT lanes and bus bypass lanes will also be included in the proposed project. The new aforementioned structures will be visible by users of CO 119.

Minor temporary visual impacts may occur due to construction activities such as excavation, grading, and the presence of associated equipment.

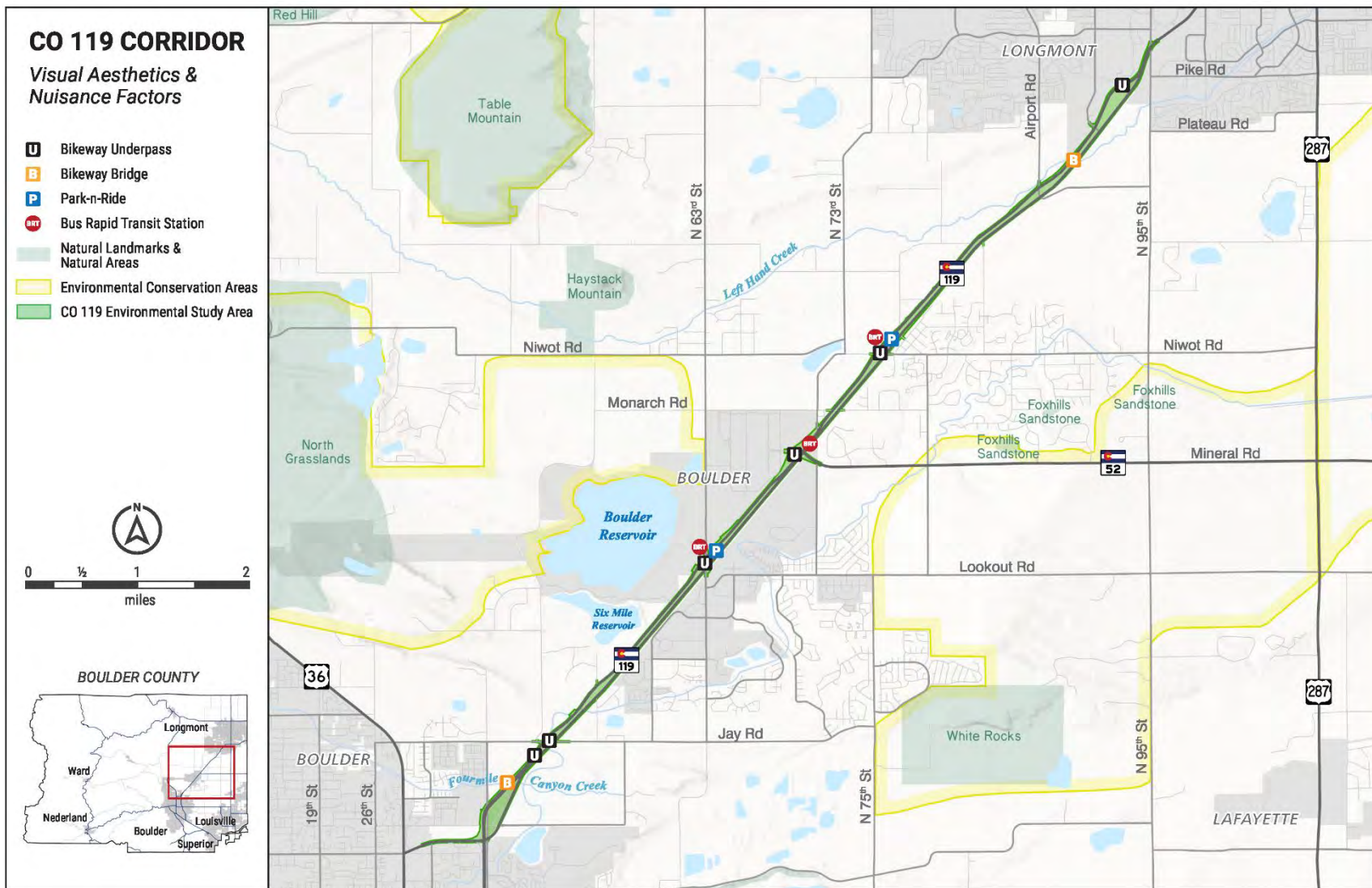


FIGURE 14. CO 119 CORRIDOR VISUAL AESTHETICS AND NUISANCE FACTOR

3.2.8 Transportation Impacts

3.2.8.1 Describe what impacts the proposal will have upon the transportation patterns in the area intended to be served or affected by the proposal through the submittal of a traffic impact analysis of the proposed transmission facilities.

The Project is progressing toward final design, which is anticipated to be completed in summer 2023. A benefit of the proposed Bikeway Project improvements is the location within the existing median, reducing impacts to and increasing safety for the traveling public. When final design is completed, a community meeting will be held to convey information about construction phasing, routing, and impacts to corridor users

Identify the facilities required to support the existing and future land uses being served by the proposed transportation facility

The existing land use of the Project Area includes only transportation within CDOT's ROW. Adjacent land uses include parks and open spaces, a railroad, agricultural, residential, institutional, and commercial/industrial areas. Neither the Project nor adjacent areas uses are expected to change following completion of the Project. The proposed Project will improve transportation services for these land uses, which includes the following scope of work:

- Traffic Signals
- Lighting
- Intersection Reconfiguration (CO 52)
- Access Changes (Airport Road)
- ITS Elements (Closed Circuit Television Cameras, Variable Message Signs, Road and
- Weather information Stations, Automatic Traffic Recorders)
- Commuter bikeway – alignment, tie-in connections to other regional trains and cross
- streets, crossings – at grade and underpasses with the diagonal trunk
- Park and Rides
- BRT Stations layouts and placements
- Queue bypass lanes

Furnish the traffic model data verifying consistency with the DRCOG regional plan, the Colorado Department of Transportation (CDOT) Statewide Transportation Improvement Program (STIP) and the DRCOG Transportation Improvement Program (TIP)

It was determined that traffic modeling data used for the Project would be completed using the CDOT statewide model. The CDOT statewide model is informed by regional models to ensure consistency between state and regional plans, including the DRCOG Regional Plan, the CDOT STIP and the DRCOG TIP. For more information regarding the traffic model, refer to Appendix 5 for the CO 119 Boulder to Longmont Traffic Analysis.

Provide the existing and proposed traffic volume impacts to the adjacent road system, including local roads

According to the PEL, the proposed improvements would reduce congestion on CO 119 and adjacent road systems by 74% (RTD 2019). The reduced congestion may increase demand on CO 119, which would lower the demand on parallel facilities. This would result in reduced congestion on lower classification roadways.

The proposed Project improvements include addition of transit queue bypass lanes and TSP system. The transit queue bypass lanes will significantly reduce transit travel times by allowing buses to avoid congestion at intersections. The TSP system will allow transit vehicles to proceed through traffic signals without stopping.

Figure 10 illustrates the 2045 projected travel time savings for general traffic and transit with the addition of transit queue bypass lanes and TSP, compared to the 2045 Baseline condition. Additionally, Figure 11 highlights the differences between the anticipated traffic volumes under the 2045 no-build scenario versus the 2045 Transit Slip Lane Scenario (also known as the Transit Queue Bypass Lanes scenario). Additional information on the traffic analysis and travel times can be found in Appendix 5.

Provide the existing and future Level of Service (LOS) and capacity of the transportation facilities before and after the proposed transportation project is completed.

The corridor traffic volumes and intersection level of service (LOS) were evaluated with VISSIM modeling as part of the CO 119 Boulder to Longmont Traffic Study (Appendix 5). The 2041 traffic volumes were evaluated with VISSIM modeling for both no-build conditions and proposed Project improvements alternatives were analyzed for 2045 traffic volumes. The comparison results of this analysis are summarized in Table 10 below, with projected traffic volumes similar between the no-build and Project improvements (2045 Transit Slip Lanes) alternatives. The results of the evaluation determined that proposed improvements do not include added capacity in the corridor. For more information see Appendix 5 (refer to *Appendices E and Q of the CO 119 Boulder to Longmont Traffic Study*).

As can be seen in the Table 11, the LOS at the intersections generally improves with the proposed Project elements. At the Hover Street, Airport Road, Niwot Road, and CO 52 intersections, the LOS is expected to increase with project improvements. At the 63rd Street and Jay Road intersections, the LOS decreases slightly with project improvements. In some cases, Project improvements at one of the intersections decreases LOS at a further location. A drop in LOS can also be due to the difference in signal timing configuration between the two models. The signal timing in the project improvement models is adjusted to include TSP activations. These activations mainly affect the side street performance, but in turn, improve the transit performance at the corridor.

All transportation access information as required by the CDOT State Highway Access Code, 1998 revisions or the most current edition thereof.

The current scope of work for the proposed project will not trigger any additional requirements by the CDOT State Highway Access Code, 1998 revisions or the most current edition.

Submittal of a benefit/cost analysis of the proposed transportation improvements and identify the distribution of the burden of the cost for the proposed improvements to the project as well as the adjacent state or local road system.

Per November 2nd discussion with Same Walker of the Boulder County Planning Department, this requirement is not intended for this type of application and does not apply. Refer to Appendix 2 for the Summary of Boulder County Communications for more information

TABLE 10. CO 119 BOULDER TO LONGMONT TRAFFIC ANALYSIS STUDY 2045 TRAVEL TIME COMPARISON

CO 119 2045 BASELINE TRAVEL TIMES

DIRECTION OF TRAVEL	TIME INTERVAL	TRAVEL TIME (MIN) 2045 BASELINE	
		GENERAL TRAFFIC	TRANSIT
Northbound	6:00 AM - 7:00 AM	8.0	19.1
	7:00 AM - 8:00 AM	9.1	19.1
	8:00 AM - 9:00 AM	9.3	19.2
	9:00 AM - 10:00 AM	9.0	19.2
	10:00 AM - 11:00 AM	8.6	19.3
	11:00 AM - 12:00 PM	8.8	19.6
	12:00 PM - 1:00 PM	9.2	20.2
	1:00 PM - 2:00 PM	7.5	18.4
	2:00 PM - 3:00 PM	7.7	19.2
	3:00 PM - 4:00 PM	7.9	19.7
	4:00 PM - 5:00 PM	8.2	20.1
	5:00 PM - 6:00 PM	8.2	19.8
	6:00 PM - 7:00 PM	7.9	19.0
	7:00 PM - 8:00 PM	7.6	17.9
Southbound	6:00 AM - 7:00 AM	9.1	15.2
	7:00 AM - 8:00 AM	9.9	16.1
	8:00 AM - 9:00 AM	10.3	16.5
	9:00 AM - 10:00 AM	10.3	17.7
	10:00 AM - 11:00 AM	9.2	13.4
	11:00 AM - 12:00 PM	8.9	14.3

CO 119 TRANSIT SLIP LANES TRAVEL TIMES

DIRECTION OF TRAVEL	TIME INTERVAL	TRAVEL TIME (MIN) 2045 TRANSIT SLIP LANES	
		GENERAL TRAFFIC	TRANSIT
Northbound	6:00 AM - 7:00 AM	7.0	9.8
	7:00 AM - 8:00 AM	8.8	10.1
	8:00 AM - 9:00 AM	9.1	10.2
	9:00 AM - 10:00 AM	9.0	10.1
	10:00 AM - 11:00 AM	9.0	10.0
	11:00 AM - 12:00 PM	8.5	10.0
	12:00 PM - 1:00 PM	8.6	10.0
	1:00 PM - 2:00 PM	7.5	10.0
	2:00 PM - 3:00 PM	7.7	10.2
	3:00 PM - 4:00 PM	7.9	10.4
	4:00 PM - 5:00 PM	8.1	10.7
	5:00 PM - 6:00 PM	8.2	10.7
	6:00 PM - 7:00 PM	7.9	10.4
	7:00 PM - 8:00 PM	7.5	10.1
Southbound	6:00 AM - 7:00 AM	9.0	10.5
	7:00 AM - 8:00 AM	9.5	10.8
	8:00 AM - 9:00 AM	9.7	11.0
	9:00 AM - 10:00 AM	9.7	10.6
	10:00 AM - 11:00 AM	9.1	10.2
	11:00 AM - 12:00 PM	8.8	10.7

CO 119 2045 BASELINE TRAVEL TIMES

	12:00 PM - 1:00 PM	9.0	14.0
	1:00 PM - 2:00 PM	8.5	14.4
	2:00 PM - 3:00 PM	8.8	14.8
	3:00 PM - 4:00 PM	8.5	14.8
	4:00 PM - 5:00 PM	8.3	14.7
	5:00 PM - 6:00 PM	8.3	14.4
	6:00 PM - 7:00 PM	8.2	14.4
	7:00 PM - 8:00 PM	7.9	13.3

CO 119 TRANSIT SLIP LANES TRAVEL TIMES

	12:00 PM - 1:00 PM	8.9	10.6
	1:00 PM - 2:00 PM	8.4	10.8
	2:00 PM - 3:00 PM	8.5	10.9
	3:00 PM - 4:00 PM	8.2	10.7
	4:00 PM - 5:00 PM	8.2	10.6
	5:00 PM - 6:00 PM	8.2	10.5
	6:00 PM - 7:00 PM	8.1	10.7
	7:00 PM - 8:00 PM	7.9	10.4

TABLE 11. CO 119 TRAFFIC ANALYSIS - GENERAL TRAFFIC INTERSECTION TOTALS

Intersection	Balanced Turning Movement Volume (veh.)	Model Volume (veh.)	Error %	Delay (sec.)	Level of Service	Volume-to-Capacity Ratio	Balanced Turning Movement Volume (veh.)	Model Volume (veh.)	Error %	Delay (sec.)	Level of Service	Volume-to-Capacity Ratio
	Weekday AM Peak-Hour (7:00 - 8:00 AM)						Weekday PM Peak-Hour (5:00 - 6:00 PM)					
2045 No Build												
CO 119/Hover St	4,388	4,256	-3%	41.1	D	0.91	5,752	5,212	-9%	92.3	F	1.1
SB CO 119/ Airport Rd	2,908	2,850	-2%	16.0	B	0.78	2,175	2,035	-6%	30.2	C	0.63
NB CO 119/ Airport Rd	1,113	1,012	-9%	4.2	A	0.37	2,891	2,406	-17%	254.1	F	0.73
SB CO 119/ Niwot Rd	3,296	3,092	-6%	38.6	D	0.92	2,190	1,849	-16%	129.1	F	1.02
NB CO 119/ Niwot Rd	1,786	1,554	-13%	94.9	F	0.92	3,650	3,211	-12%	24.9	C	1.02
CO 119/ CO 52 (Mineral Rd)	4,439	4,178	-6%	81.4	F	1.10	5,007	4,713	-6%	191.3	F	1.09
SB CO 119/ 63rd St	4,028	3,762	-7%	24.3	C	0.80	3,308	2,906	-12%	22.9	C	0.83
NB CO 119/ 63rd St	2,991	2,857	-4%	24.6	C	0.8	4,975	4,468	-10%	200.1	F	0.83
SB CO 119/ Jay Rd	4,124	3,831	-7%	35.7	D	1.01	3,011	2,783	-8%	31.1	C	0.99
NB CO 119/ Jay Rd	2,723	2,655	-2%	51.6	D	1.01	5,021	4,970	-1%	64.5	E	0.99
Diagonal Hwy / 47th St	1,612	1,577	-2%	19.2	B	0.45	2,646	4,650	0%	26.7	C	0.74
Diagonal Hwy/ SB Foothills Pkwy Ramps	2,473	2,369	-4%	3.8	A	0.83	3,243	3,171	-2%	3.0	A	0.81
2045 Transit Slip Lanes												
CO 119/Hover St	4,388	4,270	-3%	22.6	C	0.51	5,752	5,604	-3%	32.1	C	0.7
SB CO 119/ Airport Rd	2,908	3,889	34%	10.9	B	0.78	2,175	2,799	29%	26.9	C	0.61
NB CO 119/ Airport Rd	1,113	1,021	-8%	14.5	B	0.47	2,891	2,704	-6%	21.3	C	0.75
SB CO 119/ Niwot Rd	3,296	3,194	-3%	29.9	C	0.92	2,190	1,964	-10%	122.0	F	0.99
NB CO 119/ Niwot Rd	1,785	1,668	-7%	39.8	D	0.92	3,650	3,372	-8%	18.6	B	0.99
SB CO 119/ CO 52 (Mineral Rd)	3,253	3,180	-2%	40.3	D	1.15	1,912	1,854	-3%	29.9	C	1.33
NB CO 119/ CO 52 (Mineral Rd)	1,972	1,899	-4%	47.5	D	1.15	3,632	3,491	-4%	18.7	B	1.33
SB CO 119/ 63rd St	4,028	3,817	-5%	66.6	E	0.78	3,308	2,918	-12%	30.2	C	0.87
NB CO 119/ 63rd St	2,991	2,796	-7%	38.4	D	0.78	4,975	4,493	-10%	133.3	F	0.87
SB CO 119/ Jay Rd	4,124	3,863	-6%	37.1	D	1.01	3,011	2,759	-8%	82.8	F	0.99
NB CO 119/ Jay Rd	2,723	2,602	-4%	68.7	E	1.01	5,021	4,941	-2%	84.4	F	0.99
Diagonal Hwy / 47th St	1,612	1,316	-18%	11.8	B	0.42	2,646	2,652	0%	16.2	B	0.73
Diagonal Hwy/ SB Foothills Pkwy Ramps	2,473	2,358	-5%	5.7	A	0.5	3,243	3,160	-3%	8.0	A	0.68

4. Standards for Approval of a Permit Application (8-511)

4.1 Standards for Approval of all Permit Applications

4.1.1 Obtain Property Rights (8-511. B.1)

With the exception of the Bikeway Project disturbance area on unincorporated Boulder County property southwest of Jay Road, all other construction-related activities, including workspace, equipment and material storage, parking, and staging, will be confined to the existing CO 119 ROW (Appendix 3). Boulder County will coordinate with the local jurisdictions including the Cities of Boulder and Longmont for required permits. The construction contractor will also be responsible for any oversized and overweight permits required for delivery of construction materials and components.

4.1.2 Expertise and Financial Capability (8-511. B.2)

The Project can be broken down into three phases: (1) Planning, (2) Pre-Construction, and (3) Construction. The Project Pre-Construction and Construction phases currently have a total of \$129 million in secured funding from: CDOT, DRCOG, RTD, and Boulder County. As of the Project's 30 percent design submittal, the total Construction cost is estimated at approximately \$160 million. Currently funded Project elements include: BRT stations and park-n-rides; queue bypass lanes; intersection improvements (including reconfiguration of the CO 52 intersection); and portions of the Bikeway Project. The Project is continuing to apply for grant funding for the remaining Project needs, including construction funds for the remaining Bikeway Project elements and the Hover Street intersection improvements.

4.1.3 Agricultural Lands (8-511. B.4)

All Project work will be within CDOT ROW, with the exception of the Bikeway Project that will disturb unincorporated Boulder County property southwest of Jay Road. Based on the BCCP mapped agricultural lands, this Project will not impact agricultural land or activities (Figure 5). For additional discussion on Agricultural Lands refer to *Section 3.2.1.2*.

4.1.4 Significantly degrade or pose significant hazard to any aspect of the environment (8-511. B.5)

Refer to detailed discussion and review of environmental resources under *Section 3.2 Environmental Impact Analysis*.

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6. Appendices

APPENDIX 1

CO 119 Project Plan Set

The contents of this appendix are as follows:

- CO 119 Mobility FIR Plans
- CO 119 Mobility FIR-RTD Plans
- CO 119 Mobility FIR-RTD Park-n-Ride Drainage Report
- CO 119 Mobility FIR-Utility Mapbook
- CO 119 Mobility FIR Drainage Report
- CO 119 Bikeway FIR Plans
- CO 119 Bikeway Drainage Report

APPENDIX 2

Project Communications

The contents of this appendix are as follows:

- Boulder County Communications (i.e., emails, meeting notes, etc.)

APPENDIX 3
CO 119 Corridor and ROW Overview
Mapbook

APPENDIX 4
CO 119 Approved Jurisdictional
Delineation

APPENDIX 5
CO 119 Boulder to Longmont Traffic
Analysis Study
