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Statewide Transportation Plan Appendix I - Summary of Environmental Consultation

August 2020

COLORADO
Department of Transportation

YOUR TRANSPORTATION PLAN
CONNECTION. CHOICE. COLORADO FOR ALL.

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Section 1
Introduction and Approach

In accordance with state [2 Code of Colorado Regulations (CCR) 601-22 4.02.5.1] and federal [23 Code of Federal Regulations (CFR) 450.208] regulations, Colorado Department of Transportation (CDOT) consulted with state and federal resource agencies during the development of the 2045 Statewide Transportation Plan to identify potential environmental impacts and potential mitigation measures.

1.1 Federal Requirements

Environmental protection is among the planning factors that states must address in projects, strategies, and services. The applicable planning factors are to protect and enhance the environment, and to improve the resiliency and reliability of the transportation system. [23 U.S.C. 450.206(5) and (9)]

States also may develop programmatic mitigation plans to address potential environmental impacts of future transportation projects. [23 U.S.C. 450.214]

States shall develop the long-range statewide transportation plans (SWPs) in consultation with state, tribal, and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation. [23 U.S.C. 450.216(j)]

Long-range SWPs shall reference, summarize, or contain any applicable studies, management systems reports, emergency relief and disaster preparedness plans, and any statements of policies, goals, and objectives on such issues as social and environmental effects of transportation that are relevant to the development of long-range SWPs. [23 U.S.C. 450.216(c)]

Long-range SWPs also shall include a discussion of potential environmental mitigation activities and potential areas to carry out these activities, including those that may have the greatest potential to restore and maintain environmental functions affected by the SWPs. The discussion may focus on policies, programs, or strategies, rather than at the project level. [23 U.S.C. 450.216 (k)]

1.2 Environmental Consultation Approach

CDOT's consultation approach focused on the use of an ArcGIS tool, which provides comment capturing capabilities, to display the location of the 10-year pipeline of projects and known environmental resources. The environmental resource agency representatives were asked to focus their comments in the ArcGIS tool on the following project-based questions:

- Are there any fatal flaws that should prevent a project from going forward at all?
- What are the fatal flaws?
- What are specific mitigation strategies you would recommend for projects that do not have fatal flaws?
- What do you believe CDOT should know about the locations of particular projects?

1.2.1 Environmental Resource Agencies

CDOT presented the environmental consultation approach to the Transportation Environmental Resource Council (TERC) in February 2020. The resource agencies that were asked to provide comments are from the TERC and include:

- CDOT Environmental Programs Branch (EPB)
- American Council of Engineering Companies (ACEC)
- Colorado Department of Transportation (CDOT)
- Colorado Department of Local Affairs (DOLA)
- Colorado Department of Natural Resources (CDNR)
- Colorado Department of Public Health and Environment (CDPHE)
- Colorado Energy Office (CEO)
- Denver Regional Council of Governments (DRCOG)
- Federal Emergency Management Agency (FEMA)
- Grand Valley Metropolitan Planning Organization (GVMPO)
- History Colorado
- North Front Range Metropolitan Planning Organization (NFRMPO)
- Pikes Peak Area Council of Governments (PPACOG)
- Pueblo Area Council of Governments (PACOG)
- Regional Air Quality Council
- Regional Transportation District (RTD)
- Southern Ute Indian Tribe
- U.S. Army Corps of Engineers (USACE)
- U.S. Bureau of Land Management (BLM)
- U.S. Department of Housing and Urban Development (HUD)
- U.S. Environmental Protection Agency (EPA)
- U.S. Federal Highway Administration (FHWA)
- U.S. Federal Transit Administration (FTA)
- U.S. Forest Service (USFS)
- U.S. Fish and Wildlife Service (USFWS)
- Ute Mountain Ute Tribe

1.2.2 Environmental Resources

The ArcGIS online comment tool enabled resource agencies to comment on potential environmental impacts and mitigation. The tool included the following environmental resources: wetlands, air quality, water quality, floodways and floodplains, hazardous materials, big game wildlife crossings, historic resources, recreational resources, and alternative fuel corridors.

1.3 Environmental Advocacy Group Consultation

While not required by federal or state statute, CDOT has reached out to environmental advocacy groups as key stakeholders in the development of the 2045 Statewide Transportation Plan. During the public review period (June 1 – July 31, 2020), CDOT will reach out to the environmental advocacy groups and encourage review of the plan and this Environmental Consultation appendix.

1.3.1 Environmental Advocacy Groups

Environmental Advocacy Groups include (but are not limited to):

- Sierra Club Rocky Mountain Chapter
- Southwest Energy Efficiency Project (SWEEP)
- Colorado Public Interest Research Group (COPIRG)
- Environment Colorado
- Conservation Colorado
- The Environmental Coalition
- Colorado Natural Heritage Program (CNHP)
- Community for Sustainable Energy
- Institute for Environmental Solutions
- Western Resource Advocates
- Colorado Environmental Health Association
- Trout Unlimited

Section 2
Mitigation Strategies

The following sections summarize the environmental laws and regulations that govern the various environmental resources, along with typical mitigation strategies. These strategies offer general guidance and are not specific to any particular projects. These strategies were also available for the resource agencies to view and comment on during the comment period.

2.1 Air Quality

2.1.1 Laws & Regulations

EPA transportation conformity 40 CFR 93 Subpart A – This subpart provides structure for DOTs to comply with section 176(c) of the Clean Air Act. Last amended 2012.

EPA project-level conformity guidance and other resources – EPA guidance on hot-spot analysis and project level conformity. Last updated 2018.

EPA National Ambient Air Quality Standards (NAAQS) – NAAQS, as required by the Clean Air Act. The most recent change to the NAAQS was in 2015. In 2018, the EPA evaluated but did not change the NOx NAAQS.

FHWA's Mobile Source Air Toxic Analysis in National Environmental Policy Act – This memo updates guidance on how the FHWA should analyze Mobile Source Air Toxics. Last updated 2016.

Air Quality Control Commission (AQCC) Regulation No. 10, Criteria for Analysis of Transportation Conformity – This regulation establishes a SIP revision and requires any person adopting or approving a regionally significant project to comply with 40 CFR Part 93 subpart A. Last updated 2016.

American Association of State Highway Transportation Officials (AASHTO) Practitioner's Handbook: Addressing Air Quality Issues in the NEPA Process for Highway Transportation Projects. Published 2017.

2.1.2 Mitigation Strategies

Due to past and present air quality issues, infrastructure projects that might exacerbate existing air quality problems must meet certain requirements before they can proceed. In general, projects must be analyzed with respect to their potential impact on air quality at both the regional and local levels.

Neighboring areas could be exposed to construction-related emissions, and particular attention will be given to minimizing total emissions near sensitive areas such as homes.

Other types of mitigation that may be incorporated to improve air quality include transportation control measures (TCMs), which are any measures specifically identified to reduce emissions or concentrations of air pollutants from transportation sources. TCMs are typically targeted at reducing vehicle use or changing traffic flow or congestion conditions. Examples include:

- Traffic signal optimization projects designed to improve traffic flow.
- Transportation demand management options such as High Occupancy Vehicle lanes.
- Multimodal transportation options and programs to encourage their use.
- Agreements with major corporations to promote flexible work schedules.
- Parking facilities serving multiple-occupancy vehicle programs or transit service.
- Any actions intended to reduce the number of vehicles on the roads or improve the level of service (LOS) by spreading the peak traffic volume over a longer time span.

Some of these mitigation approaches may be incorporated into the project alternatives at the time of their design, while others, such as the transportation system management mitigation options, may be added as post-design mitigation or during project operation.

2.2 Water Quality

2.2.1 Laws & Regulations

Clean Water Act (401, 402) – The Clean Water Act (CWA) established the basic structure for regulating discharges of pollutants into navigable waters. It provides the statutory basis for the National Pollutant Discharge Elimination System (NPDES) permit program and the basic structure for regulating the discharge of pollutants into waters of the U.S.

Safe Drinking Water Act (40 CFR Parts 141-143) – The Safe Drinking Water Act (SDWA) protects public health by regulating the nation's public drinking water supply and protecting drinking water and its sources. CDOT is a stakeholder in the Colorado Source Water Assessment and Protection (SWAP) program mandated by the SDWA.

Erosion and Sediment Control on Highway Construction Projects (25 CFR 650 Subpart B) – All highways funded in whole or in part by FHWA must be designed, constructed, and operated according to standards that will minimize erosion and sediment damage to the highway and adjacent properties and abate pollution of surface and groundwater resources.

Colorado Water Quality Control Act (Colorado Revised Statutes [CRS] Title 25, Article 8) – The Colorado Water Quality Control Act protects and maximizes the beneficial uses of state waters and regulates water quality (CDPHE, 2013).

2.2.2 Mitigation Strategies

CDOT has a Phase I Municipal Separate Storm Sewer System (MS4) permit from CDPHE. Local jurisdictions typically have a separate MS4 permit, as well. Jurisdictions that have MS4 permits are required to provide permanent water quality facilities for new development or redevelopment based on their specific MS4 requirements.

During construction, stormwater impacts will be minimized by using the appropriate CDOT standard construction best management practices (BMPs). BMPs eliminate or reduce the identified impacts during construction, as well as during operations and maintenance. When

BMPs are installed and maintained correctly, they are effective at mitigating water quality effects resulting from highway runoff.

Potential BMPs could include:

- Silt fence;
- Inlet protection;
- Stabilized construction entrances;
- Slope stabilization;
- Concrete washouts;
- Erosion logs;
- Inlet filters;
- Sediment basins (at permanent water quality pond locations); and
- Vehicle tracking pads.

Specific temporary and permanent stormwater management strategies will be identified during preliminary/final design as part of a drainage/hydraulics assessment and development of a storm water management plan (SWMP). Construction-related mitigation measures will be outlined in the SWMP and will include a detailed set of erosion control plans as part of the roadway design set.

2.3 Floodplains and Floodways

2.3.1 Laws & Regulations

Executive Order (EO) 11988 Floodplains Management- All federal-aid projects must make diligent efforts to:

- Avoid support of incompatible floodplain development;
- Minimize the impact of highway actions that adversely affect the base floodplain;
- Restore and preserve the natural and beneficial floodplain services;
- Be consistent with the standards/criteria of the National Flood Insurance Program (NFIP).

Floodplain Development Permit (FDP) – Work proposed in a floodplain/floodway requires a permit that must be supported by a floodplain analysis and significantly complete design. This could take several months to develop depending on the design schedule.

Conditional Letter of Map Revision (CLOMR) – Impacts to a floodplain/floodway over a certain threshold may require a CLOMR from FEMA before an FDP will be issued. A CLOMR requires the same floodplain analysis required for an FDP; however, additional documentation is required for the existing floodplain conditions and to demonstrate that the impacts to the floodplain cannot feasibly be mitigated. A CLOMR takes several months to develop before it can be submitted to FEMA for review. FEMA review can take up to 90 days before comments must be issued. These map revisions are subject to multiple comment and review rounds and usually take at least six months to be issued.

In addition to federal and state laws and regulations, local jurisdictions may have ordinances and regulations that must be followed.

2.3.2 Mitigation Strategies

Floodplain modeling would be required to assess significant changes. Some relatively small changes may be incorporated in the floodplain without triggering the CLOMR/LOMR process. Floodplain modeling would be required to assess significant changes.

Engineering design will take into account the floodplain and floodway issues. The location of bridges and bridge piers within the floodplain and floodway will be considered in the engineering design. Piers located within the floodway will require a specialized hydrologic assessment and approval by FEMA and Colorado Water Conservation Board. Design solutions should minimize impacts to the floodplain and be developed cooperatively with USACE, FEMA, and the affected communities.

2.4 Wetlands and Other Waters of the U.S.

2.4.1 Laws & Regulations

Section 404 - The USACE issues a CWA Section 404 permit, which could take up to a year or more to process, depending on the permit type. A Section 404 permit is necessary only if a discharge into waters of the U.S. will occur from the proposed action. Wetland impacts can be compensated by purchasing wetland credits or creating a wetland within the project study area or nearby, depending on agreements made with the USACE.

Executive Order (EO) 11990 Protection of Wetlands – Occurs when federal funding is used or where resources are located within highway right of way (ROW). This EO requires federal agencies to compensate for impacts to all wetlands regardless of their jurisdictional status.

Wetland Finding Report – This report is required when the estimated permanent impacts to wetlands exceed 500 square feet. CDOT requires this report, which can take up to several months, depending on the design and need for a Functional Assessment of Colorado Wetlands (FACWet) analysis.

FACWet Analysis – This analysis entails evaluating and documenting how well or poorly a wetland is functioning as part of its setting. This analysis is required when permanent impacts to wetlands exceed 0.10 acre in size. This analysis is conducted early in the process before estimating wetland impacts. It requires additional field work and documentation and is included in the Wetland Finding Report.

2.4.2 Mitigation Strategies

FHWA and CDOT policy requires compensatory mitigation for permanent impacts on both jurisdictional and non-jurisdictional wetlands. Wetland mitigation is typically done on a one-to-one basis; however, a CWA Section 404 permit, which the USACE will issue, may require higher ratios if unique or high-quality wetlands are affected.

When wetland impacts are expected, adequate time must be built into the design schedule to allow a wetland delineation, consequent permitting, and on-site wetland mitigation design if a wetland bank is not available. Any permanent and temporary impacts will be mitigated through proper measures following the results from the Wetland Finding Report.

2.5 Fish and Wildlife/Threatened & Endangered (T&E) Species

2.5.1 Laws & Regulations

Senate Bill 40 (SB 40) Wildlife Certification - Occurs when a state agency plans project construction activities that impact riparian resources. It is based on an agreement between Colorado Parks and Wildlife (CPW) and CDOT.

Migratory Bird Treaty Act (MBTA) – Provides regulatory protection of native migratory birds, eggs, and young and requires coordination with the U.S. Department of Interior Fish and Wildlife Service (USFWS) and CPW.

Bald and Golden Eagle Protection Act (BGEPA) – Provides regulatory protection of Bald and Golden Eagles, their nests, eggs, and young and requires coordination with USFWS and CPW.

Colorado's Nongame, Endangered, or Threatened Species Conservation Act – Lists state-specific species that CPW has a priority to manage and includes state threatened, state endangered, and species of special concern.

Programmatic Biological Opinions, such as the Shortgrass Prairie Initiative.

2.5.2 Mitigation Strategies

A biological survey of T&E species, including aquatic species, will be required. Coordination with the USFWS and CPW is necessary to mitigate potential impacts on special status species habitat. SB 40 wildlife certification will be required for the crossing of riparian corridors in the project. CPW will determine if formal or programmatic certification would be required depending on SB 40 guidelines. If proposed construction is planned to occur during the primary nesting season for migratory birds in eastern Colorado (typically April 1 – August 31, with some species nesting outside this period), a qualified biologist will resurvey the project area to verify if any active nests are present. If no active nests are present, trees can be removed. However, if active migratory bird nests are identified and cannot be avoided by proposed construction activities, the USFWS field office will be contacted to help determine the appropriate mitigation action. Mitigation may include removing nests before egg laying begins or ceasing construction until all nestlings have fledged.

When wildlife impacts are expected, build adequate time into the design schedule to consider temporary and permanent impacts and allow time for a biological resources report, SB 40 reporting, consultation, and consequent permitting. Development of wildlife crossings or fencing may be considered with future projects.

2.6 Historic Resources

2.6.1 Laws & Regulations

Section 106 of the National Historic Preservation Act of 1966 (NHPA) – Requires federal agencies to consider the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment.

Section 4(f) of the Department of Transportation Act of 1966 (DOT Act) – Includes a special provision stipulating that FHWA and CDOT cannot approve the use of land from public or private

historical sites unless there is no feasible or prudent avoidance alternative to the use or the agency determines that the use will have a de minimis (minimal) impact.

In addition to federal and state laws and regulations, local jurisdictions may have ordinances and regulations that must be followed.

2006 Final List of Nationally and Exceptionally Significant Features of the Federal Interstate Highway System should be reviewed when projects involve interstate highways.

2013 Programmatic Agreement implemented among FHWA, the State Historical Preservation Office (SHPO) and CDOT regarding Brick-Lined Sewers in the City and County of Denver should be reviewed for applicability to projects located within the City and County of Denver.

2014 Section 106 Programmatic Agreement implemented among FHWA, Advisory Council on Historic Preservation, CDOT, & SHPO should be reviewed for applicability to Section 106 exemptions, program comments, and screened undertakings.

2.6.2 Mitigation Strategies

The transportation improvements have the potential to affect currently unidentified and unevaluated cultural resources in areas that have not been surveyed; however, additional intensive-level inventory will be required to adequately assess these potential impacts. An intensive survey of cultural resources will be conducted, including preparation of a Cultural Resources Inventory Report, to facilitate official evaluations of National Register of Historic Places (NRHP)-eligibility and assess specific project impacts as required for NHPA Section 106 review.

Design solutions should seek ways to avoid or minimize impacts to historic resources in any way possible. For alternatives with significant impacts, provide a discussion of practicable alternatives or mitigation. Sites identified here as potential historic resources should be evaluated for NRHP eligibility to determine historic status

2.7 Environmental Justice

2.7.1 Laws & Regulations

Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations – CDOT is required to identify and address disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations.

Title VI of the Civil Rights Act prohibits recipients of federal financial assistance from discriminating based on race, color, or national origin in their programs or activities.

2.7.2 Mitigation Strategies

It is important to identify low-income and minority populations early so that these populations can become involved and have a meaningful opportunity to participate during every phase of a project. Specialized outreach may be necessary based on the extent of anticipated impacts and stakeholder concerns. In addition, the project team will need to determine whether language assistance measures are needed to ensure meaningful access to the process. Consideration of

businesses and community facilities important to low-income, minority, and limited English proficiency populations also is critical.

2.8 Utilities and Railroad Facilities

2.8.1 Laws & Regulations

23 CFR Chapter 1 – Part 645 – Defines how and when the federal government will pay for relocations on federally funded projects. Last revised in 2000.

2 CCR 601-18 – Describes how public and private utilities are to be accommodated on state highways. Last revised in 2019.

Colorado Oil and Gas Commission (COGCC) Rule 603 – Requires new wells to be at least 200 feet from public roads and 150 feet from property lines. Existing wells are exempted. The rule is current as of February 2019.

Transportation Act, CRS 43-1-225 – The revision granted additional powers to the COGCC to make regulations about utility facilities, defined appropriate situations to relocate utility facilities, and clarified cost of relocating utility facilities. Last revised in 2013.

Eminent Domain Act, CRS 38-5-101 – Gives any utility company currently doing business in the state the ability to construct, maintain, and operate utilities along any public highway. Last revised in 2013.

State Highway Utility Accommodation Code; CFR Title 23 Section 645, 646 and 635-309b – Prescribes the policies, procedures, and reimbursement provisions for the adjustment and relocation of utility facilities.

2.8.2 Mitigation Strategies

During the design phase, all utilities (not just major utilities) must be identified and evaluated for impacts from proposed improvements. Relocation time requirements and cost responsibility must be determined, and the project must obtain utility clearance from CDOT.

When project-funded relocations are necessary, adequate budget must be made available. Adequate time and construction phasing must be built into the schedule to allow utility relocations to avoid construction delays.

Overall, it is in the best interest of CDOT to avoid impacts to utility and railroad facilities. This is due to the cost for relocations (as applicable) and the time and effort needed for coordination with the entities. As noted above, early involvement of the Region Utility Engineer, Resident Engineer, and Railroad Program Management in the alternatives development process is key to identifying locations of utilities and railways, possible effects to these locations, and possible avoidance alternatives. It also contributes to the development of effective agreement documents if avoidance is not possible.

2.9 Park, Trail, and Open Space Resources, and Wildlife and Waterfowl Refuges

2.9.1 Laws & Regulations

Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 U.S.C. §303 and 23 U.S.C. §138) – Provides consideration of park and recreation lands, wildlife and waterfowl refuges, and historic sites during transportation project development. The law applies only to the U.S. Department of Transportation (U.S. DOT) and is implemented by FHWA and the Federal Transit Administration through the regulation 23 Code of Federal Regulations (CFR) 774.

Section 6(f) of the Land and Water Conservation Act – Requires that the conversion of lands or facilities acquired with Land and Water Conservation Act funds be coordinated with the Department of Interior. Section 6(f) resources are identified when state and local governments obtain grants through the Land and Water Conservation Fund (LWCF) to develop or make improvements to parks and outdoor recreation areas.

Recreational resources developed with federal funding through the WCF are protected under Section 6(f) of the Land and Water Conservation Act, which prohibits conversion of these properties to anything other than public outdoor recreation uses.

2.9.2 Mitigation Strategies

Separate evaluations of publicly-owned parks, trails, and open space lands will be conducted to determine if there are any properties that qualify for protection under Section 4(f) and/or are Section 6(f) assisted properties.

When Section 4(f) and Section 6(f) evaluations are necessary, adequate time must be built into the design schedule to avoid construction delays. Design modifications and/or mitigation considerations may be necessary in the Section 4(f) process. If a Section 6(f) conversion of land is necessary, CDOT must replace the land. The local agency, CPW, and National Park Service must approve the replacement land. Typically, replacement occurs at a one-to-one ratio.

2.10 Traffic Noise

2.10.1 Laws & Regulations

CDOT Noise Analysis and Abatement Guidelines provide the Colorado procedural and technical requirements for analyzing highway project traffic noise and evaluating noise mitigation alternatives where noise impacts are identified. The goal of these guidelines is to develop highway projects in a compatible relationship with noise-sensitive land uses.

Construction noise would be subject to relevant state or local regulations and ordinances.

2.10.2 Mitigation Strategies

The CDOT Noise Analysis and Abatement Guidelines specify that a noise analysis study is required for all Type I projects if noise sensitive receptors are present within the Noise Study Zone. A Type I project consists of a proposed Federal or Federal-aid or CDOT-administered highway project for construction of a highway on a new location or the physical alteration of an existing highway that meets Type 1 criteria, such as significantly changing either the horizontal or vertical alignment or increasing the number of through lanes.

If noise abatement meets all other feasibility and reasonableness criteria, the final criteria, the Benefited Receptor Preferences Survey can be solicited during final design. If a simple majority of benefitting receptors favors abatement, then the project becomes committed to constructing and funding the abatement measure(s). Noise walls may cost approximately $2 million per mile. Abatement is more likely to be feasible and reasonable in areas with a higher density of impacted receptors.

2.11 Hazardous Materials

2.11.1 Laws & Regulations

Resource Conservation Recovery Act (RCRA) (40 CFR Parts 260-299) – The primary law governing the management and disposal of solid and hazardous waste. Subtitle C regulates hazardous waste and Subtitle I regulates underground storage tanks containing hazardous materials and petroleum products.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 USC Part 103, Sec. 9601 et seq.) – Established prohibitions and requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous substances at these sites; and established a trust fund to provide cleanup when no responsible party could be identified.

U.S. EPA Standards and Practices for All Appropriate Inquiry (AAI)/ASTM (40 CFR Part 312) – Establishes federal standards and practices for conducting all appropriate inquiries related to the previous ownership and uses of a property to qualify for landowner liability protections under CERCLA.

Underground Storage Tank (UST) Remediation Colorado Department of Labor and employment-Division of Oil and Public Safety (OPS) (7CCR 1101-14) – Complies with laws and regulations surrounding damage to the environment and risk to the public from leaking underground tanks, identifies responsibilities of the owner/operators of underground tanks, and provides technical guidance to release response.

Colorado Hazardous Waste Regulations (6 CCR 1007-3, Part 260) – Outlines the standards for generators, transporters, owners, and operators of hazardous waste, including the financial responsibilities, disposal, and permitting.

Radiation Control, Colorado Department of Health and Environment, Hazardous Materials and Waste Management Division (6 CCR 1007-1) – Provides guidance on radiation management.

2.11.2 Mitigation Strategies

Contamination from hazardous materials is most likely to be encountered during ground-disturbing activities in areas near properties with potential or recognized environmental conditions (hazardous materials). During the design process, the information concerning these properties can identify avoidance options, if possible, and assist with development of materials management and worker health and safety plans. An asbestos-containing materials survey is required for all structures to be demolished as part of this project and must be completed as part of the CDPHE demolition permit. Additionally, a lead-based paint survey and regulated materials clearance survey are recommended for all structures that will be demolished as part of a project.

If a Phase II Environmental Site Assessment (ESA) and/or remediation activities are required based on Modified Environmental Site Assessment, Initial Site Assessment, or Phase I ESA findings, there may be substantial delays for property acquisition or construction in the vicinity. Also, a Phase II ESA and remedial activities could require additional funding. These activities are associated with the acquisition of property.

Regarding construction phase implications, hazardous materials concerns within the construction area will require the use of CDOT Standard Specification 250: Environmental, Health and Safety Management. A Materials Management Plan should also be used if construction activities are anticipated to encounter hazardous materials.

2.12 Risk and Resiliency

2.12.1 Laws & Regulations

Each state and metropolitan planning organization (MPO) must carry out a statewide transportation planning process that provides for consideration and implementation of projects, strategies, and services that will do 10 things, including "improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation." [23 U.S.C. 135(d)(1)(I)]. Also, MPOs must coordinate with officials responsible for natural disaster risk reduction in coordinating transportation plans and transportation improvement plans. [23 U.S.C. 134 (g)(3)(A)]

2.12.2 Mitigation Strategies

To make the state transportation system more resilient, CDOT can mitigate for the following hazards:

- **Rockfalls**: Install nets along high-risk rock sheds on mountain roadways.
- **Winter Storms**: Optimize snowplow routes and positioning of anti-icing materials for faster response.
- **High Winds and Avalanches**: Install wind fences and conduct preemptive avalanche blasting.
- **Flooding**: Install larger culverts and cross-culverts to increase flow capacity. Build to a higher design standard in areas prone to historic flooding, and build green infrastructure, such as vegetative swales, in areas prone to flooding.
- **Wildlife/Vehicle Crashes**: Install wildlife under- and over-passes, fencing, and warning lights.

Prevention strategies can be physical or operational.

- Physical
  - Build bridges in high-risk flood zones to withstand higher than average flood events; use redundant methods to avoid bridge failure; and purchase temporary bridges for use in emergency washouts
  - Prepare alternate routes for highways at high risk of closure; build backup traffic operations centers
  - Install wind fences in areas prone to gusty winter storms
  - Enlarge or repair culverts in areas at high risk for debris flow or flooding

- Install sensors to predict or prevent surprise rockfall events
- Build express lanes on highly congested freeways

- Operational
  - Pre-position debris-clearing equipment near areas where wildfire has removed vegetation that controls erosion
  - Include asset risk in the scoring process when prioritizing investment decisions
  - Prepare incident management plans for corridors at high risk of natural disasters
  - Increase frequency of culvert cleaning in high-risk flood zones
  - Provide transit routes on highly congested freeways
  - Stockpile emergency repair/storm treatment materials to handle unplanned events
  - Use real-time stream gauges as a warning system in areas at high-risk of flooding
  - Erect variable message signs in vulnerable areas to redirect road users
  - Have agreements in place to borrow needed materials in emergency situations
  - Document structure and roles for emergency response – who is in charge, what skills each should have, etc.
  - Put in place on-call contracts ahead of emergencies to mobilize needed contractor assistance
  - Establish and monitor performance measures for emergency response times

Section 3

Environmental Consultation Findings

As a result of this consultation process, CDOT received over 60 comments from various state and federal regulatory and resource agencies, including:

- U.S. Bureau of Land Management (BLM), Uncompahgre Field Office
- U.S. Bureau of Land Management (BLM), Grand Junction Field Office
- U.S. Bureau of Land Management (BLM), White River Field Office
- Dillon Ranger District, White River National Forest
- Colorado Parks and Wildlife (CPW)
- U.S. Army Corps of Engineers (USACE)
- History Colorado

In broad terms CDOT received the following comments:

- Consideration of big game wildlife crossings that reduce wildlife/motorist conflicts
- Ensuring CDOT follows erosion and sediment capture BMPs
- Avoiding vertical drops or steep channel slopes adjacent to waterways to maintain passage for fish

Mitigation strategies that could address the concerns:

- Install wildlife under- and over-passes, fencing, and warning lights
- Provide permanent water quality facilities for new development or redevelopment
- Compensatory mitigation for permanent impacts on wetlands

The specific comments from the environmental resource agencies are provided on the following pages. The comments are organized by CDOT Region, Transportation Planning Region (TPR)/Metropolitan Planning Organization (MPO), then by Project. Comments that were not associated with a specific project in the 10-Year Project Pipeline are listed based on geographic location(s) of the comment in the ArcGIS tool. Table 1 includes general comments that apply to all regions and projects.

Table 1. Environmental Consultation Comments - General

TPR/MPO	Comment	Agency
ALL	We would like to review all bridge replacements, impacts to streams, and wetlands for permitting needs.	US Army Corps of Engineers
ALL	All project sites should be reviewed and mapped or inventoried for jurisdictional waters of the United States (WOTUS), to be confirmed by the US Army Corps of Engineers. Any mapped WOTUS should be avoided to the maximum extent possible in designing projects. Unavoidable impacts to WOTUS may require authorization or verification via a Department of the Army permit, and may require compensatory mitigation which should be performed in advance or at least concurrent with any proposed aquatic impacts. The US Army Corps of Engineers should be involved early to assist CDOT in any necessary permit related actions.	US Army Corps of Engineers
ALL	Despite the need for intensive-level survey of project areas, I think we can come up with mitigation strategies for historic resources that also encompass social justice issues. It would be useful to connect with communities early on issues of heritage and see where the intersections are with health, well-being, culture, and economic prosperity. In fact, discussing PAs for larger projects and identifying areas where we can forego intensive survey and jump right in to mitigation strategies could be used, especially in Denver Metro area. For the bridge replacement projects SHPO would really like to see Lisa Shoch's bridge evaluation tool utilized and ways to preserve bridges really interrogated.	History Colorado

Table 2. Environmental Consultation Comments - Region 1

TPR/MPO	Project ID	Project Name	Project Description	Comment	Agency
DRCOG	1	I-25 South Gap Package 3	This project will continue work on the I-25 South Gap, which includes an Express Lane both north and southbound, pavement improvement, bridge reconstruction, and communication modernization. The funding also covers the removal of newly discovered unsuitable excavated materials to allow for roadway construction.	Continue to work with CPW regarding potential impacts and mitigation to Northern Leopard Frogs along E. Plum Creek	CPW
DRCOG	1	I-25 South Gap Package 3	This project will continue work on the I-25 South Gap, which includes an Express Lane both north and southbound, pavement improvement, bridge reconstruction, and communication modernization. The funding also covers the removal of newly discovered unsuitable excavated materials to allow for roadway construction.	Two items: 1) CPW & CDOT should monitor this location for a possible increase in wildlife-vehicle collision rates due to the end of the wildlife fencing, and implement any measures necessary to maintain the new motorist safety & drive time reliability. 2) That CPW & CDOT examine how wildlife are responding to the rest of the I-25 South Gap project and implement any correction measures and/or fund any new tasks as identified in the Final PEL document. These new tasks would complement CPW's SO3362 priority and fulfill EO D 2019-11.	CO Parks & Wildlife
DRCOG	5	I-70 Peak Period Shoulder Lanes (PPSL) – Year Two 267 Commitment	This project would build a peak period shoulder lane (PPSL) along with segment of I-70	Has a wildlife underpass been considered in the Downieville area with the WBPPSL project (either current or future phase)? I ask since a wolf and wolverine have been hit and killed in this location.	CO Parks & Wildlife

TPR/MPO	Project ID	Project Name	Project Description	Comment	Agency
DRCOG	2577	I-70 Westbound at Floyd Hill	This project widens westbound I-70 from two lanes to three at Floyd Hill. I-70 will be reconfigured with simplified curves, bridges, and walls to improve line of sight and driver safety. The project proposes completing a key link of the shared-use trail from the Clear Creek Greenway toward the Peaks to Plains Trail.	While I know CPW is working with CDOT on a Floyd Hill EA now, I ask that any Phase 2 or future wildlife mitigation measures that aren't implemented in Phase 1 be prioritized to ensure a safe passage for motorists and big game species. A big game overpass and/or large underpass would be very beneficial in this location, which is a big wildlife-vehicle collision hotspot with elk, bears, and mountain lions. Esp. good connecting the open spaces north and south of I-70.	CO Parks & Wildlife
DRCOG	2581	US 285 Corridor Improvements near Pine Junction	The project includes widening US 285 to four lanes and building a depressed median, as well as acceleration and deceleration lanes at interchanges between Richmond Hill and Shaffers Crossing and an interchange at Kings Valley.	Ensure erosion and sediment capture BMPs are followed. All uncured/curing/waste concrete used should avoid contact with the creek. A lined concrete washout area should be placed upland of the river and should not be allowed to drain/seep/flow into the creek.	Colorado Parks and Wildlife
DRCOG	2582	I-70 Climbing Lane from Bakerville to the Eisenhower Tunnel	Westbound climbing lane on I-70 approaching the Eisenhower Tunnel.	Maintain culvert as barrier to fish migration to protect Federally Threatened greenback cutthroat trout population from invasion by non-native trout.	CPW
DRCOG	2609	US 285 South of Bailey to Park/ Jefferson County Line	Rural road surface treatment	Ensure erosion and sediment capture BMPs are followed. All uncured/curing/waste concrete used should avoid contact with the creek. A lined concrete washout area should be placed upland of the creek and should not be allowed to drain/seep/flow into the creek.	Colorado Parks and Wildlife

TPR/MPO	Project ID	Project Name	Project Description	Comment	Agency
DRCOG	None			[US 40] This area needs to be safer for bighorn sheep and motorists, as there are too many bighorn-vehicle collisions in this area. Is an overpass for bighorns to get past US 40 the answer? Bighorns' range extend north of Clear Creek from the Eisenhower Tunnels to Golden, so in this location, they need a safe path to travel east-west from Douglas Mtn to north of US 40.	CO Parks & Wildlife
DRCOG	None			[SH 93] Install big game exclusion fences west of Hwy 93 north of Golden to SH 72.	CO Parks & Wildlife
DRCOG	None			[SH 93] Also, any wildlife BMPs or mitigation measures (such as underpasses) that are not constructed as part of WestConnect's Phase 1, CPW strongly encourages them to be prioritized and construction ASAP. This construction would complement our SO3362 priorities and be consistent with state order D 2019-011.	CPW
DRCOG	None			[US 6] Pending the results of CPW's nearby elk study, a meeting with CDOT should be setup to discuss next steps for elk in this location to protect drivers and elk herds.	CO Parks & Wildlife
DRCOG	None			[US 85] As traffic continues to increase on this section of US 85 and as more areas develop near Sterling Ranch and other areas in SW Denver Metro (less habitat for big game), CPW and CDOT should discuss this stretch for where more underpasses and wildlife exclusion fencing should be installed when highway improvements are proposed here. These underpasses + fencing should decrease the rate of wildlife-vehicle collisions, improve motorist safety & travel reliability, and be consistent with one of CPW's SO3362 priorities and EO D 2019-011.	CO Parks & Wildlife

Table 3. Environmental Consultation Comments - Region 2

TPR/MPO	Project ID	Project Name	Project Description	Comment	Agency
Central Front Range	8	US 285/CO 9 Intersection Improvement with Bridge Widening	Upgrades to the intersection with dual left turn lanes, protected pedestrian crossings, and new sidewalks. This project also includes a bridge widening and replacement along US 285.	Ensure erosion and sediment capture BMPs are followed. All uncured/curing/waste concrete used should avoid contact with the river. A lined concrete washout area should be placed upland of the river and should not be allowed to drain/seep/flow into the river.	Colorado Parks and Wildlife
Central Front Range	180	Fairplay Park-n-Ride (Design)	Fairplay Mobility Hub	Ensure erosion and sediment capture BMPs are followed. All uncured/curing/waste concrete used should avoid contact with the river. A lined concrete washout area should be placed upland of the river and should not be allowed to drain/seep/flow into the river.	Colorado Parks and Wildlife
Central Front Range	1642*	US 24 Shoulder Widening	This project will widen shoulders along US 24 at select locations.	Ensure erosion and sediment capture BMPs are followed. All uncured/curing/waste concrete used should avoid contact with the river. A lined concrete washout area should be placed upland of the river and should not be allowed to drain/seep/flow into the river. Colorado Parks and Wildlife should be contacted if access to the river for anglers will be temporarily restricted during construction. Ensure erosion and sediment capture BMPs are followed. A lined concrete washout area should be placed upland of the wetland areas and should not be allowed to drain/seep/flow into wetland areas.	Colorado Parks and Wildlife

TPR/MPO	Project ID	Project Name	Project Description	Comment	Agency
	1642 (Cont)*	US 24 Shoulder Widening (Cont)	This project will widen shoulders along US 24 at select locations.	Ensure erosion and sediment capture BMPs are followed. In the event concrete is needed for this section, all uncured/curing/waste concrete used should avoid contact with wetland areas. In the event concrete is needed and a concrete washout is needed in this section, a lined concrete washout area should be placed upland of the wetland areas and should not be allowed to drain/seep/flow into the wetland areas. A rare fish species, the Northern Plains Killifish, has been found in these wetlands. Extra care should be taken to avoid spills or the defeat of erosion control BMPs. Ensure erosion and sediment capture BMPs are followed. This section includes Gold Medal waters, a section of river that has high quality trout fishing. Extra care should be taken to avoid spills and the defeat of erosion control BMPs in this section. All uncured/curing/waste concrete used should avoid contact with waterways. A lined concrete washout area should be placed upland of the waterways and should not be allowed to drain/seep/flow into the waterways. This section includes a creek that flows seasonally. Even when the creek is dry, work should take care to avoid impacting the creek bed. Heavy equipment should avoid contact with the creek bed.	Colorado Parks and Wildlife

TPR/MPO	Project ID	Project Name	Project Description	Comment	Agency
	1642 (Cont)*	US 24 Shoulder Widening (Cont)	This project will widen shoulders along US 24 at select locations.	Ensure erosion and sediment capture BMPs are followed. In the event concrete is needed for this section, all uncured/curing/waste concrete used should avoid contact with the creek bed. In the event concrete is needed and a concrete washout is needed in this section, a lined concrete washout area should be placed upland of the creek bed and should not be allowed to drain/seep/flow into the creek bed. Ensure erosion and sediment capture BMPs are followed. All uncured/ curing/waste concrete used should avoid contact with the river or wetlands. A lined concrete washout area should be placed upland of the river and should not be allowed to drain/seep/flow into the river or wetlands. Colorado Parks and Wildlife, and the United States Forest Service South Park Ranger District (719-836-2031) should be contacted if access to Elevenmile Canyon will be restricted during construction. Ensure erosion and sediment capture BMPs are followed. All uncured/curing/waste concrete used should avoid contact with the creek. A lined concrete washout area should be placed upland of the creek and should not be allowed to drain/seep/flow into the creek.	Colorado Parks and Wildlife

TPR/MPO	Project ID	Project Name	Project Description	Comment	Agency
Central Front Range	2609*	US 285 South of Bailey to Park/ Jefferson County Line	Rural road surface treatment	Ensure erosion and sediment capture BMPs are followed. All uncured/curing/waste concrete used should avoid contact with the creek. A lined concrete washout area should be placed upland of the creek and should not be allowed to drain/seep/flow into the creek. Ensure erosion and sediment capture BMPs are followed. All uncured/curing/waste concrete used should avoid contact with the river. A lined concrete washout area should be placed upland of the river and should not be allowed to drain/seep/flow into the river. Sediment/erosional/concrete washout captures should be placed with extra care to ensure sediment and waste materials do not flow down Crow Hill and into the North Fork of the South Platte River. Ensure erosion and sediment capture BMPs are followed. All uncured/curing/waste concrete used should avoid contact with the creek. A lined concrete washout area should be placed upland of the creek and should not be allowed to drain/seep/flow into the creek.	Colorado Parks and Wildlife

TPR/MPO	Project ID	Project Name	Project Description	Comment	Agency
Central Front Range	2610*	US 24 between Trout Creek Pass and Hartsel	Rural road surface treatment	Ensure erosion and sediment capture BMPs are followed. All uncured/curing/waste concrete used should avoid contact with the river. A lined concrete washout area should be placed upland of the river and should not be allowed to drain/seep/flow into the river. Colorado Parks and Wildlife should be contacted if access to the river for anglers will be temporarily restricted during construction. Ensure erosion and sediment capture BMPs are followed. A lined concrete washout area should be placed upland of the wetland areas and should not be allowed to drain/seep/flow into wetland areas. Ensure erosion and sediment capture BMPs are followed. In the event concrete is needed for this section, all uncured/curing/waste concrete used should avoid contact with wetland areas. In the event concrete is needed and a concrete washout is needed in this section, a lined concrete washout area should be placed upland of the wetland areas and should not be allowed to drain/seep/flow into the wetland areas. A rare fish species, the Northern Plains Killifish, has been found in these wetlands. Extra care should be taken to avoid spills or the defeat of erosion control BMPs.	Colorado Parks and Wildlife

TPR/MPO	Project ID	Project Name	Project Description	Comment	Agency
Central Front Range	2610 (Cont)*	US 24 between Trout Creek Pass and Hartsel (Cont)	Rural road surface treatment	This section includes a creek that flows seasonally. Even when the creek is dry, work should take care to avoid impacting the creek bed. Heavy equipment should avoid contact with the creek bed. Ensure erosion and sediment capture BMPs are followed. In the event concrete is needed for this section, all uncured/curing/waste concrete used should avoid contact with the creek bed. In the event concrete is needed and a concrete washout is needed in this section, a lined concrete washout area should be placed upland of the creek bed and should not be allowed to drain/seep/flow into the creek bed.	Colorado Parks and Wildlife
Central Front Range	2611	US 24 Hartsel to east of Wilkerson Pass	Rural road surface treatment	Ensure erosion and sediment capture BMPs are followed. This section includes Gold Medal waters, a section of river that has high quality trout fishing. Extra care should be taken to avoid spills and the defeat of erosion control BMPs in this section. All uncured/curing/waste concrete used should avoid contact with waterways. A lined concrete washout area should be placed upland of the waterways and should not be allowed to drain/seep/flow into the waterways.	Colorado Parks and Wildlife

TPR/MPO	Project ID	Project Name	Project Description	Comment	Agency
Central Front Range	2613*	US 24 between Lake George and Divide	Rural road surface treatment	Ensure erosion and sediment capture BMPs are followed. All uncured/curing/waste concrete used should avoid contact with the river or wetlands. A lined concrete washout area should be placed upland of the river and should not be allowed to drain/seep/flow into the river or wetlands. Colorado Parks and Wildlife, and the United States Forest Service South Park Ranger District (719-836-2031) should be contacted if access to Elevenmile Canyon will be restricted during construction. Ensure erosion and sediment capture BMPs are followed. All uncured/curing/waste concrete used should avoid contact with the creek. A lined concrete washout area should be placed upland of the creek and should not be allowed to drain/seep/flow into the creek.	Colorado Parks and Wildlife
Central Front Range	None			[US 285] Two comments: 1) To help reduce elk-vehicle collisions, some large underpasses and/or an overpass should be created in this section, esp. to help elk get to/from their lower elevation winter ranges. 2) Improvements in this location would support our priorities for Secretarial Order 3362 (https://www.doi.gov/sites/doi.gov/files/uploads/so_3362_migration.pdf) and state priorities for D-2019-011 (https://drive.google.com/file/d/1HokP2Vsh749PpJtazPgldLgEjbYjypro/view). **Note, both of these guidance should listed in the mitigation weblink attached to this tool.	CO Parks & Wildlife

TPR/MPO	Project ID	Project Name	Project Description	Comment	Agency
Central Front Range	None			[US 285] To help reduce elk-vehicle collisions in this stretch of highway, CPW highly recommends that CDOT create some large underpasses to connect the national forest (west of US Hwy 285) to the 63 Ranch State Wildlife Area (east of US Hwy 285). This improvement would also complement our priorities listed in SO3362 and state order D-2019-011.	CO Parks & Wildlife
Central Front Range	None			[US 285] Install wildlife exclusion fences on the north side of US Hwy 285 near Grant to reduce the hotspot for bighorn sheep - vehicle collisions.	CO Parks & Wildlife
PPACG	1	I-25 South Gap Package 3	This project will continue work on the I-25 South Gap, which includes an Express Lane both north and southbound, pavement improvement, bridge reconstruction, and communication modernization. The funding also covers the removal of newly discovered unsuitable excavated materials to allow for roadway construction.	Continue to work with CPW regarding potential impacts and mitigation to Northern Leopard Frogs along E. Plum Creek	CPW
PPACG	1	I-25 South Gap Package 3	This project will continue work on the I-25 South Gap, which includes an Express Lane both north and southbound, pavement improvement, bridge reconstruction, and communication modernization. The funding also covers the removal of newly discovered unsuitable excavated materials to allow for roadway construction.	Two items: 1) CPW & CDOT should monitor this location for a possible increase in wildlife-vehicle collision rates due to the end of the wildlife fencing, and implement any measures necessary to maintain the new motorist safety & drive time reliability. 2) That CPW & CDOT examine how wildlife are responding to the rest of the I-25 South Gap project and implement any correction measures and/or fund any new tasks as identified in the Final PEL document. These new tasks would complement CPW's SO3362 priority and fulfill EO D 2019-11.	CO Parks & Wildlife

* Multiple comments regarding erosion control were made within the project area. For completeness, all comments are documented.

Table 4. Environmental Consultation Comments – Region 3

TPR/MPO	Project ID	Project Name	Project Description	Comment	Agency
Grand Valley	None			The Road Runner leaking tank location is incorrect, it's due north across W 3rd St. This is more of a data quality/accuracy comment.	BLM_GJFO
Intermountain	37	SH 13 Garfield County MP 11.3 to 16.2	Reconstruction of SH 13 to meet current design standards including wider shoulders, drainage improvements, and wildlife underpasses.	Need to maintain access to BLM lands along Hwy 13. Small strips of BLM lands touch HWY 13 and provide public access, The Rifle Arch Trailhead is below (south) the mapped line. But if the project location moves south we will want to coordinate on parking issues at the trailhead.	BLM
Intermountain	42	I-70 West Vail Pass Auxiliary Lanes - Phase 1	This safety project will make improvements that assist freight commerce and to reduce accidents in this high-accident location. Improvements include truck chain stations, signage, and shoulder widening.	Interstate I-70, East Vail segment from 90-95 mp, as a top project to improve wildlife connectivity in the Summit County Safe Passage Plan (SCSP). The SCSP committee with partners and working with CDOT has contracted out a feasibility study which is expected to be complete in 2020. Need for wildlife-highway mitigation to improve motorist safety and decrease WVC while maintaining wildlife connectivity. Recommendations include wildlife crossing structures and associated fence, and escape ramps. I-70 West Vail Pass, 185-190 mp, improve wildlife connectivity as mitigation for impact caused by the added auxiliary lanes. Six wildlife underpasses are included in the Proposed Action, along with wildlife fence. CDOT has committed to the number and approximate location of structures. Structure size as identified as small, medium or large with specific dimensions to be determined later with input from the ALIVE Issue Task Force.	Colorado Parks and Wildlife

TPR/MPO	Project ID	Project Name	Project Description	Comment	Agency
Intermountain	43	I-70 Auxiliary Lane East Frisco to Silverthorne	This project addresses safety and mobility on the eastbound I-70 corridor (including improved truck parking) which has higher than average crashes. Adding the lane will connect the interchanges with a needed safety improvement and widen/improve critical bridges in Silverthorne.	The Forest Service would like to be a part of the Project Leadership Team for the I-70 EB aux lane project. Local points of contact to include are Bill Jackson (District Ranger, william.jackson@usda.gov), Adam Bianchi (Deputy District Ranger, adam.bianchi@usda.gov), and Anna Bengtson (Lands & Minerals, anna.p.bengtson@usda.gov).	Dillon Ranger District, White River National Forest
Intermountain	54	SH 139 Dinosaur Diamond	Guardrail and bridge upgrade	If new disturbance is associated with the proposed work, rare plant surveys may be required in suitable habitat for the special status plant species Grand buckwheat.	BLM- GJFO
Intermountain	1161	I-70 West Vail Pass Auxiliary Lanes	Addition of a climbing lane in the uphill (eastbound) direction and addition of a deceleration lane in the downhill (westbound) direction on the west side of Vail Pass, including enhanced chain stations, enhanced truck parking, ITS improvements, enhanced runaway truck ramps, and operational improvements to reduce crashes and full closures.	I-70 West Vail Pass, 185-190 mp, improve wildlife connectivity as mitigation for impact caused by the added auxiliary lanes. Six wildlife underpasses are included in the Proposed Action, along with wildlife fence. CDOT has committed to the number and approximate location of structures. Structure size as identified as small, medium or large with specific dimensions to be determined later with input from the ALIVE Issue Task Force.	Colorado Parks and Wildlife
Intermountain	1952	I-70 West: Dowd Canyon	Safety and capacity improvements through Dowd Canyon.	Hwy I-70, Dowd Junction segment from 191-193 mp, is identified as a priority in the Eagle County Safe Passage Plan. Need for wildlife-highway mitigation to improve motorist safety and decrease WVC while maintaining wildlife connectivity. Recommendations include, at a minimum, to improve fence design to restrict wildlife access to I-70, and add escape ramps. Additional effort could increase size of existing small culvert to better facilitate wildlife use. Concerns about interchange areas and wildlife access to highway.	Colorado Parks and Wildlife

TPR/MPO	Project ID	Project Name	Project Description	Comment	Agency
Intermountain	2644	SH 9 south of Green Mountain Reservoir	Rural road surface treatment	Hwy 9, segment from 114-118 mp, is identified in the top five projects of the West Slope Wildlife Prioritization Study, MP 114-126.5 is identified as high priority segment in the Summit County Safe Passages Plan. Partners have been talking with CDOT for the last two years to develop crossing structures. The Summit County Safe Passages team has identified MP 122-126.5 as a priority, this would tie into the existing SH9 safety project. Need for wildlife-highway mitigation to improve motorist safety and decrease WVC while maintaining wildlife connectivity. Recommendations include wildlife crossing structures and associated fence, deer guards and escape ramps.	Colorado Parks and Wildlife
Intermountain	2647	SH 9 Green Mountain Reservoir (Phase 1)	Rural road surface treatment	Hwy 9, segment from 114-118 mp, is identified in the top five projects of the West Slope Wildlife Prioritization Study, MP 114-126.5 is identified as high priority segment in the Summit County Safe Passages Plan. Partners have been talking with CDOT for the last two years to develop crossing structures. The Summit County Safe Passages team has identified MP 122-126.5 as a priority, this would tie into the existing SH9 safety project. Need for wildlife-highway mitigation to improve motorist safety and decrease WVC while maintaining wildlife connectivity. Recommendations include wildlife crossing structures and associated fence, deer guards and escape ramps.	Colorado Parks and Wildlife

TPR/MPO	Project ID	Project Name	Project Description	Comment	Agency
Intermountain	2650	SH 9 Green Mountain Reservoir (Phase 2)	Rural road surface treatment	Hwy 9, segment from 114-118 mp, is identified in the top five projects of the West Slope Wildlife Prioritization Study, MP 114-126.5 is identified as high priority segment in the Summit County Safe Passages Plan. Partners have been talking with CDOT for the last two years to develop crossing structures. The Summit County Safe Passages team has identified MP 122-126.5 as a priority, this would tie into the existing SH9 safety project. Need for wildlife-highway mitigation to improve motorist safety and decrease WVC while maintaining wildlife connectivity. Recommendations include wildlife crossing structures and associated fence, deer guards and escape ramps.	Colorado Parks and Wildlife
Intermountain	None			Hwy 131,Wolcott segment from 1-14 mp, is identified as a top priority in the Eagle County Safe Passage Plan. Need for wildlife-highway mitigation to improve motorist safety and decrease WVC while maintaining wildlife connectivity. Recommendations include wildlife crossing structures and associated fence, deer guards and escape ramps.	Colorado Parks and Wildlife

TPR/MPO	Project ID	Project Name	Project Description	Comment	Agency
Northwest	46	SH 64 Meeker West	guardrail upgrade	State Highway 64 (#5RB7550) is a historic route that may require, at minimum, an OAHP Revisitation Form (or Linear Segment Form) completed for the affected segment by a qualified archaeologist. Where surface disturbance is necessary, such as for temporary work areas, at least two additional linear resources known in the project vicinity could also be affected. If so, these resources would need to be revisited and fully documented (with landowner permission): the Berthoud to Salt Lake City Wagon Road (5RB.3077) and the Miner Martin Ditch (5RB.6815). Regardless of land jurisdiction or federal involvement, Colorado Statute CRS 24-80-1302 must be adhered to upon the identification of suspected human skeletal remains and associated funerary items in Colorado. As per this statute, CDOT would need to immediately notify the Rio Blanco County coroner as well as the sheriff, police chief, or land managing agency official. The process outlined in 43 CFR 10.4 would also need to be followed for any human remains discovered on federal lands.	BLM - White River Field Office
Northwest	1258	US 40 Shoulder Improvements West of Kremmling	This project includes roadway reconstruction, shoulder widening in various locations, and additional passing lanes, between Kremmling and SH 134.	Hwy 40 north of Kremmling, approximately 183.5-174 mp, in need of roadwork to improve driver safety, including adding shoulders, straightening and flattening road and add wildlife crossing structures and associated mitigation features (fence, ramps wildlife guards) to decrease WVC while maintaining wildlife movement connectivity.	Colorado Parks and Wildlife

TPR/MPO	Project ID	Project Name	Project Description	Comment	Agency
Northwest	None			Hwy 40, segment from 93.7-106.5, mp is identified in the top five projects of the West Slope Wildlife Prioritization Study. Need for wildlife-highway mitigation to improve motorist safety and decrease WVC while maintaining wildlife connectivity. Recommendations include wildlife crossing structures and associated fence, deer guards and escape ramps.	Colorado Parks and Wildlife
Northwest	None			Hwy 13, Hamilton South segment from 66-75.5 mp, is identified in the top five projects of the West Slope Wildlife Prioritization Study. Need for wildlife-highway mitigation to improve motorist safety and decrease WVC while maintaining wildlife connectivity. Recommendations include wildlife crossing structures and associated fence, deer guards and escape ramps.	Colorado Parks and Wildlife
Northwest, Intermountain	37	SH 13 Garfield County MP 11.3 to 16.2	Reconstruction of SH 13 to meet current design standards including wider shoulders, drainage improvements, and wildlife underpasses.	If this project meets the thresholds of a federal undertaking under 42 CFR ? 137.289, any project activity that has the potential to create new surface disturbance will typically require a cultural survey and/or cultural monitor during development. Known sites in the project area would also need to be revisited prior to any ground-disturbing activity, and these may include homestead sites #5RB4437 and 5RB3710. At minimum, a qualified archaeologist would need to complete an OAHP Revisitation form (or a Linear Segment form) for the affected segment of historic State Highway 13 (5RB.4486).	BLM - White River Field Office

TPR/MPO	Project ID	Project Name	Project Description	Comment	Agency
Northwest, Intermountain	37 (Cont)	SH 13 Garfield County MP 11.3 to 16.2	Reconstruction of SH 13 to meet current design standards including wider shoulders, drainage improvements, and wildlife underpasses.	Regardless of land jurisdiction or federal involvement, Colorado Statute CRS 24-80-1302 must be adhered to upon the identification of suspected human skeletal remains and associated funerary items in Colorado. As per this statute, CDOT would need to immediately notify the Rio Blanco County coroner as well as the sheriff, police chief, or land managing agency official.	BLM - White River Field Office
Northwest, Intermountain	53	SH 139 Douglas Pass North	guardrail and bridge rail upgrade	Project is located along Dinosaur Diamond National Scenic Byway. Just an FYI. I am not suggesting any specific mitigation. State Highway 139 (5RB8375/5GF4322/5ME15500) is a historic route that may require, at minimum, an OAHP Revisitation Form (or Linear Segment Form) completed for the affected segment by a qualified archaeologist. Where surface disturbance is necessary, such as for temporary work areas, at least three additional known resources in the project vicinity may also need to be revisited and/or fully documented: the Dragon-Douglas Trail (5RB.2872.17) and two prehistoric sites (5RB.4456 and 5RB.312). Regardless of land jurisdiction or federal involvement, Colorado Statute CRS 24-80-1302 must be adhered to upon the identification of suspected human skeletal remains and associated funerary items in Colorado. As per this statute, CDOT would need to immediately notify the Rio Blanco County coroner as well as the sheriff, police chief, or land managing agency official. The process outlined in 43 CFR 10.4 would also need to be followed for any human remains discovered on federal lands.	Bureau of Land Management

Table 5. Environmental Consultation Comments – Region 4

TPR/MPO	Project ID	Project Name	Project Description	Comment	Agency
DRCOG	57	CO 119: Safety / Mobility Improvements	Design and construction of CO 52/CO 119 improvements	For bridge crossing, avoid grade control that creates a vertical drop or a slope greater than 3%, to maintain fish passage. Consider stream restoration if needed. For stream crossing, avoid grade control that results in a vertical drop or a channel slope greater than 3% to maintain passage for fish. Consider adjacent stream habitat restoration if needed.	Colorado Parks and Wildlife
DRCOG	2599	SH 66 Corridor Improvements	This project constructs operational, intersection, and safety improvements.	The portion of SH 66 is a hotspot for wildlife-vehicle collisions. Therefore, CPW encourages CDOT to consider widening the SH 66 bridge over St. Vrain Creek to allow an upland passageway for deer/wildlife to use when they are traveling north and south along the creek. Also, CPW recommends that deer exclusion fence be installed ~1/4 mile east and west of the creek to funnel wildlife off the highway to the upland underpass, and thereby improving motorist safety in this stretch.	CO Parks & Wildlife
DRCOG	2601	SH 119 Bus Rapid Transit (BRT) and Managed Lanes	This project includes operational, intersection, safety, and transit improvements including BRT facilities.	For bridge crossing, avoid grade control that creates a vertical drop or a slope greater than 3%, to maintain fish passage. Consider stream restoration if needed. For stream crossing, avoid grade control that results in a vertical drop or a channel slope greater than 3% to maintain passage for fish. Consider adjacent stream habitat restoration if needed.	Colorado Parks and Wildlife

TPR/MPO	Project ID	Project Name	Project Description	Comment	Agency
DRCOG	None			[US 36] Two suggestions: 1) This stretch of US 36 has high elk-vehicle collisions, so either an underpass or eastern exclusion fence should be constructed very soon. If so, then this project would complement our federal SO3362 priorities as well as be aligned with the state order D 2019-011. 2) The entire stretch of US36 from Boulder to Lyons needs a larger discussion between CPW and CDOT (and any other stakeholders) as elk are expanding their range east of US 36 and causing issues with vehicles and landowners.	CO Parks & Wildlife
DRCOG	None			[SH 119] CPW would like to work with CDOT on creating a recreational trail under SH 119 at St. Vrain Creek to link Longmont's recreational trails/greenway to Firestone's trails via this state park (triple win!).	CO Parks & Wildlife
North Front Range	58	I-25 North: Segment 7 & 8 - Express Lanes on permanent EIS alignment (CO 402 to CO 14)	This project includes bridge replacement and widening, roadway reconstruction, and adds one new express lane in each direction from CO 402 to CO 14. Work also incorporates state of the art transit access, regional bike/pedestrian trail connections and safety upgrades. This new alignment allows for future roadway expansion. This project will also improve roadway geometry, shoulder widths and replace inadequate bridges and interchanges.	Underpass not wide enough for deer to go thru causing multiple deer being hit by vehicles when trying to cross I-25. Suggest widen the underpass allowing for movement of deer and other wildlife . Ensure connectivity for fish passage (no vertical drops or velocity barriers) and conveyance for 100 year flood.	CPW
North Front Range	None			[US 34] Need to reduce the number of wildlife-vehicle collisions in this area by expanding (height & width) of the bridge over the Big Thompson River. Also use wildlife exclusion fence east and west of the river to direct big game to use the new underpass instead of crossing at grade.	CO Parks & Wildlife

TPR/MPO	Project ID	Project Name	Project Description	Comment	Agency
North Front Range	None			[US 34] Mule Deer and white-tailed deer cross the highway along the river corridor frequently. District Wildlife Manger observes high vehicle-deer collisions along this stretch. Suggest making underpass wider for save wildlife passage.	CPW
Upper Front Range	1456	US 287 Passing Lanes and Safety Improvements	This project includes the construction of passing lanes and other safety improvements.	Mule deer, pronghorn and elk cross the highway. Most vehicle- wildlife collisions occur seasonally during the winter (Nov/Dec) and spring (Mar/May) migrations.	CPW
Upper Front Range	1456 (Cont)	US 287 Passing Lanes and Safety Improvements (Cont)	This project includes the construction of passing lanes and other safety improvements. (Cont)	Bighorn sheep, mule deer, pronghorn have attempted to use the underpasses north and south of 80c junction (trail cameras set up). The trail camera shows a cougar using the underpasses successfully. There are carcasses (big game) that suggest vehicle-wildlife collisions near the underpasses. Suggest widening the underpasses so the ungulates will use it.	CPW
Upper Front Range	None			[I-25] Special considerations for sensitive fish species and northern leopard frog in Lone Tree Creek.	CPW
Upper Front Range	None			[SH 14] Bighorn cross Hwy 14 to get water from the Poudre and feed on the meadows. 3 lambs were killed by a semi in 2018 west of Indian Meadows. Elk migrate across Hwy 14 from Kelly Flats to Cache La Poudre Wilderness along the stretch from Glen echo to Indian Meadows seasonally.	CPW
Upper Front Range	None			[SH 14] Pronghorn cross this section of highway routinely.	CPW
Upper Front Range	None			[US 34] Mule deer and white-tailed deer cross highway frequently along this stretch. District Wildlife Manager observes frequent vehicle-deer collisions.	CPW

Table 6. Environmental Consultation Comments - Region 5

TPR/MPO	Project ID	Project Name	Project Description	Comment	Agency
Gunnison Valley	83	SH 141 N of Naturita	Guardrail	This section of Hwy 141 is part of the Unaweep-Tabeguache Scenic Byway. It has outstanding views of Dolores River canyon, and features views of the historic Hanging Flume. If guardrails interfere with the view of motorists and/or cyclists, much of the scenic value of this route may be lost. UDOT had a guardrail project planned for Utah Hwy 12 between Escalante and Boulder that they significantly altered due to these types of concerns. It might be worth talking to them. Extensive public outreach/scoping will be very important before finalizing the project. The West End of Montrose County is really looking to tourism to boost economic opportunities in the region, and the scenic quality of this byway is vital to that effort.	Bureau of Land Management, Uncompahgre Field Office

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