

Appendix F
Response to Comments

Appendix F. Response to Comments

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The lead agencies received comments from 554 agencies, organizations, and individuals. Comments were received in the form of public hearing oral comments, comment sheets, letters, emails, and through the project website. After the comment period ended, each comment document was assigned a unique identification number and was delineated by topic to address multiple comments provided by each commenter, resulting in 1,109 discrete comments. Of the comments received, 304 comments were a form letter in postcard format; all of those have been categorized under a single comment, ORG-14, in this appendix.

The comments are grouped by commenter into four categories and assigned identification numbers within these categories. Comments received from state and Federal agencies are classified as SF-XX. Comments received from local governments and elected officials are classified as LO-XX. Comments received from organizations and interest groups are classified as ORG-XX. Comments received from individuals are classified as IND-XX. Each comment is delineated by topic, and these topics are assigned identification letters. For example, a comment document from an individual that provides two separate comments is delineated into two discrete comments: IND-XX-A and IND-XX-B.

Responses to all comments received are presented in this appendix. The comments are organized by comment identification number. **Table F-1** lists comments by comment identification number. **Table F-2** lists comments alphabetized by name of commenter. The lead agencies responded to each comment individually, and each comment received is presented next to the corresponding response. Most comments require explanation, clarification, or factual corrections, and some resulted in changes to the PEIS. Many comments require more detailed information than can be addressed with information at the Tier 1 level; these details will be addressed in Tier 2 processes.

Comments were generally supportive of the Collaborative Effort process to reach a Consensus Recommendation and Preferred Alternative, the development and use of the I-70 Mountain Corridor Context Sensitive Solutions process in the Corridor, and the format and readability of the PEIS document. Other comments were mixed in support and criticism of details of the PEIS analyses and identification of the Preferred Alternative. Comments fell into broad categories as follows, which are discussed in more detail in **Chapter 6, Public and Agency Involvement** in the PEIS:

- Transportation needs
- Process, Collaborative Effort, and Context Sensitive Solutions
- Alternatives
- Environmental Analysis
- Implementation, funding, and cost

The technical reports referenced in the comment responses are available electronically on CD-ROM and on the project website at <http://www.coloradodot.info/projects/i-70mountaincorridor/2010-revised-draft-peis/TechnicalReports>.

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Comments

Responses

Source: Letter	Name: USDOJ, Office of Environmental Policy and Compliance
Document Number: SF-01	City, Zip Code: Lakewood, 80228

Thank you for the opportunity to comment on the Revised Draft Programmatic Environmental Impact Statement and Tier 1 Section 4(f) Evaluation for **I-70 Mountain Corridor between Glenwood Springs and C-470, Garfield, Eagle, Summit, Clear Creek, and Jefferson Counties, Colorado**. The Department of the Interior (Department) has reviewed the document and submits these comments to you as an indication of our thoughts regarding this project.

A

SPECIFIC COMMENTS

Section 2.7.1, What is the Preferred Alternative? The project description as written in the document was difficult to understand. Although Table 2-10, Components of the Preferred Alternative were helpful in quickly determining the differences between the minimum and maximum programs, the text was confusing and left questions regarding the construction sequence and the general location of the footprint of the different programs.

Section 3.2, Biological Resources and Section 3.19, Mitigation Summary. Very little is mentioned of the Migratory Bird Treaty Act and the effects that the project may have on migratory birds. Section 3.19, Mitigation Summary, mentions that removal of trees and shrubs will be conducted during the non-nesting season but there is no mention of the Colorado Department of Transportation specifications that describe avoiding impacts to migratory birds before and during construction. These measures will need to be implemented and should be included in the Mitigation Summary.

B

The Department appreciates your commitment to implement measures that will improve the permeability of the highway to all wildlife species, including those that are protected under the Endangered Species Act, and we look forward to implementation of these measures.

Response to SF-01

A. **Chapter 2, Summary and Comparison of Alternatives** has been revised to better clarify the relationship of the Minimum and Maximum Programs of the Preferred Alternative and the triggers for fully implementing the Preferred Alternative under the Maximum Program. Importantly, only the Preferred Alternative Maximum Program of Improvements meets the 2050 purpose and need. The Minimum Program does not represent a distinct alternative but is the first set of improvements in a program that is intended to be implemented incrementally.

Construction sequencing has not yet been determined and will be studied in Tier 2 processes. The Tier 1 PEIS has been revised to clarify the location of improvements as generally along the existing I-70 alignment. Advanced Guideway System feasibility studies and related Tier 2 processes will help to further define the feasibility of the system and refine its alignment. While there are many details that have not been determined in the Tier 1 PEIS, the Advanced Guideway System feasibility studies and related Tier 2 processes will be designed to address the alignment.

B. The mitigation summary in **Section 3.2, Biological Resources** and **Section 3.19, Mitigation Summary** of the FEIS has been modified to state the following: "Construction work affecting migratory birds will comply with the requirements of the Migratory Bird Treaty Act and will be performed according to CDOT specifications to avoid impacts to migratory birds before and during construction."

Comments

Responses

Source: Letter	Name: USDOJ, Office of Environmental Policy and Compliance (continued)
Document Number: SF-01	City, Zip Code: Lakewood, 80228

SECTION 4(f) COMMENTS

- C Following our review of the Section 4(f) Evaluation, we concur that there is no feasible or prudent alternative to the Preferred Alternative selected in the document, and that all measures have been taken to minimize harm to these resources. We acknowledge that you have consulted with the Colorado State Historic Preservation Officer, and will be preparing a Memorandum of Agreement to minimize adverse effects to historic properties.
- C We appreciate the opportunity to review this document. Should you have questions about the specific comments please contact Alison Deans Michael, U.S. Fish and Wildlife Service at (303) 236-4758. For questions about the Section 4(f) comments, please contact Julie Sharp, National Park Service Intermountain Regional Office at (303) 987-6705.

Response to SF-01 (continued)

- C. The Section 106 Programmatic Agreement is included in **Appendix B, I-70 Mountain Corridor Section 106 Programmatic Agreement** of the PEIS, which includes measures to minimize adverse effects to historic properties. The Programmatic Agreement outlines the process for future Tier 2 processes. When resolution on adverse effects has occurred in Tier 2 processes, CDOT will prepare a supplement to this Programmatic Agreement specifying the measures CDOT will take to avoid, minimize, or mitigate the adverse effects. This supplement will take the place of a Memorandum of Agreement for Tier 2 processes.

Comments

Responses

Source: Letter	Name: U.S. Environmental Protection Agency
Document Number: SF-02	City, Zip Code: Denver, 80202

Response to SF-02

- A. Regarding the Environmental Protection Agency rating of EC-2, Environmental Concerns – Insufficient Information, please see responses to your comments [SF-02-E](#) through [SF-02-J](#) regarding air quality, wetlands, water quality, and environmental justice.

A

The U.S. Environmental Protection Agency (EPA) Region 8 has reviewed the I-70 Mountain Corridor Revised Draft Programmatic Environmental Impact Statement (PEIS) prepared by the Federal Highway Administration (FHWA) and the Colorado Department of Transportation (CDOT). Our comments are provided for your consideration pursuant to our responsibilities and authority under Section 102(2)(C) of the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4332(2)(C), and Section 309 of the Clean Air Act, 42 U.S.C. Section 7609. It is EPA’s responsibility to provide an independent review and evaluation of the potential environmental impacts of this project, which includes a rating of the environmental impact of the proposed action and the adequacy of the NEPA document.

Based on EPA’s procedures for evaluating potential environmental impacts on proposed actions and the adequacy of the information present, EPA is rating the Preferred Alternative an EC-2 (Environmental Concerns- Insufficient Information). A copy of EPA’s rating criteria is attached.

Comments

Responses

Source: Letter	Name: U.S. Environmental Protection Agency (continued)
Document Number: SF-02	City, Zip Code: Denver, 80202

Response to SF-02 (continued)

- B. Your statement of the project description captures the key components of the project purpose and need and alternatives considered.
- C. Please see responses to your comments [SF-02-E](#) through [SF-02-J](#) regarding air quality, wetlands, water quality, and environmental justice.

PROJECT DESCRIPTION

B

CDOT and FHWA are proposing transportation improvements to increase capacity, improve accessibility and mobility, and decrease congestion along the 144 mile-long I-70 Mountain Corridor from Glenwood Springs in the west to C-470 in the east in Colorado. This Revised Draft PEIS, a "Tier 1" document, analyzes proposed alternatives to meet the purpose and need for this action. The Tier 1 decision identifies general capacity, mode, and location for transportation improvements in the Corridor and establishes the framework for future project-level activities. Mitigation strategies for natural resources are described in this Draft PEIS, but specific mitigation measures for each resource will be addressed in the subsequent Tier 2 NEPA documents.

Alternatives considered for meeting the purpose and need for the projects ranged from the No Action Alternative, to transportation management, to action alternatives that included highway improvements, bus, rail, an Advanced Guideway System, and a combination of these components. The Preferred Alternative is a combination of the following: (1) transportation management; (2) a minimum or maximum program of highway improvements (i.e., highway widening, auxiliary lanes, interchange improvements, curve safety modifications, and third bores at the Eisenhower-Johnson Memorial Tunnel and at Twin Tunnels) for either 55 miles per hour (mph) or 65 mph; and (3) the Advanced Guideway System, a technology that has yet to be developed. The transportation agencies are planning on using an adaptive management approach to the Preferred Alternative that allows transportation improvements to be implemented over time.

EPA COMMENTS AND CONCERNS

C

EPA appreciates that the lead agencies have kept us involved throughout this lengthy process from the scoping period to the prior Draft PEIS in 2004 up to the preliminary draft of the present NEPA document. While some of EPA's concerns with the 2004 I-70 Mountain Corridor Draft PEIS were addressed (e.g., including the CERCLA priority sites within the project study area), others (e.g., the methodology utilized for determining low income and minority communities) were not. EPA also has concerns about mobile source air toxics concentrations near residences, schools, and businesses in the narrow mountain valleys and believes that there should be a commitment at the Tier 1 level for increased monitoring both during and after construction. Attached are our detailed comments addressing our concerns and recommendations for air quality, wetlands, water quality, and environmental justice.

Comments

Responses

Source: Letter	Name: U.S. Environmental Protection Agency (continued)
Document Number: SF-02	City, Zip Code: Denver, 80202

Response to SF-02 (continued)

D. Comment noted.

D

EPA commends FHWA and CDOT for the outstanding collaborative process that has been utilized since the publication of the prior Draft PEIS for this project. Recognizing that some communities would receive the bulk of the adverse project impacts while other communities would greatly benefit from the roadway and transit improvements, EPA congratulates the transportation agencies for convening stakeholders who were able to reach a consensus recommendation of the Preferred Alternative. The I-70 Mountain Corridor Context Sensitive Solutions process, the Collaborative Effort Team, the Stream and Wetland Ecological Enhancement Program (SWEEP), and the A Landscape Level Inventory of Valued Ecosystem (ALIVE) Components Committee are good examples of how effective outreach can result in more transparent and inclusive decisionmaking and environmentally protective outcomes now and in the future. While EPA would have preferred seeing more commitments for mitigation and additional information on impacts common to all of the action alternatives in this Tier 1 Draft PEIS, we believe that the stakeholder processes that the lead agencies have put in place will ensure that human health and the environment are adequately protected during the Tier 2 process.

Thank you for the opportunity to provide comments on the I-70 Mountain Corridor Revised Draft PEIS. If you have any questions or would like to discuss our comments or rating, please contact me at 303-312-6004 or the lead reviewer of this project, Carol Anderson, at 303-312-6058.

Comments

Responses

Source: Letter	Name: U.S. Environmental Protection Agency (continued)
Document Number: SF-02	City, Zip Code: Denver, 80202

Response to SF-02 (continued)

E. Tier 2 processes will provide detailed information necessary to address environmental impacts and mitigation of the Preferred Alternative, as you note in your comment. Site-specific impacts and mitigation associated with the Preferred Alternative will be assessed during Tier 2 processes.

Quantitative MSAT analysis was conducted on a Corridorwide basis for the Tier 1 PEIS. Traffic volumes predicted in 2035 require quantitative emissions analysis in many locations in the Corridor under current FHWA MSAT Guidance. Tier 2 processes will include site-specific MSAT analysis and mitigation measures when warranted under FHWA guidance, and the following language has been added to **Section 3.1.6, Air Quality** of the PEIS: "The U.S. Environmental Protection Agency requests MSAT analysis and mitigation in Tier 2 processes. The traffic volumes will generally exceed the level at which FHWA guidance requires quantitative emissions analysis. In populated areas along the Corridor, this analysis will be performed according to the most current FHWA guidance."

Air Quality

EPA believes that important air quality analyses and information have been left out of this Tier 1 NEPA analysis. We note that the Executive Summary states that this document is a "stand-alone" document that addresses the same topics as the 2004 Draft PEIS and "...brings the data and analysis up to date" In consideration of these presumptions, EPA expects that the Tier 2 analysis of subsequent I-70 Mountain Corridor projects will provide detailed discussions, data, and other information necessary to address the specific environmental impacts and mitigation associated with the Preferred Alternative. With this premise, EPA offers the following comments on air quality:

Mobile Source Air Toxics: Both the Draft PEIS and the Air Quality Technical Report note that some localized areas may have higher ambient concentrations of MSATs under the Action Alternatives than under the No Action Alternative. However, the Air Quality Technical Report only presents MSATs on a total corridor basis. (See Table 7 in the Air Quality Technical Report.) The project corridor includes features such as narrow valleys, high congestive episodes, and high levels of vehicle miles traveled (VMT) that may in fact concentrate the levels of MSATs near residences, schools, and businesses adjacent to this project. This issue was noted in the Draft PEIS, which states on page 3.1-4, "The localized increases in MSAT concentrations are likely most pronounced along the roadway section in Clear Creek County between Silverthorne and Idaho Springs, and in the Vail Valley where the highway is closer to communities." Given the potential significance of localized increases, EPA recommends that FHWA and CDOT include site-specific MSAT analyses and mitigation in the subsequent Tier 2 documents.

Comments

Responses

Source: Letter	Name: U.S. Environmental Protection Agency (continued)
Document Number: SF-02	City, Zip Code: Denver, 80202

F

- Monitoring:** Section 3.1.7 of the Draft PEIS and Section 2 of the Air Quality Technical Report indicate that no PM₁₀ or PM_{2.5} ambient air quality monitoring occurs in the project corridor. EPA recommended in its June 13, 2005 comments on the prior 2004 Draft PEIS that PM₁₀ monitoring should be done both during and after construction. This suggestion is still relevant given the projected levels of re-entrained road dust for the project. (See Table 6 in the Air Quality Technical Report.) In addition, PM_{2.5} monitoring should also be considered because Table 5 of the Air Quality Technical Report shows that “Heavy-duty Vehicle VMT,” or diesel-powered vehicles, will be 11 percent of the total VMT in any of the alternatives.

Response to SF-02 (continued)

F. The Colorado Department of Transportation has conducted monitoring during and after construction of major projects such as the I-25 T-Rex project in Denver, and will consider similar monitoring in the I-70 Mountain Corridor during construction. However, CDOT notes that traffic volumes in the Corridor are lower than volumes on other sections of the I-70 highway and I-25 where previous monitoring has occurred or been suggested. The Colorado Department of Public Health and Environment, Air Pollution Control Division maintains one PM₁₀ monitor in Summit County. Additional PM₁₀ monitoring has occurred in the Corridor in several locations, as listed in **Section 2** of the *I-70 Mountain Corridor PEIS Air Quality Technical Report* (included electronically on CD-ROM in Volume 3 of the PEIS Technical Reports and on the project website). The locations where monitoring has been discontinued showed no exceedances of the 24-hour or annual average PM₁₀ standards.

PM 2.5 monitoring will also be considered, and the following language has been added to **Section 3.1.7, Air Quality** of the PEIS regarding conceptual techniques for mitigation of construction impacts that could be considered: “Air quality monitoring during construction, including PM 2.5 monitoring.” However, vehicle exhaust emissions are anticipated to decline significantly in the future due to improved technology, and PM 2.5 is not expected to measurably contribute to re-entrained road dust.

Comments

Responses

Source: Letter	Name: U.S. Environmental Protection Agency (continued)
Document Number: SF-02	City, Zip Code: Denver, 80202

Response to SF-02 (continued)

G. Tier 2 processes will include more detailed analysis of environmental effects, including data for emissions in interim years, between the year of construction and the design year, as requested. The following text has been added to **Section 3.1.6, Air Quality** of the PEIS: "Tier 2 processes will include more detailed analysis of environmental effects, including data for emissions in interim years, between the year of construction and the design year." **Table 3.1-1** has been revised to include PM10 (re-entrained dust) emissions as requested.

Regarding NO2 emissions, all relevant oxides of nitrogen were included in the NO2 emissions totals in **Table 3.1-1**, and a footnote has been added clarifying this. Tier 2 processes will include the revised NO2 NAAQS and will adhere to the monitoring requirements for the revised NAAQS in areas where they are required. Tier 2 processes will include more detailed analysis and mitigation measures related to NOx emissions and NO2 concentrations. Emissions of VOCs will be evaluated during Tier 2 processes. The impacts and mitigation associated with the Preferred Alternative will be assessed on project specific bases, as Tier 2 processes will be a series of smaller, location specific projects.

H. The intention of the phrase "highway improvements must be planned considering all components of the Preferred Alternative consistent with local land use planning" is that during Tier 2 processes, local agencies and local land use plans will be considered in conjunction with other non-highway improvements, such as an Advanced Guideway System.

All project activities will comply with all applicable State and Federal regulations, including those listed under CWA Section 404(b)(1).

G

- Air Emissions Data:** Emissions data information in Table 3.1-1 is presented for only four pollutants and for only two years – 2000 and 2035. The Tier 2 environmental documents for this programmatic EIS should include additional interim years of data. As an example of relevant data, EPA suggests that the DEIS for the I-70 East project (Section 5) be consulted. (See <http://www.i-70east.com/reports.html>.)
- Air Emissions Data:** We note that Table 3.1-1 is labeled "Particulate Matter," but appears to only include tailpipe PM_{2.5} emissions, a very small fraction of the total particulate matter emissions associated with motor vehicles. The majority of particulate matter is PM₁₀ and is from re-entrained road dust. This information is provided in Table 6 of the Air Quality Technical Report. Please add this in the Final PEIS. Also, the table lists "Nitrogen Dioxide" (NO₂); however, it is unclear if only NO₂ was addressed or all relevant oxides of nitrogen (NO_x) were included. If not, NO_x should be included in the Final PEIS. In addition, emissions of exhaust volatile organic compounds (VOCs) for this transportation project PEIS should also be included.
- New NO₂ National Air Quality Standards (NAAQS):** EPA promulgated a revised NO₂ NAAQS on February 9, 2010 (75 FR 6474). Part of the monitoring requirements for this revised NAAQS address the 1-hour 100 ppb component and will require monitors in urban areas near major roads, as well as at other locations where maximum concentrations are expected. Because of the new NO₂ NAAQS, the Tier 2 documents will need to provide information about vehicle NO_x emissions and NO₂ concentrations and appropriate mitigation for NO_x impacts.

Wetlands

The Draft PEIS states on page 2-44 that highway "...improvements must be planned considering all components of the Preferred Alternative consistent with local land use planning." Tier 2 projects that have discharges of dredged or fill material in waters of the U.S., including wetlands, will require permitting from the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act to determine the least environmentally damaging practicable alternative. "Practicable alternatives" are defined as alternatives that are available and capable of being done taking into consideration cost, existing technology, and logistics. Local zoning or land use planning may not necessarily preclude improvements (i.e., highway alternatives) because less environmentally damaging practicable alternatives may include standard industry practices (i.e., zoning changes, variances, condemnation rights, etc.) that could reduce adverse impacts to waters of the U.S. The Draft PEIS wording in this sentence is not consistent with consideration of less environmentally damaging practicable alternatives under the CWA Section 404(b)(1) Guidelines.

H

Comments

Responses

Source: Letter	Name: U.S. Environmental Protection Agency (continued)
Document Number: SF-02	City, Zip Code: Denver, 80202

Water Resources

EPA is concerned about the continued plan to obtain coverage under the Colorado stormwater general construction permit for stormwater discharges to water bodies. In our previous comment letter dated June 13, 2005 for the initial I-70 Mountain Corridor Draft PEIS, we stated our strong concern that Colorado’s stormwater general construction permit will not be appropriate for the construction activities proposed along the I-70 corridor. Pursuant to Section A.9 of the permit, an individual water discharge permit may be required for large projects and for projects that may contribute to a violation of water quality standards. Projects along the I-70 corridor should be handled under an individual permit that specifically addresses:

- Recommendations for staging construction along the project corridor to minimize the erosive potential of adjacent hillsides;
- Best management practices (BMPs) for re-vegetating exposed and cut and fill slopes;
- Requirements for post-construction maintenance of roadways that minimize the transport of sediment and other pollutants associated with highway runoff (e.g., chemical deicers, Cu, Pb, Zn) during precipitation events;

Response to SF-02 (continued)

I. Because the PEIS will lead to multiple Tier 2 processes and multiple separate construction projects, CDOT will not apply for a single individual permit for the entire Preferred Alternative. Rather, during Tier 2 processes, CDOT, in consultation with regulatory agencies, will ensure the appropriate permit is acquired with the appropriate considerations for each separate project. All necessary controls and guidance to protect water quality are afforded through CDOT’s Individual Permit Construction Sites Program via adherence to the CDOT Standards and Specifications.

Many of the specific mitigation measures mentioned are included in the *I-70 Mountain Corridor PEIS Water Resources Technical Report* (provided electronically on CD-ROM in Volume 3 of the Technical Reports and on the project website). These mitigation measures will be added to the water quality protection specifications that accompany any project going to construction, and will comply with specific Action Plans that are developed for sensitive or impaired waters; these will be further refined during Tier 2 processes. Additionally, recommendations made by the SWEEP Committee will be integrated into project development.

Comments

Responses

Source: Letter	Name: U.S. Environmental Protection Agency (continued)
Document Number: SF-02	City, Zip Code: Denver, 80202

Environmental Justice

We appreciate the efforts taken to engage the community through public involvement and outreach as discussed in the technical report, and support the continuation of further outreach as outlined for Tier 2. However, the Environmental Justice (EJ) Technical Report and Section 3.9 of the Draft PEIS do not adequately address low-income and minority populations for the purpose of analysis of programmatic alternatives.

- **Methodology:** The Draft PEIS does not contain a sufficient level of analysis or methodologies to support the statement in the technical report Section 5.5 that "...the alternatives are not expected to cause disproportionately high and adverse effects on minority or low-income populations...." We understand that the Tier 2 level will include further analysis, but suggest that the methods used in Tier 1 be reconsidered.

The EJ Technical Report Section 2 defines minority and uses an analysis utilizing census blocks where more than 50 percent of the population is considered minority. We question the reasoning on using 50 percent as the level needed to determine a minority population. The Council on Environmental Quality (CEQ) recommends that minority communities should be identified not only when the minority population exceeds 50 percent, but also when the "...minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis." (See Environmental Justice, Guidance Under the National Environmental Policy Act, CEQ, Appendix A, Guidance for Federal Agencies on Key Terms in Executive Order 12898, § 1-101, p. 25 [Dec. 10, 1997])

In analyzing whether or not the percentage in the affected area is meaningfully greater, agencies typically compare percentages at the census block or other small-scale level with percentages at the county or state level. Based on Table 1, it appears that some communities, such as Gypsum, Avon, Dillon, Silver Plume, and Lawson/Downieville/Dumont have meaningfully greater percentages of minority population than the corresponding counties. As a result, it seems that minority communities should have been identified in this Draft PEIS or the Final PEIS should justify why only the 50 percent threshold

Response to SF-02 (continued)

J. In response to your concerns regarding the methodology for identifying environmental justice populations, the presence of minority and/or low-income populations has been re-evaluated in **Section 3.9, Environmental Justice** and in the *I-70 Mountain Corridor PEIS Environmental Justice Technical Report* (provided electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website) according to CDOT's *Title VI and Environmental Justice Guidelines for NEPA Projects, Rev. 3, December 2004*. This approach establishes county specific thresholds for the identification of minority and low-income populations. Concentrations of minorities/low-income households are identified in census blocks/block groups that have a higher percentage of minorities/low income households than their respective county. The low income threshold is derived from the U.S. Department of Housing and Urban Development (HUD) Income Limits at 30 percent of the Area Median Income and is adjusted for household size. During Tier 2 processes, more recent data (2010 Census) will be available at the block/block group level, new HUD Income Limits will be published, and more details regarding design and construction will be available. The environmental justice analysis will be updated at this time and impacts will be re-evaluated.

In response to your comment that the Draft PEIS should use data gathered from outreach efforts to identify minority and low-income populations, this information has now been mapped and consists primarily of minority/low-income housing identified by local agencies, including Section 8 properties.

In response to your request to indicate that EO 12898 considers income as well, please see the first paragraph under Methodology in **Section 3.9, Environmental Justice**, which clarifies that EO 12898 addresses minority and low-income populations as follows:

(continued on next page)

Comments

Responses

Source: Letter	Name: U.S. Environmental Protection Agency (continued)
Document Number: SF-02	City, Zip Code: Denver, 80202

Response to SF-02 (continued)

J. (Continued from previous page)

was used. Instead, the Draft PEIS defers identification of minority communities to the Tier 2 analysis, making it more difficult to discuss details of potential EJ impacts at the PEIS stage and for potentially affected minority communities to comment on the appropriateness of the PEIS. In addition, the lead agencies have already performed an extensive and commendable public outreach in order to, in part, identify EJ communities. The Draft PEIS should provide tentative identifications of EJ communities based on this outreach so that, again, potentially affected communities can comment.

Regarding the definition of low-income populations, please consider using the U.S. Census methods for determining individuals below the poverty level and reference against Community Development Block Grant AMI methods. We suggest using the estimate that yields the greatest number. Also, the technical report describes the FHWA view of environmental justice as an extension of Title VI. Please also indicate that EO 12898 considers income as well.

- **Direct and Indirect Impacts:** The analysis goes into detail on economic benefits to EJ communities, but provides little detail on environmental and health impacts. While economic benefits may in certain circumstances mitigate EJ issues, environmental and health impacts should be considered to determine if there may be a disproportionately high and adverse impact. EPA believes it is possible to discuss environmental and health impacts in the same depth as economic benefits at the Tier 1 stage, and that this analysis should not be deferred to Tier 2.

We appreciate the discussion of impacts on low-income communities in Section 4.2 of the technical report, which states, “Affordable low-income housing might be located close to highway facilities, as these locations are less desirable (and thus more affordable) than areas located farther from the highway.” According to this statement, we suggest that there is a disproportionate impact on communities adjacent to the highway and recommend further analysis regarding health impacts to these communities to ensure that there is not a disproportionate impact. If a disproportionate impact is found, proper mitigation should be proposed.

“On February 11, 1994, President Clinton signed Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority and Low-income Populations.” The Executive Order focuses federal attention on the environmental and human health conditions of **minority and low-income populations**, promotes nondiscrimination in federal programs affecting human health and the environment, and provides **minority and low-income populations** access to public information and an opportunity to participate in matters relating to the environment...”

In response to your request for consideration of environmental and health impacts at the Tier 1 level, a broad analysis of the types of potential adverse effects that could occur has been included in a level of detail similar to the discussion of economic benefits. **Section 3.9, Environmental Justice** now contains descriptions of impacts for each resource that affects the human environment. However, at this first tier of analysis, neither impacts nor benefits can be fully evaluated nor can conclusions about disproportionately high and adverse impacts be made, without the more detailed design and construction information that will be developed in Tier 2 processes. Tier 2 processes will work to avoid, minimize, and mitigate adverse impacts to minority and low-income populations throughout the Corridor and balance adverse impacts with benefits.

Regarding the suggestion that because affordable housing may be located close to highway facilities disproportionately high and adverse impacts are found, the lead agencies do not agree. Not enough information is available to make a conclusion that either this represents a disproportionately high and adverse impact or that proximity to construction or operation of the highway results in adverse health effects. Tier 2 processes will thoroughly identify low-income populations and “pockets” of low-income populations when site-specific processes are developed; at that time, analysis of potentially disproportionately high and adverse effects to these populations can be analyzed, as well as specific impacts after mitigation.

Comments

Responses

Source: Letter	Name: U.S. Environmental Protection Agency (continued)
Document Number: SF-02	City, Zip Code: Denver, 80202

General Comments

In general, we found the organization and the layout of this document to be very helpful and reader-friendly. We found a few areas, however, that could be improved in the Final PEIS. For example, the explanation of study areas was inconsistent. We understand that these areas vary by resource, and while there were defined study areas for some resources (e.g., air quality and water resources), there was no definition of the study area for others (e.g., regulated materials – hazardous substances, hazardous waste, and petroleum products). Adding maps to delineate resource study areas would also be helpful for the reader to understand exactly what area was being analyzed for each resource.

In addition, the existing maps were consistently missing Figure numbers (e.g., Figure 3.3-1 on page 3.3-4 and Figure 3.6-1 on page 3.6-14). And we understand that Table 3.3-1, which "...illustrates impacts by alternatives on wetlands, fens, and other waters of the U.S.," incorrectly referenced as Figure 3.3-1 on page 3.3-5, was missing from this Draft PEIS.

Response to SF-02 (continued)

K. The lead agencies took considerable measures to produce a reader-friendly and easily navigable document. We are glad that the effort was effective.

The Final PEIS has been revised to include more detailed explanations of the study areas in **Section 3.2, Biological Resources, Section 3.3, Wetlands and Other Waters of the U.S., Section 3.5, Geologic Hazards, Section 3.6, Regulated Materials and Historic Mining, Section 3.14, and Section 4(f) Discussion.** Additionally, the study area descriptions for the biological and wetlands resource sections have been moved from **Section 3.2.4, "What are the areas of biological resources interest identified in the Corridor"** and **3.3.4, "What are the areas of wetlands and other waters of the U.S. interest identified in the Corridor?"** to **Sections 3.2.2, "What study area and process was used to analyze air quality resources?"** and **3.3.2, "What study area and process were used to analyze wetland resources and other waters of the U.S.?"** to be consistent with the other resource sections.

Resource maps are provided in the PEIS for resources as appropriate. In an effort to maintain a concise and reader-friendly document, the number of maps included in the PEIS is limited, and the scale at which the maps are shown limits the amount of detail that can be illustrated. The maps in the PEIS provide a more general understanding of the resources in the Corridor, and more detailed mapping is available in the Technical Reports for each resource.

All figures in the PEIS have been numbered, and cross-references in the text have been verified.

Table 3.3-1, which details the impacts to wetlands, fens, and waters of the U.S. by alternative, has been added to the chapter.

Comments

Responses

Source: Letter	Name: U.S. Army Corps of Engineers
Document Number: SF-03	City, Zip Code: Littleton, 80128

Response to SF-03

- A. Comment noted. Tier 2 processes will consult with the U.S. Army Corps of Engineers and request authorization under Section 404 of the Clean Water Act when required.

This letter constitutes the U.S. Army Corps of Engineers' (Corps) comments regarding the Revised Draft Programmatic Environmental Impact Statement (RDPEIS) for the I-70 Mountain Corridor. The Corps' review focused on impacts to the aquatic ecosystem, including wetlands, streams, lakes and riparian areas.

As you're aware, while completion of the Tier 1 EIS will not result in a request to the Corps for authorization under Section 404 or the Clean Water Act, subsequent Tier 2 documents will result in such requests for authorization. Therefore, as another federal agency with decisions to make regarding the I-70 Mountain Corridor, the Corps must insure that the Tier 1 alternatives evaluation and elimination process complies with the 404(b)(1) guidelines [40 CFR Part 230]. With this letter, please be advised that the Corps has determined that the least environmentally damaging (to the aquatic ecosystem) practicable alternative has not been eliminated.

If you have any questions concerning the above comment, please contact me at (303) 979-4120.

A

Comments

Responses

Source: Letter	Name: Colorado Division of Wildlife
Document Number: SF-04	City, Zip Code: Denver, 80216

Response to SF-04

- A. Comment noted.
- B. Comment noted.
- C. Comment noted.

A

Thank you for the opportunity to provide comments on the I-70 Mountain Corridor Revised Draft PEIS. The Colorado Division of Wildlife (CDOW) appreciates the opportunity to be actively involved throughout this planning process and has previously participated in the ALIVE and SWEEP committees. We appreciate the commitment made through the Memorandum of Understanding to work together to improve conditions for wildlife in the I-70 Mountain Corridor. We welcome the effort that the Colorado Department of Transportation (CDOT) has made to consider our comments and look forward to your continued efforts and the incorporation of our comments and recommendations into the Tier 2 phase of this project.

B

The CDOW has a statutory responsibility to manage all wildlife species in Colorado. Protection of wildlife habitat, linkage interference zones, wetlands and water quality are of extreme importance in the I-70 Mountain Corridor. This document is in the Tier 1 phase and no detailed plans of the preferred alternative and the respective locations of highway improvements or the AGS are available, and no timeline for that plan is included. Adaptive management offers an important framework for managing the resources of the I-70 Mountain Corridor and clearly defined parameters, including monitoring and precise criteria for triggering management actions are recommended.

C

The comments and recommendations of this letter pertain to the preferred alternative in the Draft PEIS and associated technical reports. Site specific project level details are not readily available in the current document. Specific mitigation measures and strategies can be provided by CDOW during the Tier 2 process and/or when detailed plans are submitted.

Comments

Responses

Source: Letter	Name: Colorado Division of Wildlife (continued)
Document Number: SF-04	City, Zip Code: Denver, 80216

Two primary types of wildlife impacts addressed in the Revised Draft PEIS include direct impacts, (including barrier effects, animal vehicle collisions (AVCs), and habitat loss), and indirect impacts, (including increased growth, and increased recreation). The analysis of direct impacts included acres of habitat affected and the barrier effect of the highway corridor. We would like to see some additional discussion clarifying that the value of a specific habitat to wildlife cannot be assessed by acreage alone. Certain habitat such as wetlands may have higher value than others. Location can also be a very important factor, such that the loss of 10 acres in one setting could have a much different impact than the loss of 10 acres of a similar habitat somewhere else.

A diversity of vegetation types and wildlife habitats, including wetlands, grasslands, shrub lands and forested areas representing habitat for a variety of wildlife species will be impacted from this project. To determine overall wildlife impacts one must take a landscape view of the project -- not just the mapped critical habitats. In some situations, mitigation to wildlife impacts is better addressed on a local scale, especially on private and state lands.

Addressing the I-70 corridor's barrier effect which may impede important wildlife migration or movement routes or zones is an important issue with this project. The type and location of the Advanced Guideway System (AGS) chosen could potentially impact wildlife movement and habitat significantly if the valleys are bisected by two travel corridors. Any wildlife crossings/underpasses that are implemented should be constructed at a size (larger is generally better) and placement that will maximize their effectiveness for wildlife movement. A study of deer crossing I-70 in the Eagle Valley indicated deer would only travel 1/2 mile before turning around in an effort to find a crossing point. Large spanning structures provide some of the best crossings for wildlife. The west side of Vail Pass is a good example of this as there are several spanning bridges that make good wildlife crossing in the lower section of the pass. Additionally, planting crossings with natural vegetation to mimic native habitat, especially hiding cover, trees and shrubs, will make them more likely to succeed. Using floors made of natural substrate has also been documented to increase use of the structures by animals.

Response to SF-04 (continued)

- D. The purpose of **Section 3.2, Biological Resources** is to give an overview of project impacts. The Colorado Department of Transportation acknowledges that the value of specific habitats cannot be assessed by acreage impacts alone. In the PEIS, the presentation of acreage impacts to habitat types provides a comparative analysis of the range of impacts among alternatives appropriate for a Tier 1 assessment. This assessment concludes that alternatives with larger footprints generally incur more impacts to vegetative communities and wildlife habitat. The PEIS does discuss impacts to specific high-value habitats, including habitat for threatened and endangered species, United States Forest Service indicator species, wildlife linkage zones, and high-value fisheries. Section 3.3, Wetlands also discusses impacts to fens, which are high-value wetland habitats. Impacts related to specific vegetation communities will occur during Tier 2 processes.
- E. As noted above, the purpose of **Section 3.2, Biological Resources** is to give an overview of project impacts. Mitigation to wildlife impacts and to natural vegetation communities, including wetlands, will be addressed at the local level during Tier 2 processes.
- F. Wildlife crossings are an important component of the Preferred Alternative, and the ability to elevate the Advanced Guideway System assists in the alleviation of the barrier effect of the I-70 transportation infrastructure. **Section 3.2 Biological Resources**, in the PEIS, concludes that the Advanced Guideway System has less impact on wildlife movement than bus and heavy rail transit systems.
 - As noted in the *I-70 Mountain Corridor PEIS Programmatic Biological Assessment* (provided electronically on CD-ROM in Volume 3 of the Technical Reports and on the project website), at Tier 2, the following best management practices will be applied as appropriate:
 - Where a drainage structure (culvert, concrete box culverts [CBC], or bridge) is needed as part of the transportation system, install, modify, or maintain existing drainage structures to accommodate wildlife movement.
 - Install the largest bridge or culvert possible for any given location or terrain.

(continued on next page)

Comments

Responses

Source: Letter	Name: Colorado Division of Wildlife (continued)
Document Number: SF-04	City, Zip Code: Denver, 80216

Response to SF-04 (continued)

- F. (Continued from previous page)
 - Use span-bridges and arch-structures with natural bottoms because they are preferred over CBCs or other types of enclosed culvert.
 - Replace existing structures with structures of equal size or larger.
 - Replace small culverts (less than 3 feet in diameter) with culverts of no less than 3 feet in diameter, unless site specific conditions do not permit.
 - At a minimum, size drainage structures to provide sufficient freeboard and width to provide a dry path, preferably a natural floor, for animals to use throughout the year.
 - Avoid offsetting culverts and bridges where multiple structures are needed under a divided highway or where two roads run parallel to one another so that animals have a straight line of sight through all structures.
 - Install features to prevent human use of underpasses such as signs or barriers at potential access points.
 - Use “linear wildlife guideways” that intersect the I-70 highway in the placement of drainage structures to the extent possible.
 - Linear wildlife guideways are defined as topographical ridges or drainages, or sharply delineated changes in vegetation, or vegetation forming a peninsula. The intersection of a linear guideway with a roadway often creates a well-defined, intensely used crossing zone.
 - Within CDOT right-of-way, and if possible outside the right-of-way, maintain vegetated ridges and drainages, or other features with sharply delineated changes in vegetation, as described above.

(continued on next page)

Comments

Responses

Source: Letter	Name: Colorado Division of Wildlife (continued)
Document Number: SF-04	City, Zip Code: Denver, 80216

Fencing can be an important part of managing wildlife along the I-70 corridor. Fencing can result in fewer animal vehicle collisions (AVCs) but it can also "trap" wildlife on the highway if an opening becomes available for animals to move through. Wildlife ramps have been successful to accommodate wildlife with an avenue for escape in these situations but fence maintenance and immediate repair become paramount for human and wildlife safety. Wildlife fencing will require coordination with wildlife crossings/underpasses and linkage interference zones to provide maximum effectiveness.

Response to SF-04 (continued)

- F. (Continued from previous page)
 - Reduce distance to cover by maintaining natural vegetation around the inflow and outflow of drainage structures, preferably in the form of vegetated peninsulas.
 - Where guard rails, retaining walls, or cement barriers or steep road cuts are required, design should consider that barrier ends tend to funnel animals onto the roadway.
 - Locate the ends of barriers where there is a good line of sight to give motorists adequate time to avoid animals that enter the roadway at these locations.
 - Locate wildlife crossings at the end of barriers.
 - Design and maintain fencing with wildlife linkage interference zones (LIZs) to lead wildlife to bridges, culverts, or wildlife crossings.
 - Where culverts are to be the conduit for fishing streams, consult with Colorado Division of Wildlife regarding the proper installation of the culvert. Depending on prescribed management for the stream, the best function of the culvert may be either a fish passage or a one-directional barrier to fish movement with amphibian ledges.
 - Construct CBCs and bridges using natural colors and textures.
- G. The Colorado Department of Transportation will use best management practices for wildlife, which include fencing and escape ramps, to make sure any wildlife crossings are designed and constructed to improve driver safety and to accommodate wildlife movement across the I-70 highway.

The Colorado Department of Transportation, in coordination with the ALIVE committee, will continue to examine wildlife permeability along the Corridor, incorporating, as feasible, the most readily available current data.

Comments

Responses

Source: Letter	Name: Colorado Division of Wildlife (continued)
Document Number: SF-04	City, Zip Code: Denver, 80216

H
H
Jersey/Texas barriers, if used, should be placed leaving gaps so that small and medium sized wildlife species can successfully cross. Drainage holes through the structures should be as large as possible while not impacting the structural integrity of the barrier to allow smaller wildlife mammals, amphibians and reptiles the opportunity for movement across the highway. Barriers should have larger breaks or openings at least every 1/2 mile and more frequently where possible. Jersey barriers should include the use of the guard rail section every 1/2 mile of barrier such as has been done in Dowd Junction to allow for improved wildlife movement. Texas barriers with their increased height add an additional barrier to movement. Large and probably most mid-sized mammals will be able to navigate the extra height but that extra height will impede many animals ability to see over the barrier. The result could be that while animals can cross the barrier they will literally be jumping blindly into the on-coming traffic lanes.

Response to SF-04 (continued)

- H. The Colorado Department of Transportation will use best management practices for wildlife, including "wildlife friendly" Jersey barriers as feasible, to make sure any wildlife crossings are designed and constructed to improve driver safety and to accommodate wildlife movement across the I-70 highway.
- As noted previously, CDOT, in coordination with the ALIVE committee, will continue to examine wildlife permeability along the Corridor, incorporating, as feasible, the most readily available current data.

Comments

Responses

Source: Letter	Name: Colorado Division of Wildlife (continued)
Document Number: SF-04	City, Zip Code: Denver, 80216

I
 The protection and maintenance of water quality and aquatic resources is a major concern with this project. Impacts to fisheries, wetlands and wildlife from the effects of channelization, sedimentation, increased runoff and erosion, and increased salt concentrations due to winter maintenance operations should be minimized to the maximum extent possible. Best management practices should be utilized for all activities which may influence water quality and water resources, including the timing of in-stream work and disinfection of equipment placed in streams and wetlands. Existing fish barriers should be maintained and the incorporation of new fish barriers into highway improvement projects should be considered. The CDOW is available for consultation to assist in the use of best management practices to benefit wildlife.

Response to SF-04 (continued)

- I.
- The Colorado Department of Transportation will use best management practices and recommendations made by the SWEEP Committee, including best management practices for winter maintenance activities, for Tier 2 processes that may impact aquatic resources. These best management practices include, but are not limited to the following:
- Erosion control measures including, but not limited to, silt fence and erosion control logs, will be implemented to minimize any potential for short-term impacts on water quality.
 - Permanent water quality best management practices, including, but not limited to, sediment traps, erosion check structures, and/or filters will be implemented per CDOT water quality specifications to minimize long-term impacts, such as runoff and deposition in aquatic, wetland, and riparian habitats.
 - Areas of highway capacity improvements will include snow storage space in select locations to capture snow and other roadway runoff, thereby reducing impacts on adjacent ecosystems. Drainage/sediment control structures will be implemented as appropriate to minimize impacts from winter maintenance and increased stormwater. Methods of capturing and reducing the amount of sand/salt applied to the I-70 highway include:
 - Structural sediment control and retrieval
 - Automated deicing systems
 - Solar snow storage zones
 - Refinement of maintenance practices to minimize the amount of salt and sand applied to the highway

(continued on next page)

Comments

Responses

Source: Letter	Name: Colorado Division of Wildlife (continued)
Document Number: SF-04	City, Zip Code: Denver, 80216

J
 We agree that the cumulative impacts associated with this project are of much greater significance than the direct and indirect effects. This project will likely stimulate increased growth and development that could have an adverse effect on wildlife habitat and populations. Mountain valleys that contain important habitat and may serve as wildlife migration and movement pathways have historically been subject to development when access is improved. This type of development will likely have a larger and longer lasting impact on wildlife and wildlife habitat than the actual construction of the highway improvements. Much of the undeveloped land adjacent to the I-70 corridor is outside current town boundaries and is either already approved for or capable of being developed. In addition, we recommend that the assessment of biological impacts should also address increased recreational activities.

K
 Cumulative impacts to wildlife habitats within the I-70 corridor due to previous and ongoing development include significant habitat loss and fragmentation and barriers to wildlife movement. These impacts are likely to increase in the future regardless of which alternative is implemented. The implementation of exceptional design and operational practices as discussed in the Revised Draft PEIS and the ongoing incorporation of mitigation and adaptive management techniques will be required to acceptably mitigate wildlife impacts.

Response to SF-04 (continued)

- I. (Continued from previous page)
 - Commitments to aquatic species include culverts as the conduit for fishing streams, and consultation with Colorado Division of Wildlife regarding the proper installation of culverts. Depending on prescribed management for the streams, the best functions of the culverts may be either a fish passage or a one-directional barrier to fish movement with amphibian ledges.

The Colorado Department of Transportation will use available data in determining and finalizing best management practices for water quality and water resources during Tier 2 processes.

The Colorado Department of Transportation will consult with the Colorado Division of Wildlife for Senate Bill 40 Certification, which will include discussions concerning instream work, if applicable. Additionally, CDOT has developed a construction specification for cleaning vehicles before entering streams and wetlands, and this specification would be used on projects where these activities would occur.

- J. A discussion of cumulative impacts to biological resources due to increased land use and development and recreational usage throughout the I-70 Corridor is discussed in **Chapter 4, Cumulative Impacts** under the question "What are the biological resources cumulative impacts?". This discussion includes projected increases in recreation visitation and the potential for future demand that could exceed the capacity of forest resources. Additional information on cumulative impacts to threatened and endangered species is included in the *I-70 Mountain Corridor PEIS Biological Resources Technical Report* (provided electronically on CD-ROM in Volume 3 of the Technical Reports and on the project website).

The Colorado Department of Transportation will consider additional factors for the cumulative effects analysis during Tier 2 processes, such as the biological impacts due to increased recreational activities.

- K. Comment noted.

Comments

Responses

Source: Letter	Name: Colorado Division of Wildlife (continued)
Document Number: SF-04	City, Zip Code: Denver, 80216

Biological Resources Technical Report

- Section 5.3 – The importance of lynx habitat on the east side of the divide from the Loveland Pass/Tunnel area to Empire should be acknowledged.
- Section 5.3.2, Table 9 – The Biological Resources Technical Report mentions 3 bat species, but states that they are found outside the corridor of activities. In fact, *Corynorhinus townsendii* (Townsend’s big-eared bat) is found at least between Idaho Springs and Dumont, as is *myotis thysanodes* (fringed myotis). Although not mentioned in the report, there are also numerous observations of *myotis volans* (long legged bat), and fewer observations of *myotis ciliolabrum* (small footed bat) and *myotis evotis* (long-eared bat) within the corridor.

Response to SF-04 (continued)

- L. On Page 33 of the *I-70 Mountain Corridor PEIS Biological Resources Technical Report* (provided electronically on CD-ROM in Volume 3 of the Technical Reports and on the project website), the sentence you reference in **Section 5.3** has been changed to read “The I-70 Corridor traverses through important lynx (*Lynx canadensis*) habitat, especially along Vail Pass and east of the Continental Divide to Empire; however, many areas above 8,000 feet along the Corridor are considered lynx habitat, which could be affected by construction activities.”
- M. **Table 9** is specific to the United States Fish and Wildlife Service listed species and the information is based on the *I-70 Mountain Corridor PEIS Programmatic Biological Report* (provided electronically on CD-ROM in Volume 3 of the Technical Reports and on the project website), written in coordination with United States Fish and Wildlife Service. The *I-70 Mountain Corridor PEIS Programmatic Biological Report* has been revised to reflect changes to the status of bats, and these changes are also reflected in the *I-70 Mountain Corridor PEIS Biological Resources Technical Report* (provided electronically on CD-ROM in Volume 3 of the Technical Reports and on the project website).

Comments

Responses

Source: Letter	Name: Colorado Division of Wildlife (continued)
Document Number: SF-04	City, Zip Code: Denver, 80216

- N [Table 17 – A boreal toad breeding site located on upper Straight Creek near the Tunnel at the CDOT runoff pond may be adversely impacted by this project.
- O [Wildlife Resource Map (starting pg 86): add lynx linkage on the east side of the Divide near Herman Gulch and Bakerville. (Lynx Map 2 of 2).

Biological Report Appendix A

- P [(pg. 132) – Add to table BR-41 the new Boreal toad information on the Straight Creek site. This site has the potential to be directly impacted by this project.
- Q [(pg. 111, BR Appendix E) – Title Correction: Colorado Department Division of Wildlife State Species of Concern List.

Appendix E: ALIVE Memorandum of Understanding (2008 – Attachments)

- R [Consideration should be given to revise this MOU based on recent information on lynx use (crossings of I-70) identified in the Vail Pass Recreation and Winter Use Study data collected in 2010 (contact Eric Odell with CDOW).
- S [Table 1 – The following updates are suggested for Table 1
 - o Zone 7: East Vail Pass to Copper Mtn - 2010 USFS Vail Pass Winter Recreation Study – documented collared lynx crossing highway in this area multiple times.
 - o Zone 9a & 9b: Laskey Gulch and Hamilton Gulch/Dead Coon Gulch - Boreal toad sites located on the south side of I-70 both in Lower and Upper Straight Creek. The Upper Straight Creek Site was found by CDOT in 2010.

Response to SF-04 (continued)

- N. Comment noted. **Table 17** provides effects determinations across the project Corridor. Impacts to specific sites, such as the boreal toad breeding site on Upper Straight Creek, will be addressed in greater detail during Tier 2 processes.
- O. The lynx linkage area near Herman Gulch and Bakerville is shown on the referenced map. Because of the color chosen for the linkage area and the color chosen to represent the I-70 highway, it may be difficult to discern the two map layers at this scale. The graphic has been revised so that the map layers are made more distinct.
- P. The *I-70 Mountain Corridor PEIS Programmatic Biological Report* has been revised per direction by United States Fish and Wildlife Service. Impacts to the boreal toad breeding grounds located at the Straight Creek site will be analyzed in greater detail during Tier 2 processes.
- Q. Comment Noted. The title has been revised to read “Colorado Division of Wildlife State Species of Concern List.”
- R. The ALIVE Memorandum of Understanding was signed in April 2008 as a framework to be used in future endeavors. It is CDOT’s intent to uphold the strategies outlined in the ALIVE Memorandum of Understanding, including future coordination with Colorado Division of Wildlife, along with the use of available data in Tier 2 processes. Although the Memorandum of Understanding will not be updated to include this updated data, Tier 2 processes will rely on the most current data to establish best management practices regarding wildlife crossings.
- S. Please see the response to your comment [SF-04-R](#). Although the Memorandum of Understanding will not be revised to include this updated data, Tier 2 processes will rely on the most current data to establish best management practices regarding wildlife crossings.

Comments

Responses

Source: Letter	Name: Colorado Division of Wildlife (continued)
Document Number: SF-04	City, Zip Code: Denver, 80216

- T The CDOW encourages CDOT to continue to monitor and minimize impacts to wildlife as this project develops. Mitigation measures are likely to require modifications as land uses, wildlife populations and status, and the understanding or science behind mitigation evolve over the 40-
- T year life of this project. CDOW should be consulted on all Tier 2 projects in order to more specifically address impacts to wildlife.
- U We have appreciated the opportunity to work together with CDOT and other stakeholders to benefit wildlife on this phase and future phases of this project. If you have any questions please call Jim Komatinsky at 970-255-6104.

Response to SF-04 (continued)

- T. It is CDOT's intent to uphold the strategies outlined in the ALIVE Memorandum of Understanding, including future coordination with Colorado Division of Wildlife, along with the use of available data in Tier 2 processes. Although the ALIVE Memorandum of Understanding will not be revised to include this updated data, Tier 2 processes will rely on the most current data to establish best management practices regarding wildlife crossings. The Colorado Division of Wildlife will be invited to participate in Tier 2 processes.
- U. Comment noted.

Comments

Responses

Source: Hearing 1 Public	Name: Dan Gibbs, State Senator – District 16
Document Number: LO-01	City, Zip Code: Unknown

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Tuesday, October 5, 2010

2 MR. GIBBS: Thank you so much. I apologize for
 3 running a little bit late. I was actually over in Grand County
 4 on the fire, so I'm not dressed appropriately.

5 But I first want to thank CDOT, Federal Highway
 6 Administration, I-70 Coalition, the I-70 Collaborative, for
 7 working so hard for so many years on really trying to bring
 8 people together to look at what's possible on this 144-mile
 9 stretch that's very important to all of us.

10 It's very important to me. I'm the state senator that
 11 lives in Summit County. I represent Summit, Grand, Gilpin,
 12 Clear Creek, Western Jefferson County, and Western Boulder
 13 County.

14 I can't tell you how often I'm down at the capital
 15 with 100 legislators. And anyone that's on I-70 -- how much
 16 time do I have? No, I'll be short. Okay -- is a transportation
 17 engineer expert. That's good and bad. But everyone has
 18 wonderful ideas.

19 I think what came up with the recommendations within
 20 this PEIS study, I think that's a real positive. In particular,
 21 going back from the days a long time ago when CDOT had come
 22 forward to kind of share with the local impacted communities.
 23 And many of us had concerns at that time and many of you in the
 24 room shared these concerns that, Hey we need to have a long-term
 25 vision. We can't pave our way out of these challenges. So it'

Response to LO-01

A. The Colorado Department of Transportation originally placed a \$4 billion threshold on the cost of preferred transportation solutions for the Corridor. Stakeholders strongly objected to this threshold; they felt it was arbitrary, limited the possible transportation solutions, and did not accommodate a long-term vision for the Corridor. In response to these comments, CDOT committed to a long-term (50-year) vision, removed the \$4 billion threshold, and convened the Collaborative Effort. The Collaborative Effort was charged with reaching consensus on a recommended transportation solution for the I-70 Mountain Corridor. The group reached a consensus on a multimodal recommendation that addresses long-term and short-term needs. The Consensus Recommendation was identified as the Preferred Alternative in the PEIS. For more information on the process used for identifying the Preferred Alternative, see the PEIS **Section 2.7, "What was the decision making process for identifying the Preferred Alternative?"**.

A

Comments

Responses

Source: Hearing 1 Public	Name: Dan Gibb, State Senator – District 16 (continued)
Document Number: LO-01	City, Zip Code: Unknown

Response to LO-01 (continued)

B. The lead agencies recognize that the I-70 highway provides important access and mobility for local communities. The travel demand modeling takes into account local trips as well as long distance trips in forecasting future demand in the Corridor. For additional information on trip purposes and the effects on travel demand, please refer to the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the PEIS Technical Reports and on the project website).

Section 3.8, Social and Economic Values and **Section 3.9, Environmental Justice** contain discussions of community travel patterns and the effects of transportation on local communities.

A

1 needs to be multimodal in approach.
 2 We need to have a long-term vision of 50 years. We
 3 need to remove this \$4 billion threshold that everyone kind of
 4 wondered where that number came from -- you probably remember
 5 that very vividly -- as well as making sure that when we look at
 6 improvements that we use this Context Sensitive Solution
 7 process. It's very much collaborative in approach.
 8 I've worked on numerous pieces of legislation
 9 throughout the years that have been frankly, you know, just
 10 dealing with the pinch points, just dealing with kinda short
 11 term fixes.
 12 The chain law bill is one example where we have
 13 improvements now along I-70 where we also have variable message
 14 boards so people can see what's going on in front of them. I
 15 think that's a positive.
 16 I think it's a positive that CDOT can now contract
 17 with private entities to do a quick clearance program so if
 18 there's a wreck on I-70 we can clear that as fast as possible so
 19 people can get from point A to point B.

B

20 What I find challenging down at the capital is a lot
 21 of times they don't know or realize that us that live in Summit
 22 County or along the I-70 Corridor I-70 is not just a road that
 23 we take to get to the ski resorts or to go hiking, you know.
 24 This is the road that we use to go to church in the morning, the
 25 road that we use to go to the grocery stores and so forth. So

Comments

Responses

Source: Hearing 1 Public	Name: Dan Gibbs, State Senator – District 16 (continued)
Document Number: LO-01	City, Zip Code: Unknown

B

1 it is our artery for our mountain communities and so vital to
 2 our industry and our way of life.

3 So in the future I want to encourage you and the
 4 stakeholders, the decision-makers -- I guess that's including
 5 me -- but we need to look at public-private partnerships.

C

6 I don't know if you had a reality check earlier, but
 7 the state's going to have about a \$1 billion shortfall in terms
 8 of what our funding needs are. So when you look at CDOT's
 9 budget, which is about one billion a year, and you look at the
 10 costs of doing any of these recommendations, they're not cheap;
 11 they add up awfully quickly.

D

12 So I think we need to look at -- you're gonna kick me
 13 off? Okay. We need to look at ways to I think include kinda
 14 public-private partnerships, but also let the public know that,
 15 Hey, we're in dire situations in the state of Colorado.

16 We need to think outside the box. I think it's
 17 important to look at some of these studies like this reversible
 18 lane. Hey, if it doesn't work it doesn't work. I know you've
 19 been looking at that. But we need to look at other ways.

D

20 We need to look at buses. We need to look at -- I
 21 mean, you know, there's a lot of smart people in the room. But
 22 I think we need to continue to think outside the box.

D

23 I think failing originally is not a problem because
 24 that will help us learn that that particular solution was not
 25 really a solution that would work. But I just encourage you all

Response to LO-01 (continued)

C. The lead agencies agree that additional revenue, leadership, and support from the citizens of Colorado will be required to implement the Preferred Alternative. The Colorado Department of Transportation's budget is not sufficient to implement the entire Preferred Alternative. **Chapter 5, Financial Considerations** summarizes the cost of the Preferred Alternative, funding allocated to the I-70 Mountain Corridor, sources for CDOT's funding (and its limitations), and other potential funding sources. Public private partnerships are one of several alternative sources of funding discussed in **Chapter 5, Financial Considerations**, specifically **Section 5.7, "What are potential funding sources and their limitations?"**.

D. The lead agencies consider the Preferred Alternative to be an "outside the box" alternative. The Preferred Alternative's adaptive management approach is the first of its kind that CDOT has included as part of a Preferred Alternative. The ability to meet and reassess the effectiveness of the alternative to meet Corridor needs over time is a creative solution to address both immediate and long-term needs in the Corridor and to continue collaboration. The Preferred Alternative does include non-infrastructure related components, including bus, van, or shuttle service in mixed traffic.

The Colorado Department of Transportation is currently conducting the feasibility study you mention for adding reversible or "zipper" lanes to the I-70 highway between Georgetown and Floyd Hill in response to legislation passed by the Colorado General Assembly in 2010. The purpose of the study is to identify short-term operational actions to decrease congestion on the I-70 highway during peak periods for this specific segment of the Corridor. However, it does not meet the 2050 purpose and need of the PEIS.

The Preferred Alternative was developed in a collaborative manner. The lead agencies are committed to continuing this collaboration and to following the I-70 Mountain Corridor Context Sensitive Solutions process on all future projects in the Corridor.

Comments

Responses

Source: Hearing 1 Public	Name: Dan Gibbs, State Senator – District 16 (continued)
Document Number: LO-01	City, Zip Code: Unknown

Response to LO-01 (continued)

1 to work together in a collaborative way, the way it really has
2 been going the last few years, but to take into account the
3 concerns the people have here and, you know, really think
4 outside the box --

Comments

Responses

Source: Public Hearing	Name: Jeff Best, Town of Silver Plume Board Member
Document Number: LO-02	City, Zip Code: Silver Plume, 80476

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Tuesday, October 6, 2010

15 MR. BEST: My name is Jeff. I'm on the town board in
 16 the town of Silver Plume. And I have volunteered for numerous
 17 committees and subcommittees and information gathering so I can
 18 report back to the town board when our meetings are.
 19 And I wanted to get an idea what CDOT had in the way
 20 of plans for the immediate future and the long-term future. I
 21 figured tonight the presentation would be given as well as
 22 public comments and ideas if there -- what you're asking for
 23 here from people if they have ideas they can present them. And
 24 I have a few.

A

25 One would be promote the use of shuttle buses from the
 1 metro area to the ski resorts during the winter months so that
 2 you could have 50 to 60 people loaded on a bus from a
 3 park-and-ride on the west side of Denver where they could leave
 4 their cars and ride the transit shuttle buses to the specific
 5 resorts, and then have shuttle buses for various like Summit
 6 County area has their own bus service so that if you want to ski
 7 at Keystone in the morning and Breckenridge in the afternoon
 8 they can shuttle you that way.

B

9 What the problem is through the I-70 Corridor in Clear
 10 Creek County is the amount of people wanting two people in the
 11 car. So you have 50 cars taking 50 to 70 people, whereas one
 12 bus could do the same thing. And you'd remove those 50 to
 13 60 cars.

14 So if you had numerous shuttle buses going to each one
 15 of these main resorts on the western slope, whether it's
 16 Breckenridge, Aspen, Keystone, Copper Mountain, you would be
 17 able to remove a bunch of traffic that way.

Response to LO-02

- A. Comment noted.
- B. Bus alternatives are evaluated in the PEIS. Please see response to comment [IND-26-C](#) for more information on the bus transit alternatives in the PEIS. The bus in guideway alternatives present a number of advantages, such as flexibility and the potential ease of transfers. However, the travel forecast model indicates that the Advanced Guideway System would attract more riders than a bus system (based on the ridership survey conducted for this project); see **Appendix A** of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website) for the ridership differences of bus and Advanced Guideway System. Largely for this reason, the Advanced Guideway System is identified as the preferred transit mode. Future studies will focus on the feasibility of Advanced Guideway System technologies. If the Advanced Guideway System is found to be infeasible, the lead agencies could revise the Record of Decision and consider other transit technologies evaluated in the PEIS, including bus. The Preferred Alternative allows a thorough assessment of the overall purpose and need and effectiveness of improvements in 2020, at which time a full range of alternatives considered in the PEIS could be reconsidered.

Although the Preferred Alternative does not include shuttle service to specific ski resorts in winter months as you suggest, it does include non-infrastructure related components, which include bus, van, or shuttle service in mixed traffic. It also includes expanded park-and-ride locations, and increased carpooling as non-infrastructure strategies that can be implemented or encouraged to address immediate issues in the Corridor in advance of major infrastructure improvements. The Preferred Alternative includes new transit infrastructure (the Advanced Guideway System) as a long-term solution to improve capacity and reduce congestion in the Corridor. The Advanced Guideway System is envisioned to connect new transit service with existing services, such as the ski area shuttles you reference.

Comments

Responses

Source: Public Hearing	Name: Jeff Best, Town of Silver Plume Board Member (continued)
Document Number: LO-02	City, Zip Code: Silver Plume, 80476

18 By subtracting from the whole that would be a small
19 percentage. But if you found other ways to remove the amount of
20 cars making the traffic flow easier -- one would be an expansion
21 of the Harold D. Roberts water diversion tunnel to allow a train
22 to go through there so people could park at a park-and-ride on
23 the west side of Denver, take a train to a specific ski resort
24 in the Keystone area, and then use the shuttle service to get to
25 various ski areas over there.

1 And on Sunday afternoon when the traffic's starting to
2 build up again they could take the train back from Keystone
3 through the water tunnel with the expansion. Make it just large
4 enough to be able to take a train through going one direction so
5 that like early morning Saturday or Sunday mornings when the
6 traffic heading west is building up.

7 And then in the afternoon you do it the opposite
8 direction and just have the one way depending on times. Like
9 Friday afternoons are always busy going westbound; Monday and
10 holiday afternoons going eastbound.

11 So there's two ways to remove the flow of traffic
12 without expanding the highway.

13 Are you just going to type? What I was thinking is
14 none of these is going to be the complete solution. But taking
15 little parts of it, if you have half a million cars trying to
16 get from the west slope to Denver on a Sunday afternoon and you
17 take out 10 percent of them, it helps with the flow. If you
18 find another way to take 10 percent, it helps with the flow.

Response to LO-02 (continued)

B. (Continued from previous page)

It is true that average vehicle occupancy on the weekend is about 2 people; and, therefore, 50 cars would carry about 100 people. Bus service in mixed traffic is included as a component of the Preferred Alternative's non-infrastructure improvements, to provide a Corridorwide transit option, in advance of major infrastructure improvements, where none currently exists.

C. The lead agencies considered a number of alternate routes to relieve congestion on the I-70 highway and provide additional travel options for Corridor users.

Six separate alternate routes from the Denver area to the Dillon area were considered; two include tunnels and four are on improved surface roads. These routes are representative of the route suggested through the Harold D. Roberts tunnel (although this specific alignment was not considered). These are described as Alternate Routes 8, 9, 11, 12, 15, and 16 in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website). Route 8 (US 285 via Hoosier Pass) was eliminated based on long travel times and an inability to provide adequate access to Corridor communities, while the others were eliminated because they did not divert enough traffic from the I-70 highway to meet the purpose and need for improving mobility and reducing congestion along the Corridor.

As described in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website), alternate routes divert no more than 4 percent of traffic from the Corridor.

(continued on next page)

Comments

Responses

Source: Public Hearing	Name: Jeff Best, Town of Silver Plume Board Member (continued)
Document Number: LO-02	City, Zip Code: Silver Plume, 80476

C

19 So my ideas would be to reduce the amount of cars on
20 the road so that the flow of traffic is lessened, making it
21 easier for the cars to get through that are already are
22 continuing to take the I-70 Corridor.

Response to LO-02 (continued)

C. (Continued from previous page)

Future demand in the Corridor requires a multimodal solution. Transit-only options do not address congestion in the Corridor, as described in **Section 2.8.1** and **Figure 2-14** of the PEIS. Some highway capacity improvements are necessary to accommodate the needs of travelers and to reduce congestion. The Preferred Alternative, as well as Combination alternatives, propose both transit and highway improvements, along with non-infrastructure components, through the I-70 Mountain Corridor. Analysis in the PEIS shows that a multimodal alternative provides the best opportunity to meet the 2050 purpose and need for the Corridor. The transit component of the Preferred Alternative provides an Advanced Guideway System between the Eagle County Regional Airport and C-470/Jeffco Government Center light rail station with stops throughout the Corridor.

The Preferred Alternative does not reduce the volume of highway traffic due to current unmet demand; in concert with the transit improvements, the highway improvements increase capacity to reduce congestion and air pollution. Note that in 2050 at the Eisenhower-Johnson Memorial Tunnels, daily eastbound-only travel has about 130,000-person trip demand, which equates to about 65,000 vehicle trip demand for eastbound-only travel.

Comments

Responses

Source: Public Hearing	Name: Jeff Best, Town of Silver Plume Board Member (continued)
Document Number: LO-02	City, Zip Code: Silver Plume, 80476

Response to LO-02 (continued)

D

23 And I don't know what the truckers do right now, but
 24 there seems to be an awful lot of truckers that seem to get
 25 caught in the flow of traffic that perhaps they should organize
 1 their transportation schedules so that they're either heading
 2 westbound at a certain time when the rest of the traffic is
 3 going east, or vice versa.
 4 I mean, just the oversized full sized semis trying to
 5 get through traffic in bumper to bumper when they could easily
 6 be taken off the road during those hours would cut another
 7 portion of the total amount of vehicles on the road.

D

D. The restriction of trucks on an interstate facility is regulated by FHWA pursuant to 23 Code of Federal Regulations (CFR) 658.11. This could include restrictions such as time of day. The process identified in 23 CFR 658.111 includes coordination with local governments, analysis of effects to mobility and safety for all interstate users, and ultimate approval by FHWA.

Many freight operations have some scheduling flexibility and, as a result, avoid peak travel/congestion times to the extent possible. However, other freight operations have more strict delivery timing requirements and must operate in the Corridor regardless of traffic conditions (for example, bulk mail, food service, scheduled packaged delivery, and just-in-time shipments). Additionally, limited truck parking resources and Federal Hours-of-Service regulations further limit options for the commercial vehicle driver in the I-70 Mountain Corridor. It should be noted that the portion of heavy trucks varies greatly along the Corridor; there are more trucks on weekdays compared to weekends.

The lead agencies considered and advanced a slow-moving vehicle plan as a transportation management alternative element, included as a non-infrastructure component of the Preferred Alternative. Some of the elements of that plan specifically targeted at truck traffic, such as improved chain up stations and rest areas, can proceed with no further approval from FHWA. Improved chain up areas and enhanced traveler information strategies have already been recently installed in some Corridor locations by CDOT.

The Colorado Department of Transportation is committed to improving safety and mobility of all of the users of the I-70 highway and will continue to explore all options available to do so.

Comments

Responses

Source: Public Hearing	Name: Jeff Best, Town of Silver Plume Board Member (continued)
Document Number: LO-02	City, Zip Code: Silver Plume, 80476

Response to LO-02 (continued)

E. The Preferred Alternative includes moving the western highway ramps (at milepost 226) in Silver Plume, in part in response to public interest and suggestions. These existing ramps are short and present a capacity problem and, as you mention, are very close to established development. The Preferred Alternative proposes to move the western ramps about one mile farther west where the I-70 highway goes over the frontage road. At this new location, greater ramp capacity is provided, and less existing development is affected.

Regarding the removal of old houses, the lead agencies and other local, state, and federal historic preservation agencies and organizations recognize the importance of historic properties throughout the Corridor and in Clear Creek County specifically. A Programmatic Agreement for the I-70 Mountain Corridor, included as **Appendix B, I-70 Mountain Corridor Section 106 Programmatic Agreement**, has been developed and will be implemented on all Tier 2 processes to avoid and minimize impacts to historic properties. Moving transportation improvements away from historic properties or minimizing the footprint of improvements are some of the avoidance measures that may be implemented for future Tier 2 processes. Such alignment refinements to minimize impacts would be evaluated in Tier 2 processes. The Town will be invited to participate in that process through the I-70 Mountain Corridor Context Sensitive Solutions process. For more information on historic properties, see **Section 3.13, Historic Properties and Native American Consultation**.

E

8 Being a resident of Silver Plume all these years and
 9 being on the town board there a couple of different times
 10 20 years apart I had ideas that the highway would have to expand
 11 at some point.

12 In a small town like Silver Plume, which is an
 13 east-west valley, with the highway coming already right through
 14 the middle of town, that when it expanded it was going to take
 15 out another third of the town so that many of the old houses
 16 along the frontage road would be lost to expansion because of
 17 the exit and entrance ramp configuration being in the middle of
 18 town.

19 The idea was to have the exits and entrance moved
 20 roughly a half mile west where there's more open space. And
 21 that way when they expand the highway they wouldn't have to
 22 increase the right of way for the exits and entrances also,
 23 which meant that they wouldn't have to take some of the old
 24 houses and buildings that are along the highway that are close
 25 to the road now.

1 It's probably easier to draw it. Here's I-70 coming
 2 through and here's the exit here. The entrance westbound is
 3 here. Eastbound. So that as you're coming up, and if the
 4 highway expands to take this lane and this lane and they have to
 5 put in new exits and entrances over here, all these houses have
 6 to be knocked down or moved.

Comments

Responses

Source: Public Hearing	Name: Jeff Best, Town of Silver Plume Board Member (continued)
Document Number: LO-02	City, Zip Code: Silver Plume, 80476

Response to LO-02 (continued)

F. The PEIS provides the official response to all comments received. An electronic copy of the PEIS has been provided to all commenters who provided mailing contact information.

E

7 So if they put the exit and entrance west of town they
8 don't have to destroy those old buildings and houses, as well as
9 it preserves the old town so if people do want to get off the
10 highway and come back into town it's kind of like a secluded
11 area where you don't have people racing through town looking for
12 a frontage road.

13 Or just if they're out sight-seeing and they get off
14 the highway, it gives them time to get physiologically slowed
15 down enough that by the time they get back into the old section
16 of town they're doing 15 miles an hour rather than 45 or 50.

17 It's difficult for people when they're traveling at 65
18 miles an hour to make an exit ramp and slow down to 15. Thirty
19 to forty feels like it's crawling to them.

20 So living half a block from the exit ramp I know what
21 it's like for people driving by my house. And they don't
22 realize 30 miles an hour is 15 miles over the speed limit
23 because they can't just -- physically it doesn't work for them.

24 I don't know where that went.

25 Mailing address. Send me any written information or

F

2 Full name is Jeffery Best, B-e-s-t. Post Offi

Comments

Responses

Source: Letter	Name: Kevin O'Malley, Clear Creek County Commissioner
Document Number: LO-03	City, Zip Code: Georgetown, 80444

Response to LO-03

A. Thank you for your ongoing involvement in the I-70 Mountain Corridor and for participating in the Collaborative Effort and helping to identify the Preferred Alternative. As you note, the Preferred Alternative provides a multimodal solution with both highway and transit improvements, along with non-infrastructure components, to meet the purpose and need of the project. The lead agencies are committed to ongoing involvement of the Collaborative Effort in determining short-term and long-term decisions and are committed to soliciting public input during all Tier 2 processes. The Collaborative Effort will reconvene at least every two years to monitor progress, assess whether an appropriate balance between short- and long-term needs is being achieved, and make adjustments accordingly. In 2020, there will be a thorough reassessment of the overall purpose and need and effectiveness of implementation of these decisions. The ongoing purpose of the Collaborative Effort is to ensure consistency with the Preferred Alternative, provide a forum to track policy-level decisions and progress related to the I-70 Mountain Corridor, and provide a mechanism for evaluating the triggers and Corridor conditions.

Construction impacts do occur in Clear Creek County, although construction does not occur in a single location for the entire duration of the construction period. Strategies to mitigate construction impacts in Clear Creek County were developed in collaboration with stakeholders and are listed in **Section 3.19, Mitigation Summary**. The Colorado Department of Transportation has committed to consideration of mitigation strategies specific to Clear Creek County, as noted in **Section 3.8.7, "What are the approaches to programmatic mitigation planning for social and economic values?"** : "Mitigation strategies will also aim to address the disparity in the

(continued on next page)

I would like to thank CDOT and FHWA for asking me to address this public hearing about the revised draft of the I-70 PEIS. I'd also like to thank all of you for attending this meeting and making your thoughts about the I-70 corridor part of the public record.

For the past 6 years I have been a Clear Creek County Commissioner. During that time, I've had the opportunity to serve on the I-70 Coalition's board of Directors... on Governor Ritter's Transportation Finance Panel... and on the I-70 Collaborative Effort which developed the Preferred Alternative represented in the Revised Draft PEIS. My main role here tonight is to try and explain the 22 year history of the debate and discussion about the future of transportation in the I-70 Corridor. With apologies to CDOT and FHWA, I'm going to go a little farther than that.

A

These past 22 years can be divided into 3 segments. From 1988 to 1998 people representing various stakeholders had long discussions that led to a consensus view that the solution included both Highway improvements and high speed transit. From 1999 until 2006 the discussion changed and Highway only improvements became the preferred choice for CDOT. This led to the release of the first draft PEIS and a stalemate between the stakeholders. It was obvious the stalemate would lead to continuing arguments and, most likely, court battles.

In 2007 Russ George was appointed as the Executive Director of CDOT. No matter what the final outcome of all our transportation discussions turns out to be...every citizen of Colorado owes a debt to Director George. That outcome has been... and will continue to be... better because of the leadership Russ has provided.

From 2007 until today the discussion about I-70 has moved from stalemate back to consensus. The Preferred Alternative identified in this revised draft represents the consensus agreement reached by the stakeholders along the corridor. This solution is not perfect. It's certainly not perfect for Clear Creek County because

Comments

Responses

Source: Letter	Name: Kevin O'Malley, Clear Creek County Commissioner (continued)
Document Number: LO-03	City, Zip Code: Georgetown, 80444

Response to LO-03 (continued)

A. (Continued from previous page)

distribution of benefits and impacts that might result from construction activities. Tier 2 processes will include strategies to avoid and minimize construction impacts on Clear Creek communities.

- Considerations for peak seasonal traffic (e.g., cessation of construction activities during ski season weekends)
- Accessibility to Idaho Springs businesses
- Assisting the county with historic tourism marketing
- Developing a site-specific Tier 2 interpretive signage plan.”

we will suffer through the overwhelming negative impacts of years of construction and will see very few, if any, of the positive impacts of these projects. We support this revised draft because we believe we can trust our fellow citizens to protect the vital interests of the people of Clear Creek. Trust is good... but trust with verification is better. So, Clear Creek will be diligent in making sure that essential commitments are made and kept as we move forward.

The solution is also not perfect for the people along the front range... nor for the resort communities across the continental divide. But, it is a solution we can all live with... and if we work together we can build it.

Finally, I would like to address a recent editorial by the Denver Post opposing this collaborative effort. They resurrect terms like pie-in-the-sky to describe projects that America’s economic competitors are not only embracing but building. They seem to believe it makes more sense to spend a lot of money building a highway that will be obsolete 5 years after it is complete... rather than spending twice as much to build a transportation solution that will still be serving their great-great-grand children. I ask the Post’s editorial board to let us know if they represent the views of those people from our history who thought James Watt’s steam engine was folly or those who believed it would help lead to the expansion of the United States from the Mississippi river to the Pacific ocean. Do you represent those who believed cars and trucks would never replace the horse and buggy... air travel would never be used by the masses... interstate highways were unnecessary and a waste of money... or do you represent the views of those people who believed that the 20th Century would come to be known as the American Century.

There is a debate going on in America today. What that debate is really about is whether we choose to believe we are an old country that has achieved all it can and is ready to go off into the sunset...or, are we still a young country that intends to maintain its place in the world. So, for the Post and anyone who might believe that America’s time of invention and innovation has passed... I’ll paraphrase a well used quote. If you refuse to lead...then follow. If you can’t follow... then please, just get out of the way.

A

Comments

Responses

Source: Letter	Name: Tom Hale, Town of Georgetown
Document Number: LO-04	City, Zip Code: Georgetown, 80444

A

The Town of Georgetown appreciated the presentation by Michelle Halstead and Scott McDaniel to the Board of Selectmen describing the salient features of the Revised Draft PEIS. Overall, the Town is very pleased with the approach and contents of the revised document. Many of the concerns expressed in the town's comments to the previous draft have been addressed. Georgetown supports the multi modal decision and the limited highway capacity projects outlined in the Preferred Alternative minimum program of improvements.

B

The commitment to Context Sensitive Solutions is of particular importance to the town. We would recommend that the document state more clearly in the Executive Summary and Introduction that CSS is both a commitment to contextual design and aesthetic consideration and a stakeholder involvement process. The Town looks forward to participating on Project Leadership teams which impact our area.

C

The increased recognition of cultural resources, in particular the Georgetown Silver National Historic Landmark District, is also appreciated. The Section 4(f) analysis appears to be the direct reverse of the previous draft as it leaves the 4(f) determination to Tier 2 studies. This seems appropriate. A confusion arises in the 4(f) discussion over the 15 foot buffer zone described on pages 13.14.2 and 13.14.3. These pages appear to indicate that "constructive use", the determination of noise and visual impacts, will only be considered on properties that intersect the buffer zone. The Landmark District is in a tight canyon, where sound bounces and everything is seen, making such a limitation unreasonable to the intent of Section 4(f). The town strongly recommends clarification of this issue.

Again, Georgetown is pleased to support the document and looks forward to participating in Tier 2 projects.

Response to LO-04

- A. Comment noted. Based on the information currently available today, the highway capacity improvements in the Preferred Alternative Minimum Program of Improvements do not meet the 2050 purpose and need, and the Maximum Program of Improvements is necessary to meet the 2050 purpose and need.
- B. The Context Sensitive Solutions definition has been added to the **Executive Summary** and **Introduction** as requested in response to similar comments, and the text has been revised to reinforce the lead agencies' commitment to the I-70 Mountain Corridor Context Sensitive Solutions process.
- C. The text included in the FEIS on page 3.14-2 has been modified to clarify this issue as follows:

Constructive use occurs when the transportation project does not incorporate land from a Section 4(f) property, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired. This type of use is not determined in this discussion because the information needed to make this determination is not available. For example, as described in the Section 106 Programmatic Agreement, effects to historic properties and whether they are adverse will be undertaken during Tier 2 processes. Because this information is not available until Tier 2 processes are undertaken, the indirect impacts and mitigation for specific Section 4(f) properties are not known until that time.

*Although constructive use determinations are not part of this discussion, a buffer of an additional 15 feet has been added to the project footprint to take into account these potential uses (as expressed through noise, visual or access impacts), which may be determined constructive uses during Tier 2 processes. The Tier 2 processes will include detailed noise analysis, visual impact analysis, and access restrictions, if any. Any use will be evaluated in Tier 2 processes once sufficient design and operational information about improvements is developed. The process during Tier 2, as described further in **Section 3.14.13**, also allows for any constructive uses to be identified and recognizes that the 30-foot buffer zone does not limit the Section 4(f) evaluation at Tier 2.*

Comments

Responses

Source: Letter	Name: Mayor Dave Koop, Town of Silverthorne
Document Number: LO-05	City, Zip Code: Silverthorne, 80498

A

On behalf of the Town of Silverthorne we would like to thank CDOT and FHWA along with the many other individuals and agencies who have worked so hard to bring this study to this final stage. As you know we have remained active in this process through our membership in the I-70 Coalition and we support the Consensus Recommendation that is consistent with the Coalition's Preferred Alternative. The Town of Silverthorne also supports comments made by the I-70 Coalition on this draft. We have been happy to have our Public Works Director, Bill Linfield, participate on the Project Leadership Team representing Summit County.

We look forward to working together to bring this process to closure with the Record of Decision.

Response to LO-05

- A. Comment noted. Thank you for your ongoing involvement in the I-70 Mountain Corridor PEIS.

Comments

Responses

Source: Letter	Name: Eagle County Board of Commissioners
Document Number: LO-06	City, Zip Code: Eagle, 81631

Response to LO-06

- A. Comment noted
- B. It is true that the I-70 Mountain Corridor is divided between CDOT planning Region 1 and Region 3. The PEIS has been managed through Region 1 in close coordination with Region 3. Future Tier 2 processes will be managed by the region in which they are located, or by Region 1 in close coordination with Region 3 if they are located in both regions. Both regions are dedicated to the vision of improvements in the Corridor as defined by the Consensus Recommendation, and CDOT does not plan to establish a separate planning region for the I-70 Mountain Corridor.
- C. The description of the Advanced Guideway System has been modified to clarify that it would be capable of being fully elevated. This clarification was reviewed with the Collaborative Effort committee, who concur with the change. Feasibility studies and related Tier 2 processes will include consideration of specific recommendations about design and alignment in the context of site-specific conditions and whether the Advanced Guideway System needs to be elevated or would be more appropriate at grade in some locations.
- D. Both the eastern and western geographic boundaries referred to as the "project termini" are based on the purpose and need for the project. In this case, the purpose and need focuses on mobility, congestion, accessibility, and capacity in the I-70 Mountain Corridor. The system interchange of the I-70 highway with C-470 marks a change in travel patterns where the Corridor connects to the Denver metropolitan area and its higher traffic volumes. This intersection also represents a transition to Denver metropolitan area transportation systems, including urban highways and transit systems, such as the Regional Transportation District's FasTracks rail system. Based on the travel demand model described in the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the PEIS Technical Reports and on the project website), a direct connection from the Corridor to Denver International Airport would

(continued on next page)

A Thank you for the opportunity to review and comment on the I-70 Mountain Corridor Revised Draft Programmatic Environmental Impact Statement (RDPEIS). As an active stakeholder and participant, we would like to commend you on an outstanding effort to address all the concerns that derived from the 2004 release of the Draft PEIS. We feel the sincere effort to bring everyone to the decision making table that resulted in the collaborative effort's Preferred Alternative has bridged great relations with CDOT as well as our neighboring communities.

Overall, we support the RDPEIS's findings and Preferred Alternative. As a Tier 1 document of a Programmatic NEPA process, we're in agreement with its travel mode, capacity, and general location. While we understand the need to place bookends in the evaluation, we would like to highlight several areas of concern as we look forward to Tier 2 documents for specific projects (refining alternatives, specific alignment, design, and mitigation decisions.)

B • Planning Process - Page ES - 24: The I-70 Corridor from C-470 to the Eagle County Airport is unique and economically significant to Colorado. It is the only east-west interstate across our great state. Per the process, the advocacy for projects is divided between two different Planning regions and funds are distributed by two separate transportation regions. We would advocate for a dedicated planning and transportation region specifically for the I-70 mountain corridor.

C • Preferred Alternative - Advanced Guideway System (AGS) "The Advance Guideway System is a fully elevated transit system" Page 2-43: A fully elevated AGS may not be the best solution through our communities. We would like to ensure the Preferred Alternative does not preclude portions of the AGS to be at-grade due to specific site locations. Tier 2 studies should allow flexibility to local communities that place high premiums to vistas and esthetics.

D • Study Limits - Glenwood Springs (milepost 116) to C-470 (milepost 260) Page 1-5: While we understand the stated rationale for the C-470 terminus, the Denver International Airport is a more logical terminus. Multimodal approach is the accepted solution to our regional transportation needs and our means to a sustainable transportation system. We should enable connectivity between all modes of transportation such as air, rail and highways.

Comments

Responses

Source: Letter	Name: Eagle County Board of Commissioners (continued)
Document Number: LO-06	City, Zip Code: Eagle, 81631

Response to LO-06 (continued)

D. (Continued from previous page)

increase ridership by approximately 10 percent. Capturing this small volume of transit riders (and diverted traffic) is not required to meet the purpose and need for the I-70 Mountain Corridor.

As noted in **Section 1.5, “What are the study limits and why were they selected?”**, the project termini do not preclude other transportation improvement studies outside the Corridor. Connections between the Advanced Guideway System component of the Preferred Alternative and other locations in the Denver metropolitan area will be studied as part of the Colorado Interregional Connectivity Study being conducted by the CDOT Division of Transit and Rail.

Comments

Responses

Source: Letter	Name: Eagle County Board of Commissioners (continued)
Document Number: LO-06	City, Zip Code: Eagle, 81631

- Noise – Page 3.10-2: Although the RDPEIS do not identify Eagle County communities as noise impacted, except for Vail as an “area of noise interest” because their existing noise level already exceeds the CDOT’s Noise Abatement Criteria (NAC), we would like to recognize communities such as Eagle-Vail and Edwards as noise impacted communities that warrant further noise mitigation study.
- We would like to affirm the Tunnel at Dowd Canyon component of the Preferred Alternative. Safety is paramount. Due to local geology, the possibility of structural shoring failure on I-70 and US 6 is a reality. A long term closure of I-70 and US 6 would be catastrophic regionally and locally from an economic standpoint. The best long term solution would be a tunnel.

Response to LO-06 (continued)

- E. The primary purpose of the noise study conducted for the PEIS was to provide the lead agencies and stakeholders the ability to compare noise levels among alternatives. Given the relatively large number of alternatives, and the 144-mile length of the Corridor, it was not the intent of the study to estimate noise levels at all noise sensitive receptors (e.g., residences) located along the Corridor for each alternative or to recommend specific noise mitigation (reduction) measures. The current Tier 1 study compares and contrasts noise among alternatives on a relatively qualitative basis in seven representative locations, and provides a list of possible mitigation strategies that could be considered during Tier 2 processes. As described in **Section 3.10.6, “What will be addressed in Tier 2 processes?”** of the PEIS, future Tier 2 processes will include detailed noise analyses that evaluate alternatives at specific locations.
- F. The lead agencies acknowledge that regional and interstate commerce and tourism-based trips can be impacted from highway closures due to rockfall and landslides. The lead agencies considered the impact that the Action Alternatives would have on geologic hazards in the Corridor, and Dowd Canyon is a recognized geologic hazard. Rockfall and landslides causing roadway closure or maintenance issues are prevalent in Dowd Canyon. The 65 miles per hour variation of the Six-Lane Highway Alternative is the only Action Alternative that includes a proposed tunnel at Dowd Canyon; this component avoids many of the geologic hazards and provides safer highway conditions, bypassing the active slide by placing the eastbound lanes in a new three-lane tunnel and lowering potential for rockslides. Although the 55 mph option of the highway component does not include tunneling through Dowd Canyon, appropriate mitigation strategies will be developed to ameliorate the landslide and rockfall concerns. Future Tier 2 processes will analyze both the 55 mph and 65 mph design options and mitigation strategies to identify the preferred improvements in Dowd Canyon.

Comments

Responses

Source: Letter	Name: Eagle County Board of Commissioners (continued)
Document Number: LO-06	City, Zip Code: Eagle, 81631

In addition, we would like to provide the below list of technical concerns:

- Page 19, the area of Eagle County is 1,694 square miles according to our GIS Department, not 1,688 square miles.
- Page 19, land uses in unincorporated areas include commercial and industrial. While areas in the towns include residential uses.
- Page 19, towns in Eagle County need to include Red Cliff and Basalt.
- Page 21, in the chart "Summary" for "Growth and Population" Eagle County does not see a high rate of growth or even growth at historic rates in the future.

G FHN

Response to LO-06 (continued)

- G. The area of Eagle County has been revised to 1,694 square miles in the *I-70 Mountain Corridor PEIS Land Use Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website).
- H. The text in the *I-70 Mountain Corridor PEIS Land Use Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website) has been revised as follows: "Land uses in unincorporated areas include agriculture, commercial, industrial, large-lot rural residential, and subdivisions. Land uses within town are commercial, industrial, and residential."
- I. The towns of Red Cliff and Basalt have been added to the list of towns in Eagle County in the *I-70 Mountain Corridor PEIS Land Use Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website).
- J. While historic growth rates in the 1990s were very high, the Eagle County Comprehensive Plan identifies a high rate of both jobs and population growth in the future, albeit below historic growth rates. **Section 2.4** of the Eagle County Comprehensive Plan identifies strong jobs growth and states that population growth rates "are quite strong compared to national trends, but remain considerably below the population growth rates of 6% that occurred locally during the 1990s."

Clarifying language has been added to **Table 3.7-1** in the PEIS and **Table 3** in the *I-70 Mountain Corridor PEIS Land Use Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website) stating "Eagle County anticipates a continued high rate of population growth, although not as high as the growth rate experienced in the 1990s. The County seeks to balance that growth with economic success, quality of life, and environmental preservation."

Comments

Responses

Source: Letter	Name: Eagle County Board of Commissioners (continued)
Document Number: LO-06	City, Zip Code: Eagle, 81631

K
L
M
N
O

- Page 22, "Numerous Corridor communities have high numbers of second homes. This type of development is generally rural and dispersed." This statement would not apply to Eagle County. For example, in Vail, which is comprised of approximately 70 percent second homes, is urban in nature.
- Page 23, "This study assumed a 33 percent growth in population and residences would occur steadily between 2010 and 2050." This is not an assumption Eagle County would agree to since we are currently completing a low, medium, and high growth rates. These numbers are to be delivered by the consultant at the end of November 2010.
- Page 37, The reference to Kris Aoki, the last name is now Valdez and she is not a planner for Summit County, only Eagle County.
- Appendix A, Maps 2-6 there are numerous errors regarding land use. Please refer to the online GIS maps at <http://gisweb.eaglecounty.us/website/ecgis/viewer.htm>

Again, thank you for the courage and leadership in pursuing a more collaborative, iterative process through Tier 1; thus greatly improving on the first attempt at the I-70 DPEIS. We support the approval of the RDPEIS and look forward to the final PEIS and its Record of Decision in the near future. If you have any questions, please don't hesitate to contact us or our point of contact for the I-70 PEIS effort; Eva Wilson, County Engineer, 970-328-3560.

Response to LO-06 (continued)

- K. The following clarifying statement has been added to the **Section 3.7.4, "What are the areas of land use and right-of-way interest identified in the Corridor?"** of the PEIS and the *I-70 Mountain Corridor PEIS Land Use Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website): "...although second homes occur in urban areas such as Vail, Breckenridge, and Silverthorne as well."
- L. The *I-70 Mountain Corridor PEIS Land Use Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website) references the 2009 Eagle County Build-out Analysis and Visualization Project, which assumed the 33 percent growth rate quoted. Tier 2 processes will coordinate with local jurisdictions and will incorporate the most readily available current land use planning data, including data such as the low, medium, and high growth rates that you reference in your comment.
- M. The text in the *I-70 Mountain Corridor PEIS Land Use Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website) has been revised to state the correct surname and county affiliation.
- N. Due to the range of zoning classifications used by each town and county, a uniform zoning map was created for the entire Corridor that illustrates residential, commercial, industrial, public, mixed use, open space, and other zoning categories. In areas without zoning, known land uses were used as guidance for zoning classifications. Zoning regulations were used to interpret zoning categories to achieve a comprehensive zoning map. These generalized categories were chosen to best represent the zoning for the entire Corridor and are described in **Table A-1**, which has been added to **Appendix A** of the *I-70 Mountain Corridor PEIS Land Use Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website). CDOT worked with Eagle County in the establishment and application of these zoning categories to land use mapping in Eagle County.
- O. Comment noted

Comments

Responses

Source: Letter	Name: Clear Creek County Board of Commissioners
Document Number: LO-07	City, Zip Code: Georgetown, 80444

A

Clear Creek County appreciates the future-oriented solutions to the transportation problems of the I-70 Mountain Corridor put forward by the Colorado Department of Transportation in the Revised Draft PEIS. We support the comprehensive set of multimodal solutions presented in the document, including the Advanced Guideway System, the specific highway capacity improvements and the non-infrastructure related improvements. We applaud CDOT’s efforts to bring disparate interests together through the Collaborative Effort and then evaluate and adopt the Consensus Recommendation developed by the group.

B

While we feel that it is vitally important to move the process forward, we need to express to everyone involved that our endorsement represents a great leap of faith on behalf of our constituents. We need assurance that the leap of faith was the right thing to do – that our future Clear Creek residents will benefit from this transportation project, and not simply become inhabitants of the sacrifice zone.

C

We recognize that as a Tier 1 document the information provided does not address all of our concerns, but it appropriately sets the vision for our corridor and makes commitments for the studies and actions that will follow. Through the past 20+ years Clear Creek County has often been in a position of dissatisfaction with proposed actions. Through our association with the I-70 Coalition and the Collaborative Effort we have arrived at a position of support for the current document. We are, however, keenly aware of the shifting sands of transportation planning:

- 1988 I-70 West transportation Needs Assessment (Governor Romer)
- 1996 Passenger Rail Study (Governor Romer)
- 1997 CDOT Modal Transportation Survey (Governor Romer)
- 1998 I-70 Mountain Corridor Major Investment Study (Governor Romer)
- 2004 Draft PEIS (Governor Owens)
- 2010 Revised Draft PEIS (Governor Ritter)
- 2011 Final PEIS & ROD (Governor Hickenlooper)

We look forward to the completion of this effort under Governor Ritter, with a Final PEIS and Record of Decision in 2011 under Governor Hickenlooper. Support from elected and administrative officials at the highest level will be necessary during the coming years of political change, as together we pursue implementation of this plan. It is critical that this PEIS be the definitive guide to transportation transformation in the I-70 Corridor.

Response to LO-07

- A. Thank you for your involvement in the Collaborative Effort and in identifying and supporting the Consensus Recommendation and Preferred Alternative in the PEIS.
- B. The Colorado Department of Transportation has committed to continuous stakeholder involvement following the I-70 Mountain Corridor Context Sensitive Solutions process and working with Collaborative Effort team for all tasks and projects conducted on the I-70 Mountain Corridor, including Tier 1 and Tier 2 processes. These commitments ensure that stakeholder values are incorporated into decisions in the Corridor, including values important to Clear Creek County. Please see the responses to your comments [LO-07-C](#) through [LO-07-S](#) for more information about your specific concerns and comments.
- C. The Preferred Alternative is a comprehensive proposal for improvements to the I-70 highway. The Colorado Department of Transportation is committed to implementing recommended improvements as funding allows. Please see the responses to your comments [LO-07-D](#) through [LO-07-S](#), which provide more specific information about PEIS content and Tier 2 processes.

The lead agencies agree that additional revenue, leadership, and support from the citizens and elected officials of Colorado will be required to implement the Preferred Alternative.

Comments

Responses

Source: Letter	Name: Clear Creek County Board of Commissioners (continued)
Document Number: LO-07	City, Zip Code: Georgetown, 80444

Because this document must be the guide for future leaders, we would like to offer comments on issues that we recommend be more thoroughly addressed in the Final PEIS and in the Tier 2 studies that will follow. There are three over-arching concerns that are of highest importance to the citizens of Clear Creek County and to the economic and environmental health of our community.

D

- The RDPEIS identifies numerous adverse impacts the Preferred Alternative creates for Clear Creek County and it acknowledges that Clear Creek County may suffer more adverse impacts than benefits from highway alternatives considered in the RDPEIS.** As is identified on page 28 of the *Social and Economic Values Technical Report*, “the localized impacts are expected to be most prominent in Clear Creek County.” And, “How much inconvenience and even economic loss ... would be endured?” As acknowledged on page 3.18-2, there will be environmental impacts including air, water, noise, disturbance of regulated materials, and light. Pages 4-21 and 4-22 describe the cumulative impacts and possible future impacts to our communities’ historic resources. In addition to those considerations, how will a community of families survive when access to jobs and education may be seriously disrupted for residents west of Floyd Hill for more than a decade? Children who live in the communities of Empire, Georgetown, Silver Plume, Dumont, Lawson and Downieville, St. Mary’s and lands in unnamed areas of Clear Creek County will have impaired access to their schools. Access to jobs for adults will be impaired. And access to our local businesses will be impaired. The cumulative impact of the construction of multiple components of the Preferred Alternative must be accounted for – not just the effects of the construction period for a particular project element. We agree with the statement on page 3.18-2 that Clear Creek County may suffer more adverse impacts than benefits from highway alternatives. We also agree with the analysis of the Environmental Justice issue that Silver Plume has submitted and believe that additional locations in Clear Creek County require a more detailed EJ analysis – and that more detailed analysis should not wait until Tier 2.

Response to LO-07 (continued)

- The PEIS does not conclude that numerous adverse impacts would occur in Clear Creek County or that the county may suffer more adverse impacts than benefits. The PEIS does acknowledge in **Section 3.8, Social and Economic Values** that Clear Creek County has raised the concern that construction impacts in the county outweigh the benefits to other counties from the Action Alternatives. **Section 3.8.7, “What are the approaches to programmatic mitigation planning for social and economic values?”** provides mitigation strategies to avoid and minimize construction impacts throughout the Corridor and specifically in Clear Creek County communities.

The lead agencies will conduct further analysis of localized construction impacts during project-specific Tier 2 processes. This analysis will include an economic analysis and evaluation of project phasing, work site locations, and the potential for temporary construction related impacts such as detours, closures, out-of-direction travel, fugitive dust, and construction related noise. The analysis will examine impacts to local businesses as well as the effects of construction on access to employment and school sites. Mitigation strategies will be developed in conjunction with Clear Creek County and other Corridor communities; mitigation will also be considered for cumulative construction impacts if those are found to occur. Please note that while the Preferred Alternative is planned to be implemented incrementally and implementation will likely occur over many years, construction would not likely affect one location for 10 years as suggested.

The presence of minority and/or low-income populations has been re-evaluated according to CDOT’s *Title VI and Environmental Justice Guidelines for NEPA Projects, Rev. 3, December 2004* and documented in **Section 3.9, Environmental Justice**, of the PEIS and the *I-70 Mountain Corridor PEIS Environmental Justice Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website). This approach establishes county-specific thresholds for the identification of minority and low-income populations. A broader impact analysis has also been included for environmental justice.

(continued on next page)

Comments

Responses

Source: Letter	Name: Clear Creek County Board of Commissioners (continued)
Document Number: LO-07	City, Zip Code: Georgetown, 80444

E

The RDPEIS does not provide sufficient baseline social and economic data to address these concerns, therefore we request baseline social and economic data for Clear Creek County and a detailed analysis of the effects of construction on the social and economic fabric of our County and its communities. CDOT should provide a clearer quantitative picture of the distribution of project benefits and adverse impacts for each of the Action Alternatives and relative to the No Action Alternative. Appropriate mitigation and monitoring strategies and alternatives, integral to adaptive management, as identified in the attached CEQ Memorandum (February 10, 2010, Nancy H. Sutley) should be identified and committed to in the Final PEIS and utilized in future Tier 2 studies.

Response to LO-07 (continued)

- D. (Continued from previous page)

The updated analysis finds a low minority population in the Corridor (8 percent). Low-income populations are present throughout the Corridor and are highly variable in terms of geographic location within the communities, averaging 14 percent Corridorwide. Silver Plume continues to have a higher percentage of low-income residents than other Corridor communities (32 percent).

The Colorado Department of Transportation understands the concerns noted by the Town of Silver Plume. The particular areas of concern for environmental justice will be evaluated during Tier 2 processes when more current data is available, more detailed design and construction information has been developed, and impacts are evaluated at the local level along with mitigation measures for those impacts.

Please refer to response to comment [LO-11-A](#) for a response to Silver Plume’s comment about the environmental justice analysis.
- E. The Colorado Department of Transportation recognizes Clear Creek County’s particular concerns with respect to the potential socioeconomic impacts of the Action Alternatives on the County.

A regional approach was taken to evaluate the effects of alternatives on the Corridor economy. Project alternatives affect a broad, interrelated economic region that includes economies such as Corridor tourism, the Front Range, and the State of Colorado. Because of the economic interdependency of the Corridor counties (including commuting for jobs), the Tier 1 economic analysis was conducted for a nine-county region as a whole in order to consider the broad economic implications of alternatives.

(continued on next page)

Comments

Responses

Source: Letter	Name: Clear Creek County Board of Commissioners (continued)
Document Number: LO-07	City, Zip Code: Georgetown, 80444

Response to LO-07 (continued)

E. (Continued from previous page)

County-level economic impacts are summarized in the *I-70 Mountain Corridor PEIS Social and Economic Values Technical Report* (included on CD-ROM in Volume 4 of the Technical Reports and on the project website). **Table 9** of the Technical Report presents Gross Regional Product by county to provide a context to the regional alternative impacts. The Gross Regional Product is defined as the total value of new goods and services produced in a year, equal to total consumer, investment, and government spending. **Table 9** demonstrates how the bulk of economic activity would be concentrated among the central and western counties of the Corridor in Eagle, Summit, Pitkin and Garfield; while Lake, Gilpin and Clear Creek counties experience the least economic activity.

The PEIS acknowledges that the economic impacts and benefits would not be shared equally among the Corridor counties. **Section 3.8, Social and Economic Values** provides mitigation strategies to avoid and minimize construction impacts on Clear Creek County. These mitigation strategies were developed in collaboration with an Issues Task Force that included Clear Creek County participation. During Tier 2 processes, the lead agencies will conduct further analyses of local county economic impacts and will develop information about county-level travel demand, project phasing, time-phased estimates of capital expenditures, worksite location and scheduling, and sourcing of materials, equipment, services, and labor.

Considerations for monitoring impacts are included in the use of the I-70 Mountain Corridor Context Sensitive Solutions process, the SWEEP Memorandum of Understanding, ALIVE Memorandum of Understanding, and the Section 106 Programmatic Agreement. Additionally, CDOT and FHWA have made the commitment to use the I-70 Mountain Corridor Context Sensitive Solutions process on all projects on the Corridor to ensure that stakeholder values are incorporated into decisions. The Collaborative Effort will review progress and effects of the Preferred Alternative at least every two years with a reassessment in 2020 and make adjustments accordingly. (continued on next page)

Comments

Responses

Source: Letter	Name: Clear Creek County Board of Commissioners (continued)
Document Number: LO-07	City, Zip Code: Georgetown, 80444

F

2. **The second issue of over-arching importance to us is that of commitment to Context Sensitive Solutions.** It is this commitment that will allow the I-70 transportation corridor to fit the communities it impacts and serves. Glenwood Canyon is internationally recognized as superb Context Sensitive Design. The entire corridor should rise to this level. While CSS is addressed in Chapter 6 and very well explained in Appendix A, **we recommend that it also be prominently featured in the Executive Summary**, reminding all future users of this document that the broad interdisciplinary involvement and the commitment to public engagement were important aspects of this PEIS that helped to earn the support of Clear Creek County and other communities in the corridor.

G

A specific issue relating to CCS and the importance of public engagement is joint planning - particularly in Clear Creek County where the county government has a vested interest in water diversion and storage projects along I-70 and Clear Creek. While we appreciate the inclusion of concepts and projects found in our Master Plan, Non-Motorized Master Plan and our Greenway Plan, the County's critically important water future was not identified in the Revised Draft PEIS. **We request inclusion of this important topic that will need to be taken into account in future planning and construction in the I-70 Corridor. Maps relating to this effort are attached.**

H

3. **A third high level item is the importance of a broad interpretation of "capacity improvements."** In the Executive summary (page ES-21) "capacity improvements" are referred to as six-lane widening and their description paraphrased from the Collaborative Effort's Preferred Alternative. We recommend that the CE's language not be paraphrased, but simply be quoted. The understanding that "capacity improvements" is not simply "six-lane widening" but may include techniques and actions that achieve a capacity result equivalent to six lane widening.

Response to LO-07 (continued)

- E. (continued from previous page)

Thank you for pointing out guidance by the Council on Environmental Quality (CEQ). This guidance was issued in final form on January 14, 2011. Mitigation strategies are provided in the Tier 1 PEIS to guide subsequent Tier 2 processes; these mitigation strategies may become specific mitigation commitments in Tier 2 processes. As noted in the **Introduction to Chapter 3**, tiering the analysis addresses the impacts of a broad program (defining travel mode, capacity, and general location) and associated issues at a higher level, and outlines mitigation "strategies" at a similarly high level. Tier 2 processes follow the processes and decisions defined at Tier 1 and analyze site-specific proposals and impacts and commit to site-specific mitigation measures.
- E. The definition of Context Sensitive Solutions and its purpose have been included in both the **Executive Summary** and the **Introduction** of the PEIS. Please refer to response to comment [ORG-03-C](#) for the language included.
- F. The Colorado Department of Transportation is committed to implementing Context Sensitive Solutions principles and remains committed to collaborating with its stakeholders for all future Tier 2 processes. The water future of the Corridor is discussed in **Section 3.7, Land Use and Right-of-Way**, of the PEIS and in **Appendix A** of the *I-70 Mountain Corridor PEIS Water Resources Technical Report* (included on CD-ROM in Volume 3 of the Technical Reports and on the project website). However, the proposed reservoirs and diversion points provided in your comments were not included in the RDPEIS. The following text has been added to **Section 3.4.4, "What are the water resources of interest identified in the Corridor?"** in the Final PEIS: "Clear Creek County proposes several future reservoirs for water storage along the I-70 highway and Clear Creek." Tier 2 processes will incorporate the most readily available current data, including the current Clear Creek County water rights plans.
- G. The language from the Consensus Recommendation has been included verbatim. References to six-lane "widening" have been replaced with six-lane "capacity."

Comments

Responses

Source: Letter	Name: Clear Creek County Board of Commissioners (continued)
Document Number: LO-07	City, Zip Code: Georgetown, 80444

In addition to these over-arching issues, we have identified a number of items that are more specific in nature, as itemized below:

I

Page ES-23 The statement that there is public support for Empire Junction improvements is incorrect because there have been no public meetings to discuss the yet-to-be identified improvements. There are many interests that converge at Empire Junction and there are competing visions for the area. Until there is an inclusive public process to identify the preferred vision, it is premature to state that there is public support for improvements. **It would be accurate to say that elected officials support the Feasibility Study effort for Empire Junction.**

J

Page ES-31, Question 32.8 and Chapter 3, Section 3.10 We recommend that the discussion of noise impacts be expanded to include construction noise – an important concern for Clear Creek County and its communities, many of which are already experiencing noise in excess of CDOT’s Noise Abatement Criteria (NAC). Perhaps a bullet point list regarding construction noise mitigation should be created.

Response to LO-07 (continued)

- I. The lead agencies agree that the qualifiers providing information about the early action projects in **Section ES.23** of the PEIS may be premature. The qualifiers from the bullet list have been removed. The list now reads:
 - Empire Junction (US 40/I-70) improvements
 - I-70/Silverthorne interchange
 - Eagle interchange
 - Minturn interchange
 - Edwards interchange
 - Black Gore Creek and Straight Creek Sediment Control
 - I-70 Wildlife Fencing
 - Clear Creek Sediment Control Action

- J. **Section 3.10.7, “What are the approaches to programmatic mitigation planning for noise?”** lists construction noise mitigation strategies that will be considered in Tier 2 processes. These strategies include limiting construction to daylight hours when feasible and requiring contractors to use well-maintained construction equipment, especially with respect to mufflers. As noted in **Section 3.10.7, “What are the approaches to programmatic mitigation planning for noise?”** detailed approaches to mitigation will be determined during Tier 2 processes.

Comments

Responses

Source: Letter	Name: Clear Creek County Board of Commissioners (continued)
Document Number: LO-07	City, Zip Code: Georgetown, 80444

K

Page ES-35, Question ES 34 We recommend in the lead agencies Tier 2 discussion that the AGS Feasibility Study be specifically identified, otherwise we may end up with a series of discrete highway construction projects and never move ahead on the transit solution.

Response to LO-07 (continued)

K. Section ES.34, “What are the next steps in the PEIS process?”, of the PEIS has been revised. The following language has been added in response to your recommendation: “Tier 2 processes will refine alternatives, specific alignment, design, and mitigation decisions consistent with the Tier 1 Record of Decision. For the first transit-focused Tier 2 process, the transit technology decision will be made and then incorporated into subsequent Tier 2 processes. The technology and alignment decisions may influence other decisions, such as station location or maintenance facility location.

Subsequent Tier 2 processes will define and evaluate alternatives, alignment, interchange design, exact station locations, exact location of transportation improvements, location of design or mitigation elements and bike paths, among other things. Tier 2 processes will also evaluate design details and specific environmental and community impacts. Specific mitigation commitments associated with impacts will be identified and agreed to at Tier 2.”

Comments

Responses

Source: Letter	Name: Clear Creek County Board of Commissioners (continued)
Document Number: LO-07	City, Zip Code: Georgetown, 80444

Response to LO-07 (continued)

- L. The Colorado Department of Transportation recognizes that the Twin Tunnels provide a natural wildlife crossing area and that stakeholders have expressed this same concern that the crossing be maintained. The Twin Tunnels Wildlife Land Bridge is identified as a potential Section 4(f) property, discussed in Sections 2.2, 3.2.3, and 4.3 of the I-70 Mountain Corridor PEIS Section 4(f) Evaluation Technical Report (provided electronically on CD-ROM in Volume 5 of the Technical Reports and on the project website). As a Section 4(f) property, it is afforded special protection. During Tier 2 processes, if a prudent and feasible alternative exists to avoid use of this Section 4(f) property, that alternative must be chosen. Section 4(f) also requires that all possible planning to minimize harm to the Twin Tunnels Wildlife Land Bridge be done. Text has been added to Section 3.2, Biological Resources of the PEIS stating “Existing land bridges currently used by wildlife, such as the Twin Tunnels Wildlife Land Bridge, will be protected if feasible.” While the initial concept of a third tunnel bore will not affect the top of the crossing, potential impacts to wildlife resulting from the third bore will be fully evaluated during Tier 2 processes.

- M. Text in **Section 3.7.2, “What study area and process was used to analyze land use and right-of-way?”** has been revised as follows: “The Colorado Department of Transportation right-of-way data used for this analysis show that parcels in some locations in Silver Plume, Georgetown, Idaho Springs, and unincorporated areas within Clear Creek County encroach on the existing highway right-of-way...” **Section 3.7.4, “What are the areas of land use and right-of-way interest identified in the Corridor?”** has been revised as follows: “Existing I-70 highway right-of-way is most limited in Clear Creek County, where CDOT right-of-way data show that private land encroaches on the interstate right-of-way in some locations.”

The exact locations of encroachments have not been provided in this Tier 1 PEIS because the accuracy of the parcel information available at the Tier 1 level is not exact, and surveying must be conducted during Tier 2 processes to verify specific locations and resolve any right-of-way conflicts.

L
Page 3.2-18 and Appendix E We concur with the comments offered by the Clear Creek County Open Space Commission regarding the importance of the Twin Tunnels land bridge and the important role it plays in habitat connectivity. It may have been lost in this section because it is existing – not a proposed mitigation for wildlife impacts. Also, because it functions so well as a wildlife land bridge, this stretch of I-70 may not generate data to indicate that it merits consideration as a Linkage Interference Zone. **Therefore, we would like to see the Twin Tunnels identified as an existing feature that merits special preservation consideration.**

M
Page 3.7-2, Chapter 3, Section 3.7 Land Use and Right of Way Please provide additional explanation and specific locations in Clear Creek County “...where private land in some cases encroaches on the interstate right-of-way.”

Comments

Responses

Source: Letter	Name: Clear Creek County Board of Commissioners (continued)
Document Number: LO-07	City, Zip Code: Georgetown, 80444

Response to LO-07 (continued)

N. Information about how the alternatives directly affect land use and right-of-way is contained in **Chart 3.7-1** of the PEIS. This chart shows the number of parcels ranging from approximately 220 with the Minimal Action Alternative to over 300 with the Combination Six-lane Highway and Rail with Intermountain Connection Alternative. Direct impacts to buildings and other property improvements are anticipated to occur only in Clear Creek County.

Section 3.14, Section 4(f) Discussion has been modified to clarify the intent of the application of constructive use for Section 4(f) properties. The new language clarifies that during Tier 2 processes, constructive uses (to include noise, visual and access impacts) could be identified which fall outside the 30 foot buffer zone. The new text related to this is on page 3.14-2 and states: "The Tier 2 processes will include detailed noise analysis, visual impact analysis, and access restrictions, if any. Any use will be evaluated in Tier 2 processes once sufficient design and operational information about improvements is developed. The process during Tier 2, as described further in **Section 3.14.13**, also allows for any constructive uses to be identified and recognizes that the 30-foot buffer zone does not limit the Section 4(f) evaluation at Tier 2."

Page 3.7-5, Chapter 3, Question 3.7.5 How do the alternatives directly affect land use and right-of-way? And Page 3.14-2 Section 4(f) Constructive use Discussion In the answer to the land use question the third bullet point identifies the "15-foot sensitivity zone beyond the construction zone." For some impacts this sensitivity zone may not be sufficient i.e., for noise considerations in residential areas and for noise and visual impacts in constructive use considerations on 4(f) properties. We recommend considering additional issues and then re-defining "sensitivity zones."

N

Comments

Responses

Source: Letter	Name: Clear Creek County Board of Commissioners (continued)
Document Number: LO-07	City, Zip Code: Georgetown, 80444

Finally, we noted some factual edits:

Page ES-25 Miles of Auxiliary Lanes “28 miles EJMT to Herman Gulch” is incorrect. Verify correct mileage or just use language directly from the Collaborative Effort’s Preferred Alternative.

Page ES-26, Question 23 response Second bullet point paraphrases the CE document. We suggest using their direct language.

Page ES-27, Question 26 response The statement refers to the AGS termini in Jefferson County. We suggest using the CE Language that calls for a termini study. This would eliminate the weakness of a potential for “no logical termini.”

Response to LO-07 (continued)

- O. The distance has been verified and approximated to 3 miles.
- P. The language from the Consensus Recommendation has been included verbatim.
- Q. This question has been revised (and is now Section ES.26), but does not include the Collaborative Effort language as suggested. Instead, more information is provided about the project termini and why they represent logical termini for the PEIS study. A paragraph has also been added to address connectivity of the Corridor Advanced Guideway System with other transit systems.

Comments

Responses

Source: Letter	Name: Clear Creek County Board of Commissioners (continued)
Document Number: LO-07	City, Zip Code: Georgetown, 80444

R

Land Use Technical Report, Page D-2 In the list of Land Use Plans for Clear Creek County the Floyd Hill Master Plan and the Gaming Area Plan are missing. They will provide additional insight regarding plans for the future of Clear Creek County.

S

Land Use Technical Reports, Maps 11 through 13 All three of these maps show BLM lands in Clear Creek County. **The correct description of the lands is “Former BLM Lands.”** In 1993 the Bureau of Land Management transferred its land holdings in our county to Clear Creek County. Some of the parcels remain in Clear Creek County ownership; others have been transferred to other agencies or to private owners. Transfers of ownership are on-going. As Tier 2 efforts proceed it will be important to contact the Clear Creek County Assessor to determine correct ownership of affected parcels.

T

Once again, we want to express our endorsement of the Preferred Alternative and the inclusive efforts that CDOT, FHWA and their consultants have accomplished during the intervening years since the 2004 release of the first Draft PEIS. We have established productive working partnerships and an appreciation for the complex issues that we will need to address in the corridor. We look forward to the release of the final document, the Record of Decision and the work that we will be doing together as Tier 2 efforts proceed.

Response to LO-07 (continued)

- R. Extensive coordination with Clear Creek County elected officials and staff has occurred over the course of the PEIS, and Clear Creek County planning efforts have been discussed in detail. The Floyd Hill and Gaming Area Master Plans are included in the Clear Creek County Master Plan, which has been evaluated in the PEIS and the *I-70 Mountain Corridor PEIS Land Use Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website). If you are referring to the more recent Floyd Hill Gateway Development Master Plan, it was adopted in November 18, 2009. The lead agencies strive to consider the most current information available for all resources analyzed. The lead agencies have reviewed this plan, and it appears to account for the transportation improvements proposed in the PEIS. The information in the plan would not affect the decision process for the PEIS or the comparative analysis of alternatives, and the plan is therefore not added to the analysis in the PEIS. New and updated plans will be considered during Tier 2 processes, which will use the most currently available data at the time they are conducted.
- S. Maps 11 through 13 of the *I-70 Mountain Corridor PEIS Land Use Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website) have been revised to state “Former BLM Lands.” The Colorado Department of Transportation will contact the Clear Creek County Assessor during Tier 2 processes to obtain current parcel ownership records.
- T. Comment noted

Comments

Responses

Source: Letter	Name: Town of Vail
Document Number: LO-08	City, Zip Code: Vail, 81657

Response to LO-08

- A. Thank you for your continued involvement with the Collaborative Effort team.
- B. The description of the Preferred Alternative in **Section 2.7.1** of the PEIS has been changed to include interchanges at the main Vail exit (milepost 176), along with the Vail East exit (milepost 180) and the Shrine Pass Road exit (milepost 190), in the Minimum Program of Improvements.
- C. The Colorado Department of Transportation has committed to addressing past I-70 highway impacts as much as feasible, either in Tier 2 processes for I-70 highway improvements or in shorter term projects that are ongoing. This includes addressing visual impacts, sedimentation and erosion control, stream degradation, and effects to wildlife passage. The current sediment control action plan includes actions to mitigate existing water quality impacts.

The Colorado Department of Transportation is not violating Federal standards regarding noise levels. Noise levels do exceed 66 dBA, the current CDOT criterion for noise abatement at residential and other similar types of receivers, in some locations. For new highway construction projects, mitigation must be considered and constructed if noise levels exceed noise abatement criteria; and if mitigation is determined to be feasible and reasonable; and if those who would be benefitted by the mitigation do not object to such mitigation. Providing noise mitigation for existing conditions was previously funded by CDOT's Type II noise mitigation program. However, due to funding limitations, this program has not been in operation at CDOT for some time. If this program is initiated again statewide, areas in Vail can be reconsidered for noise abatement.

As it relates to impacts of past I-70 highway construction on Section 4(f) properties currently being used for parking, CDOT is not aware of any removal of parking for past I-70 highway construction, since most of the parking was constructed after the I-70 highway was built. Existing parking
(continued on next page)

A

B

C

The Town of Vail endorses the I-70 Corridor Coalition's letters and comments. The town supports the preferred alternative. We also appreciate the Colorado Department of Transportations' (CDOT's) cooperation and participation with the process. We want added to the record the following comments with regard to the Revised Draft PEIS.

1. The change from a 2025 timetable to a 2035 timetable requires the Main Vail Exit 176 to be added to the intersection improvements as part of the minimal action and the preferred alternative. The Town of Vail has conducted detailed traffic studies of the Vail Area with the cooperation of CDOT and the improvements are necessary. The recommendations are in the adopted Vail Master Transportation Plan dated March of 2009.
2. The town believes it is extremely important prior to constructing any new improvements that areas of the interstate system currently exceeding environmental standards be mitigated. Our belief is that the proposed highway improvements on I- 70 indirectly require mitigation of current violations of Federal environmental standards in Vail. Specifically noise, sediment and erosion control, wildlife impacts, degradation of streams and wetlands and the use of 4(f) properties for parking. The highway improvements as proposed will produce additional traffic and impacts over the "do nothing" alternative. We also recommend the reintroduction of a program like the Type II Noise mitigation program, in which Vail sites were next in line for funding.

Comments

Responses

Source: Letter	Name: Town of Vail (continued)
Document Number: LO-08	City, Zip Code: Vail, 81657

Response to LO-08

C. (Continued from previous page)

and access areas that support trailheads or parks are identified in the PEIS as potential 4(f) uses and will receive analysis and mitigation, as appropriate, during the Tier 2 processes. The Tier 2 processes will also include identification and analysis of Section 4(f) properties that may be new or for some reason have been overlooked in the Tier 1 process to date.

Regarding the impacts of the Preferred Alternative on traffic in Vail, Tier 2 processes will include traffic modeling to evaluate the effects of actions in the I-70 Mountain Corridor on traffic traveling on local roads in the Corridor.

D. The lead agencies recognize that Vail has limited parking; the need for additional parking to serve existing parking demand in the town is a community concern. It is not clear how the Preferred Alternative contributes to the existing parking problem, either directly or indirectly. The purpose of the I-70 Mountain Corridor improvements is to reduce congestion and improve mobility and access for the I-70 highway. Parking is not required to meet these needs.

The PEIS acknowledges that the Preferred Alternative serves unmet demand and consequently leads to induced growth and increased visitation to the Corridor destinations. While parking needs increase as new development occurs, the local development review and building permit processes are responsible for ensuring adequate parking is provided prior to issuing approvals for new development. The lead agencies have agreed to work with local communities to manage growth and increased visitation, as a mitigation strategy addressing induced growth.

If your comment is related to parking at transit stations, the lead agencies agree that parking will be a consideration for the operation and functionality of the Advanced Guideway System and will be addressed in future feasibility studies and related Tier 2 processes. The lead agencies recognize that stations must be located and designed to meet the travel demand that would be served by the transit system.

3. The PEIS alternatives do not address the impact of local communities to provide parking. This is a significant impact financially.

Comments

Responses

Source: Letter	Name: Town of Vail (continued)
Document Number: LO-08	City, Zip Code: Vail, 81657

Response to LO-08 (continued)

- E. The I-70 Mountain Corridor PEIS does not preclude this design option from being pursued if the Town of Vail wishes to pursue it. The Town would need to comply with all appropriate state and federal laws and regulations associated with this change.
- F. The PEIS addresses frontage roads based on current operations and needs served by the frontage roads. The frontage roads in Clear Creek County are discontinuous, and improvements are needed to connect frontage roads and improve emergency and local access in the county. The frontage road system in Vail provides continuous emergency and local access adjacent to the I-70 highway in this area. Additionally, the frontage roads in Vail have adequate capacity to meet the needs of the state highway system. Additional improvements are not necessary to serve these needs at this time. Future changes to the frontage road system in Vail would be evaluated on an as-needed basis. Regarding improvements to US 6 in Eagle County, the Preferred Alternative does not include improvements to US 6 in the county other than those associated with interchange improvements.

The Colorado Department of Transportation understands that parking and lack of parking enforcement currently occur on the frontage roads in Vail. The Colorado Department of Transportation and the Town of Vail are currently working on a long-term solution to these parking problems, and have implemented a pilot project lease agreement to allow parking along frontage roads while a long-term solution is developed.

- G. The two phases of the InterMountain Connection Feasibility Study, one completed in 1998 and the second completed in 2003, were incorporated into the Rail with Intermountain Connection Alternative that is fully assessed in the PEIS. Portions of the Dowd Canyon Feasibility Study have been incorporated into the Preferred Alternative, including improvements to the Minturn interchange. Each of these studies have been added to the list of studies related to the Corridor in **Chapter 1, Purpose and Need** of the PEIS.

4. The town specifically requests that from MM 184-169 the alignment of I- 70 could be changed if the appropriate environmental clearances were obtained, local approval was obtained, right-of-way was cleared and there is no increase in maintenance cost to CDOT over the alternatives currently in the draft PEIS. The town specifically wants to hold open the option of some day either cu- and-covering the interstate with private use of the air rights or providing for a series of tunnels which allow transfer of right-of-way. The cost of constructing and maintaining these projects would be borne by a joint public/private partnership.

5. The Town of Vail has had significant discussions with CDOT and FHWA with regard to the Frontage Roads in Vail. These frontage roads are part of the interstate system, owned by the Federal Highway Administration. The Vail Master Transportation Plan lays out necessary improvements to this system. The I-70 RDPEIS does not address these frontage roads but does address the frontage roads in Clear Creek County, as well as improvements to US 6 in Eagle County. It would appear there is inconsistency in how FHWA/CDOT frontage roads are handled. We would suggest all frontage roads are addressed equally in the corridor and improvements to the Vail frontage roads are mentioned as needing attention in the revised draft PEIS as well.

6. There is mention in the RDPEIS of other studies related to the corridor. The two phases of the Intermountain Connection and the two phases of the Dowd Canyon feasibility study should be listed as well.

Comments

Responses

Source: Letter	Name: Town of Vail (continued)
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H

7. The Rocky Mountain Rail study investigated two routes from Summit County to Eagle County. The Town of Vail only supports the route over Vail Pass as viable and has determined that lower gradients than shown in the study can be achieved if the route deviates from the highway alignment over the pass.

I

8. The town is concerned with the design process outcomes and construction process on the physical and operational impacts on the two bike paths, Vail Pass and Dowd Junction in the interstate right-of-way. Relocating the path away from the edge of the highway will allow a better experience for path users. It will also allow for better maintenance and less path degradation over time.

Once again thank you for your time on this important project.

Response to LO-08 (continued)

- H. Comment noted.
- I. Maintaining multimodal connectivity is important, and as options at Dowd Canyon are evaluated during Tier 2 processes, maintaining connections and functionality of bike paths will be evaluated. Any bike path relocation will be evaluated during Tier 2 processes as part of the I-70 Mountain Corridor Context Sensitive Solutions process.

Comments

Responses

Source: Letter	Name: Cynthia Neeley, Clear Creek County Project Leadership Team Representative
Document Number: LO-09	City, Zip Code: Georgetown, 80444

A As representative of Clear Creek County to the PLT for the Draft PEIS I would like to expand upon the remarks made in Clear Creek County's comment letter in regard to the socio economic impact on the county. The Draft and supporting Technical Report certainly acknowledge disproportionate adverse impacts on Clear Creek County, but only supply specific information on population and workforce trends. Implicit in Clear Creek's comments is a request to disaggregate the REMI analysis of the nine county region to give baseline economic data (e.g. sales tax revenues) for Clear Creek prior to the initiation of Tier 2 projects. Tier 2 projects should be required to reexamine that data at the inception and conclusion of projects to track cumulative impacts. The provision for mitigation in the current document is very limited and primarily focused on construction delays and not broader socio - economic impacts. Possible mitigations for the greater impacts on such subjects as elimination of housing and drop of revenues should be left open for Tier 2 discussions in the adaptive management process. Please establish a Clear Creek baseline and outline the process by which that baseline will be used at the Tier 2 level to discuss potential mitigation.
County Clear Creek

Response to LO-09

A. The Colorado Department of Transportation recognizes Clear Creek County's particular concerns regarding potential socioeconomic impacts of I-70 highway modifications on the county. The REMI analysis does not need to be disaggregated to provide economic data for Clear Creek County. The *I-70 Mountain Corridor PEIS Social and Economic Values Technical Report* (included on CD-ROM in Volume 4 of the Technical Reports and on the project website) presents Gross Regional Product by county in **Table 9**; these figures provide economic data specific to Clear Creek County and other Corridor counties. Gross Regional Product is one of the major economic indices of the socioeconomic development of a region. The Gross Regional Product is defined as the total value of new goods and services produced in a year, equal to total consumer, investment, and government spending.

Table 9 in the Technical Report presents the Gross Regional Product for each Corridor county in year 2001 to provide a baseline, in year 2035 based on Colorado Department of Local Affairs projections, and in year 2035 based on Colorado Department of Local Affairs projections with sales tax and relative traffic volumes for the county also taken into account.

Mitigation strategies in the PEIS include strategies to ensure that access to communities and businesses is maintained to the highest degree possible and coordinate with local chambers and town economic offices to develop promotional strategies during construction. Additional mitigation strategies regarding socioeconomic impacts will be considered during Tier 2 processes.

Additionally, CDOT and FHWA have made the commitment to use the principles of Context Sensitive Solutions on all projects on the I-70 Mountain Corridor to ensure that stakeholder values are incorporated into decisions. The Collaborative Effort will review progress and effects of the Preferred Alternative at least every two years and make adjustments accordingly.

Comments

Responses

Source: Letter	Name: Town of Winter Park, Grand County Board of Commissioners, Town of Grand Lake
Document Number: LO-10	City, Zip Code: Winter Park, 80482

November 8, 2010

This letter is submitted without signatures to insure our comments are received prior to the deadline for public comment. The original with signatures will be mailed later this week.

Thank you for allowing us to comment.

Grand County, the Towns of Winter Park and Grand Lake have reviewed the I-70 Mountain Corridor Revised Draft Programmatic Environmental Impact Statement (RDPEIS) dated September 2010 and we collectively support approval of the Preferred Alternative, with the understanding that construction of the six lanes should begin immediately. We believe that the widening of I-70 to six lanes will address the immediate corridor traffic issues facing tourists, Front Range visitors, second homeowners and locals entering and exiting our County. We also support the proposed improvements to the Empire Junction interchange that will provide for easier access from the Interstate.

Response to LO-10

A. Tier 2 processes are necessary and funding must be identified before components of the Preferred Alternative can be implemented. The Tier 1 PEIS identifies the travel mode, capacity, and general location of improvements but does not contain sufficient design details to complete NEPA compliance for construction projects. Additionally, CDOT does not have enough available revenue sources to fund the Preferred Alternative, and additional funding sources must be secured (see Chapter 5, Financial Considerations of the PEIS).

The Preferred Alternative does include six-lane highway capacity improvements from the Twin Tunnels to Floyd Hill and in Dowd Canyon, and auxiliary lanes elsewhere in the Corridor, as part of the Minimum Program of Improvements. Additional highway capacity improvements from the Eisenhower Johnson Memorial Tunnels to the Twin Tunnels is part of the Maximum Program of Improvements and cannot be completed until the triggers and conditions included in the Preferred Alternative are met. Triggers are described in Section 2.7.2 of the PEIS.

Study of the Empire Junction interchange complex is identified as an early action project (see the Introduction of the PEIS). The Empire Junction study will begin in early 2011.

Comments

Responses

Source: Letter	Name: Town of Winter Park, Grand County Board of Commissioners, Town of Grand Lake
Document Number: LO-10	City, Zip Code: Winter Park, 80482

We do have concern over the lack of a transit station at the Empire Junction interchange for the Advanced Guideway System (AGS). Although Grand County does not currently have public transportation as many of the other proposed stations do, it is anticipated that the County will by 2025 when the AGS is projected to be constructed. Tourism is a major portion of our economy and the County will rely on the AGS to provide fast convenient service to our guests. Without a stop at the interchange, the County will miss out on this opportunity. We would ask that this interchange have a transit stop as part of the Preferred Alternative.

Although we support the Preferred Alternative, we recommend CDOT not limit the possibilities of improvements to just lane widening and the Advanced Guideway System. While Grand County may not be located on I-70, the improvements will affect how traffic moves through our County and future technology may provide a better alternative to moving traffic through the corridor.

Thank you for considering our input.

Response to LO-10 (continued)

B. Page 101 of the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website) provides a graphic of the eastern half of the Advanced Guideway System. A transit station is proposed in the general vicinity of milepost 232 or the Empire Junction interchange. However, future feasibility studies and related Tier 2 processes will refine station location details, develop ridership estimates, study how to connect travelers to their final destinations, and evaluate safety, reliability, and environmental impacts.

C. The Preferred Alternative is not limited to highway capacity improvements and the Advanced Guideway System. The non-infrastructure components of the Preferred Alternative are listed in **Section 2.7.1 “What is the Preferred Alternative?”** and include actions such as bus, van, or shuttle service in mixed traffic and use of technology advancements and improvements to increase mobility without additional infrastructure. In addition to six-lane capacity improvements and auxiliary lanes, the highway improvement components of the Preferred Alternative also include interchange improvements throughout the Corridor, safety improvements in several locations, and truck operation improvements.

The Collaborative Effort team will convene at least every two years to review the current status of all projects, identify unmet needs in the Corridor, and consider the triggers in evaluating the need for additional capacity improvements. This process monitors progress and makes adjustments as needed, allowing the Preferred Alternative to adapt to future trends and new technologies. If future technologies provide better alternatives for moving traffic through the Corridor, as you suggest, the process described above and outlined in the Consensus Recommendation will allow for consideration and evaluation of these technologies.

Comments

Responses

Source: Website Comment	Name: Town of Silver Plume
Document Number: LO-11	City, Zip Code: Silver Plume

FOLLOW-UP COMMENT ON ENVIRONMENTAL JUSTICE
AND THE TOWN OF SILVER PLUME IN THE I-70 MOUNTAIN CORRIDOR
Fall 2010

Attached for reference is the comment on Environmental Justice (EJ) submitted by the Town of Silver Plume and Clear Creek County in Spring of 2005 in response to the original PEIS. The Revised PEIS contains grounds for both hope and continuing concern.

On the positive side, we appreciate that an advanced guideway system, probably the most attractive alternative to highway widening, is still on the table. It is also encouraging that CDOT seems to be taking EJ somewhat more seriously now than they did in the original PEIS. On the negative side, no new data of relevance appears to have been developed and the Revised PEIS still fails to address the project-wide disproportionate impact of its proposals.

A Our original comment argues that the negative impacts of this project are of relevance to EJ at both the local and the project-wide levels. At the local level, the strength of those negative impacts and the incidence of poverty in the corridor—especially the portion of the corridor most vulnerable to negative impacts, namely Clear Creek County west of Floyd Hill and Silver Plume in particular—are both a function of distance from the highway. Chapter 3.9 of the Revised PEIS and its backup technical report (I-70 Mountain Corridor PEIS Environmental Justice Technical Report, August 2010) concede that this is at least a strong possibility, yet no attempt is made to develop data supporting or refuting this assertion. CDOT’s concession of this point, so evident to even to most callous observer, is far too grudging to constitute the last word on the subject.

At the project-wide level, CDOT continues to ignore the fact that those who will benefit from the project are far better off economically than those who will pay the greatest price for the project. As shown in our original comment, the portion of the corridor between Floyd Hill and the Eisenhower Tunnels (1) will contain virtually all of the highway widening that causes the negative impacts, (2) is geographically and topographically more vulnerable to such impacts than any other comparable stretch of the corridor, and (3) contains by far the highest concentration of poverty in the corridor. CDOT continues to include the part of Clear Creek County east of Floyd Hill in its analysis of the project’s impact on the county despite the fact that this is one of the wealthiest parts of the corridor and stands to benefit from the project rather than be burdened by it. Since CDOT already has the statistics for this eastern part of the county, there should be no difficulty in severing it from, rather than lumping it in with, the rest of the county. But of course doing so would only exacerbate the already glaringly disparate impacts of benefits and burdens contemplated by this project.

CDOT promises serious attention in Tier 2 to mitigation of what we continue to see as the disproportionately high and adverse human health and environmental effects (including social and economic effects) of this project on low-income populations. We

Response to LO-11

A. The presence of minority and /or low-income populations has been re-evaluated according to CDOT’s Title VI and Environmental Justice Guidelines for NEPA Projects, Rev. 3, December 2004. This approach establishes county specific thresholds for the identification of minority and low-income populations. Concentrations of minorities/low-income households are identified in census blocks/block groups that have a higher percentage of minorities/low-income households than their respective county. The results of this revised analysis are included in **Section 3.9, Environmental Justice** of the PEIS and in the *I-70 Mountain Corridor PEIS Environmental Justice Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website). As shown in **Figure 3.9-1**, low-income populations are present throughout the Corridor. The lead agencies do acknowledge that Silver Plume has a higher percentage of low-income residents than other Corridor communities.

The Colorado Department of Transportation understands the concerns noted by Clear Creek County and the Town of Silver Plume. As noted above, in response to concerns at the local level, the analysis has disaggregated the census data to the block and block group level. Additional identification of and outreach to low-income and minority populations was conducted during the public review and comment period for the Revised Draft PEIS. Community planners and housing authorities were contacted in Garfield, Eagle, Summit, and Clear Creek counties. These individuals identified 19 specific low-income or non-English speaking housing complexes along the Corridor.

A broader impact analysis has also been included. The first tier of analysis focuses on the types of impacts that could occur; location-specific impact analysis (relating to the identified minority and low-income block groups) cannot be completed based on the conceptual level of design but will be completed in Tier 2 processes. Tier 2 processes also will use more current datasets, notably the 2010 U.S. Census, as those become available.

(continued on next page)

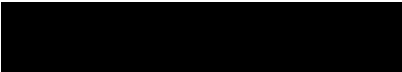
Comments

Responses

Source: Website Comment	Name: Town of Silver Plume (continued)
Document Number: LO-11	City, Zip Code: Silver Plume

will be watching.

ENVIRONMENTAL JUSTICE AND THE TOWN OF SILVER PLUME IN THE I-70 MOUNTAIN CORRIDOR



Introduction. Executive Order 12898 and its progeny require all US federal agencies to identify and address disproportionately high and adverse human health or environmental effects (including social and economic effects) of their policies, programs and activities on minority populations and low-income populations. This requirement is known as Environmental Justice (EJ).

EJ applies to the proposed expansion of Interstate 70 west of Denver. That Project is the subject of a draft Programmatic Environmental Impact Statement (PEIS) released by the Colorado Department of Transportation (CDOT) in December, 2004. The PEIS purports to examine the issue EJ and concludes that it is not implicated in the proposed expansion.

A

This comment challenges that conclusion as it applies to Silver Plume, the most westerly municipality in Clear Creek County. While the focus is on Silver Plume, most of the arguments apply with nearly equal force to the entire County west of Floyd Hill, where virtually all the proposed highway widening will occur.

Summary of Argument. Silver Plume has the highest incidence of poverty in the entire project corridor. Highway widening is associated with a variety of adverse impacts of the sort required to be included in EJ analysis. Virtually all of those adverse impacts will be in Clear Creek County, and they will be at their worst in Silver Plume.

Meanwhile, those who stand to benefit from the project are far better off economically than those who will pay the greatest price for the project. The PEIS fails to address this project-wide disproportionate impact. It also fails to address such disproportionate impact at the local level, where both negative impacts and incidence of poverty are often a function of distance from the highway.

Finally, postponing proper EJ analysis until Tier 2 will be too late because the transit alternatives most likely to address the problem will already have been eliminated. EJ analysis in the PEIS is fatally flawed and must be redone now, taking into account the true costs of highway widening and applying the proper approach, before proceeding to Tier 2.

Silver Plume has the highest incidence of poverty in the entire corridor. CDOT divided the entire corridor into five counties and 25 sub-county localities for analysis. Population, poverty, and other demographic data for each county and locality are

Response to LO-11 (continued)

A. (Continued from previous page)

At the project-wide level, conclusions regarding disproportionately high and adverse impacts also cannot be drawn because of the limited data for impact analysis.

Implementation of the Preferred Alternative is expected to have both benefits and impacts to communities along the Corridor and to the subsets of populations that live adjacent to the current I-70 highway. Air quality and noise levels improve under the Preferred Alternative, while the construction phase of the project suppresses economic growth and impacts travel patterns.

Regarding your comment that all of the highway widening occurs between Floyd Hill and the Eisenhower-Johnson Memorial Tunnels, it is true that six-lane capacity through this section is included in the Maximum Program of Improvements of the Preferred Alternative and is needed to meet the purpose and need of the project based on information currently available today. However, this is not the only cause of negative impacts, nor is this the only location where project impacts would occur. Additionally, adding six-lane capacity in the area between the Twin Tunnels and Eisenhower-Johnson Memorial Tunnels is conditional on the evaluation of triggers as described in **Section 2.7.2** of the PEIS.

Geographic, topographic, and other constraints exist throughout the Corridor. The lead agencies recognize that the Corridor's constraints provide a delicate environment sensitive for both natural resources and human populations. The I-70 Mountain Corridor Context Sensitive Solutions process provides a context statement and defines core values for the Corridor. The I-70 Mountain Corridor Context Sensitive Solutions process, described in **Appendix A, I-70 Mountain Corridor PEIS Context Sensitive Solutions** of the PEIS, will be implemented on all Tier 2 processes.

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Town of Silver Plume (continued)
Document Number: LO-11	City, Zip Code: Silver Plume

Response to LO-11 (continued)

A. (Continued from previous page)

The types of negative and positive effects are described in **Section 3.9, Environmental Justice** of the PEIS. The discussion of potential adverse effects has been expanded in the revised section included in the Final PEIS. Once specific projects are developed in Tier 2 processes, more information will be available to analyze fully the distribution of localized impacts and conclusions regarding potential disproportionate effects can be made. Please refer to **Section 3.9.6, “What will be addressed in Tier 2 processes?”** for a discussion of what will be addressed in Tier 2 processes.

shown in Table 3.11-7 (on page 3.11-6) of the PEIS. The data are based on 2000 Census figures.

The line for Silver Plume shows that 27% of its households are low-income. This means that 27% of the households in Silver Plume made less than half of the median household income for Clear Creek County as a whole. The county median was \$50,997, half of which was \$25,498.50. The Silver Plume median of \$35,208 was questionable then and is even more so now.

In 2004, the Town Board conducted a survey of all households in Silver Plume in order to qualify for better financing terms on a new water system to be partially funded by the Colorado Department of Local Affairs (DOLA) and Federal Department of Agriculture (FDA). FDA uses the same CDBG-based definition of poverty as was used by CDOT in the PEIS. For purposes of the survey, DOLA estimated that the county median household income had dropped to \$48,000, half of which is \$24,000. The results of the survey have now been accepted by DOLA and FDA. They reveal that 54% of the households in Silver Plume earned less than \$24,000.

A

In short, more recent information shows that 54% of the households in Silver Plume are in fact low-income. Even CDOT’s own figure of 27%, however, is exceptionally high—and higher than that of any other locality shown in Table 3.11-7.

Highway widening is associated with a variety of adverse impacts of the sort required to be included in Environmental Justice analysis. Especially in a narrow and inhabited mountain valley like ours, substantially increased pavement and traffic can be expected to have many negative impacts, including the following:

- additional air pollution from vehicle emissions;
- additional noise pollution from motors, brakes, horns, etc.;
- loss of sunlight to some adjacent homes and businesses;
- visual blight (especially if sound barriers are used);
- impairment of historic structures and districts (which are particularly numerous and vulnerable in Silver Plume and Clear Creek County);
- chemical runoff into yards and streams;
- additional exposure to falling rock;
- additional barriers to wildlife movement;
- loss of access during construction (critical to Silver Plume residents, whose only eastbound access is I-70);
- loss of the pedestrian/bicycle trail from Silver Plume to Georgetown;
- displacement of homes and business for additional right-of-way.

The PEIS attempts to downplay most of these potential adverse effects, but numerous submissions by other concerned citizens and corridor governments provide substantial detail on and support for the view that many of them are quite significant in this project.

Virtually all of the adverse effects of the proposed highway widening will be in Clear Creek County. There are at least two reasons for this. First, 90% of the proposed

Comments

Response to LO-11 (continued)

Source: Website Comment	Name: Town of Silver Plume (continued)
Document Number: LO-11	City, Zip Code: Silver Plume

highway widening in the entire corridor is to occur in Clear Creek County between its western boundary at the Eisenhower tunnels and Floyd Hill on the east. East of Floyd Hill the highway is already six lanes wide. (Significantly, the portion of the county from Floyd Hill east—the portion that will not be affected by highway widening—is also the area with the highest income in the County—the household median is \$70,300 according to CDOT’s own Table 3.11-7. Factor out Floyd Hill and Clear Creek surely becomes the poorest county in the corridor.)

Second, Clear Creek has more existing development up against the existing highway than do other parts of the corridor. The impacts of highway-generated air pollution, noise pollution, loss of sunlight, visual blight, impairment of historic structures and districts, and other adverse effects of widening the highway and significantly increasing the amount of traffic on it are all exacerbated by proximity to the offending highway. Generally speaking, the closer you are to the highway, the worse the adverse impacts. And the highway between Floyd Hill and Eisenhower is situated in a particularly narrow valley with a substantial percentage of the population located close to the highway.

A

Despite extensive review of census statistics, consultation with the State Demography Office, and other efforts, we have not been able to locate any data relating the incidence of poverty to distance from the highway. Nor does the PEIS contain such data (though it should). But a windshield survey clearly reveals that much of the poorest housing in the County and Silver Plume—presumably containing some of the poorest households—is located nearest the highway. As is so often the case, the poor suffer most.

These adverse impacts are at their worst in Silver Plume, where the sounds of braking trucks are at their loudest, the loss of access during construction is greatest, the valley is at its narrowest, and the poorest dwellings are closest to the highway. Though the PEIS says the highway will be widened without any displacement of residents, it is hard to believe that this is possible in Silver Plume. Here’s why:

Houses along the south side of Water and Madison Streets back right up to the north edge of the highway right-of-way already. Cliffs and the station facilities of the state-owned Georgetown Loop Railway preclude expansion along the south of the existing highway. Addition of two or more lanes along the north, whether they are supported by retaining walls as suggested on Page L-30 of the PEIS (Vol. 2) or cantilevered as informally stated by CDOT, will hover over those houses like the sword of Damocles. They will block sunlight, spew pollutants, and create a din far worse than at present. Even if a house remains literally untaken, it will become virtually uninhabitable. Under Colorado law, CRS 38-1-114(c), where only part of a parcel is taken through eminent domain, the condemning authority must also pay for any damages to the remainder of the parcel. Owners of the uninhabitable houses may well insist that the state take—and compensate them for—the entire parcel. And the state may welcome the invitation to do just that. After all, cantilevering or retaining walls could well cost more than just acquiring and destroying the entire row of houses—and displacing the predominantly low-income people that occupy them.

Comments

Responses

Source: Website Comment	Name: Town of Silver Plume (continued)
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Response to LO-11 (continued)

Given the shortage of affordable housing that already exists in Clear Creek County, loss of their present homes may be irredeemable for those low-income people, however much cash compensation they are given. For those who have long made their lives in Silver Plume, the displacement will be particularly wrenching.

Beneficiaries of the project are far better off economically than those who will pay the greatest price for the project. Two classes of people will benefit from the project, which is proposed primarily to relieve peak recreation traffic on weekends. The first class contains the owners and operators of ski areas and other recreational businesses on the west slope, mostly in Summit and Eagle counties. The PEIS contains no demographic data on this group of beneficiaries (though it should), and we are aware of none. But surely this is a group with average wealth and income far in excess of Clear Creek County in general and Silver Plume in particular.

The second class consists of travelers on the improved transportation corridor. At non-peak travel times, they might be expected to have fairly average demographics, but it is not such times that the project aims at. The project is aimed at facilitating the flow of recreational traffic from and back to the Denver Metro Area on weekends—especially during ski season in the winter. Given the cost of skiing or many of the other forms of recreation involved, this group of travelers can also be expected to have above average income.

A

The PEIS fails to address Environmental Justice adequately at either the local level or the project-wide level. CDOT's approach to the EJ issue is to view the corridor as a string of different localities. Each of those localities may incur adverse impacts which differ in kind or degree from other localities, but within any particular locality—Silver Plume, for example—the impacts are essentially uniform within the community. Thus the adverse impacts on low-income populations within Silver Plume are the same as they are on non-low-income populations in Silver Plume. The PEIS asserts that there is no disproportionate impact, therefore no EJ problem.

There are two problems with this approach. First, it is inadequate even on its own terms. As argued earlier, negative impacts and the incidence of poverty are often a function of distance from the highway. Based on personal knowledge, we believe it highly likely that there is a larger proportion of low-income households near the highway in Silver Plume (and indeed through most of Clear Creek County) than further away from the highway. We lack the hard data to test this assertion, but a proper analysis by CDOT would have included such data. In short, the PEIS should have included and analyzed data on both impacts and poverty as a function of distance from the highway within each of the relevant localities.

Second, focusing exclusively on EJ at the local level ignores the big picture. Viewed as a whole, the project clearly displays a clustering of adverse impacts in the poorest county (Clear Creek) and especially the poorest locality (Silver Plume) in the entire corridor—all for the benefit of significantly better off populations elsewhere within or even outside the corridor. Surely this is precisely the kind of disproportionate impact that EJ analysis is designed to address.

Comments

Responses

Source: Website Comment	Name: Town of Silver Plume (continued)
Document Number: LO-11	City, Zip Code: Silver Plume

Response to LO-11 (continued)

Postponing proper EJ analysis until Tier 2 will be too late because the alternative most likely to address the problem will already have been eliminated. Concerned Silver Plume officials have made numerous attempts, going back many months, to raise their EJ concerns with CDOT. On November 10, 2004, for example, Cassandra Shenk, a Town Trustee, wrote to Cecilia Joy, the CDOT Project Manager, requesting a meeting on the subject. Her response was that any such meeting should await completion of the draft PEIS. Renewed efforts since the draft PEIS was completed have been equally unavailing.

CDOT now asserts that all our concerns can be adequately mitigated in Tier 2. We strongly disagree. Proper EJ analysis is supposed to occur as early as possible in the process of scoping a project and narrowing the alternatives. If CDOT is unwilling or unable to do it right in Tier 1 (the PEIS), the chances of them doing it right later on are slight.

A More importantly, what are probably the most attractive alternatives to highway widening—rail and, especially, advanced guideway systems (AGS), are on the verge of being eliminated from further consideration. Companion papers will argue the multiple advantages of AGS over any of the highway alternatives which CDOT currently favors. Suffice it to say here that virtually all of the disproportionately high and adverse effects referenced above go away with an AGS approach. But by Tier 2, AGS will no longer be on the table.

This project is a textbook study of how performing or dodging a proper EJ analysis can directly affect the choices made at the Tier 1 stage of analysis. It is unfortunate (especially for those of us who are Colorado taxpayers) that CDOT has spent so much time and money on such an inadequate PEIS. But they have, and there is no legal or moral choice now but to go back and do it right before proceeding to the next step.

Comments

Responses

Source: Comment Sheet	Name: Sky to Ground, LLC
Document Number: ORG-01	City, Zip Code: Denver, 80203

Public Hearing October 2010

SUBMIT A COMMENT

All comments submitted during the 60-day Revised Draft Programmatic Environmental Impact Statement (PEIS) comment period will be considered prior to the Final PEIS, responses to comments will be included with the Final PEIS.

NAME Nanci Kerr

ORGANIZATION Sky to Ground LLC

ADDRESS [REDACTED]

CITY denver STATE CO ZIP CODE 80203

PHONE [REDACTED] E-MAIL [REDACTED]

Comments must be received no later than November 8, 2010.

What are your comments?

A Please include me in future mailings and email notices.

[Empty comment lines]

ORG-01

I-70 MOUNTAIN CORRIDOR  

Response to ORG-01

A. You (and others that requested the same) have been added to our mailing list.

Comments

Responses

Source: Comment Sheet	Name: Clear Creek Watershed Foundation
Document Number: ORG-02	City, Zip Code: Idaho Springs, 80452
Public Hearing October 2010	

SUBMIT A COMMENT

All comments submitted during the 60-day Revised Draft Programmatic Environmental Impact Statement (PEIS) comment period will be considered prior to the Final PEIS, responses to comments will be included with the Final PEIS.

NAME Chris Crause
 ORGANIZATION Clear Creek Watershed Foundation
 ADDRESS [REDACTED]
 CITY Id. Spg STATE CO ZIP CODE 80452
 PHONE [REDACTED] E-MAIL [REDACTED]

Comments must be received no later than November 8, 2010.

What are your comments?

A (1) Please provide links to download PDFs of the hearing presentation (Scott McDaniel's Power Point) and Jack the Open House presentation Boards -
 (Water Reserves, Biological Resources, ...)
 WHAT IS THE REG. ACT, ... REGULATED MATERIALS? HOW DO WE MANAGE THE PROCESS - what have we completed ...?
 WHAT IS PEIS?

B (2) The ~~map~~ ~~map~~ REGULATED MINING Board shows numerous incident sites, grant sites, mill locations & historical mining sites - please provide specifics!

Response to ORG-02

- A. Hearing materials were posted to the project website on October 18, 2010: <http://www.coloradodot.info/projects/i-70mountaincorridor/Oct2010publicmtg>
- B. The map provided at the public hearings was reproduced from the Programmatic Environmental Impact Statement **Section 3.6, Regulated Materials and Historic Mining**, which also contains additional information about the types of regulated materials sites in the Corridor. The *I-70 Mountain Corridor PEIS Regulated Materials and Historic Mining Technical Report* (included electronically on CD-ROM in Volume 4 of the PEIS Technical Reports and on the project website) supplements the information presented in **Section 3.6, Regulated Materials and Historic Mining**. The information provides an overall assessment of the magnitude of regulated material and historic mining issues and their potential impacts on the project. The number and locations of regulated material sites is dynamic because of changes in population and industry-base. Although specific sites may change over time, the types of materials identified in the Programmatic Environmental Impact Statement are characteristic of what will be encountered during Tier 2 processes. Information about regulated materials and historic mining sites will be updated and evaluated more specifically in Tier 2 processes. Additional details for these hazardous materials locations will be provided in Tier 2 when site-specific impacts are identified.



Comments

Responses

Source: Public Hearing	Name: National Trust for Historic Preservation
Document Number: ORG-03	City, Zip Code: Denver, 80202

Response to ORG-03

A. Comment noted.

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: Thursday, October 7, 2010

ORG -03

A

14 MS. COLE: Hi, I'm Amy Cole. And my
15 organization is the National Trust for Historic
16 Preservation.

17 THE REPORTER: Please spell your name.

18 MS. COLE: And my name is A-m-y
19 C-o-l-e. And you want our address? It's

20 [REDACTED]

21 MS. STROMBITSKI: Amy, if you will
22 allow me one thing. Just to let people know, any
23 comments that are made will be addressed in the
24 final record. And any questions that are asked
25 will be captured here, but we will not respond to

1 those questions tonight. Thank you.

2 Thank you, Amy.

3 MS. COLE: Okay. So, first of all, I
4 would like to, along with a lot of other people
5 here, offer kudos to CDOT and the Federal Highway
6 on the 180-degree shift in the content, tone, and
7 vision. And we'd like to add respect for historic
8 resources that we see in this version of the
9 Draft, versus the last one. At that meeting six
10 years ago, (inaudible) screaming or crying, and I
11 think that's a positive thing that we should all
12 recognize.

A

Comments

Responses

Source: Public Hearing	Name: National Trust for Historic Preservation (continued)
Document Number: ORG-03	City, Zip Code: Denver, 80202

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: Thursday, October 7, 2010

ORG-03

B

13 In terms of specific comments on the
 14 Draft, the 4(f) section I think is greatly
 15 improved. And we hope in the final you can
 16 provide some clarification on the application of
 17 the constructive use of 4(f) resources; the
 18 meaning of the buffer zone that's described in the
 19 document now, especially as it applies to issues
 20 like constructive use and noise.

Response to ORG-03 (continued)

B. A buffer zone of 30 feet has been added to each side of the I-70 Mountain Corridor improvements for identifying potential Section 4(f) properties that may be used in some way, either directly by permanent or temporary incorporation of land, or indirectly by constructive use of that Section 4(f) property. Within this 30-foot buffer zone, even if only the tip of a potential Section 4(f) property is included, the Section 4(f) discussion assumes that the project alternative results in a potential use to that Section 4(f) property. This is a conservative assumption since during the I-70 Mountain Corridor Context Sensitive Solutions process, substantial efforts will be taken as Tier 2 processes proceed to avoid or minimize effects to the Section 4(f) properties. **Section 3.14.1, Constructive Use**, has been revised to explain that the buffer zone is included to account for constructive uses such as noise, access, and visual impacts.

Constructive use analysis will take place during Tier 2 processes, as the alternatives get refined, boundaries and eligibility of properties are confirmed, the I-70 Mountain Corridor Context Sensitive Solutions process is applied, and evaluations of noise, visual, and access impacts to the properties are finalized. By no means does the application of the 30-foot buffer at Tier 1 limit the Section 4(f) evaluation that will be conducted at Tier 2. At this time, FHWA has not approved the use of a Section 4(f) property. Any use will be fully evaluated in the Tier 2 process.

Comments

Responses

Source: Public Hearing	Name: National Trust for Historic Preservation (continued)
Document Number: ORG-03	City, Zip Code: Denver, 80202

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: Thursday, October 7, 2010

21 Secondly, we ask that you add a better
 22 description of CSS in the Executive Summary and
 23 the Introduction, which Scott talked about quite a
 24 bit. But if you look at the Executive Summary and
 25 Intro, the actual purpose of CSS is not in there.

1 You have to go back to Appendix A to find that.
 2 And we, obviously, all know that the purpose is to
 3 produce a better-designed project, not just to
 4 check a box and say that the process was
 5 completed.

6 And last of all, I am sure I am not
 7 alone in also saying that we appreciate all the
 8 hard work that has gone into the revisions. This
 9 is a huge task. And as someone who reads a lot of
 10 PEISes, I'm happy to not read 3200 pages this
 11 time. So thanks very much.

C

C

D

Response to ORG-03 (continued)

C. The Federal Highway Administration definition of Context Sensitive Solutions (below) has been added to the **Executive Summary** and **Introduction** to clarify the purpose of the I-70 Mountain Corridor Context Sensitive Solutions process.

Context Sensitive Solutions is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic, and environmental resources, while maintaining safety and mobility. I-70 Mountain Corridor Context Sensitive Solutions is an approach that considers the total context within which a transportation improvement project will exist. I-70 Mountain Corridor Context Sensitive Solutions principles include the employment of early, continuous and meaningful involvement of the public and all stakeholders throughout the project development process.

D. Comment noted.

Comments

Responses

Source: Website Comment	Name: Colorado Rail Passenger Association
Document Number: ORG-04	City, Zip Code: Ridgway, 81432

We would like to comment on the I-70 Mountain Corridor Revised Draft PEIS on behalf of the Colorado Rail Passenger Association (ColoRail). Our organization has had representation on the study's Collaborative Effort (CE) panel.

A

Generally speaking, the Revised Draft PEIS appears to conform to the recommendations of the CE panel especially in regard to the need to continually reassess the project's development in coming years with regard to traffic demand and overall changing conditions in the world such as climate change, fuel cost and availability, air/water pollution, etc. These conditions and other considerations may well dictate transportation solutions on the corridor in ways that can not be known at the present time.

Specific comments:

B

1.) A revived Ski Train service (Denver-Winter Park) should be added to the list of transportation demand management (TDM) ideas stated in the revised draft. This TDM alternative never got a thorough review during the CE panel discussions even though the train has the potential for removing anywhere from 300 to 400 cars from I-70 Corridor at precisely the times the corridor is most congested. The train not only helps relieve congestion, it provides a safe and attractive alternative to driving especially for children and teens and others such as senior citizens who can't drive or don't want to put up the traffic on the highway. The 14 car Ski Train operated by the ANSCO Corp. up until last year carried a maximum capacity of 750 and was frequently sold out. A train of double decker coaches the same length could significantly add to that capacity. In order to build ridership beyond those boarding at Denver Union Station (DUS), a stop could be constructed in or west of Arvada to capture customers traveling from Jefferson and Boulder Counties. It is possible such a train could be operated at no cost to the state. Iowa Pacific Holdings attempted to initiate service over the route last year and may still be interested in the venture.

C

2.) Dedicated bus service from central RTD Park 'n Ride lots and DUS to specific ski area destinations should be established. Perhaps the cost could be subsidized by ski resorts who could tack on a ski ticket surcharge for those arriving at the ski area in private automobiles.

D

3.) The Denver Union Station Project Authority (DUSPA) should be encouraged to add an intercity bus facility to the redeveloped station for the purposed of providing a more integrated multi-modal facility. Intercity buses which now serve the I-70 Mountain Corridor and beyond could achieve a more efficient transfer of passengers from other transit modes that will be converging at the station once its redevelopment is completed than if the bus station remains where it is in downtown Denver. Intermodal stations providing connectivity to local transit services should be developed throughout the corridor like those currently operating in Frisco and Vail.

Response to ORG-04

- A. Comment noted.
- B. The ski train was considered as an alternative as part of the PEIS process but was eliminated due to the volume of freight trains through the Moffat Tunnel, which allows for a maximum of two round trip passenger trains per day. The seat capacity for one train is 750 seats. An additional train provides a 1,500 total seat capacity. No additional trips would be possible due to freight use on this line. The travel demand in 2035 on a winter Saturday westbound at the Twin Tunnels was estimated at 5,100 vehicle trips at peak hour, which would be at a Level of Service F for three hours. The demand would be over capacity by 1,700 vehicles. The ski train only accounts for a reduction of 600 vehicles at peak hour. In addition, since the initial consideration of this alternative element, the Winter Park ski train was discontinued in 2009 due to lack of funding. A revived ski train service could be considered by others but does not address the purpose and need for I-70 highway improvements.

As discussed in **Chapter 5, Financial Considerations** of the PEIS, public-private partnerships are one of the funding sources that will be considered.
- C. The Preferred Alternative includes non-infrastructure components, which include bus, van, or shuttle service in mixed traffic. Specific routes will be identified during Tier 2 processes.
- D. The Denver Union Station project is not located within the PEIS study area and is outside of the purview of this project. More information on the Denver Union Station project can be found at: <http://www.denverunionstation.org>.

Comments

Responses

Source: Website Comment	Name: Colorado Rail Passenger Association (continued)
Document Number: ORG-04	City, Zip Code: Ridgway, 81432

4

4.) Conventional steel wheel on steel rail technology should be the preferred transit choice over some other exotic and unproven fixed guideway system. True, conventional rail can not achieve the theoretical speeds anticipated with a future unproven technology, however speed is not necessarily a prime concern on the corridor. Consider the fact that the Ski Train, when operating, averaged 25 mph on its 52 mile trip to Winter Park and yet it remained popular with the traveling public for over 60 years. There are modern conventional train sets that travel three times that fast and can operate on 7% grades that exist in a number of places on the corridor. These trains exist today and would be considerably cheaper to deploy in the corridor than a yet undiscovered and unproven technology.

Response to ORG-04 (continued)

E. To address the purpose and need for the project it was recognized by the lead agencies and local communities that a fixed guideway system would need to be part of the solution and that the system would need to have competitive travel times and be able to accommodate the harsh mountain environment and steep grades. The technology that would address the Advanced Guideway System performance criteria could be a currently undiscovered and unproven technology or it could be a variation of an existing rail technology. New rail technologies that may meet the criteria for the Advanced Guideway System could be evaluated in future feasibility studies and related Tier 2 processes.

While there are many details that have not been determined in the Tier 1 PEIS, the feasibility studies and related Tier 2 processes will be designed to further define the feasibility of the Advanced Guideway System and its technology and to address the funding, power supply, operations, ridership, costs/benefits, and other related issues. A recent high speed rail study conducted by the Rocky Mountain Rail Authority (Rocky Mountain Rail Authority) indicated that some traditional high speed steel rail technologies could meet many of the Advanced Guideway System criteria.

Comments

Responses

Source: Website Comment	Name: Colorado Rail Passenger Association (continued)
Document Number: ORG-04	City, Zip Code: Ridgway, 81432

F

5.) The route of conventional rail must be allowed to occasionally go outside of the boundaries of the I-70 Corridor even though the revised draft suggests otherwise. Engineering the necessary curves and grades as well as other environmental and system design concerns may dictate that there be more flexibility in the route selected for the transit alternative. Conventional rail, if selected, should be elevated above grade for much of the route for the same reasons given for the elevation of any of the unproven transit technologies.

Response to ORG-04

F. The PEIS identifies the mode, general location, and capacity of Corridor improvements. As explained throughout the document, the general location refers to the vicinity surrounding the I-70 highway alignment. The lead agencies agree that specific alignments will need to be refined in Tier 2 processes to account for curves, grades, and other environmental and system design considerations.

The description of the Preferred Alternative in **Chapter 2, Summary and Comparison of Alternatives** of the PEIS has been revised to clarify the definition of the Advanced Guideway System and the operational characteristics that must be considered as the final Advanced Guideway System technology is selected. Although the document clearly states that the technology for the Advanced Guideway System has not been selected and that additional study is required to support the identification of the preferred technology, the lead agencies acknowledge that some confusion remains. In particular, many assume that the Advanced Guideway System will be a magnetic levitation system, as modeled in the PEIS. Despite the fact that this was the technology modeled as *representative* of an Advanced Guideway System, other advanced technologies could be identified and selected in future feasibility studies and related Tier 2 processes. Conventional rail as described and modeled in the PEIS as the Rail with Intermountain Connection Alternative is not preferred and will not be studied again in Tier 2 processes. Please refer to **Section 2.6.4** in **Chapter 2, Summary and Comparison of Alternatives** for an updated discussion of the Advanced Guideway System technology. It should be noted that the definition of the Advanced Guideway System has been revised to say that it is capable of being fully elevated.

Comments

Responses

Source: Website Comment	Name: Colorado Rail Passenger Association (continued)
Document Number: ORG-04	City, Zip Code: Ridgway, 81432

6.) Studies must begin immediately in order to determine how conventional rail or unproven transit technology will connect to DUS and from there what the connections to other major Denver Metro transportation centers such as Denver International Airport (DIA) will be. The suggestion in the revised draft study that rail/unproven technology terminates at the West Light Rail Corridor terminal at the Jefferson County Center is a foolishly inappropriate recommendation. The transit alternative needs to originate from a centrally located transportation facility not a suburban location served by local buses and low speed, multi-stop light rail trains from the city's core. Examination also needs to be made of extending passenger rail or some other transit service west of the Eagle County Airport, the current designated western terminus. Extension of the transit corridor on to Grand Junction should be considered.

7.) If conventional rail is chosen for the I-70 Corridor, then connection to DUS could be relatively easily achieved. The FasTracks Gold Line is an electric commuter rail line which will run from DUS to Ward Road in Arvada. This line could be extended on existing railroad grade to Golden and then new grade could be built from Golden south to the Jefferson County Center to connect with I-70. (An alternative route could travel west through Golden and follow US 6 up Clear Creek to eventually connect to the Corridor four miles east of Idaho Springs.) Express trains to the mountains could alternate with commuter trains serving local stations on the Gold line. Central Denver would have a direct connection to the mountains with no transfer of trains necessary at the Jefferson County Center. A cross-platform transfer at DUS for trains departing for DIA could be easily arranged or express trains from DIA could be routed directly through DUS to the Gold Line and the I-70 Mountain Corridor. Cooperation from the DUSPA must be obtained to make sure there is sufficient track capacity at the station to allow for the inclusion of I-70 Corridor service. Unfortunately, DUS planners have not anticipated that the redeveloped station would provide for anything other than local commuter rail, Ski Train, and limited Amtrak service.

Response to ORG-04

G. The Colorado Department of Transportation understands the importance of the connection of the Advanced Guideway System in the Denver metropolitan area. The Colorado Department of Transportation will be conducting the Colorado Interregional Connectivity Study, to determine how the Corridor's Advanced Guideway System and other potential high speed rail corridors should best connect to the Regional Transportation District FasTracks system, Denver Union Station, and Denver International Airport.

The Advanced Guideway System feasibility studies and related Tier 2 processes will build upon the connectivity study and will incorporate these findings for Advanced Guideway System planning and design, including ridership projections.

The western study limits of the PEIS end at Glenwood Springs, due to the drop in recreation trips west of Glenwood Springs. This does not preclude future expansion of regional transit service to Grand Junction.

H. The PEIS identifies the Advanced Guideway System as the preferred transit mode. Because an Advanced Guideway System is not proposed outside of the Corridor, transfer to other technology would be required to connect into a regional system. Conventional rail as described in the Rail with Intermountain Connection Alternative in the PEIS is not a part of the Preferred Alternative. The Preferred Alternative, including the Advanced Guideway System, was identified because it provides the opportunity to reduce congestion, accommodate additional demand, and improve safety while minimizing impacts to the environment. Future feasibility studies and related Tier 2 processes will select an Advanced Guideway System technology and will consider the logistics of transfers to other transit systems and technologies and the effects these transfers may have on ridership.

Comments

Responses

Source: Website Comment	Name: Colorado Rail Passenger Association (continued)
Document Number: ORG-04	City, Zip Code: Ridgway, 81432

8.) The revised study should include Metro Denver and DIA access to the I-70 Mountain Corridor in the current Tier 1 study rather than waiting to deal with this important issue in a later Tier 2 review. Denver as the hub of Front Range transportation activity must be involved in the planning now rather than adding this issue to the more detailed analysis in Tier 2. One of the most important roles of the Denver Regional Council of Government (DRCOG) is transportation planning so that a uniform coordination of transportation activities with other regions in the state can take place. DRCOG's absence in the I-70 planning process is a serious deficit in the study and should be remedied before the planning process continues. It is doubtful that I-70 Corridor planners can make accurate transit ridership predictions without the appropriate modeling estimates available from DRCOG. It is DRCOG's statutory responsibility to review and approve any transportation initiative in the Denver Metro area and this responsibility would certainly include any proposed transit routes to Denver urban centers and DIA from the I-70 Corridor

1

Response to ORG-04

I. The project termini are based on the purpose and need for the project. In this case, the purpose and need focuses on mobility, congestion, accessibility, and capacity in the I-70 Mountain Corridor. C-470/Jeffco Government Center light rail station is the eastern terminus for all modes due to the system interchange of the I-70 highway and C-470, the increase in I-70 highway traffic volumes, and the predominance of urban travel patterns to the east of C-470. Stakeholders have advocated for expanding the termini to locations east in Denver and Denver International Airport. The focus of this study, however, is the I-70 Mountain Corridor, which has distinct needs, travel patterns, and trip purposes from the Denver metropolitan area. At its eastern terminus, the Advanced Guideway System connects to the Jeffco Government Center light rail station of the Regional Transportation District's West Corridor light rail line in Golden, allowing people from the Denver metropolitan area to ride a bus or light rail train and then transfer to the Advanced Guideway System. This terminus does not preclude other NEPA transportation improvement studies outside the Corridor.

Based on the travel demand model (which includes trips from the Denver metropolitan area) described in the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the PEIS Technical Reports and on the project website), a direct connection from the Corridor to Denver International Airport would increase ridership by approximately 10 percent. Capturing this small volume of transit riders (and diverted traffic) is not required to meet the purpose and need for the Mountain Corridor and does not warrant the expense or impacts of extending the termini to Denver International Airport in the time period we are evaluating. Comparatively speaking, the number of recreational visitors using the Corridor arriving at Denver International Airport is very small in comparison to the number of visitors that use the Corridor that originate in the Denver metropolitan area and Corridor communities.

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Colorado Rail Passenger Association (continued)
Document Number: ORG-04	City, Zip Code: Ridgway, 81432

Response to ORG-04

I. (Continued from previous page)

Providing rail to the Denver International Airport and connecting that service throughout the Denver metropolitan area is currently being implemented by the Regional Transportation District. Please see the response to comment [IND-202-B](#) for more detail on the project termini.

Future rail studies, such as the Colorado State Passenger and Freight Rail Plan and Colorado Interregional Connectivity Study, are planned to address Denver regional rail connectivity. In addition, Advanced Guideway System feasibility studies and related Tier 2 processes will specifically address viability of rail, including effects of connections on technology and ridership projections; these studies would address further the cumulative effects of Denver metropolitan travel on the Corridor.

DRCOG has been involved and is part of the I-70 Coalition. The travel demand model developed for the I-70 Mountain Corridor project combined the DRCOG model with other models, to form a regional model that covers the entire I-70 Mountain Corridor area along with the North Front Range, Denver, Colorado Springs, and Pueblo metropolitan areas, and the Western Slope. The ridership forecasts therefore take into account the Denver metropolitan area. Updated travel demand models and forecasts will be used in Tier 2 processes.

Comments

Responses

Source: Website Comment	Name: Colorado Rail Passenger Association (continued)
Document Number: ORG-04	City, Zip Code: Ridgway, 81432

Response to ORG-04

J. It is not within the purview of CDOT to regulate the movement of freight. Union Pacific, which owns the rail line over Tennessee Pass, would need to look at re-opening the line. The Tennessee Pass line is currently classified by the Surface Transportation Board as out-of-service from Gypsum to Parkdale. For this portion of the line to be reactivated, it would require approval from the Surface Transportation Board. It would likely be expensive to rehabilitate the Gypsum to Parkdale portion of the line, the crossings, and yards. Given the steep grades on this line, operational costs for freight trains could be less economical than trucking.

The Colorado Department of Transportation studied expanding the existing rail corridor from Denver through the Moffat Tunnel, Winter Park, and Glenwood Springs. This alternative is described in more detail in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website). Also during the PEIS process, the Colorado Department of Transportation evaluated increasing the frequency of service for the Winter Park ski train, which, as you note, would not be able to operate at higher frequencies due to the volume of freight traffic through the Moffat Tunnel. If the Tennessee Pass line were reopened and freight were shifted to that line, use of the rail corridor from Denver through the Moffat Tunnel and Winter Park would not meet the purpose and need of the project because it would not provide sufficient accessibility to the Corridor communities and may result in travel times noticeably longer than those experienced by I-70 highway travelers.

9.) Since there are other important transportation corridors in the area which impact activity on the I-70 Corridor, the study team should give consideration to extending the boundaries of the study beyond the narrow confines of the I-70 highway. The suggestion to reactivate Ski Train has already been made. A reactivation of the currently rail-banked Tennessee Pass Line could help alleviate some of the heavy (coal) freight on the Moffat Line which could help free up that line for passenger and intermodal (container) freight trains. True, the cost of reopening the long dormant Tennessee Pass Line would be high, however, it would be considerably cheaper than if new railroad or highway grade had to be constructed to transport people and/or freight in the region. In addition, Union Pacific should be encouraged to reconstruct a truck/container lift facility in their Grand Junction yard to carry intermodal traffic in the event that inclement weather or congestion on I-70 prevents priority freight from moving on the highway in a timely fashion. (TOFC facilities are already available in Denver for westward freight movements.) At one time the Denver & Rio Grande Railroad operated fast freight/intermodal service over the Moffat Line between Salt Lake City, Grand Junction and Denver. Truck trailers/containers traveling over this rail corridor could help remove some through truck traffic on the highway.

Comments

Responses

Source: Website Comment	Name: Colorado Rail Passenger Association (continued)
Document Number: ORG-04	City, Zip Code: Ridgway, 81432

K

10.) Finally the revised draft needs to consider the cumulative impacts of additional highway construction in the corridor and operation of motor vehicles on it. Impacts of the true cost of operating an automobile such as military cost of protecting our fuel supplies, drilling and refining oil, air and water impacts of the automobile on the environment, costs of accidents/injuries/fatalities, institutionalized forms of subsidies for automobiles such as provision for parking, etc. should be factored into costs when making decisions to expand highway development or seek an alternative.

Response to ORG-04

K. Chapter 3, Affected Environment and Environmental Consequences of the PEIS describes the impacts of the Action Alternatives to environmental and community resources. Impacts from operating vehicles in the Corridor, including effects on air quality, water resources, and energy usage, are discussed in this chapter.

Cumulative impacts are described in Chapter 4, Cumulative Impacts Analysis of the PEIS. Cumulative impacts include the direct impacts described in Chapter 3, Affected Environment and Environmental Consequences along with indirect effects, such as induced growth, and the combined effects of the Action Alternatives with other past, present, and reasonably foreseeable actions by the lead agencies or others in the Corridor. The geographic scope of this analysis is primarily defined by the watersheds adjacent to the Corridor. Some issues, such as greenhouse gases and energy usage, are considered in context of larger global issues but the contribution of Corridor effects to global trends is minimal; however, CDOT acknowledges that these incremental changes to emission levels will result in some effects.

Comments

Responses

Source: Letter	Name: Sierra Club, Rocky Mountain Chapter
Document Number: ORG-05	City, Zip Code: Boulder, 80302

Comments from Betsy Hand, representing Rocky Mountain Chapter, Sierra Club October 21, 2010

A

First, I want to thank you for adding this public hearing for folks in the Denver Metro area. The people of this area are critical stakeholders for the I-70 mountain corridor. Front Range folks traveling into the mountains are both the primary cause of congestion in this corridor and a key to the economic viability of the Preferred Alternative described in the Revised DPEIS.

Some concerns:

B

VMT & GHG reductions. The discomfort with the highway construction solutions proposed in the original PEIS was more than the destruction of our beautiful mountain canyons. There were also environmental concerns that more highway lanes would radically increase Vehicle Miles Traveled and with them, increased Green House Gas emissions. We believe the document needs to do a better job of modeling how the Alternatives measure up in the short and long term operation of the corridor, after construction. We need to see more clearly how the increase in trips on transit reduces VMT and GHG per person traveling.

Response to ORG-05

- A. Comment noted.
- B. **Table 3-16-1** of the PEIS includes a chart that presents estimated vehicle miles of travel on the I-70 highway, daily transit energy consumption, and other factors to approximate changes in energy consumption relative to the No Action Alternative. Based on this information, the Preferred Alternative is anticipated to increase daily energy consumption by 6 to 7 percent. The alternatives that do not include rail transit are anticipated to increase energy consumption by up to 17 percent. More detailed information on transit ridership, and thus likely reduction in vehicle miles traveled as a result of transit, will be provided in Tier 2 processes.

Greenhouse gas emissions are discussed in **Section 3.1, Climate and Air Quality Resources, Chapter 4, Cumulative Impacts Analysis**, and in the *I-70 Mountain Corridor PEIS Climate and Air Quality Technical Report* (included electronically on CD-ROM in Volume 3 of the Technical Reports and on the project website). The lead agencies will comply with current practice and standards for modeling and estimating air pollutants and will use the Environmental Protection Agency's latest air quality model, MOVES, where appropriate, during Tier 2 processes. This model incorporates greenhouse gas emission standards.

Comments

Responses

Source: Letter	Name: Sierra Club, Rocky Mountain Chapter (Continued)
Document Number: ORG-05	City, Zip Code: Boulder, 80302

C

Triggers for additional highway capacity improvements. The Collaborative Effort consensus outlined very broadly the studies needed to determine the feasibility of AGS: cost, ridership, governance, and landuse. This document does nothing to describe, advance or elaborate on the criteria or metrics that will be used to abandon the AGS alternative and pull the trigger on 6-lane highway construction. The Rocky Mountain Rail Authority process provides guidance that should be included in the language of the DPIES: "Develop scenarios that address issues and prepare analysis report on the properties of each scenario: cost, performance, ridership, cost effectiveness, community values, greenhouse gas emissions and system energy use."

Response to ORG-05 (continued)

C. **Section 2.7.2 "What are the triggers for additional highway capacity improvements?"** of the PEIS identifies specific factors to be considered as additional information becomes available related to the Advanced Guideway System. In addition, the Advanced Guideway System feasibility studies and related Tier 2 processes will follow the I-70 Mountain Corridor Context Sensitive Solutions process, which means a Project Leadership Team will be fully involved and environmental issues will be addressed. Additionally the Collaborative Effort team will be asked to participate in the process. Future studies and related Tier 2 processes will include cost, performance (as normally expressed by ridership), community values, greenhouse gas emissions and energy usage, as well as a host of other potential environmental issues.

The Preferred Alternative is an incremental, multimodal solution that is responsive and adaptive to future trends in the Corridor. The use of triggers recognizes that future travel demand and travel behavior is uncertain. Additional transportation solutions should be based on proven need. The Colorado Department of Transportation will convene a committee that retains the Collaborative Effort member profile to check in at least every two years to review progress, and a thorough reassessment of the overall purpose and need and effectiveness of the improvements will occur in 2020. Please see **Section 2.7.2 "What are the triggers for additional highway capacity improvements?"** of the PEIS for more information on the triggers and adaptive approach of the Preferred Alternative.

Comments

Responses

Source: Letter	Name: Sierra Club, Rocky Mountain Chapter (Continued)
Document Number: ORG-05	City, Zip Code: Boulder, 80302

D

Planning and Connectivity. The CE recommendation included “a vision of transit connectivity beyond the study area and local accessibility to such a system.” While we understand the historic, auto-centric reason for the E470 terminus, the analysis of the Preferred Alternative must include the wider ridership catchment area. The RMRA feasibility studies are an excellent place to start, especially as the RMRA Final Report is very clear that the “economic viability of the I-70 corridor does depend on development of an effective I-25 feeder system, as well as direct DIA connectivity.” Additionally, we recommend that the State Rail Plan and High-Speed Connectivity Study planned by Mark Imhoff, the new director of the new CDOT Division of Rail and Transit, be closely coordinated with the work of the I-70 Mountain Corridor team.

Response to ORG-05 (continued)

D. The project limits for the I-70 Mountain Corridor were established based on the needs of project, which include increased capacity, improved mobility and accessibility, and decreased congestion on the I-70 Mountain Corridor. Data indicates that as the I-70 highway approaches the Denver metropolitan area, travel patterns and the transportation system change regardless of mode choice. If the project continued further east than C-470/Jeffco Government Center light rail station, it would be difficult to address the project purpose and need. As such, the C-470/Jeffco Government Center light rail station terminus was identified as the eastern project limit. While the I-70 Mountain Corridor improvements do not preclude and could even support the development of a regional transit system or expanded highway network, providing these improvements does not meet the project’s purpose and need and is outside the scope of the Corridor improvements. Please see the response to comment [ORG-04-I](#) for additional information about the project limits.

The scope of the Rocky Mountain Rail Authority study was different than the I-70 Mountain Corridor PEIS. The PEIS travel demand projections are based on the travel needs and characteristics of the Corridor. While expanding a transit system beyond the Corridor may attract additional riders, the project as described in the Preferred Alternative meets the needs for reducing congestion and improving access and mobility throughout the Corridor in the long-term. The Rocky Mountain Rail Authority study envisions a “high-speed intercity rail service within Colorado and into neighboring states that could provide seamless travel through the state’s most populated corridors.” In the context of statewide travel, the high-speed rail system would need to serve the state’s largest populations, which are generally along the Front Range I-25 corridor. While the Preferred Alternative does not preclude and may support this broad vision, expanding the system beyond the PEIS project area does not meet the purpose and need identified in the PEIS.

The I-70 Mountain Corridor team will coordinate with the Colorado State Passenger and Freight Rail Plan and Colorado Interregional Connectivity Study. The team is working with the new CDOT Division of Rail and Transit to define scopes of future studies, including the Advanced Guideway System feasibility studies and other rail studies.

Comments

Responses

Source: Letter	Name: Independence Institute
Document Number: ORG-06	City, Zip Code: Golden, 80401

Response to ORG-06

- A. The Preferred Alternative includes a Minimum Program of Improvements to address short-term needs and a Maximum Program of Improvements to address long-term needs. The Minimum Program of Improvements includes an additional travel lane in each direction between the Twin Tunnels and Floyd Hill, a third tunnel bore and widening one of the existing tunnels at the Twin Tunnel to accommodate an Advanced Guideway System and an additional lane of traffic in each direction, improvements to the Empire Junction interchange complex, and adding or thoroughly evaluating an Advanced Guideway System between the Eagle County Regional Airport and the Jeffco Government Center light rail station in Golden. The Maximum Program of Improvements includes six-lane capacity between the Eisenhower Johnson Memorial Tunnels and the Twin Tunnels. Improvements are proposed under the two programs to minimize construction disruption and improve capacity and congestion relief in select pinch points.
- B. As described in of **Section 2.7, "What was the decision making process for identifying the Preferred Alternative?"** of the PEIS, the lead agencies adopted the Preferred Alternative for the I-70 Mountain Corridor based on the Consensus Recommendation developed by the Collaborative Effort team. This 27-member group, representing diverse Corridor interests, was charged with reaching consensus on a recommended transportation solution for the I-70 Mountain Corridor.

The Collaborative Effort recognized that additional capacity improvements may be needed to meet long-term transportation needs. Based on the information available today, additional highway capacity is needed to meet the 2050 purpose and need. The Collaborative Effort established triggers for making decisions about additional highway capacity improvements beyond the Minimum Program of Improvements. The Collaborative Effort will reconvene at least every two years to monitor progress and make adjustments accordingly. For example, following the results of Advanced Guideway System feasibility studies, the Collaborative Effort team as a whole will review the results and will reach consensus regarding the needed actions based on the study conclusions.

A While the Preferred Alternative in the revised DPEIS describes a combination of transit and highway improvements to meet the 2035 and 2050 travel demand, it fails to provide an interim program of significant improvements to relieve the current congestion problems, particularly in critical sections of the corridor. This includes highway sections from the Twin Tunnels to Empire Junction and the steep uphill section west of Georgetown.

B Moreover, according to the Consensus Recommendation, an integral part of the Preferred Alternative, projects to relieve congestion in the critical sections, cannot be constructed until 2025 or until the transit option is deemed technically or financially infeasible by a group that includes very strong transit advocates. In other words, deeming the transit option infeasible is not going to happen.

Comments

Responses

Source: Letter	Name: Independence Institute (continued)
Document Number: ORG-06	City, Zip Code: Golden, 80401

C

Essentially, the Preferred Alternative and Consensus Recommendation require all I-70 users to wait decades for any improvement in the critical sections until sophisticated Advanced Guideway Systems or magnetic levitation technology can be developed and funded. It is obvious, though, from the technical data in the DPEIS and all other studies of AGS, including a recent report from the FTA, that there are massive economic and technological risks involved. Funding \$20 billion for capital costs is not available according to CDOT. The recommended maglev technology has not been fully developed or tested for operation in a harsh mountain environment. In fact, neither the propulsion system nor the proposed track has advanced beyond the drawing board. The train has not been designed or tested to meet federal safety and ADA standards which will add considerable weight and reduce performance significantly. There is no known source of power for 118 miles of electrified track. Finally, there is no guaranteed ridership and the chance of Colorado taxpayers being forced to subsidize fares (similar to Amtrak and RTD) is very high.

Response to ORG-06 (continued)

- B. (Continued from previous page)

While transit supporters were a part of the Collaborative Effort, many other interests were represented during the process. The lead agencies worked with an independent third party, The Keystone Center, who developed the consensus decision making process and worked with stakeholders to develop a manageable and balanced team to facilitate discussions.
- C. To address the purpose and need for the project it was recognized by the lead agencies and local communities that a fixed guideway system would need to be part of the solution and that the system would need to have competitive travel times and be able to accommodate the harsh mountain environment and steep grades. While maglev systems have been considered to address these performance criteria and were used for the purposes of evaluation of the Advanced Guideway System in this Tier 1 PEIS, the actual technology is not defined.

Advanced Guideway System feasibility studies and related Tier 2 processes will help to further define the feasibility of the Advanced Guideway System and its technology. While there are many details that have not been determined in the Tier 1 PEIS, the feasibility studies and related Tier 2 processes will be designed to address the funding, power supply, operations, ridership and other related issues. A recent high speed rail study conducted by the Rocky Mountain Rail Authority (Rocky Mountain Rail Authority) indicated that some traditional high speed rail technologies could meet many of the Advanced Guideway System criteria.

The lead agencies agree that additional revenue, leadership, and support from the citizens of Colorado will be required to implement the Preferred Alternative. The Colorado Department of Transportation's budget is not sufficient to implement the entire Preferred Alternative. **Chapter 5, Financial Considerations** of the PEIS summarizes the cost of the Preferred

(continued on next page)

Comments

Responses

Source: Letter	Name: Independence Institute (continued)
Document Number: ORG-06	City, Zip Code: Golden, 80401

D Compounding the issues for the proposed AGS is a competing proposal from the Rocky Mountain Rail Authority. It proposes to construct a 220 mph high-speed rail system (known as the FRA "Developed" Option) in the corridor. It has far better attributes including connectivity to DIA, I-25, and west to Grand Junction. However, it too is in the infant stage and several lengthy steps are required before it can be implemented. This includes a NEPA programmatic EIS covering a vast area from DIA to Grand Junction on I-70 and from Trinidad to Cheyenne, Wyoming on I-25. Already the revised DPEIS for I-70 has taken a decade to prepare and it is not done yet.

Response to ORG-06 (continued)

C. (Continued from previous page)

Alternative, funding allocated to the I-70 Mountain Corridor, sources for CDOT's funding (and its limitations), and other potential funding sources. Public private partnerships are one of several alternative sources of funding discussed in **Chapter 5, Financial Considerations** of the PEIS. See particularly **Section 5.7, "What are potential funding sources and their limitations?"** of the PEIS.

D. The I-70 Mountain Corridor team coordinated with the Rocky Mountain Rail Authority (Rocky Mountain Rail Authority) Team during the Rocky Mountain Rail Authority study process. The Rocky Mountain Rail Authority study and I-70 Mountain Corridor PEIS focused on different issues. The Rocky Mountain Rail Authority study focused on the feasibility of addressing Federal Railroad Administration (FRA) high-speed rail criteria for two long corridors including the I-25 corridor within Colorado and the I-70 Corridor from Denver International Airport to the western state line. The I-70 Mountain Corridor PEIS focuses on addressing a specific purpose and need for a more defined segment of the I-70 highway. Improvements in the Corridor resulting from the PEIS would not preclude the study of actions discussed in the Rocky Mountain Rail Authority study.

The results of the Rocky Mountain Rail Authority study indicated the potential feasibility, as measured by FRA criteria, of high-speed rail in the I-70 Corridor between Denver International Airport and the Eagle County Airport. The Preferred Alternative of the I-70 Mountain Corridor PEIS includes an Advanced Guideway System from the Jeffco Government Center light rail station in Golden to the Eagle County Airport. The Colorado Department of Transportation will be conducting a Colorado Interregional Connectivity Study to determine how the I-70 Mountain Corridor Advanced Guideway System and other potential high-speed rail corridors should best connect to the Regional Transportation District FasTracks system, Denver Union Station, and Denver International Airport.

Comments

Responses

Source: Letter	Name: Independence Institute (continued)
Document Number: ORG-06	City, Zip Code: Golden, 80401

It all adds up to a very long wait for a train that will probably never come. In the meantime, though, affordable highway improvement solutions are available. These can be implemented within a reasonable time frame. T-Rex, East Berthoud Pass, and Glenwood Canyon are good examples. And they can be built to accommodate a future transit alternative as did T-Rex and RTD's Southeast Light Rail.

Response to ORG-06 (continued)

E. The lead agencies understand the challenges of implementing the Advanced Guideway System but recognize that highway improvements, by themselves, will not meet the 2050 purpose and need; and multimodal improvements are necessary to meet the purpose and need while minimizing impacts.

The Preferred Alternative includes a Minimum Program of Improvements which partly acts as an interim program. However, any improvements must consider the long-term multimodal needs of the Corridor and recognize the potential for changing conditions in the corridor. **Table 2-10** of the PEIS lists the components of the Minimum and Maximum Programs of Improvements. Numerous highway improvements are identified in this list, including six-lane capacity improvements to the I-70 highway in some locations, auxiliary lanes in seven locations, interchange improvements in 30 locations, curve safety modifications, tunnel improvements, truck operation improvements, and sediment control projects.

The Colorado Department of Transportation already has been making ongoing, short-term safety and operational improvements in some Corridor locations, including truck chain up areas, improved traveler message signs, park-and-ride locations, rockfall mitigation, better emergency response plans, roadside safety enhancements, median barrier improvements, and tunnel enhancements.

Comments

Responses

Source: Letter	Name: Independence Institute (continued)
Document Number: ORG-06	City, Zip Code: Golden, 80401

F

Perhaps the most affordable and practical short-term solution is to add reversible HOT/HOV lanes from Floyd Hill to Empire Junction (US-40). The lanes would significantly reduce eastbound travel time during winter and summer weekend afternoons and travel in the westbound direction during winter weekend mornings. The solution requires a third bore at the Twin Tunnels, reconstruction of interchanges and overpasses and other structures. This is standard procedure, though. It could take 3-5 years to put in place, but the relief would be significant and long lasting. Other projects such as adding a truck-climbing lane on Georgetown Hill could be constructed concurrently. In addition, there are established guidelines in the DPEIS to ensure that any highway improvement is context sensitive and respectful of historic and community values.

G

We urge CDOT and FHWA revise the DPEIS and the Consensus Recommendation to add an interim program of highway improvements that will correct current congestion problems and benefit all I-70 users for the ensuing years.

Response to ORG-06 (continued)

F. Reversible HOT/HOV Lanes were considered as an Action Alternative. The Reversible HOT/HOV Lanes Alternative would add travel lanes that would be managed for peak flows, changing direction as needed to accommodate peak traffic demand. As explained in **Section 2.8.1 “Transportation Comparisons”** of the PEIS, this alternative does not meet the 2050 purpose and need for the Corridor because it does not include transit, does not provide for unmet demand, and results in a system at network capacity in 2035 to 2040.

As mentioned previously in response to your comment [ORG-06-E](#), interim, short-term solutions can and are being developed and implemented in the I-70 Mountain Corridor.

Preserving environmental quality and promoting environmental sustainability are two of the core values of the I-70 Mountain Corridor Context Sensitive Solutions process that will be followed during Tier 2 processes.

G. The Preferred Alternative includes non-infrastructure improvements, which could be studied and implemented immediately after the Record of Decision is issued and funding is identified. See **Section 2.7, “What was the – decision making process for identifying the Preferred Alternative?”** of the PEIS for more information.

As noted in the response to Comment [ORG-06-E](#), the Preferred Alternative considers both highway and transit improvements within the Corridor with a Minimum Program and Maximum Program of Improvements. The Minimum Program of Improvements addresses, in the near-term, some of the most congested sections of the I-70 Mountain Corridor through highway improvements and will benefit all I-70 highway users for the ensuing years. The implementation of additional highway improvements is dependent on the feasibility and effectiveness of the Advanced Guideway System and, consistent with the Consensus Recommendation, will need input from the Collaborative Effort team and the Advanced Guideway System feasibility studies and related Tier 2 processes to determine which additional highway improvements are needed and when they should be implemented.

Comments

Responses

Source: Public Hearing	Name: Colorado Environmental Coalition
Document Number: ORG-07	City, Zip Code: Denver, 80202

Response to ORG-07

A. Comment noted.

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: OCTOBER 21, 2010

10 MS. THOMAS: Stephanie, S-t-e-p-h-a-n-i-e, Thomas,
11 T-h-o-m-a-s.
12 I'm with the Colorado Environment Coalition. My
13 address is [REDACTED]
14 MS. STROMBITSKI: Thank you.
15 MS. THOMAS: The Colorado Environmental Coalition is a
16 statewide advocacy group. We have thousands of members across
17 the state. We will be submitting written comments that are much
18 more detailed.
19 I'm not going to preview those tonight. What I want
20 to do is report to you the results of two surveys we sent to our
21 e-mail list over the last two weeks.

Comments

Responses

Source: Public Hearing	Name: Colorado Environmental Coalition (continued)
Document Number: ORG-07	City, Zip Code: Denver, 80202

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: OCTOBER 21, 2010

22 We sent two surveys, both focused on seeing what
23 people thought about the AGS system that's such a key part of
24 the Preferred Alternative.

25 The surveys received a much higher response than our
1 typical e-mail campaigns. People really care about this issue.
2 Obviously our e-mail list is a select group of
3 citizens, but it is -- we did get a high response. These are
4 people who would want to use the system so I think it's
5 representative of that group.

6 I do think CDOT should, you know, consider this as it
7 undertakes feasibility studies for the AGS system going forward.

8 The first survey asks people how the traffic in the
9 mountains affects their behavior now. Fifty percent said they
10 traveled to the mountains less to recreate than they would if
11 traffic wasn't so bad.

12 Thirty percent said they just avoid the mountains
13 altogether on the weekends. Only 16 percent said they go anyway
14 and endure the traffic.

15 Next we asked them if they would ride a high speed
16 train to the mountains that could get them there at least as
17 fast as they could get there now. Ninety-seven percent said
18 yes.

Response to ORG-07 (continued)

- B. Results of the Colorado Environment Coalition survey are similar to the I-70 Ridership Survey, which was used as a reference to develop the transit ridership forecasting model used for the PEIS. The I-70 Ridership Survey is documented in **Appendix B** of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website. Please see the response to your comment [ORG-17-D](#) for a detailed discussion of the I-70 Ridership Survey.
- Yes, suppressed trips (desired trips that users cancel due to severe congestion conditions) are a common occurrence now and will become more prevalent in the future. By 2050, it is estimated that about 9 million desired trips annually would not be made in the I-70 Mountain Corridor under the No Action Alternative.

Comments

Responses

Source: Public Hearing	Name: Colorado Environmental Coalition (continued)
Document Number: ORG-07	City, Zip Code: Denver, 80202

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: OCTOBER 21, 2010

19 The following week we sent our e-mail list another
20 survey with the more detailed questions to see how they would
21 react to the system actually proposed by CDOT and FHWA in this
22 document, and what they expect of that system.

23 We first asked them for what purposes they would take
24 the train to the mountains. They could pick as many from the
25 list as they wanted.

1 Eighty-seven percent said hiking, seventy-five percent
2 said skiing or snowboarding, seventy-five percent said cultural
3 events and festivals, sixty-eight percent said sight-seeing,
4 fifty-six percent said wildlife viewing, forty-nine percent said
5 cycling or mountain biking, and twenty-four percent listed other
6 reasons, which included visiting friends and family, other forms
7 of recreation, and work and visiting a second home.

8 We next asked them whether, if the only station on the
9 Front Range were at the junction of C-470 and I-70 as is assumed
10 in this document would they still ride the train. Eighty-seven
11 percent said they would.

12 We then asked them whether they'd be more likely to
13 drive to the station, park, or take RTD's planned fast track
14 system to connect to the system. Eighty-six percent said they
15 would drive and park.

16 This does suggest the agencies do need to think a lot
17 about the parking facilities that are going to be at that
18 station.

Response to ORG-07 (continued)

C. Parking, transfers, and regional connectivity will be considered as part of future feasibility studies and related Tier 2 processes to determine Advanced Guideway System feasibility.

To study the integration of high-speed rail projects, including the I-70 Mountain Corridor Advanced Guideway System, with the FasTracks system in the Denver metropolitan area, CDOT will be conducting a Colorado Interregional Connectivity Study. This will identify how the Advanced Guideway System should link with the Regional Transportation District's FasTracks system.

Yes, the need to transfer discourages transit use. The transit ridership forecasting model takes into account the negative effect of transferring multiple times to complete a trip.

It is recognized that some convenient local distribution systems are likely to be needed to meet the travel needs of the Advanced Guideway System users so that travelers can get to their final destination with relative ease.

Comments

Responses

Source: Public Hearing	Name: Colorado Environmental Coalition (continued)
Document Number: ORG-07	City, Zip Code: Denver, 80202

Response to ORG-07 (continued)

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: OCTOBER 21, 2010

19 We next asked if they would take transit for a trip
20 how many transfers would they be willing to make. Twenty-one
21 percent said they would not be willing to make any transfers.
22 Fifty-three percent said they'd make one. Seventeen percent
23 said two.

24 This does suggest the agencies shouldn't expect people
25 will take bus or train and make more than one transfer. That

C | 1 did fall in line with the scholarly research that shows that you
2 lose at least a third of your riders for each connection you
3 make.

Comments

Responses

Source: Public Hearing	Name: Colorado Rail Passenger Association
Document Number: ORG-08	City, Zip Code: Lakewood, 80232

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: OCTOBER 21, 2010

8 MS. BRYAN: My name is Edie Bryan. And I am speaking
9 on behalf of Colorado Rail Passenger Association.

10 We have submitted our comments electronically --

11 MS. STROMBITSKI: Before you start, if you would
12 provide a spelling for your last name, and give us your address.

13 MS. BRYAN: Bryan, B-r-y-a-n. My address is

14 [REDACTED]

15 MS. STROMBITSKI: Thank you.

16 MS. BRYAN: I speak on behalf of the Colorado Rail
17 Passenger Association and am our organization representation on
18 the study's Collaborative Effort Panel.

19 The draft appears to conform to the need to
20 continually reassess the project's development with changing
21 conditions. We have 10 specific comments. If I don't get to
22 ten you'll know that we have others.

23 No. 1, revive the ski train service into the TDM, the
24 transportation demand management ideas. This would remove
25 somewhere from 300 to 400 cars from the I-70 Corridor at
1 precisely the times that the Corridor is the most congested.

2 The ski train that we did have had a maximum capacity
3 of 750, and was frequently sold out. A double-decker coach
4 could carry more than that obviously. And adding a stop on the
5 western part of the metro area could increase ridership too.

A

A

Response to ORG-08

A. The Winter Park ski train service using the existing Moffat Tunnel was considered as an alternative as part of the PEIS process. Because this service has relatively low travel speeds and low capacity, it is not able to remove enough traffic to change operations or reduce travel time in the Corridor to meet the purpose and need of the project, and it was eliminated as a standalone alternative. Please see response to comment [ORG-04-B](#) for more information on the elimination of this alternative. A revived ski train service could be considered by others but does not address the purpose and need for Corridor improvements.

Comments

Responses

Source: Public Hearing	Name: Colorado Rail Passenger Association (continued)
Document Number: ORG-08	City, Zip Code: Lakewood, 80232

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: OCTOBER 21, 2010

B
6 No. 2, a dedicated bus service from various
7 park-and-ride lots in the metro areas to specific ski areas
8 should be established. And the cost could paid be by tacking on
9 a ski ticket surcharge for those who arrive in private
10 automobiles.

C
11 No. 3, the Denver Union Station Project Authority
12 should add an intercity bus facility for a true multimodal
13 facility instead of leaving the bus station where it is in
14 downtown Denver, which is nine blocks away.

15 No. 4, conventional steel wheel on steel rail
16 technology should be the preferred transit choice over some
17 other exotic or unproven system.

D
18 For one thing, again referencing the ski train, it
19 went 25 miles an hour. And yet people used it and loved it.

20 No. 4, conventional steel wheel should be the
21 preferred choice; however, the conventional rail cannot achieve
22 some of those advanced speeds, but do have other advantages.

23 It may be required that they go out of the exact study
24 Corridor boundaries in order to build new grades because trains
25 can only go up a maximum grade. But there are trains that exist

D
1 today that can go a lot faster than the conventional, ordinary
2 conventional trains, and can handle seven percent grade.

Response to ORG-08 (continued)

- B. The Preferred Alternative, as described in **Chapter 2, Summary and Comparison of Alternatives** of the PEIS, includes a variety of non-infrastructure strategies, such as expanded shuttle services, expanded park-and-ride locations, and increased carpooling. **Appendix A** of the *I-70 Mountain Corridor Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website) describes a variety of transportation management strategies, such as packages and discounts for van and shuttle bus riders, and peak-spreading and vehicle occupancy incentives, including reward/point programs, travel industry partnership programs, and marketing and education campaigns.

These non-infrastructure strategies are an important element of the Preferred Alternative, in part because they could be implemented in the near-term to address issues in the Corridor and remove cars from the road in advance of major infrastructure improvements.
- C. The Denver Union Station Project is not part of the PEIS. For more information on that project, see www.denverunionstation.org.
- D. While some of the technologies that have been considered for an Advanced Guideway System are not presently known to be viable transportation technologies at this time, the actual technology is not defined. A recent high speed rail study conducted by the Rocky Mountain Rail Authority (Rocky Mountain Rail Authority) indicated that some traditional, "proven" high speed rail technologies could meet many of the Advanced Guideway System criteria. The Colorado Department of Transportation plans to study the feasibility of the Advanced Guideway System in the relatively near future and has secured funding for such studies. Feasibility studies and related Tier 2 processes will help to further define the feasibility of the Advanced Guideway System and its technology. The description of the

(continued on next page)

Comments

Responses

Source: Public Hearing	Name: Colorado Rail Passenger Association (continued)
Document Number: ORG-08	City, Zip Code: Lakewood, 80232

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: OCTOBER 21, 2010

3 No. 6, studies must begin to determine how any of this
4 will connect to Denver Union Station and to Denver
5 International Airport.
6 I will mention No. 7, which is the FasTrack --
7 MS. STROMBITSKI: We're at the three minutes. So you
8 will need to do that with our other court reporter.
9 MS. BRYAN: All right. And that concludes my remarks.
10 Obviously I do have hard copies available for those
11 people in the audience who would like to have some.

Response to ORG-08 (continued)

- D. (Continued from previous page)
Preferred Alternative in **Chapter 2, Summary and Comparison of Alternatives** of the PEIS has been revised to clarify the definition of the Advanced Guideway System and the operational characteristics that must be considered as the final Advanced Guideway System technology is selected.
- E. Providing rail to the Denver International Airport and connecting that service throughout the Denver metropolitan area is currently being implemented by Regional Transportation District . The PEIS assumes all transit alternatives studied would connect with the Regional Transportation District West Corridor light rail line at Jeffco Government Center station in Golden.

As noted in **Section 1.5, "What are the study limits and why were they selected?"** of the PEIS, the project termini do not preclude other National Environmental Policy Act transportation improvement studies outside the Corridor if needed. To study the integration of high-speed rail projects, including the I-70 Mountain Corridor Advanced Guideway System with the FasTracks system in the Denver area, CDOT will be conducting a Colorado Interregional Connectivity Study. This will identify how the Advanced Guideway System should connect with the Regional Transportation District's FasTracks system.

Comments

Responses

Source: Public Hearing	Name: Sierra Club, Rocky Mountain Chapter
Document Number: ORG-09	City, Zip Code: Golden, 80302

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: OCTOBER 21, 2010

A

17 I'm Betsy Hand representing the Rocky Mountain chapter
 18 of the Sierra Club.
 19 First I want to thank you for adding this public
 20 hearing to the Denver metro area. The people of this area are
 21 critical stakeholders for the I-70 Mountain Corridor.
 22 Front Range folks traveling into the mountains are
 23 both the primary cause of congestion in the Corridor and a key
 24 to the economic viability of the Preferred Alternative described
 25 in the Revised DPEIS.

B

1 Some concerns that we have: The VMT and GHG
 2 reductions. It's not clear in the document yet I don't think
 3 how the alternative will reduce the per person VMT and
 4 greenhouse gas emissions. So I hope that will be more -- will
 5 be modelled better.

Response to ORG-09

- A. Comment noted.
- B. Please see the response to your comment [ORG-05-B](#) for a discussion of vehicle miles traveled and greenhouse gas emissions.

Comments

Responses

Source: Public Hearing	Name: Sierra Club, Rocky Mountain Chapter (continued)
Document Number: ORG-09	City, Zip Code: Golden, 80302

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: OCTOBER 21, 2010

6 The triggers for additional highway capacity
7 improvements. The Collaborative Effort Consensus outlined very
8 broadly the studies needed to determine the feasibility of AGS:
9 Cost, ridership, governance, and land use.

10 This particular document does nothing to describe,
11 advance, or elaborate criteria or the matrix that will be used
12 to abandon the AGS alternative and pull the trigger on the six
13 lane highway construction.

14 The Rocky Mountain Rail Authority process provides
15 guidance that should be included in the language of the DPEIS,
16 and that is develop scenarios that address issues and prepare
17 analysis reports on the properties of each scenario: Ridership,
18 cost effectiveness, community values, greenhouse gas emissions,
19 and systems energy use.

Response to ORG-09 (continued)

- C. Please see the response to your comment [ORG-05-C](#) for a discussion of triggers and the adaptive approach of the Preferred Alternative.

Comments

Responses

Source: Public Hearing	Name: Sierra Club, Rocky Mountain Chapter (continued)
Document Number: ORG-09	City, Zip Code: Golden, 80302

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: OCTOBER 21, 2010

20 In terms of planning and connectivity the CE
21 recommendation included an efficient transit connectivity beyond
22 the study area, and local accessibility to such a system.
23 While we understand the historic autocentric reason
24 for the E-470 terminus the analysis of the Preferred Alternative
25 must include the wider ridership capture area.

1 The RMRA feasibility study area's an excellent place
2 to start, especially as the final report is very clear that the
3 economic viability of the I-70 Corridor depends on development
4 of the effective I-25 feeder system as well as direct DIA
5 connectivity.

6 Additionally we recommend that the state rail plan and
7 the highway connectivity study planned by Mark Imhoff, the new
8 director of the new CDOT position of rail and transit, be
9 closely coordinated with the work of the I-70 Mountain Corridor
10 team.

Response to ORG-09 (continued)

D. Please see the response to your comment [ORG-05-D](#) for a discussion of the project limits and the Rocky Mountain Rail Authority study.

Comments

Responses

Source: Public Hearing	Name: Winter Park Resorts
Document Number: ORG-10	City, Zip Code: Winter Park, 80482

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: OCTOBER 21, 2010

14 MR. LANE: C.A. Lane, L-a-n-e. [REDACTED]

15 [REDACTED] I'm the assistant general manager and director

16 of resort operations for Winter Park Resorts.

17 An important existing noninfrastructure component

18 adjacent to I-70 Corridor is the ski train to Winter Park and

19 Grand County.

20 When considering noninfrastructure components of this

21 project that encourage change in travel patterns without

22 infrastructure construction, and specifically expanding use of

23 the existing infrastructure adjacent to the Corridor, please

24 consider support for modification of the current Amtrak

25 insurance requirements, which are a barrier to the

1 reintroduction of the ski train to Winter Park and Grand County.

2 The Amtrak classification of the ski train and an

3 onerous requirement for \$200 million of insurance currently

4 prohibits successful reintroduction of this operation.

5 Change in the insurance requirement will allow for the

6 successful operation of the ski train today and in the future,

7 successfully contributing to congestion reduction on I-70.

8 Thank you very much.

A

A

Response to ORG-10

A. While the Winter Park ski train was popular until it was discontinued in 2009, this alternative fails to meet the project's purpose and need as a stand-alone alternative. Because this service has relatively low travel speeds and low capacity, it is not able to remove enough traffic to change operations or reduce travel time in the Corridor to meet the purpose and need of the project, and it was eliminated as a standalone transportation management alternative. A revived ski train service could be considered by others but does not address the purpose and need for Corridor improvements.

Liability insurance for the ski train is a matter between the rail operator and its insurer. It is not within CDOT's purview or ability to influence railroad operators regarding their insurance requirements.

Comments

Responses

Source: Public Hearing	Name: Center for Native Ecosystems
Document Number: ORG-11	City, Zip Code: Denver, 80202

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: OCTOBER 21, 2010

11 MS. SINGER: S-i-n-g-e-r. And I'm representing Center
 12 for Native Ecosystems, [REDACTED]
 13 80202.

14 First I'd like to thank CDOT for including wildlife
 15 crossings in the Preferred Alternative of the Tier 1 Revised
 16 PEIS Alternative and as an important component of the Context
 17 Sensitive Solution process and the Collaborative Effort Team.

18 We all know that animal-vehicle collisions are bad for
 19 both wildlife populations and also for human safety.

20 I'd also like to thank CDOT for being a leader by
 21 continuing the ALIVE process for the Revised PEIS. I encourage
 22 CDOT to ensure that all Tier 2 processes implement the ALIVE MOU
 23 and implementation matrix, and provide funding for wildlife
 24 crossings.

25 I ask CDOT to ensure that in addition to utilizing the
 1 good information out of the ALIVE process they also use the most
 2 up to date information including that coming out of the current
 3 ecological project that's under way to study wildlife movement
 4 along I-70, and making several recommendations on wildlife
 5 crossings.

6 This study is being completed by CDOT, Western
 7 Transportation Institute, Center for Native Ecosystems,
 8 Ecoresolutions, and the Colorado Watershed Assembly.

Response to ORG-11

- A. Wildlife crossings are an important component of the Preferred Alternative. The Colorado Department of Transportation is committed to adhering to the mitigation measures and agreements listed in the ALIVE Memorandum of Understanding, included in **Appendix E, A Landscape Level Inventory of Valued Ecosystem Components (ALIVE) Memorandum of Understanding** of the PEIS, during Tier 2 processes.
- B. The Colorado Department of Transportation will use current information on wildlife movement and wildlife crossings as it is available during Tier 2 processes. The Colorado Department of Transportation will use best management practices for wildlife, to make sure any wildlife crossings are designed and constructed to improve driver safety and to accommodate wildlife movement across the interstate.

A

B

B

Comments

Responses

Source: Public Hearing	Name: Center for Native Ecosystems (continued)
Document Number: ORG-11	City, Zip Code: Denver, 80202

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: OCTOBER 21, 2010

C

9 And I'd also encourage CDOT to consider connectivity
10 through the I-70 Mountain Corridor including areas outside of
11 the linkage interference zones that are identified through the
12 ALIVE process.
13 And that's it. Thank you.

Response to ORG-11 (continued)

- C. The Colorado Department of Transportation will continue to monitor available information on wildlife crossings during Tier 2 processes and modify the commitments to wildlife crossings as appropriate during those processes.

Comments

Responses

Source: Public Hearing	Name: Independence Institute
Document Number: ORG-12	City, Zip Code: Littleton, 80120

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: OCTOBER 21, 2010

A

19 MR. ALDRIDGE: Yes. My name is John Aldridge. And
20 I'm here on behalf of the Independence Institute.
21 My name's spelled A-l-d-r-i-d-g-e. My office is at
22 [REDACTED]
23 Good evening. On behalf of the Independence Institute
24 we appreciate this opportunity to present our comments on the
25 Revised PEIS.

A

1 While the Preferred Alternative in the document
2 describes a combination of transit and highway improvements to
3 meet the 2035 and 2050 travel demands, it fails to provide a
4 interim program of significant improvements to relieve the
5 current congestion problems, particularly in critical sections
6 of the Corridor.
7 And these critical sections are from the Twin Tunnels
8 to Empire Junction and through, which is obviously through Idaho
9 Springs and the steep uphill section west of Georgetown.
10 In these sections I think in all these, these -- as
11 Scott reported, that minimum improvements would be allowed at
12 Twin Tunnels and Empire Junction, but nothing in between there,
13 okay? Only when, you know, the transit triggers are met would
14 those type of improvements be allowed. And this could be a very
15 very long time.

Response to ORG-12

A. Table 2-10 of the PEIS lists the components of the Minimum Program of Improvements for the Preferred Alternative. Numerous highway improvements are included in this list, including six-lane capacity improvements to the I-70 highway in some locations, auxiliary lanes, interchange improvements in select locations, curve safety modifications, tunnel improvements, truck operation improvements and sediment control projects.

Prior to completion of this Tier 1 decision, some early action projects have been identified and are being studied. These projects are listed in the **Introduction** of the PEIS and include: Empire Junction (US 40/I-70) improvements, I-70/Silverthorne interchange, Eagle interchange, Minturn interchange, Edwards interchange, Black Gore Creek, Straight Creek, and Clear Creek Sediment Control Action Plans, and wildlife fencing along the I-70 highway to enhance safety.

The Colorado Department of Transportation has been making ongoing, shorter-term safety and operational improvements in some Corridor locations, including truck chain up areas, improved traveler message signs, park-and-ride locations, rockfall mitigation, better emergency response plans, roadside safety enhancements, median barrier improvements, and tunnel enhancements.

The Preferred Alternative includes a third bore through the Twin Tunnels to support the highway and transit improvements that would occur on either side of the tunnel so that the tunnels do not become a bottleneck between improvements. Under the Minimum Program of Improvements, the Preferred Alternative calls for six-lane capacity from Floyd Hill through the Twin Tunnels and a westbound auxiliary lane from Bakerville to the Eisenhower-Johnson Memorial Tunnels. Although only the Maximum Program of Improvements meets the 2050 purpose and need, based on the information currently available, the adaptive management component of the Preferred Alternative allows the lead agencies to assess the need for six-lane highway capacity from the Twin Tunnels to the Eisenhower-Johnson

(continued on next page)

Comments

Responses

Source: Public Hearing	Name: Independence Institute (continued)
Document Number: ORG-12	City, Zip Code: Littleton, 80120

Response to ORG-12 (continued)

A. (Continued from previous page)

Memorial Tunnels at a future time. Note the Preferred Alternative includes a process for evaluating Corridor conditions and effectiveness of improvements every two years. This allows CDOT the flexibility to adapt to the needs of the Corridor, including the results of the Advanced Guideway System feasibility studies, and maximize use of short-term and long-term funding.

Comments

Responses

Source: Public Hearing	Name: Independence Institute (continued)
Document Number: ORG-12	City, Zip Code: Littleton, 80120

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: OCTOBER 21, 2010

B

16 So essentially the Preferred Alternative and consensus
17 recommendation require that all I-70 improvements wait decades
18 for any improvement in the critical sections until sophisticated
19 Advanced Guideway Systems or magnetic levitation technology can
20 be developed and funded.

21 It is obvious through the DPEIS, the technical data
22 that's in it and other studies of AGS, including a recent report
23 from the Federal Transit Administration, that there are massive
24 economic and technological risks involved.

C

25 Funding \$20 billion for capital costs is not available
1 according to CDOT. The recommended maglev technology has not
2 been fully developed or tested for operation in a harsh mountain
3 environment. In fact neither the proposed propulsion system nor
4 the proposed track has advanced beyond the drawing board
5 according to the FTA.

6 The train has not been designed or tested to meet
7 federal safety and ADA standards, which will add considerable
8 weight and reduce performance significantly. There is no known
9 source of power for 118 miles of electrified track.

Response to ORG-12 (continued)

B. The Colorado Department of Transportation plans to study the feasibility of the Advanced Guideway System in the relatively near future and has secured funding for such studies. Feasibility studies and related Tier 2 processes will help to further define the feasibility of the Advanced Guideway System and its technology. While there are many details that have not been determined in the Tier 1 PEIS, the feasibility studies and related Tier 2 processes will be designed to address the funding, power supply, operations, ridership, and other related issues. The Collaborative Effort stakeholder group will review the results of Advanced Guideway System feasibility studies, and are charged with reaching consensus regarding the needed actions based on the study conclusions. The description of the Preferred Alternative in **Chapter 2, Summary and Comparison of Alternatives** of the PEIS has been revised to clarify the definition of the Advanced Guideway System and the operational characteristics that must be considered as the final Advanced Guideway System technology is selected.

C. The lead agencies agree that additional revenue, leadership, and support from the citizens of Colorado will be required to implement the Preferred Alternative. The Colorado Department of Transportation's budget is not sufficient to implement the entire Preferred Alternative. **Chapter 5, Financial Considerations** of the PEIS summarizes the cost of the Preferred Alternative, funding allocated to the I-70 Mountain Corridor, sources for CDOT's funding (and its limitations), and other potential funding sources. See particularly **Section 5.7, "What are potential funding sources and their limitations?"** of the PEIS, "What are potential funding sources and their limitations?"

To address the purpose and need for the project it was recognized by the lead agencies as well as local communities that a fixed guideway system would need to be part of the solution and the system would need to have competitive travel times and be able to accommodate the harsh mountain environment. While maglev systems were considered for the Advanced Guideway System to identify impacts, the actual technology is not specified.

Comments

Responses

Source: Public Hearing	Name: Independence Institute (continued)
Document Number: ORG-12	City, Zip Code: Littleton, 80120

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: OCTOBER 21, 2010

D
 10 Finally, there's no guaranteed ridership. And the
 11 chance of Colorado taxpayers subsidizing fares similar to Amtrak
 12 and RTD is very high.

13 I'm getting the yellow light.
 14 It all adds up to a very long wait for a train that
 15 will probably never come.

16 MS. STROMBITSKI: One more sentence.
 17 MR. ALDRIDGE: Okay. I think what we're recommending
 18 is simply to put in some sort of system that is a platform that
 19 will allow the bus transit systems that have been talked about
 20 and, you know, any other type of mode of transportation to go up
 21 in the most congested area of the Corridor, which is between
 22 Floyd Hill and Empire Junction.
 23 This should be implemented as soon as possible.

E

Response to ORG-12 (continued)

D. The travel demand forecasting model used for the PEIS indicates that the Advanced Guideway System would attract a reasonable amount of ridership. The travel model is documented in **Appendix A** of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website. Additional and more detailed ridership forecasting will be conducted in Advanced Guideway System feasibility studies and related Tier 2 processes as needed.

Fare subsidies, measured by the difference between operating costs and passenger fare revenues, are common for public transportation systems. Fare structures and subsidies, as well as other operating plans would be developed in feasibility studies and related Tier 2 processes.

E. Several bus technologies were retained and evaluated in the PEIS. Ultimately, as described in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website), it was determined the Advanced Guideway System provides the best opportunity to meet the purpose and need of the project, in combination with highway capacity and safety improvements, while minimizing impacts. Please refer to comment [IND-46-A](#) for more information on bus solutions in comparison to the Advanced Guideway System.

As noted in response to your comment [ORG-12-A](#), under the Minimum Program of Improvements, the Preferred Alternative calls for six-lane capacity from Floyd Hill through the Twin Tunnels and a westbound auxiliary lane from Bakerville to the Eisenhower-Johnson Memorial Tunnels. Although only the Maximum Program of Improvements meets the 2050 purpose and need, based on the information currently available, the adaptive management component of the Preferred Alternatives allows the lead agencies to assess the need for six-lane highway capacity from the Twin Tunnels to the Eisenhower-Johnson Memorial Tunnels at a future time. Also, CDOT will begin studying improvements to the Empire Junction interchange complex in 2011 to address traffic operations and congestion in this area.

Comments

Responses

Source: Public Hearing	Name: Sierra Club
Document Number: ORG-13	City, Zip Code: Denver, 80237

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: OCTOBER 21, 2010

A

3 MR. MELCHER: My name is, full name is Albert G.
4 Melcher, M-e-l-c-h-e-r, [REDACTED]
5 MS. STROMBITSKI: Thank you.
6 MR. MELCHER: I'm here as an advisor to the Sierra
7 Club because I'm the former transportation chairman of the
8 Colorado state chapter. Okay.
9 MS. STROMBITSKI: Okay. You may begin.
10 MR. MELCHER: Good.
11 I've been on the I-70 Mountain Corridor advisory
12 committee from 2001 to 2007, and on the Corridor Collaborative
13 Effort Committee in 2007-8. I am a civil engineer, one of three
14 people to serve on both the CDOT commission, the predecessor to
15 the State Highway Commission, and the RTD board of directors.
16 The purpose of a Draft PEIS is to obtain, review,
17 comment, and guidance on desirable improvements before there is
18 a Final PEIS and a Record of Decision that has binding
19 requirements for the future.
20 B The National Environmental Policy Act is our
21 environmental bill of rights, and we must avoid any abuse or
22 misuse of it.
23 Today I am focusing only on the most significant and
24 critical weakness in the EIS document and process, and I hope my
25 comments will be constructive.

Response to ORG-13

- A. Thank you for your ongoing involvement in the I-70 Mountain Corridor and for your participation in the Collaborative Effort.
- B. Please see the response to your comment [IND-202-B](#) for a response to this portion of your comment.

Comments

Responses

Source: Public Hearing	Name: Sierra Club (continued)
Document Number: ORG-13	City, Zip Code: Denver, 80237

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: OCTOBER 21, 2010

1 This weakness or flaw is that, despite its name of
2 Mountain Corridor, it should deal with a entire integrated
3 transportation system, and it does not. It excludes the portion
4 of the system that is east of the junction of I-70 and C-470.
5 In short, it deals with a part of a system, a segment, but not
6 the complete system.

7 It does not deal with cause and effect. The effect
8 is the severe congestion of the Mountain Corridor. The major
9 cause is two and a half million metro Denver residents and
10 visitors to Colorado who are here in no small measure because of
11 our great mountains. They are stakeholders.

12 The C-470 boundary is artificial. At the level of
13 policy and program planning, i.e. the Tier 1 PEIS, it creates
14 very bad transportation planning and evades coming to grips with
15 the opportunities, constraints, and cost of movement from metro
16 origins to mountain destinations, and the reverse movement.

17 It is contrary to the laws and intent of the National
18 Environmental Policy Act, including provisions of full
19 disclosure of transparency as regards all of us who live east of
20 the foothills. This issue has been raised before; it's not a
21 new issue.

22 Just as with the mountain portion of the study,
23 details can and must be deferred to Tier 2 studies. But the
24 policy and possible procedures for this eastern situation must
25 be identified.

Response to ORG-13 (continued)

C. Please see the response to your comment [IND-202-E](#) for a response to this portion of your comment.

Comments

Responses

Source: Public Hearing	Name: Sierra Club (continued)
Document Number: ORG-13	City, Zip Code: Denver, 80237

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: OCTOBER 21, 2010

1 . What are the alternatives for getting people from the
2 metro area to DIA to C-470 and hence to mountain destinations?
3 Can they be efficient, seamless, convenient, and fast? Or will
4 they be the opposite such that people will not leave their cars
5 for the entire trip?

6 What are the agencies involved? And will this Tier 1
7 help guide the forthcoming Colorado state rail plan for CDOT?
8 What are these agencies' mandates, planning, and capabilities?

9 Are the modeling and analysis tasks up to date and
10 comprehensive? Realistic? Or are there flawed, obsolete and
11 unrealistic inputs?

12 What metro area infrastructure can be used or added in
13 general? What general environmental and sustainability factors
14 are relevant? How do we best avoid foreclosing desirable
15 options for the future? What general guidance should emerge for
16 implementing the Tier 2 detailed studies?

17 EISes must have boundaries, but they can and must deal
18 with effects and impacts in related affected areas. To defer
19 these matters to a future Tier 2 study will result in a Tier 1
20 Final EIS that would be flawed, misleading, and producing an
21 unnecessary and undesirable delay.

22 MS. STROMBITSKI: We're now at three minutes. One
23 more sentence.

24 MR. MELCHER: Okay.
25 I'm not advocating any delays. This can be worked

Response to ORG-13 (continued)

D. Please see the response to your comment [IND-202-G](#) for a response to this portion of your comment.

Comments

Responses

Source: Public Hearing	Name: Sierra Club (continued)
Document Number: ORG-13	City, Zip Code: Denver, 80237

Response to ORG-13 (continued)

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: OCTOBER 21, 2010

D | 1 into the present process. And in the long run it will expedite
 2 implementation of the development.
 3 Thank you.

Comments

Responses

Source: Letter	Name: CoPIRG (304 signatures received)
Document Number: ORG-14	City, Zip Code: Denver, 80202

A

The I-70 corridor between Denver and Glenwood Springs is one of the main transportation arteries in Colorado for recreation and tourism as well as moving people and goods across the Continental Divide. Unfortunately, I-70 has become choked with traffic and air pollution and the wear and tear has decreased safety and reliability.

That is why it is essential that CDOT implement the preferred alternative that has been created by a consensus group of 27 towns, counties, non-profit organizations and ski areas for developing a 21st century transportation solution for I-70. Specifically I support:

- Performing necessary repairs and upgrades to I-70 to maintain safety
- Building a rail system along I-70 rather than just widening the road
- Ensuring that road widening does not happen unless every available route for building a rail system has been exhausted

Response to ORG-14

A. **Chapter 1, Purpose and Need** of the PEIS describes the purpose and need for the I-70 Mountain Corridor project, which is intended to address three interrelated needs: increase capacity, improve mobility and accessibility, and decrease congestion.

It is true that the I-70 highway is the main east-west route through Colorado and serves freight, local, commuter, and recreational travel needs. The Preferred Alternative, as described in **Chapter 2, Summary and Comparison of Alternatives** of the PEIS, proposes non-infrastructure, transit, and highway improvements through the I-70 Mountain Corridor and provides the benefits you note: maintaining safety of the existing I-70 highway, adding new rail capability and mode choice to the Corridor, and allowing a phased approach to increasing highway capacity based on current needs. The multimodal solution best meets the project’s purpose and need while minimizing environmental impacts. The Advanced Guideway System provides needed capacity in the Corridor. The Preferred Alternative also includes highway improvements that are needed to reduce congestion and improve safety. The adaptive management approach of the Preferred Alternative allows the lead agencies to evaluate Corridor conditions and the effectiveness of improvements in response to local, regional, national, and international trends. The Maximum Program of Improvements would not be triggered until the Advanced Guideway System is functioning, or if studies determine the Advanced Guideway System is infeasible or cannot be implemented by 2025. See **Section 2.7, What was the decision making process for identifying the Preferred Alternative?**” of the PEIS for more information on the Preferred Alternative and triggers.

The Preferred Alternative offers enhanced mobility, reduced congestion, and improved safety for Corridor users. It brings improvements to communities across the Corridor, including improved air and water quality, economic growth, and wildlife crossings, among other considerations.

Comments

Responses

Source: Letter	Name: Vail Resorts
Document Number: ORG-15	City, Zip Code: Broomfield, 80021

A

Vail Resorts has been an active member of the I-70 Coalition as well as the I-70 Collaborative Effort that created the consensus agreement reflected in the PEIS. These organizations include broad representation of businesses, local government, environmental interests, highway user groups and other stakeholders that engaged on this complex issue with state, regional and national implications.

The PEIS represents the long-term vision for I-70 and thoroughly analyzes the impacts for a full range of improvements. The preferred alternative is the result of collaboration between all stakeholders including local communities and environmental groups. Vail Resorts agrees with the vision laid out in the PEIS' preferred alternative - An ultimate solution for I-70 should include both highway improvements and significant public transportation components to increase capacity on the corridor.

The Colorado Department of Transportation has included every conceivable stakeholder in the process to create a preferred alternative. Vail Resorts encourages CDOT and Federal Highway Administration to push forward and finalize this document in early 2011. This process has been underway for more than 10 years and it is time to take the next step towards addressing I-70's year-round congestion- Colorado and I-70 travelers deserve action.

B

We believe that it is important to get started on the early action projects identified in the PEIS (such as Floyd Hill improvements) as well as continue to investigate and implement short term options that offer some relief now to I-70 travelers during peak congestion such as a zipper lane combined with other improvements. These short term options can improve the experience for travelers while Colorado plans and raises the resources necessary for the long term vision. Moving forward, it will be extremely important for CDOT to strike an appropriate balance between these short term options, the needed short and long-term highway improvements and the feasibility studies needed for the transit component. With finite resources in the foreseeable future the emphasis should be on actions that have potential to improve conditions in the near term.

B

Thank you for your work on this document and for the opportunity to share our comments on this important process.

Response to ORG-15

A. Thank you for participating in the Collaborative Effort and helping to identify the Preferred Alternative. The Preferred Alternative provides the best opportunity to address the short- and long-term needs of the I-70 Mountain Corridor while minimizing environmental impacts. The combination of the transit and highway improvements increases capacity over existing conditions to accommodate future travel demands. The lead agencies plan to issue a Record of Decision quickly after publication of the PEIS, in the first half of 2011.

B. The elements included in the Preferred Alternative, and the process for Collaborative Effort review of progress, provide CDOT the ability to balance short-term and long-term needs in the Corridor. Non-infrastructure components of the Preferred Alternative can be implemented immediately after the Record of Decision is issued and funding is identified, to address issues in the Corridor in advance of major infrastructure improvements. These components are listed in **Section 2.7.1 "What is the Preferred Alternative?"** of the PEIS and include but are not limited to, bus, van, or shuttle services in mixed traffic and Transportation Demand Management measures. The lead agencies have also identified early action projects that can be studied immediately. These projects are listed in the **Introduction** of the PEIS and include studies of several interchanges that can proceed directly to final design after receiving federal approvals, and wildlife fencing along the I-70 highway to enhance safety.

The Colorado Department of Transportation is currently conducting a feasibility study for adding reversible or "zipper" lanes between Georgetown and Floyd Hill in response to legislation passed by the Colorado General Assembly in 2010. If implemented, these lanes would provide some short-term congestion relief in the Corridor. The reversible lane feasibility study is not a part of the I-70 Mountain Corridor PEIS. For more information, see <http://www.coloradodot.info/projects/I70reversiblelane>.

(continued on next page)

Comments

Responses

Source: Letter	Name: Vail Resorts (continued)
Document Number: ORG-15	City, Zip Code: Broomfield, 80021

Technical Comments

Executive Summary, ES.22

ES.22 addresses high priority highway improvements identified in the Preferred Alternative. The first bullet describes improvements to Floyd Hill: "Widening I-70 to six lanes- three in each direction- **between Floyd Hill and the Twin Tunnels...**"

C

Recommendation: Edit first bullet to consistently reflect the scope of this project to read: "Widening I-70 to six lanes- three in each direction- **from Floyd Hill through the Twin Tunnels...**" This edit creates consistency in the description of the scope of the project as reflected in Chapter 2 (page 2-44) as well as Appendix C (I-70 Collaborative Effort Consensus Recommendation, page 3).

Response to ORG-15 (continued)

B. (Continued from previous page)

As you note, additional study is required for the Advanced Guideway System component of the Preferred Alternative before implementation of the transit system can occur. Feasibility studies and related Tier 2 processes are required to select an appropriate and viable technology as well as to determine costs and benefits, safety, reliability, environmental impacts, and other considerations to support this substantial monetary investment.

The Collaborative Effort will reconvene at least every two years to monitor progress, assess whether an appropriate balance between short- and long-term needs is being achieved, and make adjustments accordingly. For example, following the results of Advanced Guideway System feasibility studies, the Collaborative Effort will review the results and will reach consensus regarding the needed actions based on the study conclusions.

The Colorado Department of Transportation has also been making ongoing, shorter-term safety and operational improvements in some Corridor locations, including truck chain up areas, improved traveler message signs, park-and-ride locations, rockfall mitigation, better emergency response plans, roadside safety enhancements, median barrier improvements, and tunnel enhancements.

C. The text in ES.22, regarding high priority highway improvements, has been deleted from the PEIS because it is not part of the Consensus Recommendation. However, all references to six-lane "widening" have been replaced with six-lane "capacity".

Comments

Responses

Source: Letter	Name: Vail Resorts (continued)
Document Number: ORG-15	City, Zip Code: Broomfield, 80021

D

Chapter 1, Section 1.5, Page 1-5

The study limits from Glenwood Springs to C-470 are appropriate and, as the section indicates, do not preclude consideration of projects extending beyond the termini such as a transit system connected to Denver International Airport.

Recommendation: Maintain the current study limits and clarification that the limits do not preclude extended or additional projects.

E

The below is a two part comment. Part #1 seeks to edit one instance of a statement to make it consistent with other instances where it appears in the document. Part #2 seeks to edit every instance of that same statement to better reflect the reality of some developed recreation sites.

#1- Chapter 3, Section 3.12., Page 3.12-8

Under the header “What are the project effects on recreation resources in 2050?” it is stated that “Additional access from the I-70 highway continues to benefit ski areas, while additional visitation further strains forest land resources.” This statement is similar to other statements in the document but can be clarified to be in-line with other instances in which it appears.

Recommendation: Edit this statement to be consistent with other instances: “Increased access from I-70 and increased visitation benefits commercial recreation providers and strains the sustainability of forest land resources.” to align it with similar statements in Chapter 2, page 2-65 under “Recreational Properties” as well as the *Recreational Resources Technical Report*, Section 3.1. See further comments on this statement below.

Response to ORG-15 (continued)

- D. The project termini—Glenwood Springs on the west and C-470/Jeffco Government Center light rail station on the east—have not changed. The project termini are based on the purpose and need for the project. As noted in **Section 1.5, “What are the study limits and why were they selected?”** of the PEIS, the project termini do not preclude other transportation improvement studies outside the Corridor. The Colorado Department of Transportation will be conducting a Colorado Interregional Connectivity Study to examine how the I-70 Mountain Corridor Advanced Guideway System and potential other high-speed rail corridors will connect to the Regional Transportation District FasTracks system in the Denver area.
- E. A clarifying statement has been made on Page 3.12-8:
 “Expanded access and mobility from the I-70 highway improvements continues to benefit developed commercial recreational facilities on National Forest System lands, while increased visitation to other National Forest System land areas (both developed recreational facilities and dispersed recreation areas) strains the integrity of the natural resources located within these recreational environments.”

Comments

Responses

Source: Letter	Name: Vail Resorts (continued)
Document Number: ORG-15	City, Zip Code: Broomfield, 80021

#2- Chapter 2, Section 2.8.2, Page 2-65; Chapter 3, Section 3.12., Page 3.12-8; Recreation Resources Technical Report, Section 3.1; et al
 Under the header "Recreational Properties" it is stated that "Increased visitation benefits commercial recreation providers and strains the sustainability of forest land resources."

Recommendation: This statement is too broad and misses the reality of some developed recreation sites and omits the benefits that often accrue to local communities.

For instance, public lands ski areas are developed recreation sites. They inspire appreciation for and recreation in the natural environment, but they also represent a built environment that is accessible and convenient for visitors. Ski areas already have the parking lots, bathrooms, trails and other facilities to accommodate millions of visitors. Ski areas allow the Forest Service to provide recreation opportunities to millions of visitors in a controlled and mitigated environment thus alleviating the impacts *elsewhere* on the forest. Visitation to public lands ski areas represents 20% of all recreation visits to National Forest System lands yet ski areas occupy less than one-tenth of one percent of Forest Service lands while generating millions of dollars in permit fees for the United State Forest Service. Additionally, it should noted that increased visitation also benefits local and state revenue streams in the form of additional direct spending related to recreation and the associated tax revenues. This statement, in every instance it appears, should be edited to read: "Increased visitation benefits commercial recreation providers as well as local jurisdictions realizing additional economic activity. The sustainability of some, but not all, forest land resources could be strained by additional visitation."

F

Response to ORG-15 (continued)

F. The text in **Section 2.8.4 "Environmental and Community Resource Impact Comparisons"** of the PEIS has been revised to say: "Expanded access and mobility from I-70 highway improvements continues to benefit the developed commercial recreational facilities on forest lands with increased visitation, while increased visitation to other forest areas (both developed recreational facilities and dispersed recreational areas) strains the integrity of the natural resources located within these recreational environments."

The text in **Section 3.12, Recreation Resources and Section 6(f) Discussion** of the PEIS and in the *I-70 Mountain Corridor PEIS Recreation Resources Technical Report* (included electronically on CD-ROM in Volume 5 of the Technical Reports and on the project website) has been revised to say, "Expanded access and mobility from I-70 highway improvements continues to benefit the developed commercial recreational facilities on forest lands with increased visitation, while increased visitation to other forest areas (both developed recreational facilities and dispersed recreational areas) strains the integrity of the natural resources located within these recreational environments. For information on the role that recreation and tourism plays in the Corridor economy, please refer to **Section 3.8, Social and Economic Values.**"

Comments

Responses

Source: Letter	Name: Vail Resorts (continued)
Document Number: ORG-15	City, Zip Code: Broomfield, 80021

Chapter 3, Section 3.12., Page 3.12-3
 Under the header "How does ski area visitation relate to the corridor" it is stated that "The Corridor provides primary access to 19 of the state's 27 ski areas (see figure 3.12-1)." This statement is inconsistent with the listed figure (assumed to be the untitled map on page 3.12-4) showing 18 ski areas as well as the *Recreation Resources Technical Report* (Page 1) that states "Fifteen major ski areas and resorts are accessed from the Corridor (out of 26 ski resorts statewide)."

Recommendation: Clarify that the map is indeed the figure referred to as well as finding agreement on the counts of ski areas in Chapter 3 and the technical report.

Response to ORG-15 (continued)

- G. At the time of data collection, there were 27 ski areas operating in Colorado: Silverton, Durango/Purgatory, Wolf Creek, Telluride, Crested Butte, Powderhorn, Aspen, Aspen Highlands, Buttermilk, Snowmass, Sunlight, Beaver Creek, Vail, Copper, Ski Cooper, Steamboat, Howelson, Winter Park/Mary Jane, SolVista, Breckenridge, Monarch, Keystone, Arapahoe Basin, Loveland, Eldora, and Echo Mountain.
- Of the 27 ski areas, 19 ski areas are access from the I-70 highway: Aspen, Aspen Highlands, Buttermilk, Snowmass, Sunlight, Beaver Creek, Vail, Copper, Ski Cooper, Steamboat, Howelson, Winter Park/Mary Jane, SolVista, Breckenridge, Keystone, Arapahoe Basin, Loveland, Eldora, and Echo Mountain.
- The text box in the *I-70 Mountain Corridor PEIS Recreational Resources Technical Report* (included electronically on CD-ROM in Volume 5 of the Technical Reports and on the project website), has been revised to indicate that 19 of the 27 ski areas are accessed by the I-70 Mountain Corridor. **Figure 3.12-1**, which has been appropriately titled in the Final PEIS, does show 19 ski areas. Perhaps the commenter read Steamboat and Howelson as one ski area. They are listed as two separate ski areas in the PEIS.

Comments

Responses

Source: Letter	Name: Vail Resorts (continued)
Document Number: ORG-15	City, Zip Code: Broomfield, 80021

Response to ORG-15 (continued)

H	<p>Chapter 3, Section 3.19., Page 3.19-11 Resource Topic 3.8, Social and Economic Values discusses potential construction impact mitigation strategies: “Tier 2 processes will also include strategies to avoid and minimize construction impacts on Clear Creek communities, such as considerations for peak seasonal traffic (e.g., cessation of construction activities during ski season weekends),...”</p> <p><u>Recommendation:</u> Broaden the discussion to include all counties/communities that may experience construction as well as seasonal considerations: “Tier 2 processes will also include strategies to avoid and minimize construction impacts on local communities, such as considerations for peak seasonal traffic (e.g., cessation of construction activities during peak winter and summer weekends) ...”</p>
I	<p>Chapter 5, Section 5.5, Page 5-3 (also Financial Consideration Technical Report, Page 15) In the discussion of current funding sources and their limitations the paragraph on Senate Bill 09-228 omits the limitation that the five-year transfer is specifically directed towards “7th Pot” projects. (24-75-219 C.R.S. and 43-4-206(2)(a) C.R.S.)</p> <p><u>Recommendation:</u> Edit second sentence of discussion to read: “After a five percent growth rate is met, a five-year transfer beginning in FY 2012 of General Funds would occur to transportation for use on 7th Pot projects, totaling 2 percent of General Fund revenues at approximately \$170 million/year.” This edit can also be reflected in the <i>Financial Considerations Technical Report</i>, page 15.</p>
J	<p>Recreation Resources Technical Report, Page 1 Section 1.2 includes a discussion on “Recreational Travel” that fails to discuss existing traffic during the summer season in addition to the winter season.</p> <p><u>Recommendation:</u> Edit discussion to include summer season impacts: “Recreational travel is the most predominant contributor to peak I-70 traffic especially during summer and winter weekends and holidays. Existing traffic during peak travel times is characterized by congestion that noticeably affects local Corridor travel, suppresses the number of skier and other recreational visits, and affects the tourism economy...”</p>

- H. The discussion about construction impacts addresses all Corridor communities, but impacts in Clear Creek County are specifically noted because the impacts to Clear Creek outweigh the benefits to other counties. The discussion about mitigating construction impacts has been clarified, as you have suggested, to include all communities in the Corridor. Revisions to the text are too lengthy to replicate in this response. Please see **Section 3.8.7, “What are the approaches to programmatic mitigation planning for social and economic values?”** of the Final PEIS for revisions.
- I. The reference text has been edited to read as follows: “Beginning in FY 2012, after a 5 percent growth rate is met, a five-year transfer of General Funds to transportation totaling 2 percent of General Fund revenues (approximately \$170 million per year) could occur for implementation of the strategic transportation project investment program.” Page 15 of the *I-70 Mountain Corridor PEIS Financial Considerations Technical Report* has also been edited to provide the same text, through an errata sheet.
- J. The revision to **Section 1.2, “Why was this Corridor study initiated?”** has been made as you have requested. For more detailed information on recreational travel volumes, the proportion of trips dedicated to recreation is illustrated in **Figure 1-3** of the Purpose and Need. This chart quantifies the percentage of trips by purpose and by location in the Corridor.

Comments

Responses

Source: Letter	Name: Vail Resorts (continued)
Document Number: ORG-15	City, Zip Code: Broomfield, 80021

Response to ORG-15 (continued)

K	<p>Recreation Resources Technical Report, Page 6 The technical report cites skier and snowboarder visits for the 2008-2009 season from Colorado Ski Country USA. However this data does not include all Colorado ski resorts as not all resorts in Colorado are members of Colorado Ski Country USA.</p> <p>Recommendation: Add paragraph including skier visitation information for Vail Resorts' four Colorado resorts that represent 40%+ of all Colorado skier visits: "Vail Resorts reported overall visitation for the 2008/2009 ski season at Vail Resorts' four Colorado resorts of 5.1 million skier visits, approximately 42.9% of all Colorado skier visits. This visitation represents a 3.5% decrease in visits in the 2008/2009 ski season compared to the 2007/2008 ski season. Overall visitation at Vail Resorts' four Colorado resorts increased 1.2% during the 2009/2010 ski season compared to the 2008/2009 ski season. (Vail Resorts, Inc, 2010)</p>
K	<p>Recreation Resources Technical Report, Page 14 The top paragraph refers to the Town of Vail's amenities including "the Vail Ski Area".</p> <p>Recommendation: Change reference to ski area to read "Vail Mountain ski resort"- its commonly used name.</p>
L	<p>Recreation Resources Technical Report, Page 14 The top paragraph refers to the Town of Vail's amenities including "the Vail Ski Area".</p> <p>Recommendation: Change reference to ski area to read "Vail Mountain ski resort"- its commonly used name.</p>
M	<p>Financial Consideration Technical Report, Page 9 The final paragraph on page 9 in bold text appears to use "thousand" where "millions" appears to be the correct amount descriptor.</p> <p>Recommendation: If accurate, edit sentence to read: "The plan funds the I-70 Mountain Corridor for \$1.35 billion in YOE. This is approximately \$850 million in 2008 dollars (DRCOG, December 2007)."</p>

- K. Your recommendation regarding skier visitation estimates has been added to page 6 of the *I-70 Mountain Corridor PEIS Recreation Resources Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website) and now reflects a better representation of skier visitation to Corridor ski areas.
- L. The text you reference in the *I-70 Mountain Corridor PEIS Recreation Resources Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website) has been revised to "Vail Mountain ski resort" as you requested.
- M. The requested revision to the *I-70 Mountain Corridor PEIS Financial Considerations Technical Report* (included electronically on CD-ROM in Volume 5 of the Technical Reports and on the project website) Page 9 has been addressed in an errata sheet and reads as follows: "The plan funds the I-70 Mountain Corridor for \$1.35 billion in YOE. This is approximately \$850 million in 2008 dollars (DRCOG, December 2007)."

Comments

Responses

Source: Letter	Name: Sierra Club, Rocky Mountain Chapter
Document Number: ORG-16	City, Zip Code: Denver, 80202

I am pleased to submit these comments regarding the I-70 Mountain Corridor Draft Programmatic Environmental Impact Statement (DPEIS) on behalf of the Sierra Club Rocky Mountain Chapter Transportation Committee.

Planning and Connectivity. Our greatest concern with the Revised DPEIS is the uncertainty regarding the boundaries of the study area in the Tier 1 vs. Tier 2 study – specifically the Tier 1 exclusion of the Denver Metro Area and Denver International Airport within the study boundaries. The DPEIS includes some of the elements of transportation analysis in the “Area of Potential Effects” in the portion of the system that is east of the junction of I-70 and C-470, but does not include other vital elements and effects/impacts. It deals with a part of a system, a segment, but not the complete system. It does not deal with cause and effect: the effect is severe congestion in the mountain corridor; the major cause is the 2.5 million Metro Denver residents and visitors to Colorado who are here in no small measure because of our great mountains.

Although the DPEIS describes many direct, indirect cumulative impacts for areas not actually in the corridor (as it is required to do), it does not address and disclose other critical impacts and potential effects in the corridor-related area of Metro Denver, the Front Range and visitors to this associated area who travel into the Corridor. It does not properly address their mobility, access opportunities and economics, recreation and quality of life.

We believe it is critical that these elements must be considered in order to effectively evaluate transportation conditions in the I-70 Mountain Corridor in the Tier 2 study. The Collaborative Effort (CE) recommendation included “a vision of transit connectivity beyond the study area and local accessibility to such a system.” While we understand the historic, auto-centric reason for the C-470 terminus, the analysis of the Preferred Alternative must include the wider ridership catchment area. The Rocky Mountain Rail Authority (RMRA) feasibility studies are an excellent place to start, especially as the RMRA Final Report is very clear that the “economic viability of the I-70 corridor does depend on development of an effective I-25 feeder system, as well as direct DIA connectivity.”

Response to ORG-16

A. The influence of Denver metropolitan area residents is fully reflected in the forecasts of travel demand in the Corridor. Metropolitan area residents make up an important segment of I-70 Mountain Corridor travelers, as both day recreationists and overnight guests. The travel demand model used for the Tier 1 PEIS recognizes this fact, and its study area includes the Corridor, the Denver metropolitan area, the North Front Range, the Colorado Springs and Pueblo metropolitan areas, and the Western Slope. Similarly, the Denver metropolitan area, including Denver International Airport, will be included in Advanced Guideway System feasibility studies and related Tier 2 processes.

The eastern terminus of the I-70 Mountain Corridor PEIS at C-470/Jeffco Government Center light rail station allows for the evaluation and modeling of unique and complex travel patterns observed in the I-70 Mountain Corridor, without being overshadowed by different complex metropolitan travel patterns. Vehicle miles traveled and person miles traveled in the I-70 Mountain Corridor are about ten times less than their corresponding values in the Denver metropolitan area. Please see the response to comment [IND-202-B](#) for a detailed discussion of the project termini.

The Colorado Department of Transportation recognizes the importance of connecting the Advanced Guideway System with the Regional Transportation District FasTracks system and will be conducting a Colorado Interregional Connectivity Study. This study will examine how potential high-speed rail corridors, including the I-70 Mountain Corridor, should connect to the Regional Transportation District FasTracks system.

Even though the cumulative impacts study area did not extend into the Denver metropolitan area, the data used to develop and analyze alternatives for the PEIS included information from the Denver metropolitan area. This included travel data, United States Forest Service's origin-based National Visitor Use Monitoring survey, socio-economic data, future population, and employment data. Mobility for Front Range visitors to the I-70 Corridor was a critical element of purpose and need, the travel demand

(continued on next page)

A

Comments

Responses

Source: Letter	Name: Sierra Club, Rocky Mountain Chapter (continued)
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Response to ORG-16 (continued)

A. (Continued from previous page)

forecasting, and development and analysis of alternatives. Effects of mobility, access, economics, and recreational opportunities associated with Front Range travelers are addressed as direct and indirect impacts throughout **Chapter 3, Affected Environment and Environmental Consequences** of the PEIS.

The Colorado Department of Transportation agrees that the Rocky Mountain Rail Authority study provides useful information. It will be used as an important reference for upcoming Advanced Guideway System feasibility studies, for which CDOT has secured funding. **Chapter 1, Purpose and Need (Section 1.3, “What other studies have been completed or are related to this Corridor?”)** of the PEIS describes the Rocky Mountain Rail Authority study and how it relates to the PEIS.

Economic viability under the Rocky Mountain Rail Authority study was dependent on assumptions based on FRA criteria, which is different than the purposes of this document and study. Economic viability of an Advanced Guideway System will be considered for the purposes of the I-70 Mountain Corridor in future feasibility studies and related Tier 2 processes, and the definition of economic viability will be determined as the feasibility criteria are developed for this Corridor with stakeholder involvement.

Comments

Responses

Source: Letter	Name: Sierra Club, Rocky Mountain Chapter (continued)
Document Number: ORG-16	City, Zip Code: Denver, 80202

8

Triggers for additional highway capacity improvements. Additionally, we are concerned that results from the AGS feasibility study may not be available in a timely fashion. We concur with the Colorado Environmental Coalition recommendation that the relevant agencies commit to performing the AGS feasibility study and highway improvements study simultaneously so that options are not precluded if one element is completed earlier than the other. We are concerned that early highway improvements at Empire Junction and Floyd Hill might eliminate options for future AGS. The Collaborative Effort consensus outlined very broadly the studies needed to determine the feasibility of AGS: cost, ridership, governance, and land use. This document does nothing to describe, advance or elaborate on the criteria or metrics that will be used to abandon the AGS alternative and pull the trigger on 6-lane highway construction. The Tier 1 document should be more specific about metrics and triggers that inform the decision about AGS feasibility, while the Tier 2 study deals with the details.

Response to ORG-16 (continued)

B. Tier 2 processes, including those at Empire Junction and Floyd Hill, cannot preclude the Advanced Guideway System or future stations. Although additional studies are required to determine the specifics of the Advanced Guideway System implementation, the PEIS mode decision includes an Advanced Guideway System, and all Tier 2 processes must preserve implementation options.

The Colorado Department of Transportation has secured funding for Advanced Guideway System feasibility studies, and the studies will proceed as soon as possible. The studies may include but are not limited to the feasibility considerations listed in your comment and in the Consensus Recommendation.

You are correct that quantifiable metrics for evaluating the triggers have not yet been defined. The triggers are defined in **Section 2.7.2 “What are the triggers for additional highway capacity improvements?”**, and the metrics for evaluating those triggers will be determined during Tier 2 processes. The lead agencies are committed to ongoing involvement of the Collaborative Effort in determining short-term and long-term decisions and are committed to soliciting public input during all Tier 2 processes. The triggers’ criteria will be determined in consultation with agency and stakeholder input, using a committee that retains the Collaborative Effort member profile. The ongoing engagement is described in **Appendix C, I-70 Collaborative Effort Consensus Recommendation**, of the PEIS. The committee will establish its own meeting schedule based on progress made against the approved triggers, with check-in at least every two years. These meetings will review and document the current status of all projects, studies, and Tier 2 processes, and will consider the triggers in evaluating the need for additional capacity improvements.

In 2020, there will be a thorough reassessment of the overall purpose and need and effectiveness of implementation of these decisions. At that time, the lead agencies, in conjunction with the stakeholder committee, may consider the full range of improvement options. The ongoing purpose of the (continued on next page)

Comments

Responses

Source: Letter	Name: Sierra Club, Rocky Mountain Chapter (continued)
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C

Sustainability, VMT and GHG Reduction. The discomfort with the highway construction solutions proposed in the original PEIS was more than the destruction of our beautiful mountain canyons. There were also environmental concerns that more highway lanes would radically increase Vehicle Miles Traveled and with them, increased Greenhouse Gas emissions. We believe the document needs to do a better job of modeling how the Alternatives measure up in the short and long term operation of the corridor, after construction. We need to see more clearly how the increase in transit trips affects VMT and GHG per person traveling.

Colorado’s Climate Action Plan is an important document that must be addressed by the DPEIS. Each alternative should be evaluated against the goals of the Climate Action Plan. In addition, the impact of each alternative on our diminishing supply of non-renewable transportation fuel sources should be evaluated in the DPEIS. This will be a critical future element of Colorado’s economic resilience and the health of future Coloradans.

Response to ORG-16 (continued)

B. (Continued from previous page)

Collaborative Effort is to ensure consistency with the Preferred Alternative, provide a forum to track policy-level decisions and progress related to the I-70 Mountain Corridor, and provide a mechanism for evaluating the triggers and Corridor conditions.

Please see the response to comment [ORG-17-C](#) for information on conducting Advanced Guideway System feasibility studies and highway improvements concurrently.

C. The future increase in vehicle miles traveled is primarily due to development growth in the Corridor and Colorado as a whole that would occur to some degree regardless of which Action Alternative was implemented.

The Preferred Alternative considers global trends such as climate change through the use of an adaptive management approach, as described in **Section 2.7, “What was the decision making process for identifying the Preferred Alternative?”** of the PEIS. The Preferred Alternative is a multimodal solution that provides non-infrastructure components along with new transit and highway improvements. As shown in **Figure 2-13**, alternatives that include highway improvements are best at reducing hours of congestion. Greenhouse gas emissions are related not only to vehicle miles traveled, but also are related to vehicle hours of travel. The highway improvements provide some vehicle capacity that allows a relatively large reduction in hours of congestion, thus reducing greenhouse gas emissions as well.

Table 3.1-1 in Section 3.1.5, “How do the alternatives potentially affect air quality and climate?” of the PEIS presents the estimated pollutant emissions by alternative. All of these are directly correlated with vehicle miles of travel, so that the alternatives with the least future vehicle miles traveled are projected to result in lower emissions. As shown in this table, (continued on next page)

Comments

Responses

Source: Letter	Name: Sierra Club, Rocky Mountain Chapter (continued)
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Response to ORG-16 (continued)

C. (Continued from previous page)

the alternatives that include only transit have the least anticipated emissions while the alternatives that include only highway have the most emissions. The Preferred Alternative is shown as a range because the adaptive management approach of the Preferred Alternative allows it to be implemented based on future needs and associated triggers for further action.

The PEIS recognizes Colorado's Climate Action Plan (see **Section 1.3, "What other studies have been completed or are related to this Corridor?"** and **Section 4.8, "What are the anticipated cumulative impacts?"**). The Colorado Climate Action Plan of 2007 mandates a 20 percent reduction in greenhouse gas emissions from 2005 levels by 2020 and an 80 percent reduction from 2005 levels by 2050, and provides general direction for actions the state government can take to encourage transportation greenhouse gas emissions reductions. These actions, which include adopting greenhouse gas emissions standards for passenger vehicles, increasing clean transportation options for state employees, and recognition of community excellence regarding land use and transportation, would pertain to all alternatives considered for the PEIS. Several of the non-infrastructure components of the Preferred Alternative, such as bus, van, or shuttle service in mixed traffic, promoting high occupancy travel and public transportation, and implementing transit promotion and incentives, support the Climate Action Plan objectives. Although these are not differentiating factors among the PEIS alternatives, some of the alternatives could respond better to suggested strategies, such as the commitment to transit-oriented development, which fits most appropriately with alternatives that include a transit component such as the Preferred Alternative.

Sustainability, including the need for alternatives to non-renewable fuel sources, is the overarching core value identified during the I-70 Mountain Corridor Context Sensitive Solutions process. The Preferred Alternative incorporates this core value by incorporating a flexible multimodal solution that provides alternative transportation modes, which could operate using alternative energy sources.

Comments

Responses

Source: Letter	Name: Sierra Club, Rocky Mountain Chapter (continued)
Document Number: ORG-16	City, Zip Code: Denver, 80202

D

The I-70 Mountain Corridor is a vital transportation link that passes through some of Colorado’s most fragile environmental zones. It is critically important that the DPEIS be thorough, complete, and forward-looking while meeting the spirit and letter of the National Environmental Policy Act. The Sierra Club appreciates the opportunity to participate in this process, and we look forward to continued participation as this project moves forward.

Response to ORG-16 (continued)

D. The I-70 highway is the major east-west Corridor through the state of Colorado, and as you note, provides a vital transportation link for intrastate and interstate users. The lead agencies recognize that the highway passes through diverse and ecologically sensitive areas. We agree that both Tier 1 and Tier 2 processes must adequately assess existing and future conditions. The lead agencies used currently available data to evaluate impacts at the programmatic level, and Tier 2 processes will also use the most current data available to analyze impacts.

The lead agencies remain committed to employing the I-70 Mountain Corridor Context Sensitive Solutions process for all future projects in the Corridor, including early action projects, in order to minimize environmental impacts. The Preferred Alternative’s adaptive management approach is the first of its kind that the Colorado Department Transportation has included as part of a Preferred Alternative. The ability to meet and reassess the effectiveness of the alternative to meet Corridor needs over time is a creative solution to address both immediate and long-term needs in the Corridor and to continue collaboration.

Comments

Responses

Source: Letter	Name: Colorado Environmental Coalition
Document Number: ORG-17	City, Zip Code: Denver, 80202

A

On behalf of Colorado Environmental Coalition (CEC), please accept these formal comments on the I-70 Revised Draft Programmatic Environmental Impact Statement (Revised PEIS). As you know, CEC has worked closely with both the Colorado Department of Transportation (CDOT) and the Federal Highways Administration (FHWA) (together, the "Agencies") in the development of the Revised PEIS as a member of the Collaborative Effort.

We appreciate the opportunity to submit our comments on the Revised PEIS at this time, and hope they will assist the Agencies in developing the Final PEIS and Record of Decision (ROD). In addition to the below comments, CEC would like to sign on in full to the comments of Center for Native Ecosystems and Southwest Energy Efficiency Project.

1. AGS Triggers

B

A central part of The Consensus Recommendation of the Collaborative Effort is a commitment to the evaluation and implementation of an Advanced Guideway System (AGS) through the corridor. The Consensus Recommendation specifies broad triggers for the conditions under which highway and non-AGS transit capacity improvements may proceed. These triggers will be used by CDOT when it makes the decision that an AGS system is or is not feasible. Three broad triggers were identified in the 2008 Consensus Recommendation, with the understanding that they would be given more specificity in the future:

- a. When the specific highway improvements are complete and an AGS is functioning; or
- b. When the specific highway improvements are complete and AGS studies answering questions regarding feasibility, cost, ridership, governance and land use are complete and indicate that an AGS cannot be funded or implemented by 2025; or
- c. Unexpected global, regional or local events demonstrate a need to consider other improvements.

B

After nearly two and a half years, CDOT has not elaborated on or quantified metrics that would be used in application of those triggers to make a decision on the feasibility of an AGS system. While we realize the feasibility study will be a Tier Two study, we think that the Tier One final document needs to contain more specificity on these triggers.

The criteria and methods CDOT will use to determine the feasibility of high speed rail passenger service along the corridor are integral parts of this Tier One Programmatic EIS and the public has the right to know what they are now, before CDOT begins the feasibility analysis

Response to ORG-17

- A. To see the responses to comments by the Center for Native Ecosystems and the Southwest Energy Efficiency Project, please see responses to comments [ORG-26](#) and [ORG-22](#), respectively.
- B. The comment states that the "triggers will be used by CDOT when it makes a decision that an Advanced Guideway System is or is not feasible." This is not entirely accurate. The feasibility of the Advanced Guideway System is itself a trigger for additional non-Advanced Guideway System transit capacity improvements and/or additional highway improvements beyond the specific highway improvements. However, the triggers do not and are not intended to contain criteria "to make a decision on the feasibility of an Advanced Guideway System," as your comment suggests.

Although your comment requests clarification of the triggers, perhaps what you are really asking for are metrics relating to the "criteria and methods that CDOT will use to determine the feasibility of high speed rail passenger service..." Considerations for feasibility are outlined in the description of the Advanced Guideway System in the Preferred Alternative (and Consensus Recommendation). As stated in **Section 2.7.1 "What is the Preferred Alternative?"** of the PEIS, viability of the system includes considerations for "cost and benefits, safety, reliability, environmental impacts, technology, and other considerations." The Colorado Department of Transportation will involve the Collaborative Effort stakeholder committee and follow the I-70 Mountain Corridor Context Sensitive Solutions process to clarify the performance measures or metrics for these considerations in Tier 2 processes. The lead agencies agree that the metrics will be important to determining feasibility of the system, but not enough information is available at the first tier of analysis to establish these metrics. Importantly, a technology for the Advanced Guideway System has not been identified. The operating performance criteria will use as a starting point the Collaborative Effort's companion paper to the Consensus Recommendation, which provides more technical considerations for performance measures and operating parameters of the Advanced Guideway System. Stakeholders will be involved in defining the evaluation

(continued on next page)

Comments

Responses

Source: Letter	Name: Colorado Environmental Coalition (continued)
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Response to ORG-17 (continued)

B. (Continued from previous page)

criteria used in the feasibility studies, and a Project Leadership Team will be developed for these studies.

The lead agencies are committed to ongoing involvement of the Collaborative Effort in determining short term and long term decisions and are committed to soliciting public input during all Tier 2 processes. The triggers will be reviewed in consultation with agencies and stakeholders, using a committee that retains the Collaborative Effort member profile. The ongoing engagement is described in **Appendix B, Collaborative Effort Materials and Consensus Recommendation** of the PEIS. The committee will establish its own meeting schedule based on progress made against the approved triggers, with check-in at least every two years. These meetings will review and document the current status of all projects, studies, and Tier 2 processes, and will consider the triggers in evaluating the need for additional capacity improvements.

In 2020, there will be a thorough reassessment of the overall purpose and need and effectiveness of implementation of these decisions. At that time, the lead agencies, in conjunction with the stakeholder committee, may consider the full range of improvement options. The ongoing purpose of the Collaborative Effort is to ensure consistency with the Preferred Alternative, provide a forum to track policy-level decisions and progress related to the I-70 Mountain Corridor, and provide a mechanism for evaluating the triggers and Corridor conditions.

The Colorado Department of Transportation will consolidate and make available online all information developed through the PEIS, the ongoing I-70 Mountain Corridor I-70 Mountain Corridor Context Sensitive Solutions processes, and Collaborative Effort reviews.

Comments

Responses

Source: Letter	Name: Colorado Environmental Coalition (continued)
Document Number: ORG-17	City, Zip Code: Denver, 80202

Timing of transit improvements (on timeframe to encourage TOD)
 The PEIS acknowledges broadly that the type of growth induced by the project along the Mountain Corridor will be dependent upon local land use planning and which alternatives are implemented. As the document notes: "Transit Alternatives are expected to concentrate induced growth in areas of existing or planned urban development; Highway Alternatives are expected to distribute growth based on existing trends, resulting in more acres of developed land in rural areas; and Combination Alternatives are expected to distribute growth equally between the transit and highway distribution scenarios, resulting in increased pressure in both urban and rural areas."

What the Revised Draft does not analyze, and should, is the effect of the timing of these improvements on potential induced growth (listed as a potential indirect impact of the Project). Such a broad statement about potential indirect impacts of induced growth is not sufficient. The Draft EIS needs to further analyze induced growth and how it will occur if the specific highway improvements all go forward before any transit components, and vice versa. The timing of implementation of the transit components of the Preferred Alternative vs. the timing of implementation of the highway components of the Preferred Alternative matters. While major highway improvements cannot be made prior to a decision being made on the feasibility of the AGS system, specified highway improvements can and will be made, as the feasibility of an AGS system is evaluated. What is not specified is the timing of the AGS feasibility process vs. the timing of the specific highway improvements. We would like to see a commitment from the agencies that the two processes will occur simultaneously.

The agencies need to provide more information on the timing of the two processes and analyze how they will interplay. At a minimum, the agencies should further analyze the potential induced growth impacts of different scenarios; i.e.- if the specific highway improvements move forward for ten years and no AGS system is built and functioning in that same ten year period, the induced growth impacts will be X. If an AGS system is built and functioning by 2020 the induced growth impacts will be X, whereas if an AGS system is not built and functioning by 2020, the induced growth impacts will be Y. If highway widening moves forward in 2020, the induced growth impacts will be.

The very broad statement currently contained in the Revised PEIS is not sufficient.

Response to ORG-17 (continued)

C. Yes, the lead agencies recognize that growth in the Corridor is influenced by the nature of the I-70 Mountain Corridor improvements, as well as local land use plans. The Transit-only alternatives likely concentrate new development around transit stations, while the Highway-only alternatives likely stimulate new development in previously undeveloped rural areas throughout the Corridor. The combination of highway and transit improvements, as proposed under the Preferred Alternative, distributes growth equally between the above transit and highway growth distribution scenarios. Although the analysis found that induced growth occurs in urban areas in Eagle County under the Minimum Program, if the highway improvements under the Minimum Program occur substantially earlier than the transit improvements, it is possible the highway capacity improvements could induce small amounts of growth in rural areas in Eagle and Summit counties, since no accompanying transit improvements would be in place to encourage more compact growth patterns. However, such growth is substantially less than growth induced by the Maximum Program. This information has been added to **Section 3.7.5** of the PEIS.

The PEIS shows the relative range of induced growth related to specific options (Minimal Action, Transit only, Highway only, Combination, and Preferred alternatives) to show representative types of land use impacts that could occur, based on information currently available from local sources.

The timing and prioritization of all studies and improvements in the Corridor are subject to the statewide planning process, which will define priorities, identify specific projects, and allocate funding for Tier 2 processes. As discussed in **Section ES.23** and **Section 5** of the **Introduction** to the PEIS, the Colorado Department of Transportation is committed to initiating Advanced Guideway System feasibility studies as soon as possible and has secured funding to begin those studies. The specific highway improvement at the Empire Junction interchange complex has been identified as an early action project, and study of this interchange complex will begin in early 2011. A specific commitment to the concurrent evaluation and implementation of the Advanced Guideway System with highway improvements if at all possible has been added to **Section ES.23** and **Section 5** of the **Introduction** to the PEIS.

Comments

Responses

Source: Letter	Name: Colorado Environmental Coalition (continued)
Document Number: ORG-17	City, Zip Code: Denver, 80202

3. CEC Survey

During the public comment period, CEC sent to members of its email list 2 surveys, both focused on seeing what people think about the AGS system that is such a key part of the Preferred Alternative. The surveys received a much higher response rate than our typical email campaigns, indicating that there is great public interest in the future AGS system and in having an alternative way to get to the mountains from the Front Range, other than sitting in traffic.

CEC believes that the responses we received should inform the agencies and the Division of Rail and Transit as they undertake feasibility studies on the AGS system. Though obviously this was not a scientific survey, we did receive a significant response from a people who use I70 for various purposes, including recreational. The agencies should consider as they evaluate the feasibility of the AGS system what the following survey responses reveal about what Coloradans expect from an AGS system and what factors play into their decision on whether to ride the system or drive.

In our first survey, we asked people how the traffic in the mountains affects their behavior now. 50% said they travel to the mountains less to recreate than they would if traffic wasn't so bad; 30% said they just avoid the mountains altogether on the weekends; and 16% said they go anyway and endure the traffic. This response seems to illustrate what members of the Collaborative Effort (on which CEC has been a participant) already know- the congestion on I70 is costing mountain communities business revenue because the congestion is so bad that a significant portion of the traveling public chooses not to use the highway.

We then asked people if they would ride a high-speed train to the mountains that could get them there at least as fast as they can get there now. 97% said yes. This is a pretty clear indication of how much people want an alternative to driving and sitting in traffic.

The week following the first survey, we sent our email list a second survey, with more detailed questions probing their reaction to the system as currently proposed by CDOT and FHWA in the PEIS, and asking further questions about what they expect of an AGS system. We first asked them for what purposes they would take a high-speed train to the mountains. They could pick multiple options on our list, or list others. This is how they voted: 87% said hiking; 75% said skiing or snowboarding; 75% said cultural events and festivals; 68% said sightseeing; 56% said wildlife viewing; 49% said cycling or mountain biking; and 24% listed other reasons, which included visiting friends or family, running, swimming, photography, climbing, shopping, working fly fishing, snowshoeing and visiting a second home. Almost all of the respondents picked 2 or more options, indicating these people would each take the AGS system to the mountains multiple times for multiple reasons, in multiple seasons.

We next asked them whether, if the only station on the Front Range were at the junction of C470 and I70 in Golden (as is assumed in the Revised PEIS), they would they still ride the train. 87% said yes. We then asked whether they would be more likely to drive to the station at C470 and I70 and park or take buses and trains through RTD's Fastracks system to connect to it. 86% said they would drive and park. This suggests the agencies really need to analyze and ensure there will be adequate parking at the C470 and I70 station if they build the system as it is currently

Response to ORG-17 (continued)

D. Thank you for sharing the results of your membership surveys. We will share them with the CDOT Division of Transit and Rail for their use and consideration for future Advanced Guideway System feasibility studies, the Colorado State Passenger and Freight Rail Plan, and the Colorado Interregional Connectivity Study. While different in design and purpose, your membership survey provides independent verification of the travel preferences identified in the PEIS I-70 Ridership Survey.

Details of the I-70 Ridership Survey are presented in **Appendix B** of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website). This survey was conducted to address the issue of mode choice between auto and transit trips in the Corridor, as a part of the I-70 travel demand model process. The Ridership Survey focused on mode choice-related questions. This survey was conducted in both the summer and winter of 2001. In addition, an I-70 Summer and Winter User Survey was conducted to provide details on a representative cross section of trips in the Corridor.

Regarding the CEC survey question about how traffic affects travelers' decisions to recreate in the mountains, this finding is consistent with results of the I-70 Ridership Survey. As a result of this survey, the travel demand model forecast "unmet demand" for year 2035 conditions. The results of these forecasts are summarized in **Chapter 1, Purpose and Need** of the PEIS. This unmet demand results in less business revenue as fewer people are traveling the Corridor.

On the response that 97 percent of people would ride a high speed train to the mountains that could get them there at least as fast as they can get there now, the I-70 Ridership Survey and subsequent modeling found that the travel time and convenience of the transit system was a big factor in the ridership of the system. For these reasons, the Advanced Guideway System system defined in the Preferred Alternative must have travel time comparable to or faster than

(continued on next page)

Comments

Responses

Source: Letter	Name: Colorado Environmental Coalition (continued)
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Response to ORG-17 (continued)

D. (Continued from previous page)

automobile traffic and must be convenient to use as defined by general performance criteria developed through the Collaborative Effort.

We appreciate the survey information about the specific purposes for which people would take a high-speed train to the mountains. While the travel demand model did not identify ridership for each of these specific purposes, they were considered as part of summer recreation, winter recreation, and other trip purposes. The travel demand modeling recognizes that there are hundreds of different reasons for taking a trip and summarizes these into major categories. The results are then calibrated with known conditions to confirm the model is forecasting appropriately.

Regarding the CEC survey question about accessing the Advanced Guideway System station near I-70 and C-470 (called Jefferson Station in the Revised Draft PEIS, and revised to Jeffco Government Center light rail station in the Final PEIS), 87 percent of your membership said they would drive to and park at the station rather than use the FasTracks network. While the FasTracks plan had not been developed when the I-70 Ridership Survey was taken, we obtained similar responses from residents of the Denver metropolitan area. Ninety percent of day recreationers responding to the survey indicated that they would drive to a station in Jefferson County near C-470 and I-70, and nearly 80 percent of people staying in the Corridor overnight responded that they would drive to such a station. You are correct in identifying parking as an important issue in designing the future expansion of this FasTracks end-of-line station during Tier 2 processes.

Similarly, the information you provide on riders' willingness to make transfers on the FasTracks network to reach the Jeffco Government Center light rail station is informative. The I-70 Ridership Survey—and therefore the travel demand forecasting models developed from it—address the time spent waiting for each transit vehicle, and transfers between the

(continued on next page)

proposed, as well as adequate infrastructure to handle the automobile traffic that will be generated by the AGS station.

Next, we asked people, if they would take transit for a trip, how many transfers would they be willing to make to get to the station at C470 and I70? Our anecdotal evidence here is in line with all the more scholarly studies that have been done, because ridership dropped by at least 30% with each added connection. 21% of respondents said they would not be willing to make any transfers; 53% said they would be willing to make one transfer; 17% said they would be willing to make 2 transfers; and only 7% said they would be willing to make 3. Fully 74% of respondents are not willing to make more than one transfer. This suggests that if a theoretical AGS system rider gets on the Fastracks system bus or train nearest to his or her house on the Front Range, that bus or train better go straight to the station at C470 and I70, or another AGS system station.

The responses to this question indicate that connectivity is a big issue for transit riders, and an issue the agencies really need to spend time and resources considering as they look at building an AGS system that functions in a way that encourages riders to get out of their cars and reduce congestion on I70. The agencies cannot just assume that people will take Fastracks in the metro area to connect to the train station at C470 and I70, or that the Fastracks system is adequate to the task. Additionally, if part of the goal of the AGS system is to decrease air pollution, greenhouse gas emissions, and vehicle miles traveled by encouraging use of the AGS system, and we believe it is, the agencies are going to need to do more work on this issue. They will need to study how the AGS system will connect with the Fastracks system in a way that will actually get people to take transit to connect with the AGS system, and they may need to look at having more than one AGS station on the Front Range.

The next question we asked people had to do with the speed of the AGS system. Obviously, based on the technology chosen for the system, as well as stops, the ride from Golden to Vail could take as little as an hour to up to 3 hours. We thought it would be interesting to see what people would expect from a system that they would be willing to use. 33% said they would expect the trip to take one hour; 48% said an hour and a half; 16% said two hours; and less than 1% said 2.5 hours or more. This suggests that people expect an AGS system they would pay to ride up to the mountains to be as fast as, or faster than, an automobile trip in free-flow traffic conditions.

The last question we asked had to do with another factor that will greatly affect ridership on an AGS system: cost. We asked people how much they would be willing to pay for a one-way trip between Golden and Vail. 26% said less than \$20; 40% said \$20; 29% said \$30; and only 4% were willing to pay more than this. This suggests that the majority of people expect to pay \$20 or less for a one-way trip on the AGS system.

Lastly, it is worth noting that our survey-takers noted a number of things we did not specifically ask about. A number indicated they would want to see season rail passes or multi-use discounts of some kind for the AGS system. A number also indicated concerns with transit options available in mountain towns. In other words, they may not ride an AGS system up to the mountains if there is not more investment in connecting local transit infrastructure. We would

Comments

Responses

Source: Letter	Name: Colorado Environmental Coalition (continued)
Document Number: ORG-17	City, Zip Code: Denver, 80202

suggest that this topic should be part of the feasibility study for the AGS system and the State Rail and Transit Plan being developed by the CDOT Division of Rail and Transit.

We would suggest that, as the agencies move quickly forward into their feasibility analysis for the AGS system they include in the analysis a full study of how the above factors will affect system ridership.

Response to ORG-17 (continued)

D. (Continued from previous page)

Advanced Guideway System and the local bus systems in the Corridor. The 2001 "pre-FasTracks" Ridership Survey design does not address the issue of rail-to-rail transfers that emerged with the development of the FasTracks plan. However, CDOT did anticipate transfer concerns and found that, for example, a direct connection from the Corridor to Denver International Airport would increase ridership by approximately 10 percent. Note, the travel demand model uses a different methodology than the number of transfers to determine the effect on ridership. Rather than reduce the ridership by a certain percentage for each transfer, the travel demand model applies a travel time penalty for each transfer, in addition to the time spent waiting. This penalty addresses the lost convenience of having to transfer bags and equipment, find a new seat, and move to another transit vehicle. Overall transit ridership is based largely on the comparative travel times between the transit trip, including all penalties, and the highway trip. This methodology has been validated on numerous travel demand models across the country.

Connectivity of the Advanced Guideway System with the Regional Transportation District FasTracks system and with other local transit systems in the Corridor is an important issue. The Colorado Department of Transportation coordinated with Eco Transit, Summit Stage, and others in developing the PEIS. Details of the local transit systems are provided in **Appendix A** of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website). Further coordination regarding the needs for supporting local transit feeder service will continue as a part of the Advanced Guideway System feasibility studies and related Tier 2 processes. Also, CDOT will be conducting a Colorado Interregional Connectivity Study to examine how the I-70 Mountain Corridor Advanced Guideway System and potential other high-speed rail corridors will connect to the Regional Transportation District FasTracks system. This connectivity study will

(continued on next page)

Comments

Responses

Source: Letter	Name: Colorado Environmental Coalition (continued)
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Response to ORG-17 (continued)

D. (Continued from previous page)

address specific concerns mentioned in your comment including an evaluation of transit transfers and what Front Range stations will be needed to provide service to the I-70 Mountain Corridor.

While decreased emissions of pollutants and green house gases is a benefit of the Advanced Guideway System , the purpose of the project is to increase access, mobility, and capacity and reduce congestion on the I-70 highway and not to specifically decrease emissions.

The assumptions CDOT made regarding Advanced Guideway System operating characteristics validate the CEC survey findings. While the Advanced Guideway System evaluated in the PEIS is capable of reaching top speeds of around 100 mph, station spacing and the canyon geography of the Corridor result in it averaging speeds around 60 to 65 mph. **Appendix A** of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website) shows that the Advanced Guideway System would take about an hour and 40 minutes to make the trip between the Denver metropolitan area and Eagle County. This travel time corresponds to the 64 percent of your membership who would expect the trip to take an hour and a half or two hours.

The travel demand model assumed that Advanced Guideway System fares should be priced to attract enough riders to address the congestion need of the project. In general, this resulted in a one-way trip fare of \$14 between the Denver metropolitan area and Eagle County. Such a fare is consistent with the expectation of a majority of CEC respondents that the fare be priced at \$20 or less. Season rail passes and discounted multiple-use ticket books as means to optimize Corridor transit use and fare revenues could be considered as future funding sources. **Appendix A** of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website)

(continued on next page)

Comments

Responses

Source: Letter	Name: Colorado Environmental Coalition (continued)
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4. Connectivity

A major point of contention in the original Draft was the treatment of the mass transit component (an AGS system) in the array of alternatives. The Collaborative Effort team discussed this issue and there was general agreement that the AGS would need to connect effectively with transit systems in communities along the Mountain Corridor as well as along the Front Range. The current Revised PEIS, through the Consensus Recommendations, states a "commitment to the evaluation and implementation of AGS within the corridor, including a vision of transit connectivity beyond the study area and local accessibility to such a system." The Consensus Recommendation further specifies that future studies must determine whether such a system is feasible before any capacity improvements beyond the specific improvements delineated in the document can be made.

The Revised PEIS does not address the broader connectivity of the I-70 Mountain Corridor and AGS with the existing and planned transportation infrastructure, particularly transit infrastructure, outside of the designated Mountain Corridor any further than this. Going forward, it will be very important that the Agencies analyze the connectivity of the AGS system outside of the Mountain Corridor as part of the planned AGS feasibility study.

The Consensus Recommendation specifically notes eleven things that need to be studied to advance implementation of an AGS system within the corridor (feasibility of high speed passenger rail service, potential station locations and land use considerations, transit governance authority, alignment, technology, termini, funding requirements and sources, transit ridership, potential system owner/operator, interface with existing and future transit systems, and role of AGS in freight delivery both in and through the corridor). All eleven implicate or will potentially be affected by the connectivity of the system to transit systems in communities along the Mountain Corridor as well as along the Front Range.

Through the Consensus Recommendation, CDOT commits to providing funding for studies in support of the additional information needed to determine the viability of the AGS. It is imperative that any feasibility studies undertaken in support of this commitment include the issue of connectivity.

Response to ORG-17 (continued)

D. (Continued from previous page)

provides details on transit fares. The Colorado Department of Transportation will study detailed fare structure design during future feasibility studies and related Tier 2 processes.

Advanced Guideway System studies will explore similar issues to those posed by the CEC survey along with many other aspects of the Advanced Guideway System system, including the eleven items listed in the Consensus Recommendation and noted below in your comment [ORG-17-E](#). The results of your surveys will be passed along to the Division of Transit and Rail for their consideration during future study of the Advanced Guideway System .

E. The lead agencies agree connectivity with existing and planned transit infrastructure is a key component of the success of the Advanced Guideway System. **Section 2.7.1 "What is the Preferred Alternative?"** states that "The Advanced Guideway System... includes the commitment by the lead agencies to evaluate and implement and Advanced Guideway System within the Corridor including a vision of transit connectivity beyond the study area and local accessibility to such a system."

The lead agencies are committed to the vision of connectivity beyond the Corridor; this connectivity is a critical element to be evaluated in future feasibility studies and related Tier 2 processes. Transit feasibility studies and related Tier 2 processes will specifically address the feasibility of an Advanced Guideway System in the Corridor, including effects of connections on technology and ridership projections. The studies will evaluate the eleven items listed in the Consensus Recommendation and may consider other factors as well. The Colorado Department of Transportation's

(continued on next page)

Comments

Responses

Source: Letter	Name: Colorado Environmental Coalition (continued)
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Comments from Other Entities

In addition to the above comments, CEC would also like to join in the following specific comments from the following entities.

From Colorado Trout Unlimited's comments:

Streams, Wetlands Ecological Enhancement Program: Substantial effort has gone into the development of a Memorandum of Understanding and Mitigation Matrix. While the MOU has been essentially complete for more than one year, there hasn't been any movement to execute the document. We understand the root of the problem to be concerns from the United States Forest Service, wherein they feel they're prohibited from executing such a document because it would involve NGOs also participating. They have represented their position as being based on limitations put on federal agencies by the Federal Advisory Committee Act. That position is difficult for us to comprehend since there are already MOUs in place between federal agencies and NGOs and since the Federal Highway Administration has indicated they don't feel such a document is prohibited by FACA. We encourage the Agencies to take every means possible to implement this MOU, thereby ensuring that aquatic resources will be adequately protected during the development of the I-70 Corridor.

A second, and perhaps more significant issue concerning SWEEP is in how this MOU will be implemented and what the role of SWEEP is going to be in the Tier II process. Recently CDOT has started preparatory work on two Tier II initiatives that have the potential to adversely affect aquatic resources in Clear Creek County. They are the Empire Junction Development and the Wetland Mitigation Bank Project. A Project Leadership Team has been assembled for this project but doesn't include any representation from the conservation community. An important reach of Clear Creek crosses the property likely to be affected by the proposed Empire Junction Project.

The Wetlands Mitigation Bank is a research project that appears to be considering studying a reach of Clear Creek that will be re-routed. The apparent goal is to determine if such a relocation could be done without impact to the aquatic values of the stream. CDOT acquired the property for conducting this study approximately 9 years ago. CDOT has been formulating its plans for the project for nearly one year, prior to release of the new Draft. At no time were either of these projects presented to the SWEEP Committee for discussion of their goals, methods, or schedule for the work, a clear purpose of the Committee.

The Agencies need to develop a protocol for consideration of aquatic impacts and implement a training module for those staff that will be in leadership positions in future project planning activities. This protocol should be incorporated into the Final PEIS and its implementation committed to in the PEIS Record of Decision.

Response to ORG-17 (continued)

- E. (Continued from previous page)

Division of Transit and Rail Colorado State Passenger and Freight Rail Plan will evaluate existing and planned rail projects statewide, including the connectivity of the I-70 Mountain Corridor Advanced Guideway System with other transit and rail services in the state. The Division also will conduct a Colorado Interregional Connectivity Study to study the integration of potential high-speed rail projects with the Regional Transportation District FasTracks system in the Denver area.
- F. Please see the responses to comments [ORG-27-C](#), [ORG-27-D](#), and [ORG-27-E](#) from Colorado Trout Unlimited and to comment [ORG-16-C](#) from the Sierra Club.

Comments

Responses

Source: Letter	Name: Colorado Environmental Coalition (continued)
Document Number: ORG-17	City, Zip Code: Denver, 80202

Response to ORG-17 (continued)

From Sierra Club's comments:

VMT & GHG reductions: The discomfort with the highway construction solutions proposed in the original PEIS was more than the destruction of our beautiful mountain canyons. There were also environmental concerns that more highway lanes would radically increase Vehicle Miles Traveled and with them, increased greenhouse gas emissions. We believe the document needs to do a better job of modeling how the Alternatives measure up in the short and long term operation of the corridor, after construction. We need to see more clearly how the increase in trips on transit reduces VMT and GHG per person traveling.

Thank you for the opportunity to provide these comments.

F

Comments

Responses

Source: Letter	Name: Denver Regional Council of Governments (DRCOG)
Document Number: ORG-18	City, Zip Code: Denver, 80203

We commend CDOT on the collaborative processes used since the first draft PEIS was released in 2005. The Revised Draft PEIS was prepared with much greater consideration of the stakeholders and it responds to many of the comments provided by DRCOG staff in May 2005.

A

The following comments are provided related to completion of the Final PEIS:

B

- Adjust text to more closely match the "CR" (Consensus Recommendation) language.

C

- Add more definition in regards to "terminus at C-470", realizing that exact specifics are not known at this time. Consider providing examples of connections to the "RTD network" (e.g. West Corridor line, etc.).

D

- Clarify if AGS is definitely considered to be fully elevated or primarily elevated. (Are at-grade sections out of the realm of possibility?)

E

- Reflect the most up to date amount of funding that CDOT does expect, as identified through resource allocation, and assumed for Fiscally Constrained Regional Transportation Plans

Response to ORG-18

- A. Comment noted.
- B. The Consensus Recommendation has been included verbatim in **Chapter 2, Summary and Comparison of Alternatives** of the PEIS, and has been modified in the PEIS **Executive Summary** for consistency.
- C. The text in **Section 1.5 "What are the study limits and why were they selected?"** has been revised to provide a more detailed discussion of the project termini, and to clarify that the eastern terminus for the transit improvements is the Jeffco Government Center light rail station, where connections to the Regional Transportation District FasTracks transit system in the Denver metropolitan area can occur. Reference to the Jeffco Government Center light rail station as the eastern terminus for transit improvements has been added to the remainder of the document.
- D. The description of the Advanced Guideway System has been modified in **Section 2.7.1 "What is the Preferred Alternative?"** to clarify that it would be capable of being fully elevated. This clarification was reviewed with the Collaborative Effort committee, who concur with the change.
- E. **Section 5.4, "How much funding is currently allocated to the I-70 Mountain Corridor?"** of the PEIS states: "As part of the amended 2035 *Statewide Transportation Plan* (CDOT, March 2008), \$218 million is to be allocated for the I-70 Mountain Corridor in Fiscal Year (FY) 2012-2017 and \$989 million will be identified for the Corridor during FY 2018-2035."

Comments

Responses

Source: Letter	Name: Denver Regional Council of Governments (DRCOG) (continued)
Document Number: ORG-18	City, Zip Code: Denver, 80203

F

- Provide more explanation of the role of DRCOG, as the MPO, for improvements implemented in Jefferson County (alluding to Fiscally Constrained RTP, TIP, air quality conformity)

Response to ORG-18 (continued)

F. The PEIS is a Tier 1 study, which identifies travel mode, general location, and capacity of improvements. The projected outcome of the PEIS is a broad level (Tier 1) decision that will not directly result in construction or impacts. This decision informs and refines the future, more detailed decisions that will be completed during Tier 2 processes. They will require lead agencies to establish a project-specific purpose and need, consider and evaluate alternatives, and understand and disclose the impacts of the alternative(s) before making decisions that lead to construction.

The lead agencies will reflect the completion of the Tier 1 process and identification of the Preferred Alternative in the amended 2035 statewide transportation plan. This acknowledgement recognizes the involvement of the lead agencies' planning partners, including the Denver Regional Council of Governments, in reaching a consensus-based solution.

Specific project(s) inclusion in the fiscally constrained long-range plan(s), air quality conformity, and funding will be identified in the decisions made in Tier 2 processes. This is consistent with the current statewide planning process. The Denver Regional Council of Governments (DRCOG) has been consulted during the PEIS study and will continue to be involved in future Tier 2 processes, as discussed in **Section 6 of the Introduction and Figure I-1**. Any projects within the DRCOG metropolitan planning area will be required to be included in the Transportation Improvement Plan and meet the air quality conformity requirements of the DRCOG metropolitan planning organization area.

Comments

Responses

Source: Letter	Name: Denver Regional Council of Governments (DRCOG) (continued)
Document Number: ORG-18	City, Zip Code: Denver, 80203

G

- Provide more reference to residents/visitors of mountain communities who will access AGS to reach Denver, rather than focusing so strongly on metro Denver residents using AGS. Consider providing more information on the specific types of modes and facilities that will be used for making the connections to/from AGS.

Response to ORG-18 (continued)

G. It is not clear where in the PEIS you are referring. An Advanced Guideway System will provide service to the Jeffco Government Center light rail station in Golden with connections to the Regional Transportation District FasTracks system from the I-70 Mountain Corridor communities. Note the magnitude of trips destined for the Corridor from the Denver metropolitan area is greater than the magnitude of trips generated by residents and visitors of Corridor communities to metropolitan Denver. The effects of the Action Alternatives on commuting patterns and trips is discussed throughout the document, with no specific reference to these commuting trips either originating in the Denver metropolitan area or originating in the Corridor communities.

Section 2.6.4 “Action Alternative Components” discusses that “all transit systems connect with ... local and regional transit services at most stations along the route, such as Roaring Fork Transportation Authority, ECO Transit, and Summit Stage.” The PEIS is a Tier 1 study, which identifies mode, location, and capacity of major improvements. More specific plans, including types of modes and facilities, for supporting transit facilities and transit services for the collection and distribution of Advanced Guideway System travelers will be made in subsequent feasibility studies and related Tier 2 processes.

Comments

Responses

Source: Letter	Name: Denver Regional Council of Governments (DRCOG) (continued)
Document Number: ORG-18	City, Zip Code: Denver, 80203

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|---|--|
| H | <ul style="list-style-type: none"> Clarify the varying definitions of "local" when discussing users of the corridor. (Draft PEIS is not consistent as to whether the local reference is to trip purpose, location, or residence of person making the trip). |
| I | <ul style="list-style-type: none"> Consider providing more of the reasoning for the elimination of some bus alternatives. |
| J | <ul style="list-style-type: none"> Expand on the examples of TSM strategies that are presented, and also acknowledge courtesy patrol type services. |

Response to ORG-18 (continued)

- H. It is not clear where the varying definitions for "local" are located in the PEIS. Users of the Corridor are described in **Section 1.8, "Who uses this Corridor and for what reasons?"**. "Local" refers to trip purpose, for trips by residents such as shopping, medical, and social trips. These are typically trips of shorter length compared to work or recreational trips. Further information is found in **Section 2.3, "What process was used to evaluate and screen alternatives?"** of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website).

- I. **Chapter 2, Summary and Comparison of Alternatives** of the PEIS briefly describes the alternatives development and screening process. This was summarized to provide a more readable document. More of the reasoning for the elimination of these alternative elements, including the bus alternatives, is included in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website). Specific information on bus alternatives can be found in **Section 4.5** of this Technical Report .

- J. The Transportation Management alternative elements include transportation system management (TSM). Similar to the response to your comment [ORG-18-I](#), the PEIS provides only a summary of the multiple alternative elements that were evaluated with the intent of making the PEIS more readable. More detail on the Transportation Management alternative elements can be found in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website). Specific information on transportation management and TSM alternative elements can be found in **Section 4.2** of this Technical Report. (cont'd on next page)

Comments

Responses

Source: Letter	Name: Denver Regional Council of Governments (DRCOG) (continued)
Document Number: ORG-18	City, Zip Code: Denver, 80203

Response to ORG-18 (continued)

J. (Continued from previous page)

In addition, the description of the Preferred Alternative, in **Chapter 2, Summary and Comparison of Alternatives** of the PEIS identifies “non-infrastructure related components,” many of which are characteristic of TSM or Transportation Management alternatives. These include, but are not limited to; increased enforcement; bus, van, or shuttle service in mixed traffic; programs for improving truck movements; driver education; traveler information; use of technology enhancements; and expanded use of existing transportation infrastructure.

Many details of the elements carried forward into the Preferred Alternative will need to be developed during Tier 2 processes. Even so, CDOT has been making ongoing, shorter-term safety and operational (TSM type) improvements in some Corridor locations, including truck chain up areas, improved traveler message signs, park-and-ride locations, rockfall mitigation, better emergency response plans, roadside safety enhancements, median barrier improvements, tunnel enhancements, and courtesy patrol services.

Comments

Responses

Source: Letter	Name: State Historic Preservation Office
Document Number: ORG-19	City, Zip Code: Denver, 80202

A

Thank you for the opportunity to review the I-70 Mountain Corridor Revised Draft Programmatic Environmental Impact Statement (PEIS). We appreciate and commend FHWA and CDOT for the consultative work completed to execute the *I-70 Mountain Corridor Section 106 Programmatic Agreement (PA)* document. The PA clearly establishes how the Section 106 process will be completed during tiers 1 and 2 regardless of which alternative is selected.

In regards to the presented alternatives in the PEIS, our office appreciated the opportunity to participate in the Collaborative Effort. In our opinion, the Consensus Recommendation as the Preferred Alternative best considers the current and future evaluation of cultural resources. Please see below for general comments regarding the PEIS.

B

- On page 26 of the Historic Properties and Native American Consultation Technical Report states that: "no guidelines exist for evaluating the effects of noise on historic properties," in the Section 106 process. Our office does not agree with this statement. According to 36 CFR 800.5(2)(v), indirect effects should be evaluated to determine if the introduction of these elements: "diminish the integrity of the property's significant historic features." Often this is done through consultation with the SHPO and other consulting parties and at times the FHWA noise standards can be used. Please note that the evaluation of visual and noise effects are stipulated in the PA under sections V.B and V.C of that agreement.

Response to ORG-19

A. Comment noted

B. The paragraph has been revised to read:

"The Section 106 regulations (36 Code of Federal Regulations 800.5(2)(v)) state that "the introduction of audible elements that diminish the integrity of the property's significant historic features" are an example of an adverse effect. For the Tier 1 study, existing and projected noise conditions were measured and modeled for seven representative Corridor communities; these studies provide a general assessment of noise conditions in the Corridor and a relative comparison of the types of impacts that would occur under the Action Alternatives. Detailed noise modeling and assessment of noise conditions for individual properties would occur during Tier 2 processes, and these data may be used to assist in the evaluation of historic properties in the Corridor at Tier 2. Section V(C) of the I-70 Mountain Corridor Programmatic Agreement (**Appendix A**) stipulates that the process for evaluating noise to historic properties will occur in consultation with SHPO and the consulting parties, and provides discussion points for these consultations. **Section 3.10, Noise** of the PEIS and the *I-70 Mountain Corridor PEIS Noise Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website) contain additional details about noise studies, methods, results, and proposed mitigation conducted at the first tier analyses."

Specific reference to the visual assessment stipulations in the Programmatic Agreement has also been included, and the following sentence has been added to the end of the paragraph addressing visual effects: "Section V(B) of the I-70 Mountain Corridor Programmatic Agreement (**Appendix A**) stipulates that the process for evaluating visual effects to historic properties will occur in consultation with SHPO and the consulting parties, and provides discussion points for these consultations"

Comments

Responses

Source: Letter	Name: State Historic Preservation Office (continued)
Document Number: ORG-19	City, Zip Code: Denver, 80202

C

- The PEIS puts great emphasis on the use of triggers and evaluations later in time. It is not clear if these evaluations will be presented at the time of tier 2 projects or independent of those projects. How does FHWA and CDOT plan on documenting decisions created from the triggers and evaluation?

Response to ORG-19 (continued)

C. The evaluations of triggers will be reviewed through ongoing stakeholder engagement, using a committee that retains the Collaborative Effort member profile. The ongoing engagement is necessary and described in **Appendix B, Collaborative Effort Materials and Consensus Recommendation**. The committee will establish its own meeting schedule based on progress made against the approved triggers, with check-in at least every two years. These meetings will review and document the current status of all projects, studies, and Tier 2 processes, and will consider the triggers in evaluating the need for additional capacity improvements.

In 2020, there will be a thorough reassessment of the overall purpose and need and effectiveness of implementation of these decisions. At that time, the lead agencies, in conjunction with the stakeholder committee, may consider the full range of improvement options. The ongoing purpose of the Collaborative Effort is to ensure consistency with the Preferred Alternative, provide a forum to track policy-level decisions and progress related to the I-70 Mountain Corridor, and provide a mechanism for evaluating the triggers and Corridor conditions.

The Colorado Department of Transportation will consolidate and make available online all information developed through the PEIS, subsequent Tier 2 processes, the ongoing I-70 Mountain Corridor Context Sensitive Solutions processes, and the Collaborative Effort.

Comments

Responses

Source: Letter	Name: State Historic Preservation Office (continued)
Document Number: ORG-19	City, Zip Code: Denver, 80202

n /
D /

- According to page 3 of the PEIS 4(f) Evaluation Technical Report, indirect effects will take place within the project footprint. In our opinion, there is a great likelihood that the visual effects of AGS could extend outside of the project footprint. We also recommend that FHWA and CDOT consider the change in land use as an indirect effect of the Preferred Alternative.

Response to ORG-19 (continued)

D. The text in the FEIS, **Section 3.14.1, "What is Section 4(f)?"** - final paragraph, has been modified to state the following:

"Although constructive use determinations are not part of this discussion, a buffer of an additional 15 feet has been added to the project footprint to take into account these potential uses (as expressed through noise, visual or access impacts), which may be determined constructive uses during Tier 2 processes. Tier 2 processes will include detailed noise analysis, visual impact analysis, and access restrictions, if any. Any use will be evaluated during Tier 2 processes once sufficient design and operational information about improvements is developed. The process to identify constructive uses during Tier 2 processes, as described further in **Section 3.14.13**, recognizes that the 30-foot buffer zone does not limit the Section 4(f) evaluation at Tier 2."

In the PEIS, the Section 4(f) discussion assumes any property within this 30-foot buffer zone, even if only the tip of a potential Section 4(f) property, results in a potential use to that Section 4(f) property. This is a conservative assumption since during the I-70 Mountain Corridor Context Sensitive Solutions process, substantial efforts will be taken as Tier 2 processes proceed to avoid or minimize effects to the Section 4(f) properties. **Section 3.14.1, Constructive Use** has been revised to explain that the buffer zone is included to account for constructive uses such as visual impacts.

The analysis of indirect effects to historic properties that will take place during Tier 2 will be consistent with Section V of the Section 106 Programmatic Agreement. Indirect effects associated with land use changes in a NEPA context have already been evaluated in the Draft PEIS and will be reevaluated on a site-specific basis during Tier 2 processes.

Comments

Responses

Source: Letter	Name: State Historic Preservation Office (continued)
Document Number: ORG-19	City, Zip Code: Denver, 80202

E | • Was preservation-in-place considered for any of the identified National Register-eligible archaeological sites during the 4(f) evaluations?

F | Again, thank you for the opportunity to review the Draft PEIS. If we may be of further assistance, please contact Amy Pallante, our Section 106 Compliance Manager, at (303) 866-4678.

Response to ORG-19 (continued)

- E. As stated in **Section 3.14.2, “What process was followed for this first tier Section 4(f) Discussion?”** of the PEIS, this Section 4(f) discussion broadly considers what is included as a Section 4(f) property because the exact status of the resource is not known at this first tier. This first tier takes an inclusive approach to resources treated as Section 4(f) properties and includes ALL archaeological properties. A determination of whether these sites are valuable for preservation in place or data recovery will be made during Tier 2 processes.
- F. Comment noted.

Comments

Responses

Source: Letter	Name: National Trust for Historic Preservation
Document Number: ORG-20	City, Zip Code: Denver, 80202

Response to ORG-20

A. Comment noted.

Thank you for the opportunity to comment on the Revised Draft PEIS (PEIS) for the I-70 Mountain Corridor. We applaud CDOT and FHWA for producing a document that is far more reflective of the opinions of the numerous stakeholders involved in shaping the corridor’s future than was the previous draft. The process by which the Collaborative Effort shaped the consensus recommendation (which grew into the Preferred Alternative) was truly ground breaking and indicative of a paradigm shift about the way we look at highway projects in this country. We hope that this approach is one that will be undertaken with future projects, as well.

Interest of the National Trust

Congress chartered the National Trust in 1949 as a private nonprofit organization to “facilitate public participation” in historic preservation, and to further the purposes of federal historic preservation laws. 16 U.S.C. §§ 461, 468. With the strong support of more than 190,000 members, including more than 3,000 in Colorado, the National Trust works to protect significant historic sites and to advocate historic preservation as a fundamental value in programs and policies at all levels of government. The National Trust has long been involved in the protection of cultural resources in the Mountain Corridor and we are proud that Georgetown’s Hotel deParis is one of our most recently designated National Trust Historic Sites. We have been active participants in the National Environmental Policy Act (NEPA) and National Historic Preservation Act (NHPA) processes for this project for many years, including participating as a consulting party for the NHPA Section 106 process. In addition we have been a member of the Context Sensitive Solutions (CSS) Aesthetic Guidance Working Group, which has developed criteria and guidance to be sure that future corridor improvements are visually compatible with the long and varied cultural and natural landscape which they cross.

A

Comments

Responses

Source: Letter	Name: National Trust for Historic Preservation (continued)
Document Number: ORG-20	City, Zip Code: Denver, 80202

Specific Comments on the PEIS

1. **The significance of CSS should be made more evident throughout the document, particularly in the Executive Summary.**
 We firmly support the important role of CSS in carrying forward projects tiered from the PEIS, especially because CSS can help to protect historic properties and their landscapes. However, we think that a description of CSS should be added in the PEIS Executive Summary, including an explanation that its purpose is to produce better design and therefore, better projects, with the assistance of stakeholder involvement.

B While the "process" of CSS, as emphasized at ES-17, is certainly an important element, the reason for employing CSS is not about the process itself but rather about what it achieves - which, according to FHWA, is "improve the environmental quality of transportation decisionmaking . . . and to integrate environmental and community values into transportation decisions at an early point in planning" and is "an approach that considers the total context within which a transportation improvement project will exist." PEIS at Appendix A-1. This for us, is the crux of the matter, and should be easily understood by the reader at the outset, rather than deferred until Appendix A.

Response to ORG-20 (continued)

B. The following text has been added to the beginning of ES.11 to clarify the purpose and definition of I-70 Mountain Corridor Context Sensitive Solutions and its role in decision making:

"The Federal Highway Administration defines Context Sensitive Solutions as:

Context Sensitive Solutions is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic, and environmental resources, while maintaining safety and mobility. CSS [Context Sensitive Solutions] is an approach that considers the total context within which a transportation improvement project will exist. CSS principles include the employment of early, continuous and meaningful involvement of the public and all stakeholders throughout the project development process.

Although the lead agencies are committed to the I-70 Mountain Corridor Context Sensitive Solutions approach described here, it is recognized that government agencies cannot cede statutory or regulatory responsibilities.

The principles of Context Sensitive Solutions apply to any transportation project aiming to bring the full range of stakeholder values to the table and actively incorporate them into the design process and final results."

Comments

Responses

Source: Letter	Name: National Trust for Historic Preservation (continued)
Document Number: ORG-20	City, Zip Code: Denver, 80202

2. Early action projects should be subject to the same design criteria and CSS approach as projects tiered later from the PEIS.

We are hopeful that the PEIS guidance about CSS and related project management approaches are being integrated into the implementation of early action projects that are poised for development such as the improvements to Empire Junction/US 40 and Silverthorne. See PEIS at ES-23. Early action projects will benefit from the full-blown application of CSS and project planning, although they are not technically "tiered" from this yet-to-be-finalized document. CDOT leadership needs to ensure that staff is aware of the CSS materials, educated in how to use them and able to implement them to help achieve better corridor projects. Empire Junction appears to be a perfect test case, due to geography, current road geometry and the confluence of a variety of resources that must be accommodated there such as the historic Empire Station and the Empire Tunnel which are being treated as National Register-eligible according to Map 21 in The Historic Properties and Native American Consultation Technical Report.

3. CDOT should consider how to best connect users of the PEIS to additional materials now referenced in appendices.

With the tremendous amount of information contained in the PEIS, we understand the inclination to incorporate by reference dynamic outside sources, such as the CSS website, but are concerned that expansive online materials may be overlooked or become an afterthought if they are not available "off the shelf" with the PEIS itself. For example, the CSS Aesthetic Guidance contains recommendations for "Areas of Special Attention" Reports needed to help future designers to better understand particular environments such as the Georgetown-Silver Plume National Historic Landmark District or historic downtown Idaho Springs. How will a future user of the PEIS be reminded that these reports exist and should be used in project planning? Barring inclusion of many more materials in the PEIS or Appendices, there must be an educational process for CDOT staff that can be carried forth far into the future to be sure these materials are known and used.

Response to ORG-20 (continued)

- C. The lead agencies have committed to using the I-70 Mountain Corridor Context Sensitive Solutions process for all projects in the Corridor, including early action projects. The Colorado Department of Transportation has conducted Context Sensitive Solutions training for all engineering units in CDOT that work on the I-70 Mountain Corridor. At that training, they are exposed to the I-70 Mountain Corridor Context Sensitive Solutions website and trained specifically on how to apply the 6-step process, the Design Guidelines, and the Aesthetic Guidelines to projects. The I-70 Mountain Corridor Context Sensitive Solutions training will be conducted as frequently as is appropriate. The I-70 Mountain Corridor Context Sensitive Solutions Project Manager will mentor staff to ensure that the I-70 Mountain Corridor Context Sensitive Solutions process is applied to every Tier 2 process. The I-70 Mountain Corridor Context Sensitive Solutions website has numerous tools and checklists to aide in application of the I-70 Mountain Corridor Context Sensitive Solutions process, and CDOT has an extensive library of resources that are distributed to every project team or staff member working in the Corridor.

- D. The lead agencies agree that information from the PEIS project website and the I-70 Mountain Corridor Context Sensitive Solutions website should be available for future projects. It is CDOT's intention to continue to update online information and to catalogue it for use by future project teams. The appendices to the PEIS contain the specific agreements that will be followed on Tier 2 processes, including I-70 Mountain Corridor Context Sensitive Solutions, SWEEP, ALIVE, and the Section 106 Programmatic Agreement. Information from the I-70 Mountain Corridor PEIS and I-70 Mountain Corridor Context Sensitive Solutions websites will be made available online to all Tier 2 process teams. The CDOT website will continue to be updated as Tier 2 processes continue and the Collaborative Effort committee evaluates Corridor conditions and triggers for improvements.

Please also see the response to comment [ORG-20-C](#) for information on the I-70 Mountain Corridor Context Sensitive Solutions training.

Comments

Responses

Source: Letter	Name: National Trust for Historic Preservation (continued)
Document Number: ORG-20	City, Zip Code: Denver, 80202

4. A fuller explanation of buffer zones and 4(f) constructive use should be provided.

We believe that the 4(f) Section of the document is greatly improved over the previous draft and appreciate that specific questions of 4(f) use must be deferred until Tier 2 projects are developed. However, we ask in the final PEIS that you clarify the application of the 30 foot "buffer zone" that is to be applied beyond the project footprints when analyzing "use" in Tier 2 projects. The document states, "It is also likely that any noise, visual or access impacts to these Section 4(f) properties will occur within this project footprint, so that the likelihood of identifying a constructive use during Tier 2 over and above the potential use already identified is . . . considered remote." Section 4(f) Evaluation Technical Report at 3. However, it appears to us difficult to assess whether, for example, noise increases in the Georgetown-Silver Plume National Historic Landmark District would constitute constructive use within those footprint and buffer parameters, or if in fact, a broader area would need to be considered. Additional noise studies within the Section 106 Area of Potential Effect could also provide more data. We hope that this type of discussion can continue into Tier 2 but are concerned that the buffer idea as currently presented is too limiting.

Response to ORG-20 (continued)

E. A buffer zone of 30 feet has been added to each side of the I-70 Mountain Corridor improvements identifying potential Section 4(f) properties that may be used in some way, either permanent or temporarily by incorporation of land or indirectly by being adversely affected through a constructive use. By no means does the application of the 30-foot buffer at Tier 1 limit the Section 4(f) evaluation at Tier 2. At this time, FHWA has not approved the use of any property. Any use will be evaluated at Tier 2 once sufficient design and operational information about improvements is developed.

In the PEIS, the Section 4(f) discussion assumes any property within this 30-foot buffer zone, even if only the tip of a potential Section 4(f) property, results in a potential use to that Section 4(f) property. This is a conservative assumption since during the I-70 Mountain Corridor Context Sensitive Solutions process, substantial efforts will be taken as Tier 2 processes proceed to avoid or minimize effects to the Section 4(f) properties. **Section 3.14.1, Constructive Use** has been revised to explain that the buffer zone is included to account for constructive uses such as noise, access, and visual impacts, but this zone does not limit the evaluation of constructive uses during Tier 2 processes.

Constructive use analysis will take place during Tier 2 processes, as the alternatives are refined, boundaries and eligibility of properties are confirmed, the I-70 Mountain Corridor Context Sensitive Solutions process is applied, and evaluations of noise, visual, and access impacts to the properties are understood in more detail.

Comments

Responses

Source: Letter	Name: National Trust for Historic Preservation (continued)
Document Number: ORG-20	City, Zip Code: Denver, 80202

5. CDOT should continue to implement the terms of the Section 106 Programmatic Agreement (PA).

F As one of the compliance efforts completed earlier for this project, we are pleased with how the PA is being implemented and with the products that have already been produced as a result. We hope that it will continue to serve as a model for collaboration and planning as we move towards implementing Tier 2 projects and expect that CDOT will rely on the documents coming out of the PA, such as the historic contexts, to help inform and guide future decision-making in ways that help to preserve historic properties.

F

Conclusion

G We very much appreciate CDOT and FHWA's efforts in producing the PEIS. The true test of this document will be how successfully it stands the test of time in guiding projects that are yet to be developed or even conceived. We believe that its visionary nature will help to make this possible and again congratulate CDOT on its dramatic, new approach to planning for major highway projects in our state.

Thank you for considering our comments.

Response to ORG-20 (continued)

- F. The lead agencies agree that the Programmatic Agreement provides a good framework for Section 106 compliance on future Tier 2 processes in the Corridor. By signing the I-70 Mountain Corridor Programmatic Agreement, the lead agencies committed to following its stipulations. Material developed to support identification and evaluation of historic properties in Tier 2 processes, such as the historic contexts, will inform Section 106 compliance on Tier 2 processes. Specifically, stipulation IV.A of the Programmatic Agreement states that "CDOT shall, in consultation with SHPO and other consulting parties, develop a historic context or contexts for the I-70 Mountain Corridor" and that these contexts "will be used to evaluate the National Register eligibility of historic properties..."
- G. Comment noted.

Comments

Responses

Source: Letter	Name: Eagle River Watershed Council
Document Number: ORG-21	City, Zip Code: Avon, 81620

A

On behalf of the Eagle River Watershed Council (ERWC) Board of Directors and staff, please accept our letter of support for the revised I-70 PEIS. The revised PEIS represents a Tier 1 EIS for proposed I-70 Mountain Corridor transportation improvements between Glenwood Springs and C-470. As a community based organization, the Eagle River Watershed Council advocates for the health and conservation of the Eagle and Colorado rivers. Therefore, our review and focus on the PEIS is limited to the detailed water resource analysis (including the wetlands and fens study) and to the potential impacts to our local watersheds from all alternatives provided.

B

At this level of study, the PEIS provides analysis for water resources in the Corridor, methods used to identify potential impacts of transportation alternative (including changes in water quality regulations and Total Maximum Daily Load requirements), consequences of the Action and No Action alternatives evaluated (impacts to water resources), consideration for Tier 2 processes, and proposed mitigation for water resources. The PEIS also describes coordination efforts with local, state and federal agencies.

As for the 848.6 acres of general wetlands, 4.3 acres of fens, and 800.87 acres of general waters of the U.S. surveyed in the Eagle River watershed, the PEIS concludes that Preferred Alternative Impacts on these areas (15.8 acres) are less than impacts associated with all other alternatives.

Response to ORG-21

- A. Comment noted
- B. The statement regarding importing of water was applied to the entire Corridor as a future possibility, without individual basins and sub-basins considered for potential changes in future water rights and/or usage. During Tier 2 processes, when appropriate and possible, impacts to individual basins and sub-basins will be identified.

In regards to wetland mitigation, the USACE/Environmental Protection Agency Final Mitigation Rule states a preference for applying a watershed approach to mitigation strategies, and permitting actions are usually approved with stipulations that mitigation be done within the watershed affected.

The 15.8 acres of impact is associated with the 55 mph Minimum Program of Improvements, which alone do not meet the 2050 purpose and need. Impacts that occur to waters of the U.S. for the Preferred Alternative 55 mph Maximum Program, which is needed to meet the 2050 purpose and need based on the information currently available today, are 30.7 acres.

Comments

Responses

Source: Letter	Name: Eagle River Watershed Council (continued)
Document Number: ORG-21	City, Zip Code: Avon, 81620

B We concur that more detailed analysis of indirect impacts on wetlands and other waters of the U.S. will be required during any Tier 2 process, however, we would ask for some clarification of the statement that "Importing water to accommodate increased water supply demands from induced growth increases the flow of water in waterways... potentially destabilizes streambanks throughout the Corridor." In the case of destabilized streambanks along Black Gore Creek, we have no evidence of future water rights proposed to be imported to this headwater sub-basin of the Eagle River watershed (Gore Creek). We support both the CDOT and SWEEP mitigation strategies, and respectfully request consideration during Tier 2 projects for wetlands mitigation in-basin on or near the project site rather than purchase of wetlands credit from another Upper Colorado basin since these areas typically provide important riparian functions where they are situated.

C With respect to the Water Resources Technical Report, we concur with observations on the FHWA stormwater runoff model limitations for screening all alternatives in the Corridor mountain environment and agree that more specific study is called for during Tier 2 evaluations.

D We would respectfully ask that you include the Eagle River Watershed Council as another local interest group providing information and data on water resources (Section 4.5 *Water Quality Monitoring*, Page 64/65). The ERWC has and will continue to provide support to CDOT in minimizing and mitigating impacts on local water resources and this includes water quality monitoring. Finally, we agree and support the observations on higher chloride loading and the proposed operational, management and mitigation considerations discussed by your winter maintenance group meeting on July 13, 2009. We would ask that all these considerations be studied in detail as part of any Tier 2 evaluation in the corridor, including those maintenance and management techniques that provide for a more precise application of deicer on roadways adjacent to Black Gore and Gore Creeks.

E Thank you again for the opportunity to comment. Please don't hesitate to contact our Director of Policy and Planning, Tambi Katieb, with any questions that you may have at 970.827.5406.

Response to ORG-21 (continued)

- C. Section 6 of the *I-70 Mountain Corridor PEIS Water Resources Technical Report* (included electronically on CD-ROM in Volume 3 of the Technical Reports and on the project website) identifies a number of specific elements regarding water resources that will be investigated in Tier 2 processes.
- D. The Black Gore Creek Steering and Technical Committees were included in the list of local interest groups on page 64 of the *I-70 Mountain Corridor PEIS Water Resources Technical Report* (included electronically on CD-ROM in Volume 3 of the Technical Reports and on the project website) because both CDOT and the Eagle River Watershed Council work jointly on those committees. However, the *I-70 Mountain Corridor PEIS Water Resources Technical Report* (included electronically on CD-ROM in Volume 3 of the Technical Reports and on the project website) has been updated to directly include the Eagle River Watershed Council on the list of local interest groups. The Colorado Department of Transportation appreciates the support to address water quality in the Corridor.
- E. Recent data show that water quality in Corridor streams has changed in response to changes in winter maintenance material use. Notable changes in mean stream concentration data show a decrease in suspended solids and phosphorus for Black Gore Creek and Straight Creek and an increase in chloride (sodium and magnesium) for Upper Clear Creek, Straight Creek, and Black Gore Creek. **Table 3.19-1** of the PEIS outlines the mitigation commitments for water resources for the Preferred Alternative. These mitigation commitments include further studies in Tier 2 processes, continued cooperation with agencies and interest groups, and continued evaluation of winter maintenance methods and correlation to water quality monitoring. The Record of Decision for the PEIS will formalize the mitigation commitments.

Comments

Responses

Source: Letter	Name: Southwest Energy Efficiency Project
Document Number: ORG-22	City, Zip Code: 80304

Economic and Environmental Impacts Are Interactive, and Must Be Considered Comprehensively Rather than Iteratively.

The economic, social and environmental impacts of the proposed project have not been adequately evaluated in the PEIS. These impacts are required to be analyzed and disclosed by the National Environmental Policy Act (NEPA), section 109(h) of the Federal Aid Highway Act, FHWA's regulations governing project review (23 C.F.R. §§ 771.105 and .125), and the Colorado Transportation Commission's Environmental Stewardship guidelines. In addition, for the eastern segment of the project to be added to the Regional Transportation Plan for the Denver metropolitan area, and the western portion to be added to the Statewide Transportation plan, mitigation of the significant adverse impacts of the project need to be identified and considered as part of the planning process. 23 U.S.C. §§ 134(i)(2)(B)(i)¹, and 135(f)(4)(A) and (B).²

¹ § 134(i)(2)(B)(i) requires – "discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the plan;"
 § 134(i)(2)(B)(ii) requires that this discussion "shall be developed in consultation with Federal, State, and tribal wildlife, land management, and regulatory agencies."

² Identical to § 134(i)(2)(B)(i) and (ii), except applies to Statewide Transportation Plan.

Response to ORG-22

NOTE: Responses to the comments provided reference several technical reports included electronically on CD-ROM attached to the PEIS and on the project website. Technical reports are included in six volumes. Those referenced here include: *I-70 Mountain Corridor PEIS Financial Considerations Technical Report (Volume 6), I-70 Mountain Corridor PEIS Travel Demand Technical Report (Volume 1), I-70 Mountain Corridor PEIS Climate and Air Quality Resources Technical Report (Volume 3), and I-70 Mountain Corridor PEIS Energy Technical Report (Volume 5), I-70 Mountain Corridor PEIS Social and Economic Conditions Technical Report (Volume 4), and I-70 Mountain Corridor PEIS Transportation Analysis Technical Report (Volume 2).*

- A. This Programmatic Environmental Impact Statement (PEIS) is a programmatic National Environmental Policy Act (NEPA) document, as described in the **Introduction** of the PEIS. It was prepared in accordance with the Council on Environmental Quality regulations, which allow for a phased approach to NEPA decision making. The PEIS identifies a program of improvements at the first tier (Tier 1) and defers more specific decisions, including any construction projects, to a second tier (Tier 2) NEPA process. Tier 2 NEPA processes will be needed to carry out the improvements identified in the Tier 1 decision. Each of the Tier 2 processes will be developed with its own specific purpose and need, to solve specific transportation problems consistent with the Tier 1 decision.

Tiering was used for this environmental impact statement to focus on the issues ripe for decision and exclude from consideration issues already decided or not yet ripe (40 CFR 1502.20). The PEIS identifies the mode, capacity, and general location of alternatives for the I-70 Mountain Corridor and prepares the lead agencies to program and identify funding for specific improvements that fall under these parameters through Colorado's established transportation planning processes. These comments focus primarily on mode and capacity issues. The lead agencies' approach to tiering is consistent with the Council on Environmental Quality's regulations,

(continued on next page)

Comments

Responses

Source: Letter	Name: Southwest Energy Efficiency Project (continued)
Document Number: ORG-22	City, Zip Code: 80304

Response to ORG-22 (continued)

A. (Continued from previous page)

which state that “tiering is appropriate when the sequence of statements or analyses is from a program, plan, or policy environmental impact statement to a program, plan or policy statement or analysis of lesser scope or to a site-specific statement or analysis” (40 CFR 1508.28). It is also consistent with the FHWA NEPA regulations, which describe tiering for major transportation actions: “The first tier EIS would focus on broad issues such as general location, mode choice, and areawide air quality and land use implications of the major alternatives. The second tier would address site-specific details on project impacts, costs, and mitigation measures” (23 CFR 771.111[g]).

The statewide and regional planning laws referenced by the commenter (23 U.S.C. §§ 134[i][2][B][i] and 135[f][4][A] and [B]) require long-range transportation plans to discuss “the types of environmental mitigation activities and potential areas to carry out these activities.” The discussion in the plan may focus on policies, programs or strategies rather than project-level activities. Colorado’s current plan, the *2035 Statewide Transportation Plan - Moving Colorado: Vision for the Future*, was approved by the Colorado Transportation Commission in March 2008 and incorporates 15 Regional Transportation Plans, including the Denver Regional Council of Governments (DRCOG) plan, *2035 Metro Vision Regional Transportation Plan*, which was updated in December 2007. Environmental values are incorporated into the bodies of these plans as well as into specific Corridor visions. The *2035 Statewide Transportation Plan - Moving Colorado: Vision for the Future, Environmental Technical Report* (March 2008) contains additional discussion of environmental initiatives and mitigation opportunities.

The transportation planning process identifies and prioritizes improvement projects to be included in the short-range (six-year) Statewide Transportation Improvement Program, which is updated every four years through the Project Priority Programming Process (4P) guidance adopted by

(continued on next page)

Comments

Responses

Source: Letter	Name: Southwest Energy Efficiency Project (continued)
Document Number: ORG-22	City, Zip Code: 80304

Response to ORG-22 (continued)

A. (Continued from previous page)

the Colorado Transportation Commission. Implementation of projects within the short-range plan requires compliance with NEPA if there is a federal action. The CDOT *Environmental Stewardship Guide* explains how environmental considerations integrate into the planning process but does not contain new environmental requirements. The 4P guidance also applies to regional plans, such as DRCOG's long-range plans and short-term transportation improvement program.

All NEPA decisions require alternatives and impacts to be disclosed and considered with enough detail to inform decision making appropriately. For this NEPA decision, the lead agencies analyzed alternatives and impacts appropriate for a broad Tier 1 level decision. More detailed analysis requires a project-specific purpose and need, alternatives, and design that will be developed in Tier 2 processes and documented through separate NEPA documents (categorical exclusion, environmental assessment, or environmental impact statement). Throughout the PEIS, the level of environmental and social impact analysis is presented within the context of the limitations of a Tier 1 analysis, focusing on the types of relative impacts and benefits resulting from the Action Alternatives, while leaving the details of the specific improvements, including cost and funding scenarios, to Tier 2 processes.

Comments

Responses

Source: Letter	Name: Southwest Energy Efficiency Project (continued)
Document Number: ORG-22	City, Zip Code: 80304

Response to ORG-22 (continued)

B. The commenter identifies four areas described as flaws of the PEIS: (1) how the project will be funded, (2) the impacts of user fees (described in your comment as the only available funding source) on travel demand, (3) how travel demand influenced by user fees affect VMT, fuel use, and greenhouse gas emissions, and (4) analysis of the indirect effects of shifting travel demand from vehicles to transit on economic activity, development patterns, land uses, and total VMT and greenhouse gas emissions. Each of these issues is, however, addressed appropriately at the Tier 1 level, as summarized below. Responses to your specific comments, including the proposed framework for addressing issues raised follow. In responses to comments [ORG-22-C](#) through [ORG-22-X](#).

1. **How the project will be funded.** Project funding is discussed in **Chapter 5** of the PEIS and detailed in the *I-70 Mountain Corridor PEIS Financial Considerations Technical Report*. User fees are not the only funding source under consideration for implementing improvements in the I-70 Mountain Corridor. Options for innovative funding sources include public/private partnerships, tolling, bonding/loans, and corridor-specific resources (which are funding sources that apply to limited geographic areas and require voter approval, constitutional amendments, or both). See particularly Section 5.7 of the PEIS, "What are potential funding sources and their limitations?" Funding sources will be further evaluated in Tier 2 processes.
2. **Impact of user fees on travel demand.** The PEIS recognizes user fees as a potential way to fund improvements identified in Tier 2 processes, and user fees would be evaluated in more detail if included as a funding element for a Tier 2 process. However, the cost variable of user fees is not included separately in the travel demand modeling process for the PEIS. The travel demand model accounts for inherent costs of transit and auto travel and the effects of those costs on VMT and mode share. A higher user fee would likely result in decreased travel demand, which would in turn suppress economic activity, fuel usage, and greenhouse gas emissions. However, traffic counts from
(continued on next page)

B

Both the economic and environmental impact analyses are flawed because they fail to fully address how the project will be funded, the impact that the only available funding source will have on travel demand in the corridor, how that travel demand will affect VMT, fuel use and greenhouse gas (GHG) emissions in the corridor, and how shifting travel demand from vehicle use to transit will likely affect economic activity and development patterns in the corridor, land uses and total VMT and GHG emissions in the area served by the project.

In these comments, SWEEP begins to provide a framework for CDOT to address these issues. We explore the relationship between the two major cost variables that can be expected to affect travel demand in the corridor (user fees and rising fuel costs), and the policy options available to determine how these costs can be managed to minimize their impact on economic activity in the corridor.

Comments

Responses

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Response to ORG-22 (continued)

B. (Continued from previous page)

the past decade suggest that trips in the Corridor are not very sensitive to travel costs, and that costs would have to be extremely high to change travel demand. Traffic count data shows that congestion is a more important factor to suppressing trips in the Corridor.

3. **Effects of travel demand on VMT, fuel use, and greenhouse gas emissions.** The travel demand model was developed through a four-step process described in the *I-70 Mountain Corridor PEIS Travel Demand Technical Report*. The process is consistent with standard approaches to travel demand modeling. Analysis was conducted in a manner appropriate for a Tier 1 level and allows a reasonable comparison of alternatives, including how major types of improvements – Minimal Action, Highway, Transit, and Combination alternatives – compare and contrast with respect to VMT and greenhouse gas emissions. Results of these analyses are presented in **Chapter 1** and **Chapter 3** of the PEIS and three specific technical reports: *I-70 Mountain Corridor PEIS Travel Demand Technical Report*, *I-70 Mountain Corridor PEIS Climate and Air Quality Resources Technical Report*, and *I-70 Mountain Corridor PEIS Energy Technical Report*.

4. **How shifting travel demand to transit affects economic activity, development patterns, land use, VMT, and emissions.** Discussions of economic activity and patterns in the Corridor are included in **Section 3.7, Land Use and Right of Way, Section 3.8 Social and Economic Values, and Section 3.9, Environmental Justice** of the PEIS. These discussions are informed by an economic model (the REMI model) developed for the PEIS and include an analysis of the types of land use, population, employment, value-of-time, recreation spending, and travel pattern changes expected under each Action Alternative, including differences among Highway, Transit, and Combination alternatives. The *I-70 Mountain Corridor PEIS Social and Economic Conditions Technical Report* provides additional information about the REMI model and the (continued on next page)

Comments

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B. (Continued from previous page)

effects of alternatives on economic activity in the Corridor. Greenhouse gas emissions are discussed in **Section 3.1, Climate and Air Quality Resources**, in **Chapter 4, Cumulative Impacts** of the PEIS, and in the respective technical reports.

Comments

Responses

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User Fees as a Funding Source for the I-70 Corridor

Why User Fees?

Currently there is not enough funding from federal or existing State revenue sources to build the alternatives being considered by CDOT for either the I-70 Mountain or East Corridors. The I-70 Mountain Corridor's Minimum Preferred Alternative (PA) is expected by CDOT to have a capital cost of \$9.2 billion, while the identified funding sources for the corridor total \$1.207 billion. The I-70 East Corridor has an estimated capital cost of between \$1.2 and \$1.9 billion, while only having \$424 million in identified funding sources. The Preferred Alternative for the I-25 North Corridor between Denver and Wellington has an estimated cost of \$4.4 billion, while having only \$300 million in identified funding. The FasTracks system is also faced with a funding shortfall of approximately \$2.4 billion. These four major projects alone face a total funding shortfall of between \$15.3 and \$16.2 billion.

Response to ORG-22 (continued)

C. It is true that transportation needs exceed available funding statewide. The funding outlook and projected funding gap are discussed in CDOT's long-range plan, *2035 Statewide Transportation Plan - Moving Colorado: Vision for the Future*, and detailed in the *2035 Statewide Transportation Plan - Moving Colorado: Vision for the Future, Financial Assumptions, Revenue Needs, and Shortfalls Technical Report* (CDOT, March 2008). The national and statewide economic outlooks present challenges to fund specific transportation improvements and to maintain transportation infrastructure statewide.

It is also true that for the I-70 Mountain Corridor, the estimated cost of any of the Action Alternatives exceeds the projected revenues available for the Corridor. As stated in **Chapter 5** of the PEIS and detailed in the *I-70 Mountain Corridor PEIS Financial Considerations Technical Report*, approximately \$1.2 billion is projected to be available for the Corridor over the next 25 years through traditional funding sources, and additional revenues will be needed. Full implementation of the Preferred Alternative is projected to cost between \$16 billion and \$20 billion in the year of expenditure, which in this case is considered to be the mid-year of construction, or 2025. (The Minimal Action Alternative uses a 2020 mid-year of construction.) The lead agencies are committed to work with stakeholders to identify funding and implement elements of the Preferred Alternative as funding becomes available.

It is important to distinguish that the type of analyses and decision to be made in this PEIS is different from the other projects referenced, which are traditional EISs and will result in decisions that require a funding plan. The focus of this PEIS is to identify a broad program of improvements for the I-70 Mountain Corridor, not to identify specific construction projects or to integrate such projects into the long-range plan. The program-level improvements recommended in the PEIS provide a framework for future, project-specific improvements to be developed, planned, prioritized, and

(continued on next page)

Comments

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C. (continued from previous page)

funded through the transportation planning process. The **Introduction** of the PEIS describes the implementation process for the Preferred Alternative in **Question 6: What happens after the Tier 1 Record of Decision (Implementation Plan)?**

Comments

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User Fees Can Resolve Funding Shortfall and Reduce GHG and Other Air Pollution Emissions.

User fees authorized by FASTER for the construction of new transportation projects provide authority to generate the additional revenues needed to fund new capacity in the I-70 corridor, as well as an important tool to reduce GHG emissions while providing additional mobility in the corridor.

In FASTER, the Legislature enacted authority for “user fees”³ to be assessed in a corridor to fund new transportation infrastructure in the corridor. C.R.S. § 43-4-808(3)(b). FASTER also authorizes the investment of user fees on “multimodal transportation projects that promote mobility, reductions in emissions of greenhouse gases, and energy efficiency.” C.R.S. § 43-4-808(3)(c). This is the only authority currently available to CDOT to obtain the additional revenues needed to design and build the PA in the I-70 corridor.

³ FASTER defines “user fee” to mean “compensation to be paid to the transportation enterprise or a partner of the transportation enterprise for the privilege of using surface transportation infrastructure constructed or operated by the transportation enterprise or operated by its partner under the terms of a public-private partnership.” C.R.S. § 43-4-803 (27).

⁴ 23 U.S.C. § 134(i)(C); 23 C.F.R. § 450.324(i).

Response to ORG-22 (continued)

D. User fees are one tool (but not the “only authority”) available that could be considered to fund I-70 Mountain Corridor improvements as described in **Chapter 5** of the PEIS and detailed in the *I-70 Mountain Corridor PEIS Financial Considerations Technical Report*. Options for innovative funding sources include public/private partnerships, tolling, bonding/loans, and corridor-specific resources (which are funding sources that apply to limited geographic areas and require voter approval, constitutional amendments, or both). The PEIS discusses these funding sources in **Section 5.7, “What are potential funding sources and their limitations?”** Funding sources will be further evaluated in Tier 2 processes. (As noted in response to [ORG-22-V](#), user fees do not require reductions in greenhouse gas emissions.)

Senate Bill 09-108 (the FASTER legislation) authorizes imposition of user fees under certain conditions. User fees are defined as “compensation to be paid to the transportation enterprise or partner of the transportation enterprise for the privilege of using surface transportation.” The legislation provides conditions and limitations for when user fees may be imposed. A surface transportation project considering user fees cannot proceed past the planning stages “until all metropolitan planning organizations entitled to participate in the planning, development, and approval process...have approved the project.” In the case of the DRCOG region, where most of the fees would be imposed under the commenter’s proposal, each affected municipality participates in the transportation improvement plan process and would have input into the user fees. Some of the affected municipalities would receive no transportation benefit from the proposal (that is, those between the I-70 East and I-70 Mountain Corridors, and the I-70 East Corridor users would pay a substantially greater share of fees in relation to benefits received. In addition to the requirements of the FASTER legislation, user fees or tolls placed on the interstate system require additional federal review and approval in accordance with the process and requirements established by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) legislation.

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Comments

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D. (continued from previous page)

Currently, under SAFETEA-LU, there are opportunities that allow the state to apply tolls to the interstate under specific programs. The project would have to meet the specific criteria of that program. More info on the federal programs can be found at: http://ops.fhwa.dot.gov/tolling_pricing/announcement/tolling_announcement.htm

User Fees Can Resolve Funding Shortfall and Reduce GHG and Other Air Pollution Emissions.

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³ FASTER defines “user fee” to mean “compensation to be paid to the transportation enterprise or a partner of the transportation enterprise for the privilege of using surface transportation infrastructure constructed or operated by the transportation enterprise or operated by its partner under the terms of a public-private partnership.” C.R.S. § 43-4-803 (27).

⁴ 23 U.S.C. § 134(i)(C); 23 C.F.R. § 450.324(i).

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- E. It is true that for specific projects in the I-70 Mountain Corridor to be added to the statewide or Denver regional transportation improvement program, funding needs to be identified. As noted previously, this PEIS identifies a broad program of improvements for the I-70 Mountain Corridor but does not identify specific construction projects or how those projects will be paid for to be included in the Denver regional transportation plan or Statewide Transportation Improvement Program. The program-level improvements recommended in the PEIS provide a framework for future, project-specific improvements to be developed, planned, prioritized, and funded through the transportation planning process, as described in the **Introduction** of the PEIS (**Question 6: What happens after the Tier 1 Record of Decision (Implementation Plan)?**). The transportation planning process includes consideration of greenhouse gas emissions as you note, but does not quantify reductions or specify methods to reduce emissions, nor does it correlate the consideration of greenhouse gas emissions to funding decisions.

E To allow the metro-area portion of the project to be included in the fiscally constrained Denver regional transportation plan (RTP), funding sources for the project must be demonstrated.⁴ In addition, incorporation of the project into the Statewide transportation plan must now “address reductions in greenhouse gas emissions.” C.R.S. § 43-1-1003(5)(j). A decision to fund the project with user fees will make it possible for the project to satisfy these requirements.

Comments

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Impact of Increased Travel Costs on Economic Activity, Travel Demand, Mode Share, VMT, GHG Emissions.

There is a significant body of literature regarding the impact that changes in travel costs have on the demand for travel. Generally, as the cost of making a trip increases or decreases, there will be a suppression or inducement of demand for making that trip. There is a great variability in how much impact cost changes will have due to the many varieties of trip types that exist. Travel demand is also influenced by a number of other factors aside from price, including the trips' distance, time, necessity and convenience. Travelers may take all these factors and more into account when deciding on whether to make a trip and deciding what mode to take for the trip.

F

Response to ORG-22 (continued)

F. The lead agencies agree that travel costs affect travel demand and behavior, and trip purposes influence heavily how behaviors change in response to increasing or decreasing costs and other factors. For the I-70 Mountain Corridor, travel demand projections model the travel characteristics and trip purposes of the Corridor. The I-70 travel demand model considers 21 types of trip purposes. General categories include commuter or work trips, recreation trips, and local non-work trips. Complex travel patterns in the I-70 Mountain Corridor result from the collective decisions of travelers living in the Corridor, in the Front Range area, and beyond. Travel decisions include whether to travel, why, where and when to travel, who to travel with, and what mode and route to use. The four-step model used for the I-70 travel demand forecasts (described in response to your comment [ORG-22-E](#)) reflects these decisions. Socioeconomic factors include the total number of trips, average vehicle occupancies, and transit shares. The travel demand modeling process and variables for the Corridor travel demand projections for 2035 and 2050 are described in the *I-70 Mountain Corridor PEIS Travel Demand Technical Report*, including key components on how the model is structured, the socioeconomic data from which forecasts are made, trip generation and Corridor attractions, and how choices between the highway and transit modes are determined. Because tourism drives the Corridor-area economy and is directly tied to Corridor travel demand and traffic patterns, visitor use projections (in addition to the population and employment patterns and projections) for the Corridor and Denver metropolitan area are central to the modeling process.

Comments

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6

Both user fees and increased fuel costs are the cost factors most likely to have a significant impact on overall travel demand in the corridor during the planning horizon. These costs would be expected to suppress travel demand, and reduce economic activity in the corridor, if a transit alternative were not provided. But if a transit alternative is provided, the impacts of these costs on travel could be significantly reduced depending on how the costs of the Preferred Alternative are allocated between highway users and transit riders. A transit alternative that is comparable in travel time and convenience, but allows travelers to avoid the expected future increases in fuel costs could help maintain access to the corridor and economic activity associated with discretionary travel to corridor destinations.

Response to ORG-22 (continued)

G. Trip costs related to fuel costs were evaluated and found to have little influence on Corridor miles traveled. This pattern differs from the typical metropolitan travel patterns and factors that are well understood in typical urban travel demand models because many of the trips are discretionary. Travel actually increased for most locations in the Corridor when fuel prices peaked in 2008, suggesting that travel in the Corridor is not very sensitive to price. Explanations for this counterintuitive trend may include the lack of alternate routes and public transportation options, the shift to stay-at-home travel that increased the number of Coloradans vacationing closer to home, and growth in population and employment in the Corridor that increased traffic volumes even with some suppressed trips. The model did find that substantial trip suppression results from congested conditions, suggesting that in this Corridor, travelers are more sensitive to trip flexibility and convenience than to price.

Suppressed trips do have measurable economic effects as described in **Section 3.8, Social and Economic Conditions**, of the PEIS. The travel demand modeling did find that a transit alternative that is comparable in travel time and convenience to automobile travel serves unmet demand, provides additional travel mode choices, and is important to meeting the 2050 purpose and need. The Preferred Alternative includes the Advanced Guideway System to meet those needs.

Comments

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H

The questions that need to be explored for the I-70 corridor in the PEIS analysis of environmental and economic impacts include –

I

1. what the comparative cost for travelers will be when fuel costs and user fees for the highway-only alternative are compared with the Preferred Alternative (guideway facility and added highway capacity)?

J

2. what impact these costs for each alternative will likely have on travel demand, economic activity, fuel use and GHG emissions?

K

3. how these costs along with travel time, access, connectivity and other factors related to ridership on the guideway system will affect travel demand in the corridor?

L

4. what performance characteristics will need to be achieved for the guideway system in order to maintain a desired level of travel demand and economic activity in the corridor while reducing GHG emissions?

Response to ORG-22 (continued)

H. All four of the questions raised by the commenter have been addressed in the PEIS to compare alternatives at an appropriate level of detail for this programmatic decision. The remainder of this response explains how comparative traveler costs were addressed in the PEIS. Each of the questions has been addressed as a separate comment, [ORG-22-H](#) through [ORG-22-L](#).

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Response to ORG-22 (continued)

- I. The travel demand model is sensitive to inherent costs of transit and auto travel, primarily through consideration of automobile operating expenses and transit fares, as discussed in response to your comment [ORG-22-E](#) and described in Appendix A of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report*. The effect of fuel costs on travel is documented in the *I-70 Mountain Corridor PEIS Social and Economic Conditions Technical Report*. Automobile operating expenses of \$0.365 per mile and transit fares of \$0.10 per mile are assumed in the travel demand model to account for cost variations. User fees and fuel price levels could be incorporated into the trip generation step but were not because including these factors would have created unnecessary additional complexity to the model process, especially because empirical data suggest that cost factors are not important variables influencing Corridor travel. (However, costs were incorporated in subsequent steps in the model.)

I

1. what the comparative cost for travelers will be when fuel costs and user fees for the highway-only alternative are compared with the Preferred Alternative (guideway facility and added highway capacity)?

Comments

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J

2. what impact these costs for each alternative will likely have on travel demand, economic activity, fuel use and GHG emissions?

Response to ORG-22 (continued)

J. The effects of travel demand on VMT are related to the percent of transit trips, or mode share, which was determined through the I-70 Ridership Survey presented in Appendix B of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report*. Comparing travel demand for the Advanced Guideway System Alternative and the full implementation of the Preferred Alternative (with the six-lane highway capacity and Advanced Guideway System), total vehicle miles traveled under the Advanced Guideway System Alternative alone would be reduced by approximately 7 percent and by about 15 percent compared to the Six-Lane Highway alone. The effect of suppressed trips on Corridor economic conditions is presented in **Section 3.8, Social and Economic Conditions**, of the PEIS and the *I-70 Mountain Corridor PEIS Social and Economic Technical Report*. The economic analysis shows that the No Action Alternative – that is, doing nothing in the Corridor except those projects that are already programmed in the Statewide Transportation Improvement Program – likely suppresses economic conditions in the nine-county Corridor region when compared to the Preferred Alternative. In the long term, the Preferred Alternative surpasses the Gross Regional Product of the No Action Alternative by at least \$10 billion per year in 2035. A comparison of each Action Alternative’s projected VMT and associated fuel use and greenhouse gas emissions are presented in **Section 3.1, Climate and Air Quality Resources**, and the *I-70 Mountain Corridor PEIS Climate and Air Quality Technical Report*, and **Section 3.16, Energy**, and the *I-70 Mountain Corridor PEIS Energy Technical Report*. Fuel use would be less under alternatives with less vehicle miles traveled; differences range from no difference to 17 percent greater. Differences in greenhouse gas emissions would be similar. Because the costs of transit and auto travel are included in the travel demand model, they are therefore taken into account in the analysis of VMT, fuel use, and greenhouse gas emissions. A comparison of the effects of user fees for the 22 alternatives studied in the PEIS is a complex modeling task and is not necessary to understand how the alternatives compare in meeting travel demand or the differences in environmental effects associated with induced or suppressed travel. That is, we do not need to apply user fees to the travel demand model to understand the effects of the action.

Comments

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K

3. how these costs along with travel time, access, connectivity and other factors related to ridership on the guideway system will affect travel demand in the corridor?

Response to ORG-22 (continued)

K. Detailed information on travel time, costs and percent transit share is reported in **Chapter 2** of the PEIS, the *I-70 Mountain Corridor PEIS Transportation Analysis Technical Report*, and the *I-70 Mountain Corridor PEIS Travel Demand Technical Report*. The mode choice component of the travel demand model estimates which percentage of travelers use which mode, based on the relative travel times and costs. The model calculates the propensity for taking either a transit trip or an automobile trip. The PEIS Mode Choice Model is based on the I-70 Ridership Survey (Appendix B of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report*), which asked respondents questions regarding their anticipated mode choice for a particular trip in the Corridor. The Mode Choice Model includes consideration of trip attributes such as in-vehicle times, service frequencies, fares, transfers (connectivity), and amenities (baggage handling and food service). The Mode Choice Model also reflects travelers' inherent preferences for certain modes, such as rail. The model shows that transit is able to attract a substantial portion of Corridor travel, in part because it can accommodate demand that is currently going unmet because of the congestion on the I-70 highway.

The *I-70 Mountain Corridor PEIS Transportation Analysis Technical Report* includes the comparisons of the percent of trips in vehicles and on transit for each alternative. The result of the travel demand modeling process demonstrates the potential for a relatively high transit use. For example, the percent of transit person trips in 2035 on a winter Saturday at the Twin Tunnels for the Preferred Alternative Minimum Program is projected to be 27 percent. Ridership and travel demand projections account for travel time, access, connectivity, and other ridership factors, such as the attributes described above.

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L 4. what performance characteristics will need to be achieved for the guideway system in order to maintain a desired level of travel demand and economic activity in the corridor while reducing GHG emissions?

Response to ORG-22 (continued)

L. Overall, although transit components do reduce vehicle miles traveled slightly when compared with either Highway or Combination alternatives due to mode shift, the primary effect of transit alternatives is to serve unmet demand, meaning that total travel in the Corridor actually increases. As modes shift from vehicles to transit, additional vehicles tend to be replaced by other trips that were either suppressed because of congestion or induced because there are less detrimental factors inhibiting the trip. For single mode alternatives the growth in travel demand is less than Combination alternatives. Transit does serve unmet demand if competitive with highway travel times and convenience, as is the case with the Advanced Guideway System component of the Preferred Alternative. The transit mode share is generous, with fares that create a mode shift. The Advanced Guideway System is assumed to meet travel times equivalent to or better than automobile travel and has adequate capacity to relieve highway congestion in combination with highway safety and capacity improvements. The cost of transit travel was assumed to be less than automobile travel. It is recognized that additional study of the Advanced Guideway System is required, and the lead agencies are committed to developing and evaluating more detailed performance measures as part of those studies.

By providing the Advanced Guideway System, economic activity associated with discretionary travel to corridor destinations would increase (relative to the Highway alternatives) as indicated in **Section 3.8, Social and Economic Values**, of the PEIS.

Although the purpose and need for the I-70 Mountain Corridor project is not to reduce greenhouse gas emissions, the *I-70 Mountain Corridor PEIS Climate and Air Quality Technical Report* includes a comparison of greenhouse gas emissions (related to VMT) by alternative. The results show a positive reduction in CO₂ produced by the Preferred Alternative compared to the Six-Lane Highway Alternative. This reduction in emissions occurs even with projected induced travel demand on I-70 due to the Preferred Alternative. The increase in available highway capacity that is projected to
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L. (Continued from previous page)

occur due to the shift to transit attracts additional highway trips. Even with the induced highway travel demand, the Preferred Alternative reduces greenhouse gas emissions compared to single-mode Highway alternatives as travelers shift to transit. Tier 2 processes will evaluate greenhouse gas emissions in more detail in accordance with current guidance.

Comments

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Elasticity

To analyze the impact that user fees and increased fuel costs will likely have on travel demand, VMT, congestion, and GHG emissions in the I-70 Mountain Corridor, it is necessary for CDOT to decide on a price elasticity factor in order to explain the relationships between the cost of travel, the demand for travel in the corridor, the share of travel demand served by single occupant vehicles vs transit, the number of miles traveled, the amount of fuel needed to provide transportation services, and how the project can be designed to reduce GHG emissions.

M

To perform some preliminary analyses of these factors, SWEEP reviewed the latest literature⁵ on the subject and other recent reports⁶ concerning the impact of cost increases on driving. For this preliminary analysis an elasticity factor of -0.45 was chosen to explain the relationship between the cost of driving and demand for driving. This elasticity value results in a 4.5% decrease in the amount of driving with each 10% increase in the cost of driving.

SWEEP chose this value in part because it was selected by US DOT for its report to Congress analyzing the potential reductions in GHG emissions from the transportation sector. While this may be the best estimate of a nationwide elasticity factor, it is important to consider how this national average might relate to travel demand in the I-70 Mountain Corridor. No specific research was found that gave quantifiable examples of how the characteristics of the I-70 Mountain Corridor might affect the elasticity factor. However, modeling of travel on the corridor with user fees should provide some quantifiable insight into what the corridor's actual elasticity factor might be. Inputs to a corridor model should be able to account for the various characteristics unique to the corridor that drive travel demand. Some of these unique characteristics include the lack of alternative highway routes, the large number of discretionary trips, and the flexibility of trips around time of travel. The elasticity factor should also reflect that trips on the Mountain Corridor are likely to only be one part of a person's total trip.

A main characteristic of the corridor is the lack of highway alternatives for east-west travel. Highway 6 between Golden and Mile Marker 244 and between Mile Marker 216 and Dillon provides an alternate route, but with significant increases in travel time due to the narrow, two

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Response to ORG-22 (continued)

M. This comment requests that CDOT decide on a price elasticity factor to explain the relationship between the cost and demand for travel in the corridor. The comment goes on to suggest a factor that might be appropriate given the commenter's understanding of the corridor's characteristics. The following response provides information about elasticity factors and explains the modeling process used for the I-70 Mountain Corridor along with the specific Corridor travel characteristics and cost variables (by mode) used in the model to determine and project travel demand in the corridor.

An elasticity is simply the percentage change in one variable (say VMT) when another variable (say the cost of driving) is changed by one percent. The I-70 Mountain Corridor PEIS travel demand is highly complex and sophisticated and does not lend itself to a single numerical value of a cost elasticity as requested by the commenter. Although elasticities are often reported as single, point estimates, many factors affect the price sensitivity of a particular good. Elasticities are actually functions with several possible variables, including the type of market, type of consumer, and time period. Accumulated VMT estimates in the I-70 Mountain Corridor are a function of factors such as trip rates, trip distances, and mode utilization. Unlike more traditional travel markets, less 'substitutability' is likely among corridor destinations than observed for more conventional work and non-work trip purposes, contributing to lower elasticity values than those reported from aggregate estimates. Higher point elasticity values at Vail suggests that users in that portion of the Corridor may have more viable nearby options to change travel decisions than those beginning their trip in Genesee, and subsequently greater sensitivity to travel costs (-0.3) as compared to a traveler beginning his or her trip in Denver where the incremental difference in travel cost will be a smaller share of total travel. With respect to auto and transit model competitiveness, the behavioral parameters that represent transit times, costs, and implied "value of time" are consistent with national experience.

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M. (Continued from previous page)

According to one peer-reviewed study (Johansson & Schipper, 1997), the estimated long run transport elasticity of fuel price with respect to trip distance is -0.2, and 0.06 for other forms of taxation, including tolls. Most price components of driving (fuel, parking, tolls) are considered inelastic because they each represent a small portion of total user costs (approximately 15 percent of total vehicle costs), with additive elasticities of -1.3 with respect to total financial cost. In a major review, Goodwin, Dargay, and Hanly (2003) conclude that a durable, 10 percent real (inflation adjusted) fuel price increase causes the following adjustment process:

- Vehicle travel declines by approximately 1 percent within about a year and about 3 percent in the longer run (about five years).
- Fuel consumption declines approximately 2.5 percent within a year and 6 percent in the longer run. Fuel consumed declines more than vehicle travel because motorists purchase more fuel-efficient vehicles and drive more carefully.
- As a result, price increase cause:
 - Vehicle fuel efficiency increases approximately 1.5 percent within a year and approximately 4 percent over the longer run.
 - Total vehicle ownership declines less than 1 percent in the short run and 2.5 percent in the longer run.

The standard four-step travel demand process, followed for the PEIS, does not start by deciding on a price elasticity factor in order to explain the relationships between the cost of travel. Rather, the process, is centered around the following four basic components:

- Number of trips
- Where trips begin and end
- Mode of travel
- Road or transit route use for trips

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lane curvy nature of the road, and lower speed limits. The PA, however, would create a new transit alternative to driving on I-70. Because there are not comparable alternatives to driving on I-70 the PA would create a new transit alternative that could be priced to be less expensive than driving, especially as fuel prices rise, and designed to be comparable in travel time, these factors must be accounted for in determining the impact that changes in the cost of driving will have on the elasticity factor. A well designed transit alternative that provides comparable travel times under free-flow traffic conditions, and better travel times under congested traffic conditions, could result in a greater than average elasticity factor so that a 10% increase in the cost of driving could achieve more than a 4.5% decrease in VMT without suppressing travel demand.

Another important characteristic of the corridor is the high number of recreation trips compared to other travel purposes. On weekdays recreation trips account for between 22%-54% of trips along the corridor and during the weekend (the time of highest travel demand) this figure rises to between 82% and 95%. Because recreation trips tend to be more flexible than commuting trips, it is possible that an increased cost of driving would lead to greater suppression of VMT than an elasticity of -0.45 would estimate. This suppression could result in fewer trips along the corridor, shorter trips to closer recreation destinations (for example traveling only as far as Arapahoe Basin rather than Vail or Aspen for a ski trip originating from the Front Range), or choosing the transit alternative to make longer, more costly trips if transit is priced to induce travelers to shift their travel from driving by avoiding the costs of operating a personal vehicle, including future increases in fuel cost.

⁵ Small, K. A. & Van Dender, K. 2007, *Fuel Efficiency and Motor Vehicle Travel: The Declining Rebound Effect*, Energy Journal, vol. 28, no. 1, pp.25–51; and corrections posted at www.socsci.uci.edu/~ksmall/Rebound_Paper_Correction.pdf; Sperling, D. (2008). "Consumer Response to Fuel Price Changes: Implications for Policy." January 15, 2008.

⁶ Urban Land Institute. "Moving Cooler: An Analysis of Transportation Strategies for Reducing Greenhouse Gas Emissions"; US Department of Transportation. "Transportation's Role in Reducing U.S. Greenhouse Gas Emissions" Available at: http://ntl.bts.gov/lib/32000/32700/32779/DOT_Climate_Change_Report_-_April_2010_-_Volume_1_and_2.pdf

M

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The model considers the unique travel characteristics of the Corridor including the mountainous driving challenges resulting from the grades and curves along the I-70 highway alignment; the diversity of weekday work trips and weekend recreation trips; trips combined for different purposes; the complex and growing travel demand and increasing hours of congestion; and broad range of seasonal influences of summer and winter attractions.

Determining the number of trips that begin or end in a particular area includes socioeconomic considerations such as population, income, and household size. Trip origins and destinations are influenced by the reasons for making a trip, or trip purposes (e.g. work trips, recreation trips, or other reasons for traveling in the Corridor). Recreation trips are estimated based on variables including locations of forest recreation uses, hotels, resorts, and second homes. Congestion levels in the Corridor may lead to suppressed or induced travel - people may make more trips or take the same trips more frequently if congestion reduces markedly from their expectations and experience. User fees and fuel price levels could be incorporated into the trip generation step but were not because including these factors would have created unnecessary additional complexity to the model process, especially because empirical data suggest that cost factors are not important variables influencing Corridor travel. (However, costs were incorporated in subsequent steps in the model.) Further, as described previously, this Corridor does not lend itself to trip substitution as is seen in other markets because of the unique destinations it serves and the limited routes available to access them. Therefore, the extent to which recreational (and other) travelers would change destinations based on price or other factors is not clear.

Determining the mode of travel (car, train, or bus) in the model process includes consideration of the times and costs for each mode.

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In the last step, the model figures out how many cars will use a certain segment of road from each origin and each destination on the fastest path. Appendix A of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* describes how the model considers the combination of times and costs when determining which transit path to use.

The lead agencies did evaluate cost elasticity and the impact of high gasoline prices experienced during 2008 on travel within the Corridor relative to changes in gasoline prices. Plotting annual traffic volumes at six of CDOT’s automated traffic recorders (ATRs) in the Corridor against the real (inflation-adjusted) gasoline price showed that the travel response to increased fuel costs was relatively flat, even after adjusting for population growth in the Corridor. Elasticities estimated assuming a constant-elasticity demand curve—which would be proportional to the VMT elasticity since VMT is the product of traffic volume and average trip distance—showed a range from -0.04 (East of Genesee) to -0.3 (at Vail Pass). While the pattern is not completely consistent, locations with a greater percentage of non-discretionary work travel (East of Genesee and locations in Eagle County) generally had elasticities with a smaller magnitude. The entire range has a lower magnitude than the nationally derived VMT elasticity of -0.45, which is consistent with having few convenient alternate routes in the Corridor. Because of the limited responsiveness to fuel prices, the lead agencies chose not to examine the impact of scenarios with greater gasoline prices in the future, since the resulting change in demand (compared to that under historic fuel prices) would be small relative to other sources of uncertainty in the travel demand model.

Although cost was not a substantial factor for travel, cost assumptions for transit were generous in the model so that transit could achieve a competitive cost and flexibility compared to the cost of automobile travel. Travel time analysis estimates show that while travel times vary by individual sections, Corridorwide peak-period travel times on selected model (continued on next page)

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days with the Preferred Alternative are generally comparable to or improved when compared to the Six-lane Highway Alternative. In addition, transit travel was modeled to be less expensive than driving alone, and the travel demand model has a high mode shift based on these factors. The cost of transit is priced at a rate lower than automobile travel. The model assumes an operating cost of \$0.365 per mile for cars, and transit fare cost of \$0.10 per mile (2010 costs). (Note that fare costs are not equivalent to the cost of funding the Advanced Guideway System or any other transit alternative; this fare level was set to attract riders but the actual cost of constructing and operating a transit system would be far greater than \$0.10 per mile.) However, for strict comparability across modes, the auto operating cost rate must be divided by the vehicle occupancy to get a cost per person-mile. Detailed information on travel time, costs and percent transit share are reported in **Chapter 2** of the PEIS, the *I-70 Mountain Corridor PEIS Transportation Analysis Technical Report*, and the *70 Mountain Corridor PEIS Travel Demand Technical Report* contained in Appendix A.

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- N. It is not true that the goal of the Preferred Alternative is to provide transit across the entire Corridor, including east of C-470. As stated in **Chapter 1**, the purpose and need for the PEIS is to increase capacity, improve mobility and accessibility, and decrease congestion in a manner that provides for and accommodates environmental sensitivity, community values, safety and the ability to implement. To meet projected travel demand and transportation needs, transit is included between the Eagle County Regional Airport Jeffco Government Center light rail station in Golden. While the system could be expanded beyond these boundaries under future NEPA studies, expansion beyond the PEIS termini is not necessary to meet the purpose and need for the I-70 Mountain Corridor. Please refer to response to comment [IND-202-B](#) for an expanded discussion of the project termini.

A goal of the Preferred Alternative is to provide a transit alternative across the entire corridor (including east of C-470) and once the Automated Guideway System (AGS) is brought into service, drivers would have such an alternative. This option would shift the effect of user fees on travel demand from suppressing travel in the corridor to inducing a shift from driving to the AGS. Before alternative modes to travel in the corridor are provided, user fees will only suppress travel demand and will probably result in less VMT reduction than the national average elasticity factor would suggest. After completion of the transit system, travelers will have alternatives to driving and the impact of user fees on reducing VMT should be greater, but less as a result of suppressing travel demand and more because of inducing a shift from driving to transit ridership.

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To better understand the effect of user fees on travel demand, economic activity, VMT and GHG emissions in the corridor, CDOT must provide more detailed analysis of how user fees for both highway use and transit use will affect vehicle trips and transit ridership.

Response to ORG-22 (continued)

- O. As stated previously, the lead agencies did not test the influence of increased user fees on VMT because cost is not as important a variable as other factors, the model is already complex, and including user fees in travel demand modeling is not a standard practice. This type of analysis could be conducted during Tier 2 processes and could be tested more robustly with a more targeted project area.

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SWEEP's Analysis of Effects of User Fees on the I-70 Mountain Corridor

I-70 Mountain Corridor and Entire I-70 Corridor

The determination of the average per mile charge needed to fund the PA in the portion of the corridor considered in the current PEIS will depend significantly on how the corridor is defined for the purpose of establishing user fees under FASTER. If all VMT on the entire I-70 Corridor between the Eagle Airport interchange and Tower Road (DIA) is considered as a whole it will reduce the per mile rate of user fees by nearly 60% compared to establishing the user fees based only on the VMT in the corridor between C-470 and Eagle.⁷

Table 1

	Eagle to C-470	Eagle to Tower Rd
	2010 \$	2010 \$
Per Mile User Fee (in 2035) ⁸	\$0.080	\$0.033

Throughout this analysis, it is assumed that the costs of both the I-70 Mountain and I-70 East projects are combined and divided by the VMT for the entire corridor between Eagle Airport and Tower Road to estimate the per mile user fee. The reader can roughly estimate what the user fee will be if the corridor for user fee purposes is defined as excluding the segment east of C-470 by doubling the estimates reported here.

⁷Please refer to the Appendix section on Methodology Used to Determine Per Mile User Fees detailed information on how the per mile user fees were calculated

⁸The estimates of per mile fees contained in these comments differ from SWEEP's previous presentations due to several changes. First, the current estimate is based on 2010 \$ rather than year of expenditure costs which lowers the cost per mile in the current estimate. Second, , the year of analysis was changed from 2020 to 2035 as this is the planning horizon analysis year used in the DPEIS, whereas the analysis prepared for the Regional Air Quality Council focused on 2020 to provide information relevant to the development of a strategy to meet the CAA planning horizon. As there are more VMT in 2035 than in 2020 the longer planning horizon decreases the user cost per mile needed to pay the bonds. Downward adjustments were also made to the costs of bonding projects based on estimates provided in the DPEIS that were not previously available.

Response to ORG-22 (continued)

P. This comment presents an approach to determining user fees for the corridor. As described previously, the discussion of user fees is premature, as the PEIS recommends a broad program of improvements, not specific construction projects. It is not necessary or appropriate to calculate a per-mile user fee at the Tier 1 level of analysis. Cost estimates and funding sources evaluated at the Tier 1 level provide a relative comparison of alternatives and travel modes. Also, as noted in response to your comment [ORG-22-C](#), User fees are not the only option for funding improvements in the Corridor; other funding sources exist and will be considered during Tier 2 processes. While the intent of the PEIS was not to determine an average per-mile charge needed to fund components of any of the Action Alternatives, this response provides answers to the questions and hypothetical scenarios raised if user fees were recommended or implemented.

The lead agencies agree that if a user fee was assessed, the per-mile charge needed to fund the Preferred Alternative would decrease substantially if Denver metropolitan area travelers were assessed fees to pay for Mountain Corridor improvements. However, based on the small proportion of travel that occurs in the Denver area destined for the Mountain Corridor, spreading costs of Mountain Corridor improvements across the Denver metro area may not be viewed as fair or appropriate. The I-70 Mountain Corridor and the I-70 East Corridor have very different travel and traffic characteristics, VMT, demographics, and transportation needs. Even assuming the costs of the Mountain Corridor were offset at least somewhat by improvements that would be implemented in the East Corridor, drivers traveling on the unimproved section of I-70 between C-470 and I-25 would receive no benefits. Because of the many criteria of state and federal rules for tolling, this scenario is not reasonable and may not fit requirements of federal programs. in any As discussed in response to [ORG-22-C](#), the FASTER legislation requires affected communities to approve the imposition of user fees.

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Further, this procedure would underestimate the required user fee because it does not reflect the VMT elasticity described earlier in comment [ORG-22-E](#). The 2035 average daily VMT levels cited—8,007,130 in the Mountain Corridor, 11,517,000 in the I-170 East Corridor, and 2,721,000 in between—were all projected assuming *no user fee*. If a user fee is charged, Corridor VMT would be expected to decrease, especially in the metro area where trip substitution is more likely and available, meaning construction and operations costs will need to be spread among fewer miles of travel. Because of the different sensitivities of the Corridors to cost and the availability of alternate routes in the Denver metropolitan area, it is likely that the East Corridor travel would be more suppressed (or diverted) by user fees.

The correct procedure is as follows:

1. Consider different levels of user fees
2. For each level of user fee, calculate what percentage increase from the base auto operating cost of \$0.365 per mile it represents
3. Multiply the percent increase in auto cost per mile from Step 2 by the national VMT elasticity of -0.45 or a locally-derived value to get the percentage change in VMT
4. Calculate the VMT under that user fee by multiplying the VMT with no user fee (based on the average daily VMT during the assumed 30-year financing period from 2010 to 2040) with the percentage change from Step 3
5. Calculate the total user fee receipts by multiplying the VMT from Step 4 by the user fee
6. Examine the user fee receipts from each fee level to find the user fee that returns enough funds to pay for construction and operation costs, or to find the revenue-maximizing user fee

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Using the approach proposed by the comment with the national VMT elasticity of -0.45, we calculate that a user fee of 15 cents per mile would be required if the costs of these two corridors are spread among all travelers on I-70 between Glenwood Springs and Tower Road. This level is roughly five times greater than the \$0.028 to \$0.033 per mile as calculated by SWEEP.

Using the same approach under a funding concept that assesses a user fee only to Mountain Corridor highway travelers for improvements in that corridor, again based on the high elasticity factor suggested by the commenter, (-0.45) user fee collections for the I-70 Mountain Corridor would be maximized at about \$480 million per year with a user fee of 40 cents per mile. The user fees collected are about \$150 million per year short of the \$630 million per year needed to finance the Minimum Program of the Preferred Alternative, after including operating costs and Advanced Guideway System fare receipts, and falls well short of the funding needed to fully implement the Preferred Alternative (which is required to meet the 50-year purpose and need for the Corridor). The 40-cent-per-mile user fee is five times the 8-cent-per-mile user fee as calculated by SWEEP. Also note that a resulting 40-cent-per-mile concept would be on top of the 36.5 cents per mile for auto operating costs assumed by the travel demand model.

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Q. As noted in response to your comment [ORG-22-E](#), CDOT did consider the potential for rising gas prices to suppress travel demand, and these results are presented in the *I-70 Mountain Corridor PEIS Social and Economic Conditions Technical Report*. That analysis included the peak year of 2008 (and used EIA estimates) described as the reference year in the comment. The analysis included comparison of all alternatives; presumably Alternative 7 referenced is the Six-Lane Highway Alternative. While the experience of 2008 showed that Corridor travelers are less elastic, it is recognized that elasticity is likely to change once the Advanced Guideway System is operational and provides an attractive alternative to driving.

In Table 2, the commenter presents two scenarios for future fuel costs, a Reference case and a High Oil Cost case. The price of gasoline per gallon is converted to a per-mile cost assuming the same fuel economy—29.5 miles per gallon—in each case. This is not a reasonable assumption. When gasoline prices rose during 2008, market and anecdotal evidence suggested that people traded in larger vehicles for more fuel-efficient models in an effort to reduce overall gasoline expenditures. This pattern is supported by research also (as discussed in response to comment [ORG-22-E](#)). Assuming a greater fuel economy for the High Oil Cost scenario would give a per-mile cost closer to that assumed for the Reference case. This change would affect other later computations shown in Tables 3 through 7 (in comments [ORG-22-R](#), [ORG-22-S](#), [ORG-22-T](#), and [ORG-22-V](#), respectively).

Oil and Gasoline Prices

To consider the impact that gasoline costs will have on drivers, two gasoline price scenarios from the Energy Information Administration’s (EIA) Annual Energy Outlook⁹ have been analyzed. The Reference case (\$3.97/gallon) reflects the EIA’s assumption that there will not be significant changes in oil production and consumption in the short and mid-term and that economics will drive long-term developments. The High Oil Cost scenario (\$5.62/gallon) assumes a return to higher oil prices based on continued economic recovery, accelerating demand in rapidly developing economies, coupled with a rapid escalation of prices due to revenue maximizing behaviors by producing countries and development of unconventional, high-cost sources by consuming countries.¹⁰ For comparison, the average cost of a gallon of gasoline in Colorado was \$3.21 in 2008, and the peak gasoline price for Colorado was \$4.07 in July 2008. These future price estimates do not include the premium paid for fuel purchased in the mountain corridor compared to Front Range prices.

Table 2

	Reference	High Oil Cost
	2010 \$ - \$3.97/gallon	2010 \$ - \$5.62/gallon
Fuel Costs per Mile (2035)¹¹	\$0.134	\$0.191

⁹ <http://www.eia.doe.gov/oiaf/aeo/index.html>
¹⁰ <http://www.eia.doe.gov/oiaf/aeo/woprices.html>
¹¹ To calculate the fuel efficiency of the fleet in 2035, the effect of the 2016 fuel economy standards (35.5 mpg) was forecast using Argonne National Laboratory’s VISION vehicle stock model. The model shows that if the fuel economy standards remain at 35.5 mpg after 2035, the actual on road, fleet wide fuel economy will be 29.5 mpg.

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Comparisons of Cost per Person per Mile to Travel the I-70 Mountain Corridor

To compare the cost of user fees to develop the I-70 Mountain Corridor, several scenarios were considered, all using 2010 \$. Two scenarios for the price of gasoline were considered, reflecting the EIA's base case estimate and their high fuel cost estimate. Then the price of building out only the highway improvements from Alternative 7 was compared to the cost of the Minimum Preferred Alternative. Combining the price of gasoline, the cost of parking and vehicle maintenance and user fees gives the total cost per mile to operate a vehicle on the corridor.¹² The total operating cost is then divided by the average occupancy for weekdays and weekends. This can then be compared to the estimated cost of taking transit per person mile. The EIS identifies \$0.10 per mile as the transit fee that was used throughout CDOT's analysis and converted into 2010 \$ in 2035, which would be \$0.038 per person mile.

If only the highway improvements are completed, the cost per person, per mile to travel on the corridor will range between \$0.147 and \$0.190. If the Minimum PA is completed, the cost per person, per mile to drive will range between \$0.155 and \$0.199 (depending primarily on differences between the low and high fuel cost). However, with the AGS in the preferred alternative priced at the level assumed by CDOT, users of the corridor will have the option of traveling for \$0.038 per mile on the AGS.

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Response to ORG-22 (continued)

R. As noted in response to comment [ORG-22-Q](#), the future high oil cost is not a reasonable assumption. However, regardless of the costs of fuel, we were not able to replicate the calculation presented for the user fee level required to finance the Preferred Alternatives from the I-70 Mountain Corridor PEIS and the I-70 East EIS, as described in the response to comment [ORG-22-E](#). Taken together, we cannot confirm the numeric results presented in the commenter's Table 3 and following Tables.

Further, the assumptions about the cost of transit are unreasonably low. The cost of transit used for fair purposes in the PEIS of \$0.10/mile does not account for the cost of capital improvements or to cover operations and maintenance costs of the Advanced Guideway System. Instead, the price was set to maximize a mode shift to transit and give transit alternatives the best opportunity to succeed and be cost competitive when compared to highway alternatives. For the purpose of Tier 1 this is valid as it was done equally for all the transit alternatives to give them the best opportunity to meet the purpose and need to be able to make a reasonable modal decision and balance the transit with highway alternatives. This cost and ridership will be evaluated to a much higher level of detail during Tier 2 processes.

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Table 3

2010 \$ in 2035	Base Case Fuel Cost		High Fuel Cost		Transit Cost
	Highway Only	PA	Highway Only	PA	
Gasoline Price/Mile	\$0.134	\$0.134	\$0.191	\$0.191	
Parking and Maintenance Cost/Mile	\$0.090	\$0.090	\$0.090	\$0.090	
User Fee/Mile ¹³	\$0.014	\$0.033	\$0.014	\$0.033	
Total per Vehicle Mile Cost	\$0.238	\$0.257	\$0.295	\$0.314	
Total per Person per Mile Cost (Weekend 2 people per vehicle)	\$0.119	\$0.128	\$0.147	\$0.157	\$0.038
Total per Person per Mile Cost (Weekday 1.55 people per vehicle)	\$0.153	\$0.165	\$0.190	\$0.202	\$0.038

For a family of four, the per person cost would still be about \$0.078, or double the family cost for using transit. An analysis incorporating a utility function to describe the impacts that the price differential between driving and transit is beyond the scope of these comments. However, SWEPP encourages CDOT to examine the effects on corridor VMT, transit ridership levels and GHG emissions this level of price difference would lead to.

¹² Please see the Appendix section on VMT and Elasticity for more information
¹³ This includes both capital and operating and maintenance costs. Please see the Appendix for a discussion of these estimates.

R

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Impacts on Travel Demand -- Transit's Impact on Travel in the Corridor

Comparing the highway and transit trips taken in 2035 in Alternative 7 and the Minimum PA shows that including the AGS will result in reductions in person trips and VMT on the highway while increasing total travel in the corridor as shown in Tables 4 and 5.

Table 4 – Combined Eastbound and Westbound Person Trips

	Winter Saturday			Summer Thursday		
	Highway Only	Minimum PA	% Change	Highway Only	Minimum PA	
Person Trips-Highway	1,755,242	1,467,678	-16.4%	1,263,783	1,190,338	-5.8%
Person Trip-Transit	27,991	432,014	1,443%	7,998	149,058	1,763%
Total Person Trips	1,783,233	1,899,692	6.5%	1,271,781	1,339,396	5.3%

Table 5

	Highway Only	Minimum PA	% Change
Daily Auto VMT in 2035	8,906,240	8,119,072	-8.8%

Response to ORG-22 (continued)

S. This comment summarizes data presented in the *I-70 Mountain Corridor PEIS Travel Demand Technical Report*. Note that the 2035 Daily Auto VMT reported in Table 5 of the comment is for the full implementation of the Preferred Alternative and that the Alternative 7 is the Six-Lane Highway Alternative (single mode). The VMT for the Minimum Program of Improvements is 8,077,130. The transit share for the Preferred Alternative on a winter Saturday in 2035 at the Twin Tunnels, for instance, would range from an estimated 24 to 27 percent, based on the Ridership Survey. It should be noted, however, that introducing transit into the Corridor with the Preferred Alternative (Minimum through Maximum Program ranges) will have the effect of accommodating demand unmet by other alternatives—including No Action—and of inducing additional travel demand.

It is true that introducing transit into the Corridor has the potential to reduce highway vehicle trips (VT) and VMT, which is the primary reason that the Preferred Alternative is a multimodal solution. For example, highway VT estimated for 2035 on a winter Saturday at the Twin Tunnels for the Preferred Alternative range from approximately 82,000 to 98,000; while highway VT for the Six-Lane Highway Alternative are approximately 101,000 for the same model day and location.

It should be noted, however, that introducing transit into the Corridor with the Preferred Alternative will have the effect of inducing additional travel demand. Even with a very high transit mode share, some of the trips on the highway represent induced travel, as do some of the Advanced Guideway System trips. For example, the Preferred Alternative has the potential to induce 24 percent more person trips on a winter Saturday at the Twin Tunnels. This has the effect of adding cars to the highway over the No Action Alternative, even with the mode shift to transit.

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Impact of User Fees and Fuel Costs on the I-70 Mountain Corridor's Travel Demand

If User Fees are used to pay for only the highway improvements (Alternative 7, 6-Lane – 65 mph) rather than the Minimum Preferred Alternative, the fee in 2035 will be \$0.019 less per mile in 2010 \$. Only the costs of user fees and the increased cost of gasoline are considered because they are the only increases in price that drivers will experience. CDOT estimates total operating costs per vehicle as \$0.365 per mile, but does not state whether this operating cost is for the baseline or forecast year in the EIS. CDOT confirmed to SWEEP that increasing fuel prices were not taken into account in the EIS' analysis of travel demand. SWEEP therefore performed an independent analysis to estimate the effect that increased fuel cost and user fees together would likely have on travel demand.

The provision of transit, together with the application of user fees, will have a greater effect in reducing VMT and GHG emissions by increasing transit use than the provision of transit alone. User fees and increases in fuel costs are estimated to reduce Daily VMT in the Mountain Corridor by 618,000 to 1,236,000 under the Preferred Alternative and between 512,000 and 1,025,000 under Alternative 7. However, under Alternative 7, the travelers whose VMT was suppressed would not have a transit option, resulting in a loss of all the economic activity from the suppressed travel demand.

To estimate the amount of travel demand that would be shifted to transit rather than suppressed if the AGS is included in the corridor, SWEEP considered studies of the impact of driving cost on the willingness to use transit alternatives. Analysis by the Victoria Transport Policy Institute¹⁴, the Federal Highways Administration¹⁵ and the Congressional Budget Office¹⁶ estimate that the effect of a 10% increase in the cost of driving will lead to a 1-3% increase in transit demand.¹⁷ Daily transit person trips in the corridor would then be expected to increase from an estimated 230,000 to between 238,000 and 254,100. With the Preferred Alternative the corridor would recover some of the suppressed VMT (and its economic activity) in the form of transit users.

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Response to ORG-22 (continued)

T. Please refer to the responses above regarding the problems with user fee calculations that carry forward to these calculations, which also could not be replicated. Note that we are assuming that the Alternative 7 referenced is the Six-Lane Highway Alternative. Generally, the reductions in VMT projected by these comments are not supported by the travel demand modeling conducted for the PEIS.

The \$0.365 per mile operating costs for vehicles is for both current and forecasted travel demand modeling for two reasons:

- When gasoline prices rose during 2008, market and anecdotal evidence suggested that people traded in larger vehicles for more fuel-efficient models in an effort to reduce overall gasoline expenditures. Assuming a greater fuel economy for a High Oil Cost scenario would give a per-mile cost closer to that of historic price levels. This change would affect other later computations shown in Table 6.
- As discussed in the response to [ORG-22-E](#), because of the limited responsiveness to fuel prices, CDOT chose not to examine the impact of scenarios with greater gasoline prices in the future, since the resulting change in demand (compared to that under historic fuel prices) would be small relative to other sources of uncertainty in the travel demand model.

As stated previously, the PEIS did not calculate the effect of user fees on VMT. It is true that user fees combined with provision of transit is likely to reduce VMT more than transit alone. However, the travel demand model already assumes a very aggressive mode shift to transit without user fees. The travel demand model also indicates, however, that transit primarily serves unmet demand and provides additional capacity to serve desired trips in the Corridor but that the correlation of transit trips to reduced vehicle trips is not direct. Highway capacity continues to fill up with new trips as trips are diverted to transit – meaning more people can travel the Corridor with better travel conditions (i.e., less congestion) but that VMT reductions will be minimal.

Comments

Responses

Response to ORG-22 (continued)

Source: Letter	Name: Southwest Energy Efficiency Project (continued)
Document Number: ORG-22	City, Zip Code: 80304

(Continued from previous page)

Table 6

	Preferred Alternative	Alternative 7 – Highway Only
User Fee per Mile	\$0.033	\$0.014
Increased Cost of Gasoline per Mile	\$0.066	\$0.066
VMT % Reduction¹⁸	7.7-15.4%	6.4-12.8%
Daily VMT Reduction	618,000-1,236,000	512,000-1,025,000
Daily trips shifted to transit	238,000 to 254,100	200-260

¹⁴ <http://www.vtpi.org/tranelas.pdf>

¹⁵ <http://www.fhwa.dot.gov/policy/otps/innovation/issue1/impacts.htm>

¹⁶ <http://www.cbo.gov/ftpdocs/88xx/doc8893/01-14-GasolinePrices.pdf>

¹⁷ This number may be on the conservative side as user fees (as they are paid on a per trip basis) send a stronger price signal than fuel prices or general vehicle operating costs. However if an automated transponder based system was used to collect user fees, the price signal could become weaker and more similar to a fill-up at the gas station.

¹⁸ Because both the impact of increases in fuel prices and the addition of user fees on drivers behavior is considered, a range of elasticity factors has been used, between -0.225 and -0.45. Because user fees have a more direct correlation with the amount paid compared to distance traveled they are considered to have a higher elasticity factor than gasoline purchases.

Comments

Responses

Source: Letter	Name: Southwest Energy Efficiency Project (continued)
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Response to ORG-22 (continued)

U. The travel demand model projects both highway and transit trips based on trips, not the person taking the trip. A person-trip is a boarding and does account for multiple trips that could occur by the same person. Vehicle trips are modeled similarly to provide consistency among comparisons, as described in the *I-70 Mountain Corridor PEIS Travel Demand Technical Report*.

As identified earlier, each of the three different pricing scenarios (transit users pay all costs, costs are shared equally among modes, and highway users pay all costs) neglect the VMT elasticity and therefore underestimate the true user fee required. Further, the user price for option 2 (highway and transit users pay) should be lower than the user price under option 3 (only highway users pay) because the costs are spread over a larger base for option 2. In addition, the PEIS assumed a transit fee of \$0.10 per mile in 2010 dollars, not \$0.38 per mile. Note also that the transit fare fee is not equivalent to the cost of constructing and operating the transit system; the fare level was set to attract riders but is well short of what is required to fund improvements and operate the system.

Because the Tier 1 decision is focused on general location, mode and capacity for meeting the 2050 purpose and need, the level of detail for the evaluation of the 22 alternatives and their impacts was adequate to make the Tier 1 decision. This higher level of financial revenue analysis will be much more reasonable to complete for a Tier 2 NEPA process when the modal decision is complete.

The Draft EIS does not appear to provide a measure of transit ridership except for person trips which do not account for the same person being counted multiple times along the corridor. Because this information was not presented in the DPEIS, SWEEP developed a methodology for estimating Passenger Miles Traveled. To estimate the Passenger Miles Traveled (PMT) on the AGS system, the ratio between daily VMT and Daily Highway Person Trips was determined to be 6.48 (each person trip resulted in 6.48 VMT on the highway). Using this same ratio for transit trips results in an estimated 230,000 daily transit person trips translating to 1.49 million daily PMT.¹⁹ With this data, the effect of different pricing scenarios for transit use can be evaluated. Three broad options are available: 1) requiring that transit users bear the entire capital cost of the AGS, 2) treat the corridor investments as an integrated system and charge all users equally for each mile of use, and 3) charge highway users for the cost of the AGS (Preferred Alternative) to optimize the regional economic benefits of not buying imported fuel, and to maximize the congestion, VMT and GHG reduction benefits of shifting travel from fossil fueled vehicles to a zero emission technology.

1) The base capital cost of the AGS is estimated at \$7.8 billion, while the total bonded cost of the AGS alone would be approximately \$13.2 billion, resulting in an annualized cost of \$430 million for debt repayment. Operating and Maintenance (O&M) costs for the AGS were estimated at \$180 million annually based on CDOT's 2004 O&M estimates. Total annual costs for the AGS would be approximately \$610 million. Dividing the annual PMT (544.3 million²⁰) by the total annual cost, would result in a per mile fee of \$0.38 (in discounted 2010 \$) to use transit in 2035.²¹

2) If all users of the corridor (transit and highway) were to be charged equally on a per mile basis for their use of the corridor, the average user fee in 2035 would be \$0.035 per mile for both drivers and transit riders. This would be a very competitive price for transit use as it would be below the \$0.038 per mile cost estimated for 2035 and considering the additional costs associated with operating a motor vehicle. By 2035, the cost of gasoline per mile is expected to be between \$0.13 and \$0.19 per mile (2010 \$). This cost alone (not considering other fixed and variable driving costs) would represent at least a 240% increase in the price of driving compared to the price of using transit for an individual.

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Comments

Responses

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Response to ORG-22 (continued)

(Continued from previous page)

3) As shown above in Table 6, if highway users paid for the full cost of the Minimum Preferred Alternative, per mile user fees would be \$0.033, slightly lower than the cost of charging transit and highway users equivalent per mile costs.

¹⁹ This estimate of PMT, when multiplied by CO2 emission rates per passenger mile for rail systems from the DOT GHG report, comes very close to the estimate of daily CO2 emissions from transit in the PA.

²⁰ 1.49 million average Daily PMT times 365 equals 544.3 million annual PMT.

²¹ For the purposes of the DPEIS, CDOT used an average transit fee of \$0.10 per mile because CDOT believed that if fees were greater than \$0.12 per mile the willingness of most non-commuting and local travelers to use transit would decrease significantly.

Comments

Responses

Source: Letter	Name: Southwest Energy Efficiency Project (continued)
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Climate Impacts

Under FASTER the Transportation Commission was directed to develop rules and regulations to prescribe how the statewide transportation planning process will address greenhouse gas reductions. The user fees authorized by FASTER provide a method of reducing GHG emissions by reducing vehicle VMT and channeling those VMT onto transit. It is difficult without modeling to quantify what the ideal user fee per mile along the Mountain Corridor would be to minimize SOV travel and maximize transit use. Table 7 below shows the expected annual gasoline and CO2 savings expected due to the impacts of the user fee scenario for the Mountain corridor analyzed in this comment and the EIA estimate of increased gasoline prices in 2035.

Table 7

Gasoline Savings (gallons)	14.9 million
Gasoline Savings (2010 \$)	\$84.2 million
CO2 Emissions Savings	132,000 tons

Response to ORG-22 (continued)

V. The FASTER legislation amends Colorado’s transportation planning requirements to “address” seven additional factors, one of which is greenhouse gas emissions. The legislation does not prescribe how greenhouse gas emissions will be addressed or require a reduction in GHG emissions. User fees are authorized (if necessary approvals are obtained) for multimodal projects that promote mobility, reduce emissions of greenhouse gases, and promote energy efficiency. However, this authorization is not a mandate to achieve reductions. As a multimodal proposal, the Preferred Alternative could consider user fees in Tier 2 processes (although this is not a requirement).

The reference to SOV (single occupancy vehicles) is not relevant to this Corridor because average vehicle occupancy is 2.8, not 1. Congestion in the Corridor results from higher travel demand than available capacity and not from low vehicle occupancy.

Comments

Responses

Source: Letter	Name: Southwest Energy Efficiency Project (continued)
Document Number: ORG-22	City, Zip Code: 80304

Response to ORG-22 (continued)

W. In Tier 2 processes, the lead agencies will evaluate funding options, including user fees, in more detail as a potential funding source for improvements. This additional analysis will require a new model calibration effort based on a specific Tier 2 improvement proposal. For the Tier 1 analysis, the four-step modeling process followed by the PEIS is appropriate and provides adequate information to compare alternatives and inform the Tier 1 decision.

The lead agencies agree that user fees are unlikely to result in dramatic decreases in VMT based on Corridor travel characteristics, and that additional efforts will be required to reduce greenhouse gas emissions at the state, national, and international levels. As stated earlier, reduction of greenhouse gas emissions is not part of the purpose and need for the I-70 Mountain Corridor PEIS, although the Preferred Alternative does result in a positive reduction in CO2 compared to the Six-Lane Highway Alternative. Please refer to the *I-70 Mountain Corridor PEIS Climate and Air Quality Resources Technical Report* for an expanded discussion of greenhouse gas emissions by alternative, including considerations for highway VMT, transit vehicle revenue miles, vehicle mix, and travel speed.

W
At some point along travel demand curves, continuing to increase user fees in an effort to reduce VMT and encourage transit will result in diminishing returns. There will always be certain populations making certain trips that will not be sensitive to increases in user fees (commuters to destinations not served by transit, interstate travelers, recreation trips to destinations for which transit does not provide access). CDOT should model the impact of a range of user fees on both highway vehicle use and transit to develop information for the decision makers and the public regarding what level of rates would be optimal for reducing VMT and GHG emissions, as well as the fee structure that would be optimal for maintaining mobility and economic activity in the corridor given the likelihood of higher fuel costs.

User fees alone would not realistically be able to reduce GHG emissions along the corridor to the extent envisioned by the Governor’s CAP which seeks to reduce GHG emissions 20% below 2005 levels by 2020 and 80% below 2005 levels by 2050. In 2035, this would require an estimated 50% reduction of GHG below 2005 levels. In 2005, the Mountain Corridor produced 1.21 Million Metric Tons (MMT) and the PA is estimated to result in an estimated 1.26 MMT in 2035. For GHG emissions in the corridor to reach the CAP goal (.625MMT), corridor VMT would need to fall by over 50% to below 4.25 million Daily VMT. Very high user fees could theoretically produce this level of reduction, but the fees would need to be nearly 11 times higher (\$0.30 per mile in 2010 \$) than those needed to pay for the PA. It is uncertain what impact user fees at this level would actually have on driving in the corridor.

Comments

Responses

Source: Letter	Name: Southwest Energy Efficiency Project (continued)
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Response to ORG-22 (continued)

- X. Please refer to response [ORG-22-P](#) regarding the methodology proposed by the commenter.

Appendix

Methodology Used to Determine Per Mile User Fees

For the I-70 Mountain²² and East²³ Corridors, Daily VMT estimates were taken from the DPEIS and East Corridor DEIS, then converted to Annual VMT by multiplying by 365. For years not explicitly stated in the EISs the VMT was interpolated assuming straight line growth between the two known years. For the section of I-70 between the two corridors (between C-470 and I-25) an estimate of 2009 VMT was made using CDOT's Traffic Stats which report Daily VMT for each segment of interstate. The average growth in VMT along this section of I-70 was determined by averaging the projected growth rates of the I-70 Mountain and East Corridors. For 2035, daily VMT in the Mountain Corridor is 8,007,130 daily VMT in the I-70 East Corridor is 11,517,000 and daily VMT in the corridor between the Mountain and East Corridors is 2,721,000.

The projected cost for the Preferred Alternative Minimum Program of Improvements for the I-70 Mountain Corridor is \$9.2 billion (2010 \$). If CDOT finances the project with a 30 year bond with a rate between 3% and 4.5%, financing would add between \$4.8 and \$7.6 billion in costs. This would result in annual costs of between \$467.9 million and \$563.1 million. The average of this range, \$515.5 million, has been used for this analysis. The projected cost for the Highway Improvements only, Alternative 7, is \$3.5 billion (2010 \$). Using the same financing assumptions results in an average annual cost of \$195.7 million.

The range of capital costs for the I-70 East Corridor was \$1.26 billion to \$1.989 billion (in 2005 \$). The average of the two prices would be \$1.55 billion and converted to 2009 \$, the cost would be \$1.7 billion. If the project is also financed with a 30 year bond at a similar rate to the Mountain Corridor, the financing costs would be approximately \$1.1 billion, bringing the annual costs to \$95 million.

The two corridors combined would require an annual debt repayment of \$610 million. This amount would then be divided by the corridor's estimated annual VMT in each year to determine how much would need to be paid per mile to fund the corridor improvements.

²² I-70 Mountain Corridor Revised Draft Programmatic Environmental Impact Statement, September 2010,
²³ I-70 East Draft Environmental Impact Statement, November 2008

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Comments

Responses

Response to ORG-22 (continued)

Source: Letter	Name: Southwest Energy Efficiency Project (continued)
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CDOT does not provide annual operating and maintenance (O&M) costs for the PA in the current DPEIS, though it plans to provide this information in a Tier 2 (project level) EIS. However, O&M costs were estimated as part of the 2004 DPEIS and can provide a reasonable estimate until updated O&M costs are provided by CDOT. The AGS was estimated to have \$180 million of O&M costs annually. Annual O&M costs for the highway portion are estimated at \$17 million, bringing the annual total for the corridor to \$197 million. Total annual costs for the corridor will be about \$807 million. Expected transit fare box revenue will offset about \$86 million of these costs if the fare is \$0.10/mile. User fees to pay these costs for the minimum PA will be from \$0.028 to \$0.033 per mile, and from \$0.013 to \$0.014 for the highway only alternative.

Elasticity and VMT Impact

The per mile cost of driving was based on the marginal cost of driving which includes the cost of fuel, parking and maintenance, which is the methodology used in the EIS. The EIS uses \$0.365 per mile as the estimating operating cost although it does not provide a breakdown of how much fuel, parking and maintenance account for. This does not include the capital costs of purchasing a vehicle and other fixed costs, which if included would increase the cost per mile to \$0.60, the number used by the IRS and for the US DOT's report on GHG emissions. To determine how much of this cost was due to fuel, data from EIA on current fuel price and fleetwide fuel economy were used. With a fleetwide fuel economy of 21.05 mpg and an average cost of gasoline of \$2.60 per gallon, an average per mile cost for gasoline of \$0.12 for 2010 was determined. Currently, this makes up one-third of a vehicle's operating costs, but due to expected increases in the real price of gasoline between 2010 and 2035, and a change in fleetwide fuel economy to 29.5 mpg, fuel costs are estimated to make up between 60-70% of operating costs in 2035. The EIA-estimated cost of fuel in 2035 is expected to range between a low of \$0.134 and a high of \$0.191 per mile, while the total vehicle operating costs would be between \$0.225 and \$0.281 per mile. This analysis assumes that estimated fleetwide fuel economy in 2035 will reflect the new fuel efficiency standards proposed to take effect beginning in 2017, and the impact of electrification of a portion of the vehicle fleet.

By adding the amount of the user fee needed to pay for debt repayment and corridor operating and maintenance costs to the increased cost of fuel, the percent change in driving costs is determined. For example, a \$0.019 per mile user fee would increase the total costs per mile of driving in the corridor to \$0.21. This would represent a 10% increase in driving costs. Based on an elasticity of -0.45, this would result in a 4.5% decrease in VMT traveled.

X

Comments

Responses

Source: Website Comment	Name: East Mount Evans Resource, Growth and Environment (EMERGE)
Document Number: ORG-23	City, Zip Code: Evergreen, 80437

Response to ORG-23

A. As you are aware, the Preferred Alternative is a multimodal solution that includes an Advanced Guideway System component between the Eagle County Regional Airport and the Jeffco Government Center light rail station in Golden. The multimodal solution provides the best opportunity to meet the project’s purpose and need while minimizing environmental impacts. The Advanced Guideway System provides needed capacity in the Corridor. The Preferred Alternative also includes highway improvements that are needed to reduce congestion and improve safety and non-infrastructure components such as a slow moving vehicle plan.

Regarding the near-term adjustment of hours and days for heavy trucking to reduce congestion at peak times, CDOT explored limiting truck travel in the Corridor during peak periods. The restriction of trucks on an interstate facility is regulated by the Federal Highway Administration pursuant to 23 Code of Federal Regulations 658.11. This could include restrictions such as time of day. The process identified in 23 Code of Federal Regulations 658.111 includes coordination with local governments, analysis of effects to mobility and safety for all interstate users, and ultimate approval by FHWA. Truck drivers already voluntarily limit their usage of the I-70 highway to avoid peak periods of travel, as much as they can.

The lead agencies considered and advanced a slow-moving vehicle plan as a transportation management alternative element, included as a non-infrastructure component of the Preferred Alternative. Some of the elements of that plan specifically targeted at truck traffic, such as improved chain up stations and rest areas, can proceed with no further approval from FHWA. Improved chain up areas and enhanced traveler information strategies have been recently installed in some Corridor locations by CDOT. The Colorado Department of Transportation is committed to improving safety and mobility of all of the users of the I-70 highway and will continue to explore all options available to do so. Specific details will be assessed during Tier 2 processes.

A

East Mount Evans Resource, Growth and Environment (EMERGE) is a 501c3 organization of the residents of south east Clear Creek County covering the area bounded on the north by CO Highway 103, on the west by Mount Evans and on the east and south by the Clear Creek County boundaries. The area has roughly 900 residences. EMERGE’s purpose is to represent the area to the Clear Creek County government on issues of importance and impact to the area and for county issues of importance to the general welfare of the County.

The I-70 PEIS is such an issue. The Board of Directors of EMERGE unanimously support the Preferred Alternative in the PEIS with particular emphasis on the elevated guide way system. All of those who worked to prepare this document are to be commended for their effort and the consensus reached, realizing that it is a compromise, but by far the best alternative. In the near term we are in favor of adjusting the hours and days for heavy trucking to reduce the congestion at peak times.

Comments

Responses

Source: Website Comment	Name: East Mount Evans Resource, Growth and Environment (EMERGE) (continued)
Document Number: ORG-23	City, Zip Code: Evergreen, 80437

B

Our only concern is a grave one that is to maintain the viability and to ensure the livelihood of Clear Creek County. Any prolonged construction on the highway itself, from the east county line to Bakerville would devastate the economy of Clear Creek County and would severely impact the local transportation, particularly the ability to move school children to their respective schools.

C

EMERGE participated in the development of the Clear Creek County response to the Draft PEIS. We strongly support the contents of the comments submitted by the County Commissioners of Clear Creek County.

Response to ORG-23 (continued)

- B. The Colorado Department of Transportation recognizes that construction impacts on Corridor access and mobility are a major concern to Corridor residents, travelers, commercial freight transport, and the State in general. Construction mitigation will be assessed during Tier 2 processes, including strategies for access and mobility for Corridor commuters, travel to schools, and emergency services. **Chapter 3, Affected Environment and Environmental Consequences** of the PEIS provides mitigation strategies for accessibility and mobility during construction.
- C. Comment noted. Refer to responses to Clear Creek County Commissioners comments contained in comment document [LO-07](#).

Comments

Responses

Source: Website Comment	Name: Colorado Ski Country USA
Document Number: ORG-24	City, Zip Code: Denver, 80210

Colorado Ski Country USA is the trade association representing 22 Colorado ski resorts, many of which rely on the I-70 mountain corridor for resort access for both in-state day and in-and-out-of-state destination skiers. Our membership resorts have a deeply vested interest in the successful resolution of the I-70 congestion problem.

CSCUSA would like to thank you for the extensive public and stakeholder outreach that continues to be undertaken as you try to move forward to implement improvements to the congestion problems on the I-70 mountain corridor. CSCUSA has been actively involved in discussions with the Colorado Department of Transportation (CDOT), the Federal Highway Administration (FHWA), and stakeholders for more than a decade, most recently as a member of the Collaborative Effort (CE). CSCUSA wishes to recognize the efforts of all participants in the CE to find a mutually acceptable path for moving forward on this corridor.

The ski industry in Colorado contributes between \$2.6 and \$3 billion annually to Colorado's economy. Skiing also accounts for a significant portion of Colorado's overall tourism economy. Tourism is the 2nd largest economic sector in the state. Colorado ski resorts host nearly 12 million visitors each year, many of whom use the I-70 corridor to access our resorts. This number of skier visits accounts for more than 20 percent of skier visits across the entire United States. This vital sector of Colorado's economy needs Colorado to move ahead and begin to address the problems on I-70. A sense of urgency is called for.

Response to ORG-24

A. As you noted, skiing contributes to a large portion of Colorado's tourism economy, and the entire tourism sector generates significant revenue for the State's overall economy. In addition to total population and the number of jobs that are projected to increase, the Preferred Alternative is expected to increase personal income and the gross regional product (amount of new goods and services annually). In contrast, the No Action Alternative is expected to suppress the economies of communities in the I-70 Corridor by reducing population, jobs, personal income, and the gross regional product. The forecasted economic reduction is a result of traffic congestion and inaccessibility.

For these and other reasons, the lead agencies share your sense of urgency in making improvements in the Corridor. Some early action projects have been identified, and these can be studied prior to completion of this Tier 1 decision. They are listed in the **Introduction** to the PEIS and include sediment control action plans in creeks along the I-70 Mountain Corridor, wildlife fencing along the I-70 highway to enhance safety, and studies of several I-70 highway mountain interchanges that can proceed directly to final design after receiving federal approvals and identifying funding.

A

Comments

Responses

Source: Website Comment	Name: Colorado Ski Country USA (continued)
Document Number: ORG-24	City, Zip Code: Denver, 80210

Collaborative Effort/Preferred Alternative

CSCUSA recognizes that no one organization or stakeholder group, including ours, is fully satisfied with the final CE recommendation for I-70, but is fully committed to the process by which all have had their input taken into account. The CE outcome/Preferred Alternative is a fragile compromise, with the most important question left unanswered: how to fund it. CSCUSA has grave concerns with the lack of a plan for funding the Preferred Alternative.

The Revised Draft PEIS notes at ES.20 that "transportation revenues have fluctuated significantly" in the past decade, and that this uncertainty is expected to continue into the future. CSCUSA is concerned that with no plan for funding, the majority of the Revised Draft PEIS will remain words on paper. Funding sources mentioned in the Revised Draft PEIS and summarized at ES.20 are far from within grasp. There is no concrete plan to obtain funding for any of the proposed projects, let alone \$20 billion for the entire scope of the Preferred Alternative. There is little appetite among recession-weary Coloradans for tax increases, let alone those of the magnitude that would be required to fund the Preferred Alternative.

Senate Bill 09-108, or FASTER, also has been mentioned as a funding option for the I-70 corridor in the Revised Draft PEIS. However, the dollar total, which annually is approximated at \$250 million, is nowhere near the actual total needs of \$20 billion for I-70, even if every single extra dollar that FASTER provides went to I-70 for the next 40 years. In fact, FASTER dollars have already, for the most part, been allocated to structurally deficient bridges and roads. With such a small amount of FASTER dollars possibly available for funding I-70 corridor improvements, it seems speculative that FASTER could be listed as a significant funding source in the Revised Draft PEIS.

CSCUSA recommends that the Final PEIS more realistically address funding for the Preferred Alternative and that it leave FHWA and CDOT more flexibility to implement lower cost solutions on the corridor, such as bus lanes and truck restrictions, should funding to pursue an AGS system not be available.

Response to ORG-24 (continued)

B. The lead agencies agree additional revenue, leadership, and support from the citizens of Colorado will be required to implement the Preferred Alternative. The Colorado Department of Transportation's budget is not sufficient to implement the entire Preferred Alternative. **Chapter 5, Financial Considerations** of the PEIS summarizes the cost of the Preferred Alternative, funding allocated to the I-70 Mountain Corridor, sources for CDOT's funding (and its limitations), and other potential funding sources. Senate Bill 09-108 is one of several alternative sources of funding discussed in **Chapter 5, Financial Considerations** of the FPEIS. See **Section 5.7, "What are potential funding sources and their limitations?"** of the PEIS, "What are potential funding sources and their limitations?"

The Preferred Alternative, as described in **Chapter 2, Purpose and Need** of the PEIS, is adaptable to the needs of the Corridor. The Preferred Alternative does include a non-infrastructure component with strategies such as expanded bus services and a slow-moving vehicle plan. These actions can be implemented or encouraged to address immediate issues in the Corridor in advance of major infrastructure improvements.

Future feasibility studies and related Tier 2 processes will focus on the feasibility of Advanced Guideway System technologies. If an Advanced Guideway System is found to be infeasible, the lead agencies could revise the Record of Decision and consider other transit technologies evaluated in the PEIS, including bus. The Preferred Alternative allows a thorough reassessment of the overall purpose and need and effectiveness of improvements in 2020, at which time a full range of alternatives considered in the PEIS could be reconsidered.

B

Comments

Responses

Source: Website Comment	Name: Colorado Ski Country USA (continued)
Document Number: ORG-24	City, Zip Code: Denver, 80210

Response to ORG-24 (continued)

C. The lead agencies are committed to the vision of connectivity beyond the Corridor, and this connectivity is a critical element to be evaluated in future feasibility studies and related Tier 2 processes. Transit feasibility studies and related Tier 2 processes will specifically address the feasibility of an Advanced Guideway System in the Corridor, including effects of connections on technology and ridership projections. In addition, CDOT’s Division of Transit and Rail’s Colorado State Passenger and Freight Rail Plan will evaluate existing and planned rail projects statewide and ways to integrate travel throughout the state. The Division will also conduct a Colorado Interregional Connectivity Study to study the integration of high-speed rail projects, including the I-70 Mountain Corridor Advanced Guideway System, with the Regional Transportation District FasTracks system in the Denver area.

The need to transfer does discourage transit use. The transit ridership forecasting model takes into account the negative effect of transferring multiple times to complete a trip. It is recognized that some convenient local distribution systems are likely to be needed to meet the travel needs of the Advanced Guideway System users so that travelers can reach their final destination with relative ease. As the Advanced Guideway System is developed in more detail in future feasibility studies and related Tier 2 processes, considerations for the types of trips served and how to connect travelers to their final destinations will be important to determining how the system will function and serve Corridor travelers.

Advanced Guideway System

CSCUSA supports the long-term vision of the Preferred Alternative for a combined transit and highway system to address the longer-term transportation needs of the corridor. As part of determining nuts and bolts feasibility of an Advanced Guideway System (AGS) to serve as the transit mode on this corridor, CDOT and FHWA should consider seamless connections to DIA and systems that serve the Front Range and corridor communities and destinations.

C AGS must be determined to be a mode that Front Range and corridor residents will use regularly, so it must be inexpensive for the rider and provide virtually door-to-door service, with minimal hassles and mode changes. The simple reality is that the Front Range visitor will not use a system that is too costly or too complex. If the Front Range visitor doesn’t use the system as their regular mode of transportation to the mountains, congestion in the corridor will not be reduced. An AGS system that is attractive only to destination visitors does not solve the quality of life problem for Coloradans and doesn’t solve the I-70 highway congestion problem.

Comments

Responses

Source: Website Comment	Name: Colorado Ski Country USA (continued)
Document Number: ORG-24	City, Zip Code: Denver, 80210

Response to ORG-24 (continued)

D. The success of the Advanced Guideway System in reducing congestion on the I-70 highway does indeed depend on the ridership it attracts, so your concerns about the survey data used to develop 2035 ridership forecasts are appreciated. Most of the concerns appear to refer to the earlier I-70 User Survey, and not the I-70 Ridership Survey used to develop the mode choice component of the I-70 highway travel model.

Section B-5 of **Appendix B** of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website) (page B-37) shows that interviews for the winter survey occurred between March 9 and April 6, 2001. Summer interviews were conducted between June 30 and August 12, 2001. As described in **Appendix B** of the Technical Report, the I-70 Ridership Survey used an in-person interview technique where travelers were intercepted at airports, Corridor resorts, and retail locations in the Corridor and along the Front Range, and asked about the trip they were in the process of making. Details of the ridership survey conducted for the I-70 highway travel demand model are documented in **Appendix B** of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report*.

It is true that many factors have changed since 2000. However, CDOT has continued to monitor travel patterns in the Corridor. Analysis of traffic volumes along the I-70 highway has revealed Corridor travel to be rather inelastic (non-responsive) to fuel prices and robust to economic conditions. One reason for the fuel price inelasticity may be that out-of-state travelers who choose not to visit Colorado are replaced by increased numbers of in-state travelers who choose to recreate closer to home.

The travel demand forecasting model used for the PEIS indicates that the Advanced Guideway System would attract a reasonable amount of ridership and that the Preferred Alternative would reduce congestion and would provide adequate capacity

(continued on next page)

D At the very core of the AGS's functionality—and its role in the Preferred Alternative—is the question of ridership. Based on the brief studies that have been done in the past, it is clear that a substantially more in-depth ridership study is needed to move forward with AGS. The ridership study conducted for the Draft PEIS, and relied on by the Revised Draft, was flawed in a variety of ways – it was intended to be only a “snapshot” profile of users on one summer weekend and one winter weekend in 2000. In the past decade alone, numerous factors have changed. Users’ license plates were photographed and a small portion of users captured were subsequently interviewed by telephone, up to two months after the date on which their license plate number was captured. According to the ridership study, many of the respondents had no memory of their travel on the specific weekend studied, so they were asked to speak generally about their most recent trip.

D This “snapshot” showed a high percentage of travelers interested in using a high-speed monorail if it were faster than driving and if the round-trip cost was \$20 per person. Similar responses were recorded for bus or van service that was faster than driving and cost \$20 round-trip. The study did not address door-to-door connection issues or transport of recreational equipment. Interest in transit options among this snapshot group fell off precipitously as the cost per roundtrip increased.

CSCUSA is concerned that assumptions have been made in the Revised Draft PEIS and the Preferred Alternative about likely ridership of a transit system without adequate study of the full experience of using the AGS and without projecting the round-trip cost to users of the system. In ES.18 (2), “the Colorado Department of Transportation commits to provide funding for studies to determine the viability, including cost and benefits, safety, reliability, environmental impacts, technology, and other considerations of an Advanced Guideway System.” CSCUSA fully supports this, but would advocate advancing these studies to include an investment grade ridership study. Simply put, a Preferred Alternative with a potential \$20 billion price tag deserves more than a weekend snapshot user study. Given the economic constraints facing transportation in Colorado, assuming any sort of subsidy for operation of the AGS – or simply not addressing this issue seems unwise.

Comments

Responses

Source: Website Comment	Name: Colorado Ski Country USA (continued)
Document Number: ORG-24	City, Zip Code: Denver, 80210

Response to ORG-24 (continued)

D. (Continued from previous page)

in the Corridor until the year 2050. The fare that CDOT assumed for a one-way trip between the Denver metropolitan area and Eagle County is \$14. **Appendix A** of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website) provides details on transit fares.

Advanced Guideway System feasibility studies and related Tier 2 processes will include a more in-depth development of ridership forecasts, fare structure design, and considerations for the types of trips served and how to connect travelers to their final destinations. Detailed scopes for the Advanced Guideway System feasibility studies have not been defined at this time but your comment about the need for an updated and comprehensive survey that supports an investment-grade ridership forecast is noted.

Comments

Responses

Source: Website Comment	Name: Colorado Ski Country USA (continued)
Document Number: ORG-24	City, Zip Code: Denver, 80210

Response to ORG-24 (continued)

E

In addition to the AGS proposal, CSCUSA would encourage the re-activation of the steel wheels on steel rail trains that formerly ran from Denver to Winter Park Ski Resort. As noted in this response, a large number of travelers use the I-70 corridor to take part in recreational activities such as skiing. With a train that departs Union Station in Denver and ends at Winter Park, at a capacity of 750 persons (previous capacity) per day, this attractive alternative option could help reduce traffic on the I-70 corridor. CSCUSA believes it would be valuable for CDOT and FHWA to explore working with Winter Park in partnership to reinstating train service between Downtown Denver and Winter Park.

Triggers

F

One of the critical provisions of the CE recommendation/Preferred Alternative is the "triggers" that would allow additional highway and non-AGS transit capacity improvements to proceed if and when one of the triggers is met. These triggers are part of the CE compromise that says, essentially, when more flexibility is available for CDOT and FHWA to consider options beyond those in the Preferred Alternative. The Revised Draft makes two significant deviations from the trigger language agreed to by the CE. CSCUSA requests that what are hopefully only drafting errors be corrected in the Final PEIS.

First, the second trigger agreed to by the CE reads as follows: "The Specific Highway improvements are complete, and AGS studies that answer questions regarding the feasibility, cost, ridership, governance and land use are complete and indicate that AGS cannot be funded or implemented by 2025 or is otherwise deemed unfeasible to implement, or..." The underlined portion of this trigger does not appear in the Revised Draft PEIS. See e.g. ES-26. These triggers were carefully wordsmithed by the members of the CE. This trigger is intended to allow alternative improvements to proceed if it is determined that AGS can't be funded or implemented by 2025. It is critical that this trigger be accurately set forth in the Final PEIS.

Second, the triggers section of the CE also contains the following language: "In 2020, there will be a thorough assessment of the overall purpose and need and effectiveness of implementation of these decisions. At that time, CDOT and FHWA, in conjunction with the stakeholder committee, may consider the full range of improvement options." CE Recommendation at 4. The Revised Draft PEIS changes the word "consider" to "reconsider." ES-26. This fundamentally changes the meaning of a carefully drafted and agreed to portion of the CE recommendation. CSCUSA requests that the exact language agreed to by the CE with respect to triggers be included in the Final PEIS.

E. The Colorado Department of Transportation did look at expanding the existing rail corridor from Denver through Moffat Tunnel, Winter Park, and Glenwood Springs (with options for service to terminate in Winter Park or Glenwood Springs). This alternative, which is described in more detail in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the FPEIS Technical Reports and on the project website) does not meet the project's needs because the alignment requires use of locomotive-hauled passenger rail cars, which have low capacity (serving a maximum of 1,400 passengers per hour) and slow travel speeds (23 to 27 miles per hour). Low capacity does not remove enough trips from the I-70 highway to affect congestion, and slow travel speeds do not make the alternative an attractive alternative to automobile travel. Additionally, this alignment serves only a limited number of Corridor destinations and does not meet the accessibility and mobility needs for the Corridor.

The Colorado Department of Transportation also considered increasing the frequency of service for the Winter Park ski train (discontinued in 2009). However, due to the volume of freight traffic through the Moffat Tunnel and limited air ventilation in the tunnel, the existing line cannot accommodate more than two round-trip passenger trains per day. A revived ski train service could be considered by others but does not address the purpose and need for the I-70 Mountain Corridor.

F. The language of the Consensus Recommendation has been included verbatim.

Comments

Responses

Source: Website Comment	Name: Colorado Ski Country USA (continued)
Document Number: ORG-24	City, Zip Code: Denver, 80210

Early Action/Non Infrastructure

The Preferred Alternative includes a number of non-infrastructure related components that could help ease corridor congestion in the near term. Among these is the vague "programs for improving truck movements." See e.g. ES 18. CSCUSA feels strongly that the Final PEIS should speak directly to the need to consider a plan for truck traffic restrictions on the corridor during certain peak times. CSCUSA understands that corridor communities and even ski resorts have come to rely on the on-time deliveries that have generated volumes of truck traffic on the corridor on weekends. Restricting truck traffic would in all likelihood the construction of several food warehouses along the corridor so that food and drink for food stores and restaurants could be stored for a period of time that would require fewer weekend deliveries. Such restrictions would also require the cooperation of the federal government, which has jurisdiction over interstate corridors. CSCUSA believes that building warehouses and restricting truck traffic during limited times would improve corridor congestion, would improve the experience of the corridor traveler and could be implemented for a relatively low cost. Simply including "programs for improving truck movements" in the Final PEIS is too vague. CSCUSA requests that the Final PEIS specifically note that the option of restricting truck movements during peak times will be explored in detail and implemented if feasible. We understand that such restrictions may have economic impacts on motor carriers. The time has come to balance those interests with those of other corridor stakeholders.

CSCUSA appreciates the opportunity to work with CDOT, FHWA, the Collaborative Effort and other interested parties to advance improvements to the I-70 mountain corridor. Should you have any questions about our comments on the Revised Draft PEIS, please do not hesitate to contact me.

Response to ORG-24 (continued)

G. The PEIS briefly summarizes the truck program for readability purposes. Further information on the transportation management strategy for slow-moving vehicles is in **Section 4.2.2** in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website).

The restriction of trucks on an interstate facility is regulated by the Federal Highway Administration pursuant to 23 Code of Federal Regulations 658.11. This could include restrictions such as time of day. The process identified in 23 Code of Federal Regulations 658.111 includes coordination with local governments, analysis of effects to mobility and safety for all interstate users and ultimate approval by the Federal Highway Administration.

Many freight operations have some scheduling flexibility, and, therefore avoid peak travel/congestion times to the extent possible. However, other freight operations have more strict delivery timing requirements and must operate in the Corridor regardless of traffic conditions (for example, bulk mail, food service, scheduled packaged delivery and just-in-time shipments). Additionally, limited truck parking resources and Federal Hours-of-Service regulations further limit options for the commercial vehicle driver in the I-70 Mountain Corridor. It should be noted that the portion of heavy trucks varies greatly along the Corridor; there are more trucks on weekdays compared to weekends.

The lead agencies considered and advanced a slow-moving vehicle plan as a transportation management alternative element, included as a non-infrastructure component of the Preferred Alternative. Some of the elements of that plan specifically targeted at truck traffic, such as improved chain up stations and rest areas, can proceed with no further approval from the Federal Highway Administration. Improved chain up areas and enhanced traveler information strategies have been recently installed in some Corridor locations by CDOT.

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Colorado Ski Country USA (continued)
Document Number: ORG-24	City, Zip Code: Denver, 80210

Response to ORG-24 (continued)

G. (Continued from previous page)

The Colorado Department of Transportation is committed to improving safety and mobility of all of the users of the I-70 highway and will continue to explore all options available to do so.

Comments

Responses

Source: Website Comment	Name: Grand Junction Area Chamber of Commerce
Document Number: ORG-25	City, Zip Code: Grand Junction, 81501

A As stated in the Guidelines of Transportation for the Grand Junction Area Chamber of Commerce, GJACC supports efforts and initiatives to address mobility issues along the I-70 transportation corridor through the state with particular focus on access for western slope citizens. Therefore, the GJACC would support any infrastructure that would provide equal benefits to both eastbound and westbound traffic. The GJACC would oppose any efforts that would benefit eastbound traffic while detrimentally effecting westbound traffic.

The GJACC would greatly appreciate being informed of the forthcoming processes.

Response to ORG-25

- A. The Preferred Alternative improves mobility and safety for all users throughout the Corridor. Congestion was not identified as a concern for the westernmost segments of the Corridor, so additional capacity improvements have not been identified in the westernmost segments of the Corridor. However, improvements in the Corridor benefit mobility and congestion relief for both eastbound and westbound traffic.

You have been added to the project mailing list and will receive all future updates.

Comments

Responses

Source: Website Comment	Name: Center for Native Ecosystems
Document Number: ORG-26	City, Zip Code: Denver, 80202

Response to ORG-26

- A. Comment noted.
- B. Comment noted

A

On behalf of Center for Native Ecosystems (CNE), Western Environmental Law Center (WELC), Wild Connections, Defenders of Wildlife, Wilderness Workshop, the Humane Society of the United States, Colorado Environmental Coalition and Albert G. Melcher, please accept these formal comments on the I-70 Revised Draft Programmatic Environmental Impact Statement (revised PEIS). We appreciate the opportunity to comment, and hope that the following recommendations will assist CDOT in incorporating the most effective wildlife mitigation measures into the Final PEIS and Record of Decision (ROD).

B

I. HABITAT CONNECTIVITY

Biological Resources: Section 3.2

First, we would like to thank CDOT for stating up front in the revised PEIS that the I-70 Corridor is known to be a barrier to wildlife movement (p.3.2-1). This is a modification from the original PEIS and a step in the right direction to ensure adequate habitat connectivity mitigation measures.

The I-70 Mountain Corridor creates barriers to wildlife movement. Even where animals can cross the highway, traffic noise and vehicle lights can deter animals from approaching the highway and animal-vehicle collisions can result in their injury or death (p. 3.2-1).

We would also like to thank you for fully embracing the ALIVE MOU and incorporating a habitat connectivity discussion in the Biological Resources section.

Lead agencies will follow the processes outlined in the ALIVE Memorandum of Understanding (see Appendix E) to reduce animal-vehicle collisions and increase habitat connectivity throughout the Corridor. This includes, but is not limited to, the use of underpasses or overpasses dedicated to wildlife movement, fencing, berms, and vegetation to guide wildlife to crossing structures and signage to alert motorists of wildlife presence (p. 3.2-18).

Comments

Responses

Source: Website Comment	Name: Center for Native Ecosystems (continued)
Document Number: ORG-26	City, Zip Code: Denver, 80202

C

However, clarification on the comprehensiveness of mitigation measures is needed in this section. For example, Fencing is shown to be most effective when combined with multiple crossing structures for wildlife (Clevenger 2000).

Recommendation 1: A comprehensive suite of mitigation tools must be employed in order to improve permeability for wildlife. As expressly recognized in the ALIVE MOU (see Table 1 Linkage Interference Zones and Recommended Mitigation), wildlife crossing structures are an integral part of nearly all of the recommended mitigation measures and should be considered and implemented in conjunction with any fencing. We recommend that you add verbiage in this section that states that wildlife crossings, such as underpasses and overpasses, must be placed at regular intervals and tied together with wildlife fencing to ensure their success.

C

As an example of piecemeal, premature and ineffective implementation of the recommended mitigation measures from the ALIVE MOU, CDOT is currently constructing miles of wildlife fencing alone on I-70 near Eagle, CO. Such fencing projects, and the wildlife crossings that must accompany them in order for them to be effective, are the subject of the current PEIS and are being undertaken prior to a Record of Decision being issued. Further, while this fencing may reduce animal-vehicle collisions in the direct vicinity of the fencing, it often pushes those collisions to the end of the fencing and does not increase permeability for wildlife. Actions that are taken prior to a final Record of Decision, and that did not have an environmental review process, are premature.

D

Recommendation 2: In addition to the above verbiage, we recommend that you state in this section that CDOT will develop and adhere to Best Management Practices (BMPs) along the entire length of the Corridor, and not just within Linkage Interference Zones (LIZ). Example BMPs are provided in Appendix A at the end of this document.

Response to ORG-26 (continued)

C. The Colorado Department of Transportation, in coordination with the ALIVE committee, will continue to examine wildlife permeability along the Corridor, incorporating, as feasible, the most readily available current data. Wildlife crossing structure designs will be designed to maximize driver safety and accommodation of wildlife movement using currently available scientific data during Tier 2 processes, which will include measures such as fencing, overpasses and underpasses where appropriate, and signage.

Mitigations will be added to the Corridor as projects are funded in areas identified as having an important wildlife linkage interference zone. The fencing project to which you refer was evaluated under a separate NEPA process and determined to meet the requirements of a Categorical Exclusion. For this project, CDOT worked closely with the Colorado Division of Wildlife to determine the need for wildlife fencing and ramps. Near Eagle, between Dotsero and Wolcott, there are an estimated 29 opportunities for large animals to cross the I-70 highway, equating to a crossing every 0.8 miles. A large animal is never more than 0.4 miles from a crossing area; this distance falls within the Colorado Division of Wildlife recommended guideline of providing a crossing opportunity every 0.5 mile. The addition of wildlife fencing does not preclude the usage of these existing structures by wildlife or the addition of new structures. Fencing and/or additional wildlife crossings are intended to direct wildlife to use current or future crossing structures.

The Colorado Department of Transportation is considering different approaches to funding and implementing wildlife crossings. It is likely that future fencing projects will be implemented in a similar incremental way to the Eagle project, as it is unlikely that CDOT will have funding to implement fencing all at once.

D. The Colorado Department of Transportation, in coordination with the ALIVE committee, will continue to examine wildlife permeability along the Corridor, incorporating, as feasible, the most readily available current data. Based on this data and the potential for changed conditions, wildlife crossings may be located outside the linkage interference zones noted in the ALIVE Memorandum of Understanding.

Comments

Responses

Source: Website Comment	Name: Center for Native Ecosystems (continued)
Document Number: ORG-26	City, Zip Code: Denver, 80202

Response to ORG-26 (continued)

- E. Please see the response to your comment [ORG-26-C](#) for information on the early action wildlife fencing project. The Colorado Department of Transportation, in coordination with the ALIVE committee, will continue to examine wildlife permeability along the Corridor when studying and implementing wildlife fencing.
- F. The ALIVE Memorandum of Understanding commits CDOT and FHWA to pursue options for identifying and if necessary funding an administrative position, whose role would be to identify and pursue funding sources for wildlife passages. Details and timing of evaluating an administrator position will be explored further in Tier 2 processes. The Colorado Department of Transportation also commits to enacting the coordination contained within the Memorandum of Understanding, which will include agency and stakeholder meetings.

Executive Summary (ES.21)

The Executive Summary states "some planning, design, construction, and maintenance activities can take place before signing a Record of Decision. These activities are "early action projects" (p. ES-23). Under the example projects, "I-70 Wildlife Fencing – Enhances safety" is listed.

E

Recommendation: CDOT should not be employing singular wildlife mitigation measures that will increase the road barrier effect without increasing permeability for wildlife. We acknowledge that fencing is a "common element" to all of the action alternatives and therefore meets the criteria of an "early action project," however, fencing necessarily goes hand in hand with associated wildlife crossings in order to be effective in mitigating the impacts of the I-70 corridor, and increasing permeability, the goal of the ALIVE MOU. Because wildlife crossings are so integrally connected with the objectives of the proposed fencing projects, and because they are also common elements of the action alternatives, the early action projects involving fencing must also include such crossings. Further, if BMPs were followed (as stated above), wildlife fencing would be tied into the nearest wildlife crossing. If no crossings existed, wildlife crossings would be added to this early action project to ensure it was in compliance with the I-70 PEIS BMPs.

ALIVE MOU Comments

F

We highly commend the state and federal agencies for signing the ALIVE MOU in 2008. It is imperative that this MOU be revisited often and actively pursued.

Under the title header "Cooperation by CDOT and FHWA", the ALIVE MOU recommends the funding of "an administrative position for a maximum of (2) two years. The function of the administrator would be to explore, identify and pursue funding sources and mechanisms to construct wildlife passages, especially for those passages to be pursued beyond CDOT's legal responsibility" (p. 4).

F

Recommendation: Once the final ROD is signed, CDOT should take an active lead in pursuing the hiring of an administrator to both track and implement the ALIVE MOU. CDOT should ensure that regular meetings occur (at least twice a year) with all signatories of the MOU to track progress and explore new opportunities to implement the ALIVE MOU.

Comments

Responses

Source: Website Comment	Name: Center for Native Ecosystems (continued)
Document Number: ORG-26	City, Zip Code: Denver, 80202

Response to ORG-26 (continued)

G One such new opportunity may arise as a result of the ARC International Wildlife Crossings Design Competition (<http://www.arc-competition.com/>). CDOT has shown exemplary leadership in supporting and engaging in this competition, and we hope that you will work diligently to ensure that the results of the competition are utilized in a way that forwards the spirit and intent of the ALIVE MOU.

G. The Colorado Department of Transportation supports the ARC International Wildlife Crossing Design Competition, as you note. Tier 2 processes will use current information on wildlife movement and wildlife crossings as it is available. The Colorado Department of Transportation will use Best Management Practices for wildlife, to make sure any wildlife crossings are designed and constructed to improve driver safety and to accommodate wildlife movement across the interstate.

General Comments & Recommendations

H Often times, the best available data is not integrated early enough in planning, or the mechanism for cross-pollination between simultaneous processes is not clear. We therefore ask that you integrate new data, including but not limited to, the current EcoLogical project at regular intervals and ensure a solid connection between new data, the CSS process, and Tier 2 processes. The EcoLogical study is being completed by CDOT, Western Transportation Institute, Center for Native Ecosystems, ECO-resolutions, and Colorado Watershed Assembly. In addition, proper pre- and post- monitoring should occur within each LIZ and for each wildlife mitigation measure implemented. Monitoring will ensure that information on the effectiveness of wildlife mitigation measures are clearly stated and that modifications to mitigation measures can be made based on this data. Monitoring is also valuable to CDOT so that they can learn from each project to guide more effective and cost-efficient designs for future mitigations.

H. The Colorado Department of Transportation, in coordination with the ALIVE committee, will continue to examine wildlife permeability along the Corridor, incorporating, as feasible, the most readily available current data, including the findings of the EcoLogical Study. Project specific decisions, such as monitoring strategies, will be made during Tier 2 processes.

I Terrestrial connectivity is covered at length throughout the revised PEIS, and we remind the lead agencies that, where appropriate, aquatic connectivity needs to also be addressed.

I. SWEEP is intended to improve aquatic habitat, and where possible, support the efforts of the ALIVE Memorandum of Understanding. In coordination with the ALIVE Committee, CDOT will address aquatic connectivity during Tier 2 processes to help restore aquatic connectivity where impacted by the construction of the I-70 highway in the past and if it is appropriate, to the current needs of the resource.

J Oftentimes, it is likely that there may actually be an economic benefit to mitigation measures, saving us money and improving safety on the roadway for both humans and wildlife (Huijser et al., 2009).

J. Comment noted. The reference you cite provides information that can be considered during development of mitigation measures in Tier 2 processes.

Comments

Responses

Source: Website Comment	Name: Center for Native Ecosystems (continued)
Document Number: ORG-26	City, Zip Code: Denver, 80202

K

Finally, we would like to commend CDOT on the integration of Linkage Interference Zones as an environmental resource of greatest public concern is well stated in both the consensus recommendation and as a component of the Context Sensitive Solutions (CSS) process. We ask that you maintain a focus of upholding the intent of CSS throughout both the Tier I and Tier 2 processes.

L

We would also like to commend you on the inclusion of an elevated Advanced Guideway System (AGS) in the Preferred Alternative. The AGS will not only improve mobility and reduce congestion, but will also reduce the barrier effect of I-70 by reducing the number of vehicles on the road.

II. IMPACTS TO WILDLIFE

Threatened, Endangered and Sensitive Species

M

Section 5.4 (Table 13, p. 68) of the Biological Resources Technical Report (and Section BR.3.1 of the Biological Report, starting on p. BR-29) details several effect determinations of "may affect, likely to adversely affect" and/or "adverse modification" for the action alternatives (and some for the no action alternative) for various species including Preble's meadow jumping mouse, Canada lynx, least tern, piping plover, whooping crane, bonytail chub, Colorado pikeminnow, humpback chub, razorback sucker, pallid sturgeon, greenback cutthroat trout, Ute ladies'-tresses orchid and Western prairie fringed orchid.

N

We would like to thank CDOT for making a commitment to the following, in addition to the mitigation strategies: "...3. Fulfill responsibilities set forth in the ALIVE Agreement (A Landscape level Inventory of Valued Ecosystem components) to be developed in conjunction with the ALIVE Committee consisting of city, county, local, and federal representatives. The ALIVE program provides opportunities to address issues related to improving wildlife movement and reducing habitat fragmentation in the Corridor. 4. Fulfill responsibilities set forth in the Biological Assessment/Biological Opinion to be developed in conjunction with the U.S. Fish and Wildlife Service. 5. Mitigation measures will be developed to offset impacts on species identified in the Biological Report for the White River National Forest and the Arapaho and Roosevelt National Forests" (Section 3.19 of the revised PEIS (p. 3.19-1)).

Response to ORG-26 (continued)

K. The Colorado Department of Transportation, working with the ALIVE committee, identified 13 areas where the I-70 highway interferes with wildlife migration. These areas, referred to as linkage interference zones, are recognized concerns by the public. A Memorandum of Understanding between CDOT and ALIVE, signed in April 2008, details the responsibilities of each agency in addressing animal vehicle collisions. See **Appendix E, A Landscape Level Inventory of Valued Ecosystem Components (ALIVE) Memorandum of Understanding** of the PEIS to read the full Memorandum of Understanding.

The Colorado Department of Transportation has committed to continuous stakeholder involvement following the I-70 Mountain Corridor Context Sensitive Solutions process and working with Collaborative Effort teams for all tasks and projects conducted on the I-70 Mountain Corridor, including Tier 1 and Tier 2 processes.

L. The Preferred Alternative proposes both transit and highway improvements through the I-70 Mountain Corridor. The transit component of the Preferred Alternative provides an Advanced Guideway System that is capable of being fully elevated between the Eagle County Regional Airport and Jeffco Government Center light rail station in Golden with stops throughout the Corridor. This guideway will be elevated in areas that have identified important wildlife linkages but may not be elevated in urban areas where stations are proposed or through tunnels. The Advanced Guideway System will both shift some travel from roadway to transit and will accommodate more persons trips than could be provided by highway improvements alone. However, the Preferred Alternative does not reduce the volume of highway traffic; the highway improvements accommodate greater volumes of traffic to accommodate an additional 5.0- 7.5 million trips of unmet demand, those trips otherwise not taken due to congestion.

M. Comment noted

N. Comment noted

Comments

Responses

Source: Website Comment	Name: Center for Native Ecosystems (continued)
Document Number: ORG-26	City, Zip Code: Denver, 80202

Given the finding of "may affect, likely to adversely affect" and/or "adverse modification" for so many species, we cannot emphasize enough the need for lead agencies to consult formally and commit fully to the recommendations from the United States Forest Service and United States Fish and Wildlife Service at both the Tier 1 and Tier 2 level so that the least amount of impacts will be affected on these species. It is also important that lead agencies first try to avoid impacting these species before relying on the mitigation strategies proposed. Also, direct and indirect impacts (including cumulative across Tier 2 projects) need to be addressed for each project. For instance, project-related water depletions from the upper Colorado River basin or the Platte River basin could impact several species (Biological Resources Technical Report, p. 73; Biological Report, p. BR-28). Because analysis of effects will be addressed at the Tier 2 level (Biological Report, p. BR-29), the cumulative effects of any water depletion across Tier 2 projects needs to be addressed.

Canada lynx

The revised PEIS understates the substantial effect of direct highway mortality on the Southern Rockies Canada Lynx population and should cite CDOW roadkill data. Because the Canada Lynx is a threatened species and its population numbers are still low, direct mortality and roadkill have an extremely significant impact on the existence of a viable lynx population in the Southern Rockies, and in Colorado. The surrounding habitat along the I-70 Corridor is documented to be good lynx habitat with lynx being identified in the White River National Forest and surrounding areas (CDOW 2005). According to the 2001 Progress report, "Human-caused mortality factors such as gunshot and vehicle collision are the highest cause of death for lynx > 8 months post-release (CDOW 2001)." Even more striking, is that according to the 2009 CDOW Progress Report to the U.S. Fish and Wildlife Service, 14 out of the 118 lynx mortalities from 1999-2009 were due to roadkill, representing almost 12% of lynx mortalities (CDOW 2009). With one known den in southcentral Wyoming (CDOW 2009), it is important to ensure lynx can move throughout the state, including north of I-70.

The Biological Report should be updated to reflect the recent announcement by CDOW, deeming the reintroduction to be a success (CDOW 2010a). CDOW has found that lynx recruitment into the Southern Rockies population equals or exceeds mortality over an extended period of time. In other words, there is now a self-sustaining population in the Southern Rocky Mountain region. The discussion on lynx in the Biological Report (BR-33), however, tries to minimize the importance of Colorado's lynx for lynx viability throughout its range.

Response to ORG-26 (continued)

O. Coordination with Federal agencies has been ongoing since project inception. Formal consultation with the USFWS and United States Forest Service has occurred as part of the *I-70 Mountain Corridor PEIS Programmatic Biological Assessment* and *I-70 Mountain Corridor PEIS Programmatic Biological Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website), and continued coordination will occur throughout the life of the project. The programmatic nature of the Section 7 consultation will require consultation for each Tier 2 process.

Tier 2 processes will include analysis of direct, indirect and cumulative impacts. Cumulative impact analysis will include reasonably foreseeable and future actions, which will include applicable Tier 2 processes.

P. The *I-70 Mountain Corridor PEIS Programmatic Biological Report* has been revised per United States Forest Service direction and includes their input regarding the success of the reintroduction program and potential impacts.

The *I-70 Mountain Corridor PEIS Programmatic Biological Assessment* notes the impacts of roadway mortality on lynx populations and includes the following, which is current as of 11/30/2010, but subject to revision based on USFWS input:

"However, since the reintroduction of the lynx, 1 lynx is known to be killed on I-70 every 2.75 years on average. In 40 years that totals 14.5 animals. If adding two lanes to the highway increases the highway by 30 percent then 4.3 additional animals could be expected to be hit in the same 40 years, a 30 percent increase in lynx mortality. Since it would be impossible to determine if the lynx were hit due to the additions to the highway, it could be expected that 19 lynx total will be taken in the 40 years following the completion of the

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Center for Native Ecosystems (continued)
Document Number: ORG-26	City, Zip Code: Denver, 80202

Response to ORG-26 (continued)

P. (Continued from previous page)

work in lynx habitat. This figure is based solely upon the historic rate at which lynx have had unsuccessful attempts at crossing the highway and the amount of increased highway area the project will incur in lynx habitat.”

Following are the conservation measures from the *I-70 Mountain Corridor PEIS Programmatic Biological Assessment*:

- Lynx crossings will be installed in all areas outlined by the ALIVE Committee after a feasibility assessment has been completed during Tier 2 processes. This assessment will be written and will determine habitat condition, land status, terrain, constructability and other site specific conditions at the time of construction and will be submitted to USFWS for concurrence. These locations identified by the ALIVE Committee areas are defined in the ALIVE Memorandum of Understanding (**Appendix A, I-70 Mountain Corridor PEIS Context Sensitive Solutions**).
- A minimum of 13 wildlife crossings will be installed with a maximum number of 25 possible. These crossings will be installed in the 13 LIZs identified by the ALIVE Committee. Ten of these areas are located in lynx habitat and will feature crossings appropriate for lynx. The ALIVE Memorandum of Understanding (**Appendix A, I-70 Mountain Corridor PEIS Context Sensitive Solutions**) and **Section 6.2.1** of the *I-70 Mountain Corridor PEIS Programmatic Biological Assessment* include descriptions and locations of the LIZs. If the maximum number of crossings (25) is installed, the program will be reassessed for its effectiveness.

(continued on next page)

In light of climate change, the Southern Rockies region could become a refugia for the species throughout its range. Studies have predicted that the snowline will rise (Beniston 2003) and that snow accumulation will especially be affected at elevations at or below 4921 ft. (Martin and Durand 1998). The Southern Rockies region has a higher mean elevation than other areas where lynx currently exist: Colorado (6,800 ft), Wyoming (6,500 ft), Utah (6,100 ft), New Mexico (5,700 ft) as compared to Montana (3,400 ft), Idaho (5,000 ft), Washington (1,700 ft), Minnesota (900 ft) and Maine (500 ft) (U.S. Census 2010). Some projections suggest that rising temperatures may result in a substantial decline in lower-elevation snowpack (below 8200 ft./2500 m.) by the mid-21st century, with more modest declines at elevations above 8200 ft. The combined results of several studies suggest that elevation is a factor in changes in snowpack, and that increases in rain vs. snow, reduction in snow water equivalent, and decreases in snowpack, will be of smaller magnitude at elevations above 8200 ft. (Knowles et al. 2006, Regonda et al. 2005, Udall and Bates 2007, Mote et al. 2005, Pierce et al. 2008, Jain 2008, Christenson and Lettenmaier 2006, Ray et al. 2008). Occurrences of Canada lynx in the Southern Rockies are at higher elevations (4,100-12,300 feet) than other areas in the contiguous United States, especially compared to areas outside of the western United States (McKelvey et al. 2000). Some models predict that over the next 100 years sub-alpine fir core range will remain strong in the Southern Rocky Mountains (Natural Resources Canada 2007). Therefore, the higher elevation habitat in the Southern Rockies might provide a refugia for lynx making this population more important than is thought to the overall persistence of the species in the lower 48-states. This also means that the importance of insuring safe passage for species such as lynx across I-70 is even more important.

Comments

Responses

Source: Website Comment	Name: Center for Native Ecosystems (continued)
Document Number: ORG-26	City, Zip Code: Denver, 80202

Response to ORG-26 (continued)

- P. (Continued from previous page)
- All lynx crossings will have an openness ratio of no less than 0.7. (width x height / length in meters) (Ruediger, 1996) or a minimum dimension of a 10 foot diameter for corrugated metal pipes or 10 feet x 20 feet for CBCs or arch structures. These dimensions may be updated based upon future research and/monitoring, in coordination with USFWS.
 - All lynx crossings will have a natural substrate.
 - Lynx crossings will not be designed to carry water as its primary purpose.
 - Based on topography, up to a 0.5 mile of wildlife fencing will be installed on either side of both portals of lynx crossings, per land management agency concurrence.
 - The success of the vegetation that will reestablished at the portals of all lynx crossings and temporary impact areas within lynx habitat will be based on adjacent habitat and crossing functions.
 - Lynx habitat improvement or enhancement will occur through coordination with land management agencies.
 - Habitat improvements will be installed no more than 1 year from the completion of a site specific project. United States Forest Service direction or schedule may delay the installation past the 1 year limit.
 - Within lynx habitat night work will be limited to a 4 night on, 3 night off schedule.
 - Within lynx habitat, construction activities will be as concentrated as possible.
 - When possible, barriers (cement, w-beam) will be installed 8-feet or greater from travel lanes in lynx habitat.

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Center for Native Ecosystems (continued)
Document Number: ORG-26	City, Zip Code: Denver, 80202

Response to ORG-26 (continued)

- P. (Continued from previous page)
- The use of barriers will be minimized in lynx habitat.
 - The use of glare screen is discouraged in lynx habitat. If, for safety reasons, glare screen is required, additional lynx crossings will be provided.
 - Chain link fence will not be used in lynx habitat unless it is being used to funnel wildlife to a crossing.

The Biological Assessment and Biological Report and the analysis will be revised during Tier 2 processes. At that time, all updated information will be collected and analyzed to evaluate the site specific impacts compared with the more detailed design information for a current and more accurate impact assessment. Coordination will continue with the resource agencies such as the USFWS and will include pertinent information on the importance of the Southern Rockies region for the Canada Lynx.

Comments

Responses

Source: Website Comment	Name: Center for Native Ecosystems (continued)
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Q

It is not clear in the Cumulative Impacts Technical Report section that addresses threatened and endangered species whether the impacts to habitat being discussed are actually threatened and endangered species (p. 41). Table 5 in this section addresses impacts to more common species such as deer and elk. A more in-depth discussion of cumulative impacts to threatened and endangered species should be included.

Response to ORG-26 (continued)

Q. The analysis of threatened and endangered species that was conducted for the *I-70 Mountain Corridor PEIS Cumulative Impacts Technical Report* (included electronically on CD-ROM in Volume 6 of the Technical Reports and on the project website) was a very general assessment that relied more on mapping of general wildlife habitat than mapping of specific threatened and endangered species or their habitats. A more focused analysis of cumulative effects to threatened and endangered species is contained in the *I-70 Mountain Corridor PEIS Programmatic Biological Assessment*, included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website.

Table 5 on page 41 of the *I-70 Mountain Corridor PEIS Cumulative Impacts Technical Report* has been moved to the discussion regarding wildlife habitat on page 26.

Comments

Responses

Source: Website Comment	Name: Center for Native Ecosystems (continued)
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Response to ORG-26 (continued)

R. The I-70 Mountain Corridor PEIS Programmatic Biological Report includes input from the United States Forest Service regarding the population information and impacts analysis, including road kill. Since the PEIS is a summary of the biological report, the assessment has been clarified in the technical report rather than in **Section 3.2, Biological Resources** of the PEIS.

Sensitive species surveys, including the boreal toad, will be conducted as part of the Tier 2 processes, and state and federal agency coordination will commence as needed.

R Boreal toad

Table 17 of the Biological Resources Technical Report states that the action alternatives "[m]ay adversely impact individuals but not likely to result in loss of viability in planning area, nor cause a trend to federal listing" for boreal toad (p. 75). In the Amphibians section of the Biological Report (BR.4.1.3, p. BR-129) discusses the current status of boreal toads and mentions that in 2005, the species was taken off of the ESA candidate list because the Southern Rocky Mountain population was found not to be a distinct population segment as once thought. The Biological Report should be updated to reflect the most recent information such as the report by Switzer et al. (2009) which found that the Southern Rocky Mountains population, as currently defined, is not a unique lineage, but rather is part of a somewhat larger clade that includes populations in CO, a large part of Utah, southern Wyoming, southeastern Idaho and possibly northeast Nevada. It does redefine the distinct entity as occupying a larger area but still not as large as the entire boreal toad range.

R The revised PEIS understates the substantial effect of direct highway mortality on boreal toads. The Biological Report states that "no roadkills of amphibians have been reported for I-70," and that "the potential for roadkill should be considered low" (BR-142). The Final PEIS needs to clarify how this assessment has been made. How are roadkill being monitored and where is the source for the report of no amphibian roadkills? AVCs are generally recognized as being severely underreported as well as unevenly reported over time and geographies. Romin and Bissonette (1996) recommend factoring in a 16-50 percent reporting rate when estimating AVC levels from accident reports. I-70 is a major high speed roadway. If a small animal, like a boreal toad, is hit by a car, or several cars, moving at such a high speed, it is not likely that the animal will be recognizable, and therefore reportable as roadkill. Therefore, it is likely that if AVCs are underreported for large species like deer then reports for small animals like boreal toads are likely even more so. The lead agencies need to give more information as to from where the determination that "the potential for roadkill should be considered low" came.

Surveys should be done for boreal toads for any Tier 2 project in suitable boreal toad habitat. When boreal toads are found, lead agencies should consider constructing concrete walls leading to multiple culverts and pipes can ensure safe passage for amphibians and reptiles (FHWA Critter Crossings, <http://www.fhwa.dot.gov/environment/wildlifecrossings/amphibin.htm>). Guide walls lead amphibians to crossing structures and constructing multiple structures between guide walls will ensure that amphibians have multiple options when crossing I-70.

Comments

Responses

Source: Website Comment	Name: Center for Native Ecosystems (continued)
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Wolverine

The Biological Report needs to be updated to reflect the recent arrival of M56 to Colorado from the Greater Yellowstone Area of Wyoming. M56 is the first confirmed wolverine in the state since 1919 (CDOW 2010b). In the Biological Report, it is stated that both the no action alternative and all action alternatives "may affect, likely to adversely affect" Canada lynx because "the barrier effect of any addition to the Corridor may further restrict lynx movements, and construction could temporarily disturb individuals in the area" and "direct effects on lynx movements (the Corridor serving as a barrier between linkage areas, and AVCS) would continue under the No Action Alternative" (p. BR-48). Like lynx, wolverines are capable of traveling long distances in a short time (as evidenced by the arrival of M56 to the state) (Copeland, 1996). The biological report discusses the barrier effect that I-70 presents to wolverines, that there is only one location where wolverines can currently move north-south to cross I-70 (at the land bridge at EJMT)(p. BR-92), but it doesn't clarify why the potential for wolverine mortality from animal-vehicle collisions results in a finding of "may adversely impact individuals, but not likely to result in loss of viability." It seems as though two different impact analyses were used for these two wide-ranging species, when both species will be adversely affected by the barrier effect that I-70 presents. In addition, if the one known individual is adversely affected by the action alternatives, it seems as though loss of viability could indeed be at stake for this species. The USFWS is under court order to make listing decision on this species in December 2010.

Lead agencies need to be ready to update the information on this species if the USFWS comes up with a positive 12-month finding in December.

Incorrect definition of Endangered Species Act Candidate Species

Section 5.3.1 of the Biological Resources Technical Report has an incorrect definition of ESA candidate species. The definition states that a candidate species is a species for which "concerns remain regarding their status, but for which more information is needed before they can be proposed for listing under the ESA as threatened or endangered" (p. 34). However, the definition of a candidate species according the United States Fish and Wildlife Service is: "A plant or animal species for which FWS or NOAA Fisheries has on file sufficient information on biological vulnerability and threats to support a proposal to list as endangered or threatened" (<http://www.fws.gov/endangered/about/glossary.html>). There is sufficient information to warrant the listing of the species, but they are precluded from listing by other higher priority species. This should be changed in the Final PEIS document.

Response to ORG-26 (continued)

- S. The Colorado Department of Transportation is awaiting direction from federal agencies (United States Forest Service and USFWS) on how to address the recent arrival of the first confirmed wolverine in the state. Depending on the availability of information from federal agencies regarding the wolverine and the completion of the *I-70 Mountain Corridor PEIS Programmatic Biological Assessment*, *I-70 Mountain Corridor PEIS Programmatic Biological Opinion*, and *I-70 Mountain Corridor PEIS Programmatic Biological Report*, this has the potential to be addressed during Tier 2 processes based on changed conditions. All species evaluations and impacts will be assessed again at the Tier 2 level. Updated status and species information will be included at that time.
- T. The *I-70 Mountain Corridor PEIS Biological Resources Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website) now includes an updated ESA candidate species definition, as follows:

"A plant or animal species for which FWS or NOAA Fisheries has on file sufficient information on biological vulnerability and threats to support a proposal to list as endangered or threatened (<http://www.fws.gov/endangered/about/glossary.html>)."

Comments

Responses

Source: Website Comment	Name: Center for Native Ecosystems (continued)
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Response to ORG-26 (continued)

U. The Colorado Department of Transportation will continue to use the most readily available current data during the Tier 2 processes, including performing surveys utilizing findings from the Eco-logical study, obtaining updated species lists from United States Forest Service and USFWS, and updating the *I-70 Mountain Corridor PEIS Programmatic Biological Assessment* and *I-70 Mountain Corridor PEIS Programmatic Biological Report* during Tier 2 processes as needed.

The Colorado Department of Transportation has committed to using updated information and continued consultation with USFWS during the Tier 2 process. Because these projects will only be designed at the site specific level when funding is available, and it is unlikely that funding for all projects along the Corridor will occur at the same time, the analysis cannot include all Tier 2 processes at the same time. However, cumulative impacts will be assessed during Tier 2 processes using the detailed information for specific projects with the more general information on the Preferred Alternative and any other activities that are planned to occur during that same time and will work with USFWS to put it into the proper and most up to date reasonable context.

Tier 2 Processes and Cumulative Effects

Sections 5.5 of the Biological Resources Technical Report (p. 85) and 3.2.6 of the REVISED PEIS (p. 3.2-17) states that lead agencies will "conduct further analysis of direct and indirect impacts on biological resources, including protected species, during future project-specific Tier 2 processes." All of the actions then listed are very important such as performing surveys for protected species, incorporating the most up-to-date species lists from the Fish and Wildlife Service, the United States Forest Service, and the Colorado Division of Wildlife and ensuring that additional biological assessments and biological reports are completed to analyze the project specific impacts to protected species. The lead agencies must remain committed to these actions, especially since the Biological Report had a "may effect, likely to adversely affect" finding for several species. In addition, for all of the actions listed in this section, it is important that the lead agencies use the most up-to-date information such as the recommendations coming out of the Eco-Logical project mentioned above in the habitat connectivity section.

In addition to these critical steps, the cumulative impacts between all Tier 2 level projects need to be fully addressed at the Tier 2 level. Section 4.12 of the revised PEIS details how analysis will differ from Tier 1 to Tier 2 and states that "[c]umulative impacts analyses done during Tier 2 will focus on those environmental resources studied that are of most concern in that particular Tier 2 study area and watershed" (p. 4-27). Because several impacts will be considered more fully at the Tier 2 level, please clarify in the Final PEIS that impacts will be addressed cumulatively across Tier 2 projects.

Comments

Responses

Source: Website Comment	Name: Center for Native Ecosystems (continued)
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Preferred Alternative Minimum Program Ideal for Wildlife in the Corridor

Again, we would like to thank CDOT for including an elevated Advanced Guideway System in the Preferred Alternative Minimum Program. Not only will this improve mobility and reduce congestion, it is the best transit alternative for alleviating the barrier effect of I-70 for wildlife movement. In addition, the revised PEIS (p. 3.2-12) states that “[r]ail with Intermountain Connection and Bus in Guideway Alternatives require more walls and fencing than the Advanced Guideway System alternative, and have the greatest impact on wildlife movement of all the Transit Alternatives....The Combination Alternatives increase the barrier effect, with the Combination Six-Lane Highway with Advanced Guideway System Alternative having the least impact due to the limited security fencing required” (p. 3.2-12). It is great that the Advanced Guideway System included in the minimum program of the Preferred Alternative as it has the smallest footprint of the transit options. The 3 foot barrier around the AGS piers (Biological Resources Technical Report, p. 82) should only be around the support piers for the AGS and does not need to extend for the entire length of the roadway. Otherwise, the AGS would increase the barrier effect of the roadway.

Response to ORG-26 (continued)

V. The Preferred Alternative Minimum Program of Improvements addresses short-term needs in the Corridor but does not meet the 2050 purpose and need. The Maximum Program of Improvements is needed to meet the 2050 purpose and need based on the information currently available today.

The Final PEIS has been revised to better clarify the comparative wildlife movement impacts. The following text replaces the 4th paragraph of **Section 3.2, Biological Resources**, under the heading “How do the alternatives affect wildlife?”:

“Rail with Intermountain Connection and Bus in Guideway Alternatives require more walls and fencing than the Advanced Guideway System Alternative, and have the greatest impact on wildlife movement of all the Transit alternatives. The Six-Lane Highway (55 and 65 miles per hour) and Reversible/High Occupancy Vehicle/High Occupancy Toll Lanes Alternatives result in two additional 12-foot-wide traffic lanes and require guardrails and barriers in select locations. The Combination alternatives increase the barrier effect, with the Combination Six-Lane Highway with Advanced Guideway System Alternative having the least impact, as the Advanced Guideway System requires fencing only at piers and other select locations, as opposed to throughout its entire length. The Preferred Alternative has a range of potential impacts that could be comparable to the three Combination alternatives.”

Comments

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Source: Website Comment	Name: Center for Native Ecosystems (continued)
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Response to ORG-26 (continued)

- W. The Preferred Alternative consists of improvements to meet both short-term needs and the 2050 purpose and need in the Corridor. The Minimum Program of Improvements, which addresses short-term needs but does not meet the 2050 purpose and need, includes non-infrastructure components, an Advanced Guideway System, and highway improvements. The Collaborative Effort will review progress and effects of these improvements at least every two years to determine the need for additional highway and non- Advanced Guideway System transit capacity improvements. Based on the information currently available today, additional improvements under the Maximum Program are necessary to meet the 2050 travel demand. Triggers for the long-term improvements will be used to evaluate the future needs and are based on completion of specific highway improvements, feasibility of an Advanced Guideway System, and global, regional, and local trends.
- X. This discussion has not been added to the PEIS. These tunnels are located in areas with little development due to the steep terrain. It is unlikely that the tunnels would lead to changes in property values or additional resulting development.
- Y. Thank you for that clarification. The citation has now been added to the References section as:

Colorado Mountain Club. 2003. Southern Rockies Ecosystem Project, the Denver Zoological Foundation and the Wildlands Project: Southern Rockies Wildlands Network Vision.
- Z. Comment noted.

W
Section 4.8 of the revised PEIS states that "[t]he Preferred Alternative initially induces growth in a manner similar to the Transit Alternatives, resulting from the Minimum Program of Improvements: growth would be concentrated in urban areas surrounding transit stations" (p. 4-10). Thus, the minimum program of the Preferred Alternative, and its focus on transit, is ideal for wildlife and their habitat because induced growth is more likely to be concentrated in already urbanized areas in the corridor. As long as connectivity issues can still be addressed under the minimum program, CDOT should consider leaving the Preferred Alternative at that.

X
The 65 mph alternative with tunnels proposed at Floyd Hill and Dowd Junction are assumingly better alternatives for wildlife connectivity and loss of habitat (ES.14.5, p. ES-15). However, this may result in increased property values in these areas which would result in a higher rate of development. This should be included in the assessment of indirect and cumulative impacts for each possible outcome under the Preferred Alternative.

The Revised PEIS should fully cite the Southern Rockies Wildlands Network Vision in the References.

Y
CNE is pleased that CDOT utilized data and information from Southern Rockies Ecosystems Project's (now CNE) Southern Rockies Wildlands Network Vision under the Cumulative Impacts section. No full citation was found in the revised PEIS "Reference" section.

Please cite fully, as:

Southern Rockies Ecosystem Project, The Denver Zoological Foundation and The Wildlands Project 2003. Southern Rockies Wildlands Network Vision. Colorado Mountain Club: Golden, Colorado.

Thank you for the opportunity to comment on this crucial project.

Sincerely,

Z
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Comments

Responses

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Response to ORG-26 (continued)

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Source: Website Comment	Name: Center for Native Ecosystems (continued)
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Response to ORG-26 (continued)

AA. Please see the response to your comment [ORG-26-D](#), where this appendix was referenced.

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APPENDIX A

Guidelines for Improving Permeability for Wildlife Along the I-70 Mountain Corridor

Medium and Large-Sized Box or Arch Culverts and Bridges

A) CREATE OR MAINTAIN FUNCTIONAL WILDLIFE CROSSINGS FOR MEDIUM-SIZED AND LARGE ANIMALS AT AN AVERAGE INTERVAL OF 1 MILE OR LESS ALONG THE I-70 MOUNTAIN CORRIDOR, DEPENDING ON ANIMAL MOVEMENT PATTERNS, TOPOGRAPHY AND HABITAT FEATURES TO PROVIDE PASSAGES FOR MEDIUM AND LARGE-SIZED ANIMALS. TO ACCOMPLISH THIS:

1. Where a drainage structure (culvert, concrete box culverts (CBC) or bridge) is needed as part of the highway system, install, modify or maintain existing drainage structures to accommodate wildlife movement.

Comments

Responses

Source: Website Comment	Name: Center for Native Ecosystems (continued)
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Where terrain permits and where it is practical:

- a)Install the largest bridge (preferably) or culvert practicable for any given location or terrain.
- b)Replace a bridge with a bridge of equal size or larger. Replace a culvert with a bridge, arch culvert, box culvert, or buried-bottom pipe of equal size or larger.
- c)Install the shortest structure practicable for a given roadway width, while maximizing structure width (span) to maximize openness and avoid a 'tunnel effect'. Make structures wider rather than taller.
- d)Consider two shorter underpasses with a median or 'atrium' instead of one long one under four or more traffic lanes.
- e)Ensure visibility from one end of a structure to the other.
- f)Use flooring of native material. For passages with perennial or ephemeral water flow, design structures to be wide enough to provide a dry pathway at least 3' wide for animals to use on one or both sides of the waterway.
- g)Engineer structures to minimize traffic noises for animals inside of or at the entrance to a structure (e.g., use noise-absorbing surfaces inside underpasses to reduce resonating noise, and/or use quiet pavement to reduce the extent of a road's noise disturbance zone).
- h)Limit roadway lighting where crossing structures are located.
- i)Use vegetated 'green screens' or other mechanisms along the sides of over-crossings to reduce highway noise and lights from animals on the structure.
- j)Solid bridge railings should be used to reduce highway noise and lights for animals crossing below.
- k)Remove barriers at structure entrances that could prevent wildlife passage including, fencing or gates, boulders, rip-rap, or provide a pathway for wildlife through the obstruction.
- l)Minimize impacts to vegetation immediately adjacent to the structure at each entrance. Use native vegetation seed at crossing structures to encourage wildlife use, promote establishment and suppress weedy species.
- m)Avoid using rip-rap or boulders to maintain aprons at the culvert entrances as these may be difficult for hooved animals to negotiate. If a rip-rap apron must be used, consider placing topsoil over the rip-rap along the edges so as to create a natural path or game trail.
- n)Design passage characteristics for both mobile species as well as limited-mobility species (e.g., pile up stumps or boulders along the inside wall of a large underpass to provide small mammal cover).

AA

2. Locate additional structures at points where "Linear Wildlife Guideways" intersect I-70, where wildlife prefer to cross, to the extent possible.

Linear Wildlife Guideways are natural travelways defined as topographical ridges or drainages, sharply delineated changes in vegetation, or vegetation forming a peninsula. The intersection of a linear guideway with a roadway often creates a well-defined, intensely used crossing zone.

- a)Maintain vegetated ridges and drainages or other sharply defined changes in vegetation inside, and if possible outside the Right of Way.
- b)Reduce distance to cover by maintaining natural vegetation around the inflow and outflow of drainage structures, preferably in the form of vegetated peninsulas.
- c)Secure lands adjacent to crossing structures for long-term habitat protection.

Comments

Responses

Source: Website Comment	Name: Center for Native Ecosystems (continued)
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Response to ORG-26 (continued)

AA

- 3. Construct CBCs and bridges using natural colors and textures.
 - a)Construct sloped side supports instead of vertical walls. Use the lowest angle possible and natural substrate for abutment slopes.
 - b)If support slopes are steep and/or rip-rap must be used for abutment slopes, construct a flat, dry pathway at least 5' wide cut into each slope.
 - c)Use open support pillars instead of walls for structures with a long span.

- 4. Design and maintain fencing to prevent wildlife from crossing at high-risk areas and to lead them to Wildlife Road Crossings.
 - a)Fences should be at least 8' high, with a mesh size less than 10cm x 15cm, without gaps between the fence and the ground and, where required to prevent animals from digging underneath, seated at least 15cm into the ground.
 - b)Avoid constructing fencing for > 1 mile without providing suitable safe crossing opportunities.
 - c)Fencing should be placed the entire length between structures and in medians between culvert/bridge openings to prevent animals from entering the roadway from the median.
 - d)Ensure that fencing is fully connected to structures without gaps.
 - e)Construct and/or reposition wildlife fencing such that all culvert outlets (large and small culverts) are located outside of the ROW.
 - f)Construct escape ramps at regular intervals to provide escape routes for animals trapped inside of the ROW.
 - g)Use control mechanisms such as double cattle guards and electric mats to prevent animals from entering the ROW through gaps in the fencing (e.g., at interchanges).
 - h)Curve fence ends back into the landscape away from the ROW and/or use boulder piles at fence ends to discourage wildlife from crossing the roadway at fence ends.
 - i) Provide human access through fencing in areas where access is important to prevent people from damaging the fencing (e.g., ladders over the fencing, small angular passageways through the fence where a human could walk through but an animal could not, or, for private land access only, gates).

- 5. Where guard rails, retaining walls or jersey barriers or steep road cuts are required, keep in mind that barrier ends tend to funnel animals onto the roadway.
 - a)Locate the ends of barriers where there is a good line of sight to give motorists adequate time to avoid animals that enter the roadway at these locations.
 - b)Consider locating wildlife crossings at the end of barriers where appropriate, based on wildlife movement patterns, topography and habitat features.

- 6. Avoid offsetting culverts and bridges where multiple structures are needed under a divided highway or where two roads run parallel to one another so that animals have a straight line of sight through all of the structures.

- 8. Install features to minimize or prevent human use of wildlife crossing structures such as signs or barriers at potential access points.

- 9. Install bird poles along wetlands or bridges to force birds to fly higher over the roadway.

Comments

Responses

Source: Website Comment	Name: Center for Native Ecosystems (continued)
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Response to ORG-26 (continued)

10. Develop wildlife-friendly maintenance practices, such as lead paint recovery and timing of operations.

11. Conduct monitoring of wildlife use of new and retrofitted structures (e.g., remotely-triggered cameras, track beds) to assess effectiveness of mitigation measures for the purpose of improving designs of future mitigation measures.

Small Box or Pipe Culverts

A) CREATE OR MAINTAIN FUNCTIONAL WILDLIFE CROSSINGS AT AN AVERAGE INTERVAL OF 1/4 MILE OR LESS ALONG THE I-70 MOUNTAIN CORRIDOR TO PROVIDE PASSAGES FOR SMALL MAMMALS. TO ACCOMPLISH THIS:

1. Where a drainage structure (culvert, concrete box culverts (CBC) or bridge) is needed as part of the highway system, install, modify or maintain existing drainage structures to accommodate wildlife movement.

Where terrain permits and where it is practical:

AA

- a) Replace small drainage culverts with culverts of no less than 3' diameter, unless terrain does not permit. When installing equalizer pipes between wetlands with small mammal ramps, pipes must be minimum 4' diameter.
- b) Consider installing a low-gradient dry culvert for wildlife passage adjacent to a steep-gradient drainage culvert.
- c) Culverts should be built or modified with dry ledges for use by water-shy organisms; these ledges should be constructed to be able to withstand flood events.
- d) Routine maintenance of culverts is essential to maintain culvert functionality for wildlife movement to remove accumulated sediment or other obstructions inside the culvert or at the culvert entrances.
- e) Avoid using rip-rap or boulders to maintain aprons at the culvert entrances as these may be difficult for some small animals to negotiate. If a rip-rap apron must be used, consider placing topsoil over the rip-rap along the edges so as to create a natural path or game trail.
- f) Integrate fencing and structures to guide animals to crossing structures. Fencing at small culverts used by medium or small-bodied animals should be at least 3' high and entrenched into the ground several inches to prevent animals from digging under. Remove trees, brush, etc that could allow an animal to climb over the fence.
- g) Construct and/or reposition wildlife fencing such that all culvert outlets are located outside of the ROW.

2. Enhance existing and new structures with the installation of raised ledges or rock walkways that extend the length of a culvert so that small mammals can cross even in wet conditions.

3. Where possible, use cable median and shoulder barriers instead of jersey-style walls. Where concrete median or shoulder barriers are required, install jersey barriers with 'scuppers' or small openings on the bottom, or barriers with intermittent gaps to allow small mammals to pass through (note: the effectiveness of such gaps has not yet been proven or disproven).

Comments

Responses

Source: Letter	Name: Colorado Trout Unlimited
Document Number: ORG-27	City, Zip Code: Denver, 80202

A

The following are comments on the Revised Draft Programmatic Environmental Impact Statement being submitted by Colorado Trout Unlimited (CTU). Our hope and expectation in submitting these comments is that they will be fully addressed and resolved before publication of the Final Programmatic EIS.

B

CTU has worked closely with both the Colorado Department of Transportation and the Federal Highways Administration (Agencies) in developing this revised Draft. We have actively participated in the Collaborative Effort, a group of community leaders and Non-Governmental Organizations convened by the Agencies as a way of finding a solution to the I-70 Corridor needs. We have participated in Project Leadership Teams for the Final PEIS and the Clear Creek Sediment Control Action Plan. Finally, we've been very active on the re-emergence of the Streams Wetlands Ecological Enhancement Program providing significant input to the now pending SWEEP Memorandum of Understanding. Our purposes in all of these activities have been to assist the Agencies in developing a plan that will have broad support in the general population and result in an Environmental Impact Statement that presents a fair assessment of the environmental consequences of the proposed action.

C

CTU applauds the decision, in January 2010, to re-issue the Draft Programmatic EIS; an action we, along with others, suggested in 2005. While your decision was a good one we also expressed some reservations about the approach you were adopting and cautioned that a primarily editorial exercise could result in a document with significant shortcomings, particularly with respect to proper consideration of major issues raised during the comment period on the original Draft. Sadly, those concerns appear to have come to fruition.

CTU continues to have concerns in the following areas:

Streams, Wetlands Ecological Enhancement Program: Substantial effort has gone into the development of a Memorandum of Understanding and Mitigation Matrix. While the MOU has been essentially complete for more than one year, there has been no movement to execute the document. We understand the root of the problem to be concerns from the United States Forest Service wherein they feel they are prohibited from executing such a document because it would involve NGOs also participating. They have stated that position is based on limitations put on federal agencies by the Federal Advisory Committee Act. That position is difficult for us to comprehend in that there are already MOUs in place between federal agencies and NGOs and that the Federal Highway Administration has indicated they don't feel such a document is prohibited by FACA. We encourage the Agencies to take every means possible to implement this MOU thereby ensuring that aquatic resources will be adequately protected during the development of the I-70 Corridor.

Response to ORG-27

- A. Please see the response to your comments [ORG-27-C](#) through [ORG-27-G](#).
- B. Comment noted.
- C. FHWA has worked diligently with the US Forest Service to address their issues with the SWEEP Memorandum of Understanding. The document has been signed and adopted.

Comments

Responses

Source: Letter	Name: Colorado Trout Unlimited (continued)
Document Number: ORG-27	City, Zip Code: Denver, 80202

Response to ORG-27 (continued)

- D. The Colorado Department of Transportation is committed to following the I-70 Mountain Corridor Context Sensitive Solutions process which includes forming Project Leadership Teams for all Tier 2 processes that are initiated along the I-70 Mountain Corridor. The Wetlands Mitigation Bank project, although not formally a Tier 2 process, has a Project Leadership Team that includes representation from two watershed groups and from Colorado Trout Unlimited. Colorado Trout Unlimited has been participating on this Project Leadership Team since September 2010. The property for the bank was purchased in 2001 for the purposes of providing wetland and stream mitigation for the I-70 Mountain Corridor Tier 2 processes. We look forward to ongoing involvement of these conservation groups on this Project Leadership Team .

The Empire Junction study will begin in early 2011. Some members of the Project Leadership Team have been identified. Representatives of the environmental and conservation community will be invited to participate on the Project Leadership Team . Outreach for this project will also include coordination with ongoing committees such as the SWEEP Committee.
- E. As previously stated, the SWEEP Committee or representatives of the SWEEP Committee have been asked to participate in these Tier 2 processes. All Tier 2 project teams are being trained by CDOT and FHWA on the I-70 Mountain Corridor Context Sensitive Solutions process and on impacts and mitigation requirements related to key natural resource issues such as aquatic resources.

D

A second, and perhaps more significant concern for SWEEP, is in how this MOU will be implemented and what the role of SWEEP is going to be in the Tier II process. Recently CDOT has started preparatory work on two Tier II initiatives that have the potential to adversely affect aquatic resources in Clear Creek County. They are the Empire Junction Development and the Wetland Mitigation Bank Project.

A Project Leadership Team has been assembled for both these project but neither includes any representation from the conservation community. An important reach of Clear Creek crosses the property likely to be affected by the proposed Empire Junction Project. The Wetlands Mitigation Bank is a research project that appears to be considering studying a reach of Clear Creek that will be re-routed. The apparent goal is to determine if such a relocation could be done without impact to the aquatic values of the stream. CDOT acquired the property for conducting this study approximately 9 years ago. CDOT has been formulating its plans for the project for nearly one year, prior to release of the new Draft. At no time were either of these projects presented to the SWEEP Committee for discussion of their goals, methods, or schedule for the work, despite such discussions being a clear purpose of the Committee.

E

The failure to engage the SWEEP Committee on these Tier II projects suggests that the policy-level mitigation commitments reflected in the MOU are not being stepped down into real mitigation results as site-specific projects move forward. This is a major concern, and to ensure that it is addressed the Agencies should develop a protocol for consideration of aquatic impacts and implement a training module for those staff that will be in leadership positions in future project planning activities. This protocol should be incorporated into the Final PEIS and the Agencies should commit to its implementation in the PEIS Record of Decision

Comments

Responses

Source: Letter	Name: Colorado Trout Unlimited (continued)
Document Number: ORG-27	City, Zip Code: Denver, 80202

Response to ORG-27 (continued)

F

AGS System Connectivity: A major point of contention in the original Draft was the treatment of a mass transit component (an AGS System) in the array of alternatives. The current proposed action now recognizes the importance of including a Mass Transit Component and specifies that future studies must determine whether such a system is feasible before any capacity improvements can be made in the highway. The Draft PEIS arbitrarily identified the eastern geographic boundary of the project study area as the intersection of Interstate 70 and C-470. While that boundary may have nicely accommodated highway improvements it doesn't easily facilitate the location of an AGS. A significant number of comments on the original Draft PEIS called for an extension of studies into the Denver Metropolitan Area to identify a number of alternative terminal sites. The Agencies have ignored those requests and continue to retain the eastern boundary at the intersection of I-70 and C-470. They have indicated in a number of management meetings that identification of other alternatives might occur in another study that would be conducted as an independent project, separate and apart from this Programmatic EIS. A decision to limit the consideration of alternatives is inconsistent with the purposes of NEPA and brings into question the integrity and acceptability of this Revised Draft.

In presenting the proposed action the Agencies:

- Have not considered an appropriate number of feasible alternatives for an eastern terminus. These alternatives were generated during the public comment period and the Agencies have not explained in this revised draft why those alternatives have been dismissed.
- Have segmented the project into two separate projects, although they are actually one. The AGS is a system and will have varying degrees of success, depending on how constituents will be able to effectively use it. By placing the eastern terminal of the system at the intersection of I-70 and C-470 the agencies have chosen a terminal that is likely the worst location for a successful project.
- Have not identified the likely impacts of alternative terminal sites. There is no question that extension into the metropolitan area will have its own unique array of urban environmental impacts and benefits that should be considered in the decision to move forward.
- Have not identified how studies will be conducted to determine the feasibility of mass transit in the I-70 Corridor.

The agencies must expand the scope of this project into the Denver Metropolitan Area, consistent with comments received during the review of the original Draft PEIS. Alternative terminal sites must be identified and impacts and benefits identified. The Programmatic EIS must then demonstrate how those impacts and benefits were factored into the decision to select it as a preferred alternative. Finally the Final PEIS must identify how the Agencies plan to determine whether an AGS is feasible. Failing to include these factors and alternatives for assessment of AGS will result in an inadequate document.

F. The Preferred Alternative does provide a multimodal solution to the I-70 Mountain Corridor. However, the comment that "future studies must determine whether such a system is feasible before any capacity improvements can be made in the highway" is inaccurate. The Preferred Alternative's Minimum Program of Improvements includes highway capacity improvements between the Twin Tunnels and Floyd Hill and in Dowd Canyon that can be implemented prior to study of the Advanced Guideway System. Additional capacity improvements between the Twin Tunnels and the Eisenhower-Johnson Memorial Tunnels, which are part of the Maximum Program of Improvements for the Preferred Alternative, cannot be implemented until the Advanced Guideway System is either implemented or determined infeasible.

Both the eastern and western geographic boundaries referred to as the "project termini" are based on the purpose and need for the project. In this case, the purpose and need focuses on mobility and accessibility, congestion, and capacity in the I-70 Mountain Corridor. The general location of the I-70/C-470 interchange and the Jeffco Government Center light rail station marks a change in travel patterns where the Corridor connects to the Denver metropolitan area and its higher traffic volumes. This area also represents a transition to Denver metropolitan area transportation systems, including urban highways and transit systems, such as the Regional Transportation District's FasTracks rail system. Based on the travel demand model described in the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the PEIS Technical Reports and on the project website), a direct connection from the Corridor to Denver International Airport would increase ridership by approximately 10 percent. Capturing this small volume of transit riders (and diverted traffic) is not required to meet the purpose and need for the I-70 Mountain Corridor.

(continued on next page)

Comments

Responses

Source: Letter	Name: Colorado Trout Unlimited (continued)
Document Number: ORG-27	City, Zip Code: Denver, 80202

Response to ORG-27 (continued)

F. (Continued from previous page)

Please reference the response to comment [IND-202-B](#) for additional information about project termini. As noted in **Section 1.5, “What are the study limits and why were they selected?”** of the PEIS, the project termini do not preclude other National Environmental Policy Act transportation improvement studies outside the Corridor if needed. The termini allow for adequate evaluation of alternatives and do not restrict alternatives outside the termini now or in the future. The CDOT Division of Transit and Rail will be evaluating rail projects statewide, including a possible integration of the I-70 Mountain Corridor Advanced Guideway System with the FasTracks system as part of their Colorado State Passenger and Freight Rail Plan and Colorado Interregional Connectivity Study. In addition, Advanced Guideway System feasibility studies and related Tier 2 processes will specifically address viability of an Advanced Guideway System in the Corridor, including effects of connections on technology and ridership projections.

Quantifiable metrics for evaluating the triggers have not yet been defined. The triggers are defined in **Section 2.7.2**, and the metrics for evaluating those triggers will be determined during Tier 2 processes. The lead agencies are committed to ongoing involvement of the Collaborative Effort in determining short-term and long-term decisions and are committed to soliciting public input during all Tier 2 processes. The triggers’ criteria will be determined in consultation with agency and stakeholder input, using a committee that retains the Collaborative Effort member profile. The ongoing engagement is described in **Appendix A, I-70 Mountain Corridor Context Sensitive Solutions**, of the PEIS. The committee will establish its own meeting schedule based on progress made against the approved triggers, with check-in at least every two years. These meetings will review and document the current status of all projects, studies, and Tier 2 processes, and will consider the triggers in evaluating the need for additional capacity improvements and feasibility of the Advanced Guideway System.

(continued on next page)

Comments

Responses

Source: Letter	Name: Colorado Trout Unlimited (continued)
Document Number: ORG-27	City, Zip Code: Denver, 80202

G

Costs of and funding for the Project: The Revised Draft estimates the cost of the Preferred Alternative at somewhere between \$16 and 19 billion. In various Project Leadership Team meetings the Agencies have indicated that CDOT only has \$1 billion available for development of I-70 over the next 25 years. The Agencies need to clarify how they can identify a Preferred Alternative that has just a little more than 5% of the revenue needed to cover its costs. The Final PEIS must identify any alternative funding scenarios that will support the decision to move forward.

We look forward to your responses to these concerns and remain readily available to discuss how these concerns can be addressed.

Response to ORG-27 (continued)

- F. (Continued from previous page)

In 2020, there will be a thorough reassessment of the overall purpose and need and effectiveness of implementation of these decisions. At that time, the lead agencies, in conjunction with the stakeholder committee, may consider the full range of improvement options. The ongoing purpose of the Collaborative Effort is to ensure consistency with the Preferred Alternative, provide a forum to track policy-level decisions and progress related to the I-70 Mountain Corridor, and provide a mechanism for evaluating the triggers and Corridor conditions.
- G. Regulations issued by the Council on Environmental Quality (40 CFR 1502.4(d) and 40 CFR 1508.28) allow NEPA decisions to be made through a phased process. This phased decision making process provides for a broad level decision to inform more specific decisions using a programmatic or tiered approach. A programmatic environmental impact statement is a way of considering a program of improvements that resemble a planning process resulting in a number of projects, some with potentially different purposes and needs.

In this programmatic process for the I-70 Mountain Corridor, the lead agencies have identified a program of transportation improvements. To carry out these improvements, Tier 2 processes will be needed, which will be developed with their own specific purposes and needs, to solve specific transportation problems consistent with the Tier 1 decision. At a programmatic level, where the Tier 1 decision will not directly result in construction or impacts, having all funding available for the Preferred Alternative is not a requirement.

Subsequent Tier 2 processes require lead agencies to establish a project-specific purpose and need, consider and evaluate alternatives, and understand and disclose the impacts of the alternative(s) to make the decisions regarding activities that lead to construction. In these processes,

(continued on next page)

Comments

Responses

Source: Letter	Name: Colorado Trout Unlimited (continued)
Document Number: ORG-27	City, Zip Code: Denver, 80202

Response to ORG-27 (continued)

G. (Continued from previous page)

the lead agencies will need to have funding clearly identified for specific improvements.

Chapter 5, Financial Considerations, of the PEIS identifies alternative funding sources (such as tolling, public private partnerships, bonding, loans) that will be considered for implementation of the Preferred Alternative during Tier 2 processes.

Comments

Responses

Source: Letter	Name: Colorado Motor Carriers' Association (CMCA)
Document Number: ORG-28	City, Zip Code: Denver, 80216

A

On October 20, 2010 the Colorado Motor Carriers' Association (CMCA) Board of Directors unanimously supported a resolution: Supporting the adoption of the Revised DPEIS and its Preferred Alternative and to encourage measures enhancing the safety, mobility, and operational efficiencies of commercial vehicle operations recognizing such measures minimize the overall impact of such operations. The resolution was presented to CDOT upon adoption for inclusion in the record of public comments.

B

CMCA has been represented on the I-70 Context Sensitive Solution and Collaborative Effort Teams and is supportive of the process used to address the purpose and need for this project – especially the emphasis on safety and the need to improve mobility and accessibility for ALL users.

C

It is important to recognize I-70 is an Interstate highway as well as the primary East-West corridor in Colorado for intrastate freight movements. Safe, efficient and timely movement of freight within the corridor is critical to the economies of the communities within and adjacent to the I-70 mountain corridor. The trucking industry has and continues to support measures that enhance the safety, mobility and environmental concerns within the corridor. Examples include chain law compliance, additional chain stations, the quick clearance program, the EPA SmartWay program, driver education programs and expanded resources for traffic enforcement.

Response to ORG-28

A. Comment noted.

The non-infrastructure and highway safety improvements included in the Preferred Alternative enhance traffic safety and operations in the Corridor. Specific elements such as: Truck pullouts; parking areas; chain stations; curve safety improvements west of Wolcott; safety improvements in Dowd Canyon; and interchange and auxiliary lane improvements throughout the Corridor are identified in the Minimum Program of Improvements under the Preferred Alternative, and can be implemented in the near term once funding is identified.

B. Comment Noted.

C. The PEIS recognizes that the I-70 highway is an important contributor to the quality of life and economic base of the state of Colorado and recognizes the importance of freight movement in the Corridor. **Section 1.2, "Why as this Corridor study initiated?"** of the PEIS describes why the Corridor study was initiated and how the I-70 highway is the only continuous east-west highway in the study area. In addition to the Preferred Alternative, CDOT continues to make ongoing, short-term safety and operational improvements in some Corridor locations, including increased enforcement, truck chain up areas, driver education, improved traveler message signs, park-and-ride locations, rockfall mitigation, better emergency response plans, roadside safety enhancements, median barrier improvements, and tunnel enhancements. Note this list is not inclusive. These types of improvements will continue with implementation of the Preferred Alternative.

Comments

Responses

Source: Letter	Name: Colorado Motor Carriers' Association (CMCA) (continued)
Document Number: ORG-28	City, Zip Code: Denver, 80216

Many freight operations have some scheduling flexibility and therefore avoid peak travel/congestion times to the extent possible. Other freight movements have non-discretionary travel times and must operate in the corridor regardless of traffic conditions. Examples include bulk mail, food service (commercial kitchens have very limited food storage capability and therefore require daily deliveries), scheduled packaged delivery and just-in-time shipments. Additionally, limited truck parking resources and Federal Hours-of-Service regulations further limit the options of the commercial vehicle driver in the I-70 mountain corridor.

During the implementation of the Minimal Action and Preferred Alternatives and related construction, the safety, mobility and operational efficiencies of all highway users must be preserved to the extent possible. CDOT, FHWA and local communities are encouraged to evaluate all proposed actions and policies for unintended consequences impacting the safety and mobility of freight operations. Bottom line: the more efficient, productive and safe motor freight operations are, the less impact there will be from such operations.

Response to ORG-28 (continued)

D. Yes, the I-70 Mountain Corridor serves all types of users. The majority of motor freight has destinations within the Corridor study area, and some freight movement has time-of-day requirements as you note. Information on the transportation management strategy for slow-moving vehicles is in **Section 4.2.2** in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website).

As stated in the purpose and need, congestion is impeding freight-related services. The proposed improvements as defined in the Preferred Alternative are intended to decrease congestion for all users, including freight operations.

Consistent with the goals of the PEIS, Tier 2 processes will consider construction impacts to all users when evaluating transit and highway improvements.

Some other public comments received on the Revised Draft PEIS have requested that CDOT consider restrictions on the timing of truck travel to help alleviate congestion during peak travel hours in the Corridor. These comments are relevant to the purpose and interests of your organization, and the response to those comments is provided here for your information:

“The restriction of trucks on an interstate facility is regulated by the Federal Highway Administration pursuant to 23 Code of Federal Regulations 658.11. This could include restrictions such as time of day. The process identified in 23 Code of Federal Regulations 658.111 includes coordination with local governments, analysis of effects to mobility and safety for all interstate users and ultimate approval by the Federal Highway Administration.

Many freight operations have some scheduling flexibility, and, therefore avoid peak travel/congestion times to the extent possible. However, other freight operations have more strict delivery timing requirements and

(continued on next page)

Comments

Responses

Source: Letter	Name: Colorado Motor Carriers' Association (CMCA) (continued)
Document Number: ORG-28	City, Zip Code: Denver, 80216

Response to ORG-28 (continued)

D. (Continued from previous page)

must operate in the Corridor regardless of traffic conditions (for example, bulk mail, food service, scheduled packaged delivery and just-in-time shipments). Additionally, limited truck parking resources and Federal Hours-of-Service regulations further limit options for the commercial vehicle driver in the I-70 Mountain Corridor. It should be noted that the portion of heavy trucks varies greatly along the Corridor; there are more trucks on weekdays compared to weekends.

The lead agencies considered and advanced a slow-moving vehicle plan as a transportation management alternative element, included as a non-infrastructure component of the Preferred Alternative. Some of the elements of that plan specifically targeted at truck traffic, such as improved chain up stations and rest areas, can proceed with no further approval from the Federal Highway Administration. Improved chain up areas and enhanced traveler information strategies have already been recently installed in some locations in the Corridor by CDOT.

The Colorado Department of Transportation is committed to improving safety and mobility of all of the users of the I-70 highway and will continue to explore all options available to do so."

Comments

Responses

Source: Letter	Name: I-70 Corridor Coalition
Document Number: ORG-29	City, Zip Code: Dillon, 80435

Response to ORG-29

A. Comment noted

The I-70 Corridor Coalition has reviewed the Revised Draft Programmatic Environmental Impact Statement (RDPEIS) and strongly concurs with the conclusion and the Preferred Alternative. The I-70 Corridor Coalition (Coalition) has been directly involved in this process through membership on the Collaborative Effort, the Project Leadership Team, the Context Sensitive Solutions team, and many other committees working on various aspects of the RDPEIS. As such, the Coalition is intimately aware of the details of the original draft as well as the revised draft. As an overall document, we highly support approval of the RDPEIS and urge the Colorado Department of Transportation (CDOT) and the Federal Highways Administration (FHWA) to move forward with the Final PEIS and, ultimately, the Record of Decision in a timely manner.

A

The Coalition has several comments relative to specific areas of concern we have as a representative body for the entire corridor. The Coalition's formal submission of concerns, questions, comments and suggestions are included in two documents that accompany this transmittal letter, and we have asked our members not to duplicate these comments, but encouraged them to provide any local concerns individual jurisdictions may have directly in their own comment letter. The Coalition's comments are provided in these documents:

1. A PowerPoint presentation with General Observations, Items of Concern, Items of Note and Key Opportunities
2. A spreadsheet with various tabs containing comments, suggestions, requests for clarification, etc, all of which include specific references to pages and sections of the RDPEIS

We would like to thank all the staff at CDOT and FHWA, along with the numerous other individuals and organizations which have worked so diligently to bring us to where we are today. We look forward to working together to bring this process to closure with the Record of Decision.

Comments



Responses

Source: Letter	Name: I-70 Corridor Coalition (continued)
Document Number: ORG-29	City, Zip Code: Dillon, 80435

Response to ORG-29 (continued)



B. Comment noted.

B

Categories 170solutions.org

- General Observations
- Items of Concern
- Items of Note
- Key Opportunities
- Conclusion

Note 170solutions.org

- Wherever possible, direct language from the Final Draft PEIS was included in this presentation. That language is noted by its [blue color](#) as opposed to black text.

Comments

Responses

Source: Letter	Name: I-70 Corridor Coalition (continued)
Document Number: ORG-29	City, Zip Code: Dillon, 80435

I-70 COALITION
setting the pace for the future

Items of Concern i70solutions.org

- The triggers for additional improvements are paraphrased incorrectly on Pg. ES-26 in the Executive Summary: [The "specific" highway improvements are complete and Advanced Guideway System studies that provide additional information on the ability to implement Advanced Guideway System within the Corridor are complete, OR](#)
- Actual language from the CR "The "Specific Highway Improvements" are complete, and AGS studies that answer questions regarding the feasibility, cost, ridership, governance, and land use are complete and indicate that AGS cannot be funded or implemented by 2025 or is otherwise deemed unfeasible to implement, or...."
- Revise to use actual language from the Consensus Recommendation.

C

Response to ORG-29 (continued)

C. The trigger language from the Consensus Recommendation (presented below) has been replaced verbatim in response to this and other similar comments.

Based on the agreed upon triggers, additional highway capacity improvements may proceed if and when:



- The "Specific Highway Improvements" are complete and an Advanced Guideway System is functioning from the Front Range to a destination beyond the Continental Divide, OR
- The "Specific Highway Improvements" are complete and Advanced Guideway System studies that answer questions regarding the feasibility, cost, ridership, governance, and land use are complete and indicate that an Advanced Guideway System cannot be funded or implemented by 2025 or is otherwise deemed unfeasible to implement, OR
- Global, regional, local trends or events have unexpected effects on travel needs, behaviors, and patterns and demonstrate a need to consider other improvements, such as climate change, resource availability, and/or technological advancements.

Comments

Responses

Source: Letter	Name: I-70 Corridor Coalition (continued)
Document Number: ORG-29	City, Zip Code: Dillon, 80435

D

Items of Concern i70solutions.org

- Page 1-12 refers to AGS being BUILT by 2025, while CR language says “if AGS cannot be funded or implemented by 2025...” Not quite the same meaning.
- Throughout the document the AGS corridor is not defined (“[in the median, north or south of highway](#)”), which could leave some to interpret it as “within the ROW.”
- “Corridor” should be defined broadly to serve the critical origins and destinations along the corridor but not necessarily remain within the existing ROW

Response to ORG-29 (continued)



D. The referenced text regarding implementation of the Advanced Guideway System by 2025 has been deleted from the **Introduction** of the PEIS. The trigger language from the Consensus Recommendation is included verbatim in the PEIS in **Section ES.24** and **Section 2.7.2**, both titled “**What are the triggers for additional highway capacity improvements?**”, and states “...indicate that the Advanced Guideway System cannot be funded or implemented by 2025...”

The Advanced Guideway System alignment has been revised throughout to reflect that it “would be generally located north, south, or in the median of the I-70 highway (but not necessarily within the highway right-of-way).”

Corridor is used throughout the document to describe the general route and location of the I-70 highway and applies to all alternatives considered. It is defined in the text boxes in **Section ES.1**, “**Where is the I-70 Mountain Corridor Located?**” and **Section 1.2**, “**Why was this Corridor study initiated?**” of the PEIS.

E. The Consensus Recommendation states that the Advanced Guideway System is “fully elevated,” and this language was carried forward in the PEIS. However, in response to this and other similar comments, the lead agencies, in consultation with the Collaborative Effort committee, have clarified that the Advanced Guideway System would be “capable of being fully elevated” throughout the document.

E

Items of Concern i70solutions.org

- The Transit Alternatives and the Preferred Alternative all refer to the AGS as being completely elevated for the entire 114 mile stretch from C-470 to the Eagle Airport. The CR specifies that is should be capable of being elevated for long stretches but not necessarily the entire length.

Comments

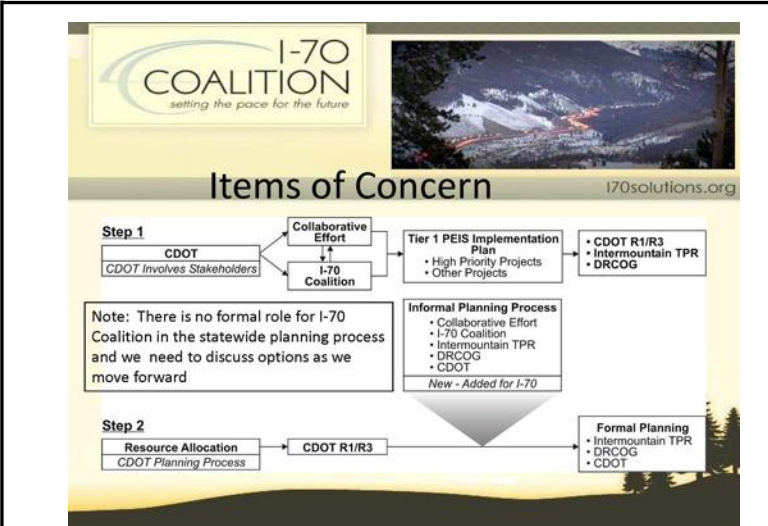
Responses

Source: Letter	Name: I-70 Corridor Coalition (continued)
Document Number: ORG-29	City, Zip Code: Dillon, 80435

Response to ORG-29 (continued)

- F. The section “What happens after the Tier 1 Record of Decision (Implementation Plan)?” in the **Introduction** of the PEIS has been revised to provide more detail on the planning process for Tier 2 processes in the Corridor. The section now indicates the role of the I-70 Coalition in the planning process for the Corridor. A new sentence has been added that states: “The Collaborative Effort team and I-70 Coalition have defined roles (unique to the I-70 Mountain Corridor) in prioritizing improvements of the Tier 1 decision. (The membership and roles of these groups are described in **Chapter 6, Public and Agency Involvement** of this document.)”
- G. Comment noted. The numbers presented are consistent with the numbers presented in **Section 5.4, “How much funding is currently allocated to the I-70 Mountain Corridor?”** of the PEIS.

F



G

Items of Concern i70solutions.org

- As part of the amended [2035 Statewide Transportation Plan \(CDOT, March 2008\)](#), [\\$218 million is allocated for the I-70 Mountain Corridor in Fiscal Year \(FY\) 2012-2017](#) and [\\$989 million is identified for the Corridor during FY 2018–2035](#).

Comments


Responses

Source: Letter	Name: I-70 Corridor Coalition (continued)
Document Number: ORG-29	City, Zip Code: Dillon, 80435

Response to ORG-29 (continued)

H. As explained in the *I-70 Mountain Corridor PEIS Financial Considerations Technical Report* (included electronically on CD-ROM in Volume 6 of the Technical Reports and on the project website), the I-70 Mountain Corridor was identified as one of 28 strategic projects that were to be funded through a program referred to as the “7th pot.” The Colorado General Assembly passed Senate Bill 97-001 to provide additional funds for these projects. At that time, \$1.6 billion for the Corridor was identified in the 7th Pot program; these funds would have become available beginning in 2017. In 2009, the Colorado General Assembly passed Senate Bill 09-228, which repealed Senate Bill 97-001, eliminating this funding source. **Chapter 5 , Financial Considerations** of the PEIS acknowledges additional revenue, leadership, and support from the citizens of Colorado will be required to implement the Preferred Alternative. The Colorado Department of Transportation’s budget is insufficient to implement the entire Preferred Alternative. Options for innovative funding sources include public/private partnerships, tolling, bonding/loans, and Corridor-specific resources (which are funding sources that apply to limited geographic areas and require voter approval, constitutional amendments, or both).

H



Items of Concern i70solutions.org


- The Colorado Transportation Commission identified the I-70 Mountain Corridor as one of 28 strategic statewide projects collectively known as the 7th Pot in 1996. Approximately \$1.8 billion (in FY 2010 dollars) remains unfunded for the Corridor as part of this program, so new funding for strategic corridors needs to be developed

Comments

Responses

Source: Letter	Name: I-70 Corridor Coalition (continued)
Document Number: ORG-29	City, Zip Code: Dillon, 80435

I



Items of Concern 170solutions.org

- The PEIS uses parts of the RMRA study, but it should be noted that one of the objections to the RMRA study was that it failed to use the most current cost information available for guideway construction costs. Advances in production have resulted in significant (30% or greater) reductions in cost of guideway.

Response to ORG-29 (continued)

I. The lead agencies adopted the Preferred Alternative for the I-70 Mountain Corridor based on the Consensus Recommendation developed by the Collaborative Effort team, a 27-member group representing varied interests of the Corridor. This team was charged with reaching consensus on a recommended transportation solution for the I-70 Mountain Corridor; cost was not a factor in the selection of the Preferred Alternative.

The PEIS explains that while the Advanced Guideway System costs are not directly comparable to the high-speed transit cost estimates developed for the Rocky Mountain Rail Authority’s high-speed rail study, there is a similarity because the Advanced Guideway System Alternative identified in this document has characteristics similar to those of the maglev system considered in the Rocky Mountain Rail Authority study. Because of this similarity, the two studies coordinated unit cost information for this particular technology. The Advanced Guideway System cost estimates were established in conjunction with the Federal Transit Administration’s Colorado Urban Maglev Project and independently verified by the Rocky Mountain Rail Authority as part of their High Speed Rail Feasibility Study.

Future feasibility studies and related Tier 2 processes will be completed to answer questions about the Advanced Guideway System regarding feasibility, cost, ridership, governance, and land use.



Comments

Responses

Source: Letter	Name: I-70 Corridor Coalition (continued)
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Response to ORG-29 (continued)

J



Items of Concern i70solutions.org

- CSS – while there is frequent reference to CSS throughout the entire document, the FHWA definition is never found in the Executive Summary or in the Introduction.
- CSS is both a “process” and a “solution” (i.e. design and aesthetic elements of a project)

J. The FHWA definition of Context Sensitive Solutions (below) has been added to the **Executive Summary** and **Introduction** of the PEIS to clarify the purpose of Context Sensitive Solutions.

Context Sensitive Solutions is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic, and environmental resources, while maintaining safety and mobility. CSS [Context Sensitive Solutions] is an approach that considers the total context within which a transportation improvement project will exist. CSS principles include the employment of early, continuous and meaningful involvement of the public and all stakeholders throughout the project development process.

K

Items of Concern i70solutions.org

- Page ES-23 section ES.21: The Coalition recommends losing all descriptors such as “has strong public support” for each of the Early Action Projects.

K. The paragraph has been revised to remove the descriptors as requested. The revised paragraph, which was also moved to the end of the section to improve flow and readability (in **Section ES.23, “In what order would improvements be made?”**), now reads:

Some planning, design, construction, and maintenance activities can take place before signing a Record of Decision. These activities are “early action projects.” Early action projects are common elements to all the Action Alternatives and have a clear need. Early action projects include:

- **Empire Junction (US 40/I-70) improvements**
- **I-70/Silverthorne interchange**
- **Eagle interchange**
- **Minturn interchange**
- **Edwards interchange**
- **Black Gore Creek and Straight Creek Sediment Control**
- **I-70 Wildlife Fencing**
- **Clear Creek Sediment Control Action Plan**

Comments

Responses

Source: Letter	Name: I-70 Corridor Coalition (continued)
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L



Items of Concern

i70solutions.org

- [Tier 2 processes move the Tier 1 Preferred Alternative forward and reflect the Tier 1 decision regarding mode, general corridor location, and capacity.](#) (Hence the concern on a clearer definition of “corridor” and use of “[in the median, north or south of interstate](#)” in the RDPEIS).
- “Corridor” should be defined in a broader sense to show that AGS does not have to be in the ROW but needs to service the key origins and destinations along the corridor

M



Additional Items of Note

i70solutions.org

- RDPEIS states “[The elevated structure needed for the Advanced Guideway System will be a new visually intrusive element along the Corridor.](#)”
- Should say that it’s a “new visual element” because it is not necessarily “intrusive.”
- The CSS process should help make it visually attractive and less intrusive.

Response to ORG-29 (continued)

- L. The lead agencies agree that the general location along the I-70 highway was not intended to be synonymous with “within the highway right-of-way.” Therefore, throughout the document, the description of the Advanced Guideway System alignment has been revised to reflect that it “would be generally located north, south, or in the median of the I-70 highway (but not necessarily within the highway right-of-way).”
- M. **Section 3.11, Visual Resources** of the PEIS describes and compares the visual impacts of the Action Alternatives and accurately describes a large visual impact associated with the Advanced Guideway System, largely because of its elevated features. The specific text box referenced in **Chapter 4, Cumulative Impacts Analysis** has been revised to read “The Advanced Guideway System creates a large visual impact because it is planned to be elevated throughout most of its reach.” Tier 2 processes will consider ways to minimize visual impacts and blend the system into the landscape through the I-70 Mountain Corridor Context Sensitive Solutions process.

Comments

Responses

Source: Letter	Name: I-70 Corridor Coalition (continued)
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N




Key Opportunities i70solutions.org

- EPA – potential funding source in working with regional and local entities to consider environment in land use planning
- CDOT agrees to fund Tier 2 CSS processes
- Opportunity for collaboration on workforce housing
- Opportunity for grants for Growth Plan Development

O

More Key Opportunities i70solutions.org

“If local agencies manage land use change in a coordinated manner, these cumulative changes may not be detrimental to the Corridor and could provide benefits to residents and visitors. However, if land use changes occur without effective management or coordinated planning efforts, these cumulative changes could overwhelm Corridor communities and subsequently affect quality of life, community services and infrastructure, and the overall character of mountain communities.”

Response to ORG-29 (continued)

- N. Although the exact intent of these observations is not clear, the lead agencies agree that these opportunities are identified in the PEIS and that collaboration with the I-70 Coalition and Corridor communities will occur in Tier 2 processes.
- O. The Colorado Department of Transportation will consider an approach to promote and assist communities, as possible, in the adoption of more comprehensive, regional growth management plans that can be applied to Tier 2 processes. The recommendations for this approach include exploring the possibility of creating grants for communities that lack the resources to develop a growth plan. While the lead agencies will consider this type of policy approach, efforts to control growth are greatly dependent on local planning and community political direction.

Comments


Responses

Source: Letter	Name: I-70 Corridor Coalition (continued)
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Response to ORG-29 (continued)

P. Comment noted.

P



Conclusion I70solutions.org

The I-70 Coalition agrees fully with the RDPEIS conclusion that states:

“Overall, the Preferred Alternative provides the best opportunity to meet the project purpose and need while minimizing environmental and community impacts, improving safety, and considering implementation due to its phased and adaptive approach.”

Page 2-70 Section 2.8.4 Summary

Comments

Responses

Source: Letter Name: I-70 Corridor Coalition (continued)
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Q
R
S
T

ALL COMMENTS			
DOCUMENT	PAGE	SECTION	COMMENT
Executive Summary	ES-4	ES.6	Would be nice if I-70 Coalition was directly referenced instead of alluded to in this category: "special interest groups such as the I-70 Coalition...."
Executive Summary	ES-4	ES.7	But the MCAC sort of vanished after the establishment of the I-70 Coalition. Shouldn't that be recognized here?
Executive Summary	ES-8	ES.9	Observation: Travel Demand Model performance evaluated as still accurate - 2008 numbers did not meet predictions due to economic conditions nationwide
Executive Summary	ES-6	ES.9	The RDPEIS uses 2035 as a planning horizon which recognizes the fact that it is now 2010 and incorporates the 25 year horizon. The I-70 Coalition added a request for a 50 year planning horizon - which would really mean 2060.

Response to ORG-29 (continued)

- Q. We appreciate the contributions the I-70 Coalition has provided to this project, including the group's role in identifying a Preferred Alternative. However, the text will remain as it is currently written in order to not suggest preference for one organization's contribution over another's.
- R. The text regarding MCAC has been retained because even though MCAC is no longer a participating committee, the committee did contribute in the early stages of project development.
- S. Your observation confirms the explanation presented in **Section ES.13, "How were alternatives evaluated?"** previously **Section ES.9** of the PEIS:

 "Confirmation of the travel demand model performance is provided by a comparison of the future trendline projected by the model with actual counts for 2008. The actual counts are approximately 17 percent below the model's projection for 2008. This is a reasonable discrepancy, however; the economic conditions in the nation and the State of Colorado coupled with abnormally high petroleum prices during the year of 2008 likely depressed travel. As the economy rebounds, it is expected the demand for travel in the Corridor will again follow the long-term trendline projected by the model."
- T. Yes, the PEIS relies on 2035 traffic projections and presents a longer-term vision extending to 2050. The lead agencies acknowledge that 10 years have lapsed since the inception of the study. The study is based on 50 years from the original planning horizon and traffic data from 2000 (which are also the basis for the 2035 projections). **Section 1.4, "What are the horizon years of analysis for the study?"** of the PEIS describes the horizon years of analysis for the study, and the **Introduction** of the PEIS describes the relationship between the Corridor vision and statewide planning process. Data such as population, employment, and traffic projections become increasingly uncertain the farther they are projected into time, limiting the ability of these projections to provide reliable data for evaluation. Travel projections will be revisited in Tier 2 processes, including a thorough reassessment in 2020, as described in the triggers for the Preferred Alternative (see **Section 2.7.1** of the PEIS).

Comments

Responses

Source: Letter	Name: I-70 Corridor Coalition (continued)
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U	Executive Summary	ES-13	ES.14.1 box	How were these potential Transit Station locations determined - did CDOT use the Coalition's Land Use Transit Study conclusions?
V	Executive Summary	ES-14	ES.14.3 AGS	Tech Comm - request for clarification - does this mean it IS only in ROW for I-70 or is there latitude in how far to the north or south it could be?
Z	Executive Summary			CONCERN: is having AGS completely elevated for the entire distance - want to make sure that being fully elevated does not preclude possibilities. The CE specifies that it should be capable of being elevated for long stretches but not necessarily the entire length.
AA	Executive Summary	ES-15	ES.14.3 Bus in Guideway	Why does the bidirectional guideway stop at the EJMT? Why not make it bidirectional all the way to Silverthorne or Frisco at a minimum?

Response to ORG-29 (continued)

- U. Potential station locations were identified based on access and travel demand needs and are presented as general service areas rather than specific locations. The locations of stations would be determined in future feasibility studies and related Tier 2 processes as the Advanced Guideway System is developed in more detail. During these studies and related Tier 2 processes, the lead agencies will consider the information presented in the Coalition's land use study as well as other more location-specific data and updated modeling information.

- V. The PEIS defines the "general location" for improvements, which is along the I-70 highway alignment. However, the general location does not mean within the highway right-of-way. The description of the Advanced Guideway System has been clarified in **Section ES.17.3, Transit Alternative Components**, of the PEIS as follows:

Advanced Guideway System is generally a high-speed fixed guideway transit system. It is capable of being fully elevated for 118 miles. It is located along the general alignment of the I-70 highway. It could be located north, south, or in the median of the I-70 highway (but not necessarily within the highway right-of-way).

- Z. The description of the Advanced Guideway System has been modified to clarify that it would be capable of being fully elevated. This clarification was reviewed with the Collaborative Effort committee, who concur with the change. Future feasibility studies and related Tier 2 processes will include consideration of specific recommendations about design and alignment in the context of site-specific conditions and whether the Advanced Guideway System needs to be elevated or would be more appropriate at grade in some locations.

- AA. Bus in Guideway (Dual-Mode and Diesel) is evaluated generally within the median of the I-70 highway and consists of a bidirectional guideway from the Eagle County Regional Airport to the Jeffco Government Center light rail station in Golden as described in **Chapter 2, Summary and Comparison of Alternatives** of the PEIS. Section ES.17.3, Transit Alternative Components, has been corrected.

Comments

Responses

Source: Letter	Name: I-70 Corridor Coalition (continued)
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BB
CC

Executive Summary	ES-15		Was this Alternative re-evaluated using 2035 demand data? Does it still work to have single guideway to EJMT eastbound only?
Executive Summary	ES-15	ES.14.5	Observation: all Action Alternatives include new tunnel bores

Response to ORG-29 (continued)

- BB. The bus in guideway was evaluated using 2035 travel demand, based on a bidirectional guideway, in order to provide operating characteristics similar to those of the Rail with Intermountain Connection and Advanced Guideway System alternatives in terms of guided transit. The Bus in Guideway alternative would provide service comparable to Rail with Intermountain Connection and Advanced Guideway System alternatives, with similar operating characteristics, including:
 - Exclusive guideway with the same termini, to avoid congestion from mixed traffic and, therefore, to
 - operate at the vehicle's maximum speed
 - Similar service frequencies at corresponding stations
 - Similar person carrying capacity

- CC. The Minimal Action Alternative does not include new tunnel bores. The remaining Action Alternatives do include new tunnel bores. This distinction is represented accurately in **Section ES.17.5, Tunnels Common to Most Action Alternatives**, in the PEIS that states "For all Action Alternatives (Highway, Transit, and Combination), except the Minimal Action Alternative, new (third) tunnel bores are required at both the Eisenhower-Johnson Memorial Tunnels and the Twin Tunnels to accommodate improvements." **Chapter 2, Summary and Comparison of Alternatives** provides additional descriptions of the Action Alternatives and also notes that all the Action Alternatives except the Minimal Action Alternative include new tunnel bores. Additional tunnels would be required for some Action Alternatives, such as the 65 mph design options.

Comments

Responses

Source: Letter Name: I-70 Corridor Coalition (continued)
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Response to ORG-29 (continued)

ALL COMMENTS			
DOCUMENT	PAGE	SECTION	COMMENT
DD Executive Summary	ES-16	Figure ES-5	Showing AGS alignment here confuses the issue - intent is to show location of new tunnels, not AGS alignment - should remove reference to AGS alignment.
EE Executive Summary	ES-17	ES-16	Opening paragraph quotes NEPA. It should include the FHWA definition of CSS found in Appendix A. Paragraph 2 stresses "process built on a commitment to collaborative decision making" The actual CSS commitment/goal is to a "context sensitive transportation solution". It is achieved through CDOT use of the CSS guidance and collaborative decision making. (CSS is two commitments: 1) to context sensitive solutions and 2) to a collaborative decision making process. Even if no stakeholders were involved CDOT is committing to using the design criteria and aesthetic guidance of CSS.)
FF Executive Summary	ES-18	mid-page third bulleted list Goals for I-70 Mountain	GRAMMAR: Health AND Environment or Healthy Environment. Doesn't quite make sense as Health Environment.
GG Executive Summary	ES-21	3. Highway Improvements	GRAMMAR: Missing an "and" right here - that is what the CE actually says - this implies something very different!! Between Preferred Alternative <i>and</i> consistent with local land use planning
HH Executive Summary	ES-21	ES-18 2nd to last ¶ 65 mph alternative	This could also be a requirement of the AGS system.
II Executive Summary	ES-23	ES.21	"Empire Junction Improvements ...has public support." The improvements have not yet been identified, so it is premature to say that they have public support. The Feasibility Study effort has public support. Recommend losing all the descriptors such as "has strong public support.." Need to clarify intent of this entire section. These will need to proceed to some type of Tier 2 NEPA process (Cat Ex, EA or EIS). Early Action status should not provide an exemption to any of the other provisions in this document, such as compliance with CSS etc..

- DD. In **Figure ES-5**, the label and line work for "Advanced Guideway System Alignment" has been removed.
- EE. Please refer to comment response [ORG-29-J](#).

It is recognized that government agencies cannot cede statutory or regulatory responsibilities.

The principles of the I-70 Mountain Corridor Context Sensitive Solutions apply to any transportation project aiming to bring the full range of stakeholder values to the table and actively incorporate them into the design process and final results.
- FF. "Health Environment" has been corrected to "Healthy Environment"
- GG. First portion of sentence has been deleted ("No priority has been established for improvements and"), and the requested "and" has been added to the remaining sentence: "Those improvements must be planned considering all components of the Preferred Alternative and consistent with local land use planning."
- HH. Specific alignment would be determined in Tier 2 processes, but it is possible that the tunnels suggested at Dowd Canyon, Hidden Valley, and Floyd Hill under the 65 mph highway improvements could accommodate the Advanced Guideway System as well.
- II. As indicated in response to comment [ORG-29-K](#), the descriptors have been removed.

Comments

Responses

Source: Letter	Name: I-70 Corridor Coalition (continued)
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Response to ORG-29 (continued)

- JJ. Please see response to your comment [ORG-29-F](#) regarding the roles of the Collaborative Effort and the I-70 Coalition in the planning process for the Corridor. The Colorado Department of Transportation does not plan to establish a separate planning region or entity for the I-70 Mountain Corridor. The PEIS has been managed through Region 1 in close coordination with Region 3. Future Tier 2 processes will be managed by the region in which they are located, or by Region 1 in close coordination with Region 3 if they are located in both regions. As described in **Section ES.21 “How will improvements in this Corridor be implemented, and how will stakeholders be involved in this process?”** all Preferred Alternative components must go through CDOT’s established planning process. The statewide planning process involves coordination with 15 transportation planning regions and metropolitan planning organizations to identify and prioritize projects to be included in the long range Statewide Transportation Plan and short-range Statewide Transportation Improvement Program using a Project Priority Programming Process (4P) guidance adopted by the Colorado Transportation Commission. To facilitate the 4P process, each CDOT engineering region meets individually with transportation planning regions in their area to discuss project selection and prioritization within that transportation planning region. Sequencing, funding, and construction of projects within the Corridor are balanced among other statewide priorities and needs.
- KK. Herman Gulch is located at milepost 218, and Bakerville is located at milepost 221. The Eisenhower-Johnson Memorial Tunnels’ east portal is at milepost 215. However, these distances have been removed from **Section ES.23, “In what order would improvements be made?”** in the Final PEIS.
- LL. The language for the triggers has been revised to be a verbatim match to the Consensus Recommendation, as stated in response to comment [ORG-29-C](#).

ALL COMMENTS			
DOCUMENT	PAGE	SECTION	COMMENT
JJ Executive Summary	ES-24	Figure ES-6 Planning Process	So what happens if the CE and I-70 Coalition agree on one course of action and DRCOG and IMTPR don't concur with that? And, it may pose a conflict of interest for DRCOG since I-70 traditionally is not a priority for them and IMTPR has taken the position in the past that because I-70 was a 7th Pot project, it would not be ranked as a priority for IMTPR. This process doesn't work for I-70 - the 7th Pot process worked for I-70. Good rationale for the corridor either being identified as a corridor of statewide strategic significance or its own planning entity.
KK Executive Summary	ES-25	ES.22	Where is Herman Gulch? The summary needs to show this on a map or provide a better description of where Herman Gulch is. Mileage is not right here -Herman Gulch couldn't possibly be 28 miles east of EJMT, especially if Bakerville is only 7 miles east of EJMT. Must be 2.8 miles:-) Last 2 bullet points in response have added numbers of miles for auxiliary lanes in Clear Creek County. The numbers were not included in the CE document and at least one of them is wildly incorrect. EJMT to Herman Gulch is not 28 miles. I think 7 is probably too high for the distance between Bakerville and the EJMT. Need to check mile markers - or just remove the mile numbers and use the language in the CE Preferred Alternative.
LL Executive Summary	ES-26	Top of page first bullet list second bullet	<u><i>This is NOT the language from the CR. The CR states: "The "Specific Highway Improvements" are complete, and AGS studies that answer questions regarding the feasibility, cost, ridership, governance, and land use are complete and indicate that AGS cannot be funded or implemented by 2025 or is otherwise deemed unfeasible to implement, or...." This statement does not meet the intent of the CR.</i></u>

Comments

Responses

Source: Letter Name: I-70 Corridor Coalition (continued)
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MM

NN

ALL COMMENTS			
DOCUMENT	PAGE	SECTION	COMMENT
Executive Summary	ES-26	ES.24 4th bullet item	Where is Post Boulevard? The summary either needs to show this on a map or provide a better description of where Post Boulevard is - No longer called Post Blvd. according to Eagle Co.
Executive Summary	ES-26	ES.24 8th bullet item	GRAMMAR: should read: "...some of them corresponding..." OR "...some of the locations corresponding..."

Response to ORG-29 (continued)

- MM. The Eagle County GIS department and Mapquest both identify the road as William J Post Boulevard. **Section ES.24, Why are both transit and highway improvements needed?"** from the RPDEIS has been deleted in the FPEIS. However, the references in **Sections ES.17, 2.6.4, and 2.7.1,** and in **Tables 2-2, 2-9, and 2-10** of the PEIS have been revised
- NN. The total number of interchanges included for improvement was updated and is correctly presented in **Chapter 2, Summary and Comparison of Alternatives** of the PEIS. The **Executive Summary** has been modified to include the correct listing of 30 interchange improvements. The phrase "some of them corresponding to potential Advanced Guideway System transit stops at:" was removed because it implies that the transit stops are generally located, which they are not.

Comments

Responses

Source: Letter	Name: I-70 Corridor Coalition (continued)
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Response to ORG-29 (continued)

ALL COMMENTS			
DOCUMENT	PAGE	SECTION	COMMENT
Executive Summary	ES-27	ES.26	Discusses the AGS terminus in Jefferson County. The CE preferred alternative calls for termini study - did not necessarily endorse the Jefferson County terminus. Should clarify that for purposes of this study the termini is in Jeffco but that other options exist for the Eastern terminus.
Executive Summary	ES-27	ES.26	Would be great to include a statement like the following here: In fact, the I-70 Coalition has long advocated for two additional termini in the Denver metropolitan region including Denver International Airport and a location central to downtown Denver.

OO. You are correct that the Collaborative Effort Preferred Alternative lists “termini” among the eleven subjects requiring additional information in further study of the Advanced Guideway System. However, the vision of this component of the Preferred Alternative is transit connectivity beyond the study area, not necessarily variations on termini locations.

The eastern terminus of the study is defined as C-470/Jeffco Government Center light rail station, and **Section 2.7.1** of the PEIS states that the eastern terminus of the Advanced Guideway System is the Jeffco Government Center light rail station in Golden, where it is expected to connect with the Regional Transportation District network in Jefferson County. Location of the project terminus at C-470/Jeffco Government Center light rail station does not preclude other NEPA studies outside the Corridor or beyond the defined terminus, but represents the logical endpoint for the Tier 1 study and the Advanced Guideway System component in the Preferred Alternative. Future feasibility studies and related Tier 2 processes will define the specifics of connectivity, the alignment, the specific technology used, and other aspects of the Advanced Guideway System.

PP. A sentence has been added to **Section ES.25, “How do metro Denver residents access the Advanced Guideway System?”** previously **Section ES.26, “Do the Action Alternatives make traveling the Corridor safer?”** of the PEIS as follows:

“Stakeholders have advocated for expanding the terminus to locations east in Denver and Denver International Airport. However, the study terminus is based on the purpose and need for the project. In this case, the purpose and need focuses on mobility, and accessibility, congestion, and capacity in the I-70 Mountain Corridor, which has distinct needs, travel patterns, and trip purposes from the Denver metropolitan area and other areas in Colorado.”

Comments

Responses

Source: Letter	Name: I-70 Corridor Coalition (continued)
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Response to ORG-29 (continued)

QA

ALL COMMENTS			
DOCUMENT	PAGE	SECTION	COMMENT
Executive Summary	ES-31	ES.32.7	What about transport of regulated haz-mat? This paragraph is silent with respect to potential impacts of transport of haz-mat on the I-70 corridor. Should there be at least some reference to that as an issue with increasing congestion since it affects the operation of the EJMT?

QQ. The discussion of the transportation of regulated material has been expanded in **Section 3.6.5** of the FPEIS. In the RDPEIS, it was stated that the operation of the I-70 highway included the transportation and use of regulated materials, which can also increase the likelihood of release along the Corridor. **Figure 3.6-1** shows locations of “Environmental Protection Agency ERNS incident sites” which are generally the locations of truck accident/spill sites. Materials spilled included petroleum, paint, acetylene cylinders, transformer oil with polychlorinated biphenyls (PCBs), battery acid, sulfuric acid, hydrogen peroxide, formaldehyde mixture, antifreeze, asphalt, and calcium chloride. These spills are immediately cleaned up and are reported to the health department. Future predictions indicate that truck traffic would increase considerably in western areas of the Corridor on summer weekdays, summer weekends, and winter weekends. Increased truck traffic may be associated with a higher incidence of accidents and spills. The main locations of these accidents are being addressed by the roadway improvements that would smooth out the curves in the roadway at these high accident sites. Alternatives that do little to improve mobility and/or safety (No Action, Minimal Action, and transit-only) would have the highest potential to be associated with increased spill incidents.

Transport of hazardous materials through the Eisenhower Johnson Memorial Tunnels is not allowed during normal operations; the normal route is via US 6 over Loveland Pass. However, when Loveland Pass is closed (such as during adverse weather conditions), and the I-70 highway is open, placarded loads are escorted through the tunnel at the top of every hour spaced about 800 feet apart. Passenger vehicles and other traffic are not allowed in the tunnel while placarded loads are being transported.

Comments

Responses

Source: Letter Name: I-70 Corridor Coalition (continued)
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Response to ORG-29 (continued)

RR. Paragraph has been revised to read:

All Action Alternatives except the Minimal Action are expected to induce more population and employment growth in the Corridor. The amount and type of induced growth varies. Transit alternatives and Combination alternatives, including the Preferred Alternative, likely induce the most growth. Growth in established communities along the I-70 highway is expected to be less than in unincorporated areas because of constraints and lack of developable land in existing Corridor communities, particularly in the eastern portion of the Corridor in Clear Creek County. Eagle County, Summit County, and Garfield County, which have more land area available for development, are all likely to experience this induced growth. Clear Creek County is not expected to see as much induced growth because its land areas are constrained and not developable due to slopes and geologic hazards, and a large portion of the county consists of National Forest System lands and other public lands. Economic growth places pressure on property values, community services, and other social infrastructure. The adaptive management approach of the Preferred Alternative allows improvements to be implemented over time, which may allow communities to better manage effects of economic growth.

Similar clarifications have been made in **Section 3.7, Land Use and Right-of-way** of the PEIS.

SS. Please see the response to your comment [ORG-29-T](#) regarding the 50-year horizon.

ALL COMMENTS			
DOCUMENT	PAGE	SECTION	COMMENT
Executive Summary	ES-32	ES.32.11 last sentence	"Clear Creek County is not expected to see growth." Pretty sketchy conclusion to include here.
Introduction	I-2	3	Not really a 50 year horizon since it is now 2010 and the PEIS continues to refer to 2050. The document has upgraded the 25 year time frame to be 2035.

RR
SS

Comments

Responses

Source: Letter	Name: I-70 Corridor Coalition (continued)
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Response to ORG-29 (continued)

TT. **Section 4** has been removed from the Final PEIS. It was included in the Revised Draft PEIS to provide context and background that is no longer needed for the final documentation. **Sections 7, 8, and 9** of the **Introduction** of the PEIS provide more detailed information on I-70 Mountain Corridor Context Sensitive Solutions. **Section 6.3, “How did public and agency comments on the 2004 Draft PEIS shape this document?”** of the PEIS does explain how Context Sensitive Solutions was implemented for the PEIS in response to comments received on the 2004 Draft PEIS.

TT

ALL COMMENTS			
DOCUMENT	PAGE	SECTION	COMMENT
Introduction	I-2	4	Shouldn't the development of the CSS guidelines be included here as additional item of what's changed?

Comments

Responses

Source: Letter Name: I-70 Corridor Coalition (continued)
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UU	Introduction	I-2	4 middle of first	GRAMMAR: should read: "was inappropriate and unfairly limited the alternatives" not "was unfairly limited the alternatives".
VV	Introduction	I-6	bullet list	Is this really the correct order of classes here?
WW	Introduction	I-7	first bullet list	Same comment as above about including the narrative text following the project description - not based on any analysis.
XX	Introduction	I-8	bullet list of Priorities	By indicating that each of the listed factors has a "higher" priority, they all end up with the same priority which doesn't really help the selection process.
YY	Introduction	I-12	Question just above Section 8.	"If the AGS cannot be built by 2025..." Actual CR language is: "... if AGS cannot be funded or implemented..." (doesn't necessarily mean BUILT). Might consider alternative language recommendation here.
ZZ	Introduction	I-12	Section 8 ¶ 3	This section does quote the definition precisely, however the beginning of Section 8 makes CSS appear to be part of the Programmatic Agreement for 106 Resources.. The 106 Agreement does contain an agreement to follow CSS but the impetus actually came from Craig Siracusa's Policy Memo of October 31, 2005.

Response to ORG-29 (continued)

- UU. **Section 4** has been removed from the Final PEIS. It was included in the Revised Draft PEIS to provide context and background that is no longer needed for the final documentation.
- VV. Yes, the listing is consistent with the regulations in 23 Code of Federal Regulations 771.115.
- WW. The bullet list of high priority improvements has been removed from the **Introduction** of the PEIS. The bullet list in **Section ES.23, "In what order would improvements be made?"** does not contain any qualifiers.
- XX. The bullet list includes high-priority components and is not intended to imply a priority (as you note). The prioritization of projects comes from the planning process as described in the **Introduction** section **"What are the considerations for prioritizing Preferred Alternative components?"** in the PEIS.
- YY. This information has been removed from the **Introduction** of the PEIS, and the language from the Consensus Recommendation has been included verbatim in **Section 2.7** of the PEIS.
- ZZ. The discussion of the I-70 Mountain Corridor Context Sensitive Solutions in **Sections 7 through 10** of the **Introduction** has been revised to clarify the purpose and historical and future roles of the I-70 Mountain Corridor Context Sensitive Solutions.

Comments

Responses

Source: Letter Name: I-70 Corridor Coalition (continued)
 Document Number: ORG-29 City, Zip Code: Dillon, 80435

Response to ORG-29 (continued)

AAA

BBB

ECC

DDD

ALL COMMENTS			
DOCUMENT	PAGE	SECTION	COMMENT
Introduction	I-12/14	Sections 8,9,10	Section 8, 9 and 10 do not refer the reader to Appendix A. . the actual key description of CSS.
Main Document	Page 2-26	2.6.3 first bullet list last bullet	Why keep this alternative when it has already been concluded elsewhere in this document that bus in mixed traffic won't work, and in fact will make congestion worse? Page 2-27 and Page 2-29
Main Document	Page 2-30	Bus in Guideway	No comment on ability to perform in adverse weather conditions or on ability to perform on 7% grade without degradation of performance.
Main Document	Page 2-31	Structured Lanes Graphic	Concern with structured lanes is snowplow behavior - safety concern if snow is being pushed off onto highway below.

AAA. Reference to **Appendix A, I-70 Mountain Corridor PEIS Context Sensitive Solutions** has been added to **Section ES.11, "What is the I-70 Mountain Corridor Context Sensitive Solutions Process?"**, and the discussion of I-70 Mountain Corridor Context Sensitive Solutions has been revised as noted in response to comment [ORG-29-ZZ](#).

BBB. Providing bus service in mixed traffic alone does not meet the purpose and need to reduce congestion in the Corridor because it provides little advantage in travel times. However, it would not make congestion worse. It is retained as part of the Minimal Action Alternative because it provides Corridorwide transit service where none currently exists, and it can be implemented without major construction. It is also included as a non-infrastructure component in the other Action Alternatives because, while it does not meet the purpose and need on its own, it does provide an alternative to driving, which has some benefits in combination with other improvements.

CCC. All of the transit alternatives advanced for consideration in the PEIS met the minimum performance criteria, as explained in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website). A new question has been added to as **Section 2.8.3, "How do the Combination alternatives compare?"** to address the relative benefits and disadvantages of each of the alternatives that meet the purpose and need (the Combination alternatives). Slower speeds during steep grade climbs and complications of snow removal from the guideway are among the disadvantages of the Bus in Guideway transit component.

DDD. Your concern is noted. Structured lanes are a consideration for Tier 2 processes and are mentioned as a potential way to minimize community impacts in the Idaho Springs area. If structured lanes are determined to be the preferred highway improvements through Idaho Springs, CDOT will develop a maintenance plan for the safe removal of snow.

Comments

Responses

Source: Letter Name: I-70 Corridor Coalition (continued)
 Document Number: ORG-29 City, Zip Code: Dillon, 80435

Response to ORG-29 (continued)

SEE

FFF

ALL COMMENTS			
DOCUMENT	PAGE	SECTION	COMMENT
Main Document	Page 2-32	Figure 2-4	Wouldn't it be better to use new tunnel for AGS? AGS doesn't mind the incline up or down in a tunnel and it straightens out the curve which would enhance AGS performance in this area. Same could be said for Dowd Canyon tunnel
Main Document	Page 2-43	Last sentence at bottom of page	So what happens if Tier 2 studies determine the AGS requires an alignment outside the existing footprint and/or ROW of I-70?

EEE. The performance assessment and impact footprint for the Advanced Guideway System was based on the existing I-70 highway alignment, in most cases, to minimize impacts. In Tier 2 processes the alignment will be refined and additional tunnels might be included to enhance operations or performance, reduce costs, or for other reasons.

FFF. As noted in response to [ORG-29-V](#), the description of the general location of the Advanced Guideway System alignment along the I-70 highway has been clarified to explain that it is not necessarily within the highway right-of-way.

The Tier 1 analysis assumed that the Advanced Guideway System would be contained in the existing right-of-way whenever possible. This was done in order to avoid and minimize impacts to adjacent resources. In the future Tier 2 processes, engineering constraints or other constraints may be identified which may result in the Advanced Guideway System being located outside of existing right-of-way. The Tier 1 study identifies general location, capacity, and mode. The general location portion of the decision only identifies that the alignment will generally follow the existing I-70 highway. See response to [ORG-29-L](#) for the clarification to the PEIS regarding general location and right-of-way.

Comments

Responses

Source: Letter	Name: I-70 Corridor Coalition (continued)
Document Number: ORG-29	City, Zip Code: Dillon, 80435

GGG

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Main Document	Page 2-44	¶ 3. Highway Improvements	"The "other highway improvements" are not subject to the parameters discussed under the triggers." Tech Comm - This language should be included in the Executive Summary section as well as in this location.
Main Document	Page 2-45	Table 2-10	Why aren't two auxiliary lanes at EJMT included under the Maximum programs for both 55 and 65 mph?
Main Document	page 2-46	Chapter 2 Table Summary and Comparison	Floyd Hill Tunnel EB - Why wouldn't you consider using this tunnel for the AGS instead of traffic?
Main Document	page 2-48	2.7.2 Last sentence of first ¶	How do the "Other" highway improvements from the CR factor in to this proscription - would be best to clarify that Other Highway Projects listed in the CR are not precluded. They are exempted from the triggers clause. IS it possible to identify what those ADDITIONAL Highway projects may be?
Main Document	page 2-48	2.7.2 3rd bullet	This is not the exact language from the CR, but merely re-arranges the phrases for a better grammatical sentence structure. No significant change in intent can be derived from this change.

Response to ORG-29 (continued)

- GGG. This language is included in **Chapter 2, Summary and Comparison of Alternatives** of the PEIS and is not included in the **Executive Summary**.
- HHH. Auxiliary lanes are not needed in locations where six-lane highway capacity is provided. Under either the 55 or 65 mph Maximum Program, six-lane capacity would be provided at the Eisenhower Johnson Memorial Tunnels.
- III. The Floyd Hill eastbound tunnel may be used for the Advanced Guideway System in the future Tier 2 processes. The performance assessment and impact footprint for the Advanced Guideway System evaluated in the PEIS is based on the existing I-70 highway alignment in most cases to minimize impacts. In Tier 2 processes the alignment will be refined and additional tunnels might be included to enhance operations or performance, reduce costs, or for other reasons.
- JJJ. As noted in **Section 2.7.1** of the PEIS, the Minimum Program of highway components of the Preferred Alternative are organized into "other highway" and "specific highway" improvements. The "other highway" improvements, such as curve safety modifications, auxiliary lanes, and interchange redesigns, are not subject to the parameters of the triggers and may be implemented as funding becomes available. The "specific highway" improvements, such as six-lane capacity improvements from Floyd Hill through the Twin Tunnels and frontage roads from Idaho Springs to US 6, are the actual triggers for assessing the need for implementation of the Maximum Program of the Preferred Alternative (six-lane highway capacity and non-Advanced Guideway System transit capacity improvements). The "additional highway" improvements refer to the six-lane capacity improvements from Floyd Hill to the Eisenhower-Johnson Memorial Tunnels, as called out in the Maximum Program of the Preferred Alternative.
- KKK. Comment noted. Other comments (see [ORG-29-C](#), for example) requested that the actual Consensus Recommendation language be used verbatim, so this phrase has been revised accordingly.

Comments

Responses

Source: Letter Name: I-70 Corridor Coalition (continued)
 Document Number: ORG-29 City, Zip Code: Dillon, 80435

Response to ORG-29 (continued)

LLL

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OOO

ALL COMMENTS			
DOCUMENT	PAGE	SECTION	COMMENT
Main Document	page 2-60	first ¶, 2nd sentence	PUNCTUATION: two commas after the phrase "...population and employment data"
Main Document	page 2-68	first ¶, 2nd sentence	RMRA study did not use most current maglev guideway construction advances which has lowered cost significantly (by as much as 30% lower).
Main Document	page 3-6	middle of 1st ¶	"The actual alternative alignment could shift within the Corridor from what was evaluated in the Tier 1 Process, which could provide additional benefits or impacts not stated in this document." Does this statement ameliorate concerns over AGS alignment being too closely tied to existing ROW?
Main Document	Page 3.2-12	1st sentence of last ¶ at bottom of page	"Rail with Intermountain Connection and Bus in Guideway Alternatives require more walls and fencing than the AGS Alternative." Does this then heighten concerns about additional impacts on wildlife migration opportunities?

LLL. Extra comma has been removed.

MMM. The cost estimates presented in the PEIS are conceptual and based on a very high level design concept; they are intended to provide a relative comparison among Action Alternatives considered. The lead agencies recognize costs will need to be revisited and refined in future studies and Tier 2 processes. Specifically, Advanced Guideway System feasibility studies and related Tier 2 processes will include robust cost analysis that will be an important factor in determining feasibility. For the Tier 1 study, maglev was included for analysis as a representative technology, and costs were independently validated by the Rocky Mountain Rail Authority working group. It is important to note that the specific technology has not been identified. Therefore, costs will need to be based on the actual technology identified, which may or may not be maglev.

NNN. This statement is consistent with the decision about the general location for the Advanced Guideway System, which does not specify that the system will be within existing right-of-way. Please refer to response to your comments [ORG-29-D](#) and [ORG-29-L](#) for further clarification of the general location of the Advanced Guideway System.

OOO. Yes. The complete sentence reads: "Rail with Intermountain Connection and Bus in Guideway Alternatives require more walls and fencing than the Advanced Guideway System Alternative, and have the greatest impact on wildlife movement of all the Transit Alternatives."

Comments

Responses

Source: Letter Name: I-70 Corridor Coalition (continued)
 Document Number: ORG-29 City, Zip Code: Dillon, 80435

Response to ORG-29 (continued)

PPP. For the purposes of this Tier 1 study, no distinction was made between naturally occurring and man-made wetlands. It is important to note that man-made wetlands can fall under the jurisdiction of the Clean Water Act if they exhibit a significant nexus to a jurisdictional water of the U.S. Full wetland delineations and jurisdictional determinations for wetlands and other waters of the U.S. will occur as part of Tier 2 processes.

QQQ. The Bureau of Land Management completed its *Final Wild and Scenic River Eligibility Report for the Kremmling and Glenwood Springs Field Offices, Colorado* in March 2007 (Bureau of Land Management, 2007). This study completed the first of two components of the wild and scenic river designation process. The second "suitability" phase is ongoing. The eligibility study determined a segment of the Colorado River that includes the Glenwood Canyon area meets the criteria for free flowing conditions. Please refer to the Bureau of Land Management study available online at http://www.blm.gov/pgdata/etc/medialib/blm/co/programs/land_use_planning/rmp/kfo-gsfo/KFOWSR.Par.97085.File.dat/FinalEligibilityReport_Mar2007.pdf.

ALL COMMENTS			
DOCUMENT	PAGE	SECTION	COMMENT
PPP Main Document	Page 3.3-1	Blue Box	Are any wetlands in the I-70 footprint induced (man-made) wetlands? Or are they all naturally occurring wetlands?
QQQ Main Document	Page 3.4-3	3.4.4 3rd ¶ from bottom	Colorado River Glenwood Canyon seeking designation for Wild and Scenic River. How will that work with the hydroelectric plant and dam in the middle of the canyon?

Comments

Responses

Source: Letter Name: I-70 Corridor Coalition (continued)
 Document Number: ORG-29 City, Zip Code: Dillon, 80435

Response to ORG-29 (continued)

- RRR. The Colorado Department of Transportation will use updated and currently available information on best management practices for analysis during Tier 2 processes.
- SSS. Bullet has been revised to read:
 “Minimize wind-blown dust from mine tailings on construction sites by wetting or other appropriate dust control measures. If dust control occurs near surface waters, ensure that proper stormwater management best management practices are in place to protect surface waters from runoff if water is applied excessively for dust control.”
- TTT. Comment noted.
- UUU. No. Based on CDOT right-of-way surveys conducted in 2001, portions of private property parcels do extend into the I-70 highway right-of-way. Updated property boundary surveys will be conducted in Tier 2 processes to resolve inconsistencies.

ALL COMMENTS			
DOCUMENT	PAGE	SECTION	COMMENT
RRR Main Document	Page 3.5-5	3.5.7 1st sentence	Talks about incorporating mitigation strategies learned from previous projects. <i>What about Best Practices learned from other locales, like Montana, Idaho, California etc. that have some shared nealau?</i>
SSS Main Document	Page 3.6-12	4th bullet	Wetting mine tailings on construction sites to control dust - <i>Wouldn't this lead to potential run-off and contamination of surface water in the area?</i>
TTT Main Document	Page 3.7-2	3.7.3 3rd ¶	EPA interest in developing regional strategies that incorporate environment into land use planning. <i>Could be a good future tool for planning for the Coalition</i>
UUU Main Document	Page 3.7-2	3.7.4 last sentence of 1st ¶	"...where private land in some cases encroaches on the interstate ROW" - Isn't it the other way round?

Comments

Responses

Source: Letter Name: I-70 Corridor Coalition (continued)
 Document Number: ORG-29 City, Zip Code: Dillon, 80435

Response to ORG-29 (continued)

VVV

WWW

XXX

ALL COMMENTS			
DOCUMENT	PAGE	SECTION	COMMENT
Main Document	Page 3.7-9	3.7.6 2nd to last sentence at bottom of page	"CDOT will fund the I-70 Mountain Corridor CSS program during the Tier 2 processes." <i>Important commitment</i>
Main Document	Page 3.7-10	3.7.7 2nd ¶	"The lead agencies will conform to the requirements set forth in the Uniform Relocation Assistance and Real Property Acquisition Policies Act (1970, referred to as the "Uniform Act," as amended in 1987) to provide a consistent policy for fair and equitable treatment of displaced persons. The lead agencies will provide affected individuals with compensation and assistance with finding suitable sites for relocation. Regarding workforce housing, the lead agencies will consider coordinating with local jurisdictions and federal housing authorities to create and implement a Workforce Plan addressing workforce housing needs and permanent housing strategies."
Main Document	Page 3.8-2	3.8.4 2nd sentence	List of counties used in model includes Park: Adding Park to the model may introduce some false conclusions because the most significant growth in Park County is occurring and likely to continue to occur along the 285 corridor in eastern portion of Park County. That area of Park County is NOT served by the I-70 corridor.

- VVV. As stated in the PEIS, CDOT has committed to funding the I-70 Mountain Corridor Context Sensitive Solutions program during Tier 2 processes.
- WWW. As stated in the PEIS, CDOT will conform to the requirements of the Uniform Act and will consider coordination regarding a Workforce Plan addressing housing needs.
- XXX. The study area of the Social and Economic Resources analysis included nine counties: Garfield, Pitkin, Eagle, Lake, Summit, Park, Clear Creek, Gilpin, and Grand. The counties located outside of the Corridor were evaluated for employment and population because many of their residents support the workforce of the counties primarily accessed by the I-70 highway. While the percent employment growth in Park County is projected to be substantial, the actual numbers of employment growth are quite small, as displayed in Section 4.2 of the *I-70 Mountain Corridor PEIS Social and Economic Values Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website). Between 2000 and 2035, projected employment growth in Park County (6,391 jobs) makes up only 4 percent of overall employment growth in the region (142,548 jobs). Because these numbers are so small, the results of the model are still considered to be a reasonable representation of economic conditions in the region, regardless of where the employment growth occurs in the county. **Section 3.8.4, "What are the areas of social and economic interest identified in the Corridor?"** of the PEIS states that the bulk of regional economic activity is concentrated in the central and western counties of the Corridor, in Eagle, Summit, Pitkin, and Garfield counties. The impacts analysis focuses primarily on the effects of employment and population growth in these four counties on housing and commuting patterns in the Corridor.

Comments

Responses

Source: Letter Name: I-70 Corridor Coalition (continued)
 Document Number: ORG-29 City, Zip Code: Dillon, 80435

Response to ORG-29 (continued)

- YYY. Text changed to "important enough."
- ZZZ. Please see the response to your comment [ORG-29-XXX](#) regarding the small contribution of Park County employment growth to overall regional employment growth.
- AAAA. The comment appears to be related to text that appears in **Section 3.9, Environmental Justice** rather than **Section 3.8, Social and Economic Values**. The text in **Section 3.9, Environmental Justice, What public transportation is available in the Corridor, and what are the commuting patterns?**, has been revised to say, "Transit systems such as Eagle County Regional Transportation Authority and Summit Stage in Summit County provide services between communities, and the Roaring Fork Transportation Authority serves both Garfield and Pitkin counties. In the eastern part of the Corridor, the Regional Transportation District provides transit service to the Denver metropolitan area from as far west as Bergen Park, and private companies provide transit service between the airport, Denver, and the mountain resort areas."

YYY

ZZZ

AAAA

ALL COMMENTS			
DOCUMENT	PAGE	SECTION	COMMENT
Main Document	Page 3.8-3	1st ¶ end of 2nd line into 3rd line	GRAMMAR - should read: "is a significant ENOUGH concern..." OR "is such a significant concern..."
Main Document	Page 3.8-3	2nd ¶ 1st sentence	Again, including Park County is likely to introduce some degree of error - that employment growth will more than likely be predominantly on the US 285 corridor rather than the northwestern region of Park County
Main Document	Page 3.9-3	2nd to the last ¶ 3rd and 4th sentences	The transit systems do not (with a few exceptions) cross county boundaries. The way this sentence is written, one could conclude that there is regional service available - which is NOT true (except for RFTA which serves both Garfield and Pitkin Counties). The next sentence seems to imply that RTD serves the resort communities - which is not accurate - perhaps should be re-written to indicate that the resort communities are served by private carriers while RTD provides service into the foothills of Jefferson County. That's about the extent of RTD's reach into the corridor.

Comments

Responses

Source: Letter Name: I-70 Corridor Coalition (continued)
 Document Number: ORG-29 City, Zip Code: Dillon, 80435

ALL COMMENTS			
DOCUMENT	PAGE	SECTION	COMMENT
BBB Main Document	Page 3.9-4	1st line	This section should contain at least a reference to trying to prevent the development of substandard "man-camp" type housing options for construction workers. What happened during the construction of I-70 (and the Dillon Dam) in the 60s and 70s contributed to the later problem many corridor communities encountered with trailer camps and shanty towns serving as workforce housing for very low income populations.
CCC Main Document	Page 3.10-2	1st bullet at top	Reference to FTA procedures to estimate noise from transit systems: Does FTA provide estimates of noise from maglev transit systems?

Response to ORG-29 (continued)

- BBB. References to issues with workforce housing are contained in **Section 3.7, Land Use and Right-of-Way**. See question **How does construction of the alternatives affect land use and right-of-way?** that states, "Communities have voiced concern about the future use of worker housing once construction is complete." **Section 3.7.6, "What will be addressed in Tier 2 processes?"** describes how worker housing will be explored further in Tier 2 processes: "Tier 2 processes will also analyze impacts to existing construction housing built during construction of the original I-70 highway (including potential environmental justice impacts), the future use of new workforce housing once construction is complete, and long-term housing needs for operations and maintenance staff." Finally, **Section 3.7.7, "What are the approaches to programmatic mitigation planning for land use and right-of-way?"** notes that the lead agencies may assist with a workforce housing plan: "Regarding workforce housing, the lead agencies will consider coordinating with local jurisdictions and federal housing authorities to create and implement a Workforce Plan addressing workforce housing needs and permanent housing strategies." The issues and potential mitigation strategies are reiterated in **Section 3.19, Mitigation Summary**.
- CCCC. Yes, FTA reference levels for maglev transit systems are available and were used to estimate noise for the alternatives including the Advanced Guideway System. The procedures and input data used to estimate noise from all Action Alternatives are detailed in the *I-70 Mountain Corridor PEIS Noise Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website).

Comments

Responses

Source: Letter Name: I-70 Corridor Coalition (continued)
 Document Number: ORG-29 City, Zip Code: Dillon, 80435

Response to ORG-29 (continued)

DDDD. Analysis of potential effects to the Colorado Divide National Scenic Trail is included in the *I-70 Mountain Corridor PEIS Recreation Resources Technical Report* (included electronically on CD-ROM in Volume 5 of the Technical Reports and on the project website). The trail, which is located on the White River National Forest, is identified as Property #381. Use of this trail is assumed with all of the Action Alternatives. Tier 2 processes are necessary to identify the actual use of the property and appropriate avoidance or mitigation measures that either avoid or reconstruct the trail to maintain its function.

EEEE. The Section 4(f) process does not identify an effect to a resource as an "adverse" use or adverse impact, rather the term "use" is identified to recognize land that is permanently incorporated into a transportation facility, or a temporary occupancy of land that is adverse in terms of the statute's preservation purposes or if proximity impacts are severe enough that the protected activities, features, or attributes are substantially impaired. At the first tier level of analysis, detailed design information is not available, nor are exact boundaries of Section 4(f) properties, nor is enough information available to determine if any temporary occupancies of land are actually Section 4(f) uses. For these reasons, an inclusive approach was taken that acknowledges the broad level of analysis, and only potential Section 4(f) uses were identified and disclosed in this discussion.

DDDD

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ALL COMMENTS			
DOCUMENT	PAGE	SECTION	COMMENT
Main Document	Page 3.12-8	Last ¶ at bottom of page, 1st sentence	Haven't seen any mention of the Continental Divide Trail of the Colorado Trail potential impacts - is it assumed those will not be impacted?
Main Document	Page 3.14-1		This Section 4(f) is a direct reversal of the Section 4(f) of the previous draft. The previous draft indicated "no adverse impact" to Section 4(f) resources. This one says that determination can not be made until Tier 2 and that, for the purposes of the Tier 1 decision all Section 4(f) resources will be considered to have the "potential" of an adverse use. . that determination will be made at Tier 2. That is a major change.

Comments

Responses

Source: Letter	Name: I-70 Corridor Coalition (continued)
Document Number: ORG-29	City, Zip Code: Dillon, 80435

FFFF

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IIII

Main Document	3.14-1	3.14.1 very last sentence in section	CLARIFICATION - Question here is the clarity on the "constructive" use issue . Need to make sure that constructive use can apply to resources that do not intersect with the project footprint and buffer. (page 3.14.3 seems to confuse this issue as does the last sentence of of the constructive use paragraph on page 13.14.2).
Main Document	Page 3.14-10	Last ¶	GRAMMAR - sentence includes phrase "...inclusive approach that taken to analyze properties..." Should read: "...inclusive approach taken to analyze..." OR "...inclusive approach that WAS taken to analyze..."
Main Document	Page 3.14-19	3.14.7 ¶ after bulleted list 1st two sentences	Delineates the alternatives which were screened out of further consideration with a rationale for each . Never had a rationale for the screening. It concludes that there is no "prudent and feasible" alternative to avoid all impacts.
Main Document	Page 3.14-26	3.14.8	Discussing constraints on the corridor is fascinating. . It puts back on the table some techniques that had disappeared such as vertical alignment shifts and smart widening. . .

Response to ORG-29 (continued)

FFFF. Language is included in the PEIS that clarifies the intent of **Section 3.14.3**, **“What is the project’s purpose and need?”** which is that during Tier 2, constructive uses (to include noise, visual and access impacts) could be identified which fall outside the 30 foot buffer zone. This language has been added to the final paragraph of **Section 3.14.1**, **“What is Section 4(f)?”**.

GGGG. The PEIS has been modified to state “inclusive approach taken.”

HHHH. No text was found on page 3.14-9 that matched this description. Perhaps the commenter was referring to the text on page 3.14-19 which lists the seven alternative element families and then in the paragraph below that states that the ... " (Aviation and Alternative Routes) ...alternative element families avoid Section 4(f) properties in the Corridor but are not feasible and prudent avoidance alternatives for the reasons described below." The next page then provides the reasons why these two alternative element families are not feasible and prudent.

IIII. Vertical widening such as structured or tunneled lanes and Smart Widening are both considered to be appropriate for analysis during Tier 2 processes, since they are both design refinements. In the context of Section 4(f), both of these can be used as techniques to minimize use of a Section 4(f) property.

Comments

Responses

Source: Letter Name: I-70 Corridor Coalition (continued)
 Document Number: ORG-29 City, Zip Code: Dillon, 80435

Response to ORG-29 (continued)

JJJJ

JJJJ. Comment noted. Please see the response to your comment [ORG-29-III](#).

KKKK

KKKK. Text has been revised to 6.6 miles east of Frisco. The location is clearly illustrated on the referenced **Figure 3.15-1**.

LLLL

LLLL. Yes, RAILSIM 7 is not the most recent model available but is adequate for comparing alternatives, and all alternatives were compared on the same baseline. Newer models and updated information about technologies will be incorporated into future studies and used to refine costs in Tier 2 processes. See **Section 3.16, Energy** of the PEIS for more information on propulsion and construction costs.

MMMM

MMMM. Yes, no formal coordination occurred with agencies on energy issues. The Bureau of Land Management is, however, a cooperating agency for the PEIS and, as such, was coordinated with on a variety of issues throughout the process.

At the Tier 1 level, the focus of energy requirements was on consumption requirements of the transit operating systems with an understanding that the Corridor does not have transmission or power infrastructure in place, or planned, to meet those needs. It is recognized that the Advanced Guideway System feasibility studies and related Tier 2 processes will require further analysis of energy infrastructure and additional coordination with the multiple utility power service providers/service areas within the Corridor.

ALL COMMENTS			
DOCUMENT	PAGE	SECTION	COMMENT
Main Document	Page 3.14-29	3.14.10	Re-emphasizes these possible techniques. (Vertical Alignment Shifts and Smart Widening) another significant change.
Main Document	Page 3.15-2	3.15.4 4th sentence	CLARIFICATION "6.6 miles between Frisco to Dillon" Is this along the Dam Road, or does it really mean Frisco to Silverthorne ?
Main Document	Page 3.16-1/2	Last sentence at bottom of page to top of next	Use of RAILSIM 7 may not incorporate most recent known information on propulsion costs (and construction costs) of maglev system - same criticism could apply to FTA study data - there is far more recent information available. CDOT should try harder to incorporate fresh information instead of relying on stale models.
Main Document	Page 3.16-2	3.16.3 1st sentence	REALLY - no coordination? What about the fact that BLM, in its report on the Western Grid includes a portion of I-70 corridor as a critical Energy Transport route?

Comments

Responses

Source: Letter Name: I-70 Corridor Coalition (continued)
 Document Number: ORG-29 City, Zip Code: Dillon, 80435

Response to ORG-29 (continued)

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ALL COMMENTS			
DOCUMENT	PAGE	SECTION	COMMENT
Main Document	Page 3.18-1	3.18.2 first two sentences	What about short-term uses that could lead to long-term negative impacts? Have any been identified? For instance, it is being assumed that there may be a downturn in access to recreational sites on the corridor, but those will return to more normal or growth modes once the construction is done. Is that accurate to assume? Reputation is hard thing to value, but once it's gone, it's hard to get it back. So if rafting on Clear Creek is impacted because of water quality, it may take longer than anticipated to re-attract that community.
Main Document	Page 3.18-2	3.18.5	"Short-term uses" - Use of the term Short-term uses is misleading - short-term impacts would be far more descriptive of intent.
Main Document	Page 4-3	4.5 4th bullet item	Climate change could also result in warmer summer temperatures along the Front Range which could lead to increased demand for access to the mountains and cooler temperatures.

NNNN. Section 3.8, Social and Economic Values and Section 3.12, Recreation Resources and Section 6(f) Discussion of the PEIS both mention the fact that during construction, economic conditions including recreational trips will be negatively affected. The lead agencies are committed to developing mitigation measures to minimize any longer term impacts such as effects to the rafting industry. These mitigation strategies are described in Section 3.8.7 and Section 3.12.7 and include coordination with local chambers of commerce and economic centers to develop communication and promotional materials.

The following text has been added to Section 3.18.1, "What is the relationship between local short-term uses and long-term productivity and why is it important to this project?": "This section summarizes the short-term and long-term impacts of the alternatives; these impacts and proposed mitigation strategies are described in more detail in respective resource sections (Sections 3.1 through 3.16) and in Chapter 4, Cumulative Impacts Analysis."

O000. The term "short-term uses" is required by the National Environmental Policy Act. Those exact words are in the Act in Section 102 (42 USC 4332). The term "use" in this context is synonymous with impact.

PPPP. An additional bullet has been added to reflect this condition:

- Higher summertime temperatures in the Denver metropolitan area could increase demand for access to the mountain areas and their cooler temperatures.

Comments

Responses

Source: Letter Name: I-70 Corridor Coalition (continued)
 Document Number: ORG-29 City, Zip Code: Dillon, 80435

Response to ORG-29 (continued)

QQQQ

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ALL COMMENTS			
DOCUMENT	PAGE	SECTION	COMMENT
Main Document	Page 4-7	Photo 4-2b Legend	TYPO - Green box legend should read "Park and OPEN Spaces" not Park and Urban Spaces.
Main Document	Page 4.9/10	4.7	This section talks about future land use and zoning in the corridor but does not mention the I-70 Coalition Land Use Transit Study. This would be a good place to mention the study I-70C study to keep people from forgetting about it.
Main Document	Page 4-25	9th bullet item	"Funding Truck Parking Electrification" - CLARIFICATION - <i>What does this mean? Is it to recharge electric powered freight vehicles in the future? Or is it just giving truckers a power outlet for while they are parked overnight? Needs some definition.</i>
Main Document	Page 4-25	Last bullet item	"Developing low VOC-emitting tree landscape specs.." - <i>How can VOCs emitted from trees be bad for the environment or contribute to climate change? The Photosynthesis process of converting CO2 into O2 should offset any VOCs emitted by the tree. Isn't the only VOCs emitted by trees when liquid sap is exposed to air? How would the relatively minor VOCs be harmful enough to be included in a GHG reduction plan?</i>

QQQQ. The legend of **Figure 4-2b** has been corrected as suggested.

RRRR. This section discusses land use changes that may result from other planned development and relies on zoning and land use maps to identify those developments. This is not the appropriate location to reference the I-70 Coalition Land Use Transit Study because (1) the study does not identify reasonably foreseeable development projects and (2) future development of transit stations associated with the Advanced Guideway System is included within the scope of the Preferred Alternative. Reference to the land use study has been included in **Section 3.7, Land Use and Right-of-Way**.

SSSS. The current approach for truck parking electrification provides power supplies to long-haul truck drivers for the purpose of reducing idling at rest areas. These facilities could potentially be used to power electric-powered freight vehicles if those types of vehicles are used in the future.

TTTT. Trees and plants themselves produce volatile organic compounds (VOCs) (monoterpene and isoprene)—those VOCs produced for a plant's scent to attract insects. Emissions of deciduous trees have been shown to increase ground-level ozone emissions in some urban areas. Ozone forms in the presence of sunlight when VOCs react with the nitrogen oxides emitted by cars and industrial plants. Plant VOC emissions are harmless in the absence of human-generated nitrogen oxides. Plants known for low VOC emissions include pine and maple trees, and encouraging the use of low-VOC-emitting trees is a recognized component of and consistent with many greenhouse gas reduction plans.

Comments

Responses

Source: Letter Name: I-70 Corridor Coalition (continued)
 Document Number: ORG-29 City, Zip Code: Dillon, 80435

Response to ORG-29 (continued)

UUUU

VVVV

WWWW

XXXX

ALL COMMENTS			
DOCUMENT	PAGE	SECTION	COMMENT
Main Document	Page 5-1	5.2	AGS cost estimates - <i>Still think that data are not current enough - RMRA study in particular does NOT use most current info on construction costs of elevated AGS guideway from the manufacturer Bopl which represent a 30% reduction in cost over previous estimates.</i>
Glossary	Page 1 Glossary	Glossary of Terms	Advanced Guideway System - <i>should at least contain a mention of maglev</i>
GENERAL COMMENTS			Executive Summary and Introduction never clearly defines CSS
Cost Estimating Technical Report	Page 1	Section 1.1	TYPO? First line refers to cost for total project estimate to be \$11.2 million. 1) the cost should be in Billion, not Million 2) this total does not agree with figures in Executive Summary and Main PEIS which include range from \$16 Billion to \$20 Billion for the Preferred Alternative.

UUUU. Please refer to response to comment [ORG-29-MMM](#), which explains that cost estimates will be updated in the Advanced Guideway System feasibility studies and related Tier 2 processes and will be based on the actual technology identified for the Advanced Guideway System.

VVVV. Although maglev was considered a representative technology for the purpose of analysis, the specific technology for the Advanced Guideway System has not been identified. Therefore, it is not appropriate to include the technology in the definition.

WWWW. The I-70 Mountain Corridor Context Sensitive Solutions definition has been added to the **Executive Summary** and **Introduction** of the PEIS as requested and in response to similar comments, and the text has been revised to reinforce the lead agencies' commitment to the entire I-70 Mountain Corridor Context Sensitive Solutions process.

XXXX. Yes, this is incorrect. "Million" has been corrected to "billion" in an errata sheet for this technical report. The number of 11.2 billion is correct based on 2010 dollars. The range of \$16 to \$20 billion presented in the body of the PEIS is presented in year of expenditure dollars, which in this case is considered to be the mid-year of construction, or 2025.

Comments

Responses

Source: Letter	Name: Snowforever.org
Document Number: ORG-30	City, Zip Code: Fort Collins, 80524

Response to ORG-30

- A. As you note, improvements to the I-70 Mountain Corridor are needed to reduce traffic congestion, as well as increase capacity and improve mobility and accessibility. The Preferred Alternative is a comprehensive proposal for improvements to the I-70 highway. The Preferred Alternative is multimodal, including an Advanced Guideway System, highway improvements, and non-infrastructure components. The Advanced Guideway System, which operates between the Eagle County Regional Airport and the Jeffco Government Center light rail station, is being advanced into the Final PEIS, along with all the other components of the Preferred Alternative. The Colorado Department of Transportation is committed to implementing recommended improvements as funding allows. The Preferred Alternative does not identify transit improvements between Eagle County Regional Airport and Glenwood Springs, but does not preclude other studies or implementation of improvements west of Eagle County Regional Airport.

Implementation of Advanced Guideway System will require additional study to determine the viability of the system. Some of these considerations include identifying a technology; evaluating costs, benefits, and ridership; and assessing system reliability, safety, environmental impacts, and other factors.

The Colorado Department of Transportation has made ongoing, shorter-term safety and operational improvements in some Corridor locations to address congestion, including truck chain up areas, improved traveler message signs, park-and-ride locations, rockfall mitigation, better emergency response plans, roadside safety enhancements, median barrier improvements, and tunnel enhancements. Congestion has continued to increase in the Corridor, however, due to population growth and additional development. The Preferred Alternative provides adequate capacity for projected traffic volumes through the year 2050.

Snowforever.org, a Colorado nonprofit organization that is committed to preserving the enjoyment of skiing and snowboarding by combating climate change and threats to recreational access, strongly supports the immediate construction of an advanced guideway system to provide service between Colorado's front range and the mountain communities along the I-70 corridor. To that end, we support the Preferred Alternative (Consensus Recommendation) to the Draft Revised Programmatic Environmental Impact Statement and urge the Colorado Department of Transportation (CDOT) and the Federal Highway Administration (FHWA) to include an advanced guideway system along the I-70 corridor in the final Programmatic Environmental Impact Statement (PEIS) and to do all in their power to ensure that an advanced guideway system is built along the I-70 corridor from the Denver metropolitan area to at least the Eagle County Regional airport, if not to Glenwood Springs.

A solution to congestion along the I-70 mountain corridor has been decades in the waiting. Over the last 40 years there has been little, if any, substantive improvement in relieving traffic congestion along the corridor. All the while, skiers, snowboarders, other winter recreationalists *and* mountain town residents' frustration has continued to mount. Acceptance of the Draft PEIS and in particular the Preferred Alternative with an advanced guideway system along the I-70 corridor would represent a critical step in moving forward on a transportation system for the corridor that can meet the needs of Colorado's growing population

Comments

Responses

Source: Letter	Name: Snowforever.org (continued)
Document Number: ORG-30	City, Zip Code: Fort Collins, 80524

Snowforever.org urges that any I-70 corridor solution must accomplish the following critical objectives:

1. Relieve Traffic Congestion on I-70

- Traffic congestion costs money
 - Studies have already shown that delays along the corridor are estimated to cost \$839 million each year.ⁱ These costs will only increase as Colorado's population grows, more recreationists and mountain residents take to the roads, and congestion increases. Any solution that does not include a train or an advanced guideway system means more people will sit in I-70 traffic.
- Traffic congestion serves as a deterrent to winter recreationalists
 - The draft PEIS projections, which show weekday and weekend traffic more than doubling by 2035,ⁱⁱ is an unacceptable alternative that will surely mean many skiers and snowboarders simply stay home, and many tourists choose to spend their skiing and snowboarding dollars elsewhere.

Response to ORG-30 (continued)

B. The Preferred Alternative performs well in reducing traffic congestion on the I-70 highway, as illustrated by **Figure 2-13 in Chapter 2, Summary and Comparison of Alternatives** of the PEIS. The Preferred Alternative offers a multimodal solution, including non-infrastructure components and combining highway and transit improvements, to provide expanded person trip capacity. As you imply, the transit component of the Preferred Alternative provides needed capacity that highway improvements alone cannot provide, while the highway improvements reduce congestion. Additionally, the Preferred Alternative offers non-infrastructure elements, including but not limited to increased enforcement, bus, van, or shuttle service in mixed traffic, programs for improving truck movements, driver education, and converting single occupancy vehicle commuters to high occupancy travel and/or public transportation.

The project team has not confirmed your specific annual costs of delay but recognizes that there is existing delay and costs will increase with future delay along the Corridor if no improvements are made.

You are correct that many skiers and snowboarders (and many other people desiring trips in the Corridor) will not travel in the Corridor, perhaps staying home or traveling elsewhere. These suppressed trips are described as unmet demand in **Chapter 1, Purpose and Need and Section 2.8.1** of the PEIS. The economic analysis (see **Section 3.8, Social and Economic Values** of the PEIS) does show that the No Action Alternative – that is, doing nothing in the Corridor except those projects that are already programmed in the Statewide Transportation Improvement Program – likely suppresses economic conditions in the nine-county Corridor region when compared to the Preferred Alternative. In the long-term, the Preferred Alternative surpasses the Gross Regional Product of the No Action Alternative by at least \$10 billion per year in 2035.

B

Comments

Responses

Source: Letter	Name: Snowforever.org (continued)
Document Number: ORG-30	City, Zip Code: Fort Collins, 80524

2. Reduce Carbon Emissions and Protect Our Mountain Environment

- Colorado’s Climate Action Plan calls for a reduction in emissions from passenger vehicles and an eighty percent reduction in total greenhouse gas emissions by 2050.ⁱⁱⁱ
 - Our transportation sector accounts for 23% of total greenhouse gas emissions.^{iv} Any I-70 transit corridor solution must substantially reduce, not only anticipated growth in greenhouse emissions from the transportation sector, it must reduce emissions in real terms. Rail or an advanced guideway system is the only alternative that can achieve these objectives.
- Current traffic congestion, and projected congestion along the corridor, results in increased air pollution and poorer air quality throughout Colorado.^v
 - Additional traffic resulting from highway widening and more cars travelling on the corridor can only result in more air pollution. The goal should be to reduce air pollution in the I-70 corridor.
- I-70 corridor improvements should minimize the impact on water quality and on wildlife.
 - Since the preferred alternative “avoids highway construction in Clear Creek County between Empire and Idaho Springs under the Minimum Program of Improvements, and the phased approach of the Maximum Program allows ongoing opportunities to avoid, minimize, and mitigate impacts,” on water quality and wildlife more effectively than “highway alternatives,” the preferred alternative better represents Coloradans’ strong desire to protect our natural environment and the state’s wildlife.^{vi}

Response to ORG-30 (continued)

C. The PEIS recognizes the Colorado Climate Action Plan (see **Section 1.3, “What other studies have been completed or are related to this Corridor?”** and **Section 4.8, “What are the anticipated cumulative impacts?”**). Colorado’s Climate Action Plan of 2007 basically mandates an 80 percent reduction in greenhouse gases by 2050 from 2005 levels and 20 percent reduction by 2020, but only provides general direction for transportation greenhouse gases actions. These actions, which include adopting greenhouse gas emissions standards for passenger vehicles, increasing clean transportation options for state employees, and recognition of community excellence regarding land use and transportation, pertain to all alternatives considered for the PEIS. Although these are not differentiating factors among the PEIS alternatives, some of the alternatives could respond better to suggested strategies, such as the commitment to transit oriented development, which fits most appropriately with alternatives that include a transit component such as the Preferred Alternative. Several of the non-infrastructure components of the Preferred Alternative, such as bus, van, or shuttle service in mixed traffic, promoting high occupancy travel and public transportation, and implementing transit promotion and incentives, support the Climate Action Plan objectives.

Although reducing air pollution is not a specific goal of this project, air quality in the Corridor improves under the Preferred Alternative. **Figures 2-13 and 2-14** in the PEIS present information about anticipated 2035 congestion in the Corridor as a result of implementation of each of the alternatives. The relationship between congestion and air pollution is acknowledged in **Section 3.1, Climate and Air Quality Resources** of the PEIS. The Preferred Alternative results in a range of future congestion, from very low congestion under the Maximum Program of Improvements (at 13 hours during a weekend) to higher congestion under the Minimum Program of Improvements (at 35 hours of congestion). This compares to congestion with the No Action Alternative of 23 hours during a weekend. The Maximum Program of Improvements represents a noticeable improvement in both congestion and in air pollution that is associated with congestion.

(continued on next page)

Comments

Responses

Source: Letter	Name: Snowforever.org (continued)
Document Number: ORG-30	City, Zip Code: Fort Collins, 80524

Response to ORG-30 (continued)

C. (Continued from previous page)

The phased, adaptive management component of the Preferred Alternative allows it to be implemented based on future needs and associated triggers for further action. This will allow opportunities to avoid, minimize and mitigate impacts on water quality, wetlands, wildlife and other environmental resources. This is consistent with the I-70 Mountain Corridor Context Sensitive Solutions Core Values and Sustainability Principles as presented in **Appendix A, I-70 Mountain Corridor PEIS Context Sensitive Solutions** of the PEIS.

Comments

Responses

Source: Letter	Name: Snowforever.org (continued)
Document Number: ORG-30	City, Zip Code: Fort Collins, 80524

Response to ORG-30 (continued)

D

- 3. Enhance Colorado's Quality of Life and Attractiveness as a Tourist Destination**
- Traffic congestion on I-70 decreases Coloradans' quality of life and impacts the quality of the tourism experience for those who come to Colorado to enjoy our mountains.
 - o Sitting in unbearable traffic congestion has turned what normally would be a wonderful day in the mountains for skiers, snowboarders, and other winter recreationalists into a dreaded experience. Those who live along the I-70 corridor and depend on I-70 to get to and from work have the unfortunate pleasure of suffering while traveling on the corridor daily. We must ensure that Colorado remains an attractive place to work, live and vacation. Revenue from skiing and snowboarding alone is worth over \$ 2 billion per year in Colorado and millions more dollars in additional revenues are generated in the insurance, real estate and leasing sector, as many tourists, vacationers and homeowners buy or rent homes or condos near the resorts.^{vii}

D. The lead agencies agree that traffic congestion has a quality of life and economic impact. The economic impact of traffic congestion in the Corridor is two-fold. One is the hours spent waiting in traffic, and the other is loss of revenue due to the number of trips not taken because of congestion, referred to as unmet demand. By 2035, unmet demand at the Eisenhower-Johnson Memorial Tunnels on a weekend will be approximately 25,000 trips. By 2050, that estimate will increase to approximately 45,000 trips suppressed. The annual hours of congestion estimated for the No Action Alternative in 2035 is 15,500 hours. The Preferred Alternative would reduce the hours of congestion to between 5,000 to 8,000 hours. For peak period weekend conditions, the Preferred Alternative would reduce the average Corridor highway travel time from approximately 320 minutes to 220 minutes under the Minimum Program of Improvements and to 200 minutes if the Maximum Program is fully implemented. Please refer to the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website) for more information about unmet demand, suppressed trips, and effects of congestion.

Tourism, which includes skiing, second homes, and hotel and condo rentals as you note, is the primary industry in the Corridor. The tourism industry generated 41 percent of jobs and 38 percent of income in year 2000; these numbers are even higher in Eagle and Summit counties. The cost of doing nothing (the No Action Alternative) is expected to suppress the economies of communities in the region by reducing population, jobs, personal income, and the gross regional product compared to expanded growth opportunities forecast under the Preferred Alternative. The forecasted economic reduction is a result of suppressed visitor trips, many of which are summer and winter tourist-related, due to traffic congestion and inaccessibility. In addition to total population and the number of jobs that are projected to increase, the Preferred Alternative is expected to increase personal income and the gross regional product (amount of new goods and services annually).

Comments

Responses

Source: Letter	Name: Snowforever.org (continued)
Document Number: ORG-30	City, Zip Code: Fort Collins, 80524

Response to ORG-30 (continued)

E

For these reasons, we urge the Colorado Department of Transportation (CDOT) and the Federal Highway Administration (FHWA) to adopt the Preferred Alternative (Consensus Recommendation) to the Draft Revised Programmatic Environmental Impact Statement and urge you to include an advanced guideway system along the I-70 corridor in the final Programmatic Environmental Impact Statement (PEIS) and to move with great haste to get this project moving and completed.

Sincerely,

Roland J. Kuehn
President

Jon Goldin-Dubois
Chairman

F

ⁱ Denver Metro Chamber of Commerce, *The Impact of I-70 Congestion on Colorado – Denver to Grand Junction*, April 2007. Viewed October 22, 2010 at: http://www.denverchamber.org/pdfs/I70_Impact_Full_04252007.pdf
ⁱⁱ I-70 Mountain Corridor Revised Draft Programmatic Environmental Impact Statement. Colorado Department of Transportation and the United States Department of Transportation Federal Highway Administration, September 2010.
ⁱⁱⁱ Governor Bill Ritter Jr., *Colorado Climate Action Plan*, November 2007. p. 3.
^{iv} *Ibid.* p. 9
^v Ridlington, Elizabeth et al., *Colorado’s Transportation Crossroads*. The CoPIRG Foundation, March 2010. p. 5.
^{vi} I-70 Mountain Corridor Revised Draft Programmatic Environmental Impact Statement. Colorado Department of Transportation and the United States Department of Transportation Federal Highway Administration, September 2010. p. 3-4
^{vii} *Climate Change and the Economy*, National Conference of State Legislatures, 2008. Viewed 10/12/2010 at: <http://www.cier.umd.edu/climateadaptation/Climate%20change-COLORADO.pdf>

E. The lead agencies identified the Preferred Alternative, which is based on the Consensus Recommendation, as the best solution to address the short- and long-term needs of the I-70 Mountain Corridor while minimizing environmental impacts. The Preferred Alternative has been advanced as the Preferred Alternative in the Final PEIS. The Preferred Alternative is a multimodal alternative that includes the Advanced Guideway System.

The lead agencies share your sense of urgency with making improvements in the Corridor.

As discussed in **Chapter 5, Financial Considerations** of the PEIS, the lead agencies agree that additional revenue, leadership, and support from the citizens of Colorado will be required to implement the Preferred Alternative. The Colorado Department of Transportation’s budget is insufficient to implement the entire Preferred Alternative. The I-70 Mountain Corridor is important to Colorado’s economy, and multimodal improvements are one of the highest transportation priorities in the state. Options for innovative funding sources include public/private partnerships, tolling, bonding/loans, and Corridor-specific resources (which are funding sources that apply to limited geographic areas and require voter approval, constitutional amendments, or both). These will be further evaluated in Tier 2 processes.

F. Comment noted.

Comments

Responses

Source: Hearing 1 Public	Name: Nick Dodich
Document Number: IND-01	City, Zip Code: Arvada, 80004

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Tuesday, October 5, 2010

14 MR. DODICH: My name is Nick Dodich, D-o-d-i-c-h. I
 15 live in [REDACTED] And anything else you want?
 16 MS. STROMBITSKI: I think that's it. Go ahead and
 17 begin your comment.
 18 MR. DODICH: I'd like to talk on special projects. Do
 19 you have a stage hook? You may have to use that on me to get me
 20 off the microphone.
 21 MS. STROMBITSKI: When it gets red you'll know.
 22 MR. DODICH: Seriously speaking now, I'm very
 23 concerned about the Corridor. I've been in Colorado 40 years.
 24 And it used to be good until maybe about 10 years ago when we
 25 saw a trend happening.
 1 Seems like nothing has been done. I think we're at
 2 the stage where if we don't act fast we're going to be in a lot
 3 of trouble.
 4 There's an article in the newspaper this morning about
 5 how infrastructure in Europe and China and Russia, they have
 6 advanced far more than we have. And I think time is of the
 7 essence.

Response to IND-01

A. The Programmatic Environmental Impact Statement (PEIS) is part of a Tier 1 decision process for improvements to the I-70 highway that are of statewide importance and a high priority for CDOT and stakeholders. The Preferred Alternative provides a comprehensive proposal for improvements to the I-70 highway, and CDOT is committed to implementing recommended improvements as funding allows.

Prior to completion of this Tier 1 decision, some early action projects have been identified and are being studied. These projects are listed in the **Introduction** of the PEIS and include: Empire Junction (US 40/I-70) improvements; I-70/Silverthorne interchange; Eagle interchange; Minturn interchange; Edwards interchange; Black Gore Creek, Straight Creek, and Clear Creek Sediment Control Action Plans; and wildlife fencing along the I-70 highway to enhance safety.

The Colorado Department of Transportation has also been making ongoing, shorter-term safety and operational improvements in some Corridor locations including: truck chain up areas, improved traveler message signs, park-and-ride locations, rockfall mitigation, better emergency response plans, roadside safety enhancements, median barrier improvements, and tunnel enhancements). These types of improvements would continue with implementation of the Preferred Alternative.

As stated in the **Introduction** of the PEIS, this document is a Tier 1 study identifying mode, general location, and capacity of improvements in the Corridor. However, this study does not contain sufficient design details to assess specific environmental impacts, mitigation, or even viability of technology; nor does the Tier 1 study complete National Environmental Policy Act compliance for construction projects. Tier 2 processes are necessary to identify and develop construction projects. The differences between Tier 1 and Tier 2 processes (and the reasons for making tiered decisions) are explained in more detail in the **Introduction** of the PEIS.

Comments

Responses

Source: Hearing 1 Public	Name: Nick Dodich (continued)
Document Number: IND-01	City, Zip Code: Arvada, 80004

B

8 And one thing that I notice, the biggest bottleneck on
 9 the segment, the 15-mile segment from Floyd Hill to Empire is
 10 the twin towers (sic.) Those are permanent bottlenecks.

11 I think if you could bore another tunnel through the
 12 Twin Tunnels area it would greatly reduce the traffic problem.

13 And there's a company that makes boring machines. I talked to
 14 them.

C

15 And they said a boring machine, 20 feet in diameter,
 16 costs 1.5 million. And it could bore through that 2-10ths mile
 17 length of the tunnel in 8.8 days, depending on the hardness of
 18 the rock. So that is nothing.

19 And they will buy back the machine once you're through
 20 with tunneling. But it may be worthwhile to keep it to make two
 21 more tunnels at the Eisenhower Tunnel or other tunnels around
 22 the state.

Response to IND-01 (continued)

- B. Yes, the Twin Tunnels area is an area of congestion and does form a bottleneck in the Corridor. The Preferred Alternative includes a third bore through the Twin Tunnels to support the highway and transit improvements that would occur on either side of the tunnel (as do the other transit, highway, and combination alternatives considered in the PEIS). The Preferred Alternative addresses the 15-mile segment you reference, including the bottleneck of the tunnels as well as the overall congestion problems along the entire Corridor, which cannot be solved by addressing the tunnels alone.

- C. The Colorado Department of Transportation is restricted by some state and federal laws regarding what they can require of contractors and methods of construction equipment and personnel. In some cases, CDOT may specify construction methods when those differing methods have different environmental impacts. However, in most cases, the construction methods are determined by construction contractors after Tier 2 processes are completed. Contractors hired by CDOT may elect to use the type of specialized construction equipment you suggest.

Comments

Responses

Source: Hearing 1 Public	Name: Nick Dodich (continued)
Document Number: IND-01	City, Zip Code: Arvada, 80004

23 But I think we really have to act fast; otherwise
 24 we're going to lose a lot of business. The people out in this
 25 area are going to lose a lot of money in taxes because people
 1 won't come through, they won't rent motel rooms, they won't
 2 frequent the restaurants. They go skiing maybe in Salt Lake or
 3 some other, Nevada, Utah, or Canadian places.
 4 But we got to keep in mind economic benefits of that.
 5 I don't think that we should wait much longer.

Response to IND-01 (continued)

D. The economic analysis (see **Section 3.8, Social and Economic Values** of the PEIS) does show that the No Action Alternative – that is, doing nothing in the Corridor except those projects that are already programmed in the Statewide Transportation Improvement Program – likely suppresses economic conditions in the nine-county Corridor region when compared to the Preferred Alternative. While the Preferred Alternative likely suppresses economic growth during construction periods, by 2035 it surpasses the Gross Regional Product of the No Action Alternative by at least \$10 billion per year.

As explained in response to comment [IND-06-B](#), CDOT must satisfy state and federal planning requirements before constructing improvements. The Tier 1 study is the first step in identifying a program of improvements, but additional processes will be required to implement construction projects.

As explained in the PEIS **Chapter 5, Financial Considerations**, CDOT does not have enough available revenue sources allocated to fund the improvements identified by the Preferred Alternative, and additional funding sources must be secured.

Comments

Responses

Source: Hearing 1 Public	Name: Bert Melcher
Document Number: IND-02	City, Zip Code: Denver, 80237

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Tuesday, October 5, 2010

10 MR. MELCHER: My name is Albert G. Melcher, 7504 East
 11 Jefferson Drive, Denver 80237. M-e-l-c-h-e-r is the spelling.
 12 MS. STROMBITSKI: Thank you.
 13 MR. MELCHER: I'm speaking only for myself, not for
 14 any organization.
 15 I've been a member of the Mountain Corridor Advisory
 16 Committee and conflict resolution panel, CE, and I'm also one of
 17 three people who've served on both the CDOT commission and the
 18 RTD board. I'm been involved in this Corridor since June 1946
 19 in engineering and policy.
 20 My major -- first of all I want to compliment CDOT and
 21 the number of other people that participated in this in creating
 22 this massive change from 2004 mentality to what we have today,
 23 i.e. the Preferred Alternative based on the collaborative effort
 24 process.
 25 Russ George, the CDOT director, deserves great praise
 1 and compliments for bringing this into effect. It's a super
 2 thing, and it's going to lead to a lot of good. Also all the
 3 people that have participated, as Scott pointed out, certainly
 4 deserve praise and compliments too. It's been a great effort.

Response to IND-02

A. Thank you for your dedication and continued involvement in the I-70 Mountain Corridor, and for your participation in the Collaborative Effort.

A

Comments

Responses

Source: Hearing 1 Public	Name: Bert Melcher (continued)
Document Number: IND-02	City, Zip Code: Denver, 80237

Response to IND-02 (continued)

- B. Please see the response to your comment [IND-202-B](#) for a response to this portion of your comment.
- C. Please see the response to your comment [IND-202-K](#) for a response to this portion of your comment.

B

5 I have one major concern. And that is the C-470
6 terminus, and what happens east of that. In 2004-2005 we
7 thought there should be a supplemental PEIS to address this
8 particular region, how it relates to providing ridership and
9 travel from the residents -- there are two and a half million
10 right now -- to the mountain area, and vice versa, actually.

11 That area, this region has to be, it must be included
12 in the Tier 1 analysis. Board 7 back here says "studies outside
13 the Corridor..." I believe it says "...can be conducted." I
14 would say "must be conducted" at Tier 1 so that as Scott says,
15 when we get to Tier 2, things are not locked into concrete, and
16 can't be re-examined.

17 That area is absolutely critical. It's a very very
18 difficult area to deal with. But it cannot be put off. No
19 endless attitude is going to help solve the problems of this
20 Corridor if we ignore that particular area.

21 The AGS, whatever it might be, travel time and
22 convenience, connectivity from DIA or whatever must be solved --
23 or addressed at least, not solved -- at this level.

24 Second thing I want to comment on is the CE was very
25 much concerned with sustainability. This is a major concern of
1 mine. We have major resource global warming problems in this
2 country. A lot of people may not want to recognize them but
3 they are very real. And many decisions on resource use have to
4 address sustainability.

C

5 Thank you.

Comments

Responses

Source: Hearing 1 Public	Name: Bobby Craig
Document Number: IND-03	City, Zip Code: Summit County

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Tuesday, October 5, 2010

9 Hi. My name is Bobby Craig, C-r-a-i-g. I live at
 10 [REDACTED]
 11 First thing I'd like to say is I became a commuter
 12 four years ago on moving from Summit County to Morrison. And I
 13 had to commute back up to Summit County for my job here.
 14 And I'll just say it was an insane experience between
 15 the weather, the traffic, the wildlife. I almost hit a bear
 16 going 70 miles an hour. It became unbearable.
 17 And two years ago I moved back to Summit County
 18 because I couldn't stand it. That was during the week, not on
 19 weekends when you have skier traffic.

20 I'd also like to say one I think this is a great step
 21 forward and good vision. It's a vision for our kids and not for
 22 those of us in this room.

23 Fifty years from now I'm going to be 97. And that
 24 year is 2060. I'm not sure what the world is going to be like,
 25 but it's going to be a heck of a lot different than it is right
 1 now. And the reason I know that is go back 50 years.

2 In 1960 there was no interstate, there was no
 3 Eisenhower Tunnel, there was hardly any ski areas, no
 4 cellphones, no Internet, all of these things that we take for
 5 granted. And I think this vision is the way we can get there
 6 and I guess pull our heads out of the sand.

Response to IND-03

- A. Comment noted.
- B. The Preferred Alternative acknowledges that future trends and conditions are dynamic. The use of triggers in the Preferred Alternative recognizes that future travel demand and behavior are uncertain and that additional transportation solutions should be based on proven needs. Triggers create a mechanism for defining the details of future transportation solutions consistent with the Preferred Alternative by defining specific conditions that could trigger further action. They are decision points allowing for adaptive management that take into account the current and future conditions of the transportation system. In the Programmatic Environmental Impact Statement **Section 2.7.2 "What are the triggers for additional highway and non-Advanced Guideway System transit capacity improvements?"** triggers are described for highway and non-Advanced Guideway System transit capacity improvements in the I-70 Mountain Corridor.

Global, regional, and local trends such as peak oil, climate change, technological advances, and changing demographics could affect future transportation needs. Subsequent projects will be evaluated in terms of how individual projects move the program forward to meet transportation needs. The Collaborative Effort stakeholder committee will review progress and effects of the Preferred Alternative at least every two years and conduct a thorough reassessment of transportation needs in 2020.

Comments

Responses

Source: Hearing 1 Public	Name: Bobby Craig (continued)
Document Number: IND-03	City, Zip Code: Summit County

Response to IND-03 (continued)

- C. The Preferred Alternative relies on a multimodal solution and recognizes the importance of transit in providing needed capacity and movement of people through Corridor. The lead agencies agree that leadership and action by others will be necessary to implement and fund needed improvements.

7 I have three things that I'd like to say. Transit,
8 transit, and transit.
9 Having traveled the world and seen what trains can do
10 or other mass transit, particularly in the Alps, even in China,
11 the ability is there if we have the will.
12 The other thing with transit, it can be impervious to
13 weather. It can be almost unlimited in capacity, trains not
14 lanes, and it can lessen our dependence on fossil fuels.
15 The key though is to have commitment. And I'd like to
16 challenge everyone in this room, particularly people like Dan
17 Gibbs, Christine Scanlon, and other local leaders, to be
18 leaders. I'm willing to follow, but I'd like somebody to
19 follow.
20 And with that I'd like to say thank you very much.
21 And let's keep going.

Comments

Responses

Source: Hearing 1 Public	Name: Ron Barron
Document Number: IND-04	City, Zip Code: Dillon, 80435

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Tuesday, October 5, 2010

A 16 MS. MORALES: Ron Barron.
 17 MR. BARON: I'm at [REDACTED]
 18 Colorado.
 19 Our bus driver leaving Kaiserstadt near an airbase in
 20 Germany got lost. The blue line he was following turned out to
 21 be a river instead of a road.
 22 He got off at a railhead and said, Don't leave. I'll
 23 be right back.
 24 He then drove the bus onto a flatcar. We went through
 25 the Kaiserstadt tunnel, came out. Saved hundreds of miles of

Response to IND-04

A. In the United States, a service similar to the one that you reference is operated by Amtrak between Lorton, Virginia, and Sanford, Florida. This "Autotrain" provides non-stop service between these two cities once daily. Travel time for the 817-mile trip is approximately 17.5 hours, equating to an average operating speed of 46.7 mph. Loading time is 1 to 2 hours, depending on the size of the vehicle; unloading times are similar. No interim stops are served.

An equivalent service following the I-70 Mountain Corridor would be impractical for a number of reasons. First, only a small portion of trips would be served by a train operating between the Eagle County Regional Airport and the Jeffco Government Center light rail station in Golden. Without being able to offer interim stops, an Autotrain would not serve enough Corridor destinations to meet the project's purpose and need. Second, travel times would not be competitive with automobile travel and would, therefore, not shift enough travelers to an alternate mode to be effective at reducing congestion and meeting the Corridor's transportation needs. Assuming an hour each for loading and unloading, the Autotrain would have to travel at unrealistically high speeds to match the 3.5 hour travel time of a congested I-70 highway. Third, as detailed in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website), similar types of locomotive-hauled passenger trains were determined to be unreliable to operate in the Corridor (at any speed). Finally, the cost of such a service would not likely be competitive compared to driving. By comparison, the price for the Autotrain is \$0.24 to \$0.36 per mile for vehicles and \$0.18 to \$0.28 for coach seats for passengers. For the average vehicle traveling in the Corridor with 2.8 persons, the cost of the trip would be about twice that of driving (using the Internal Revenue Service vehicle mileage rate of 0.50 per mile), which is not attractive for passengers wanting to use the train as an alternative to a car and who frequent the Corridor on a weekly or daily basis. Further, travelers using a car could make the drive at any time during the day at their

(continued on next page)

Comments

Responses

Source: Hearing 1 Public	Name: Ron Barron (continued)
Document Number: IND-04	City, Zip Code: Dillon, 80435

Response IND-04 (continued)

A. (Continued from previous page)

convenience. Travelers by Autotrain would be limited to scheduled departure times and, based on limited demand, fairly long headways between trains.

Two alternatives were analyzed to improve existing passenger rail service from Denver to Winter Park and Denver to Glenwood Springs following existing routes through the Moffat Tunnel and are described in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website). These alternatives were not practical to meet Corridor travel needs because 1) these alignments serve only a limited number of Corridor destinations and do not divert enough traffic to reduce congestion on the I-70 highway; 2) locomotive-hauled passenger trains are slow and cannot meet the travel time requirements necessary to divert vehicular traffic from the Corridor (the trip between Denver and Glenwood Springs using the existing train service takes nearly 6 hours one-way, as compared to about 2.5 hours by car in free-flow conditions and 5 hours by car in congested conditions); and 3) the busy freight corridor does not have capacity for additional passenger service, and one train per day is the maximum that could be accommodated. In addition, the origins and destinations of these routes also are outside the study limits and, therefore, do not serve the Corridor travel demand well.

For these reasons, new service is necessary to meet the project's purpose and need, and the Preferred Alternative does not include improving existing rail service except in the area between Minturn and the Eagle County Regional Airport. However, transit is an important component of the Preferred Alternative.

(continued on next page)

1 driving, but cost his company a bit of money for the
2 transportation.
3 My suggestion is to open up or start talking with the
4 railroads, and have a way to drive your car or bus or truck onto
5 a special car made for hauling automobiles and trucks on
6 flatcars. And they'd get on in Grand Junction, off in Denver,
7 and vice versa.
8 That would relieve the through traffic going through
9 the most difficult part of the mountains.
10 We would need to improve our railroad right now in the
11 United States. We're still running on rails that are sitting on
12 ties made of wood where the spikes come loose every once in a
13 while and there is a railroad track.
14 The rest of the world has gone to concrete,
15 steel-reinforced concrete ties with spring clips that hold on to
16 the high speed rails, and they don't give up. You'll find that
17 in China and Europe, South America, most of the rest of the
18 world.
19 Unfortunately our railroads won't invest in the
20 infrastructure to improve the rails that need to be improved.
21 Right now that 245-mile trip from Grand Junction by
22 rail would relieve the I-70 Corridor of more concrete,
23 pollution, and danger.
24 That 244-mile trip would cost the railroad about
25 \$21.96 for a three-ton auto. That's their dun price. An

A

Comments

Responses

Source: Hearing 1 Public	Name: Ron Barron (continued)
Document Number: IND-04	City, Zip Code: Dillon, 80435

Response IND-04 (continued)

A. (Continued from previous page)

Track type and design would be determined in future rail studies. For this study, rail performance was modeled based on equipment operating characteristics, not details of track design. However, new tracks or guideway would be installed as part of any transit alternative implemented in the Corridor. Improving the national rail system or providing incentives to existing rail operators were not considered because they are beyond the scope of this study.

1 additional charge for passengers to enjoy comfortable coach
2 would be extra.
3 At 20 miles per gallon the 244-mile trip would cost
4 \$36.60 at \$3 a gallon in gas alone. Trains get about 10 times
5 the fuel milage of trucks.
6 This would help increase safety, prevent pollution,
7 and lower the consumption of fuel, and help solve global
8 warming.
9 Existing railroads need to be upgraded. We need to
10 talk with the private industry. And maybe to subsidize them, or
11 show them how much more business they could get. But it would
12 take a lot of traffic off our Mountain Corridor.
13 That's my suggestion. Thank you.

A

Comments

Responses

Source: Comment Sheet	Name: Debra Irvine
Document Number: IND-05	City, Zip Code: Breckenridge, 80424

Public Hearing **October 2010**

SUBMIT A COMMENT

All comments submitted during the 60-day Revised Draft Programmatic Environmental Impact Statement (PEIS) comment period will be considered prior to the Final PEIS, responses to comments will be included with the Final PEIS.

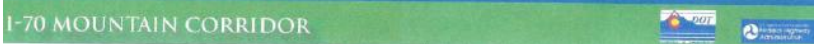
NAME Debra Irvine
 ORGANIZATION Candidate for State Representative H056
 ADDRESS [REDACTED]
 CITY Breckenridge STATE CO ZIP CODE 80424
 PHONE [REDACTED] E-MAIL [REDACTED]

Comments must be received no later than November 8, 2010.

What are your comments?

I am wondering if you consider utilizing plexiglass or like substance with noise wall design.
Our communities have beautiful vistas that are impacted. Specifically I note the noise wall on Hwy 9 going into Breckenridge.

IND-05



Response to IND-05

A. While the Colorado Department of Transportation has approved the use of transparent noise walls, further investigation is necessary to determine if this type of material is appropriate to site-specific conditions in the I-70 Mountain Corridor. Noise walls are among the mitigation measures that will be evaluated and considered during the Tier 2 processes.

In designing and implementing new transportation elements in the Corridor, CDOT will refer to the I-70 Mountain Corridor Context Sensitive Solutions Aesthetic Guidelines and create a site-specific Tier 2 Aesthetic Plan and Lighting Plan. See **Section 3.11.7, "What are the approaches to programmatic mitigation planning for visual resources?"** of the PEIS for more information on visual resources mitigation planning.

Comments

Responses

Source: Comment Sheet	Name: Flip Brumm
Document Number: IND-06	City, Zip Code: Silverthorne, 80498

What are your comments?

A Any thoughts on the over population problem?
 Any consideration on population control? Less people
 born might mean less people on the highway.

B LETS GET STARTED LETS GET GOING NOW!
 Sooner better than later. Start moving dirt,
 moving rocks, moving money, get people to work.
 Enough studies. Get'er done.

Response to IND-06

- A. Comment noted.
- B. The lead agencies share your sense of urgency with making improvements in the Corridor. Some early action projects in the Corridor have been identified, and these are being studied prior to completion of this Tier 1 decision. They are listed in the **Introduction** of the PEIS in the section **“What activities can occur before the Record of Decision?”** and include: Empire Junction (US 40/I-70) improvements; I-70/Silverthorne interchange; Eagle interchange; Minturn interchange; Edwards interchange; Black Gore Creek, Straight Creek, and Clear Creek Sediment Control Action Plans; and wildlife fencing along the I-70 highway to enhance safety.

The PEIS is a Tier 1 study, which identifies mode, general location, and capacity of improvements on the I-70 highway but does not contain detailed design to fully assess specific environmental impacts or mitigation or viability of technology; these will be evaluated under specific Tier 2 processes. The Tier 1 document does not complete National Environmental Policy Act (NEPA) compliance for construction projects. Tier 2 processes are necessary to identify transportation improvements at specific locations. More in-depth study is required at Tier 2 to complete the NEPA process for specific projects, and is completed before implementation of any construction project that falls under this Tier 1 decision. Please refer to the **Introduction** of the PEIS for more information about the differences between Tier 1 and Tier 2 processes, and the reasons for making these tiered decisions.

Additionally, funding needs to be identified to construct improvements. The Colorado Department of Transportation does not have enough available revenue sources to fund the Preferred Alternative, and additional funding sources must be secured (see **Chapter 5, Financial Considerations** of the PEIS). The **Introduction** of the PEIS describes the transportation planning

(continued on next page)

Comments

Responses

Source: Comment Sheet	Name: Flip Brumm (continued)
Document Number: IND-06	City, Zip Code: Silverthorne, 80498

C Has the railroad corridor Moffat Tunnel Winter park Grand County along the Colorado river through Glenwood spring been studied for expansion, speeding up, volume incre OR is it already maxed out. A little innovation and money there on the already existing rail road might work. And also the rebuilding of Tennessee Pass Railroad through Arkansas will

Response to IND-06 (continued)

B. (Continued from previous page)
 process in Colorado. Projects must be prioritized and programmed into the long-range Statewide Transportation Plan, which is not fiscally constrained, and the short-range Statewide Transportation Improvement Program, which is fiscally constrained (meaning all projects in the program have funding identified) before they can proceed to design and construction.

C. The Colorado Department of Transportation did look at expanding the existing rail corridor from Denver through Moffat Tunnel, Winter Park, and Glenwood Springs (with options for service to terminate in Winter Park or Glenwood Springs). This alternative, which is described in more detail in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website), does not meet the project's needs because the alignment requires use of locomotive-hauled passenger rail cars, which have low capacity (serving a maximum of 1,400 passengers per hour) and slow travel speeds (23 to 27 miles per hour). Low capacity does not remove enough trips from the I-70 highway to reduce congestion, and slow travel speeds do not make the alternative an attractive alternative to automobile travel. Additionally, this alignment serves only a limited number of Corridor destinations and does not meet the accessibility and mobility needs for the Corridor.

Another travel management (i.e., non-infrastructure) alternative considered would have increased the frequency of service for the Winter Park ski train (discontinued in 2009). However, due to the volume of freight traffic through the Moffat Tunnel and limited air ventilation in the tunnel, the existing line cannot accommodate more than two round-trip passenger trains per day. Because this service has relatively low travel speeds and low capacity, it is not able to remove enough traffic to change operations or reduce travel time in the Corridor to meet the purpose and need of the project, and it was eliminated as a standalone alternative. A revived ski train service could be considered by others but does not address the purpose and need for the I-70 Mountain Corridor. (continued on next page)

Comments

Responses

Source: Comment Sheet	Name: Flip Brumm (continued)
Document Number: IND-06	City, Zip Code: Silverthorne, 80498

Response to IND-06 (continued)

C. (Continued from previous page)

It is not within the purview of CDOT to regulate the movement of freight. Union Pacific, which owns the line over Tennessee Pass, would need to look at re-opening the line. The Tennessee Pass Line is currently classified by the Surface Transportation Board as out-of-service from Gypsum to Parkdale. For this portion of the line to be reactivated, it would require approval from the Surface Transportation Board. It would likely be expensive to rehabilitate the Gypsum to Parkdale portion of the line, the crossings, and yards. Given the steep grades on this line, operational costs for freight trains could be less economical than trucking.

The study considered routes from the south as alternatives to travel on the I-70 highway. Generally, not enough trips generate from the south Front Range to relieve traffic on the I-70 highway. Travel modeling conducted in 2000 showed that only 3.6 percent of traffic on the I-70 highway was generated from these areas.

Chapter 2, Summary and Comparison of Alternatives and the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website) contain more details on these and other alternatives considered.

Comments

Responses

Source: Letter	Name: Rodney Barron
Document Number: IND-07	City, Zip Code: Dillon Valley

I – 70 Mountain Corridor Traffic Solution

I-70 mountain corridor congestion, pollution, and safety are problems that will get worse unless fixed.

A safe, cheap, and quick alternate route would be a solution, not more pavement. Cars and trucks could be re-routed to ride on improved existing heavy rail. Traffic congestion and pollution along I-70 could be reduced. Put the cars and trucks on trains.

Rail transportation costs about three cents a ton mile. The 244 mile trip from Denver to Grand Junction by rail would relieve the I-70 mountain corridor of more concrete, pollution, and danger. The 244 mile trip would cost the railroad about \$21.96 for a three ton auto. An additional charge for passengers to enjoy a comfortable coach would be extra. At twenty miles per gallon, the 244 mile trip would cost \$36.60 at \$3 a gallon in gas alone. Trains get about ten times the fuel mileage of trucks. This would increase safety, prevent pollution, and lower the consumption of fuel and help global warming.

Response to IND-07

A. Yes, CDOT found that including transit for the I-70 Mountain Corridor would divert some highway trips from the interstate and would also serve unmet demand for travel, increasing the capacity of the transportation system. For these reasons, the Preferred Alternative is a multimodal solution. However, using existing track or expanding or upgrading existing rail systems was not a reasonable alternative to meeting transportation needs, primarily because the existing systems do not serve Corridor destinations well. See responses to your comment [IND-04-A](#) and comment [IND-06-C](#) for a discussion of alternatives considered for reusing or upgrading existing rail and why those alternatives were not advanced in the PEIS.

Please also refer to the response to your comment [IND-04-A](#) regarding the feasibility of using rail to ferry cars in the Corridor.

Regarding pollution and global warming, the PEIS did calculate the emissions associated with all Action Alternatives, and results are presented in **Section 3.1, Climate and Air Quality Resources** and in the *I-70 Mountain Corridor PEIS Climate and Air Quality Technical Report* (included electronically on CD-ROM in Volume 3 of the PEIS Technical Reports and on the project website). Generally, transit alternatives resulted in reduced emissions as you suggest. The Preferred Alternative's Advanced Guideway System has greater capacity than an Autotrain-type system and would divert more trips (and vehicular pollution) from the Corridor.

Comments

Responses

Source: Letter	Name: Rodney Barron (continued)
Document Number: IND-07	City, Zip Code: Dillon Valley

Response to IND-07 (continued)

B. As noted in response to your comment [IND-04](#), track type and design will be determined in future rail studies. At the Tier 1 level of analysis, rail performance calculations relied primarily on equipment operating characteristics, such as propulsion systems, car width and weight, and right-of-way requirements, to determine which technologies could operate safely and efficiently in the Corridor. Based on these calculations, Rail, Advanced Guideway System, and Bus in Guideway systems were determined to be reasonable transit technologies for the Corridor.

As discussed in **Chapter 5, Financial Considerations**, revenues from motor fuel taxes are stagnant. They are not likely to be a reliable source for sustained transportation funding in the future and are not likely to be a source of substantial funding to fund major rail upgrades or expansion. A new transportation authorization bill will address future uses of the highway gas tax.

B Our existing railroads still use spikes nailed into wooden ties to hold the rails. Heat changes, humidity changes, and vibration loosen the spikes that hold the rails resulting in accidents. China, Europe, and most of the rest of the world use steel reinforced concrete ties with large steel spring clips for securing highspeed rails. Our railroads must upgrade to allow modern high speed freight and passenger traffic to safely travel. Once the rail is improved, cheap, safe, and fast travel would entice interstate traffic to use this attractive alternative transportation. An ongoing advertising program will help fill the trains.

The railroad industry would need enticements such as government subsidies to encourage them to upgrade and provide suitable auto, truck, and passenger transport. The highway gas tax we now use to repair and improve interstate highways would be one source of cash for the railroads to transport cars and trucks.

Just imagine travel on I-70 without inexperienced mountain drivers and interstate trucks. Costly highway widening and new tunnels wouldn't be needed.

Rodney Barron
Dillon Valley

Comments

Responses

Source: Letter	Name: Richard Sears
Document Number: IND-08	City, Zip Code: Unknown

My suggestion to correct the I 70 issue.....I propose that I 70 be made a toll road from C 470 to Glenwood Springs & back. Charge each vehicle according to its peculiarities...cars, trucks, motor cycles, RVs, out of state vehicles, etc.

A

Then, use the money to widen I 70. When the project is completed, take off the toll.

This is exactly what was done to build the bridge-tunnel across & under the Chesapeake Bay & farther to the north, under Hampton Roads.

By doing the project this way, everyone using I 70 will chip in to pay for the project.

Response to IND-08

- A. **Chapter 5, Financial Considerations** acknowledges that alternative funding sources will be required to pay for I-70 highway improvements. Tolling is one of the funding options CDOT will consider in future Tier 2 processes. With appropriate approvals, CDOT could consider tolls for new or existing lanes.

Comments

Responses

Source: Comment Sheet	Name: Kathryn McDermott
Document Number: IND-09	City, Zip Code: Dillon, 80435

Response to IND-09

A. The Colorado Department of Transportation is currently conducting a feasibility study for adding reversible or “zipper” lanes in a specific area of the Corridor between Georgetown (milepost 230.5) and Floyd Hill (milepost 244.0) in response to legislation passed by the Colorado General Assembly in 2010. The purpose of the *I-70 West Reversible Lane Study* (which can be found online at www.coloradodot.info/projects/I70reversiblelane) is to identify short-term operational actions to decrease congestion on the I-70 highway during peak periods for this specific segment of the Corridor. The *I-70 West Reversible Lane Study* does not meet the 2050 purpose and need of the PEIS.

The Preferred Alternative recognizes the need to plan for a longer horizon and, therefore, relies on a 50-year vision for the Corridor. **Section 1.4**, “**What are the horizon years of analysis for the study?**” of the PEIS describes the horizon years of analysis for the study, and the **Introduction** of the PEIS describes the relationship between the Corridor vision and statewide planning process. Based on the 50-year vision, the Preferred Alternative has the opportunity to meet the purpose and need for I-70 Mountain Corridor improvements over the next 50 years, largely because the phasing and implementation of the program of improvements is adaptive to future needs and trends. Due to the uncertainty of funding, the timing of improvements is also uncertain. No travel demand or population forecasts can reliably predict trends longer than 50 years.

Public Hearing **October 2010**

SUBMIT A COMMENT IND-09

All comments submitted during the 60-day Revised Draft Programmatic Environmental Impact Statement (PEIS) comment period will be considered prior to the Final PEIS, responses to comments will be included with the Final PEIS.

NAME KATHRYN McDERMOTT

ORGANIZATION _____

ADDRESS [REDACTED]



CITY DILLON STATE CO ZIP CODE 80435

PHONE [REDACTED] E-MAIL [REDACTED]

Comments must be received no later than November 8, 2010.

What are your comments?

EXPENSIVE, SHORT-TERM FIXES SUCH AS THE ZIPPER LANE ARE A WASTE OF MONEY & ARE NOT FEASIBLE. WHATEVER IS DONE, IT SHOULD MEET TRAFFIC NEEDS FOR THE NEXT 50 YEARS FROM ITS COMPLETION.

I-70 MOUNTAIN CORRIDOR  

Comments

Responses

Source: Comment Sheet	Name: Tom Nelson
Document Number: IND-10	City, Zip Code: Evergreen, 80439

Response to IND-10

A. The Preferred Alternative includes expanding or improving frontage roads from Idaho Springs to Hidden Valley, and from Hidden Valley to US 6 to address emergency and local access. Non-infrastructure related components, such as traveler information systems, increased enforcement, and others itemized in **Section 2.7.1, "What is the Preferred Alternative?"**, can manage demand in the event of emergencies or accidents. The Colorado Department of Transportation will continue to manage the geologic hazards in the Corridor and acknowledges that these hazards do have the potential to affect travel along the highway under all alternatives (see **Section 3.5, Geologic Hazards** of the PEIS and the *I-70 Mountain Corridor PEIS Geologic Hazards Technical Report* (included electronically on CD-ROM in Volume 4 of the PEIS Technical Reports and on the project website)).

Public Hearing October 2010

SUBMIT A COMMENT IND-10

All comments submitted during the 60-day Revised Draft Programmatic Environmental Impact Statement (PEIS) comment period will be considered prior to the Final PEIS, responses to comments will be included with the Final PEIS.

NAME Tom Nelson
 ORGANIZATION Property owner / resident
 ADDRESS [REDACTED]
 CITY Evergreen STATE CO ZIP CODE 80439
 PHONE [REDACTED] E-MAIL [REDACTED]

Comments must be received no later than November 8, 2010.

What are your comments?

A The Preferred Alternative still does nothing to resolve the major issue that the entire I-70 Corridor is a Single Point Failure (SPF). There is no way to build in any redundancy on the corridor. Rock slides, Avalanches, other natural disasters, heavy winter snow storms will still shut down the highway. The ONLY way to do this job is face the fact that we need a new parallel Interstate Corridor either north or south to solve the above concerns as well as provide additional capacity!

Constructing the original I-70 highway was politically and technically challenging (based on the constraints you observe), and constructing a parallel route would face similar or greater obstacles. The mountainous terrain encountered west of Fort Collins, Denver, Colorado Springs, and Pueblo severely limits the range of a parallel route.

The PEIS considered 17 potential alternate routes to serve travel demand on the I-70 Mountain Corridor, which are illustrated and described in **Section 4.7** of the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website). These potential alternate routes involved improving existing state highways and building new connections (often tunnels) to shorten distances and travel times. These alternate routes were eliminated from consideration for one or more of the following reasons: they (1) result in travel times noticeably longer than times experienced by travelers on the I-70 highway, (2) do not provide sufficient accessibility to I-70 Mountain Corridor communities because of their location miles away from these communities, (3) do not have the potential to divert much traffic from the I-70 highway, and/or (4) have substantial environmental impacts and poorer performance compared with improving the I-70 highway.



Comments

Responses

Source: Comment Sheet	Name: Matt Wilch
Document Number: IND-11	City, Zip Code: Baltimore, MD 21231

Public Hearing **October 2010**

SUBMIT A COMMENT IND-11

All comments submitted during the 60-day Revised Draft Programmatic Environmental Impact Statement (PEIS) comment period will be considered prior to the Final PEIS, responses to comments will be included with the Final PEIS.

NAME Matt Wilch

ORGANIZATION _____

ADDRESS _____



CITY Baltimore STATE MD ZIP CODE 21231

PHONE _____ E-MAIL _____

Comments must be received no later than November 8, 2010.

What are your comments?

A [Please send me a list of the EPA Historic Mining Sites, with site locations, EPA ERMS Incident Sites and Superfund sites in the I-70 corridor.

I-70 MOUNTAIN CORRIDOR  

Response to IND-11

A. As noted in response to comment [ORG-02-B](#), **Section 3.6, Regulated Materials and Historic Mining** of the PEIS contains information about the types of regulated materials sites in the Corridor. The *I-70 Mountain Corridor PEIS Regulated Materials and Historic Mining Technical Report* (included electronically on CD-ROM in Volume 4 of the PEIS Technical Reports and on the project website) supplements the information presented in **Section 3.6, Regulated Materials and Historic Mining** of the PEIS. The information provides an overall assessment of the magnitude of regulated material and historic mining issues and their potential impacts for alternatives considered in the PEIS. The sites identified to date can be found in **Section 3.6.4, "Where are the areas of regulated materials and historic mining in the Corridor?"** of the PEIS. The number and locations of regulated material sites is dynamic because of changes in population and industry-base. Although specific sites may change over time, the types of materials identified in the PEIS are characteristic of what will be encountered during Tier 2 processes. Information about regulated materials and historic mining sites will be updated and evaluated more specifically in Tier 2 processes.

Comments

Responses

Source: Comment Sheet	Name: Mike Novick
Document Number: IND-12	City, Zip Code: Evergreen, 80439

Response to IND-12

A. The restriction of trucks on an interstate facility is regulated by FHWA pursuant to 23 Code of Federal Regulations (CFR) 658.11. This could include restrictions such as time of day. The process identified in 23 CFR 658.111 includes coordination with local governments, analysis of effects to mobility and safety for all interstate users, and ultimate approval by FHWA.

Public Hearing October 2010

SUBMIT A COMMENT IND-12

All comments submitted during the 60-day Revised Draft Programmatic Environmental Impact Statement (PEIS) comment period will be considered prior to the Final PEIS, responses to comments will be included with the Final PEIS.

NAME Mike Novick

ORGANIZATION _____

ADDRESS [REDACTED]

CITY Evergreen STATE CO ZIP CODE 80439

PHONE [REDACTED] E-MAIL [REDACTED]

Comments must be received no later than November 8, 2010.

What are your comments?

A I would like to see a short-term solution implemented immediately that would not allow Trucks to go westbound on I-70 past m.m. 260 from 6AM to 9AM on Sat & Sun mornings and not allow Trucks to go Eastbound on I-70 past m.m. 205 from 3PM to 6PM on Sat & Sun evenings. Why can't this be implemented Now?

Many freight operations have some scheduling flexibility and therefore avoid peak travel/congestion times to the extent possible. However, other freight operations have more strict delivery timing requirements and must operate in the Corridor regardless of traffic conditions (for example, bulk mail, food service, scheduled packaged delivery and just-in-time shipments). Additionally, limited truck parking resources and Federal Hours-of-Service regulations further limit options for the commercial vehicle driver in the I-70 Mountain Corridor. It should be noted that the portion of heavy trucks varies greatly along the Corridor by day of week; there are more trucks on weekdays compared to weekends.

The lead agencies considered and advanced a slow-moving vehicle plan as a transportation management alternative element, included as a non-infrastructure component of the Preferred Alternative. Some of the elements of that plan specifically targeted at truck traffic, such as improved chain up stations and rest areas, can proceed with no further approval from FHWA. Improved chain up areas and enhanced traveler information strategies have been recently installed in some Corridor locations by CDOT.

The Colorado Department of Transportation is committed to improving safety and mobility of all of the users of the I-70 highway and will continue to explore all options available to do so.



Comments

Responses

Source: Comment Sheet	Name: Rose-Marie Mann
Document Number: IND-13	City, Zip Code: Evergreen, 80439

Public Hearing October 2010

SUBMIT A COMMENT IND-13

All comments submitted during the 60-day Revised Draft Programmatic Environmental Impact Statement (PEIS) comment period will be considered prior to the Final PEIS, responses to comments will be included with the Final PEIS.

NAME ROSE-MARIE E. MANN
 ORGANIZATION _____
 ADDRESS _____
 CITY EVERGREEN STATE CO ZIP CODE 80439
 PHONE _____ E-MAIL _____

Comments must be received no later than November 8, 2010.

What are your comments?

You need to speed this up - 9035 seems to fall out for a Monorail or other elevated system. To many studies have already be done, this makes it more and more costly - start the work. Believe me the answer is a elevated system, the only system that will eventually work the proper and beneficial way for all. This is my true Opinion. Now, would be a great time to start this, it would put people to work who are un-employed and it would be less costly now then in the future. You should not make more studies, I truly feel the studies you have now are comprehensive enough - Now, you should try to get funds from the Federal Government (to put people to work) Get with it - Thanks, R.M. I am against the Humimum Program, such more and more

OVER →

I-70 MOUNTAIN CORRIDOR



Response to IND-13

A. Please see response to [IND-06-B](#), which explains why Tier 2 processes are required, the current lack of funding for construction of the Preferred Alternative, and early action projects that are being or can be implemented prior to the decision on this Tier 1 PEIS.

Additional study is required for the Advanced Guideway System component of the Preferred Alternative specifically. As discussed in **Section 2.7.1, "What is the Preferred Alternative?"** of the PEIS, the Advanced Guideway System represents a mode encompassing a range of technologies that would be capable of being fully elevated for the length of the Corridor. Subsequent feasibility studies and related Tier 2 processes are required to select an appropriate and viable technology as well as to determine costs and benefits, safety, reliability, environmental impacts, and other considerations to support the substantial monetary investment.

Comments

Responses

Source: Comment Sheet	Name: Rose-Marie Mann
Document Number: IND-13	City, Zip Code: Evergreen, 80439

Response to IND-13 (continued)

A expenses - We already know how Monorails work etc. --- from other countries. Scrap more future studies, it's crazy & too expensive. You have really enough studies of course. There will always be impacts. Impacts are part of any project - but you can not go on and on to please everybody.

IND-13

SUBMIT ADDITIONAL COMMENTS

Attach any additional comments you may have or visit www.i70mtncorridor.com where comments can also be submitted. You may also submit comments through the mail:

CDOT Region 1
c/o Wendy Wallach I-70 Mountain Corridor Environmental Manager
18500 East Colfax Avenue, Aurora, CO 80011

HOW TO STAY INFORMED ABOUT THE PROJECT

Project information is available via an e-mail subscription service. Sign up on: www.i70mtncorridor.com, click on the cell phone icon in the upper right hand corner.

Do you want to be on the mailing list for future project updates? yes no



Comments

Responses

Source: Comment Sheet	Name: Paula Lallier
Document Number: IND-14	City, Zip Code: Salida, 81201

Response to IND-14

- A. The Sediment Control Action Plan and Stream and Wetland Ecological Enhancement Program (SWEEP) actions in Black Gore Creek address stream conditions caused by humans and the built environment. These programs would not likely address naturally-occurring conditions like beaver dams.
- B. The *Black Gore Creek Sediment Control Action Plan* is currently being implemented. The SWEEP Memorandum of Understanding was signed in January 2011 and is included in **Appendix D, Stream and Wetland Ecological Enhancement Program (SWEEP) Memorandum of Understanding.**

Public Hearing October 2010

SUBMIT A COMMENT

IND-14

All comments submitted during the 60-day Revised Draft Programmatic Environmental Impact Statement (PEIS) comment period will be considered prior to the Final PEIS, responses to comments will be included with the Final PEIS.

NAME Paula Lallier
 ORGANIZATION _____
 ADDRESS _____
 CITY SALIDA STATE CO ZIP CODE 81201
 PHONE _____ E-MAIL _____

Comments must be received no later than November 8, 2010.

What are your comments?

A Where a beaver dam has altered the original course of Black Gore Creek, is this an impediment that will or can be addressed by the "SWEEP" program? When will the "SWEEP" program start in the Black Gore Creek area?



Comments

Responses

Source: Letter	Name: Nick Dodich (continued)
Document Number: IND-15	City, Zip Code: Arvada, 80004

C

One plan that has been mentioned is to have the construction of an elevated monorail system on I-70 between C-470 junction and Eagle County Regional Airport, which totals 118 miles. The cost is estimated to be between \$16 million and \$20 billion over the next 40 years.

C

The time and money mentioned is staggering to me. I will never see this project come to fruition, and I doubt if some baby boomers will see it. I think we can do better than this. We need to; we can't afford to wait any longer. The traffic by then will be unbearable if not disastrous. It is sad to learn that Colorado Department of Transportation has spent about \$30 million over the past 10 years on environmental studies on this corridor (*See Den. Post story by Jeffrey Lieb on 9-11-2011, page 1 B.*) This amount is staggering.

Response to IND-15 (continued)

C. The Advanced Guideway System you describe is one of the major components of the Preferred Alternative for the I-70 Mountain Corridor. Note that the technology (monorail or other) for the Advanced Guideway System has not been identified, and feasibility studies and related Tier 2 processes are required to refine the technological and other operating details. The Preferred Alternative is a multimodal solution that addresses long-term needs in the Corridor. Other major components of the Preferred Alternative include highway capacity improvements, non-infrastructure solutions, and collaborative stakeholder engagement. The total cost of the Preferred Alternative is estimated at between \$16 billion and \$20 billion in the year that money is spent (with a 2025 midyear of construction).

The Preferred Alternative provides a comprehensive proposal for improvements to the I-70 highway, and CDOT is committed to implementing recommended improvements as funding allows. The Preferred Alternative includes a process for evaluating Corridor conditions and effectiveness of improvements every two years. This adaptive management approach allows CDOT to maximize the effectiveness of improvements and leverage available funding to meet both short- and long-term needs.

The Colorado Department of Transportation has also been making ongoing, shorter-term safety and operational improvements in some Corridor locations, including truck chain up areas, improved traveler message signs, park-and-ride locations, rockfall mitigation, better emergency response plans, roadside safety enhancements, median barrier improvements, and tunnel enhancements. These types of improvements would continue with implementation of the Preferred Alternative.

Comments

Responses

Source: Letter	Name: Nick Dodich (continued)
Document Number: IND-15	City, Zip Code: Arvada, 80004

One solution that I think is feasible is to immediately start with the construction of the improvement on the eastbound traffic on the 15-mile segment between the Empire Junction to Floyd Hill. The improvement will involve the biggest roadblock which is the twin tunnels at Idaho Springs. In addition, I believe it is possible to add another lane to eastbound traffic. Some land can be taken from the space that divides the westbound lane from the eastbound lane. Maybe some of the land on the right (opposite) shoulder could be used for the expanded 15 mile lane. The westbound improvement would be built after the most-needed eastbound lane is finished.

D A new two-lane tunnel would need to be made on the south. Instead of using the conventional method of drilling and dynamite, a tunnel boring machine can be employed. It has many advantages. It is much faster, it does not create explosive tremors, and it creates clean curvatures, which lessens finishing time and large rock removal time. The distance of the twin tunnels is only 0.2 of a mile, or 352 yards, a little longer than 3 football fields. I checked with Robbins Co., which makes tunnel boring machines in America. A 20-foot diameter boring machine can bore through hard rock at 5 to 10 feet per hour, depending on the hardness of the rock. At 5 feet per hour it would take 8.8 days to drill through the tunnel if calculations are correct. This machine costs about \$1.5 million. The boring can be done 24/7.

Response to IND-15 (continued)

D. The Preferred Alternative includes a third tunnel bore and widening one of the existing tunnels at the Twin Tunnels. The third bore accommodates three lanes of westbound traffic, the modified existing tunnel accommodates three lanes of eastbound traffic, and the remaining existing tunnel accommodates the Advanced Guideway System. Although not identical, this element of the Preferred Alternative is similar to your proposal and includes an additional eastbound and westbound travel lane as you propose.

In the area between Empire Junction and Floyd Hill, the Preferred Alternative Minimum Program of Improvements includes an additional travel lane in each direction between the Twin Tunnels and Floyd Hill and interchange improvements at Empire Junction. The Maximum Program of Improvements includes six-lane capacity between the Eisenhower Johnson Memorial Tunnels and the Twin Tunnels. The Minimum Program of Improvements prioritizes adding a third bore to the Twin Tunnels, making improvements east of the Twin Tunnels, addressing the Empire Junction interchange complex, and adding or thoroughly evaluating an Advanced Guideway System ahead of providing six-lane capacity. Improvements are proposed this way to minimize construction disruption and improve capacity and congestion relief in select pinch points in this area.

Please refer to responses to your comments [IND-01-C](#) and [IND-01-D](#) regarding methods and timing of construction.

Comments

Responses

Source: Letter	Name: Nick Dodich (continued)
Document Number: IND-15	City, Zip Code: Arvada, 80004

Response to IND-15 (continued)

An attractive feature of the machine is that Robbins Co. will buy the tunnel boring machine back when the boring is finished. But it may be worthwhile to keep the machine for future tunnel construction. In the future many more tunnels may need to be built around the state; for example, two more at the Eisenhower Tunnel on the Continental Divide. Of course finishing the tunnel will take more time. A good feature of a tunnel is that it is a sanctuary for construction workers as well as travelers in inclement weather.

A procedure that will hasten the construction is for 2 crews to operate from opposite ends of the 15-mile segment, just like when the Transcontinental Railroad was completed in 1869. Maybe a third crew could operate the tunnel boring machine. I believe the whole 15-mile eastbound segment could be built in about one year. Building the third lane from the twin tunnels at Idaho Springs to the Empire Junction may need some thought. A few methods are available, and an evaluation as to which is the most viable may be required.

A new permanent two-lane tunnel for the eastbound traffic will eliminate the need for temporary zipper lanes. This will enable the eastbound traffic to have 3 lanes and the west bound lanes will have their usual 2 lanes. This segment of I-70 will now have a north tunnel, a middle tunnel and a south tunnel.

North Tunnel: The north tunnel will remain the same as it is now. It will accommodate the usual westbound traffic.

Middle Tunnel: This tunnel which is now in place will handle one lane of eastbound traffic and one lane of westbound traffic. A permanent divider would be built to separate the lanes and avoid any possible accident. A tunnel provides excellent protection from weather, and its lighting provides excellent vision.

IND-15

Comments

Responses

Source: Letter	Name: Nick Dodich (continued)
Document Number: IND-15	City, Zip Code: Arvada, 80004

Response to IND-15 (continued)

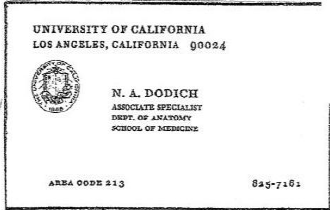
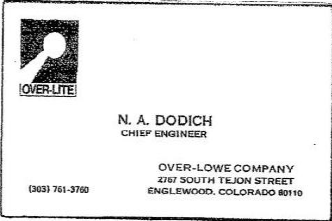
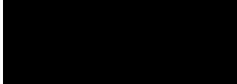
E. Comment noted. (The letter to the editor was not an official comment on this PEIS, but the revenue sources suggested to construct improvements are options discussed in **Chapter 5, Financial Considerations** of the PEIS.)

D
South Tunnel: The new south tunnel will handle 2 lanes of eastbound traffic. Together with one lane of the middle tunnel the eastbound traffic will now total 3 lanes. There will be no need for zipper lanes. The final remaining work will be constructing the melding lanes to their respective tunnels.

When the eastbound construction is completed, then the westbound construction can start. The sooner the better. It will avoid rising inflationary costs. For example the 72nd Avenue project in Arvada started with an estimated cost of \$1.5 million. After years of haggling and many studies, it ended up costing \$22 million.

E
For interesting and noteworthy financing of the I-70 corridor, Tom Savage of Colorado Springs offers thought-provoking methods in a Denver Post letter to the editor on September 19, 2010.

Nick Dodich
Industrial/Biomedical Engineer



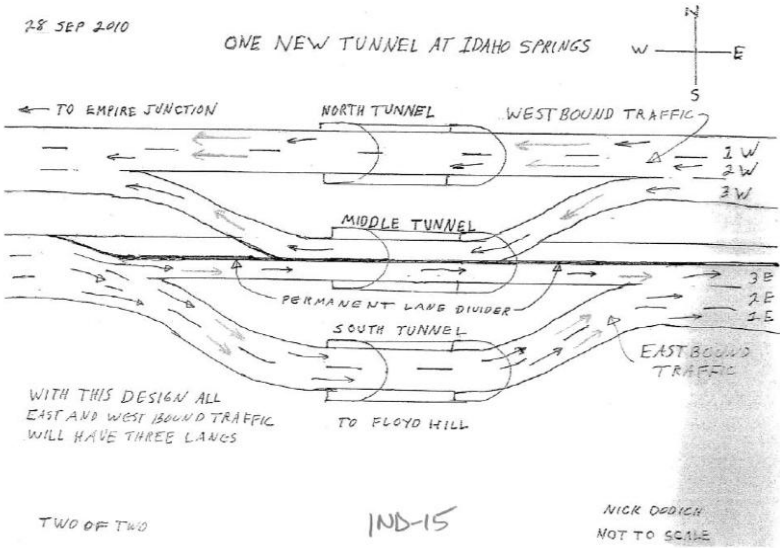
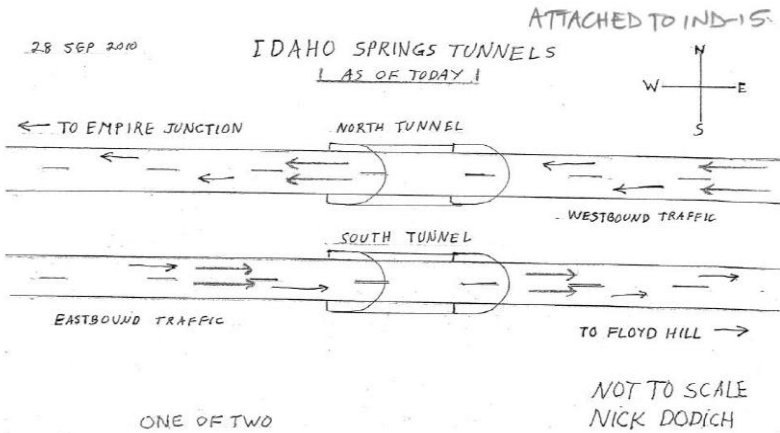
IND-15

Comments

Responses

Source: Letter	Name: Nick Dodich (continued)
Document Number: IND-15	City, Zip Code: Arvada, 80004

Response to IND-15 (continued)



Comments

Responses

Source: Public Hearing	Name: Hans Mann
Document Number: IND-16	City, Zip Code: Evergreen, 80439

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Tuesday, October 6, 2010

IND-16

3 MR. MANN: My name is Hans Mann, H-a-n-n-s, M-a-n-n.
 4 As you can see I'm the real one. I got it in black
 5 and white. I was trying to make a joke. You don't necessarily
 6 have to put in that one.
 7 Anyway, I'm following this, and the discussions and
 8 stuff about the rail system up there, all the way up, whether
 9 they want to go to Glenwood or all the way to Aspen.
 10 Personally in what I seen from Europe and from
 11 different other areas in the world, the way we are in the
 12 mountains here, if they put in anything else than an elevated
 13 one-rail system, personally I think it is a mistake. Because if
 14 they put a rail system in they have a problem and it snows and
 15 they need extra equipment.
 16 Do you get me so far?
 17 If they put in one rail, elevated one-rail system the
 18 snow will never bother it because the system itself is heavy
 19 enough and they can put in like a -- in front of it like a --
 20 what you call it? Like disburse of the snow? Like a snowplow
 21 kind of a deal, you know? Which doesn't have to be wide,
 22 because the rail is only like 16 or 18 inches probably at the
 23 most in the footprint of it, you know?
 24 So if they go what they call the maglev system where
 25 it is a flying or magnetic elevated system or a mechanical

Response to IND-16

A. The Preferred Alternative includes an Advanced Guideway System transit component. The Advanced Guideway System is capable of being fully elevated to avoid environmental impacts and minimize footprints. Specifics of the technology, operation, and design have not been developed at this stage of the project, but the performance criteria for the Advanced Guideway System require it to operate reliably in Corridor weather conditions. These details will be studied further in feasibility studies and related Tier 2 processes.

The Colorado Department of Transportation did consider snow removal and other winter weather conditions (such as icing) as potential constraints for developing appropriate technologies to use in the Corridor. Details of snow removal and winter weather operations will also be studied further in conjunction with study of the specific transit technology, but snow plows have been used on trains and are available to be considered.

Comments

Responses

Source: Public Hearing	Name: Hans Mann (continued)
Document Number: IND-16	City, Zip Code: Evergreen, 80439

Response to IND-16 (continued)

A

1 system, anything, but it should -- they should elevate it
2 because this way it is foolproof, I mean, against weather.
3 You know, the whole highway, everything might be
4 stuck because -- and also a train system would be stuck if it
5 would get three or four or five foot of snow, what sometimes
6 happens. Okay, it might only seldom happen. But a system what
7 I'm talking about, either one of these systems, the maglev or
8 the mechanical one-rail system is foolproof
9 It costs maybe twice as much. That is the big hook, I
10 guess.
11 That's all I want to say.

12 Would you like to have my address? It's 29200 Rainbow
13 Hill Road. And we are part of Evergreen 80439.
14 So that's one man's opinion. And I have people in the
15 family which are engineers. They agree with me. You know,
16 sure, it might cost. As I said before, it will cost more. An
17 elevated system will cost more
18 I don't know. I'm not an engineer so I don't know
19 percentagewise what. I mean, they were playing with the idea
20 anyway. I mean, whoever is in charge of what do you call that?
21 CDOT? Is that a CDOT system I assume?

B

B. Costs were estimated for the various alternatives studied in the PEIS. The Advanced Guideway System is estimated to cost approximately 20 percent more than the Rail with Intermountain Connection Alternative. As you point out, elevated systems are more expensive to construct, and the cost estimate for the Advanced Guideway System assumes the system would be elevated throughout, while the Rail with Intermountain Connection would be primarily at grade.

Cost estimates for alternatives were developed in 2004 from preliminary design item costs, cost estimating contingency factors, and other component costs. To update costs for this document, CDOT used cost escalations for each alternative, using the Colorado Highway Construction Cost Index as a basis for determining long-term future cost escalation.

Conceptual costs for all the alternatives studied are presented in **Chapter 5, Financial Considerations** of the PEIS and in the *I-70 Mountain Corridor PEIS Cost Estimating Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website).

Comments

Responses

Source: Public Hearing	Name: William H. Schaefer
Document Number: IND-17	City, Zip Code: Evergreen, 84039

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Tuesday, October 6, 2010

A 24 MR. SCHAEFER: My name is William H. Schaefer,
 25 S-c-h-a-e-f-e-r. I live at [REDACTED]
 1 right here off I-70
 2 And my question is, with all these things I've heard,
 3 I've heard nothing about a long-term fix for the traffic issue,
 4 like running a road from Colorado Springs up to Summit County
 5 and from Northern Colorado to funnel the Boulder to Fort Collins
 6 and Loveland traffic up to the mountains without having to come
 7 down through I-70
 A 8 Right now everything's like a funnel. And you have
 9 all these people that have to drive and come through I-70.
 10 I know it would be very costly. But if you want the
 11 growth and want to develop ski areas and hand out building
 12 permits like they're popcorn then you've got to provide for the
 13 infrastructure. And that's what really needs to happen. That
 14 would take probably a third of all our traffic.

Response to IND-17

A. The PEIS considered 17 potential alternate routes to the I-70 Mountain Corridor, which are illustrated and described in **Section 4.7, "What past, present, and reasonably foreseeable future actions were considered?"** of the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website). Eight of these routes specifically looked at diverting traffic originating from or destined for areas north and south of the Denver metropolitan area from the I-70 highway.

Travel demand modeling conducted to support the analysis of these alternate routes found that travelers originating from south Front Range communities (including Pueblo and Colorado Springs) and north Front Range communities (including Fort Collins) average only 3.6 percent (from the south Front Range) or 3.5 percent (from the north Front Range) of total traffic on the I-70 highway. The majority of travel originates from the Denver metropolitan counties, the Corridor counties, or out of state.

These alternate routes were eliminated from consideration for one or more of the following reasons: they (1) result in travel times noticeably longer than times experienced by travelers on the I-70 highway, (2) do not provide sufficient accessibility to I-70 Mountain Corridor communities because of their location miles away from these communities, (3) do not have the potential to divert much traffic from the I-70 highway, and/or (4) have substantial environmental impacts and poorer performance compared with improving the I-70 highway.

Comments

Responses

Source: Public Hearing	Name: William H. Schaefer (continued)
Document Number: IND-17	City, Zip Code: Evergreen, 84039

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Tuesday, October 6, 2010

B

15 Then of course if they have airports that would handle
 16 direct flights a little better it would -- then maybe you
 17 wouldn't have to build this monster highway.

Response to IND-17 (continued)

B. The Colorado Department of Transportation also considered improving airports as an option to divert traffic from the Corridor. *The I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website) discusses the aviation alternatives considered in the development of the PEIS.

Improvements at the three commercial airports in the Corridor (Eagle County Regional Airport, Aspen-Pitkin County/Sardy Field, and Yampa Valley Airport) were estimated to reduce 500 person trips per day, or 178 vehicle trips per day using the Corridor's average 2.8 person vehicle occupancy rate. This reduction provides minimal effects to the volume of traffic on the I-70 highway during peak travel demand periods, where 2,400 vehicle trips must be removed to reduce congestion noticeably.

Comments

Responses

Source: Public Hearing	Name: William H. Schaefer (continued)
Document Number: IND-17	City, Zip Code:

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Tuesday, October 6, 2010

18 Because I live here and I have to drive in it. And if
 19 they do it, they start construction, I have to deal with it for
 20 years. And by the time it's done it's obsolete because of the
 21 growth
 22 And that happens with the roads all the time. Expand
 23 them, and by the time the construction work's done it's obsolete
 24 because the growth has caught up with them.

25 But I think definitely you need those alternate
 1 routes. Right now on I-70 I don't care how many lanes it is,
 2 there's a big accident on there it shuts everything down.
 3 There's no other road for people to take that are good roads.
 4 And so that's my question. And I just don't
 5 understand why somebody isn't doing something about that.
 6 Because just one route to Summit County -- and light-rail, yeah,
 7 some people take it. But I don't think it's really an answer to
 8 correcting it.
 9 The problem is there's too many things that people do
 10 in the mountains that would not lend themselves to not having a
 11 car with them.
 12 But that's my two cents worth.

C

D

D

Response to IND-17 (continued)

C. The PEIS acknowledges that construction of the complete Preferred Alternative is a long process. However, construction will not occur in a single location for the duration of the construction period. Strategies to mitigate social and economic impacts that will be considered in Tier 2 processes are discussed in **Section 3.8, Social and Economic Values** of the PEIS. Construction will be phased and the scheduling of construction projects will be considered in the Tier 2 processes to limit construction of multiple projects in one area.

To avoid building obsolete infrastructure, the multimodal Preferred Alternative recognizes the need to plan for a longer horizon and, therefore, relies on a 50-year vision for the Corridor. In addition to some limited initial expansion of the roadway, the Preferred Alternative includes an Advanced Guideway System transit component.

In addition, the Collaborative Effort stakeholder committee will review progress and effects of the Preferred Alternative at least every two years and conduct a thorough reassessment of transportation needs in 2020.

D. As noted in response to your previous comment [IND-17-A](#), CDOT did consider a number of alternate routes to serve travel demand. The Colorado Department of Transportation also considered options to provide parallel routes, but parallel routes do not exist and would be difficult to develop, as noted in response to comment [IND-10-A](#).

The Colorado Department of Transportation agrees that the need for travelers to drive in the Corridor will continue even with a transit option, which is why the Preferred Alternative includes a combination of increasing roadway capacity and providing transit service.

Comments

Responses

Source: Public Hearing	Name: Etta Satter
Document Number: IND-18	City, Zip Code: Evergreen, 80439

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Tuesday, October 6, 2010

A

6 MS. SATTER: My name is Etta, E-t-t-a. Last name is
 7 Satter, S as in Sam a-t-t-e-r. Address is [REDACTED]
 8 [REDACTED] You didn't need the
 9 whole front little part.
 10 Okay. I like first and foremost the monorail or the
 11 guideway. I think that that has got to be the core, the key to
 12 it. And it's really good to see that as part of the real
 13 essence of the plan.
 14 I liked, I like the idea of having times, specific
 15 times for moving freight for trucks, you know, so that --
 16 because there's so much that is clogged up with trucks.

B

Response to IND-18

- A. Comment noted.
- B. The restriction of trucks on an interstate facility is regulated by FHWA pursuant to 23 CFR 658.11. This could include restrictions such as time of day. The process identified in 23 CFR 658.111 includes coordination with local governments, analysis of effects to mobility and safety for all interstate users, and ultimate approval by FHWA.

Many freight operations have some scheduling flexibility and therefore avoid peak travel/congestion times to the extent possible. However, other freight operations have more strict delivery timing requirements and must operate in the Corridor regardless of traffic conditions (for example, bulk mail, food service, scheduled packaged delivery and just-in-time shipments). Additionally, limited truck parking resources and Federal Hours-of-Service regulations further limit options for the commercial vehicle driver in the I-70 Mountain Corridor. It should be noted that the portion of heavy trucks varies greatly along the Corridor by day of week; there are more trucks on weekdays compared to weekends.

The lead agencies considered and advanced a slow-moving vehicle plan as a transportation management alternative element, included as a non-infrastructure component of the Preferred Alternative. Some of the elements of that plan specifically targeted at truck traffic, such as improved chain up stations and rest areas, can proceed with no further approval from FHWA. Improved chain up areas and enhanced traveler information strategies have been recently installed in some Corridor locations by CDOT.

The Colorado Department of Transportation is committed to improving safety and mobility of all of the users of I-70 and will continue to explore all options available to do so.

Comments

Responses

Source: Public Hearing	Name: Etta Satter (continued)
Document Number: IND-18	City, Zip Code: Evergreen, 80439

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Tuesday, October 6, 2010

C

17 I like the idea of the bike trails and definitely
 18 expanding the frontage road access for locals, because we can't
 19 get through.

D

20 And the SWEEP for the environmental habitat, the ALIVE
 21 for the wildlife, corridors, crossings, all of that, very good.

F

22 The respect for the greenway, essential. And what
 23 Mary Jane Lovely had to say about capacity building over
 24 widening, I think that's a good idea.

F

25 I'm concerned about, I'm concerned about the impacts
 1 to Idaho Springs of any kind of widening and any kind of
 2 capacity building just as that being the focus I think it's --
 3 by the time it's done it's outdated. It's got to have, got to
 4 have the rail, monorail.

Response to IND-18 (continued)

- C. The Preferred Alternative includes the addition of frontage roads and a bicycle trail from Idaho Springs to Hidden Valley, and from Hidden Valley to US 6 to address emergency and local access, as well as recreational opportunities.
- D. Comment noted.
- E. Comment noted. Please refer to comment [IND-27](#) for Mary Jane Loevlie's comments and the lead agencies' responses to those comments.
- F. The PEIS acknowledges that highway capacity improvements within Idaho Springs will have a substantial effect on the community, both from direct encroachment of the highway into the town and through the construction disruption that will occur in this constrained area. The Preferred Alternative specifically addresses impacts in this area by including six-lane capacity and interchange improvements only after certain triggers are met. If the six-lane capacity in the Maximum Program is implemented, options, such as structured lanes through Idaho Springs, will be further considered in Tier 2 processes to minimize impacts on the community and adjacent resources (see **Section 2.6.4, Action Alternative Components** of the PEIS). The PEIS assumed structured lanes in the Idaho Springs area for the purpose of impact analysis. Please also refer to comment [IND-27-C](#).

Comments

Responses

Source: Public Hearing	Name: Etta Satter (continued)
Document Number: IND-18	City, Zip Code: Evergreen, 80439

Response to IND-18 (continued)

5 And I'm conflicted about new bores through the
6 tunnels. I am wondering if there's a way to just improve the
7 bores because that is where people slow down definitely between
8 Floyd Hill, between here and Idaho Springs, the Twin Tunnels,
9 people just, they stop; they just slow down and everything gets
10 all backed up.

11 But in terms of just putting in more tunnels I don't
12 know that that's -- I'm conflicted. It might be an alternative.
13 But on the same hand I don't know that it's really the answer.

14 So -- and I'm concerned about mine tailings on any
15 kind of construction. We have a lot of mines, old mines. We
16 have a lot of environmental impacts on the creek.

17 So that's how it's done. This is my concern. And
18 that's basically it.

19 I have not -- I got here late. I haven't really had a
20 chance to look around. I've been told there's some idea of
21 putting a tunnel through at the bottom of Floyd Hill. I'm not
22 sure where that's supposed to go.

23 But just putting more tunnels, I'm not sure of the
24 cost effectiveness of that. If the cost is really put into the
25 monorail or the guideway, advanced guideway system, however that
is, that's our best alternative.

2 Thank you.

- G. Analysis has shown that adding tunnel capacity at the Twin Tunnels is necessary to relieve congestion and address the bottleneck the tunnels create in this location. For this reason, the Preferred Alternative includes a third tunnel bore and widening one of the existing tunnels at the Twin Tunnels. The third bore accommodates three lanes of westbound traffic, the modified existing tunnel accommodates three lanes of eastbound traffic, and the remaining existing tunnel accommodates the Advanced Guideway System. Please also see responses to comments [IND-01-B](#) and [IND-15-D](#) for information about improvements at the Twin Tunnels.
- H. The PEIS recognizes and assesses the potential effects of construction on mine tailings. See **Section 3.6, Regulated Materials and Historic Mining** of the PEIS for a discussion of mine tailings and **Section 3.4, Water Resources** of the PEIS for a discussion of impacts to surface waters. As noted in responses to comments [ORG-02-B](#) and [IND-11-A](#), information about regulated materials and historic mining sites will be updated and evaluated more specifically in Tier 2 processes.
- I. The Preferred Alternative includes an Advanced Guideway System transit component. The six-lane highway capacity improvements included with the Preferred Alternative Maximum Program include both 55 miles per hour and 65 miles per hour design options. Only the 65 miles per hour design requires additional tunnels at Dowd Canyon, Hidden Valley, and Floyd Hill to realign the I-70 highway to accommodate the higher design speed. Site-specific design details, including design speeds and tunnels required for them, will be further analyzed in Tier 2 processes.

Comments

Responses

Source: Public Hearing	Name: Pete Helseth
Document Number: IND-19	City, Zip Code: Not Provided

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Tuesday, October 6, 2010

5 MR. HELSETH: This is concerning the existing Twin
 6 Tunnels just east of Idaho Springs. And the way that the bores
 7 are now there's a natural bridge for animals to travel over the
 8 top of them.
 9 And they're talking about, one of the alternatives, I
 10 think the preferred alternative, has a third bore. And my
 11 concern is that I want to be sure that that third bore is a true
 12 bore and that it is not like a V is the only way I can describe
 13 it.
 14 You can't help; you're just writing.
 15 In other words, I want to be sure that that third bore
 16 maintains the route for animals to pass over the top of it
 17 because it is the only natural bridge over the interstate
 18 between 470 and the Eisenhower Tunnel.
 19 My name is Pete Helseth. My e-mail address is Pete at
 20 myqci dot com.
 21 I might want to stick a second paragraph on that.
 22 There's an old hunters game check station immediately
 23 south of the Twin Tunnels. And that can be an important
 24 addition to the Clear Creek greenway, as long as it is not
 25 impacted by widening.
 1 I think that makes sense. Thanks.

Response to IND-19

- A. The Colorado Department of Transportation recognizes that the Twin Tunnels provide a natural wildlife crossing area and that stakeholders have expressed this same concern that the crossing be maintained. The Twin Tunnels Wildlife Land Bridge is identified as a potential Section 4(f) property, discussed in **Sections 2.2, 3.2.3, and 4.3** of the *I-70 Mountain Corridor PEIS Section 4(f) Evaluation Technical Report* (included electronically on CD-ROM in Volume 5 of the Technical Reports and on the project website). As a Section 4(f) property, it is afforded special protection. During Tier 2 processes, if a prudent and feasible alternative exists to avoid use of this Section 4(f) property, that alternative must be chosen. Section 4(f) also requires that all possible planning to minimize harm to the Twin Tunnels Wildlife Land Bridge be done. Text has been added to **Section 3.2, Biological Resources** of the PEIS stating "In addition, existing natural features that enhance habitat connectivity, such as the Twin Tunnels Wildlife Land Bridge, will be protected, if feasible." While the initial concept of a third tunnel bore will not affect the top of the crossing, potential impacts to wildlife resulting from the third bore will be fully evaluated during Tier 2 processes. Alternatives to boring will also be evaluated during Tier 2 processes.
- B. The old game check area is proposed for a trailhead, parking, restroom, and park area in the Clear Creek County Greenway Plan. The area is identified at the Tier 1 stage as a potentially affected property because it is within 30 feet of the conceptual area for improvements. Tier 2 processes will refine designs and seek to avoid or minimize effects to properties. Park and recreation resources are afforded special protection under Section 4(f) of the U.S. Department of Transportation Act. See the *I-70 Mountain Corridor PEIS Section 4(f) Technical Report* (included electronically on CD-ROM in Volume 5 of the PEIS Technical Reports and on the project website) for more information about this property.

Comments

Responses

Source: Public Hearing	Name: Ken Katt
Document Number: IND-20	City, Zip Code: Littleton, 80120

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Tuesday, October 6, 2010

4 MR. KATT: It's just an opinion, but it's my opinion
 5 that it's very easy to convince yourself that you need something
 6 when you're also convinced you're going to be able to get
 7 somebody else to pay for it.
 8 And unfortunately I think there's too many people,
 9 possibly even here in Clear Creek County, pushing the idea of a
 10 multi gazillion dollar high-speed transit system that they can't
 11 pay for.
 12 They have got less than 10,000 citizens, men, women,
 13 children, living in estimated population who live in Clear Creek
 14 County. Let them pay for it if that's what they want; at least
 15 pay for the section that goes through their area if that's what
 16 they want.
 17 Ken Katt, K-a-t-t, 2703 West Long Drive, Littleton,
 18 Colorado.

Response to IND-20

A. Chapter 5, Financial Considerations of the PEIS describes potential funding sources available to construct the Preferred Alternative and acknowledges that CDOT's budget is not sufficient to implement the entire Preferred Alternative.

The Preferred Alternative serves many more users than Clear Creek County. Travelers include commuters, recreationalists, locals, intra- and interstate freight truckers, and others. Corridor-specific funding sources that apply to limited geographic areas are among the revenue options discussed, but are not the only revenue stream for improvements.

Chapter 5, Financial Considerations of the PEIS and the *I-70 Mountain Corridor PEIS Financial Considerations Technical Report* (included electronically on CD-ROM in Volume 6 of the PEIS Technical Reports and on the project website) describe a variety of innovative funding sources available to pay for improvements.

Transit is an important component to meeting travel needs in the Corridor and offering mode choices. The Advanced Guideway System is identified as the preferred mode for transit in the Preferred Alternative. Feasibility studies and related Tier 2 processes are required to determine how an Advanced Guideway System could be implemented in the Corridor. If an Advanced Guideway System is deemed infeasible, other modes could be reconsidered.

Comments

Responses

Source: Public Hearing	Name: Earl Glenwright
Document Number: IND-21	City, Zip Code: Not Provided

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Tuesday, October 7, 2010

3 MR. GLENWRIGHT: Okay. I'm a civil engineer,
 4 construction. I have some ideas about the solution to the
 5 corridor and I'd like to pass them on. What do I need to do?
 6 Earl Glenwright, G-l-e-n-w-r-i-g-h-t, just the way it
 7 sounds, [REDACTED]
 8 [REDACTED]
 9 [REDACTED]

A

10 Okay. In my opinion, there's only one viable,
 11 feasible solution, and that's to use the median area between the
 12 two highway -- two lane highway east and west. Can be by a
 13 light rail. It could be by an elevated levit train. It could
 14 be actually like a high occupancy vehicle lane, two lane, which
 15 could reverse between morning and evening, stuff like that, when
 16 traffic was heavy.

B

17 I only see two obstacles to that. One is Floyd Hill,
 18 and that's a pretty steep hill. And there's obviously ways to
 19 do it, but it's going to take some creativity. And I think a
 20 levitated train can handle that kind of a hill. I'm not sure,
 21 but light rail, regular rail is probably too steep the way it
 22 is. You can't just go on the ground; you'd have to maybe do a
 23 huge flyover, go around them. And maybe even come underneath a
 24 little bit.

Response to IND-21

- A. The Action Alternatives considered in the PEIS all propose using the I-70 highway median or existing highway right-of-way where feasible to reduce right-of-way requirements and limit disturbance to adjacent lands. Specific alignments and footprints for improvements will be determined in Tier 2 processes.

The PEIS did consider light rail, the elevated Advanced Guideway System, a high occupancy vehicle lane, and reversible lanes as options to meet the Corridor travel needs.

The Preferred Alternative includes an Advanced Guideway System transit component. The specific transit technology will be determined in a subsequent study. Providing a peak-direction-only high occupancy vehicle/high occupancy toll lane were also considered but found not to provide enough capacity to meet the project's purpose and need. Please refer to the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website) for an expanded description and discussion of all alternatives considered.
- B. Grades throughout the Corridor were evaluated thoroughly in the PEIS. All of the transit technologies advanced for consideration in the PEIS (see **Chapter 2, Purpose and Need**) are capable of operating in the Corridor. The *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website) contains an expanded discussion of grades and capabilities of transit technologies.

Comments

Responses

Source: Public Hearing	Name: Earl Glenwright (continued)
Document Number: IND-21	City, Zip Code: Not Provided

Response to IND-21 (continued)

C. The tunnel dimensions for the transit system would be similar to a two-lane vehicle tunnel, as it would have two tracks to serve bi-directional trains.

Shared use of an existing tunnel would pose congestion and safety issues. By 2035, traffic demand will be so high that even a short delay to allow a train to pass could cause irrecoverable backups; under heavy traffic conditions, it takes a substantial amount of time to clear a queue of waiting traffic. This queuing would result in severe congestion. Also, with all transit technologies that are currently capable of achieving the performance criteria of the Advanced Guideway System, a safety barrier would be required between the transit vehicles and highway traffic. Barriers would reduce the cross-section that is available to travel lanes, and drivers react to narrow geometric conditions by slowing down. This would result in slower moving traffic through the tunnel. Further, embedded rails would create a safety hazard for motorcycles or other narrow wheeled vehicles, since the tires of these vehicles could become entrapped while changing lanes. For these reasons, joint use of the existing tunnels is not under consideration. The Minimum Program of Improvements in the Preferred Alternative includes a third bore, which allows one bore to be dedicated to transit. The optimal location for the third bore would be determined during Tier 2 processes.

D. The Preferred Alternative was developed from the Consensus Recommendation of the Collaborative Effort. The Collaborative Effort included representation from Summit County, Eagle County, and Clear Creek County, who all agreed that a multimodal solution that adds non-infrastructure components along with highway capacity and transit service is necessary to meet the purpose and need for the I-70 Mountain Corridor. This is because both capacity and congestion relief are required, and the relationship of capacity and congestion is not direct. Lack of capacity may lead to congestion; however, increased capacity will not necessarily reduce (continued on next page)

25 The other obstacle is the tunnel. There's several
1 possibilities there. You can add a small tunnel on top of the
2 big one, because a light rail or anything like that, levitated,
3 they don't need a big tunnel; all they need is something big
4 enough to get the car through like a railroad tunnel.
5 If it were a vehicle tunnel it probably wouldn't be
6 feasible; however, you could use the existing tunnel by inlaying
7 tracks in one of the lanes on each side. And when a light rail
8 or another kind of transportation would arrive -- not
9 automobile -- but then that lane would close and the train would
10 go on those tracks, go through the tunnel. When it comes out it
11 would go on its elevated area, and the tunnel would open up
12 again.
13 Transit through the tunnel shouldn't be more than
14 three minutes. Given the shutdown time, maybe five minutes. I
15 don't think that's intolerable to anybody, you know. If they
16 are getting the better driving along the I-70 because of that I
17 think they will gladly spend an extra five minutes.
18 That's not necessarily -- that's only one lane.
19 There's still two lanes. There's still another lane open.
20 So I would really like to talk this over with
21 somebody. One thing I absolutely do not think is feasible is
22 adding more lanes. Summit County, Eagle County, Clear Creek
23 County are not going to go along with that. That's off the
24 table. That's not a solution. That's creating more problems.
25 We need a solution that's going to work for many many years.

Comments

Responses

Source: Public Hearing	Name: Earl Glenwright (continued)
Document Number: IND-21	City, Zip Code: Not Provided

D
E

1 And if it's light rail or levitated train -- I know
2 this will sound crazy but I would make the fare so cheap people
3 would not drive the interstate when they can go, you know, a lot
4 less -- a lot less stress, faster time. And -- but if you would
5 take the money that you're going spend on the highway and
6 subsidize the transportation I think it would be very feasible.

7 Expanding the highway into four lanes or three lanes,
8 either way, is just a temporary solution. Eventually we're
9 going to be right back to the same problem; no doubt about
10 that.

Response to IND-21 (continued)

- D. (Continued from previous page)
congestion since additional capacity may result in more people traveling, using any increased capacity. Transit is needed to address capacity, while highway capacity improvements are necessary to address congestion and safety.

Fare subsidies (measured by the difference between operating costs and passenger fare revenues) are common for public transportation systems. The cost estimates for the transit components of the Action Alternatives in the PEIS account only for construction, not operating or maintenance costs. Fare structures and subsidies, as well as other operating plans specific to transit components, will be developed in subsequent feasibility studies and related Tier 2 processes.

- E. Yes, expanding the highway without providing transit does not meet the 2050 purpose and need for the Corridor improvements. **Chapter 2, Purpose and Need** of the PEIS compares the performance of alternatives against a number of metrics and concludes the Preferred Alternative has the best opportunity to meet the needs for the Corridor while minimizing environmental and community impacts. The Preferred Alternative is a multimodal solution, and its implementation is adaptive to Corridor needs and conditions. One of the comparisons of alternatives included in **Section 2.8.1, Transportation Comparisons** of the PEIS is the year that network capacity is reached under each alternative. This measure helps define the longevity of improvements in meeting long-term transportation needs. The comparison shows that the only alternatives with network capacity to accommodate the 2050 travel demand are the multimodal Combination alternatives, including the Preferred Alternative. The *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the PEIS Technical Reports and on the project website) contains an expanded discussion of network capacity.

Comments

Responses

Source: Public Hearing	Name: Earl Glenwright (continued)
Document Number: IND-21	City, Zip Code: Not Provided

Response to IND-21 (continued)

- F. Transit in the Corridor needs to be competitive with the highway travel time. The vehicle ferry-type system that you describe will not meet travel time needs in the Corridor due to loading and off-loading time requirements and the dispersed nature of trips going to multiple destinations. As a result, it will not remove enough traffic from the I-70 highway to reduce congestion and address the purpose and need for the project. Please refer to responses to comment documents [IND-04](#) and [IND-07](#) for a more detailed response to the vehicle ferry system you suggest.
- G. See response to your comments [IND-21-D](#) and [IND-21-E](#).

11 You can also, though I think this is a little bit
12 of a stretch, you could have the transit vehicles such that a
13 person would load their car in Lakewood or Golden, somewhere in
14 there, and like a piggyback thing, probably seven or eight cars
15 per -- vehicles per train car comes up, gets to Vail, gets to
16 Eagle, gets to Glenwood Springs, they'd offload.

F 17 I don't know how feasible that is but, I mean, that's
18 been a concept that has been proposed before they made the
19 highway. You just pull into a docking station, get on the
20 flatbed with a lot of other cars, off you go. And you get off
21 where you need to get off. The train's programmed that way with
22 various people in various trains no matter the destination. But
23 it's something that could be looked at.

24 I think that's about all I have to say. I mean, as a
G 25 construction engineer, you know, I think I know that there are
1 solutions. Depends on two things: Public acceptance and
2 feasibility, and who is going to pay for it. It always comes
3 down to that.

G 4 But I think a trade-off between spending the money on
5 a very expensive solution and building something not so
6 expensive but subsidizing it would really work because the basic
7 problem is you need to get people out of their cars, get people
8 off the highway. That's the solution, how you're going to do
9 that, in my opinion.

Comments

Responses

Source: Public Hearing	Name: Judith Gold
Document Number: IND-22	City, Zip Code: Vail, 81657

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Tuesday, October 7, 2010

12 MS. GOLD: My name is Judith Gold, G-o-l-d. And my
 13 mailing address is [REDACTED] My e-mail
 14 is [REDACTED]
 15 And first I want to completely endorse the comments of
 16 Rachael Richards. I thought she absolutely hit the nail on the
 17 head with the necessary alternative transportation rather than
 18 just continually enlarging vehicular capacity, so going to
 19 six lanes and then eventually eight. And then I think that's
 20 the poorest choice. We have to aggressively look into
 21 alternative transportation on the I-70 corridor. That's my
 22 first comment.

23 My second comment is why don't we have bus
 24 transportation between Denver and Eagle? It seems like Colorado
 25 is in the dark ages with regard to public transportation on
 1 these very very busy roads.
 2 And could CDOT in any way implement the facilitation
 3 of bus transportation between DIA and Eagle to alleviate the
 4 congestion in the interim until the improvement in the potential
 5 rail system is implemented.
 6 I think that's it.

A

B

B

Response to IND-22

- A. Comment noted. Please refer to comment document [IND-33](#) for Rachel Richards' comments and the lead agencies' responses to those comments.
- B. Currently, no public agency provides regional transit service in the Corridor. Private operators do offer some regional or inter-city transit service in the Corridor. Colorado Mountain Express offers van shuttle service between Denver and Eagle, and Greyhound provides bus service between Denver and Vail, with connecting service to Eagle through ECO Transit, as well as service to Glenwood Springs and other destinations in the Corridor. Other private operators provide bus and van services to Corridor destinations. A description of transit operators in the Corridor can be found in **Appendix A** of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the PEIS Technical Reports and on the project website).

The Colorado Department of Transportation now has a Division of Transit and Rail, created by the legislature in 2009, that is charged with promoting, planning, designing, financing, operating, maintaining, and contracting transit services, such as for passenger rail, buses, and advanced guideway systems. The new division is also charged with coordinating with other transit and rail providers throughout the state. A division director has been appointed, and a number of activities are underway to integrate transit into statewide mobility plans.

See response to [LO-02-B](#) for an expanded discussion of bus, carpooling, and other non-infrastructure components included in the Preferred Alternative as interim or complementary measures available to be implemented.

Note that the PEIS focuses on the needs of the I-70 Mountain Corridor and the project termini do not include Denver International Airport. See response to comment [IND-202-B](#) for a more detailed comment response about the project termini.

Comments

Responses

Source: Public Hearing	Name: Patrick Eidman
Document Number: IND-23	City, Zip Code: Not Provided

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

16 MR. EIDMAN: Yes. Good evening.
 17 Patrick, P-a-t-r-i-c-k, Eidman, E-i-d-m-a-n. I'm
 18 the endangered placements program manager for
 19 Colorado Preservation, Inc. We formed in 1984 and
 20 continue to serve as the only statewide historic
 21 preservation advocacy organization in Colorado.
 22 One of our flagship advocacy programs is the
 23 endangered placements program.
 24 In 2005, the historic communities along
 25 the Clear Creek I-70 Corridor were listed as one
 1 of Colorado's most endangered places. And it was
 2 directly in response to that initial draft, and I
 3 think we have heard tonight why that was. And so
 4 I'm here tonight just to express our appreciation
 5 and kudos for how the process has changed.
 6 Since then, our engagement placements
 7 program has four levels of status per site. It's
 8 lost and saved, which are self-explanatory, and
 9 then alert and progress. And the communities are
 10 currently in alert status. I'll be recommending
 11 to our board, at the meeting in November, that
 12 they move into progress as an acknowledgment, you
 13 know, for a number of different things; you know,
 14 primarily probably the programmatic agreement for
 15 historic resources; 4(f), how that's changed, how
 16 dramatically that's changed; and, of course, also,
 17 the visioning process that has been part of that.

Response to IND-23

- A. Comment noted.
- B. The Clear Creek County properties that are included in the Colorado Preservation, Inc. listing are acknowledged in **Section 3.13.5, "What are the areas of historic properties interest identified in the Corridor?"** of the PEIS.

The lead agencies agree that much progress has been made regarding the discussion and treatment of historic properties in the PEIS. The Section 106 Programmatic Agreement, included in **Appendix B, I-70 Mountain Corridor Section 106 Programmatic Agreement** of the PEIS, was developed with a broad group of stakeholders and historic preservation specialists and outlines a process that is protective of historic properties. The Section 4(f) discussion in **Section 3.14, Section 4(f) Discussion** of the PEIS also has changed to better reflect the significance and uniqueness of the historic properties in the Corridor. For these reasons, the lead agencies agree that changing the status of the Clear Creek County properties in the endangered places program from alert to progress is appropriate.

Comments

Responses

Source: Public Hearing	Name: Patrick Eidman (continued)
Document Number: IND-23	City, Zip Code: Not Provided

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

C
 18 So, again, we thank you. We appreciate
 19 the acknowledgement for historic resources in the
 20 Corridor; how significant they are and how unique
 21 the Corridor is. And we hope that this CSS not
 22 only continues -- and it's heartening to hear
 23 learning that it's definitely part of the process
 24 going forward -- but then also can serve as a
 25 model for other projects around the state. So,
 C
 1 thank you.

Response to IND-23 (continued)

C. As noted, **Section 3.13.5, "What are the areas of historic properties interest identified in the Corridor?"** of the PEIS acknowledges the important historic properties in the Corridor. The I-70 Mountain Corridor Section 106 Programmatic Agreement is included as **Appendix B** to the PEIS, and the lead agencies are committed to following this agreement for all Tier 2 processes.

The Colorado Department of Transportation also is committed to the use of the I-70 Mountain Corridor Context Sensitive Solutions process, which is tailored to the Corridor, on all Tier 2 processes. This commitment is noted throughout the PEIS and referenced specifically in **Section 3.19, Mitigation Summary**.

The Context Sensitive Solutions process for the I-70 Mountain Corridor was developed specifically to address actions within the I-70 Mountain Corridor, as described in **Appendix A, I-70 Mountain Corridor PEIS Context Sensitive Solutions** of the PEIS. The Colorado Department of Transportation has a statewide policy for the use of Context Sensitive Solutions on projects throughout the state (Chief Engineer's Policy Memo #26, October 31, 2005).

Comments

Responses

Source: Public Hearing	Name: Michael Hocevar
Document Number: IND-24	City, Zip Code: Georgetown, 80444

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

9 MR. HOCEVAR: Okay. My name is Michael
 10 Hocevar. It's spelled H-o-c-e-v-a-r. And my
 11 [REDACTED] And I
 12 thank you for letting me talk here tonight.
 13 My understanding is that serious
 14 consideration is given to a rail system. And that
 15 has a lot of good merits. And I do understand
 16 that in order to get people to actually use the
 17 rail system and get out of their cars, the key to
 18 having that happen is you need to have a
 19 significant benefit in time of travel for people
 20 to do that.

A

21 And the very first proposal I ever saw,
 22 probably like 15 years ago, of a rail system had a
 23 route that was pretty much almost a straight line
 24 from DIA to Vail. And so it probably would run
 25 kind of about where Central City is. And that
 1 would be a very efficient, very straight way. It
 2 would use pretty much tunnels and tresseling to
 3 make it through all that terrain up there.

B

4 Now they have hotel rooms in Central
 5 City. Central City might even want something like
 6 that. And that could probably be a very
 7 beneficial route.

B

Response to IND-24

A. The PEIS takes into account the relationship between travel time and shift in travel patterns. As described in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website), to create a measurable shift to transit and meet the purpose and need of improving capacity and reducing congestion on the highway, transit travel times need to be comparable to or better than automobile travel times. The transit alternatives under consideration in the PEIS meet this criterion.

B. A route that follows a straight line from Denver International Airport to Vail will not meet the purpose and need for this project because it will 1) not provide access to Corridor communities and 2) not serve travel demand for destinations within the Corridor. A straight-line alignment between Denver International Airport and Vail appears to run through Empire and the north side of Silverthorne, but would bypass Idaho Springs, Georgetown, Frisco, Breckenridge, and other communities along the existing I-70 highway alignment. The number of trips between Denver International Airport and Vail is not sufficient to support a rail system investment without serving other key destinations in the Corridor, and this alignment would not meet the purpose and need of the project to increase capacity, improve mobility and accessibility, and decrease congestion on the I-70 Mountain Corridor. Note that the project termini for this study do not extend to Denver International Airport, as explained in response to comment [IND-202-B](#).

Within the Corridor, a long (25-mile), straight tunnel between Empire and Silverthorne was considered as an alternate alignment. This alignment, referred to as the Silverthorne to Empire Tunnel, was evaluated to avoid the steep grades at the Continental Divide. It was eliminated because of major constructability challenges and lack of local access. Tunneling through the Continental Divide is complicated and encounters substantial geotechnical constraints. The PEIS considered a number of options for tunneling, as described in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website).

Comments

Responses

Source: Public Hearing	Name: Michael Hocevar (continued)
Document Number: IND-24	City, Zip Code: Georgetown, 80444

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

8 But everything I've heard about it
 9 since that original proposal has been assuming
 10 everything is just going to follow I-70. Well,
 11 I-70, we all know -- and I've worked on rock and
 12 soil stabilization projects -- and CDOT knows that
 13 or they anticipate at least providing a highway in
 14 15 years, probably a little bit less for a
 15 railroad; so a significantly long time. Because
 16 it's just extremely narrow, extremely difficult to
 17 work. Transportation gets worse for the first
 18 couple years while you're trying to build this
 19 thing. And then you got all your eggs in one
 20 basket, so if anything ever happened in that
 21 Corridor, you could use both the road and the rail
 22 at the same time.

23 And you also -- if this particular
 24 train stopped somewhere like Georgetown or Silver
 25 Plume or Empire, in going up Silver Plume Hill,
 1 you got a very steep grade for a railroad to go
 2 up. It would go at a crawl, almost completely
 3 unfeasible on time.

Response to IND-24 (continued)

C. The lead agencies looked at a number of alignments and routes to serve Corridor travelers. As explained in response to comment [IND-10-A](#), developing a new route parallel to the I-70 highway is not likely politically or technically feasible, and the alternate routes studied do not adequately relieve traffic congestion or meet the purpose and need for this project.

The Preferred Alternative includes both the Advanced Guideway System and highway improvements on the existing I-70 highway alignment. While transit and roadway capacity follow the same alignment (and are subject to the same weather and other constraints), having both modes of transportation provides some duplicative capacity in the Corridor. If the highway is shut down, rail could still operate and vice versa. Because the Advanced Guideway System is capable of being fully elevated, it may be less prone to failures from geologic hazards, as rockfalls and avalanches may pass under the guideway. **Section 3.5, Geologic Hazards** of the PEIS describes the geologic hazards in more detail.

D. Grades affect travel in the Corridor and are a constraint for transit technologies that may be appropriate in the Corridor. Therefore, grades were evaluated thoroughly in the PEIS, and a number of design options (including tunnels and off-highway alignments) were considered to minimize constraints of steep grades. All of the transit technologies advanced for consideration in the PEIS (see **Chapter 2, Summary and Comparison of Alternatives**) are capable of operating in the Corridor following the existing highway alignment, and train performance modeling was conducted assuming stops in Georgetown, Empire, and other Corridor destinations. The *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website) contains an expanded discussion of grades and capabilities of transit technologies.

Comments

Responses

Source: Public Hearing	Name: Michael Hocevar (continued)
Document Number: IND-24	City, Zip Code: Georgetown, 80444

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

IND-24

Trying to put everything in

u

4 I-70 seems to me to be a very unfeasible idea.
 5 And one thing that this kind of reminds
 6 me of a little bit was when they built the parking
 7 lot above Black Hawk, the miners' parking lot, the
 8 first guy who wrote and proposed that idea had the
 9 idea to have a tramway, almost like an elevator,
 10 coming down the parking lot. That would be very
 11 quick and efficient.
 12 I think someone at Black Hawk didn't
 13 really understand that, never really caught that
 14 part, so they just came up with the idea for a
 15 rickety old bus slowly winding around. I see that
 16 same type of thing happening here on this; that a
 17 lot of people are kind of missing the idea you
 18 just take a whole different route altogether. You
 19 really to want (inaudible) the transportation.
 20 MS. STROMBITSKI: Michael, you need to
 21 wrap up your sentence.
 22 MR. KOCEVAR: And so I thank you for
 23 listening.

Response to IND-24 (continued)

E. Comment noted. See response to your comment [IND-24-C](#).

Comments

Responses

Source: Public Hearing	Name: Roger Westman
Document Number: IND-25	City, Zip Code: Evergreen, 80439

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

5 MR. WESTMAN: My name is Roger Westman.
 6 Can you hear me okay? My name is Roger Westman,
 7 [REDACTED]
 8 [REDACTED] Thank you for this opportunity to speak.
 9 THE REPORTER: Could you spell your
 10 last name, please.
 11 MR. WESTMAN: Westman, W-e-s-t-m-a-n.
 12 Like many of you, I've been to many of
 13 these meetings. They've all sounded good in a lot
 14 of respects, but when it was all said and done, we
 15 thought, boy, that's a lot of money, and we don't
 16 have any of it. And I don't think that's changed
 17 today. We have prospects and so on.
 18 But I read a book years ago, and I came
 19 away from that book -- and I bet you some of you
 20 have read that book -- with the saying, "Check
 21 your premises. Check your premises." And I'm
 22 guilty of not doing that very frequently, I'm
 23 sorry to say.
 24 But let's look at our problem. Our
 25 problem is the congestion on I-70. That's why
 1 we're all here. What can we do about that? Well,
 2 if you get a whole lot of money in 15 years,
 3 you're going to be close to solving your problem.

Response to IND-25

A. The lead agencies evaluated the alternate route that you describe from Denver to Copper Mountain via Hoosier Pass along US 285 and SH 9. This route is described as Alternate Route 8 in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website). Compared with the I-70 highway, this alternate route is 46 miles, or 58 percent, longer and results in travel times of 30 to 50 percent longer than using the I-70 highway, depending on traffic congestion. These longer travel times, coupled with the inability of the route to provide sufficient accessibility to the I-70 Mountain Corridor communities and the limited number of travelers originating in Park County or other areas south and west of Denver, eliminated this route as a reasonable alternative to meet the purpose and need for the I-70 Mountain Corridor improvements. Please also refer to response to comment [LO-02-C](#) for an expanded discussion of alternate routes considered between the Denver area and the Dillon area.

Neither the roadway alignment's curves nor the potential for blizzard conditions on Hoosier Pass were constraints in developing this alternate route. Mountain passes are found in the Corridor and along any alternate route that exists or might be developed.

Comments

Responses

Source: Public Hearing	Name: Roger Westman (continued)
Document Number: IND-25	City, Zip Code: Evergreen, 80439

Response to IND-25 (continued)

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: Thursday, October 7, 2010

4 But I submit to you guys that we can solve the
5 problem tomorrow by using a federal highway. It
6 goes from Denver, to Park County, to Fairplay, and
7 right up to Breckenridge, which is where a good
8 lot of the folks in Denver are going anyway.

9 It would help that part of our state.
10 It would take some of the burden off us. It would
11 give everybody else an alternative route; call it
12 an escape or whatever. The only problem down
13 there is Hoosier Pass, which just has hairpin
14 curves. We're all familiar with hairpin curves.
15 I understand that CDOT has, in the past, done some
16 sort of engineering, and they know how to handle
17 that, straighten that out. But in the meantime,
18 for those of us that live here, those curves are
19 nothing.

20 The problem down there sometimes is a
21 snow blizzard, a snow ground blizzard. And I bet
22 you that CDOT knows something about snow
23 blizzards, and they can fix that if necessary.

24 And I think it would be a big boom to that part of
25 our state and clearly to the folks that are going
1 to Summit County.

A

A

Comments

Responses

Source: Public Hearing	Name: Roger Westman (continued)
Document Number: IND-25	City, Zip Code: Evergreen, 80439

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

B

2 So a long time ago, also, I was asked
 3 by the County Commissioners to hold some hearings
 4 on the applicability of RTD coming into Clear
 5 Creek County. I was neutral on it, and I still
 6 kind of am. But I thought RTD really didn't much
 7 care about Clear Creek County. They cared an
 8 awful lot about Summit County, and they wanted to
 9 get our tax money along the way. And I thought
 10 that was a really bad idea.
 11 I thought if they wanted to come
 12 through Clear Creek County, let them come. And if
 13 we wanted to use their buses, et cetera, we'd pay
 14 for it on a trip-by-trip basis. Otherwise, let
 15 them go to Summit County and do what they want to,
 16 then we get the benefit of some transportation
 17 here if we're so inclined. Thank you very much.

Response to IND-25 (continued)

B. While the Preferred Alternative provides transit infrastructure to Clear Creek, Summit, and Eagle Counties, a transit operator has yet to be identified for this service. As outlined in the Consensus Recommendation (see **Appendix C, Consensus Recommendation** of the PEIS), identifying a potential system owner/operator is one of the considerations that will be addressed in the feasibility studies and related Tier 2 processes for the Advanced Guideway System.

The Regional Transportation District provides transit services to the Denver metropolitan area, while Summit and Eagle Counties have their own local transit services. The Colorado Department of Transportation's Division of Transit and Rail has the authority to plan, develop, finance, operate, and integrate transit and rail services statewide. The Division will work in coordination with other transit and rail providers to plan, promote, and implement investments in transit and rail services statewide.

The cost for the Preferred Alternative includes building the infrastructure and non-infrastructure elements. While it is anticipated that transit riders would pay a fee to use the service, the details of user fees associated with both transportation modes as well as operations and maintenance will be determined in subsequent feasibility studies and related Tier 2 processes.

Comments

Responses

Source: Public Hearing	Name: Ken Katt
Document Number: IND-26	City, Zip Code: Littleton, 80120

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

1 MR. KATT: Okay. Ken Katt. That's
 2 spelled K-a-t-t; [REDACTED]
 3 Colorado. Do you need a zip code or anything?
 4 No. Good to go. Okay.
 5 I've been involved in this process for
 6 probably ten years or so, going back to when the
 7 facility --
 8 THE REPORTER: Excuse me, excuse me.
 9 You need to slow down and speak slower, please.
 10 MR. KATT: But I only have three
 11 minutes.
 12 THE REPORTER: I know, but --
 13 MR. KATT: Anyway, I've been involved
 14 in the process for awhile. I remember some fiscal
 15 restraint being applied, when they capped the
 16 \$4 billion, and we didn't even have much of a clue
 17 how we were going to come up with the \$4 billion.
 18 Now that we've removed the cap, to come up a 16-
 19 to \$20 billion Preferred Alternative, we have even
 20 less of a clue where that money is going to come
 21 from.
 22 If anybody in this room wants to
 23 understand how our nation has gotten itself
 24 umpteen trillion dollars into debt, you don't need
 25 to look much further than to study the process
 1 which took this from a \$4 billion project up to a
 2 \$20 billion project.

A

A

Response to IND-26

A. The Colorado Department of Transportation originally placed a \$4 billion threshold on the cost of preferred transportation solutions for the Corridor. Stakeholders strongly objected to this threshold; they felt it was arbitrary, limited the possible transportation solutions, and did not accommodate a long-term vision for the Corridor. In response to these comments, CDOT committed to a long-term (50-year) vision, removed the \$4 billion threshold, and convened the Collaborative Effort. The Collaborative Effort was charged with reaching consensus on a recommended transportation solution for the I-70 Mountain Corridor. The group reached a consensus on a multimodal recommendation that addresses long-term and short-term needs. The Consensus Recommendation was identified as the Preferred Alternative in the PEIS. For more information on the process used for identifying the Preferred Alternative, see **Section 2.7, "What was the decision making process for identifying the Preferred Alternative?"** of the PEIS.

The Colorado Department of Transportation does not have sufficient funding identified to implement the Preferred Alternative, or any of the alternatives evaluated in the PEIS. Alternative revenue sources will be required, as described in **Chapter 5, Financial Considerations** of the PEIS.

Comments

Responses

Source: Public Hearing	Name: Ken Katt (continued)
Document Number: IND-26	City, Zip Code: Littleton, 80120

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

3 Now, let me ask for a show of hands
 4 here real quick. Because I've been doing
 5 everything I can to try to protect citizens of
 6 Clear Creek County who live west of the Twin
 7 Tunnel, because you're going to be seriously
 8 affected by anything that goes on. So can I see a
 9 show of hands -- can I do this? -- show of hands
 10 of every Clear Creek County resident who lives
 11 west of the Twin Tunnel. Okay.

B

12 Let me ask you what your priority is,
 13 for those who live west. Is, in fact, your
 14 priority to avoid a road project to widen the
 15 highway, because you know that's going to
 16 absolutely destroy your quality of life? Will you
 17 raise your hand if that's your number one
 18 priority? Okay.

19 Or is your number one priority to get
 20 some sort of high-speed transit system that we
 21 really don't have a clue how we're going to pay
 22 for, except maybe go into Denver and just hope and
 23 pray?

24 UNIDENTIFIED SPEAKER: Transit.

25 MR. KATT: I support transit, too.

B

1 Okay. I mean, I wrote -- if you didn't buy a copy
 2 of today's Clear Creek Current, you might want to
 3 read -- buy a copy and read it. I wrote a letter
 4 to the editor, which is back here -- if you don't
 5 want to buy a copy of it, I've got copies right
 6 here with my contact information on it. I'm
 7 trying to get -- and I kind of addressed that
 8 situation.

Response to IND-26 (continued)

B. Responses to your letters to the editor, also submitted as written comments on the RDPEIS, are provided in the responses to your comment [IND-72](#).

Comments

Responses

Source: Public Hearing	Name: Ken Katt (continued)
Document Number: IND-26	City, Zip Code: Littleton, 80120

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

9 Now, one of the things that -- I don't
 10 know how many of you actually read through and
 11 studied the draft PEIS. I did, pretty
 12 substantially. And one of the things it says in
 13 there, it says: Building the bus and guideway
 14 first, only preserved for highways, was viewed as
 15 infeasible from an implementation standpoint.
 16 Infeasible from an implementation standpoint. The
 17 other ones were ruled infeasible, because they
 18 didn't have the money. This is because it's
 19 infeasible to do so.
 20 Now, we don't have to accept the bus
 21 and guideway the way it's presented in the Draft,
 22 which is bidirectional all the way through Clear
 23 Creek County. That would be devastating. It
 24 would destroy the quality of life every bit as
 25 much as the highway has.
 1 MS. STROMBITSKI: Ken --
 2 MR. KATT: I'll wrap it up real quick.
 3 However, we can put in a single directional
 4 guideway that helps people bypass a lot of the
 5 congestion that backs up to the eastbound
 6 direction behind the Twin Tunnel on Sunday
 7 afternoon. Do the same thing, another section of
 8 guideway will help people bypass congestion which
 9 backs up in the westbound direction on Saturday
 10 morning behind Floyd Hill. And it's not going to
 11 take umpteen billion dollars to do it.

Response to IND-26 (continued)

C. The PEIS evaluates alternatives for directional and reversible lanes for both buses and high occupancy vehicles. Variations of these alternatives include buses operating in high occupancy vehicle lanes, buses operating in transitways (exclusive lanes), and buses operating in guideways (with guided tracks). For each of these options, the lead agencies evaluated "peak direction only" and "both direction" travel conditions. Ultimately, as described in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website), several bus technologies were retained and evaluated in the PEIS, and all operate in both directions.

Through Clear Creek County, a bidirectional guideway is required to meet capacity demands and congestion relief, but design options (such as structured lanes) are envisioned in the Idaho Springs area to minimize the footprint of the guideway and limit right-of-way needs. Also, the guideway is able to operate with a minimal footprint (about 24 feet wide) because the buses would operate using guidewheels that provide steering control, thus permitting a narrow guideway and providing safer operations. Bus in guideway is also able to be more easily phased, as you have described.

As presented in **Chapter 5, Financial Considerations** of the PEIS and detailed in the *I-70 Mountain Corridor PEIS Cost Estimates Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website), the cost of the Bus in Guideway Alternative is about \$10.5 billion, while the Combination Six-Lane Highway with Bus in Guideway Alternative is about \$13 billion in year of expenditure, which in this case is considered to be the mid-year of construction, or 2025. The alternatives with the Advanced Guideway System (including the Preferred Alternative) are estimated to cost about 30 percent more than the Bus in Guideway alternatives. Only the Combination alternatives meet the 2050 purpose and need.

Comments

Responses

Source: Public Hearing	Name: Mary Jane Loevlie
Document Number: IND-27	City, Zip Code: Idaho Springs, 80452

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

A

15 MS. LOEVLIE: Hi, I'm Mary Jane
 16 Loevlie, L-o-e-v-l-i-e; [REDACTED]
 17 [REDACTED] And I'm a veteran I-70
 18 activist, I guess you would call it. I've been
 19 involved in the MIS, the I-70 Task Force,
 20 (inaudible), the I-70 Coalition Board, the
 21 Collaborative Effort. And I've been one of these
 22 studying this to death for the last 20 years. And
 23 I've been a representative for the City of Idaho
 24 Springs in many of these instances.

A

25 I would like to applaud CDOT, too,
 1 believe it or not, for a totally different feeling
 2 from six years ago. The collaborative effort has
 3 truly been collaborative. And if we actually
 4 follow through on what we have come up with in our
 5 Preferred Alternative, it will be incredible. And
 6 I encourage everyone to really read the document
 7 and understand and study. There are many of us
 8 that really do understand what the meaning behind
 9 all of these paragraphs are.

Response to IND-27

A. Comment noted.

Comments

Responses

Source: Public Hearing	Name: Mary Jane Loevlie (continued)
Document Number: IND-27	City, Zip Code: Idaho Springs, 80452

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

10 I do have one comment on the Executive
 11 Summary and probably throughout the document. My
 12 pet peeve is where we say "widening." And this is
 13 in the Executive Summary, page 22. And it's in
 14 the first bullet point, you talk about widening to
 15 six lanes, instead of capacity increases to six
 16 lanes. I think that just needs to be changed
 17 throughout the document. We need a six-lane
 18 capacity, that doesn't mean we always have to
 19 widen.

20 And I also just want to point out, as a
 21 public record, I think Idaho Springs -- much of it
 22 was intentionally left out, as far as
 23 improvements. Because Idaho Springs is a much
 24 bigger problem than that. Our three or four exits
 25 now are one big project in itself. So I just want
 1 it on public record that at the request of the
 2 City of Idaho Springs, CDOT worked with us to
 3 develop what they call the Area of Special
 4 Attention Report.

5 This was a data and workshop on
 6 visioning with the City. 40 citizens got together
 7 for a day and a half and came up with what we
 8 thought -- how we could close that gap in I-70 and
 9 actually do the best they could; the City of Idaho
 10 Springs, the citizens of Colorado, and CDOT. So I
 11 just want it a matter of public record that this
 12 visioning report is a part of the PEIS. And thank
 13 you very much for your time. I'm glad we're doing
 14 it.

Response to IND-27 (continued)

- B. The lead agencies agree that increasing the highway from four- to six-lane capacity could be accomplished within the existing right-of-way in many cases. In the body of the PEIS, the use of the term "widening" has been replaced with "capacity" in cases where the terms are synonymous.
- C. Yes, the Preferred Alternative includes other improvements in the Idaho Springs area under the Minimum Program and provides six-lane capacity under the Maximum Program. The Maximum Program of Improvements will be implemented only after evaluation of triggers and conditions as agreed to in the Consensus Recommendation. Triggers are described in **Section 2.7.2 "What are the triggers for additional highway capacity improvements?"** of the PEIS. Alternatives for capacity improvements in Idaho Springs will be considered in Tier 2 processes if the need for capacity in Idaho Springs is identified by the Collaborative Effort.

The Area of Special Interest Report referenced is the product of a visioning effort between CDOT and the City of Idaho Springs. The report is an example of how the decision process outlined in the I-70 Mountain Corridor Context Sensitive Solutions process could be implemented to refine and define specific projects and frame studies in specific locations. The I-70 Mountain Corridor Context Sensitive Solutions process will be implemented on all Tier 2 processes in the Corridor.

Comments

Responses

Source: Public Hearing	Name: Smoky Anderson
Document Number: IND-28	City, Zip Code: Georgetown, 80444

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

17 MR. ANDERSON: Good evening. This is
 18 Smoky Anderson, [REDACTED]
 19 [REDACTED]
 20 MS. STROMBITSKI: Please spell
 21 Anderson.

A

22 MR. ANDERSON: A-n-d-e-r-s-o-n. I'm a
 23 member of the Open Space Committee here in Clear
 24 Creek County. And I'd like to thank CDOT and the
 25 people that worked on the PEIS for including the
 1 greenway system throughout the county. I think
 2 that that was something that was greatly missed in
 3 the first one. In the second one, they greatly
 4 should be commended for including that.

A

5 As we go into Tier 2 and start looking
 6 at further plans, further implementation along the
 7 Corridor, certainly every member of Open Space
 8 will be interested in working with CDOT and the
 9 people there to ensure that the greenway is
 10 rightly placed and worked with. Thanks for
 11 letting me speak tonight.

Response to IND-28

A. As you note, the *Clear Creek County Greenway Plan* has been included and analyzed as a recreation resource in the PEIS. Effects to the Greenway are discussed in **Section 3.12, Recreation Resources and Section 6(f) Discussion**, and **Section 3.14, Section 4(f) Discussion** of the PEIS. The Colorado Department of Transportation is committed to continue collaboration on the Greenway into Tier 2 processes (see **Section 3.12.6, "What will be addressed in Tier 2 processes?"**).

Comments

Responses

Source: Public Hearing	Name: Ellen Colrick
Document Number: IND-29	City, Zip Code: Vail, 81657

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: Thursday, October 7, 2010

8 MS. COLRICK: Thank you. My name is
9 Ellen Colrick, and I live at [REDACTED]
10 [REDACTED] What I would like to say is
11 that the problem with the I-70 Mountain Corridor
12 is that there are only two lanes from the
13 Eisenhower Tunnel to Floyd Hill, which is the
14 Corridor for traffic from eight ski areas to get
15 to Denver.

Response to IND-29

A. It is true that the merging of three lanes into two lanes at the eastbound Eisenhower-Johnson Memorial Tunnels portal remains a "pinch point" for traffic traveling east. Similarly, the narrowing of the I-70 highway at Floyd Hill from three lanes to two for westbound traffic is also a pinch point during peak hours of travel. The Preferred Alternative includes the addition of six-lane highway capacity from Floyd Hill to the Twin Tunnels under the Minimum Program of Improvements, and six-lane highway capacity from the Twin Tunnels to the Eisenhower-Johnson Memorial Tunnels under the Maximum Program of Improvements. The Preferred Alternative also includes new bores in the Twin Tunnels and Eisenhower-Johnson Memorial Tunnels, interchange improvements, the addition of auxiliary lanes, non-infrastructure components, and an adaptive management component to evaluate traffic conditions and the effectiveness of improvements every two years. Additionally, the Preferred Alternative includes an Advanced Guideway System that provides another mode of travel in this area. Based on the information currently available today, only the Maximum Program of Improvements meets the 2050 purpose and need.

Comments

Responses

Source: Public Hearing	Name: Ellen Colrick (continued)
Document Number: IND-29	City, Zip Code: Vail, 81657

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

The speed differential going uphill on
 16 Vail Pass eastbound, as the study claims, is not
 17 the problem. Until 1978, there was only one lane
 18 going uphill. Taxpayers funded a second lane in
 19 both directions, so there is a slow lane for
 20 trucks and a fast lane for cars. Most accidents
 21 happen on the top of Vail Pass, where it is flat,
 22 and are caused by speeding too fast for the
 23 conditions. Although increased fines have
 24 alleviated greatly any problems caused by the
 25 truckers, there has been only one state trooper
 1 checking for chains. And many gasoline trucks are
 2 racing up the pass, in the worst snowstorms, at
 3 80 miles per hour in the fast lane, sneaking by.
 4 Again, speed is the problem.
 5 The downhill lane is more dangerous due
 6 to speed and loss of control and brakes.

B

B

Response to IND-29 (continued)

B. The west side of Vail Pass is a recognized safety problem, as discussed in **Chapter 1, Purpose and Need** of the PEIS, with a higher-than-average number of crashes. The PEIS also notes that crashes and other roadway deficiencies, such as sharp curves, can contribute to congestion. As noted in the PEIS, Vail Pass has grades of up to 7 percent, and between 9 percent and 12 percent of all vehicles are trucks, buses, or recreational vehicles, depending on the time of year and day of the week.

The Preferred Alternative includes non-infrastructure components to address congestion and safety issues related to high or differential speeds. These components include increased enforcement, driver education, and advanced traffic management techniques, such as speed harmonization (the use of electronic speed limit signs to reduce speeds incrementally along the highway, upstream of congestion, to extend the time that efficient travel is available to highway users).

Comments

Responses

Source: Public Hearing	Name: Ellen Colrick (continued)
Document Number: IND-29	City, Zip Code: Vail, 81657

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

If a

7 lane was to be built from the East Vail exit, it
 8 would be a waste, in my opinion, of the taxpayers'
 9 money, as all of Vail is narrow valley is built
 10 next to I-70, and eminent domain would be very
 11 expensive.

12 If it is deemed necessary that it
 13 should be built, I would certainly hope that the
 14 engineers would, instead of taking out our homes,
 15 do it on the north side of the highway, where they
 16 would not be influencing so many homes, or in the
 17 center lane. Thank you very much.

Response to IND-29 (continued)

C. The PEIS identifies the need for auxiliary lanes in both travel directions east of Vail between milepost 180 and 190. In this area, which consists of two travel lanes in each direction, slow-moving vehicles greatly reduce the ability of faster vehicles to pass and create congestion when they pass other slow-moving vehicles. Please refer to the *I-70 Mountain Corridor PEIS Safety Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website) for a description of the safety issues and crash history at this location.

The Vail exits identified for improvements in the Preferred Alternative are located at mileposts 173, 176, and 180. The proposed auxiliary lanes occur east of the town of Vail and would not extend through the Vail Valley. Minimizing right-of-way acquisitions is always a consideration in designing new or expanded roadways. During Tier 2 processes, the lead agencies will refine the footprint of the proposed auxiliary lanes and seek to stay within the existing right-of-way footprint where possible. The public will have an opportunity to review and comment on specific design proposals during Tier 2 processes. See **Section 3.7, Land Use and Right-of-Way** of the PEIS for more information on right-of-way.

Comments

Responses

Source: Public Hearing	Name: Paula Lallier
Document Number: IND-30	City, Zip Code: Salida, 81201

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: Thursday, October 7, 2010

21 MS. LALLIER: My name is Paula Lallier,
 22 P-a-u-l-a L-a-l-l-i-e-r. And my address is Post
 23 [REDACTED] I'm really
 24 overwhelmed at all of this project. It looks like
 25 many, many years and a lot of work have gone into
 1 it. It's a bit too much to absorb or comment on.
 2 But it seems to be flexible as to meaning and as
 3 to financing available.

A

4 My particular inquiry is as to the
 5 SWEEP program, involving sediment control and
 6 stream restoration on Black Gore Creek. That
 7 particular creek, the original course of it, has
 8 been diverted by a beaver dam. And I didn't know
 9 whether, as part of the stream restoration
 10 portion, restoration to the original course of
 11 Black Gore Creek might be a possibility. Thank
 12 you.

B

Response to IND-30

A. The lead agencies recognize that the PEIS presents a lot of information. We recognize that the Preferred Alternative is complicated, and the process of identifying the Preferred Alternative was long, involved a number of technical studies, and required substantial public and agency involvement that needed to be documented.

You are correct that the Preferred Alternative is flexible in its implementation, both in the incremental phasing and financing of improvements, as described in **Section 2.7.2 "What are the triggers for additional highway capacity improvements?"** of the PEIS. The lead agencies are committed to continued stakeholder involvement during Tier 2 processes so that the public remains informed and engaged on Corridor issues. The lead agencies will follow the I-70 Mountain Corridor Context Sensitive Solutions process on all Tier 2 processes, as explained in **Appendix A, I-70 Mountain Corridor PEIS Context Sensitive Solutions** of the PEIS.

B. The Stream and Wetland Ecological Enhancement Program (SWEEP) actions address stream conditions caused by humans and the built environment and will not likely address naturally-occurring conditions like beaver dams.

Comments

Responses

Source: Public Hearing	Name: John Haines
Document Number: IND-31	City, Zip Code: Glenwood Springs, 81601

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

17 MR. HAINES: Mary Ann, how does Scott
 18 talk for 45 minutes, and we're allowed 3?
 19 MS. STROMBITSKI: This is actually part
 20 of a federal process. It's very defined rules.
 21 MR. HAINES: We're under allotment here
 22 now, right? My name is John Haines. I live in
 23 Glenwood Springs, 28 Fairway Lane. And I haven't
 24 started yet. (Inaudible.)
 25 You guys talk about being able to do a
 1 Minimal Program. It sounds to me like you're
 2 talking about building for today, not tomorrow.
 3 Six lanes from Floyd Hill to the Tunnels is not
 4 near enough. The other thought that I have is, a
 5 lot of you folks remember when Stapleton Airport
 6 was there. They had the runway that ran right
 7 over I-70. You know what it was like Monday,
 8 Tuesday, Wednesday, Thursday, Friday mornings?
 9 All kinds of traffic jams. You know what happened
 10 when they took the tunnel out? No traffic jams.

A

A

Response to IND-31

A. The Preferred Alternative includes expanding the I-70 highway from four- to six-lane capacity between Floyd Hill through the Twin Tunnels, and, if fully implemented under the Maximum Program of Improvements, providing six-lane capacity between Floyd Hill through the Eisenhower-Johnson Memorial Tunnels. To avoid and minimize impacts to communities and natural resources in the Corridor and maintain the context of the mountain setting, the lead agencies did not look at expanding the I-70 highway beyond six-lane capacity. The additional highway capacity, along with the inclusion of a new transit mode, meets the travel demand for 2050 and also addresses the immediate needs in the Corridor. A multimodal solution is necessary to meet the travel needs of the Corridor.

As described in **Chapter 2, Summary and Comparison of Alternatives** in the PEIS, congestion will remain in 2035 if the Maximum Program of Improvements is not fully implemented. Highways are not typically designed to achieve free-flow conditions in the future. The capacity offered by transit and highway improvements under the Maximum Program meets the travel demand through 2050.

Comments

Responses

Source: Public Hearing	Name: John Haines (continued)
Document Number: IND-31	City, Zip Code: Glenwood Springs, 81601

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

B

11 That's what they need to do in Idaho
 12 Springs, take those two tunnels out. Don't look
 13 at putting six lanes there, just take them out.
 14 Give the aggregate, the guy who's got that rock
 15 corridor right at the bottom of Floyd Hill. And
 16 you know what? People won't slow up any more.
 17 Because when you look today, when you get to the
 18 other side of the tunnel, there's no traffic jam.
 19 You're also getting people in from the
 20 Central City Highway -- Parkway. That adds even
 21 more traffic that goes through the tunnel. And it
 22 doesn't slow anybody up. Get rid of the tunnels,
 23 that will solve some problems.

Response to IND-31 (continued)

B. It is recognized that tightly constrained cross-sections (as often found at tunnels) reduce travel speeds and often lead to more congested conditions. However, even without the tunnel cross-section east of Idaho Springs, future travel demand cannot be accommodated without adding more capacity.

While the environmental impacts of removing the tunnels were not evaluated, the Twin Tunnels Wildlife Land Bridge is a known and important wildlife crossing and is identified as a potential Section 4(f) property. As a Section 4(f) property, it is afforded special protection. During Tier 2 processes, if a prudent and feasible alternative exists to avoid use of this Section 4(f) property, that alternative must be chosen. Section 4(f) also requires that all possible planning to minimize harm to the Twin Tunnels Wildlife Land Bridge be done. Additionally, blasting the tunnels would likely have adverse environmental impacts, generate large quantities of waste materials, and create an area prone to rockslides and other geologic hazards that would be difficult to manage.

To increase the capacity of the I-70 Corridor, the Preferred Alternative includes a third bore in the Twin Tunnels. Additional capacity is provided in the form of a new transit mode and the widening of the I-70 highway to three lanes in each direction at the tunnel. These kinds of alternatives will be evaluated in Tier 2 processes.

Traffic accessing the I-70 highway to and from the Central City Parkway was considered in the need for improvements, recognizing the traffic flows in the vicinity of the tunnel. The proposed expansion of the I-70 highway to six-lane capacity in the area of the Central City Parkway would be required, regardless of what type of improvements occur at the Twin Tunnels.

Comments

Responses

Source: Public Hearing	Name: John Haines (continued)
Document Number: IND-31	City, Zip Code: Glenwood Springs, 81601

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

C 24 I think the other thing you have to
 25 look at, is imagine Eisenhower, 1952. Everybody
 1 saying, "Not in my backyard. Not in my backyard."
 2 Can you imagine our highway system today being
 3 like US 6 from San Francisco to New York? We have
 C 4 to learn to give. And if this project were in
 5 Detroit, Chicago, Atlanta, D.C., it would be
 6 called urban renewal, and it would just be done.
 7 We wouldn't be worried about what we're worried
 8 about.
 9 And you have to look at building for
 10 the future. We all have to give something; me
 11 included, everybody else. And if we do that, it
 12 will probably go a whole lot quicker, and we'll
 13 have a whole lot more problems solved. But I
 14 think if you just fix the tunnel, it will solve
 15 the immediate needs. Thanks a lot.

Response to IND-31 (continued)

C. As described in Section 2.7, "What was the decision making process for identifying the Preferred Alternative?" of the PEIS, the lead agencies adopted the Preferred Alternative for the I-70 Mountain Corridor based on the Consensus Recommendation developed by the Collaborative Effort team. The Collaborative Effort team is a 27-member group representing varied interests in the Corridor. The team was charged with reaching consensus on a recommended transportation solution for the I-70 Mountain Corridor. The Preferred Alternative, which does include improvements to the tunnels, is based on needs to enhance the Corridor, its environment, and its communities.

Comments

Responses

Source: Public Hearing	Name: Clyde Hanks
Document Number: IND-32	City, Zip Code: Avon, 81620

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

Response to IND-32

A. Comment noted.

A

18 MR. HANKS: My name is Clyde Hanks. I
 19 live at [REDACTED] I also
 20 have two grown daughters that live in the Valley
 21 and one who lives in Denver. Somebody in my
 22 family is driving between Denver and Avon, on an
 23 average, of once a week. We have a lot of
 24 experience with this Corridor.

25 I'd like to commend CDOT and everybody
 1 involved in this for the amazing work. Having
 2 pulled up that study and looked at it, I was
 3 overwhelmed at what was done. And I think the
 4 input of everybody is to be highly commended.

A

5 I have to say that when I looked at the
 6 various solutions considered and the preferred
 7 solution you came up with, I was in agreement with
 8 what everyone came together over. The preferred
 9 solution is really a combination of improving the
 10 highway and giving us a new way to get up and
 11 down.

Comments

Responses

Source: Public Hearing	Name: Clyde Hanks (continued)
Document Number: IND-32	City, Zip Code: Avon, 81620

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

12 I think the values of the system are
 13 threefold. One, it will get better access to the
 14 mountains for folks that can come up here and
 15 experience a beautiful place, where many of us get
 16 a chance to live. And I think that is a great
 17 benefit to all the visitors who come to Colorado
 18 or might live in the Front Range. Also, those
 19 folks, once they see this beauty, would be much
 20 better advocates for preserving it.

21 Secondly, I think having the railway of
 22 some sort, which has to be figured out, is really
 23 a great solution. It will reduce people driving
 24 cars in getting up here and will help preserve the
 25 environmental quality that we live in.

Response to IND-32 (continued)

B. Yes, the I-70 Mountain Corridor combines both scenic and recreational opportunities for travelers, and visitor access is a part of the purpose and need for improvements. Sightseeing is an important reason that visitors travel to the Corridor; in fact, officials from the United States Forest Service estimate that between 17 and 37 percent of the more than 15 million trips to the White River National Forest and Arapaho and Roosevelt National Forests in the summer of 1999 and the winter of 2000 were for sightseeing purposes. See **Sections 3.11, Visual Resources and 3.12, Recreation Resources and Section 6(f) Discussion** of the PEIS for more information on visual and recreation resources, respectively.

C. The Preferred Alternative proposes a multimodal solution to the I-70 Mountain Corridor. The transit component of the Preferred Alternative, the Advanced Guideway System, both shifts some travel from roadways to transit and accommodates more trips than could be provided by highway improvements alone. The United States Forest Service supports visitation by way of transit as more easily managed than dispersed vehicular trips, thereby helping to preserve scenic and recreation resources.

Preserving environmental quality and promoting environmental sustainability are two of the core values of the I-70 Mountain Corridor Context Sensitive Solutions process that will be followed during the development of Tier 2 processes. Please see the response to comment [IND-202-K](#) for more information on the incorporation of sustainability in the Preferred Alternative.

Comments

Responses

Source: Public Hearing	Name: Clyde Hanks (continued)
Document Number: IND-32	City, Zip Code: Avon, 81620

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

1 And, third, I think these improvements
 2 will be a tremendous economic driver for both the
 3 Mountain Corridor and the Front Range. It becomes
 4 highly attractive to live in the Front Range when
 5 you can get to the mountains so easily and
 6 conveniently. All then all along the Corridor
 7 there will be development. Wherever there's been
 8 rail development in various communities across the
 9 country, there's always been fairly rapid economic
 10 development along with it.

Response to IND-32 (continued)

D. Yes, the Preferred Alternative is likely to stimulate economic and population growth along the Corridor, especially around transit stations. See **Section 3.8, Social and Economic Values** for more information on economic conditions in the Corridor and the types of impacts associated with growth under the Action Alternatives.

Under the Preferred Alternative, Summit and Eagle counties encounter growth pressures beyond what is planned, concentrated both in areas surrounding transit centers and in rural areas. As discussed in **Section 3.7, Land Use and Right-of-Way** of the PEIS, without proper land use planning controls, induced growth leads to undesirable land use patterns that strain environmental and community resources. To responsibly manage growth pressures, local governments will need to adopt land use policies that guide and adapt to the induced development.

A more detailed explanation of anticipated land use patterns, employment, and population estimates are provided in the *I-70 Mountain Corridor PEIS Land Use and Right-of-Way Technical Report* and the *I-70 Mountain Corridor PEIS Social and Economic Values Technical Report* (both of which are included electronically on CD-ROM in Volume 4 of the PEIS Technical Reports and on the project website).

Comments

Responses

Source: Public Hearing	Name: Clyde Hanks (continued)
Document Number: IND-32	City, Zip Code: Avon, 81620

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

E

11 I have kind of two suggestions. One is
 12 to very aggressively communicate the problem; what
 13 the projections are for the congestion, the drive
 14 time. I mean, five hours from here to Denver is a
 15 staggering amount of time. And I think that's
 16 important to really communicate that, and that
 17 will help build support for the solution.

Response to IND-32 (continued)

E. Yes, the degree of projected congestion is substantial. Through the PEIS process, the lead agencies have studied Corridor conditions and met with numerous highway users and other stakeholders to document the existing and projected problems along the Corridor. Corridor conditions are described in **Chapter 1, Purpose and Need** of the PEIS and in supporting documents, such as the *I-70 Mountain Corridor PEIS Travel Demand Technical Report*, *I-70 Mountain Corridor PEIS Transportation Analysis Technical Report*, and the *I-70 Mountain Corridor PEIS Safety Technical Report* (included electronically on CD-ROM in Volumes 1 and 2 of the Technical Reports and on the project website).

The lead agencies hope that through the PEIS comment and review process many more people will become interested and involved in the Corridor throughout Tier 2 processes. As noted in response to comment [LO-01-C](#), the lead agencies need support from the citizens of Colorado to fund and implement the Preferred Alternative.

Comments

Responses

Source: Public Hearing	Name: Clyde Hanks (continued)
Document Number: IND-32	City, Zip Code: Avon, 81620

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

18 And, secondly, funding is obviously the
 19 big challenge. And I hope that one of the things
 20 that is actively considered is some sort of toll
 21 system on the highway that will provide a funding
 22 source. It won't pay for everything, but it will
 23 provide an ongoing funding source and will
 24 encourage people to ride the rail system. And I
 25 think that's something you ought to be looking at

1 hard.

2 I think the technology is here and
 3 emerging, that you don't really need a toll booth.
 4 Whether you have an electronic tag in your car or
 5 whether a system reads your license plate and
 6 sends you a bill, we won't need to have toll
 7 booths, we won't need to stop, but we can still
 8 have a toll system. Thank you.

Response to IND-32 (continued)

F. **Chapter 5, Financial Considerations** of the PEIS acknowledges that alternative funding sources will be needed to pay for I-70 Mountain Corridor improvements. Tolling is one of the funding options that CDOT will consider in future Tier 2 processes. With appropriate approvals, CDOT could consider tolls for new or existing lanes as a way to fund improvements.

F

F

Comments

Responses

Source: Public Hearing	Name: Rachel Richards
Document Number: IND-33	City, Zip Code: Pitkin County

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

A

16 MS. RICHARDS: My name is Rachel
 17 Richards. It's spelled R-a-c-h-e-l
 18 R-i-c-h-a-r-d-s. I'd like to thank CDOT for
 19 hosting this event this evening and everyone who
 20 has turned out. I am a Pitkin County
 21 Commissioner. I work on issues, often water
 22 related, with Jon. And I served on the I-70
 23 coalition for a number of years and was involved.
 24 I am speaking as an individual. My board has not
 25 taken a formal position on this or anything.

A

1 But I wanted to commend you for the
 2 great work, the diligence in building the
 3 collaboration that's going forward, and to say I
 4 am in full support of this proposal.

Response to IND-33

A. Comment noted.

Comments

Responses

Source: Public Hearing	Name: Rachel Richards (continued)
Document Number: IND-33	City, Zip Code: Pitkin County

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

b

I have a
 5 history in the Aspen Pitkin County area with mass
 6 transit. And when I was mayor, I helped form the
 7 original Regional Transportation Authority in that
 8 area. And I just know you cannot build your way
 9 out of these sort of problems.
 10 Taking care of some (inaudible) points,
 11 taking care of some shorter-term, early-action
 12 items, yes, that makes a lot of sense. But as I
 13 understand, in comparison to the alternatives, if
 14 you were to simply try to build laneage without a
 15 multimodal solution, because of the complexity of
 16 the I-70 Mountain Corridor and the mountainous
 17 terrain, it would probably take 25 years. And by
 18 the time it is complete, it would be as congested
 19 as it is today. And so I think we have to plan
 20 for the future, even with the knowledge that they
 21 have a system that works currently.

Response to IND-33 (continued)

B. Yes, a multimodal solution is necessary to meet long-term needs in the Corridor. As described in **Section 2.8.1, Transportation Comparisons**, of the PEIS, the I-70 highway would reach network capacity in 2015 to 2025 under the Minimal Action Alternative and between 2035 and 2040 with the Six-Lane Highway Alternative. The Combination alternatives, including the Preferred Alternative, are the only alternatives that meet the 2050 purpose and need because they do not reach network capacity until 2050.

As noted in response to comment [IND-09](#), the Preferred Alternative recognizes the need to plan for a longer horizon and, therefore, relies on a 50-year vision for the Corridor. **Section 1.4, "What are the horizon years of analysis for the study?"** of the PEIS describes the horizon years of analysis for the study, and the **Introduction** of the PEIS describes the relationship between the Corridor vision and statewide planning process. Based on the 50-year vision, the Preferred Alternative has the best opportunity to meet the purpose and need for I-70 Mountain Corridor improvements while minimizing impacts, largely because the phasing and implementation of the program of improvements is adaptive to future needs and trends. Due to the uncertainty of funding, the timing of improvements is also uncertain but early action projects have been identified and are being studied, as described in the **Introduction** of the PEIS.

Comments

Responses

Source: Public Hearing	Name: Rachel Richards (continued)
Document Number: IND-33	City, Zip Code: Pitkin County

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

c { 22 I also think the environmental benefits
 23 are huge. And as someone very interested in water
 24 issues, the facilitation and the runoff from
 25 constantly trying to put mag chloride, sand, and
 1 rock on the road, keeping them open in difficult
 2 times, is not good for our rivers and our water
 3 quality.

Response to IND-33 (continued)

C. Section 3.4, Water Resources of the PEIS describes water resources, including a specific assessment of winter maintenance effects on water resources. The *I-70 Mountain Corridor PEIS Water Resources Technical Report* (included electronically on CD-ROM in Volume 3 of the PEIS Technical Reports and on the project website) contains additional information about water quality, including an expanded discussion of winter maintenance activities and their effects on water quality.

To address the adverse effects of building and operating transportation facilities in the Corridor, CDOT has established two specific programs to protect and restore water resources affected by road activities. First, the Stream and Wetland Ecological Enhancement Program (SWEEP) Memorandum of Understanding identifies water-related issues and mitigation strategies in the Corridor, with immediate attention given to the Clear Creek portion of the Corridor. This Memorandum of Understanding, which was signed in January 2011, is included in **Appendix D, Stream and Wetland Ecological Enhancement Program (SWEEP) Memorandum of Understanding** of the PEIS. Second, Sediment Control Action Plans have been implemented for Black Gore Creek and Straight Creek, and a Sediment Control Action Plan for Clear Creek is under development. These Sediment Control Action Plans target sediment reduction in the affected creeks.

Comments

Responses

Source: Public Hearing	Name: Rachel Richards (continued)
Document Number: IND-33	City, Zip Code: Pitkin County

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

D

4 So I, again, commend everyone who
 5 participated. And I realize there's been some
 6 very difficult compromises made. And I think one
 7 of the most important things to bear in mind is,
 8 if you were the residents of Georgetown, and
 9 you're looking at a six-lane coming through your
 10 historic area or Idaho Springs, and knowing that
 11 once that's built, the company could come back and
 12 want an eight-lane, then ten-lane, it just -- it
 13 wipes their communities out. And in a process
 14 like this, if you don't take all people's
 15 interests into some consideration, you'll be tied
 16 up with no solution, and you will fail through
 17 NEPA, you will have lawsuits. And the delay,
 18 itself, is really deadly for all of us moving
 19 forward with a safe solution. So that's my
 20 comment.

Response to IND-33 (continued)

- D. As described in **Section 2.7, "What was the decision making process for identifying the Preferred Alternative?"** of the PEIS, the Preferred Alternative is based on the Consensus Recommendation developed by the Collaborative Effort team. The Collaborative Effort team is a 27-member group representing varied interests in the Corridor charged with reaching consensus on a recommended transportation solution for the I-70 Mountain Corridor. The lead agencies and the other Collaborative Effort members recognized that compromise would be necessary for consensus.
- Minimizing right-of-way acquisitions is always a consideration in designing new or expanded roadways. During Tier 2 processes, the lead agencies will consider refining alternative alignments through these sensitive areas to minimize impacts. See **Section 3.7, Land-Use and Right-of-Way** of the PEIS for more information on right-of-way.
- Regarding the need to complete the Preferred Alternative quickly, please refer to the response to comment [IND-06-B](#).

Comments

Responses

Source: Public Hearing	Name: Paco Calderon
Document Number: IND-34	City, Zip Code: Not Provided

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: Thursday, October 7, 2010

25 MR. CALDERON: Hello, everybody. My
 1 name is Paco, P-a-c-o, Calderon, C-a-l-d-e-r-o-n.
 2 I've been in this Valley for 16 years and love it.
 3 And going back to Denver on the weekends, I'm so
 4 thankful that I'm actually coming the other way,
 5 as we see the people going down or coming up
 6 either way.
 7 My first question to my former
 8 girlfriend, when I was doing that trip, was, "Why
 9 isn't there a train here?" It's just -- you know,
 10 that was my first question. "Why is not a train
 11 here?" I hope with goodwill, Scott, that you have
 12 in your budget a trip to Germany or Hong Kong and
 13 experience --
 14 MR. McDANIEL: I'd be happy to go.
 15 MR. CALDERON: -- and experience what
 16 it's like to get on a train over there. It's a
 17 lot easier to be in Hong Kong and take a train 200
 18 miles away and be there in half an hour on the mag
 19 lev, than getting out of DIA and trying to get
 20 over here, a hundred miles away.

Response to IND-34

- A. The Preferred Alternative relies on a multimodal solution and recognizes the importance of transit in providing needed capacity and movement of people through the Corridor. Specifically, an Advanced Guideway System is included in the Preferred Alternative, and specific details of that system will be evaluated in feasibility studies and related Tier 2 processes.

Please refer to the response to the Town of Vail's comments in comment [LO-08](#) regarding parking and frontage roads.

Comments

Responses

Source: Public Hearing	Name: Paco Calderon (continued)
Document Number: IND-34	City, Zip Code: Not Provided

Response to IND-34 (continued)

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: Thursday, October 7, 2010

21 And, you know, the mountains are in the
22 way. Switzerland didn't have an excuse. Germany,
23 the Alps, did not have an excuse to put in
24 high-speed trains or to even go under the ocean
25 between France and England. It was not an excuse.

1 And you can be there in 45 minutes. So I hope all
2 this works out. Because more cars, I mean, even
3 if you have six lanes, where are you going put all
4 those cars here? We already have a problem with
5 parking, where to eat, where to stay, and where to
6 park all those cars on the frontage road in Vail.
7 There's just no room for more cars. So thank you.
8 I hope everything works out here.

A

Comments

Responses

Source: Website Comment	Name: Bill Risley
Document Number: IND-35	City, Zip Code: Not Provided

Per the following article this is proven "guideway" technology that can be adapted to Colorado mountain areas for high speed trains traveling up to 155 MPH:

Swiss celebrate longest tunnel breakthrough

Published: October 15, 2010

This photo of a TV screen shows the live feed broadcast on Swiss television showing workers in the Gotthard Base Tunnel celebrating the final breakthrough of rock in the construction of the world's longest railroad tunnel. The tunnel will open to train traffic in 2017.

Photo by Armin SchmutzSEDRUN, Switzerland – At 2:15 p.m. Friday, Swiss engineers using a tunnel boring machine smashed through the last stretch of rock to create the world's longest tunnel, which has been 60 years in the making, according to a story from the Associated Press.

Trumpets sounded, cheers reverberated, and even burly workers wiped away tears as foreman Eduard Baer lifted a statue of Saint Barbara — the patron saint of miners — through a small hole in the enormous drilling machine thousands of feet underground in central Switzerland.

At that moment, a 35.4-mile tunnel was born, and the Alpine nation reclaimed the record from Japan's 33.5-mile Seikan Tunnel. Television stations across Europe showed the event live.

The breakthrough occurred beneath the Alpine peak Piz Vatgira, almost equidistant from the ends of the long tunnel. The deviation at the breakthrough point was a mere 3 inches horizontally and a third of an inch vertically.

Only 200 people, including tunnel workers, Swiss Transport Minister Moritz Leuenberger, and a few guests were on hand to witness the tunnel breakthrough, since access to the area occurs through a mid-bore entry point that involves riding a 0.6-mile work train, followed by an elevator drop of 2,600 feet, then another work train ride for 3 and-a-half miles. Tunnel employees at other construction sites watched the breakthrough on giant video screens.

The new Gotthard Base Tunnel is as an important milestone in the creation of a high-speed transportation network connecting all corners of Europe.

First conceived in 1947 by engineer Eduard Gruner, the tunnel will allow millions of tons of goods that are currently transported through the Alps on heavy trucks to be shifted onto railroads, particularly on the economically important lane between the Dutch port of Rotterdam and Italy's Mediterranean port of Genoa.

Construction began in 1993, when the first exploratory bores were drilled. Since then, work has occurred simultaneously in five tunnel sections. The tunnel consists of two parallel single-track bores connected by cross passageways. In all, some 94 miles of tunnels, connecting shafts, galleries, and caverns will be dug before the project is complete — 56 percent using tunnel boring machines and 44 percent excavated by blasting.

The \$10 billion tunnel will open for rail traffic in 2017 and allow passenger and cargo trains to pass under the Alps at speeds of up to 155 mph.

Response to IND-35

A. Your suggestion is noted. The Advanced Guideway System represents a mode encompassing a range of technologies that would be capable of being fully elevated for the length of the Corridor. Advanced Guideway System feasibility studies and related Tier 2 processes will help to further define the feasibility of the system and its technology.

Comments

Responses

Source: Website Comment	Name: Andrew Crutcher
Document Number: IND-36	City, Zip Code: Thornton, 80260

A [We need this not just for a ride but to be a lot safer on are roads in the winter time

Response to IND-36

- A. The Preferred Alternative provides a multimodal solution including highway improvements, safety improvements, transit, and non-infrastructure components such as Transportation Demand Management strategies. These components address capacity and safety concerns in the Corridor.

Comments

Responses

Source: Website Comment	Name: Dan Corwin
Document Number: IND-37	City, Zip Code: Breckenridge, 80424

Response to IND-37

- A. Comment noted.
- B. **Chapter 5, Financial Considerations** of the PEIS acknowledges that alternative funding sources will be required to pay for I-70 highway improvements. Tolling is one of the funding options CDOT will consider in future Tier 2 processes. With appropriate approvals, CDOT could consider tolls for new or existing lanes.

A

Having lived in Summit County for almost 34 years now, I have seen the traffic along I 70 increase, especially since the tunnel was completed in 1973 & the 2nd bore in 1979. The tunnel's made access to the high country much easier, and it is because of this that the economy has boomed over the years in these communities. I have no problem with this and it has made it so I could live up here.

The time has come to do something for the future. In the same way that a tunnel under the Continental Divide seemed unimaginable in the 50's and 60's, (but with foresight it was planned and completed), some sort of fixed track train or monorail system **MUST** be implemented sooner than later. (It took way to long to get the train system in the Denver area but now that it is there, it is a huge success.)

B

Along with designing such a system in the mountains and under the Continental Divide being such a huge task, is the idea of where the money will come from. I know the idea of making I-70 a Toll Way from Morrison to Eagle County has been talked about, but why not just implement it and make the people that use that road and will need another viable form of transportation to and from the mountains, pay for any future development? I would have no problem paying for something that I will be using. This does not tax the entire state for something that does not affect them directly, and it could be one of the main sources of revenue to finance a modern transportation system in the mountains.

I could go on and on about this but I feel this is enough to get my idea on how we can plan for the future. Please feel free to call me if I can clarify what I have said, or go into my thoughts in further detail.

Comments

Responses

Source: Website Comment	Name: Sharon Piergeorge
Document Number: IND-38	City, Zip Code: Vail, 82657

A I need to find someone to help with the sound issue in West Vail Intermountain area - it has become unbearable. Everyone I speak to is passing the buck to another agency. I know there is ALOT of money available. I have spoken to the Vail commissioners, the Chief of Police, the CDOT office in Grand Junction with no results. Please inform me who to contact regarding this issue. Thank you

Response to IND-38

A. West Vail is located in the CDOT Region 3 Engineering area. The Colorado Department of Transportation does not have funding for noise abatement projects or “retrofits” on existing highways where no new highway construction is occurring.

Noise walls can be constructed by third parties outside of CDOT right-of-way within the constraint of local ordinances.

The Preferred Alternative includes reconstruction of the Vail West/Simba Run, Vail, and Vail East interchanges and an Advanced Guideway System through the town of Vail. Noise measurements will be taken, and a thorough assessment of potential noise impacts will be evaluated during Tier 2 processes. If noise abatement is warranted under the Preferred Alternative, specific mitigation measures will be explored during Tier 2 processes.

Comments

Responses

Source: Email	Name: Sharon Piergeorge
Document Number: IND-39	City, Zip Code: Vail, 82657

A

Hi- i wanted to leave a comment about the horrendous noise problem on I70 in the West Vail Intermountain area. I have lived there for 18 years and it has gotten so bad -I cannot sleep at nite - people wont rent in the area if we face I70 because of the noise. Something has to be done. Barrier walls have been put up in east Vail and Silverthorne area. Please help us! Thanks Sheri Piergeorge

Response to IND-39

A. As indicated in response to your comment [IND-38-A](#), CDOT does not have funding for noise abatement projects on existing highways where no new construction is occurring. Barrier walls erected recently in the Corridor by CDOT have been a result of recent construction projects.

Noise levels were measured in 2001 for the PEIS in the town of Vail and ranged between 63 A-weighted decibels (dBA) and 67 dBA. 66 dBA is the impact threshold whereby mitigation must be considered with construction. Refer to **Section 3.10, Noise** of the PEIS for more information on noise conditions in the Corridor. An additional noise study commissioned by the town of Vail in 2005 resulted in predicted noise levels ranging between 54 dBA and 70 dBA. As indicated in response to your comment [IND-38-A](#), noise analyses will be conducted and noise abatement measures will be explored during Tier 2 processes.

Comments

Responses

Source: Website Comment	Name: Greg and Margaret Thomas
Document Number: IND-40	City, Zip Code: Denver and Edwards, CO

A
 Letter sent to the Colorado Department of Transportation regarding Interstate 70 mountain-corridor feedback and the "Revised Draft Programmatic Environmental Impact Statement": We are Greg and Margaret Thomas, who live in both Denver and Edwards and have thousands of commutes on I-70 between these two cities. We have hundreds of nightmarish stories of traveling the I-70 mountain corridor. I have read the "Revised Draft Programmatic Environmental Impact Statement" from the Colorado Department of Transportation and have the following feedback. Growth is inevitable. Although it is difficult to imagine the impact of expansion on aesthetics, community and ecosystems, we must plan for the future. I am in agreement that a long-term, enduring plan is critical. I agree with the non-infrastructure components. Many solutions can be implemented immediately at little incremental cost. For example, enforcement of laws already in place is critical and can start immediately. Checkpoints for trucks at chain-up locations when the chain law is in effect are critical. Earlier start/later stop of chain laws as weather degrades is important as well as timely communication of conditions. Increased van- and bus-pooling options, especially for skiers, create opportunity for private transportation businesses. Communication and consumer awareness about options through social media and text alerts are critical. Package deals and discounts from ski resorts and hotels for van/bus poolers might increase ridership and create opportunity for local business.

B
 Regarding the Advanced Guideway System: agree this is a good option in the long term. However, this plan must be incorporated with micro-transportation plans. Unlike travel in urban areas or between urban destinations, much of our mountain travel requires transportation of groups of people and "stuff": ski, camping, hunting, kayaking and biking gear. If you look inside vehicles during your next I-70 traffic jam, you will not find cars with one passenger each carrying one laptop but rather SUVs filled with friends and family and all of their gear. How will these travelers be able to transport "stuff" from their homes to the AGS and then from the AGS to their destination? The detailed plan must include solutions for the end-to-end experience of transporting groups of people and their gear. This creates opportunity for private valet services and group/family travel packages throughout the corridor. I think of what the ski industry has done with season passes. The same needs to be done with end-to-end transportation and lodging.

Response to IND-40

A. Strategies you have identified are included as non-infrastructure components and are an important element of the Preferred Alternative. Implementation of these components could begin immediately after the Record of Decision is issued and funding is identified, to address issues in the Corridor in advance of major infrastructure improvements.

The Colorado Department of Transportation has also been making ongoing, shorter-term safety and operational improvements in some Corridor locations, including truck chain up areas, improved traveler message signs, park-and-ride locations, rockfall mitigation, better emergency response plans, roadside safety enhancements, median barrier improvements, and tunnel enhancements. These types of improvements would continue with implementation of the Preferred Alternative.

B. Yes, many of the I-70 Mountain Corridor trips are for recreational purposes, as described in **Chapter 1, Purpose and Need** of the PEIS. These trips have different characteristics than commuting trips, such as relatively high average occupancy of 2.8 persons per vehicle.

The Preferred Alternative includes many non-infrastructure components that could be implemented after the Record of Decision is issued and funding is identified to manage end-to-end transportation for groups of recreational travelers. These include bundling transportation and recreation in travel packages; partnering with airlines, lodging, restaurant groups, and travel agencies to serve out of town travelers; and investing in shuttle services. Other transportation management considerations are detailed in **Appendix A** of the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website).

The lead agencies recognize that some aspects of the Preferred Alternative will take longer to implement than others, and the Preferred Alternative is phased to allow flexibility of implementing and funding components of the

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Greg and Margaret Thomas (continued)
Document Number: IND-40	City, Zip Code: Denver and Edwards, CO

Continued awareness and planning for ongoing highway improvements are critical, even with the AGS and non-infrastructure components. I would like to hear how this plan integrates with future regional air transportation and expansion of the Eagle County airport. For instance, in many parts of Europe, where there are advanced rail systems, there are also reasonably priced options for air travel between regional airports. Imagine a short flight from the Centennial airport to the Eagle airport, packaged with lodging and valet transportation service.

Response to IND-40 (continued)

- B. (Continued from previous page)

alternative. The implementation of an Advanced Guideway System, specifically, will require additional studies and Tier 2 processes to determine the viability of the system, including considerations for technology, costs and benefits, reliability, safety, environmental impacts, and other factors. As the Advanced Guideway System is developed in more detail, considerations for the types of trips served and how to connect travelers to their final destinations will be important to determining how the system will function and serve Corridor travelers.
- C. The Colorado Department of Transportation will continue to work closely with Corridor airport operators, chambers of commerce, and other entities who may be able to facilitate intermodal tourism packages such as the one you describe. The Colorado Department of Transportation also considered improving airports as an option to divert traffic from the Corridor, but those alternatives do not adequately relieve congestion and do not meet the purpose and need for the project. The response to comment [IND-17-B](#) provides more detail about these alternatives.

Comments

Responses

Source: Website Comment	Name: Ken Katt
Document Number: IND-41	City, Zip Code: Littleton, 80120

A

When asked at a gubernatorial debate about solutions for congestion in the I-70 mountain corridor, candidate John Hickenlooper said we need to address the problem "incrementally".

When asked at a different gubernatorial debate how Colorado could make its transportation dollars go further, candidate Tom Tancredo said "we need to make better use of dedicated busway".

While I don't think I hold much influence over either one of these two candidates, if you mesh their two ideas together into one package, you have exactly what I've been suggesting as the best solution for the mountain corridor.

Then, when you realize the I-70 Coalition has suggested we "address the problem areas first", and the governor's blue-ribbon committee on the mountain corridor has called for "an elevated fixed-guideway" for transit - without specifying the exact transit technology to be used - it's almost like they've been reading my mind.

Response to IND-41

A. The Preferred Alternative is an incremental, multimodal solution that is responsive and adaptive to future trends in the Corridor. It provides the opportunity to meet the 2050 purpose and need while minimizing environmental impacts, through a combination of an Advanced Guideway System, highway improvements, and non-infrastructure components. The Minimum Program of Improvements identifies improvements that address near-term needs, "addressing the problem areas first" as you note, while the Maximum Program of Improvements meets the 2050 purpose and need.

The lead agencies recognize that the Bus in Guideway alternatives are easier to phase than an Advanced Guideway System. The ability to phase construction and operation of the Bus in Guideway alternatives requires less initial funding for construction of these alternatives, and allows CDOT to focus on the most congested areas first. However, initial ridership modeling estimates the Advanced Guideway System would attract more riders than a bus system, and the Preferred Alternative was found to provide the best opportunity to meet the 2050 purpose and need while minimizing impacts. Phasing will be considered during Advanced Guideway System feasibility studies and related Tier 2 processes.

Comments

Responses

Source: Website Comment	Name: Ken Katt
Document Number: IND-41	City, Zip Code: Littleton, 80120

B

Since both the EPA and Army Corps of Engineers rated the bus alternatives at or near the very top of their lists when they weighed in on the subject, and the Executive Summary of the Draft PEIS for the mountain corridor said we didn't necessarily need to accept them exactly as offered, it seems to me that all CDOT needs to do is separate itself from all the politics involved if it wants to find a cost-effective solution for addressing congestion in the mountain corridor.

With a reasonable enough price tag for the project, we might even be able to prompt major financial buy-in from the ski resorts who will benefit most. Sure beats taking money from the taxpayers to pay for other alternatives that would be much more expensive and likely include massive amounts of new debt!

Response to IND-41

B. The Environmental Protection Agency and Army Corps of Engineers did rate bus alternatives highly based on the 2004 Draft PEIS. However, the primary reason that the bus alternatives rated higher was that the bus alternatives as described in the 2004 Draft PEIS did not extend west of the Eisenhower-Johnson Memorial Tunnels. As such, these alternatives do not meet the 2050 purpose and need for the project (based on access and congestion relief). In the Revised Draft PEIS, the rubber tire transit alternatives, including Bus in Guideway alternatives, were extended to Eagle County Regional Airport in order to provide the best opportunity to meet the 2050 purpose and need when combined with highway alternative elements.

Regarding the cost comparisons for the alternatives, all of the alternatives that meet the purpose and need for the Corridor (that is, the Combination alternatives) exceed CDOT's currently identified funding for the Corridor. The Six-Lane Highway with Bus in Guideway Alternative is less expensive at about \$12.5 billion, as compared with the Preferred Alternative, which ranges from \$16 billion to \$20 billion in year of expenditure, which in this case is considered to be the mid-year of construction, or 2025. As explained in response to comment [LO-01-C](#), CDOT will need support, leadership, and revenue from other sources to implement Corridor improvements.

Chapter 5, Financial Considerations of the PEIS summarizes the cost of the Preferred Alternative, funding allocated to the I-70 Mountain Corridor, sources for CDOT's funding (and its limitations), and other potential funding sources. Public private partnerships are one of several alternative sources of funding discussed in **Chapter 5, Financial Considerations** of the PEIS. See **Section 5.7, "What are potential funding sources and their limitations?"** of the PEIS.

Comments

Responses

Source: Website Comment	Name: Terri Binder
Document Number: IND-42	City, Zip Code: Grand Junction, 81507

A Land use and transportation are uneasy bedfellows. As long as communities like Dillon, Silverthorn, Frisco, Eagle, Avon and Edwards continue to grow and expand, and many of the mountain residents commute to Denver or elsewhere in the corridor to work, congestion in this corridor will increase exponentially. It seems that communities along the corridor want to blame CDOT for the impact I-70 has had on their communities when these same communities are not doing their part to reduce congestion through land use policies in the corridor. In the last 20 years these communities have exploded! More and more people are living in the mountains because they want to live there but still commute to work in the city. Through poor land use planning mountain communities have brought the city to the mountains creating the very congestion they propose to hate.

For the people who live in the mountain communities and work in Denver the train would probably work as a commuter train.

B However, for recreational users, truck traffic and people traveling from communities further to the west(not included in the I-70 PEIS)like Rifle, Parachute, Silt, and Grand Junction, widening the highway to six lanes from Grand Junction to Denver makes the most sense. For example, I would not drive my car to Eagle, park it somewhere and get on a train to continue on to Denver. Then once in Denver, I would have to unload my suitcases and board a a bus, lightrail, commuter rail, or a cab to eventually get to my destination. When traveling from Denver, recreational travelers would have to load their skis, suitcases and kids onto a commuter rail train at DIA, travel to Denver Union Terminal and then transfer all their skis, suitcases and kids onto Light Rail and travel to C-470 and then unload and load all their skis, suitcases and kids onto some other kind of train and travel to Copper Mountain or Vail and then unload all their skis, suitcases and kids onto a van, shuttle or bus to take them to their hotel or vacation rental. Who in their right mind would put themselves through that?????? What would work and is working is a seamless transportation system from DIA to the mountain resorts with NO TRANSFERS via the existing I-70! Vans, rental cars and shuttles are providing seamless transportation today at a MUCH LOWER COST than building an advanced guideway system that will never pay for itself. Besides we don't have the money to build the train anyway and I don't see any new money coming anytime soon. I, also, do not see voters voting to tax themselves to build a train to accommodate mountain residents commuting to Denver to work. And what about RV's, boats, fourwheelers, trailers and people on cross country automobile vacations? An advanced guideway system would be useless to them. I-70 is an Interstate Highway with interstate users and should be studied as such. Additionally, the train portion of the PEIS would have to be fast or what is the point in building it? With all of the possible proposed stops at each town and junction along the corridor all you have is a glorified bus on metal track with metal wheels that costs a fortune and will be a "slow boat to China".

Response to IND-42

A. The Advanced Guideway System may open up development and provide an opportunity for commuters to live in the mountains and work in the Denver area or to commute longer distances and put growth pressures on outlying Corridor communities. **Section 3.7, Land Use and Right-of-Way** and **Chapter 4, Cumulative Impacts Analysis** of the PEIS address land use issues associated with induced growth, and **Section 3.8, Social and Economic Values** provides a discussion of growth and quality of life in Corridor communities. As discussed in **Section 3.7.7, "What are the approaches to programmatic mitigation planning for land use and right-of-way?"** of the PEIS, CDOT will consider approaches to assist local communities in regional growth management plans that could be applied to Tier 2 processes.

B. Operating details for the Advanced Guideway System, including the logistics of transfers and numbers of stops, will be refined in feasibility studies and related Tier 2 processes.

Shuttle services currently provide transportation for out-of-state travelers originating from Denver International Airport and would continue to provide this service under the Preferred Alternative. While promoting increased use of shuttle and bus services in the Corridor is part of the non-infrastructure components in the Preferred Alternative, operating more shuttles in mixed traffic does not provide a long-term solution for the Corridor and does not meet the purpose and need for the project. Refer to response to comment [IND-59-C](#) for more information about shuttle services.

The Preferred Alternative is a multimodal solution that can accommodate a variety of users and trip purposes. Ridership surveys conducted for this project (see **Appendix A** of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* [included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website]) indicate that the Advanced Guideway System would attract riders and provide capacity to serve unmet travel demand in the Corridor.

Comments

Responses

Source: Website Comment	Name: Terri Binder (continued)
Document Number: IND-42	City, Zip Code: Grand Junction, 81507

C Why would you only widen some portions of the interstate to six lanes in the corridor? Even if you build additional auxiliary lanes in some places there will be slow downs getting on and off these auxiliary lanes from the highway and everyone knows what going from three lanes down to two lanes on a highway does to mobility, safety and congestion. Traffic backs up for miles which is what is happening today. Isn't that what this I-70 PEIS is supposed to solve?

D After reading all the stipulations from every special group imaginable in the I-70 PEIS Corridor, the idea of increasing safety and mobility and reducing congestion in the corridor really gets lost. CDOT has bent over backward to try to accommodate these mountain communities and their wishes but what are we really trying to do here? If every highway in the U.S. has to go through the process that this PEIS has gone through for 12 years and to the tune of \$33 million dollars no wonder the nations highways are in terrible shape! Is every state spending this kind of money on studies? If every highway adding new capacity is scrutinized like this one I would bet there have been few new highways built in the United States in years. And I would further bet the existing highways we currently have would never have been built either. (Example the elevated portion of I-70 through Denver).

Response to IND-42 (continued)

- C. The Colorado Department of Transportation is proposing highway improvements where they are necessary or expected to be necessary in the future based on travel demand modeling. In places where six-lane capacity is not included, they are not projected to be needed within the timeframe of this study. Auxiliary lanes serve a different purpose than to increase capacity. Locations for auxiliary lanes are related to the need for passing lanes or other management of transitions such as entrance/exit ramps. Please refer to **Chapter 1, Purpose and Need** of the PEIS and the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website) for information on traffic volumes and conditions at various locations in the Corridor.
- D. The lead agencies acknowledge the PEIS has taken a very long time and has been costly. Federal and state requirements to complete transportation projects are more strenuous, and surrounding development presents more constraints, than when the interstate system was first developed in the 1950s and 1960s. Through this Tier 1 process, the lead agencies are much more familiar with concerns and issues specific to the Corridor, which will prove beneficial for the efficient completion of Tier 2 processes.

Comments

Responses

Source: Website Comment	Name: Terri Binder (continued)
Document Number: IND-42	City, Zip Code: Grand Junction, 81507

Response to IND-42 (continued)

E. Shifting travel demand is distinct from HOT or HOV lanes. Shifting travel demand (and other transportation management options intended to spread out peak volumes or increase vehicle occupancy to reduce congestion during peak periods) seeks to shift peak day/time travelers to non-peak periods when the highway has available capacity. It could occur through a number of different ways. Incentives include financial incentives, travel time and convenience incentives, and reward/point program incentives (similar to “frequent flier points”). **Appendix A** of the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website) provides additional details on shifting travel demand.

The Reversible HOT/HOV Lanes Alternative would add travel lanes that would be managed for peak flows, changing direction as needed to accommodate peak traffic demand. As explained in **Section 2.8.1, Transportation Comparisons** of the PEIS, this alternative does not meet the 2050 purpose and need for the Corridor because it does not include transit, does not provide for unmet demand, and will result in a system at network capacity in 2035 to 2040.

Although the Preferred Alternative does not include a high-occupancy toll lane, tolling could be used as a funding strategy to help fund the Preferred Alternative as explained in **Chapter 5, Financial Considerations** of the PEIS. Strategies to promote high occupancy travel and encourage carpooling also are retained as options that could be implemented to manage travel demand (by CDOT or others).

I would like a couple of questions answered. Since we do not have money to do most of this anyway, the PEIS refers to shifting freight and passenger travel demand by time of day and day of the week. As part of the PEIS are you proposing charging people to travel at peak times on the existing roadway? If that is the case, then HOT lanes and HOV lanes seem like a good option. Then people can choose if they want to pay or not. Or they can choose to take additional passengers in order to use the HOV lane.

Comments

Responses

Source: Website Comment	Name: Terri Binder (continued)
Document Number: IND-42	City, Zip Code: Grand Junction, 81507

F I am all for additional IT signage. I have found this to be very helpful when traveling the corridor.

G Also, another bore at the Eisenhower tunnel makes sense for automobile traffic as well as the twin tunnels at Idaho Springs. The twin tunnels east of Idaho Springs are a pinch point. Also, I did not see a truck climbing lane on Georgetown Hill or on eastbound Vail Pass. Is that a preferred alternative in the PEIS? If not, why not? Vail Pass Eastbound in winter conditions is a nightmare because of truck traffic and if they had their own climbing lane it would increase safety, mobility and congestion on the pass tremendously.

H Thanks for the opportunity to comment on-line as I was not able to attend any meetings since the closest one was in Eagle and I live 120 miles away. Did many citizens travel from the western portion of the I-70 Corridor (not in the PEIS) to the meetings or comment?

Response to IND-42 (continued)

F. Intelligent Transportation System strategies such as enhanced traveler information signs and variable message signs have and will continue to be implemented to provide traveler information and improve system operations. Variable speed limit signs have been installed in the Corridor recently to allow CDOT to better manage traffic flow.

G. The Preferred Alternative includes a third bore at both the Twin Tunnels and the Eisenhower-Johnson Memorial Tunnels to support highway and transit improvements in the Corridor. The Minimum Program of the Preferred Alternative provides a westbound auxiliary lane from Bakerville to the east portal of the Eisenhower-Johnson Memorial Tunnels. The Preferred Alternative also includes auxiliary lanes in westbound and eastbound directions from approximately the summit of Vail Pass to the East Vail exit to address truck traffic, steep grades, and congestion. The Maximum Program of the Preferred Alternative, if implemented, widens the highway to three travel lanes in each direction from Floyd Hill to the Eisenhower-Johnson Memorial Tunnels. This includes an additional travel lane at the Georgetown Hill.

H. Thank you for providing comments through the website. Many people used this method to provide comments, both now and in 2004, when the original draft was released. Public meeting attendees were encouraged but not required to provide contact information. Of the data we have, the great majority of meeting attendees were from the counties within the PEIS project termini and counties in the Denver metropolitan area.

The lead agencies held four hearings in 2010 compared to ten hearings in 2004. In 2004, only 22 people attended both hearings in Glenwood Springs and Grand Junction, compared to 773 attendees in other locations. Our experience demonstrated additional meetings were not the most effective way of soliciting comments. Additional information on public engagement strategies is summarized in the *I-70 Mountain Corridor PEIS Public and Agency Involvement Technical Report* (included electronically on CD-ROM in Volume 6 of the Technical Reports and on the project website).

Comments

Responses

Source: Website Comment	Name: Albert Melcher
Document Number: IND-43	City, Zip Code: Denver, 80237

From: Albert G. Melcher [a.melcher@comcast.net]
Sent: Friday, October 15, 2010 8:03 AM
To: Bob Yuhnke; Mike Sallsbury; Halstead, Michelle; George, Russell; Stephanie Thomas; Bill Roettker; Betsy Hand; Jon Esty; Ira Schreiber; Edie Bryan; Jim Souby; Karn Stiegelmeier
Subject: Multimodal connectivity Fwd: Amtrak passengers and Denver Union Station

This is one little illustration of how used-unfriendly connectivity deters rail travel and is unjust to rail travelers, and why a number of us worked for a Union Station design that would maximize user-friendly, efficient and convenient transfers.
Transportation is all about people. This needs to be kept in mind regarding the I-70 PEIS.

bert melcher

Begin forwarded message:
From: ISCHREIBER@aol.com
Date: October 14, 2010 5:27:10 PM MDT

To: [REDACTED]

Subject: Fwd: Amtrak passengers and Denver Union Station

I have forwarded this to Scott Reed, Ass't GM Public Relations, Kevin Flynn, Fast Tracks Information Officer and Phillip Washington, General Manager, all of RTD for their review.

From: [REDACTED]
To: [REDACTED]
Sent: 10/14/2010 1:02:44 P.M. Mountain Daylight Time
Subj: Amtrak passengers and Denver Union Station

Dear Sirs,
 I did not know of this organization until today, finding it while researching the NARP site, of which I just joined. The reason for this email is a great concern to my wife and I, plus I'm sure to many thousands of riders who use DUS for travel on Amtrak. My concern stems from our upcoming trip on the California Zephyr this coming weekend headed westbound from Denver Union Station. In checking with RTD, I was informed first via a regular customer service rep that one, did not even know RTD owned and was re-developing the station, and two, was informed there was NO parking of ANY kind at the station for Amtrak passengers.
 I then spoke to a supervisor from RTD and was informed of the following. One, that ONLY daytime parking was available at DUS, no overnight nor long term parking was available. If you did park overnight, our car would be ticketed and/or towed. I was informed either to one, take an RTD bus to the station, which is out of the question with two suitcases, a purse, and camera bag, or two, to take RTD's light rail to the station. Of course both options add to RTD's coffers. The third option I was given was to take a cab to the station, which is probably the WORST option in Denver, having had horrible experiences with Denver cab companies in the past.
 I informed RTD that it was utterly ridiculous to "buy" a train station, to "supposedly" develop it into a "major transportation hub" without safe, secure, long term parking for Amtrak passengers. The RTD supervisor basically told me she did not care about Amtrak services or passengers. I was also informed by this supervisor that RTD has had NUMEROUS complaints about this parking situation.
 Hopefully, this can be looked into in some form and manner? As I among I am sure others find this completely absurd to NOT have even temporary parking for Amtrak passengers while the property is being redeveloped. I will also look into joining your group here shortly, as I ride Amtrak as often as I can, and am a strong proponent of extended train service, not only here in Denver and along the Front Range, but throughout the country. Thanks for your time.
 Regards,
 Steve Campbell, Denver

Response to IND-43

A. The lead agencies recognize the importance of transit connectivity and accommodating transit users throughout the Corridor. Specifics of operations and design have not been developed at this stage of the project. The Advanced Guideway System will be evaluated from the Eagle County Regional Airport to the Jeffco Government Center light rail station in Golden. As the Advanced Guideway System concept is developed in more detail in feasibility studies and related Tier 2 processes, considerations for the types of trips served and how to connect travelers to their final destinations will be important in determining how the system will function and serve Corridor travelers. The lead agencies recognize that most Advanced Guideway System riders originating from the Denver metropolitan area will drive to the transit station terminal; parking at the transit station is and will be a consideration during Tier 2 processes.

A

Comments

Responses

Source: Website Comment	Name: Mark Miller
Document Number: IND-44	City, Zip Code: Loveland, 80538

A

I am very happy to see some of the alternatives for mass transit such as the "bus in guideway" and the "advanced guideway" or monorail systems. As you know, one car accident can close all 3 lanes of I-70, so we have to have a mass transit alternative.

B

I would also like to see some restrictions on 18 wheelers on Sat and Sun mornings. It seems to me they often block 2 of the 3 lanes when I am driving westbound on Sat mornings, which forces a large percentage of cars to have to use the far left lane.

Response to IND-44

- A. Comment noted.
- B. The restriction of trucks on an interstate facility is regulated by FHWA pursuant to 23 CFR 658.11. This could include restrictions such as time of day. The process identified in 23 CFR 658.111 includes coordination with local governments, analysis of effects to mobility and safety for all interstate users, and ultimate approval by FHWA.

Many freight operations have some scheduling flexibility and therefore avoid peak travel/congestion times to the extent possible. However, other freight operations have more strict delivery timing requirements and must operate in the Corridor regardless of traffic conditions (for example, bulk mail, food service, scheduled packaged delivery and just-in-time shipments). Additionally, limited truck parking resources and Federal Hours-of-Service regulations further limit options for the commercial vehicle driver in the I-70 Mountain Corridor. It should be noted that the portion of heavy trucks varies greatly along the Corridor by day of week; there are more trucks on weekdays compared to weekends.

The lead agencies considered and advanced a slow-moving vehicle plan as a transportation management alternative element, included as a non-infrastructure component of the Preferred Alternative. Some of the elements of that plan specifically targeted at truck traffic, such as improved chain up stations and rest areas, can proceed with no further approval from FHWA. Improved chain up areas and enhanced traveler information strategies have been recently installed in some Corridor locations by CDOT.

The Colorado Department of Transportation is committed to improving safety and mobility of all of the users of the I-70 highway and will continue to explore all options available to do so.

Comments

Responses

Source: Website Comment	Name: Mark Miller (continued)
Document Number: IND-44	City, Zip Code: Loveland, 80538

I used to drive from Loveland to ski on Saturdays about 6-8 times per winter. Due to the congestion on I-70, I now only do it 1-2 times per winter. My dream: someone in the metro area leaves their front door at 7am, and arrives at Copper Mtn or Vail not later than 9am, whether by car or bus or monorail. Thank you.

Response to IND-44 (continued)

C. Suppressed trips (desired trips that users don't take due to severe congestion conditions) are common now and will become more prevalent in the future. By 2050, about 9 million people annually who would use the I-70 Mountain Corridor will instead choose not to travel, under the No Action Alternative. The Preferred Alternative is much better at serving unmet demand, and will result in accommodation of more trips in the Corridor than would occur without the Preferred Alternative or under the No Action Alternative.

The Preferred Alternative includes highway improvements, non-infrastructure improvements, and an Advanced Guideway System. For more information on the Preferred Alternative, see **Section 2.7, "What was the decision making process for identifying the Preferred Alternative?"** of the PEIS.

With the Preferred Alternative, travel time is predicted to improve and be better than with the No Action Alternative, as shown in **Figure 2-12** in the PEIS.

Comments

Responses

Source: Website Comment Name: Nathan Oberle
Document Number: IND-45 City, Zip Code: Denver, 80206

A

I support the ES.14.3 Transit Alternative Components

Response to IND-45

A. Comment noted.

Comments

Responses

Source: Website Comment	Name: Bradley Swanson
Document Number: IND-46	City, Zip Code: Lakewood, 80228

A I would like to strongly voice my support for bus-in-guideway and HOV/HOT lanes for the I-70 corridor rather than rail. Buses and HOV/HOT lanes provide much more flexibility for the many people who are traveling to destinations that are not adjacent to I-70 transit stations without the need to transfer to another vehicle. I believe rail will not be popular if people need to transfer vehicles to get to their final destinations. Summit county has many popular destinations far enough from I-70 that people would need to transfer. The time and hassle of transferring will prevent people from choosing to ride rail. I do believe people would choose bus transit if they can minimize transfers, however. Finally, most people will continue to drive passenger cars and we need to accomodate that traffic. HOV/HOT lanes can accomodate public transit and private vehicles.

Response to IND-46

A. Bus alternatives are evaluated in the PEIS. While the Bus-in-Guideway alternatives present a number of advantages, such as flexibility and the potential ease of transfers, the travel demand model indicates that an Advanced Guideway System would attract more riders than a bus system (based on the ridership survey conducted for this project). See **Appendix A** of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website) for the ridership differences of bus and Advanced Guideway System. Largely for this reason, an Advanced Guideway System is identified as the preferred transit mode. Future feasibility studies and related Tier 2 processes will focus on the feasibility of Advanced Guideway System technologies. If the Advanced Guideway System is found to be infeasible, the lead agencies could revise the Record of Decision to consider other transit technologies fully evaluated in the PEIS, including bus. The Preferred Alternative allows a thorough assessment of the overall purpose and need and effectiveness of improvements in 2020, at which time a full range of alternatives considered in the PEIS could be reconsidered.

The Preferred Alternative is a multimodal solution. To accommodate the need for passenger car demand, it includes improvements to the highway including six-lane capacity in some areas; interchange improvements, curve safety modifications, auxiliary lanes in some areas; and non-infrastructure improvements.

Providing a HOV/HOT lane was also considered but found not to provide enough capacity to meet the project's purpose and need. Please refer to the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website) for an expanded description and discussion of all alternatives considered.

Comments

Responses

Source: Website Comment	Name: Shelly Donahue
Document Number: IND-47	City, Zip Code: Morrison, 80465

A

I do not understand why we do not put a tram or light rail system from Denver to Vail. All the the ski areas up the corridor already have shuttle buses from the parking lots to the ski areas. Why can't they shuttle people from the tram to the ski area. with all the money we have spent studying this option over the past 30 years, we could have built the tram.

Response to IND-47

A. Light rail transit was evaluated as one of the fixed guideway transit alternatives. While this technology does provide opportunities to access existing transit connections, it does not provide travel times competitive with highway travel times and therefore does not adequately address I-70 highway congestion. Light rail transit does not have the ability to meet the peak-hour peak-direction capacity requirement, which is the minimum capacity needed to adequately provide transit service and meaningfully reduce highway congestion in the peak hour and peak direction. The Advanced Guideway System selected as part of the Preferred Alternative does a better job at achieving competitive travel times, addressing I-70 highway congestion, and increasing capacity. A tram can be defined as a variation of light rail transit. A tram can also be defined as a wire rope-pulled transit system. Wire rope systems are limited in distance and would be infeasible for a system operating between Denver and Vail.

Shuttle buses could be provided between the Advanced Guideway System stations and ski resorts, town centers, and other major activity centers. Local connectivity will be studied during feasibility studies and related Tier 2 processes.

Light rail transit between Denver and Vail would cost many times more than the funds spent studying improvements in the I-70 Corridor and, similar to other proposed improvements, could not be implemented without federal, state, and local approvals, consistent with the planning efforts to date.

Comments

Responses

Source: Website Comment	Name: Shelly Donahue (continued)
Document Number: IND-47	City, Zip Code: Morrison, 80465

Response to IND-47 (continued)

B. The Colorado Department of Transportation is conducting a feasibility study for adding reversible or "zipper" lanes on the I-70 highway between Georgetown (milepost 230.5) and Floyd Hill (milepost 244.0) in response to legislation passed by the Colorado General Assembly in 2010. This is a separate study from the PEIS. It studies short-term operational actions to decrease congestion on the I-70 highway during peak periods for this specific segment of the Corridor. The entire study, including details of the operations and barriers, can be found at: www.coloradodot.info/projects/I70reversiblelane. The *I-70 West Reversible Lane Study* does not meet the 2050 purpose and need of the PEIS.

As you note, the Twin Tunnel area is an area of congestion and does form a bottleneck in the Corridor. The Preferred Alternative includes a third bore through the Twin Tunnels to support the highway and transit improvements that would occur on either side of the tunnel (as do the other Highway and Combination alternatives considered in the PEIS) so that the tunnels do not become a bottleneck between improvements.

I think shifting the lanes during peak hours will only cause traffic problems as DOT is out moving the barriers to change the direction of traffic. The big problem area coming down from the ski areas is the tunnel just east of Idaho Springs. As soon as traffic passes through that area it opens up

Comments

Responses

Source: Website Comment	Name: Andrew Fleming
Document Number: IND-48	City, Zip Code: Englewood, 80111

It is very well-accepted that a major part of Colorado's character as a state is its natural and ecological beauty. As a frontier state for environmental engineering and renewable energy research (NIST, NREL, etc.), I believe that it is in the State of Colorado's most sincere interest that the I-70 corridor NOT be subject to highway expansion. Why? First and foremost, highway expansion always, without exception, encroaches upon natural habitats and (1) creates noise disturbances, (2) destroys natural vegetation, and (3) creates more issues to deal with related to runoff, drainage, and wildlife protection.

A Secondly, although this expansion would reduce traffic levels and thereby pollution, a rail system that connects Glenwood Springs and Denver would be much, much more effective at reducing both traffic volume and pollution levels. A rail system would also raise an interest in tourism for the Colorado Rockies; the train system in the French Alps is famous and brings in countless tourists, annually boosting the tourist industry to heights that a mere highway expansion would not.

Long story short, we will not solve the problem of traffic congestion and pollution by bringing in more of the source: roads and cars. We WILL, however, solve it by introducing new and innovative transportation options for travelers and tourists alike that also eliminate waste, reduce pollution, and are less intrusive to the surrounding environment than the highway system.

Response to IND-48

A. The Preferred Alternative is a multimodal solution with non-infrastructure, highway, and transit components. Analysis in the PEIS shows that a multimodal alternative is necessary to meet the 2050 purpose and need for the Corridor. Transit is needed to address capacity, while highway improvements are necessary to address congestion and safety. Impacts of the alternatives are presented in the PEIS so that they can be considered by the lead agencies prior to the Record of Decision. The lead agencies consider the impacts, the ability of the alternatives to meet the purpose and need of the projects, and public input such as your comment prior to making a final decision about the project.

Preserving environmental quality and promoting environmental sustainability are two of the core values of the I-70 Mountain Corridor Context Sensitive Solutions process that will be followed during the development of Tier 2 processes. **Chapter 3, Affected Environment and Environmental Consequences** of the PEIS discloses the impacts caused by each of the alternatives considered, including impacts on noise levels, biological resources, and water quality. **Section 2.8.2 "Which alternatives evaluated meet the project's purpose and need?"** summarizes the impact comparison among the alternatives. The Preferred Alternative has a range of impacts, and the low end of the range of the Preferred Alternative is similar to the low end of the range of impacts among all of the alternatives. The Transit-only alternatives generally have fewer direct impacts on resources than other alternatives; however, they induce greater visitation to recreational resources than the Highway alternatives, which also impacts natural resources in the Corridor.

Regarding traffic levels, the Advanced Guideway System does not reduce the volume of highway traffic. Rather, it provides additional capacity for trips in the Corridor, and any shift in trips from vehicles to transit is offset by additional vehicle trips of unmet demand (those trips otherwise not taken due to congestion). The Preferred Alternative does decrease emissions of pollutants, as you suggest.

Comments

Responses

Source: Website Comment	Name: Jonny Fowler
Document Number: IND-49	City, Zip Code: Greenwood Village, 80121

Being raised in Colorado, I know the in's and out's of I-70 very well. This includes hours in traffic, car accidents, and overall congestion of roadways leading to a massive loss of time that translates directly into loss of overall profit the state garners from the ski industry. In a recent CNN article, a long term study discovered that airplane delays, even by just 15 minutes, cause a massive loss of GDP each year.

Although I am comparing I-70 to the extremely overcrowded infrastructure of air travel, I believe the comparison can still accurately describe the daily struggle skiers and snowboarders face when trying to commute via I-70. The massive amount of traffic creates hours wasted behind the wheel, leading to a loss of Colorado's own economic profit. The opportunity cost of sitting behind a wheel adds up quickly when extrapolated to include all working, tax-paying citizens of the state. This lack of production will lead to a lack of wages, and therefore a smaller amount of money the state can actually tax from the hypothetical driver's income. Not to mention the impressive size of market externalities involved, especially those that negatively affect the environment.

Although I spent my first 18 years of life in Colorado, I am now a freshmen at the College of William and Mary. When I tell people I'm from Colorado, they ask me a few questions that basically boil down to whether or not I eat granola every day, and if the environment is the single most important thing in my life.

Colorado has made significant improvement in its environmental structure, from the Light-rail to the EPA building in Denver. But Coloradans would agree that I-70 is an environmental nightmare. The argument can easily be made that a train along I-70 would cause significant environmental damage, and in the short term, I would concede that the building efforts would negatively effect the surrounding environment. However, if Colorado wants to continue to pioneer environmentalism in our nation, we must first stop focusing on "end of pipe" controls and move on towards more comprehensive, long-term solutions.

Sure, widening I-70 would help. But with Denver's relatively low population, and a growing worldwide population, the argument can be made that rural areas in Colorado will soon face a population increase, and the widened highway would still become clogged with traffic. Colorado must take the reigns and show the nation, and globe, how public transportation should be considered. By building the train, cars would be taken off the road, traffic would be reduced, and the opportunity cost of simply driving to the mountains would fall drastically. Colorado would also gain money as a whole, charging money for tickets that many citizens would gladly pay in order to have a care-free ride to Copper Mountain, rather than white-knuckling their way through a parking lot for hours. Since the supply would be relatively inelastic, with a high demand, the market clearing price of the ski ticket would likely be for a fairly high amount of money.

In the end, this plan will save the environment in the long term, increase tax revenue, and stimulate other forms of consumer spending. Rather than filling the gas tank for the slow ride to the mountains, consumers will instead be more willing to put money back into local economies of scale. I thank you for your time, and I am more than happy to hear from you all concerning my argument.

Response to IND-49

- A. Economic impacts of the I-70 Mountain Corridor alternatives, including the No Action Alternative, are discussed in **Section 3.8, Social and Economic Values** of the PEIS and the *I-70 Mountain Corridor PEIS Social and Economic Values Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website). As you point out, the economic impact of traffic congestion in the Corridor is two-fold. One is the time spent waiting in traffic, and the other is loss of revenue due to the number of trips not taken because of congestion, called unmet demand. By 2035, unmet demand at the Eisenhower-Johnson Memorial Tunnels on a weekend will be approximately 25,000 trips. By 2050, that estimate will increase to approximately 45,000 trips suppressed. The yearly hours of congestion estimated for the No Action Alternative in 2035 is 15,500 hours. The Preferred Alternative reduces the hours of congestion to between 5,000 and 8,000 hours. For peak period weekend conditions, the Preferred Alternative reduces the average Corridor highway travel time from approximately 320 minutes to approximately 200-220 minutes.
- The Preferred Alternative proposes a multimodal solution for Corridor users, involving non-infrastructure components along with transit (Advanced Guideway System) and highway components. The Advanced Guideway System shifts some travel from roadways to transit and accommodates more person trips than could be provided by highway improvements alone. The shift to transit and the increased highway capacity accommodates an additional 5.0 to 7.5 million trips of unmet demand annually (trips otherwise not taken due to congestion).
- The Preferred Alternative reduces congestion, reduces air pollution, and induces growth in Corridor communities. It also provides the best opportunity for meeting purpose and need while minimizing impacts to the environment. As unmet demand is met and congestion is reduced, trips in the Corridor increase. The Preferred Alternative continues to stimulate economic growth throughout the Corridor as described in **Section 3.8, Social and Economic Values**. Gross Regional Product is estimated to be \$45.38-\$46.05 billion under the Action Alternatives (except the Minimal Action), compared to \$35.85 billion under the No Action Alternative.

Comments

Responses

Source: Website Comment	Name: Neal Barsch
Document Number: IND-50	City, Zip Code: Arapahoe County

A

I would be in support of a high speed rail system from Denver to Glenwood Springs. It would decrease I 70 congestion and be more environmentally friendly than adding lanes for more cars.

Response to IND-50

A. The Preferred Alternative proposes both transit and highway improvements through the I-70 Mountain Corridor. The transit component of the Preferred Alternative provides an Advanced Guideway System between the Eagle County Regional Airport and the Jeffco Government Center light rail station in Golden with stops throughout the Corridor. The Advanced Guideway System shifts some travel from roadways to transit and accommodates more person trips than could be provided by highway improvements alone.

Preserving environmental quality and promoting environmental sustainability are two of the core values of the I-70 Mountain Corridor Context Sensitive Solutions process that will be followed during Tier 2 processes. Please see the response to comment [IND-202-K](#) for more information on the incorporation of sustainability in the Preferred Alternative.

Comments

Responses

Source: Website Comment	Name: Andrew Greos
Document Number: IND-51	City, Zip Code: Greenwood Village, 80111

Response to IND-51

- A. Yes, transit offers a safer mode of travel than the highway. As described in **Section 2.8.1, Transportation Comparisons** of the PEIS, rail modes are approximately 100 times safer than automobile travel. In addition to the Advanced Guideway System, the Preferred Alternative also includes safety improvements to the highway, such as curve safety modifications and interchange improvements that are not associated with highway capacity improvements.

A

I would like to promote an emphasis for a high speed rail on the 1-70 corridor. this would provide an easy, safe means for many coloradans to explore and enjoy the mountains. The dangers of mountain driving are not nullified by a wider highway. A high speed rail would significantly reduce the risk of highway accidents and safe lives of Coloradans and our visitors.

Comments

Responses

Source: Website Comment	Name: Kent Statham
Document Number: IND-52	City, Zip Code: Henderson, 80640

Response to IND-52

- A. The *I-70 West Reversible Lane Study* is evaluating reversible or “zipper” lanes on the I-70 highway between Georgetown and Floyd Hill in response to legislation passed by the Colorado General Assembly in 2010. This is a separate study from the PEIS. See response to comment [IND-15-B](#). The entire study, including details of operations, travel times, and emergency access, can be found at: www.coloradodot.info/projects/I70reversiblelane. The *I-70 West Reversible Lane Study* does not meet the 2050 purpose and need of the PEIS.

A

I realize there is not one answer for the I 70 Corridor. you have many options and it will take several to accomplish your goals. I do not feel the zipper line is a viable option however as a transportation professional, reducing WB traffic to one lane, especially at the bottom of Floyd Hill for CMV is dangerous and will result in enormous backups and accidents, especially in snow and ice. CAST Trans runs that corridor consistently, and it would be unfair to consider restricting trucks during that time period as we still have a business to run. It is also very expensive \$35M for a temporary fix. This is not a good option.

Comments

Responses

Source: Website Comment	Name: Stephanie Mattson
Document Number: IND-53	City, Zip Code: Loveland, 80537

A

In regards to the decision of widening the highway: as a long time Colorado resident I would much prefer a Ski Train rather than widening yet another Colorado highway. I hope all voices are taken into consideration when the final decision is made. Thank you for listening.

Response to IND-53

A. The ski train was considered as an alternative but was eliminated due to the volume of freight trains through the Moffat Tunnel, which allows for a maximum of two round-trip passenger trains per day. Because this service has relatively low travel speeds and low capacity, it is not able to remove enough traffic to change operations or reduce travel time in the Corridor to meet the purpose and need of the project, and it was eliminated as a standalone alternative. A revived ski train service could be considered by others but does not address the purpose and need for I-70 highway improvements.

The Preferred Alternative proposes non-infrastructure, transit, and highway improvements through the I-70 Mountain Corridor. Analysis in the PEIS shows that a multimodal alternative is necessary to meet the 2050 purpose and need for the Corridor. Under the Preferred Alternative, only the Maximum Program meets the 2050 purpose and need. The transit component of the Preferred Alternative provides an Advanced Guideway System between the Eagle County Regional Airport and the Jeffco Government Center light rail station in Golden, with stops throughout the Corridor. The Preferred Alternative includes highway capacity improvements only at specific locations in the Corridor. The adaptive management component of the Preferred Alternative allows the lead agencies to assess the need for additional highway capacity improvements at a future time. Any additional capacity improvements are not triggered until the Advanced Guideway System is implemented or is determined infeasible.

Comments

Responses

Source: Website Comment	Name: Ryan Connell
Document Number: IND-54	City, Zip Code: Denver, 80205

A

Please consider the ski train as a priority over widening the highway. The train project contains much more potential for sustainable growth and long-term benefits.

Response to IND-54

A. The ski train was considered as an alternative but was eliminated due to the volume of freight trains through the Moffat Tunnel, which allows for a maximum of two round-trip passenger trains per day. Because this service has relatively low travel speeds and low capacity, it is not able to remove enough traffic to change operations or reduce travel time in the Corridor to meet the purpose and need of the project, and it was eliminated as a standalone alternative. A revived ski train service could be considered by others but does not address the purpose and need for I-70 highway improvements.

The Preferred Alternative proposes non-infrastructure, highway, and transit improvements through the I-70 Mountain Corridor. Analysis in the PEIS shows that a multimodal alternative is necessary to meet the 2050 purpose and need for the Corridor. Under the Preferred Alternative, only the Maximum Program meets the 2050 purpose and need. The transit component of the Preferred Alternative provides an Advanced Guideway System between the Eagle County Regional Airport and the Jeffco Government Center light rail station, with stops throughout the Corridor. The Preferred Alternative includes highway capacity improvements only at specific locations in the Corridor. The adaptive management component of the Preferred Alternative allows the lead agencies to assess the need for additional highway capacity improvements at a future time. Any additional capacity improvements are not triggered until the Advanced Guideway System is implemented or is determined infeasible.

Preserving environmental quality and promoting environmental sustainability are two of the core values of the I-70 Mountain Corridor Context Sensitive Solutions. Please see the response to comment [IND-202-K](#) for more information on the incorporation of sustainability in the Preferred Alternative.

Comments

Responses

Source: Website Comment	Name: Katherine Lind
Document Number: IND-55	City, Zip Code: Arapahoe County

A

There should be a train from Denver to Glenwood Springs along the I-70 highway. Widening the highway will not be as cost efficient as building a train.

Response to IND-55

A. The Preferred Alternative proposes non-infrastructure, transit, and highway improvements through the I-70 Mountain Corridor. Analysis in the PEIS shows that a multimodal alternative is necessary to meet the 2050 purpose and need for the Corridor. The transit component of the Preferred Alternative provides an Advanced Guideway System between the Eagle County Regional Airport and the Jeffco Government Center light rail station in Golden, with stops throughout the Corridor. The Advanced Guideway System both shifts some travel from roadways to transit and accommodates more trips than could be provided by highway improvements alone.

The Preferred Alternative does not reduce the volume of highway traffic, as currently there is a high amount of unmet demand; the highway improvements in concert with the transit improvements increase capacity to reduce congestion and air pollution. The Preferred Alternative improves the regional economy, increasing Gross Regional Product annually by at least \$10 billion more than the No Action Alternative.

Comments

Responses

Source: Website Comment	Name: Katherine DuBois
Document Number: IND-56	City, Zip Code: Arapahoe County

A

There should be a train from Denver to Glenwood Springs along the I-70 highway. Widening the highway will not be as cost efficient as building a train.

Response to IND-56

- A. Conceptual cost estimates indicate the Highway-only alternatives cost less than the Transit-only alternatives because transit alternatives include a new transit system between the Eagle County Regional Airport and the Jeffco Government Center light rail station in Golden, while the highway alternatives only include capacity increases between Eisenhower-Johnson Memorial Tunnels and Floyd Hill and in the Dowd Canyon area. Regardless of cost, selecting a Transit-only or Highway-only alternative does not meet the 2050 purpose and need. The Preferred Alternative is a multimodal solution with non-infrastructure components and transit and highway improvements through the Corridor to provide additional capacity and congestion relief. While transit provides additional capacity to meet future travel demand to year 2050, highway improvements are also needed to address congestion and safety.

Comments

Responses

Source: Website Comment	Name: Robin Bare
Document Number: IND-57	City, Zip Code: Jefferson County

Response to IND-57

A. Comment noted.

A

I am all for a high speed train to ski in the mountains allong I-70!!! I will ride it!!

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Comments

Responses

Source: Website Comment	Name: Jim Bower
Document Number: IND-58	City, Zip Code: Evergreen, 80439

Response to IND-58

- A. The *I-70 West Reversible Lane Study* is evaluating reversible or "zipper" lanes on the I-70 highway between Georgetown and Floyd Hill in response to legislation passed by the Colorado General Assembly in 2010. This is a separate study from the PEIS. See response to comment [IND-15-B](#). The entire study, including details of operations, travel times, and emergency access, can be found at: www.coloradodot.info/projects/I70reversiblelane. The *I-70 West Reversible Lane Study* does not meet the 2050 purpose and need of the PEIS.
- B. Yeh and Associates produced the *I-70 Georgetown Incline Rockfall Mitigation Feasibility Study* in 2005 which rated several mitigation techniques based on effectiveness, constructability, maintenance, environmental constraints, and cost. Rock sheds, as you suggest, and cut and cover tunnels were determined to be an effective method for mitigating rockfall, in addition to several other options. Specific strategies for mitigating geologic hazards at the Georgetown Incline will be developed during Tier 2 processes. Greater detail is provided on the mitigation options that were evaluated in the feasibility study in the *I-70 Mountain Corridor PEIS Geologic Hazards Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website).
- C. A new road connecting the A-Basin and Keystone resorts to the I-70 highway through an enlarged Loveland Pass pilot bore would bisect the White River National Forest Porcupine Gulch Wilderness Area, and cause new impacts to the Snake Creek Watershed on the west side of the Continental Divide. It was studied and eliminated for the following three reasons: (1) on the east side of the Divide a new road would create major conflicts with central operations of the Loveland Ski Area, resulting in the likely removal of all ski area operations; (2) the steep grades to access the tunnel entrances and the elevations of the pilot bore portals are not suitable for a road alignment; and (3) the elevation of the pilot bore is higher than the Eisenhower Johnson Memorial Tunnels and would result in greater winter maintenance costs.

A

B

C

I think that the "zipper lane" proposal for I-70 traffic improvement is a clever one, but not sufficiently practical. Like too many other approaches, it will work best when it is needed least, and worst when it is needed most. That is, it can move traffic OK when the traffic is moderate and the weather is good, but when traffic is heavy and/or the weather is bad, it could be an absolute nightmare. While somewhat improving traffic flow in one direction it can greatly worsen it in the opposite direction, and driving many miles so confined may be just too claustrophobic. Worse than that, snow removal may be anywhere from extremely difficult to impossible, as may be the extrication or repair of a stalled or damaged vehicle, for example, in a simple, yet likely "rear-ender." This idea should be dropped completely. Doing nothing is overall safer and more manageable, even if traffic flow will still be glacial.

There are two things I can think of that ought to be investigated as potential highway improvements that I have not seen mentioned. The first is the possibility of constructing what is called in Europe a "slide porch", over the I-70 roadway on the Georgetown Hill. This would be an overhanging roof of steel and reinforced concrete above the road to catch or deflect falling rock and boulders, for safety reasons. It would be like a tunnel that is open on one side. It is not necessarily practical or affordable, but it is worth investigating.

The other idea is that of enlarging the existing exploratory railroad tunnel under Loveland Pass to accommodate two lanes of vehicular traffic on U S 6. This would greatly improve that route in winter, could carry traffic to and from A-Basin and Keystone, and would serve as a safety valve for I-70 traffic in the event of problems on the tunnel approaches, etc. My understanding is that this is a seven foot square tunnel which was inspected by the highway department in about 1941, but whose portals have been sealed. The alignment is shown on topographic maps of Loveland Pass, and it was constructed about 1880. The approach from the north (east) could also circumvent the "seven sisters" slide area south of the ski area. This idea, though intriguing, may not be practical just now, but it is just one more for the long term. That tunnel will always be there, even if we do not immediately choose to enlarge it. Good luck.

Comments

Responses

Source: Website Comment	Name: Jeffrey May
Document Number: IND-59	City, Zip Code: Dillon, 80435

The proposed solution is unaffordable and unrealistic. As such it is not a solution and should be rejected.

The need for the expensive and disruptive capacity improvements is not adequately documented. It seems doubtful that the population/employment/gaming projects will be realized in the time frames displayed. For example the study assumes Summit County will about double in population and employment. Yet there is effectively no more developable land in the county. Growth throughout the corridor has been slow since the study began almost ten years ago. There is little sign of an immediate pickup in demand. This is demonstrated by the traffic model forecasts which are significant higher than actual volumes in 2008. This calls into question the future forecasts of traffic and congestion. While it will grow as the Denver area increases in size, it seems unrealistic to plan for the level of either vehicles on the roadway or passengers in the transit facilities which are displayed in the study.

Response to IND-59

A. The need for capacity improvements in the Corridor is documented in **Chapter 1, Purpose and Need** and through additional studies referenced in **Section 1.3, "What other studies have been completed or are related to this Corridor?"** of the PEIS. Congestion in the Corridor is a prevailing condition now. Safety and capacity improvements are necessary today and as demand continues to increase, conditions in the Corridor will worsen, unless a strategic plan of both short- and long-term solutions is implemented. Growth in person trip travel demand along the Corridor is forecast to range from 65 percent to 175 percent between 2000 and 2035. In 2050, the travel demand is estimated to increase between 10 percent and 65 percent above 2035. For more information on travel demand, see **Section 1.10, "What is the current and projected travel demand?"** in the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the PEIS Technical Reports and on the project website).

It is true that CDOT does not have sufficient funding identified to implement the Preferred Alternative, and additional revenue, leadership, and support from the citizens of Colorado will be required to implement the Preferred Alternative. **Chapter 5, Financial Considerations** of the PEIS summarizes the cost of the Preferred Alternative, the sources of CDOT's funding (and its limitations), and other potential funding sources, including public-private partnerships and tolling. **Chapter 5, Financial Considerations** of the PEIS and the *I-70 Mountain Corridor PEIS Financial Considerations Technical Report* (included electronically on CD-ROM in Volume 6 of the Technical Reports and on the project website) describe a variety of innovative funding sources that could be used to pay for improvements. See particularly **Section 5.7, "What are potential funding sources and their limitations?"** of the PEIS. Tier 2 processes will proceed as funding and specific projects are identified.

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Jeffrey May (continued)
Document Number: IND-59	City, Zip Code: Dillon, 80435

B

Instead of continuing to expend resources in further meaningless studies, CDOT should move to prioritize safety improvements to the corridor. This should start with the most dangerous corridor section from Hidden Valley to the Twin Tunnels. Unfortunately the study process was unable to recommend basic design criteria for this section. Given the dangerous nature of this section, I would suggest that a 65 mph design solution be forwarded to the next level EIS. To continue with a 55 mph design would not solve the safety problems, but instead institutionalize them. Further investment in auxiliary lanes and interchange improvements would consume all the remaining dollars that are realistically available for highway improvements.

Response to IND-59 (continued)

A. (Continued from previous page)

Section 3.8, Social and Economic Values of the PEIS provides a discussion of the recent economic slowdown and potential effects on growth projections. While growth over the past ten years has been flatter than projected due to the overall economic slowdown and recession, the trends are still expected to continue as the economy recovers. For reference, the 2010 Census indicates that Colorado’s population has increased about 33 percent over the past ten years even with the slowdown.

B. Safety is a critical component of the project, and all alternatives were evaluated for safety performance. According to the *I-70 Mountain Corridor PEIS Safety Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website) the Hidden Valley to Twin Tunnels segment (milepost 234 to 243) does contain known deficiencies. However, this area is not identified as the most dangerous or highest priority based on crash statistics.

The six-lane highway capacity improvements included with the Preferred Alternative include both 55 mph and 65 mph design options. Both design speed options are advanced for consideration in Tier 2. The alternative elements such as design speed of segments will be determined during Tier 2 processes to identify the appropriate design speed of each segment considered.

Interchange improvements and auxiliary lanes are needed in conjunction with other specific highway improvements to maintain functionality and to improve both traffic safety and operations. Along with safety assessments, specific design elements for these improvements will be evaluated in greater detail during Tier 2 processes.

Comments

Responses

Source: Website Comment	Name: Jeffrey May (continued)
Document Number: IND-59	City, Zip Code: Dillon, 80435

C

Rather than continue the study of a multi-billion dollar high speed transit system, I would suggest that CDOT institute a bus service in mixed traffic that would test if there is actually much transit demand in the corridor. Funding should be provided for a 3-year test to see how many people would actually use transit between the Denver area and Vail. Stops could be at the rapid transit station locations identified in the study. It seems foolish to propose spending billions of dollars on the hope that there is adequate ridership to support the expenditures. If a bus service was unable to gain any ridership, it would put to bed the question of a massive public transit expenditure.

Response to IND-59 (continued)

C. Bus service in mixed traffic does not operate as efficiently as bus service in a dedicated guideway (see **Section 3.1.4** of the *I-70 Mountain Corridor Travel Demand Technical Report and Transportation Analysis Technical Report*, included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website) and would not result in the travel time savings necessary to generate a modal shift to buses. Buses would be subject to the same congestion that currently exists, and riders would not be attracted to buses to avoid congestion. Therefore, a three-year test of buses in mixed traffic would not provide a reasonable benchmark to evaluate ridership demand related to congestion.

Colorado Mountain Express currently offers van shuttle service between Denver and Eagle, and Greyhound provides bus service between Denver and Vail, with connecting service to Eagle through ECO Transit. Other private operators provide bus and van services to Corridor destinations. The Preferred Alternative, as described in **Chapter 2, Summary and Comparison of Alternatives** of the PEIS, includes expanded shuttle services, expanded park-and-ride locations, and increased carpooling as non-infrastructure strategies that can be implemented or encouraged to address immediate issues in the Corridor in advance of major infrastructure improvements. See response to [LO-02-B](#) for an expanded discussion of bus and carpooling options considered and included in the Preferred Alternative. Advanced Guideway System feasibility studies and related Tier 2 processes will further define the feasibility of the Advanced Guideway System system, including ridership. The Advanced Guideway System will not be implemented unless it is feasible.

Comments

Responses

Source: Website Comment	Name: Kathleen Brennan
Document Number: IND-60	City, Zip Code: Aurora, 80013

Response to IND-60

A. Comment noted.

A While I love driving my car, we need to bite the bullet and have a train/light rail installed on I-70. Thanks.

Comments

Responses

Source: Website Comment	Name: Patrick Schaefer
Document Number: IND-61	City, Zip Code: Denver, 80204

A

I would like to lend my support to the option using an "advanced guideway system with buses." There are several reasons for this.

1. The zipper lane option is not feasible for the long term. It has been my experience with zipper lanes (Boston, MA) that an increase of lanes for auto traffic merely increases the amount of congestion. Not only that there is an increased maintenance cost due to the zipper lanes.

Response to IND-61

- A. The Preferred Alternative does include an Advanced Guideway System, which is intended to be a fixed guideway transit option for rail rather than bus, for the length of the Corridor. A Bus in Guideway alternative is also evaluated in the PEIS, but the travel forecast model indicates that the Advanced Guideway System would attract more riders than a bus system (based on the ridership survey conducted for this project). See **Appendix A** of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website) for the ridership differences of bus and Advanced Guideway System. Largely for this reason, the Advanced Guideway System is identified as the preferred transit mode. Future feasibility studies and related Tier 2 processes will evaluate specific technologies, but bus alternatives will not be reconsidered unless the Advanced Guideway System technologies are deemed infeasible.

Regarding the zipper lanes, CDOT is considering reversible lanes for portions of the Corridor in response to legislation passed by the Colorado General Assembly in 2010. The purpose of the *I-70 West Reversible Lane Study* is to identify short-term operational actions to decrease congestion on the I-70 highway during peak periods for a specific area of the highway. The study, which will be completed in early 2011, will address the effectiveness and cost of implementing this type of a system. This is a separate study from the PEIS. The entire study can be found at: www.coloradodot.info/projects/I70reversiblelane. The *I-70 West Reversible Lane Study* does not meet the 2050 purpose and need of the PEIS.

Comments

Responses

Source: Website Comment	Name: Patrick Schaefer (continued)
Document Number: IND-61	City, Zip Code: Denver, 80204

8

2. Expanding the number of lanes for the expressway in either direction again will only serve to increase the amount of congestion on I-70. The amount of time to build these expanded lanes will not factor in the increased general population growth of Colorado, i.e. more people going to the mountains. Also, the perceived increased access of these expanded roads will lead to increased development and housing along these corridor which will again lead to more normal (weekday) congestion. Again, based on my experience with the "Big Dig" project in Boston—a long term construction project to supposedly reduce traffic congestion not only ended up costing \$10 billion more than planned it failed to account for the growth of the road use by a significant factor. As such that project was outdated years before its eventual completion.

Response to IND-61 (continued)

B. The analysis of the alternatives in the PEIS, including the Preferred Alternative, does account for the growth in population, employment, and traffic volumes that will occur through 2050. The study uses population projections provided by the Colorado Department of Local Affairs and a travel demand model that incorporates these projections. The population projections are discussed in **Section 3.8, Social and Economic Values** of the PEIS and in the *I-70 Mountain Corridor PEIS Social and Economic Values Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website). The Department of Local Affairs projections predict population and employment growth that will occur in Colorado through 2035, while the travel demand model predicts traffic volumes that will occur throughout the Corridor through 2035. The travel demand model also estimates growth and travel demand likely to occur through 2050, although Colorado Department of Local Affairs population projections do not extend beyond 2035.

The Preferred Alternative provides both highway and transit components, along with non-infrastructure components, to meet the travel demand through the year 2050. Although the transportation analysis conducted for the PEIS found that the Combination alternatives and the Preferred Alternative have adequate capacity until 2050, the Preferred Alternative has the best opportunity to meet the 2050 purpose and need while minimizing impacts, largely because the phasing and implementation of the program of improvements is adaptive to future needs and trends.

As you state, the proposed improvements induce growth in the Corridor. **Section 3.7, Land Use and Right-of-Way**, and **Section 3.8, Social and Economic Values** of the PEIS provide the analysis of induced growth that occurs under the Action Alternatives. The Transit-only alternatives induce growth primarily in existing urban areas around transit stations. The Highway-only alternatives induce growth in patterns similar to existing land use, with more rural development occurring. The Preferred Alternative and

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Patrick Schaefer (continued)
Document Number: IND-61	City, Zip Code: Denver, 80204

C

3. The bus solution will provide a long-term solution to several problems. Because more lanes to the I-70 corridor are NOT built, the long-term maintenance cost to the highway will be much lower. The cost of highway/road maintenance has increased substantially over the past several years with the increased cost of raw materials (concrete, asphalt, etc)–so much so that several communities across the country are considering and actively allowing paved roads to revert back to gravel.

Response to IND-61 (continued)

- B. (Continued from previous page)
 Combination alternatives induce growth in both urban and rural areas. The travel demand modeling includes induced travel demand as discussed in the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website).
- C. Maintenance costs of both the transit and highway components of the Preferred Alternative will be evaluated during Tier 2 processes. Note that there are maintenance costs associated with the Bus in Guideway alternatives as well.

Comments

Responses

Source: Website Comment	Name: Patrick Schaefer (continued)
Document Number: IND-61	City, Zip Code: Denver, 80204

0
2

The bus solution will also mean lower costs for emergency services along this corridor since the number of cars will decrease as more people use buses to get to their destination. Increasing the number of lanes will turn a regular mountain highway into an accident nightmare, basically I-70 in the mountains on Friday/Sunday would turn into I-25 during the week, not an attractive prospect.

The bus solution can also be gradually implemented on a phased schedule, far more quickly than any of the other solutions. Building zipper lane and expanding lanes will take far longer to complete at much greater cost.

Response to IND-61 (continued)

D. Providing a transit-only option does not address congestion or safety in the Corridor, as described in **Section 2.8.1, Transportation Comparisons** and illustrated in **Figure 2-14** of the PEIS. While transit does accommodate additional demand and therefore improves capacity, it also serves unmet demand and attracts additional trips to the Corridor. For this reason, transit-only alternatives do not reduce congestion or improve safety without associated highway and safety improvements. The Preferred Alternative includes both highway and transit improvements to decrease congestion, increase capacity, and also improve traffic safety. Also, with transit improvements only and without highway improvements, the Corridor reaches network capacity by 2030. The Preferred Alternative Maximum Program of Improvements, which is a multimodal solution, does not reach network capacity until 2050.

E. The Preferred Alternative can, and is likely to be, implemented in phases. Non-infrastructure components are an important element of the Preferred Alternative. Study and implementation of these components could begin immediately after the Record of Decision is issued and funding is identified, to address issues in the Corridor in advance of major infrastructure improvements. Other early action projects, identified in the **Introduction** of the PEIS, are likely to be studied and implemented more quickly as funding is identified. The Preferred Alternative is phased to provide both short-term and long-term solutions in the Corridor and assess needs. The Collaborative Effort team will meet at least once every two years to review progress and consider the need for additional capacity improvements based on specific milestones or “triggers.” A thorough reassessment of the overall purpose and need and effectiveness of the improvements will occur in 2020.

As you are aware, CDOT is conducting a feasibility study for adding reversible or “zipper” lanes on the I-70 highway between Georgetown (milepost 230.5) and Floyd Hill (milepost 244.0) in response to legislation passed by the Colorado General Assembly in 2010. This is a separate study

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Patrick Schaefer (continued)
Document Number: IND-61	City, Zip Code: Denver, 80204

Response to IND-61 (continued)

F. (Continued from previous page)

from the PEIS. It studies short-term operational actions to decrease congestion on the I-70 highway during peak periods for this specific segment of the Corridor. The entire study, including details of the operations and barriers, can be found at: www.coloradodot.info/projects/I70reversiblelane. The I-70 West Reversible Lane Study does not meet the 2050 purpose and need of the PEIS.

G. It is true that rubber tired transit provides more flexibility than other transit alternatives. However, Bus in Guideway alternatives would not attract as many riders as the Advanced Guideway System, and buses in mixed traffic were eliminated from further consideration as a standalone alternative. Connections between the Advanced Guideway System component of the Preferred Alternative and other locations in the Denver metropolitan area will be studied as part of the Colorado Interregional Connectivity Study.

The Preferred Alternative reduce emissions in comparison to the No Action Alternative because the highway improvements increase capacity to reduce congestion and air pollution. Air quality in the Corridor is not anticipated to exceed National Ambient Air Quality Standards under any alternative studied. For more information on air quality, see **Section 3.1, Climate and Air Quality Resources** of the PEIS.

F The bus solution will provide far more flexibility to future traffic congestion, since buses can easily be rescheduled or add more stops due to increased economic development. The bus solution avoids most of the problems and time associated with required environmental studies, again both the zipper lane and the expanded lanes will take years to complete these required environmental studies, during which time nothing will be done to alleviate traffic congestion.

G The bus solution will provide an easy connection for out-of-state visitors to Colorado who may be unfamiliar with winter driving and who are looking for a stress-free trip to their mountain destination. With connections from DIA and Union Station, these guests to Colorado would encourage their friends and family to visit if a comfortable bus ride to the slopes is the norm, rather than the current stressful traffic. Finally, a bus solution will reduce pollution from car traffic, obviously neither of the other solutions will do anything but ruin Colorado's clean mountain air. Spending a several hours in a car to drive to a beautiful mountain area, only to feel like the smog followed you from Denver—is not any way to spend the weekend.

There are many more reasons why a bus solution to the traffic congestion on I-70 just makes the best sense for Colorado, but I hope you got a sense of my position. Thank you for your time and best of luck figuring out this difficult problem. Sincerely, Patrick C. Schaefer

Comments

Responses

Source: Website Comment	Name: Unknown
Document Number: IND-62	City, Zip Code: Unknown

Response to IND-62

A. The purpose of the public hearings was to provide information about the project, the process, and the recommended Preferred Alternative as presented in the Revised Draft PEIS, The meeting also was an opportunity to receive public comments on the Revised Draft PEIS. In addition to providing a formal presentation to summarize information, topical stations provided public attendees with more specific information about the PEIS. Project staff were available at the public hearing to directly answer questions, provide information, and clarify issues presented during the formal presentation or on display boards.

What are your comments?

The meeting held in Selwathorne was poorly presented. Way too much passive data in print difficult to see with dozens of people in front, not presented cohesively.

The speaker presentation by chief engineer: he needs to get speech training. His nervousness and poor speaking ability added up making no communication with anyone attending to. Further, the slides were so skimpy or so little detail it was uninformative.

Comments

Responses

Source: Website Comment	Name: Unknown (continued)
Document Number: IND-62	City, Zip Code: Unknown

Response to IND-62 (continued)

B. A time limit for oral presentation in the public forum is necessary to ensure all those who want to speak publicly have the opportunity. As stated at the public hearing, a court reporter was provided to take oral comments in a private setting. These comments were not time-limited. Additionally, there were a variety of methods to provide formal comments (oral or written). As articulated during the hearings, comments could be prepared outside the public hearing and submitted via mail, electronic mail, or the project website. All forms of comments were welcomed and treated equally.

The public's allotted time to speak was far less than 3 minutes? ~~When the~~ ~~now~~ ~~plus~~ ~~having~~ ~~to~~ ~~fill~~ ~~out~~ ~~cards~~ ~~in~~ ~~advance~~, ~~at~~ ~~the~~ ~~far~~ ~~poor~~ ~~position~~ ~~of~~ ~~the~~ ~~room~~ ~~made~~ ~~it~~ ~~restrictive~~ ~~to~~ ~~have~~ ~~a~~ ~~discussion~~

B

The whole thing smacked of over control.
 not civic & civil dialogue.
 They gave you a lot of work, but so what?
 If you can't communicate it in 30 min of speaking, who is going to read that much material?
 I'm so disgusted & fed up w/ govt bureaucrats & their tightly wound, control fit in the box thinking, behavior & treatment of writing public.

Comments

Responses

Source: Website Comment	Name: Byron Walker
Document Number: IND-63	City, Zip Code: Golden, 80401

What are your comments?

A I think the guided rail system would be much
 for effective and the cost benefit better if cars
 and trucks could be put on it. How many cars
 will be replaced by the rail? What would be the
 equivalent buses? What is the planned overall
 objective that is common to all alternatives -
 i.e. how many people and tons of freight per how
 much time? I would like to have CDOT work with
 the railroads to haul truck traffic on flatbed
 cars (backhaul empty unit coal trains).

Response to IND-63

A. The Advanced Guideway System will include considerations for freight as well as passenger travel, but an "autotrain" concept is not envisioned. Please refer to response to comment [IND-04-A](#), which explains why an autotrain system is not practical for the I-70 Mountain Corridor.

The planned and measured objective common to all alternatives is the ability for the alternative to meet the project's purpose and need. After analysis and evaluation, the Preferred Alternative provides the best opportunity to meet the project's purpose and need while minimizing impacts to the environment. Some of the criteria used to evaluate alternatives' abilities to meet the purpose and need include the capacity to meet the greatest amount of demand and the ability to provide improved travel times.

The ability of the railroads to serve as a carrier for motor freight is determined by the origin and destination of the truck traffic and market demand; since the majority of truck trips using the Corridor are serving destinations within the Corridor, it is unlikely a significant number of truck trips could be shifted to the existing railroad system, which is located entirely off the I-70 Mountain Corridor east of Minturn.

Comments

Responses

Source: Letter	Name: Kim Lane
Document Number: IND-64	City, Zip Code: Longmont, 80501

As a skier who frequently drives I-70 during the winter months, I have made several observations over the past several years with regards to the flow of traffic.

A

1. The electronic message boards appear to be more of a hindrance, than helpful. People slam on their brakes to read the electronic boards, thereby creating a chain reaction, causing traffic to jam.

B

2. The fascia on the tunnel near Idaho Springs needs to be painted to match the mountain. The grey metal around the tunnel entrance creates an illusion that the road into the tunnel is narrowing, causing people to once again slam on their brakes, causing traffic to jam, more than it already has in that area.

C

3. I think by opening up a west bound lane from 3-9pm on Friday, Saturday and Sunday for east bound traffic would help alleviate some ski traffic and vice versa from 7-10am for the morning ski traffic. This is done on some bridges back east to help the flow of beach traffic. Back there, they close the northbound bridge and open it to all southbound traffic in the am and reverse in the pm for beach traffic on the weekends. Unfortunately, I-70 can't be totally closed in one direction, but maybe one lane would be possible.

Response to IND-64

A. Variable message signs provide real-time road information that aid in route selection, reduce travel time by mitigating the severity and duration of incidents, and generally improve the performance of the transportation networks when used appropriately. In addition to complying with the federal guidance described in the FHWA Manual on Uniform Traffic Control Devices on the proper use of variable message signs, CDOT also incorporates other messaging strategies. These strategies include dimming the signs automatically to avoid blinding drivers, delays between panels to allow the message to be read two times, and providing a concise message that can be read in any order and still understood. The Colorado Department of Transportation realizes that variable message signs can slow traffic when not used correctly and has developed rigid standards to ensure messages are easy to read with minimal effects to driving behavior.

B. Driver perception of the travel way narrowing at tunnels does create the tendency to decrease speed. This in turn can create a domino effect in upstream traffic. Improved lighting and other aesthetic improvements may be studied during Tier 2 processes and would be implemented in accordance with I-70 Mountain Corridor Context Sensitive Solutions aesthetic guidelines.

C. The *I-70 West Reversible Lane Study* is evaluating reversible or "zipper" lanes on the I-70 highway between Georgetown and Floyd Hill in response to legislation passed by the Colorado General Assembly in 2010. This is a separate study from the PEIS. See response to comment [IND-15-B](#). The entire study, including details of operations, travel times, and emergency access, can be found at: www.coloradodot.info/projects/i70reversiblelane. The *I-70 West Reversible Lane Study* does not meet the 2050 purpose and need of the PEIS.

Providing a peak-direction-only HOV/HOT lane or a reversible HOV/HOT lane is considered in the PEIS, but does not provide enough capacity to

(continued on next page)

Comments

Responses

Source: Letter	Name: Kim Lane (continued)
Document Number: IND-64	City, Zip Code: Longmont, 80501

D Any type of construction, widening, etc, to the existing I-70 will create total nightmare traffic conditions. Too bad a "ski highway" couldn't be built above the current I-70 for just ski traffic, in the winter, with exists at each resort and then open to all traffic in the summer months. Central City has their own highway off of I-70, why can't the skiers ?

Response to IND-64 (continued)

- C. (Continued from previous page)
meet the project's purpose and need. Please refer to the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website) for an expanded description and discussion of all alternatives considered.
- D. Please refer to responses to comments [IND-68-C](#) and [IND-68-D](#) regarding construction impacts.

The Preferred Alternative will add highway capacity and provide an additional travel option for skiers and other highway users. While a dedicated "ski highway" is not proposed, the Preferred Alternative will allow ski traffic to move through the Corridor more efficiently and quickly. The Advanced Guideway System will serve skiers and other users and is intended to serve the major resorts along the Corridor.

Comments

Responses

Source: Letter	Name: Michelle Lapeyrouse
Document Number: IND-65	City, Zip Code: Silverthorne, 80498

I am in receipt of the correspondence regarding the I-70 Mountain Corridor and wish to share my opinion. I went online to the website and reviewed the propositions and studies. I sincerely doubt that my input will make any difference in the scheme of things but nonetheless here it is.

In 1991 I purchased a condo in Wilderrest in hopes of having a mountain retreat to escape from the city life. Back then the area was vastly different in many ways than it is now. Over the last two decades I have watched the wilderness at Wilderrest gradually disappear as more and more development took place. It has lost so much of its charm I have considered selling the condo. The escape from city life I desired is replaced with more city life in the mountains. There are too many people and less and less trees and green space.

On one hand I hear that there is very little area left to build out. On the other hand, the website mentions how much growth is anticipated in the future. In my opinion it is too crowded already. Making access to the mountain towns faster and easier will only contribute to the mess it has become. Where will all these millions of people go when they come to the area each year? Will the ski resorts keep expanding until every inch of mountain is used for profit? Will the national forest be sacrificed to make room for more neighborhoods?

The historical landmarks and towns are what make the area what it is. Losing or altering ANY of it is unacceptable in my book. Save the money, maintain the current highway as it is and leave the majesty of the mountains as is.

Response to IND-65

A. The purpose and need of the project is to increase capacity, improve accessibility and mobility, and decrease congestion in the I-70 Mountain Corridor for all users, including people who live and work in the Corridor. These needs are both a result of existing congestion and a response to local plans that expect future growth in the Corridor. The impacts analysis described in **Section 3.7, Land Use and Right-of-Way** of the PEIS, concludes that all of the Action Alternatives except the Minimal Action Alternative lead to induced population and employment growth, beyond the additional growth already expected, and additional visitation to recreation resources accessed from the Corridor. However, the Minimal Action Alternative does not meet the purpose and need of the project. The impacts analysis in **Section 3.8, Social and Economic Values** of the PEIS concludes that all Action Alternatives except the Minimal Action Alternative greatly improve the regional economy, resulting in at least \$10 billion more Gross Regional Product annually than the No Action Alternative.

As outlined in **Section 3.7, Land Use and Right-of-Way** of the PEIS, CDOT will consider an approach to promote and assist communities, as possible, in the adoption of more comprehensive, regional growth management plans that can be applied to Tier 2 processes. The recommendations for this approach include exploring the possibility of creating grants for communities that lack the resources to develop a growth plan; working with local councils of government and the Colorado Department of Local Affairs to assist with funding; and promoting the consideration of open space as community separators, or view sheds distinguishing communities, including studies led by the United States Forest Service and Bureau of Land Management.

While the lead agencies will consider this type of policy approach, efforts to control growth are greatly dependent on local planning and community political direction.

(continued on next page)

Comments

Responses

Source: Letter	Name: Michelle Lapeyrouse (continued)
Document Number: IND-65	City, Zip Code: Silverthorne, 80498

Response to IND-65 (continued)

A. (Continued from previous page)

Additional information related to ski areas and forest lands is included in **Section 3.12, Recreation Resources and Section 6(f) Discussion** of the PEIS.

The lead agencies agree that many important historic properties are present in the Corridor, and impacts to those properties should be avoided or minimized. **Section 3.13, Historic Properties and Native American Consultation** of the PEIS discusses historic properties, and **Appendix B, I-70 Mountain Corridor Section 106 Programmatic Agreement** to the PEIS contains a Programmatic Agreement outlining how historic properties will be identified and treated in Tier 2 processes.

Comments

Source: Letter	Name: Lowell Johnson
Document Number: IND-66	City, Zip Code: Larkspur, 80118

ThePostEditorials

One-track mind on I-70 solution

CDOT should drop the expensive idea of a monorail into the mountains. Widening the interstate is the most realistic plan.

In 2004, the Colorado Department of Transportation dropped the idea that a pricey monorail was the solution for traffic along the Interstate 70 mountain corridor. Incredibly, six years later, that pie-in-the-sky plan now reigns supreme again, and we're still stuck in traffic.

We're baffled that CDOT's preferred solution continues to be a transit system that taxpayers cannot afford. A monorail is unlikely to attract significant ridership, and the new plan that embraces it nearly triples the cost of the more straightforward solution of widening the road.

In a study released last week, CDOT's engineers found that expanding I-70 to three lanes on both its eastern and western approaches to the Eisenhower tunnels would cost roughly \$7 billion. That's a costly solution, to be sure, but it also would incorporate several improved interchanges and other fixes likely to ease congestion for decades.

But the study's conclusion supports scrapping that solution in favor of a \$20 billion mix of marginal highway improvements combined with an elevated "advanced guideway" transit line running 118 miles between C-470 and the Eagle County Regional Airport.

CDOT's funding stream is far too weak to imagine a \$20 billion solution. It might as well be \$100 billion.

Colorado's next governor and state lawmakers should work with residents of Clear Creek County and other affected mountain communities that have been fighting a highway expansion and get them on board with widening the road. It's the most realistic and cost-effective solution.

If they insist on a monorail, which isn't feasible, it's merely a stall tactic to delay road widening.

If nothing is done to the highway,

given population growth and future travel projections, significant slowdowns will occur in the corridor.

If the department is to build anything at all to improve the corridor, it will almost certainly have to convince voters and lawmakers to raise taxes. To gain that support, CDOT must have a solid plan and it would help to have the support of those communities.

Those who travel that storied high-mountain road know the problem all too well. Infamous bottlenecks occur at the base of Floyd Hill where traffic funnels into two lanes each way at the Twin Tunnels, and again near Georgetown at the Empire exit. The problem exists mostly on weekends, and particularly during ski season.

Unless action is taken to increase capacity, CDOT warns that by 2035 weekend travel will take three times longer than it does now. Weekday travel would double.

That lost time means billions to the state economy.

CDOT originally ruled out the monorail solution in 2004, but was forced to revisit the transit system when mountain communities and environmentalists balked.

We sympathize with Clear Creek residents who fear an expansion would degrade their communities.

CDOT should focus on building a highway that mitigates impacts and works with the area's unique environment, much as it did with the famous Glenwood Canyon corridor. An engineering marvel, I-70's passage through that scenic canyon is a prime example of the possibilities that could be achieved once residents drop the monorail concept.

CDOT's engineers ought to be given the freedom to move forward with a realistic fix — and to do so without further delay.

A

I AGREE WITH THIS EDITORIAL. WE HAVE 2 PROBLEMS TO ADDRESS. 1ST - GET COMMITTED TO A SOLUTION. 2ND - DETERMINE HOW TO FUND IT.

LOOK AT SALT LAKE CITY & I80 TO THE SKI AREAS. THEY HAVE 6 LANES AND NO TRAFFIC PROBLEM. GET STARTED & FIX THIS MESS

Lowell

LOWELL JOHNSON

Response to IND-66

A. A 27-member Collaborative Effort team representing varied interests in the Corridor was formed. The team was charged with reaching consensus on a recommended transportation solution for the I-70 Mountain Corridor, which is identified as the Preferred Alternative in the PEIS. See **Section 2.7, "What was the decision making process for identifying the Preferred Alternative?"** for more information on the Preferred Alternative.

The lead agencies agree that additional revenue, leadership, and support from the citizens of Colorado will be required to implement the Preferred Alternative. The Colorado Department of Transportation's budget is not sufficient to implement the entire program of improvements. **Chapter 5, Financial Considerations** of the PEIS summarizes the cost of the Preferred Alternative, funding allocated to the I-70 Mountain Corridor, sources for CDOT's funding (and its limitations), and other potential funding sources.

Comments

Responses

Source: Comment Sheet	Name: Alan Harris
Document Number: IND-67	City, Zip Code: Centennial, 80121

A What are your comments?
 Prohibit large trucks from passing each other on uphill stretches of highway

B Adding enclosed tunnels similar to Lake Springs tends to slow traffic dramatically for some mysterious reason

C Train ridership will probably be limited to destination travelers from out of state. Many use regional, congested off road vehicles upon reaching Summit County

Response to IND-67

- A. The lead agencies recognize that truck traffic affects traffic operations on the I-70 highway, especially during the peak periods. The Colorado Department of Transportation did consider and advance a slow moving vehicle plan as a transportation management alternative element, discussed in **Section 4.2, "What are cumulative impacts and why are they important?"** of the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website). The slow-moving vehicle plan was advanced as an element of the non-infrastructure components of the Preferred Alternative. Specific details of this plan, including no passing zones for trucks, will be assessed during Tier 2 processes.
- B. Driver perception of the travel way narrowing at tunnels does create the tendency to decrease speed. This in turn can create a domino effect in upstream traffic. Improved lighting and other aesthetic improvements may be studied during Tier 2 processes and would be implemented in accordance with I-70 Mountain Corridor Context Sensitive Solutions aesthetic guidelines.
- C. Ridership surveys taken for development of the PEIS indicate that the types of transit users are expected to be diverse, and the majority will come from in-state rather than out of state. Please also refer to the response to comment [IND-104-A](#) for a discussion of recreational trips served by the Advanced Guideway System.

Comments

Responses

Source: Comment Sheet	Name: Alan Harris (continued)
Document Number: IND-67	City, Zip Code: Centennial, 80121

D
 avoid lane reductions + switching in much as possible
 to decrease slowing + congestion
 Instead of reconfiguring I-70, how feasible would be
 parallel highway incorporating parts of 285 through
 E
 south of to Poudre and Breckenridge ^{above} the 20
 No tunnels required! 20 would reduce congestion
 on I-70 corridor

Response to IND-67 (continued)

- D. The Preferred Alternative does not include frequent changes in lane configurations. Under the Preferred Alternative Minimum Program of Improvements, six-lane capacity would be added between Floyd Hill and the Twin Tunnels, and auxiliary lanes would be provided to provide passing and transition areas in specific locations between the Twin Tunnels and the Eisenhower-Johnson Memorial Tunnels to address traffic disruption in these specific locations. The Maximum Program of Improvements would also include six-lane capacity from the Eisenhower Johnson Memorial Tunnels and the Twin Tunnels.
- E. The lead agencies did consider a number of alternate routes to relieve congestion on the I-70 highway and provide additional travel options for Corridor users, including the route you suggest (identified as Route #8 in **Figure 4** of the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* [included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website]). These alternate routes were eliminated from consideration for one or more of the following reasons: they (1) result in travel times noticeably longer than times experienced by travelers on the I-70 highway, (2) do not provide sufficient accessibility to I-70 Mountain Corridor communities because of their location miles away from these communities, (3) do not have the potential to divert much traffic from the I-70 highway, and/or (4) have substantial environmental impacts and poorer performance compared with improving the I-70 highway.

Comments

Responses

Source: Public Hearing	Name: Edward Rapp, PE
Document Number: IND-68	City, Zip Code: Dumont, CO

**PUBLIC TESTIMONY • OCTOBER 21, 2010
 CDOT PUBLIC HEARING ON THE REVISED DRAFT PEIS
 FOR THE I-70 MOUNTAIN CORRIDOR**

A

THANK YOU, AND PARTICULARLY RUSSELL GEORGE, FOR THIS COLLABORATIVE EFFORT TO BRING FORWARD THE REVISED DRAFT PEIS. I ENDORSE CLEAR CREEK COUNTY COMMISSIONER KEVIN O'MALLEY'S STATEMENTS IN THE OPENING REMARKS INCLUDING HIS CAVEAT.

B

MY CONCERN FOR THIS REVISED PEIS IS THAT THE EXECUTIVE SUMMARY IS NOT STATED STRONGLY ENOUGH TO SURVIVE A 20-YEAR DECISION HORIZON INVOLVING AT LEAST FOUR FUTURE GOVERNOR RACES AND THEIR SUBSEQUENT ADMINISTRATIONS. THE DOCUMENT NEEDS TO BRING FINALITY TO THE PROCESS IN A LEGAL SENSE, OR WE MAY BE IN A PERPETUAL PEIS PROCESS.

C

MY SECOND CONCERN IS THAT THE PUBLIC CURRENTLY VISUALIZES A TWO OR THREE YEAR HIGHWAY WIDENING AND NOT THE 14 YEAR CONSTRUCTION PROCESS THAT A SIX-LANE OPTION WOULD REQUIRE. LITTLE IS BEING DONE IN THE EXECUTIVE SUMMARY OR THROUGH PUBLIC OUTREACH TO DISPEL THIS MISCONCEPTION.

D

THE DOCUMENT DOES NOT DESCRIBE IMPACTS DURING CONSTRUCTION. ALBEIT NOT REQUIRED BY LAW, AN EXTENDED CONSTRUCTION PERIOD IS WHERE MOST ENVIRONMENTAL AND SOCIAL JUSTICE IMPACTS WOULD OCCUR. IT IS DOUBTFUL THAT ANY COMMUNITY CAN SURVIVE OR ANY TRAVELING PUBLIC WOULD ENDURE 14 YEARS OF CONSTRUCTION DELAYS AND CLOSURES.

Response to IND-68

- A. Comment noted.
- B. The final decision will be documented in the Record of Decision at the completion of the PEIS process. The Record of Decision is the final legal decision document for the PEIS.
- C. The PEIS acknowledges that construction of the complete Preferred Alternative is a long process. However, construction will not occur in a single location for the duration of the construction period. Mitigation to manage construction impacts will be provided and documented in the Tier 2 processes. Strategies to mitigate social and economic impacts that will be considered in Tier 2 processes are discussed in **Section 3.8, Social and Economic Values** of the PEIS. Construction will be phased and the scheduling of construction projects will be considered during Tier 2 processes to limit construction of multiple projects in one area.
- D. Potential construction impacts are documented in each environmental resource section in **Chapter 3, Affected Environment and Environmental Consequences** of the PEIS under the heading "How does construction affect (specific) resources." Sections titled "What will be addressed in Tier 2 processes?" address the future study of long-term needs of multi-year construction projects, including environmental impacts and environmental justice. These future analyses will include coordination with individual communities and agencies to determine functional impacts on businesses, homeowners, and other property owners and to determine appropriate mitigation.

Comments

Responses

Source: Public Hearing	Name: Edward Rapp, PE (continued)
Document Number: IND-68	City, Zip Code: Dumont, CO

**PUBLIC TESTIMONY • OCTOBER 21, 2010
 CDOT PUBLIC HEARING ON THE REVISED DRAFT PEIS
 FOR THE I-70 MOUNTAIN CORRIDOR**

ANY "AT GRADE" CONSTRUCTION THROUGH THE MOUNTAINS IS ONEROUS. AN ELEVATED ADVANCED GUIDEWAY SYSTEM, OFF-LINE YET IN THE RIGHT-OF-WAY, REQUIRES A SHORT CONSTRUCTION PERIOD WITH VERY LITTLE NEGATIVE IMPACT ENVIRONMENTALLY, ECONOMICALLY, OR SOCIALLY.

FOURTEEN YEARS OF AT-GRADE CONSTRUCTION IN CLEAR CREEK COUNTY WOULD ESSENTIALLY BE A TAKING DURING WHICH ALL ENVIRONMENTAL LAW, INCLUDING CERCLA AND THE CLEAN WATER ACT, AND ALL SOCIAL JUSTICE LAW WOULD BE IMPOSED. FOLLOWING THAT PERIOD, THE REMNANTS OF COMMUNITY FABRIC WOULD BE A WARD OF THE STATE. THESE CONSTRUCTION IMPACTS NEED TO BE ADDRESSED IN THE BODY AND THE EXECUTIVE SUMMARY OF THE REPORT SUCH THAT THEY ARE VERY VISIBLE TO ANY FUTURE DECISION-MAKER.

Response to IND-68 (continued)

E. The Advanced Guideway System component of the Preferred Alternative is capable of being fully elevated to avoid and minimize environmental impacts and minimize footprints, and the impacts analysis in the PEIS is based on the footprint of an elevated system. However, construction of an elevated fixed guideway is a considerable effort that results in environmental, social, and economic impacts. These impacts will be disclosed and discussed in detail during the Tier 2 processes for that component of the Preferred Alternative.

Construction impacts are analyzed in **Chapter 3, Affected Environment and Environmental Consequences** of the PEIS under the heading "How does construction affect (specific) resources?".

The Preferred Alternative was designed to avoid and minimize impacts throughout the Corridor, including Clear Creek County, to the greatest extent possible. The Minimum Program of the Preferred Alternative avoids improvements in Idaho Springs. If the six-lane capacity in the Maximum Program of Improvements is fully implemented, options such as structured lanes through Idaho Springs would be further considered in Tier 2 processes to minimize impacts on the community and adjacent resources (see **Section 2.6.4, Action Alternative Components** of the PEIS). The PEIS assumed structured lanes in the Idaho Springs area for the purpose of impact analysis. Construction impacts in Clear Creek County are discussed in **Section 3.8, Social and Economic Values** of the PEIS and in the *I-70 Mountain Corridor PEIS Social and Economic Values Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website).

Comments

Responses

Source: Public Hearing	Name: Edward Rapp, PE (continued)
Document Number: IND-68	City, Zip Code: Dumont, CO

PUBLIC TESTIMONY • OCTOBER 21, 2010
CDOT PUBLIC HEARING ON THE REVISED DRAFT PEIS
FOR THE I-70 MOUNTAIN CORRIDOR

Relative to Hwy

F MY LAST CONCERN IS THAT CDOT IS NOT SERIOUS ABOUT ADVANCED GUIDEWAY SYSTEMS AS A MISSION. A FORMER CDOT DIRECTOR STATED FLATLY THAT "WE DON'T DO TRANSIT." INSTITUTIONAL CULTURE IS SLOW TO CHANGE. NOR DOES CDOT APPEAR TO BE SERIOUS IN PURSUING PUBLIC/PRIVATE PARTNERSHIPS FOR CONSTRUCTION AND OPERATION OF ADVANCED GUIDEWAY SYSTEMS. IN THE SIX MONTHS FOLLOWING THE RECORD OF DECISION, ARE YOU PREPARED TO HANDLE ~~SAFELY~~ A DELIGHTFUL EVENT?

Response to IND-68 (continued)

F. The Colorado Department of Transportation now has a Division of Transit and Rail, created by the legislature in 2009, that is charged with promoting, planning, designing, financing, operating, maintaining, and contracting transit services, such as for passenger rail, buses, and advanced guideway systems. A division director has been appointed, and a number of activities are underway to integrate transit into statewide mobility plans.

Public private partnerships are one of several alternative sources of funding discussed in **Chapter 5, Financial Considerations** of the PEIS, and CDOT is committed to considering all revenue sources to implement the Preferred Alternative.

Comments

Responses

Source: Letter	Name: Kenneth Sandon
Document Number: IND-69	City, Zip Code: Centennial, 80016

This document contains critical flaws in many areas. I offer the following challenges to the process and outcome of the I-70 Mountain Corridor draft Programmatic Environmental Impact Statement:

- A • The purpose and need statement does not specifically address *individual* mobility demand within the corridor [ES.4]. The mobility envisioned by the purpose and need statement is non-specific mobility, and the mobility assumption contained within the Preferred Alternative is collective mobility via transit, neither of which address *individual* mobility demand. The presumption of a transit solution is biased towards collective mobility.
- B • The Preferred Alternative does not conform to the purpose and need statement, specifically the "ability to implement." Peak weekend travel demand for recreational purposes constitutes 90% of the total weekend travel demand according to the data in the document [Figure 1-4]. Data contained within the travel demand technical report do not support a transit solution [Section 7.3, Figure 6].

Response to IND-69

A. The mobility problems that are defined in **Chapter 1, Purpose and Need** affect individual travelers using the I-70 highway. There are various ways to measure this (hours of congestion, travel time on weekdays and weekends).

While the Advanced Guideway System of the Preferred Alternative would offer travelers a competitive travel time, the Preferred Alternative's improved individual mobility in terms of travel time on the highway is described in **Figures 2-12, 2-13, and 2-14** of the PEIS. All of this data can be applied to individual travelers.

B. Additional study is required for the Advanced Guideway System component of the Preferred Alternative specifically. Subsequent feasibility studies and related Tier 2 processes are required to select an appropriate and viable technology as well as to determine costs and benefits, safety, reliability, environmental impacts, and other considerations to support this substantial financial investment. As noted in the description of triggers for further action (**Section 2.7.2 "What are the triggers for additional highway capacity improvements?"** of the PEIS), Advanced Guideway System studies will "provide additional information on the ability to implement the Advanced Guideway System within the Corridor."

The mode share sensitivity of recreational travelers to fare, as shown in **Figure 6** of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website), is reported for the mode of Bus in Guideway. The Advanced Guideway System attracts a larger modal share (as shown in **Figure 4** of that report) and largely for this reason is identified in the Preferred Alternative instead of bus mode options.

Comments

Responses

Source: Letter	Name: Kenneth Sandon (continued)
Document Number: IND-69	City, Zip Code: Centennial, 80016

c [The composition of the 27-member Collaborative Team does not represent individuals of the traveling public who use the corridor on a regular basis, particularly the Front Range day recreation traveler [ES.15].

Response to IND-69 (continued)

C. The 27-member Collaborative Effort team represents varied interests in and users of the Corridor. The stakeholder group comprised elected officials, non-governmental organizations, commerce representatives, and highway and transit advocates. A diverse cross section of representation was achieved, with representation of the traveling public in mind. All meetings were open to the public and allowed time for public comment. Meeting summaries were posted to the website.

The organization facilitating the Collaborative Effort meetings worked with the representatives to facilitate conversations and input from the broader constituencies they were expected to represent. During the convening of the Collaborative Effort, additional members were added to ensure wide representation. The *I-70 Mountain Corridor PEIS Public and Agency Involvement Technical Report* (included electronically on CD-ROM in Volume 6 of the Technical Reports and on the project website) has more information on the membership of the Collaborative Effort.

Comments

Responses

Source: Letter	Name: Kenneth Sandon (continued)
Document Number: IND-69	City, Zip Code: Centennial, 80016

D

- Adoption of the Collaborative Team's consensus recommendation as the Preferred Alternative circumvents the actual purpose of a NEPA document which is to evaluate **reasonable** alternatives [AASHTO Practitioner's Handbook, Center for Environmental Excellence, August 2007]. As defined in this publication, "Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant." The AGS is clearly not economically feasible, and appears to be purely desirable from the standpoint of the applicant/Collaborative Team.

Response to IND-69 (continued)

- The National Environmental Policy Act requires consideration all reasonable alternatives. As explained in the Council on Environmental Quality regulations for implementing NEPA (40 CFR 1500-1508, Appendix B, Question 1b), "What constitutes a reasonable range of alternatives depends on the nature of the proposal and the facts in each case." In this case, the Tier 1 process considers a long and complex Corridor with a purpose and need that includes a long-range, 50-year vision. This broad scope requires a wide and inclusive range of alternatives. As such, the PEIS considers 22 alternatives, including the No Action Alternative, in four basic families: minimal action, transit alternatives, highway alternatives, and combination highway and transit alternatives. Dozens of other alternative elements also were evaluated, as described in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website).

The lead agencies acknowledge that additional study is required to determine the viability of the Advanced Guideway System. **Section 2.7.1 "What is the Preferred Alternative?"** of the PEIS describes the need for additional study of the Advanced Guideway System: "At this Tier 1 level, the Advanced Guideway System represents a mode encompassing a range of technologies, not a specific technology. A specific Advanced Guideway System technology would be determined in subsequent feasibility studies and related Tier 2 processes. The Colorado Department of Transportation commits to provide funding for studies to determine the viability, including cost and benefits, safety, reliability, environmental impacts, technology, and other considerations of an Advanced Guideway System." The Advanced Guideway System is distinct from the rail or bus transit technologies and is important to the range of transit technologies considered. As explained in response to comment [ORG-04-F](#), the Final PEIS has been modified to clarify the technological considerations for the Advanced Guideway System.

Comments

Responses

Source: Letter	Name: Kenneth Sandon (continued)
Document Number: IND-69	City, Zip Code: Centennial, 80016

2

- The travel demand technical report contains some whopping flaws:
 - Section 7.3, Figure 4 – the travel time for the AGS presumes that a very high speed of operation can be attained by the AGS. This is not possible for AGS unless the horizontal alignment deviates significantly from the existing I-70 mainline alignment in many locations. The high speed of operation requires very large curve radii to meet human factors for rider comfort and safety. This means the AGS horizontal alignment will not overlay the existing I-70 mainline in many locations.

Response to IND-69 (continued)

E. The Advanced Guideway System identified in the Preferred Alternative meets general performance criteria that would require maximum Advanced Guideway System travel speeds greater than the current posted speed limit on the I-70 highway. In many areas of the I-70 highway, the actual speed that could be allowed by the alignment is much greater than the posted speed. Regardless, it is recognized that the Advanced Guideway System alignment may need to be revised to meet the performance criteria that will be developed during feasibility studies and related Tier 2 processes in collaboration with stakeholders. The Preferred Alternative includes an Advanced Guideway System study to evaluate this.

As discussed in the **Introduction**, the Tier 1 PEIS identifies travel mode, capacity, and general location of improvements. The general location is identified as generally along the existing I-70 highway alignment. Advanced Guideway System feasibility studies and related Tier 2 processes will help to further define the feasibility of the Advanced Guideway System including its technology and refining its alignment. While there are many details that have not been determined in the Tier 1 PEIS, the Advanced Guideway System feasibility studies and related Tier 2 processes will be designed to address the funding, power supply, operations, ridership, alignment, and other related issues. A recent high speed rail study conducted by the Rocky Mountain Rail Authority indicated that alignments within the I-70 Mountain Corridor could meet many of the Advanced Guideway System criteria, including travel time.

Comments

Responses

Source: Letter	Name: Kenneth Sandon (continued)
Document Number: IND-69	City, Zip Code: Centennial, 80016

F

o Section 7.3, Figure 6 – the cost per mile fares used to test the sensitivity of transit share by purpose to fare clearly show that transit will not be used much by the Front Range day recreation traveler (~6% maximum). Again referencing the data in the document, the Front Range day recreation traveler represents 90% of the weekend peak travel demand. The data do not support a transit solution.

G

o Section 7.3, Figure 6 and overall cost for the AGS – the cost per mile fares combined with the low transit ridership for the peak weekend travel demand do not tie to the overall cost estimate for the AGS. For any reasonable payback period of the facility's construction cost (let's assume 30 years for discussion purposes and ignore the annual O&M expenses), the cost per mile fares required to retire the construction cost would appear to be much greater than the fare range shown in the graph. I would estimate \$0.75 per mile. This does not support a transit solution consisting of AGS.

H

• The document endorses a non-specific technology (AGS) for the preferred alternative, extrapolating beyond present day technology. Why does the study neglect to do the same for automobiles?

Response to IND-69 (continued)

F. The mode share sensitivity of recreational travelers to fare, as shown in **Figure 6** of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website), is reported for the mode of Bus in Guideway. The Advanced Guideway System attracts a larger modal share (as shown in **Figure 4** of that report) and largely for this reason is identified in the Preferred Alternative instead of bus mode options. The sensitivity tests in the model are conducted to demonstrate the model's reasonableness.

Feasibility of the Advanced Guideway System will be examined during feasibility studies and related Tier 2 processes to further investigate the viability of transit for the Corridor, including ridership.

G. Fare subsidies, measured by the difference between operating costs and passenger fare revenues, are typical for public transportation systems.

The cost for the Preferred Alternative includes building the infrastructure and non-infrastructure elements. While it is anticipated that transit riders would pay a fee to use the service, the details of user fees associated with both transportation modes as well as operations and maintenance would be determined in subsequent feasibility studies and related Tier 2 processes.

H. The Preferred Alternative was developed recognizing that future conditions could change from current trends and forecasts. The Preferred Alternative therefore includes triggers for future improvements. As discussed in **Section 3.16, Energy** of the PEIS, fossil fuel was considered as the primary fuel source; however, Tier 2 processes will consider other power sources and energy supply types (renewable/ alternative energy, fossil fuel, and other future concepts). The Preferred Alternative includes a process for evaluating Corridor conditions and effectiveness of improvements every two years. The Collaborative Effort team will meet at least once every two years through 2020 to review the status of Tier 2 processes and consider the need for additional capacity improvements based on specific milestones or "triggers."
(continued on next page)

Comments

Responses

Source: Letter	Name: Kenneth Sandon, PE (continued)
Document Number: IND-69	City, Zip Code: Centennial, 80016

I

- The document fails to mention that transit is subsidized by highway users via the FTA off-the-top allocation from the federal Highway Trust Fund. This is not common knowledge and would greatly affect the mode split between transit and highway users, with many less transit riders than assumed.

Response to IND-69 (continued)

H. (continued from previous page)

This adaptive management approach allows CDOT to maximize the effectiveness of improvements and leverage available funding to meet both short- and long-term needs. Therefore, if future trends in fossil fuel use and automobile technology change considerably, the adaptive management approach allows the Preferred Alternative to address those changing trends.

Additionally, feasibility studies and related Tier 2 processes will focus on the feasibility of Advanced Guideway System technologies. If the Advanced Guideway System is found to be infeasible, the lead agencies could revise the Record of Decision and consider other transit technologies evaluated in the PEIS, including bus. The Preferred Alternative allows a thorough reassessment of the overall purpose and need and effectiveness of improvements in 2020, at which time a full range of alternatives considered in the PEIS could be reconsidered.

I. The Highway Trust Fund is a financing mechanism established by law to account for tax receipts collected by the federal government. When established in 1956, the Highway Trust Fund was dedicated solely for highways. In 1983, Congress determined that a portion of the tax revenues collected should be used for transit needs. The federal Highway Trust Fund is funded primarily by a federal fuel tax, which is currently 18.4 cents per gallon of gasoline and 24.4 cents per gallon of diesel fuel. Of the motor fuel taxes, the Mass Transit Account usually receives 2.86 cents per gallon. Gas tax receipts for highways and transit are distributed to the states through formula and discretionary funding allocations. The lead agencies do not agree that transit financing through the Highway Trust Fund would affect the modeled ridership numbers. Feasibility studies and related Tier 2 processes will refine transit costs, including consideration of fares and fare subsidies that may affect ridership.

Comments

Responses

Source: Letter	Name: Albert Melcher
Document Number: IND-70	City, Zip Code: Denver, 80237

Thank you for the opportunity to comment on the Draft.

My name is Albert G. Melcher. My address is [REDACTED]

I have been on the I-70 Mountain Corridor Advisory Committee from 2001 to 2007 and on the Corridor Collaborative Effort Committee in 2007-8. I am a civil engineer and am one of three people to serve on both the CDOT Commission (its predecessor in name, the State Highway Division) and the RTD Board of Directors.

The purpose of a Draft PEIS is to obtain review, comment and guidance on desirable improvements before there is a Final PEIS and a Record of Decision that has binding requirements for the future. The National Environmental Policy Act is our Environmental Bill of Rights and we must avoid any abuse or misuse of it. Today I am focusing only on the most significant and critical flaw in the EIS document and process.

This flaw is that, despite its name of "Mountain Corridor," it should deal with an entire integrated transportation system and it does not: it excludes the portion of the system that is east of the junction of I-70 and C-470. In short, it deals with a part of a system, a segment, but not the complete system. It does not deal with cause and effect: the effect is severe congestion in the mountain corridor, the major cause is the 2.5 million Metro Denver residents and visitors to Colorado who are here in no small measure because of our great mountains.

The C-470 boundary is artificial. At the level of policy and program planning, i.e., the Tier 1 PEIS, it creates very bad transportation planning and evades coming to grips with the opportunities, constraints and cost of movement from Metro origins to mountain destinations and the reverse movement. It is contrary to the laws and intent of the National Environmental Policy Act, including provisions of full disclosure and transparency as regards all of us who live east of the foothills.

Response to IND-70

- A. Thank you for your ongoing involvement in the I-70 Mountain Corridor and for your participation in the Collaborative Effort.
- B. Please see the response to your comment [IND-202-B](#) for a response to this portion of your comment.

Comments

Responses

Source: Letter	Name: Albert Melcher (continued)
Document Number: IND-70	City, Zip Code: Denver, 80237

Response to IND-70 (continued)

- C. Please see the response to your comment [IND-202-E](#) for a response to this portion of your comment.
- D. Please see the response to your comment [IND-202-G](#) for a response to this portion of your comment.

C Just as with the mountain portion of the study, details can and must be deferred to Tier 2 studies, but the policy and possible procedures for this eastern situation must be identified. What are the alternatives for getting people from the Metro area and DIA to C-470 and hence to mountain destinations? Can they be efficient, seamless, convenient and fast or will they be the opposite such that people will not leave their cars for the entire trip? What are the agencies involved, and can this Tier 1 help guide the forthcoming Colorado State Rail Plan of CDOT? What are these agencies' mandates, planning and capabilities? Are the modeling and analysis tasks up-to-date, comprehensive, realistic or are there flawed, obsolete and unrealistic inputs? What Metro area infrastructure can be used or added, in general? What general environmental and sustainability factors are relevant? How do we best avoid foreclosing desirable options for the future? What general guidance should emerge for implementing the Tier 2 detailed study?

D EIS's must have boundaries but they can and must deal with effects and impacts in related affected areas. To defer these matters to a future Tier 2 study will result in a Tier 1 Final EIS that would be flawed, misleading, and producing an unnecessary and undesirable delay in coming to grips with the general a policy-level issues for our transportation system. It could result in foreclosed options and higher future costs and it would be an abuse of the letter and spirit of NEPA.

Comments

Responses

Source: Letter	Name: Unknown
Document Number: IND-71	City, Zip Code: Unknown

A

I'm tee'ed off. So, I wish to take my frustration out about the opinion open forum letter of September 19th on the \$19 billion dollar estimate for a mono-rail to Vail; which will serve the ski areas four months of the year, with little use after. Other than the ski industry, the majority of the supporters wish to limit growth and Rocky Mountain use. A high speed mono-rail would function well to major areas such as Boulder, Denver Tech Center and D.I.A.. However, a mono-rail cannot service the small towns as efficiently as a bus only lane for an unlimited number of communities in terms of convenience and time savings, at a third of the cost. A bus or busses can run directly to any ski area (not just one or two) while other busses can visit selected towns. Lane construction can be staged and elevated, as CDOT recommended two or three years ago in the public meetings. For places like Idaho Springs, it will reduce the impact of highways use and time of construction delays. We are at least 10 years away from approval and engineering on a mono-rail with another 10 years for construction. We need phased lane construction now as we see I-70 coming to a standstill.

My writing is to incite people to speak-out, knowing the \$19 billion in 10 years could double; only to be paid by tax increases on gasoline state wide (needed to drive to work). Gas prices are already going to double in price unless we can reverse and stop energy bills by overzealous interests to support an agenda to control growth. We do need to have well thought-out laws and rules for business and people practices. However, particularly in these times, we need alternative energies to develop in a way that doesn't sky rocket costs and further impact our economy and job growth.

Response to IND-71

A. The Bus in Guideway alternatives evaluated in the PEIS present a number of advantages, such as flexibility and potential ease of transfers. However, the travel forecast model indicates that the Advanced Guideway System would attract more riders than a bus system (based on the ridership survey conducted for this project). See **Appendix A** of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website) for the ridership differences between bus and Advanced Guideway System. Largely for this reason, the Advanced Guideway System is identified as the preferred transit mode. Feasibility studies and related Tier 2 processes will focus on the feasibility of Advanced Guideway System technologies. If the Advanced Guideway System is found to be infeasible, the lead agencies could revise the Record of Decision and consider other transit technologies evaluated in the PEIS, including bus. The Preferred Alternative allows a thorough reassessment of the overall purpose and need and effectiveness of improvements in 2020, at which time a full range of alternatives considered in the PEIS could be reconsidered.

The Preferred Alternative specifically addresses impacts in the Idaho Springs area by including six-lane capacity and interchange improvements only after certain triggers are met. If the six-lane capacity in the Maximum Program of Improvements is fully implemented, options such as structured lanes through Idaho Springs would be further considered in Tier 2 processes to minimize impacts on the community and adjacent resources (see **Section 2.6.4, Action Alternative Components** of the PEIS). The PEIS assumed structured lanes in the Idaho Springs area for the purpose of impact analysis.

The lead agencies share your sense of urgency with making improvements in the Corridor. Some early action projects have been identified, and these are being studied prior to completion of this Tier 1 decision. They are listed in the **Introduction** to the PEIS and include: Empire Junction (US 40/I-70) improvements; I-70/Silverthorne interchange; Eagle interchange; Minturn

(continued on next page)

Comments

Responses

Source: Letter	Name: Unknown (continued)
Document Number: IND-71	City, Zip Code: Unknown

Response to IND-71 (continued)

A. (Continued from previous page)

interchange; Edwards interchange; Black Gore Creek, Straight Creek, and Clear Creek Sediment Control Action Plans; and wildlife fencing along the I-70 highway to enhance safety.

The Colorado Department of Transportation does not have sufficient funding identified to implement the Preferred Alternative, or any of the alternatives evaluated in the PEIS. Alternative revenue sources will be required, as described in **Chapter 5, Financial Considerations** of the PEIS.

Comments

Responses

Source: Editorial	Name: Ken Katt
Document Number: IND-72	City, Zip Code: Littleton, 80120

Dear Editor -

For the dwindling number of Clear Creek County residents who still believe there's actually a snowball's chance in Hades of getting voter approval for the massive tax increase necessary to pay for a high-speed rail/monorail system for the mountain corridor, maybe doing a little bit of math will help.

In 2004, county residents soundly rejected - with a 56% "NO" vote - a mill levy increase designed to raise \$250,000 over two years to pay for legal representation for matters pertaining to the mountain corridor. Divvied up equally among every resident in the county - population 8,700 - that's less than \$30 for every man, woman and child.

In comparison, with a price tag of \$15 billion - minimum - for a high-speed rail/monorail system, that's around \$3,000 for every man, woman and child in Colorado - population 5 million.

If the citizens of Clear Creek County aren't willing to vote themselves a \$30 per person tax increase, what makes the rail/monorail proponents think they'll be willing to vote themselves a \$3,000 per person tax increase? What makes them think the rest of Colorado would want to do so either?

Kind of puts things in proper perspective, huh?

There's still a chance Clear Creek County can avoid a road-widening project that will forever destroy their quality of life, but if they continue to let a small handful of individuals speak for them, they might as well get ready for the bulldozers.

Response to IND-72

A. The Colorado Department of Transportation does not have sufficient funding identified to implement the Preferred Alternative, or any of the alternatives evaluated in the PEIS. Alternative revenue sources will be required, as described in **Chapter 5, Financial Considerations** of the PEIS.

The cost for the Preferred Alternative includes building infrastructure and non-infrastructure elements. While it is anticipated that transit riders would pay a fee to use the service, the details of user fees associated with transportation modes as well as operations and maintenance would be determined in subsequent feasibility studies and related Tier 2 processes.

Subsequent Tier 2 processes also will consider a variety of alternative revenue sources, such as your suggested voter-approved tax, to implement portions of or the entire Preferred Alternative.

In order to meet the purpose and need for this project while minimizing impacts, a multimodal solution is necessary. The Preferred Alternative includes non-infrastructure related components, an Advanced Guideway System, and highway improvements. The Preferred Alternative was developed from the Consensus Recommendation of the Collaborative Effort. The Collaborative Effort included representation from Summit County, Eagle County, and Clear Creek County, who all agreed that adding highway capacity is a necessary component toward meeting the purpose and need for the I-70 Mountain Corridor. Analysis in the PEIS shows that a multimodal alternative is necessary to meet the 2050 purpose and need for the Corridor. Transit is needed to address capacity, while highway improvements are necessary to address congestion and safety. The Colorado Department of Transportation will continue to collaborate with Corridor stakeholders throughout Tier 2 processes.

The Preferred Alternative proposes using the I-70 highway median or existing highway right-of-way where feasible to reduce right-of-way requirements and limit disturbance to adjacent lands. Using the median

(continued on next page)

Comments

Responses

Source: Editorial	Name: Ken Katt (continued)
Document Number: IND-72	City, Zip Code: Littleton, 80120

Submitted as a "Letter to the Editor" of The Clear Creek Courant

PUBLISHED IN 2008

Dear Editor -

If some private entity can be found that truly wants to invest the billions of dollars necessary to pay for the high-speed, high-capacity transit system some I-70 Collaborative Efforts Panel members and Clear Creek County politicians are dreaming about, so be it.

If it's all their own money and it doesn't require subsidization from the taxpayers of communities outside the mountain corridor (i.e., the Denver metro area, Colorado Springs, Pueblo, etc.), who's to argue with that?

However, I'm one person (with an investment background) who's highly dubious that any company will be able to earn an adequate return on their investment to make it worth their while to pay for the whole thing themselves based on transit fares and freight-delivery revenues alone.

B

Note: Yes, I'm familiar with American Maglev's offer to invest up to \$2 billion in the mountain corridor, but who's going to pick up the rest of the multi-billion dollar tab? Are development rights gained through private property condemnations expected to be part of the package? How significant would they be?

It will be interesting to see what the RMRA study concludes about all of this when it's completed sometime next year, but will it then be too late to stop the road project CDOT is so eager to initiate?

When all is said and done, it seems to me that once the Twin Tunnels chokepoint problem is addressed with a "highway" solution instead of a "transit" solution, we might as well go ahead and complete the job the rest of the way.

Good luck Clear Creek County.

Response to IND-72 (continued)

A. (Continued from previous page)

is not always feasible due to median width, safety standards, and the need to use the median for other reasons (such as for catchment areas for debris/mudflow). Specific alignments and footprints for improvements would be determined in Tier 2 processes and would generally follow the highway alignment. See Section 2.7, "What was the decision making process for identifying the Preferred Alternative?" of the PEIS for more information on the Preferred Alternative and Chapter 3, Affected Environment and Environmental Consequences of the PEIS for information on specific resource impacts, mitigation strategies, and Tier 2 processes relating to quality of life.

B. Public private partnerships are one option that could be considered for funding. Additional revenue will be needed to implement the Preferred Alternative. Revenue options will be explored in future Tier 2 processes. See response to your comment IND-72-A for more information on funding.

As noted in the response to comment IND-72-A, a multimodal alternative provides the best opportunity to meet the long-term needs for the Corridor while minimizing impacts to the environment.

Additional study is needed to define the footprint, costs, technologies, ridership, funding, and other considerations for the transit system. These will be addressed in future Advanced Guideway System feasibility studies and related Tier 2 processes.

Analysis has shown that adding tunnel capacity at the Twin Tunnels is necessary for relieving congestion and addressing the bottleneck the tunnels create in this location. For this reason, the Preferred Alternative includes a third tunnel bore and widening one of the existing tunnels at the Twin Tunnels. The third bore accommodates three lanes of westbound traffic, the modified existing tunnel accommodates three lanes of eastbound traffic, and the remaining existing tunnel accommodates the Advanced Guideway System. Please also see responses to comments IND-01-B and IND-15-D.

Comments

Responses

Source: Editorial	Name: Ken Katt (continued)
Document Number: IND-72	City, Zip Code: Littleton, 80120

For too long the good citizens of Clear Creek County have allowed a small handful of individuals to speak for them in regard to the I-70 issue. Yet, without the benefit of a countywide vote on the matter, how can these self-anointed spokespeople claim - honestly - that they represent the "consensus viewpoint" of the county?

Is it truly the "consensus viewpoint" of Clear Creek County residents to continue pursuing the delusional pipe-dream of a high-speed rail/monorail system, as these spokespeople suggest? Or is it, instead, to avoid a massive road-widening project that would shred through the county and forever destroy its quality of life?

Make no mistake about it, over the next few years there will be considerable pressure to simply widen the highway, regardless of the consequences for Clear Creek County. This pressure will intensify dramatically if there's no longer a Ski Train to Winter Park and the highway becomes further clogged with people now driving to get there and back.

Also, many powerful entities will be pushing for a road project simply because they'll be in line to reap substantial financial benefits from the huge spending program involved. I can assure you these self-interested entities are not the least bit concerned about the prospects of a high-speed rail/monorail system, because they know the possibility of passing the massive tax increase necessary to pay for it is minuscule.

Hopefully, Clear Creek County residents will soon realize their predicament and start speaking for themselves, rather than allowing others to do it for them.

Response to IND-72 (continued)

C. As described in **Chapter 6, Public and Agency Involvement** of the PEIS and the *I-70 Mountain Corridor PEIS Public and Agency Involvement Technical Report* (included electronically on CD-ROM in Volume 6 of the Technical Reports and on the project website) thousands of stakeholders have been involved throughout the PEIS process in various ways. Clear Creek County elected officials were active participants on various teams associated with the Corridor such as the Project Leadership Team, the Collaborative Effort, and the I-70 Coalition. Numerous outreach activities were conducted to gather input from a wide range of interests within the county and throughout the Corridor, such as small group meetings, newsletters, and a project website (www.i70mtncorridor.com).

As noted in the response to comment [IND-72-A](#), a multimodal alternative provides the best opportunity to meet the long-term needs for the Corridor while minimizing impacts to the environment and communities. For more information on alternative elements considered, including the ski train to Winter Park, please see **Chapter 2, Summary and Comparison of Alternatives** of the PEIS.

Comments

Responses

Source: Editorial	Name: Ken Katt (continued)
Document Number: IND-72	City, Zip Code: Littleton, 80120

The citizens of Colorado might be surprised to learn that for less than \$1 billion - including interest costs on debt that can be repaid within 5 years - we could have a fully functional transit system operating in the I-70 mountain corridor that would offer non-stop service between a half dozen Denver-area Park-n-Rides and all of the major ski resorts in the central mountain region.

Passengers would travel in spacious, upscale vehicles that offered expansive views of the beautiful scenery they're traveling through, and bypass much of the westbound congestion on Saturday morning and eastbound congestion on Sunday afternoon.

As additional funds became available, more Park-n-Rides could be added and more congestion could be bypassed. Eventually, the rights-of-way could be converted to use by a rail operation in some areas, or to HOV use in other areas.

What's not to like?

While still a substantial amount of money, I'd put this \$1 billion transit operation up against a \$7 billion highway-widening project any day of the week, and twice on Sunday.

Response to IND-72 (continued)

D. We assume the fully functional transit system suggested in your comment refers to a Bus in Guideway alternative. As described in the *I-70 Mountain Corridor PEIS Cost Estimates Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website) none of the transit-only alternatives that meet the needs of the I-70 Mountain Corridor are within the range of \$1 billion. Both Bus in Guideway alternatives are estimated at approximately \$10.5 billion while the Highway-only alternatives are estimated at approximately \$6 billion (in year of expenditure with a 2025 midyear of construction). Bus in Guideway alternatives require construction from the Eagle County Regional Airport to the Jeffco Government Center light rail station in Golden, while Highway-only alternatives require construction only in specific locations in the Corridor.

Comments

Responses

Source: Editorial	Name: Ken Katt (continued)
Document Number: IND-72	City, Zip Code: Littleton, 80120

Dear Editor -

If for no other reason than by matter of default, it seems the heir apparent to Colorado's gubernatorial throne will be John Hickenlooper. If you caught the debate where he was asked about how we provide a solution to the I-70 mountain corridor issue, you might remember him saying that we need to address it "incrementally".

At this very critical juncture in the mountain corridor debate, our next governor will be very instrumental in the final outcome. Obviously, his comments don't bode well for those still trying to convince us of the need for a high-speed rail/monorail system.

Seems to me the only way to address the problem "incrementally" is to either continually widen the highway in bits and pieces - something we've always done and which will eventually prove devastating to the quality of life in Clear Creek County - or we can implement a transit solution the same way, addressing the problem areas first, as was suggested by the I-70 Coalition.

If we decide on a transit solution, we would start off with a short section of single-direction, elevated fixed-guideway that could be used by buses as a conduit to bypass much of the congestion that backs up behind the Twin Tunnels on Sunday afternoon. Being sensitive to the valid concerns of Clear Creek County residents, the guideway would be constructed in a manner that did not involve altering the current footprint of the existing highway.

With a reasonable price tag, the ski resorts might even be prompted to contribute significant financial support to the project, which sure beats going to the voters asking for a huge tax increase.

Response to IND-72 (continued)

E. The Preferred Alternative is an incremental, multimodal solution that is responsive and adaptive to future trends in the Corridor. The use of triggers recognizes that future travel demand and travel behavior is uncertain. Additional transportation solutions should be based on proven need. The Colorado Department of Transportation will convene a committee that retains the Collaborative Effort member profile to check in at least every two years to review progress and conduct a thorough reassessment in 2020 of the overall purpose and need and effectiveness of the improvements. Please see **Section 2.7.2 "What are the triggers for additional highway capacity improvements?"** of the PEIS for more information on the triggers and adaptive approach of the Preferred Alternative .

Tier 2 processes will analyze site-specific proposals and impacts. The Preferred Alternative proposes using the existing highway median and right-of-way where feasible to reduce impacts, as discussed in response to comment [IND-72-A](#).

Also as discussed in response to comment [IND-72-A](#), additional funding sources are necessary to implement the Preferred Alternative. Public private partnerships are one funding source that could be considered.

2

Comments

Responses

Source: Public Hearing	Name: Helen Bushnell
Document Number: IND-73	City, Zip Code: Lakewood

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: OCTOBER 21, 2010

6 MS. STROMBITSKI: Next is Helen Bushnell.
7 MS. BUSHNELL: Hello. My name is Helen Bushnell,
8 B-u-s-h-n-e-l-l. I live at [REDACTED]
9 Colorado.
10 MS. STROMBITSKI: Thank you.
11 MS. BUSHNELL: I am a native Coloradoan and a member
12 of the Colorado Rail Passenger Association. During -- I often
13 take the train.
14 During the last week in September I took the train
15 home from California. I was struck by a couple of things.
16 First how crowded the train was. Train ridership has really
17 massively gone up in the last five years throughout the United
18 States.
19 Even though that train is very slow it's starting to
20 get pretty crowded. Even though they're adding more cars it's
21 still crowded. Again, this was not during the summer and it was
22 still crowded.
23 In fact there were more people on the train than were
24 going on I-70 the entire time we were passing it. Now, this is
25 during a weekday. But I think there is a lot of people right
1 now who take the train even though it's once a day and there's a
2 real limited capacity.
3 Also it was interesting, this particular train was
4 interesting because there were a lot of people going from Grand
5 Junction to Fort Morgan. What I find on every train I take
6 there's different stops where there is a lot of people who get
7 on and off.
8 And there's a lot of people that go from these small
9 towns in Utah and go from the small towns in Colorado who live
10 there going between these small towns. I think getting those
11 people off the road during the peak times can help with
12 congestion.

A

A

Response to IND-73

A. The Preferred Alternative is a multimodal solution that includes non-infrastructure components and transit and highway improvements to provide additional capacity to address future demand and congestion. Transit is an important component of the Preferred Alternative and is necessary to provide additional capacity in the Corridor. Regarding traffic levels, the Advanced Guideway System does not reduce the volume of highway traffic. Rather, it provides additional capacity for trips in the Corridor, and any shift in trips from vehicles to transit is offset by additional vehicle trips of unmet demand (those trips otherwise not taken due to congestion). Highway improvements are, therefore, also necessary to address congestion.

Comments

Responses

Source: Public Hearing	Name: Helen Bushnell (continued)
Document Number: IND-73	City, Zip Code: Lakewood

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: OCTOBER 21, 2010

B 13 I think also it's also important to realize that I
14 think we need to serve -- that CDOT should serve the needs of
15 the people who live in Colorado, and that includes people who
16 live in Grand Junction or in Jefferson County, and not just
17 necessarily people who are going to the mountains to recreate
18 but people who live there.

C 19 So one of the -- like I said, I'm a member of the
20 Colorado Rail Passenger Association. And in our comment we
21 notice that activity is very important. That's part of why.
22 You don't actually know why every single person is going, if
23 they're going from point A to point C to point X, you don't
24 actually know why everybody is on the road.

C 25 It's important to connect into a system so no matter
1 where somebody is going there's a bus or a train that can take
2 them so they don't have to drive.

Response to IND-73 (continued)

- B. The Colorado Department of Transportation's mission is to move people, goods, and services safely and efficiently throughout the state. The I-70 Mountain Corridor is of statewide importance and carries a wide mix of residents and visitors, commuters and recreation travelers, freight haulers and sightseers, people driving across town and others across the state.

The project termini are based on the purpose and need for the project. In this case, the purpose and need focuses on mobility, congestion, accessibility, and capacity in the I-70 Mountain Corridor – which will benefit everyone who travels in this Corridor. Please refer to the response to Comment [IND-202-B](#) for more information on the project termini.
- C. Transit connectivity is an important part of the Preferred Alternative and will be studied further in feasibility studies and related Tier 2 processes. Future rail studies independent of the PEIS are planned to address rail connectivity in Colorado. The Colorado State Passenger and Freight Rail Plan will evaluate existing and planned rail projects statewide. To study the integration of high-speed rail projects, including the I-70 Mountain Corridor Advanced Guideway System, with the Regional Transportation District FasTracks system in the Denver area, CDOT will be conducting a Colorado Interregional Connectivity Study. The I-70 Mountain Corridor Tier 2 processes will coordinate with these studies as needed.

Comments

Responses

Source: Public Hearing	Name: Helen Bushnell (continued)
Document Number: IND-73	City, Zip Code: Lakewood

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: OCTOBER 21, 2010

3 So I really support that part of our comment that
4 really we need to lease buses to Denver Union Station, really
5 need to consider steel on rail because we already have rail
6 tracks there.

7 And I also wanted to comment that this crowd doesn't
8 look a lot like the people who take the train. There's a lot
9 more African Americans, Latinos, Native Americans, and Asian
10 Americans on the train than there are in this crowd. I think
11 those people need to be considered.
12 Thank you very much.

Response to IND-73 (continued)

- D. Use of existing railroad tracks was considered but in general does not meet the needs of the Corridor. Refer to response to comment [IND-06-C](#). However, feasibility studies and related Tier 2 processes will study the Advanced Guideway System to further define its feasibility and its technology. A recent high speed rail study conducted by the Rocky Mountain Rail Authority indicated that some traditional, "proven" high speed rail technologies could meet many of the Advanced Guideway System criteria. The Denver Union Station project is not located within the PEIS study area and is outside of the purview of the PEIS. More information on the Denver Union Station project can be found at: <http://www.denverunionstation.org>.
- E. The Colorado Department of Transportation conducted several public hearings throughout the Corridor. The meetings were widely publicized in print and broadcast media outlets, and participants at each gathering have been representative of residents in the surrounding area. In addition, the project team conducted targeted outreach to minority and low-income communities throughout the Corridor to ensure that all interests were taken into consideration. See **Section 3.9, Environmental Justice** of the PEIS for more information.

Comments

Responses

Source: Website Comment	Name: Harry Dale
Document Number: IND-74	City, Zip Code: Evergreen, 80439

I want to thank Russ George for his leadership and courage to take a time out in the PEIS process and create the Collaborative Effort stakeholder group and task them with developing the preferred alternative for this study. Furthermore, Russ along with CDOT and FHWA officials sat down with the stakeholders as even partners and worked side by side with the stakeholders to develop the preferred alternative. In my mind, this was a historic process for genuine collaboration and a model that should gain national recognition for success in controversial transportation studies.

A

I also want to thank Tony DeVito, Scott McDaniel and Peter Kozinski for their leadership and genuine commitment to the CSS process. Each has fully embraced and committed to working openly and honestly with stakeholders as true partners. I cannot overemphasize the value of their leadership and the patience that these three individuals have demonstrated in dealing with some very difficult corridor stakeholders. The success of the RDPEIS process would not have been possible without each of their efforts. After years of involvement in the PEIS process which was often fairly contentious, I can honestly say that as an elected representative of a corridor government, I had three partners at CDOT, each working with me and other corridor stakeholders for the best possible outcome of the PEIS process.

Tony and Scott leveraged their commitment to CSS in the selection of consultants and agency staff for the RDPEIS team and in the hiring of Wendy Wallach to lead the RDPEIS effort. Together they assembled an excellent team and created a first rate document which captures the intent of the Collaborative Effort Group.

Through a commitment to the CSS process and a genuine partnership between the agencies and the stakeholders, the PEIS process will be successful. Confidence in the CSS process and the knowledge that CDOT and the FHWA will be working openly and honestly with corridor stakeholders to make the best possible decisions for everyone may be more crucial in the end than the actual preferred alternative.

B

The success or failure of the PEIS process has always been about relationships and trust. Continuing to build on the relationships and trust established through the Collaborative Effort process, the Project Leadership Team for the I-70 PEIS and the development of the RDPEIS will guarantee a positive outcome. The preferred alternative and the ongoing process of collaboration with stakeholders will allow our successors to fine tune and even re-prioritize the components of the preferred alternative through regular meetings to provide input to both CDOT and CDOT's planning partners, DRCOG and the Intermountain TPR. This common sense approach allows our successors to make better decisions than we could make today for a study that establishes a 2050 corridor vision, 40 years from now. There was great wisdom in creating such an adaptive process. The Collaborative Effort Group, CDOT and FHWA staff and the entire PEIS team need to be complimented for such innovative work. Again, I believe this is a model well deserving of national recognition for success in transportation studies.

Response to IND-74

- A. Comment Noted
- B. The Colorado Department of Transportation and the Federal Highway Administration have made the commitment to use the principles of I-70 Mountain Corridor Context Sensitive Solutions on all projects on the Corridor. The I-70 Mountain Corridor Context Sensitive Solutions provides guidance for future Tier 2 processes to ensure that planners, designers, and contractors incorporate stakeholder values into their decisions on the Corridor.

The Collaborative Effort was developed to identify a Preferred Alternative for the Corridor through collaboration among stakeholders and CDOT. The Collaborative Effort will review progress and effects of the Preferred Alternative at least every two years and conduct a thorough reassessment of transportation needs in 2020. The Preferred Alternative has the best opportunity to meet the 2050 purpose and need for I-70 Mountain Corridor improvements while minimizing impacts, largely because the phasing and implementation of the program of improvements is adaptive to future needs and trends.

Comments

Responses

Source: Website Comment	Name: Harry Dale (continued)
Document Number: IND-74	City, Zip Code: Evergreen, 80439

I will make just a few comments on the Advanced Guideway system which seems to be the most contentious component of the RDPEIS preferred alternative.

Overall capital cost, private sector interest and investment, ridership and revenue numbers and public benefits are always the key questions for any large transportation expenditure. For transit systems, the questions are perhaps less on the technical side and more on the operations, capital cost, ridership, fare revenue and bottom line side. Opponents attack a potential fixed guideway transit system in the mountain corridor based on their knowledge of urban transit systems and typical Amtrak intercity passenger rail, both of which require large annual taxpayer supported subsidies in order to survive.

Opponents criticize large passenger rail projects as too expensive with too little public benefit and too little overall ridership to justify the huge capital expenditure. They point to the need for government subsidies to make up for annual operating losses and the inability of any typical transit system to ever pay back its initial capital investment. They point to the small overall ridership numbers in any given corridor when compared to driving and commercial air travel. And they have valid arguments especially when the vast majority of intercity passenger rail programs and projects in the US are not time and convenience competitive with driving and flying. Most intercity passenger rail lines in the US are not even time competitive with intercity bus!

The construction and operation of a fixed guideway transit system in the I-70 mountain corridor will never be a charitable endeavor, either public or private. It will never be built if it can't at least pay for its own operational expenses and even a portion of its capital expenses. Many seem to be afraid that somehow the government will spend billions on an expensive system that no one will ride. How could this happen? Where would any entity, public or private, find billions of dollars to build a system without a very strong and appealing business case backed up by years of credible research, ridership studies and modeling?

With so little money available for public infrastructure projects today and the need so great, the process to acquire even minor amounts of public dollars for infrastructure Projects will be extremely competitive. Every project will be heavily scrutinized. No business case, then no money.

Response to IND-74 (continued)

C. The Colorado Department of Transportation agrees that public and private investments in all aspects of transit system development require a thorough understanding of costs associated with construction, operations, ridership, and fare revenue, and a viable business plan. The Colorado Department of Transportation has committed to funding studies to determine the viability of an Advanced Guideway System, including costs, benefits, safety, reliability, environmental impacts, technology, and funding scenarios. If an Advanced Guideway System is found to be infeasible, the lead agencies could revise the Record of Decision and consider other transit technologies evaluated in the PEIS.

C

Comments

Responses

Source: Website Comment	Name: Harry Dale (continued)
Document Number: IND-74	City, Zip Code: Evergreen, 80439

From page D-1 of the Appendix of the 2004 Draft PEIS:

In the Corridor, however, the possible future scenarios include Transit alternatives that are not reflected by anything that exists there at present. Nor are there any comparable transit systems operating anywhere in North America. The closest thing may be the train that runs from Vancouver up to Whistler in British Columbia. That system, however, runs very slowly and only once per day in each direction. It is more of a scenic tourist attraction than an efficient, high-capacity transit system. (In this regard, the train to Whistler is more like to the ski train between Denver Union Station and Winter Park Resort.)

If our goal is to develop an efficient, high capacity transit system in the mountain corridor, then we need to look well beyond the old fare subsidized, low-speed intercity bus and passenger rail models that are so popular with transit advocates throughout the country today. This is a unique corridor and it requires a very unique transit solution. If the goal is to attract private investment (which I believe is the single most critical criteria for success) then we must look at a whole new model for a very competitive travel mode that Coloradans and our visitors will actually choose to use in large numbers over other modes.

No one is forcing people to ride a mountain corridor transit system. They must choose to use it, pay a reasonable fare to use it and do so in large enough numbers to make the system profitable. It must provide significant time and convenience savings over driving. It has to be very fast. Speed equals feasibility. Feasibility cannot be achieved with traditional low-speed intercity bus and intercity rail programs that historically are less convenient and take much longer than driving, have low ridership numbers (as a percentage of overall trips in a given corridor) and provide insufficient overall revenues to be sustained without large annual taxpayer subsidies.

Passenger Rail Advocates need to look to the future instead of the past. Intercity Passenger Rail in Colorado should be developed to provide a very competitive travel mode that the state's residents and visitors will actually choose to use in high numbers. If this cannot be achieved, then it shouldn't be built.

The prevalent understanding in America is that all public transit systems fit the urban transit model of low speeds, low fares, relatively low ridership, and huge annual operating subsidies provided through a sales or property tax structure. Most Americans think that High Speed Rail fits the same model for government funding. Naturally this convention is supported by Amtrak and the Federal Railroad Administration (FRA) through the National Rail Plan which reinforces the government subsidized, low-speed model for intercity passenger rail travel over freight railroad infrastructure.

Response to IND-74 (continued)

D. The lead agencies agree that the Preferred Alternative includes an efficient, high speed, high capacity transit system in the I-70 Mountain Corridor and recognize that existing low-speed intercity bus and passenger rail models are not consistent with this standard. The lead agencies also agree that the purpose of the Advanced Guideway System is to consider innovative modern technologies to best address how the system can provide convenient, high speed transit service. The lead agencies recognize the Advanced Guideway System element of the Preferred Alternative needs to address the unique characteristics of the Corridor.

For the purposes of NEPA analysis at the Tier 1 level, the Advanced Guideway System represents a mode encompassing a range of technologies. This document analyzes a maglev system as a representative technology for the Advanced Guideway System, but does not identify a specific technology for this mode. A specific Advanced Guideway System technology would be determined in subsequent feasibility studies and related Tier 2 processes.

Public private partnerships are considered as potential sources for funding as discussed in **Chapter 5, Financial Considerations** of the PEIS. To attract private investment, the system must be attractive enough for people to ride it in large enough numbers to be profitable. This attraction is based on travel time, convenience, and cost.

The travel demand forecasting model used for the PEIS indicates the Advanced Guideway System would attract a reasonable amount of ridership, and the Preferred Alternative would reduce congestion and provide adequate capacity in the Corridor until the year 2050. The fare assumed for a one-way trip between the Denver metropolitan area and Eagle County, assuming a zoned-fare system, was \$14 to maximize ridership. **Appendix A of the I-70 Mountain Corridor PEIS Travel Demand Technical Report** (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website) provides details on transit fares.

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Harry Dale (continued)
Document Number: IND-74	City, Zip Code: Evergreen, 80439

We suffer with this fare subsidized stigma because the only intercity passenger rail model we have in the US today is Amtrak and it is the only model that FRA bureaucrats are familiar with. For most of the country it is too slow and too inconvenient to draw competitive ridership numbers and sufficient fare revenues, so it needs to be subsidized annually by taxpayers.

The reality is that intercity passenger rail systems need to make money to attract private investment and a private operator in order to be successful. The public sector cannot be burdened with 100 percent of the cost to build and operate intercity systems. We already have too many fare subsidized urban transit systems that need annual tax revenues to survive. While for the most part, taxpayers continue to support fare subsidized, urban transit systems, we cannot burden them with another layer of fare subsidized public transportation for intercity travel. Taxpayers won't support this. If an I-70 mountain corridor fixed guideway transit system cannot operate without a fare subsidy, then it will never get built. It must make money.

In the I-70 mountain corridor it is critical to differential the Advanced Guideway System and especially high-speed maglev systems from typical urban, low-speed fare subsidized transit models and typical Amtrak intercity passenger rail. An attractive high-speed maglev system with very competitive travel times compared to driving could actually be more appealing to a large population base than driving. High speed Maglev systems with popular highway destination oriented alignments and impressive speeds compared to conventional rail and bus systems could attract higher fares and higher ridership than typical transit systems and intercity HSR systems. A high-speed maglev model could not only pay for its own operating expenses but begin to pay back some portion, if not all of its capital cost over time.

The AGS component of the preferred alternative will not be conventional in any sense of the word. Innovation must be the driver for a successful AGS model in the mountain corridor, not just in terms of technology, but in terms of the actual application of that technology. The AGS needs to be a true 21st/22nd century solution for Colorado that is faster and more convenient than driving and traditional intercity transit modes.

Response to IND-74 (continued)

D. (Continued from previous page)

The lead agencies are aware of the related Rocky Mountain Rail Authority study that considered high speed rail in the I-70 Mountain Corridor with the result that positive cost/benefit ratios can be obtained with an attractive high-speed, convenient transit system. The Rocky Mountain Rail Authority study explored using more traditional transit systems with existing rail corridors and lower speeds (the type of system consistent with FRA and Amtrak) versus developing newer high speed rail systems unconstrained by existing freight railroad infrastructure. The higher speed systems resulted in higher ridership and generally higher cost benefit ratios. The Rocky Mountain Rail Authority study will be a reference for upcoming Advanced Guideway System feasibility studies and related Tier 2 processes. Other future rail studies, such as the Colorado State Passenger and Freight Rail Plan and the Colorado Interregional Connectivity Study, are planned to address rail connectivity.

The Preferred Alternative includes the commitment by the lead agencies to evaluate and implement, if feasible, an Advanced Guideway System within the Corridor. Advanced Guideway System feasibility studies and related Tier 2 processes will determine the viability of an Advanced Guideway System and will evaluate technology, alignment, termini, safety, reliability, environmental impacts, more in-depth development of ridership forecasts, considerations for the types of trips served, how to connect travelers to their final destinations, potential station locations and local land use considerations, interface with existing and future transit systems, the role of the Advanced Guideway System in freight delivery both in and through the Corridor, cost and benefits, fare structure design, operating revenues and costs, potential system owner/operator, funding requirements and sources, and transit governance authority.

The studies and related Tier 2 processes will involve the Collaborative Effort team and will follow the I-70 Mountain Corridor Context Sensitive Solutions process. **Section 2.7.1, "What is the Preferred Alternative?"** has been revised to reflect the vision for the Advanced Guideway System.

Comments

Responses

Source: Website Comment	Name: Kearin O'Hara
Document Number: IND-75	City, Zip Code: Jefferson County

A

Please make a light rail option available along the I-70 corridor. We must reduce our use of fossil fuels. Thank you.

Response to IND-75

- A. The Preferred Alternative proposes both transit and highway improvements through the I-70 Mountain Corridor. Light rail was evaluated and eliminated because it does not provide enough capacity to meaningfully reduce congestion in the peak hours and in the peak direction. See the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website) for more information on screening of transit modes. The Preferred Alternative includes an Advanced Guideway System that is capable of being fully elevated between the Eagle County Regional Airport and the Jeffco Government Center light rail station in Golden, with stops throughout the Corridor. The Preferred Alternative does result in reduced fossil fuel consumption when compared to other Action Alternatives, as described in **Section 3.16, Energy**, of the PEIS.

Comments

Responses

Source: Email	Name: Anonymous
Document Number: IND-76	City, Zip Code: Unknown

A

Do you have information on individual properties that you plan to take for this project?

Response to IND-76

- A. This Tier 1 document considers a broad program of improvements. No properties are identified for acquisition at this point. **Section 3.7, Land Use and Right-of-Way**, of the PEIS provides a preliminary analysis of right-of-way needs based on conceptual level footprints. Specific right-of-way needs will be determined in Tier 2 processes as site-specific alternatives and alignments are developed.

Comments

Responses

Source: Website Comment	Name: Roland Kuehn
Document Number: IND-77	City, Zip Code: Fort Collins, 80524

Snowforever.org, a Colorado nonprofit organization that is committed to preserving the enjoyment of skiing and snowboarding by combating climate change and threats to recreational access, strongly supports the immediate construction of an advanced guideway system to provide service between Colorado’s front range and the mountain communities along the I-70 corridor. To that end, we support the Preferred Alternative (Consensus Recommendation) to the Draft Revised Programmatic Environmental Impact Statement and urge the Colorado Department of Transportation (CDOT) and the Federal Highway Administration (FHWA) to include an advanced guideway system along the I-70 corridor in the final Programmatic Environmental Impact Statement (PEIS) and to do all in their power to ensure that an advanced guideway system is built along the I-70 corridor from the Denver metropolitan area to at least the Eagle County Regional airport, if not to Glenwood Springs.

A

A solution to congestion along the I-70 mountain corridor has been decades in the waiting. Over the last 40 years there has been little, if any, substantive improvement in relieving traffic congestion along the corridor. All the while, skiers, snowboarders, other winter recreationalists and mountain town residents’ frustration has continued to mount. Acceptance of the Draft PEIS and in particular the Preferred Alternative with an advanced guideway system along the I-70 corridor would represent a critical step in moving forward on a transportation system for the corridor that can meet the needs of Colorado’s growing population

Snowforever.org urges that any I-70 corridor solution must accomplish the following critical objectives:

- 1.Relieve Traffic Congestion on I-70
 - Traffic congestion costs money
 - oStudies have already shown that delays along the corridor are estimated to cost \$839 million each year. These costs will only increase as Colorado’s population grows, more recreationists and mountain residents take to the roads, and congestion increases. Any solution that does not include a train or an advanced guideway system means more people will sit in I-70 traffic.
 - Traffic congestion serves as a deterrent to winter recreationalists
 - oThe draft PEIS projections, which show weekday and weekend traffic more than doubling by 2035, is an unacceptable alternative that will surely mean many skiers and snowboarders simply stay home, and many tourists choose to spend their skiing and snowboarding dollars elsewhere.

Response to IND-77

- A. Please see responses to comments included in [ORG-30](#) (A through F), which are the same comments as these in IND-77.

Comments

Response to IND-77 (continued)

Source: Website Comment	Name: Roland Kuehn (continued)
Document Number: IND-77	City, Zip Code: Fort Collins, 80524

2. Reduce Carbon Emissions and Protect Our Mountain Environment

- Colorado’s Climate Action Plan calls for a reduction in emissions from passenger vehicles and an eighty percent reduction in total greenhouse gas emissions by 2050.
- oOur transportation sector accounts for 23% of total greenhouse gas emissions. Any I-70 transit corridor solution must substantially reduce, not only anticipated growth in greenhouse emissions from the transportation sector, it must reduce emissions in real terms. Rail or an advanced guideway system is the only alternative that can achieve these objectives.
- Current traffic congestion, and projected congestion along the corridor, results in increased air pollution and poorer air quality throughout Colorado.
- oAdditional traffic resulting from highway widening and more cars travelling on the corridor can only result in more air pollution. The goal should be to reduce air pollution in the I-70 corridor.
- I-70 corridor improvements should minimize the impact on water quality and on wildlife.
- oSince the preferred alternative “avoids highway construction in Clear Creek County between Empire and Idaho Springs under the Minimum Program of Improvements, and the phased approach of the Maximum Program allows ongoing opportunities to avoid, minimize, and mitigate impacts,” on water quality and wildlife more effectively than “highway alternatives,” the preferred alternative better represents Coloradans’ strong desire to protect our natural environment and the state’s wildlife.

3.Enhance Colorado’s Quality of Life and Attractiveness as a Tourist Destination

- Traffic congestion on I-70 decreases Coloradans’ quality of life and impacts the quality of the tourism experience for those who come to Colorado to enjoy our mountains.
- oSitting in unbearable traffic congestion has turned what normally would be a wonderful day in the mountains for skiers, snowboarders, and other winter recreationalists into a dreaded experience. Those who live along the I-70 corridor and depend on I-70 to get to and from work have the unfortunate pleasure of suffering while traveling on the corridor daily. We must ensure that Colorado remains an attractive place to work, live and vacation. Revenue from skiing and snowboarding alone is worth over \$ 2 billion per year in Colorado and millions more dollars in additional revenues are generated in the insurance, real estate and leasing sector, as many tourists, vacationers and homeowners buy or rent homes or condos near the resorts.

For these reasons, we urge the Colorado Department of Transportation (CDOT) and the Federal Highway Administration (FHWA) to adopt the Preferred Alternative (Consensus Recommendation) to the Draft Revised Programmatic Environmental Impact Statement and urge the you to include an advanced guideway system along the I-70 corridor in the final Programmatic Environmental Impact Statement (PEIS) and to move with great haste to get this project moving and completed.

A

Comments

Responses

Source: Letter	Name: Bob Buresh
Document Number: IND-78	City, Zip Code: Silverthorne, 80498

In regard to the I-70 Mountain Corridor revised draft, I am submitting the following comments. The real issue as I see it is do we want to maintain Summit and Eagle counties as more of a quaint destination resort community or evolve into an overcrowded recreation area made possible by an easy commute through a rail system and expanded freeway from a large front range population.

Alpine skiing, Nordic skiing, golf, hiking, biking and fishing in this relatively quiet mountain retreat setting will change forever. Residential property values will not keep pace with other ski towns as overcrowding takes over and we evolve into a suburban setting.

The ski resorts, restaurants and other businesses in Summit and Eagle counties are sure to benefit financially, however, the residents and destination tourists will lose something forever.

Response to IND-78

A. Addressing your concern of overcrowding and suburban-type growth, **Section 3.7.5, "How do the alternatives potentially affect social and economic values?"** acknowledges that induced growth could lead to unwanted growth and development patterns surrounding the Corridor, in absence of aggressive and coordinated growth management strategies in the region. To mitigate these potential impacts, as discussed in **Section 3.7.7, "What are the approaches to programmatic mitigation planning for land use and right-of-way?"**, CDOT will consider an approach to promote and assist communities, as possible, in the adoption of more comprehensive, regional growth management plans. The recommendations for this approach include exploring the possibility of creating grants for communities that lack the resources to develop a growth plan; working with local councils of government and the Colorado Department of Local Affairs to assist with funding; and promoting the consideration of open space as community separators.

The I-70 highway serves local residents as well as visitors and interstate travelers. Improvements to capacity, accessibility, and mobility will benefit all of these users, including local residents who use the highway for local travel. **Section 3.8, Social and Economic Values** of the PEIS evaluates the social and economic impacts of the alternatives on Corridor communities and their quality of life. The analysis in **Section 3.8.5, "How do the alternatives potentially affect social and economic values?"** finds that the No Action Alternative likely suppresses economic conditions in the region, depressing the Gross Regional Product by nearly \$10 billion per year in comparison to the Action Alternatives (except the Minimal Action). This is a factor of more than one-fifth the potential level of economic activity for the region.

In contrast, under the Action Alternatives (except the Minimal Action), the Gross Regional Product would be approximately \$45 billion by year 2035. Susceptibility to induced population growth from the alternatives is limited primarily to Eagle and Summit counties. Growth in Garfield County is

(continued on next page)

Comments

Responses

Source: Letter	Name: Bob Buresh (continued)
Document Number: IND-78	City, Zip Code: Silverthorne, 80498

Response to IND-78 (continued)

- A. (Continued from previous page)
 - susceptible to changes in Eagle County because of the number of residents commuting to Eagle County for employment. Growth in remaining Corridor counties is less dependent on transportation conditions along the I-70 highway, and the alternatives do not likely induce growth in other counties.
 - Section 3.7, Land Use and Right of Way** of the PEIS clarifies how induced growth is likely to occur in Eagle and Summit counties. The Preferred Alternative, under the Minimum Program of Improvements, concentrates additional growth in urban areas around transit centers in Eagle County. The Preferred Alternative under the Maximum Program, if it is implemented, induces growth in both urban and rural areas in Eagle and Summit counties. Growth impacts of the other alternatives are discussed in **Section 3.7.5, “How do the alternatives potentially affect social and economic values?”**. Regarding property values, induced growth is expected to continue to place upward pressure on housing values in Eagle and Summit counties, rather than reduce them as you suggest.

Comments

Responses

Source: Email	Name: Penington Wimbush
Document Number: IND-79	City, Zip Code: Dillon, 80435

Thoughts from a 16 year full time resident of Dillon, Summit County

I believe a fixed guideway rail system would be a grand waste of money and not used to even minimum efficiency. Our out of town guests, primarily during ski season, fly to Denver, rent a car to bring them to Summit County during times when uphill traffic is low, use the car to visit several ski areas, then return to Denver during low traffic times. If people use a train system to get to Summit/Eagle counties, how are they going to get around unless the existing private and public transportation systems significantly enlarge? When we go the front range to shop, entertain, or visit, we go and come during low traffic times. If we should travel on Sat/Sun we go down in the AM against traffic, and return against traffic, amazed that why do the people not leave earlier, or later, then return the next day? Why not ski or visit during the summer at low traffic times or during the week. Adding I-70 lanes will only compound problems at peak times. Travelers to and from the front range need to be "reeducated", And use the existing I-70 lanes to maximum efficiency.

Penington Wimbush, 273 Ensign Dr., Dillon, CO 80435, 970-468-0386

Response to IND-79

A. Many of the trips taken in the Corridor are day trips, and such trips lack the flexibility to modify their travel times. The travel demand forecasting model used for the PEIS indicates that the Advanced Guideway System would attract a reasonable amount of ridership and that the Preferred Alternative would reduce congestion and provide adequate capacity in the Corridor until the year 2050. The travel model is documented in **Appendix A** of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website). Additional and more detailed ridership forecasting will be conducted in Advanced Guideway System feasibility studies and related Tier 2 processes as needed.

It is recognized that some convenient local distribution systems, such as shuttle systems, are likely to be needed to meet the travel needs of Advanced Guideway System users so that travelers can get to their final destination with relative ease. As the Advanced Guideway System is developed in more detail in feasibility studies and related Tier 2 processes, considerations for the types of trips served and how to connect travelers to their final destinations will be important to determining how the system will function and serve Corridor travelers.

It should be noted that congestion on the I-70 highway occurs during both winter and summer months. Traffic on a typical summer weekend day at the Eisenhower-Johnson Memorial Tunnels is about 45 percent higher than in the winter in years 2000 and 2035. At this same location, typical summer weekday traffic is about 15 percent greater than in the winter. Additionally, future traffic is expected to be more balanced between the east and west directions. Currently, peak periods are stretching into Friday PM and Monday AM time periods. Future travel patterns will continue to expand into the weekdays, in addition to weekends. The need remains for congestion relief and expanded capacity, regardless of the season or day of week.

(continued on next page)

Comments

Responses

Source: Email	Name: Penington Wimbush (continued)
Document Number: IND-79	City, Zip Code: Dillon, 80435

Response to IND-79 (continued)

A. (Continued from previous page)

The Preferred Alternative offers a multimodal solution, combining non-infrastructure components along with highway and transit improvements to provide expanded person trip capacity. The transit component of the Preferred Alternative provides needed capacity that highway improvements alone cannot provide, while the highway improvements reduce congestion.

The Preferred Alternative does include non-infrastructure components, listed in **Section 2.7.1, "What is the Preferred Alternative?"** of the PEIS, similar to those you suggest at the end of your comment. Some of the non-infrastructure strategies that can be implemented include driver education, converting day trips to overnight stays, shifting passenger and freight travel demand by time of day and day of week, and expanded use of existing transportation infrastructure in and adjacent to the Corridor.

Comments

Responses

Source: Public Hearing	Name: Bill Worth
Document Number: IND-80	City, Zip Code: Centennial, 80121

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: October 21, 2010

A

20 I hadn't planned to be the first or second on this
 21 process. But the thing that I am working on is trying to get an
 22 alternative to I-70. And I think that it's quite obvious that
 23 it's needed.

24 And it is a matter of numbers, of course. Right now
 25 they are looking at enlarging I-70 by what could be probably
 1 another 50 percent compared to about a year ago so it's
 2 something that's needed and it will continue to be needed.

3 But the point is they need to get a lot, probably
 4 30, 40 percent of the traffic, and especially the heavy traffic,
 5 large trucks and so on that have problems just getting out of
 6 Denver going up the hill.

7 So to me it is a very practical thing that you do have
 8 to fix up 70. But it will take a lot of pressure off of it if
 9 they would put in -- we need at least one if not two or three
 10 different ways of getting through the mountain states here in
 11 Colorado.

A

12 We've got -- well, I think that it's quite obvious
 13 that I-70 was the original road that went through here when the
 14 miners were taking it. And it was an -- it's been built up
 15 since then.

16 And I think they need to give a lot of consideration
 17 to the thought of getting other ways of getting through the --
 18 tunneling through the Continental Divide. There should be at
 19 least two or three ways to do that.

20 And of course the Moffit Tunnel has been there for
 21 100 years. And it's been operating recently very very heavy.

22 MS. STROMBITSKI: We're at your three minutes.

23 MR. WORTH: So that's about all I can suggest right
 24 now.

Response to IND-80

A. A range of alternatives were developed to meet the purpose and need for the project. The purpose and need focuses on mobility and accessibility, congestion, and capacity in the I-70 Mountain Corridor. The PEIS considered 17 potential alternate routes to the I-70 Mountain Corridor, which are illustrated and described in **Section 4.7** of the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website). These potential alternate routes involve improving existing state highways and building new connections to shorten distances and travel times.

All of the alternate routes were eliminated from consideration for one or more of the following reasons: they (1) result in travel times noticeably longer than times experienced by I-70 highway travelers, (2) do not provide sufficient accessibility to Corridor communities because of their location miles away from these communities, (3) do not have the potential to divert much traffic from the I-70 highway, and (4) have substantial environmental impacts and poorer performance compared with improving the I-70 highway.

The Colorado Department of Transportation studied expanding the existing rail corridor from Denver through the Moffat Tunnel to Winter Park and Glenwood Springs for more frequent passenger rail service than was previously operated by the ski train. The rail line cannot accommodate more than two daily round-trips for passenger rail service due to the volume of freight traffic through the Moffat Tunnel, as you note.

Comments

Responses

Source: Public Hearing	Name: Ken Katt
Document Number: IND-81	City, Zip Code: Littleton, 80120

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: October 21, 2010

A

16 MR. KATT: Ken Katt, K-a-t-t. I live at [REDACTED]
17 [REDACTED]
18 I'm sorry that I don't see Mr. George in the crowd
19 tonight. I do see Peggy Gatlin. So Peggy, I hope you'll relay
20 this message to Mr. George.
21 The first thing I want to do is for the public record
22 I would like to officially challenge CDOT's executive director
23 Russell George to go on a local TV station to debate me on the
24 Mountain Corridor issue. I don't care if it's channel 6, or 12,
25 or 4, or 7, or 9, or 13, or even channel 8.

1 I think Colorado citizens have a right to know what's
2 going on, why is it taking so long, and how did this become a
3 \$20 billion alternative with no clue where the money's going to
4 come from

A

Response to IND-81

A. Please see the response to your comment [IND-26-A](#).

Comments

Responses

Source: Public Hearing	Name: Ken Katt (continued)
Document Number: IND-81	City, Zip Code: Littleton, 80120

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: October 21, 2010

5 Now, I notice some students in the crowd. I think
 6 they're probably wondering what it is I've been promoting.
 7 Well, if you watched the recent gubernatorial debates
 8 John Hickenlooper, when he was asked specifically about the
 9 I-70 Mountain Corridor he said, We need to address it
 10 incrementally.
 11 Tom Tancredo, when he was asked how we make our
 12 transportation dollars go further he said, We need to make
 13 better use of a dedicated busway.
 14 In a nutshell that's exactly what I've been promoting
 15 as the best solution for the I-70 Mountain Corridor. And we
 16 take into consideration that the I-70 coalition said, We need to
 17 address the problem areas first.
 18 And the blue ribbon panel that CDOT put together which
 19 included Clear Creek County commissioners Kevin O'Malley and
 20 Harry Dale were a part of -- and they are both here tonight --
 21 they said, We need to use an elevated fixed guideway.
 22 I couldn't agree more. They must've been reading my
 23 mind.
 24 If you also consider the fact that -- and this is not
 25 well-known among the public -- both the EPA and the Army Corps
 1 of Engineers rated the bus alternative near the very top of
 2 their list.

B

Response to IND-81 (continued)

B. The Colorado Department of Transportation is committed to implementing recommended improvements incrementally, as funding allows. The Preferred Alternative is flexible in its implementation, both in the phasing and financing of improvements, as described in **Section 2.7.2 "What are the triggers for additional highway capacity improvements?"** of the PEIS, and includes a process for evaluating Corridor conditions and effectiveness of improvements every two years. This adaptive management approach allows CDOT to maximize the effectiveness of improvements and leverage available funding to meet both short- and long-term needs.

Bus alternatives are evaluated in the PEIS. Please see the response to your comment [IND-26-C](#) for more information on the bus transit alternatives in the PEIS. The Bus in Guideway alternatives do present a number of advantages, such as flexibility and the potential ease of transfers. However, the travel forecast model indicates that the Advanced Guideway System would attract more riders than a bus system (based on the ridership survey conducted for this project). See **Appendix A** of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website) for the ridership differences of bus and Advanced Guideway System. Largely for this reason, the Advanced Guideway System is identified as the preferred transit mode. Feasibility studies and related Tier 2 processes will focus on the feasibility of Advanced Guideway System technologies. If the Advanced Guideway System is found to be infeasible, the lead agencies could at any time revise the Record of Decision and consider other transit technologies evaluated in the PEIS, including bus. The Preferred Alternative allows a thorough assessment of the overall purpose and need and effectiveness of improvements in 2020, at which time a full range of alternatives considered in the PEIS could be reconsidered.

Bus service in mixed traffic is included as a component of the Preferred Alternative's non-infrastructure improvements, to provide a Corridorwide transit option, in advance of major infrastructure improvements, where none currently exists.

Comments

Responses

Source: Public Hearing	Name: Ken Katt (continued)
Document Number: IND-81	City, Zip Code: Littleton, 80120

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: October 21, 2010

3 So I don't know what the issue is. It seems like
 4 there's still people who don't believe in trains, they want to
 5 build the road, the big highway project, and just shred through
 6 Clear Creek County and absolutely destroy their quality of life,
 7 yet they haven't come up with an answer to where all these extra
 8 cars are going to park once they get to the ski resorts when
 9 they want to go skiing. We already lack adequate parking at our
 10 ski resorts.

11 If they're concerned about trailers and campers, where
 12 are they going to come up with all the extra campsites? On the
 13 busy weekends most of the campgrounds are already full.

14 I hope people, when they go home, do a little of your
 15 own research on this. Look up the company Proterra,
 16 P-r-o-t-e-r-r-a. It's a bus company based here in Golden,
 17 Colorado.

18 They just recently announced plans to build a
 19 manufacturing facility for clean-burning buses in South
 20 Carolina. They're going to employ 1,000 people.

21 And they are going to export those buses then.
 22 They're going to sell them to cities along the eastern coast and
 23 the western coast.

24 They already have \$400 million -- my understanding is
 25 they already have \$400 million of orders waiting for clean

1 burning buses. We lost those jobs -- we could have had them
 2 here -- because somebody was afraid to make a decision.

Response to IND-81 (continued)

C. The Preferred Alternative is a multimodal solution, developed from the Consensus Recommendation of the Collaborative Effort. Transit is a major component of the Preferred Alternative, but highway improvements are also necessary to reduce congestion and improve traffic safety. The Collaborative Effort included representation from Summit County, Eagle County, and Clear Creek County, who all agreed that adding highway capacity is a necessary component toward meeting the purpose and need for the I-70 Mountain Corridor.

Acknowledging that highway capacity improvements within Idaho Springs could have a substantial effect on the community, the Preferred Alternative specifically addresses impacts in this area by including six-lane capacity and interchange improvements only after certain triggers are met (see **Section 2.7.2 "What are the triggers for additional highway capacity improvements?"** of the PEIS for a discussion of triggers). If the six-lane highway capacity improvements in the Maximum Program of the Preferred Alternative are implemented (based on triggers being met), options such as structured lanes through Idaho Springs would be further considered in Tier 2 processes to minimize impacts on the community and adjacent resources (see **Section 2.6.4, Action Alternative Components** of the PEIS). Please also refer to comments [IND-18-F](#) and [IND-27-C](#).

Finally, business decisions by private corporations are independent of this project and beyond the scope of this study.

Comments

Responses

Source: Public Hearing	Name: Nick Dodich
Document Number: IND-82	City, Zip Code: Arvada, 80004

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: October 21, 2010

A

10 MR. DODICH: Nick Dodich, D-o-d-i-c-h, [REDACTED]
 11 [REDACTED]
 12 MS. STROMBITSKI: Thank you.
 13 MR. DODICH: I've been following this I-70 Corridor
 14 business quite diligently, I feel. And I am concerned if we
 15 don't act pretty soon we will be in a position like China was
 16 where they had 10-day traffic jams. Drivers didn't have money
 17 for lunch, hotels; produce was ruined.
 18 So it was a very very costly experience. And I'd like
 19 to see that never happen in my country.
 20 My biggest concern is that the Empire Junction, Floyd
 21 Hill be started as soon as possible, because that traffic coming
 22 east during the holidays ski season is just horrendous.
 23 I've been there in the winter and in the summer, the
 24 three holidays. It's just bad. It funnels right into the
 25 Empire Junction. And that's the big bottleneck. And the Twin
 1 Tunnels of Idaho Springs are the big bottlenecks.

A

Response to IND-82

A. Your concern is valid, and the Preferred Alternative addresses the 15-mile segment you reference, including the bottleneck of the tunnels, as well as the overall congestion problems along the entire Corridor. In the area between Empire Junction and Floyd Hill, the Minimum Program of Improvements for the Preferred Alternative includes an additional travel lane in each direction between the Twin Tunnels and Floyd Hill, and interchange improvements at Empire Junction. The Maximum Program of Improvements for the Preferred Alternative includes six-lane capacity between the Eisenhower Johnson Memorial Tunnels and the Twin Tunnels. Please also see responses to your comments [IND-01-B](#) and [IND-15-D](#). The timing for the implementation of proposed improvements for the Corridor is dependent on the availability of funds for roadway improvements.

The Preferred Alternative also includes a third tunnel bore and widening one of the existing tunnels at the Twin Tunnels. The third bore accommodates three lanes of westbound traffic, the modified existing tunnel accommodates three lanes of eastbound traffic, and the remaining existing tunnel accommodates the Advanced Guideway System.

Comments

Responses

Source: Public Hearing	Name: Nick Dodich (continued)
Document Number: IND-82	City, Zip Code: Arvada, 80004

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: October 21, 2010

B

2 And I think that one of the biggest things that we
 3 have to conquer is the financing part of it. I think we have
 4 the engineering technology and spirit and the know-how.
 5 If other countries can have big tunnels going through
 6 whatnot, and building great great roadways I think we also have
 7 that capability.
 8 And I used to do some lobbying in the past. There is
 9 money in Washington; it's available. And you have to know where
 10 to go and who to see. And we can get a lot of money that way I
 11 feel.

Response to IND-82 (continued)

B. **Chapter 5, Financial Considerations** of the PEIS acknowledges that a variety of funding sources will be required to pay for I-70 highway improvements. Please see responses [LO-01-C](#) and [IND-06-B](#) for more information on funding of the Preferred Alternative.

Comments

Responses

Source: Public Hearing	Name: Nick Dodich (continued)
Document Number: IND-82	City, Zip Code: Arvada, 80004

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: October 21, 2010

12 My biggest concern right now is the Twin Tunnels.
13 They have excellent boring machines on the market now. All over
14 the country they are boring a lot of tunnels: New York, Jersey,
15 whatever.
16 And they are very good because they bore a clean
17 curvature. They don't use drill and dynamite to blow the rock
18 apart.
19 The bad part is it creates tremors. The Donner Pass
20 was started in 1871 and ended in 1881. The blast fractured the
21 rock, and the water came down, and 200 miners were killed.
22 With the boring machine you don't have those
23 vibrations. And it's clean. And you'll operate 24/7 with that.
24 The tunnel -- I used to work at a university --
25 uh-oh -- in Germany. I was going from Gurtingham to Milan. And
1 I went to the Gotard Pass, and that pass -- it was only
2 railroad.
3 MS. STROMBITSKI: We will need to stop now. I'm
4 sorry.
5 MR. DODICH: Can I finish the statement?
6 THE FLOOR: Let him finish.
7 MS. STROMBITSKI: We have to maintain fairness.
8 MR. DODICH: There was only railroad. Trucks, and
9 cars had to go on the railroad. And it cut down on the
10 pollution and traffic jams.

Response to IND-82 (continued)

C. Please see the response to your comment [IND-01-C](#) for information on construction equipment used for CDOT projects.

Comments

Responses

Source: Public Hearing	Name: Ed Rapp
Document Number: IND-83	City, Zip Code: Dumont, 80436

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: October 21, 2010

A
15 MS. STROMBITSKI: Thank you.
16 MR. RAPP: Thank you. And particularly thanks to
17 Russell George for this collaborative effort to bring forward
18 the Revised Draft PEIS.
19 I endorse Clear Creek County Commissioner Kevin
20 O'Malley's statements, opening remarks, including his caveat.

B
21 My concern for this revised PEIS is that the executive
22 summary is not stated strongly enough to survive a 20 year
23 decision arising involving at least four future governor races
24 and their subsequent administrations.
25 The document needs to bring finality to the process in
1 the legal sense or we may be in a perpetual PEIS process.

C
2 My second concern is that the public currently
3 visualizes the two or three year highway widening and not the
4 14 year construction process that a six lane option would
5 require.
6 Little is being done in the executive summary or
7 through public outreach to dispel this misconception.

Response to IND-83

- A. Comment noted.
- B. Please see the response to your comment [IND-68-B](#).
- C. Please see the response to your comment [IND-68-C](#).

Comments

Responses

Source: Public Hearing	Name: Ed Rapp (continued)
Document Number: IND-83	City, Zip Code: Dumont, 80436

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: October 21, 2010

The

8 document does not describe impacts during construction. Albeit
9 it is not required by law an extended construction period is
10 where most environment and social justice impacts would occur.
11 It is doubtful that any community can survive or any
12 traveling public would endure a 14-year construction delay or
13 closures.

D

14 Any at-grade construction through the mountains is
15 onerous. And an elevated guideway system off line yet in the
16 right of way requires a short construction period with very
17 little negative impact environmentally, economically, or
18 socially.

E

19 Fourteen years of at-grade construction in Clear Creek
20 County would essentially be a taking during which all
21 environmental law, including CERCLA and the Clean Water Act, and
22 all social justice law would be imposed.

23 Following that period the remnants of the community
24 fabric would be a ward of the state.

E

25 These construction impacts need to be addressed in the
1 body and in the executive summary of the reports such that they
2 will be very visible and clear to any future decision-making.

Response to IND-83 (continued)

- D. Please see the response to your comment [IND-68-D](#).
- E. Please see the response to your comment [IND-68-E](#).

Comments

Responses

Source: Public Hearing	Name: Ed Rapp (continued)
Document Number: IND-83	City, Zip Code: Dumont, 80436

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: October 21, 2010

F

3 My concern is that also, relative to highways, CDOT is
4 not serious about Advanced Guideway Systems as a mission. A
5 former CDOT director stated flatly that, We don't do transit.
6 Institutional culture is slow to change. Nor does
7 CDOT appear to be all that serious in persuing public-private
8 partnerships for construction and operation of advanced systems.
9 MS. STROMBITSKI: We're at three minutes.
10 MR. RAPP: I'll finish the sentence.
11 In the six months following the Record of Decision are
12 you prepared to handle a delightful event of people coming
13 forward with an unsolicited proposal?

Response to IND-83 (continued)

F. Please see the response to your comment [IND-68-F](#)..

Comments

Responses

Source: Public Hearing	Name: Bob Vermillion
Document Number: IND-84	City, Zip Code: Louisville, not provided

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: October 21, 2010

19 MR. VERMILLION: My name is Bob Vermillion,
20 V-e-r-m-i-l-l-i-o-n. I recently moved. My family recently
21 moved to [REDACTED] I'm a native. I have property directly on
22 I-70.

23 MS. STROMBITSKI: We'll need an address.

24 MR. VERMILLION: Address? [REDACTED] which is
25 [REDACTED]

1 MS. STROMBITSKI: Thank you.

2 MR. VERMILLION: I really support something to get
3 done on I-70. I have had a short experience in driving Donner
4 Pass to Sacramento and on to San Francisco, and moved just one
5 car length on a four lane, just one car length. And that's
6 where we're going if we don't get something done.

7 I support the lane construction and elevated lanes
8 like through Idaho Springs and CDOT had supported and proposed
9 three or four years ago.

Response to IND-84

A. In the nearer term, the Preferred Alternative calls for six-lane capacity from Floyd Hill through the Twin Tunnels. Six-lane highway capacity through Idaho Springs is proposed under the Maximum Program of Improvements but would not be triggered until the Advanced Guideway System is implemented or is determined infeasible (see **Section 2.7.2 "What are the triggers for additional highway capacity improvements?"** of the PEIS for information on triggers). The adaptive management component of the Preferred Alternatives allows the lead agencies to assess the need for highway capacity improvements at a future time. For more information on highway capacity improvements through Idaho Springs, please refer to response to comment [IND-18-F](#).

Comments

Responses

Source: Public Hearing	Name: Bob Vermillion (continued)
Document Number: IND-84	City, Zip Code: Louisville, not provided

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: October 21, 2010

10 I would like to see some real hard figures relative to
 11 bus lanes only and the rail system. And the reason for that is
 12 you can run one or several buses directly to Vail or directly to
 13 Breckenridge through a number of different -- to ski areas.

14 You can run a number of buses to different
 15 communities. You can run the direct ones that are full and the
 16 ones that need to jump. But you can also have secretaries with
 17 a bus lane only that work in downtown 17th Street.

18 You can't do that with a rail. I question the money
 19 that's being spent relative to rail versus bus lanes only. I
 20 would guess that we're talking about a third of the cost, more
 21 convenient, certainly doing more for the person.

22 And when you think of what the young lady that spoke
 23 first said, buses will handle that, giving them an opportunity
 24 to camp and ski and fish and hunt.

25 I followed I-70 for a long long time. Back in the
 1 early '80s Colorado was No. 2 in outdoor activities, No. 3 in
 2 touring. This is on a national scale.

3 We're way up there now. And because we haven't kept
 4 up and we won't with rail I really would like to see CDOT look
 5 at bus lanes only, one going one way and one the other,
 6 different types of access versus the rail system.

7 Thank you very much.

Response to IND-84 (continued)

B. The PEIS evaluates alternatives for directional and reversible lanes for both buses and high-occupancy vehicles (HOV). Variations of these alternatives included buses operating in HOV lanes, buses operating in transitways (exclusive lanes), and buses operating in guideways (with guided tracks). For each of these options, the lead agencies evaluated peak-direction only and both-direction travel conditions. Ultimately, as described in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website), several bus technologies were retained and evaluated in the PEIS, and all operate in both directions. The guideway is able to operate with a minimal footprint (about 24 feet wide) because the buses would operate using guidewheels that provide steering control, thus permitting a narrow guideway and providing safer operations.

As presented in **Chapter 5, Financial Considerations** of the PEIS and detailed in the *I-70 Mountain Corridor PEIS Cost Estimates Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website), the cost of the Bus in Guideway alternatives is about \$10.5 billion, while the Combination Six-Lane Highway with Bus in Guideway alternatives is about \$13 billion in year of expenditure, which in this case is considered to be the mid-year of construction, or 2025. Initial ridership modeling estimates the Advanced Guideway System would attract more riders than a bus system. The alternatives with the Advanced Guideway System (including the Preferred Alternative) are estimated to cost about 30 percent more than the Bus in Guideway alternatives. The combination of transit and highway improvements proposed under the Preferred Alternative best meet the project's purpose and need in addressing safety, mobility, and congestion relief while minimizing impacts. Neither mode by itself will address the 2050 purpose and need.

Comments

Responses

Source: Public Hearing	Name: Jeremy Tamsen
Document Number: IND-85	City, Zip Code: Denver, 80206

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: October 21, 2010

--

16 MR. TAMSEN: My name is Jeremy Tamsen, J-e-r-e-m-y
 17 T-a-m-s-e-n. I live at [REDACTED]
 18 [REDACTED]

19 The priority sequence as I read the document as far as
 20 construction triggers is something that I agree with. First we
 21 need to improve the existing infrastructure and then focus on
 22 building an Advanced Guideway System.

23 And as Stephanie Thomas from the Environment Colorado
 24 said, or the Colorado Environmental Coalition said, it should be
 25 carefully considered the survey results that she has gathered

1 as well as comments that my organization will be gathering as
 2 well over the comment period.

3 The additional ridership that these comments represent
 4 should be a key and integral part of the feasibility study for
 5 the Advanced Guidance System.

6 There are a lot of young people that are tuned into
 7 this project, and recognize its importance for the viability of
 8 Colorado's future economy, and therefore its importance on our
 9 adult careers, and their voices should be heard and listened to
 10 as well.

11 I grew up in Eagle, Colorado, during the time when the
 12 construction was being completed in the Glenwood Springs
 13 Corridor through the canyon. And that demonstrated to me how
 14 extremely important I-70 is to the state's operation.

A

B

B

Response to IND-85

- A. Comment noted.
- B. The Colorado Department of Transportation recognizes the importance of the I-70 Mountain Corridor and will work to implement the Preferred Alternative. Subsequent feasibility studies and related Tier 2 processes are required to select an appropriate and viable technology for the Advanced Guideway System as well as to determine costs and benefits, safety, reliability, environmental impacts, ridership, operations and other considerations to support this substantial monetary investment. Public comments received during the PEIS process are important and have been taken into consideration to ensure the project aligns with public needs and values.

Comments

Responses

Source: Public Hearing	Name: Jeremy Tamsen (continued)
Document Number: IND-85	City, Zip Code: Denver, 80206

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: October 21, 2010

15 And by emphasizing the Advanced Guideway System we can
 16 ensure that the success of the future economy is maintained and
 17 that minimal disruptions are made to the current flow of traffic
 18 along the existing infrastructure, and the durability inherent
 19 in an Advanced Guideway System will ultimately be a bargain to
 20 the state of Colorado.

C 21 The initial cost may seem high to some, but in the
 22 long term, maintaining such a system with such a high ridership
 23 volume as is projected would be much less than maintaining a
 24 road with similar baseline capacity.

D 25 And I believe that CDOT should seek aggressively
 2 this project. As others in this room suggested solutions, I
 3 believe that all of the solutions should be considered valid
 4 alternatives to a bond election that may or may not see an
 5 Advanced Guideway System through to construction.

D 6 Thank you.

Response to IND-85 (continued)

- C. Although the cost of implementing the Preferred Alternative is high, the lead agencies consider the Preferred Alternative to be an investment in Colorado's economic future. Any transit system implemented in the Corridor will have associated costs to operate and maintain the system. Maintenance costs of both the transit and highway components of the Preferred Alternative will be evaluated during Tier 2 processes. Likewise, construction phasing and mitigation strategies will be evaluated during Tier 2 processes.

The economic analysis (see **Section 3.8, Social and Economic Values** of the PEIS) shows the No Action Alternative likely suppresses economic conditions in the nine county Corridor region. Although the Preferred Alternative likely suppresses economic growth during construction, by 2035 it surpasses the Gross Regional Product of the No Action Alternative by at least \$10 billion per year.
- D. The Colorado Department of Transportation's budget is insufficient to implement the entire Preferred Alternative. The Colorado Department of Transportation has identified various innovative funding mechanisms that could be used to pay for improvements. **Chapter 5, Financial Considerations** of the PEIS and the *I-70 Mountain Corridor PEIS Financial Considerations Technical Report* (included electronically on CD-ROM in Volume 6 of the Technical Reports and on the project website) summarizes the cost of the Preferred Alternative, the sources of CDOT's funding (and its limitations), and other potential funding sources, including public-private partnerships and tolling. See particularly **Section 5.7, "What are potential funding sources and their limitations?"** of the PEIS.

Comments

Responses

Source: Private Comment at Public Hearing	Name: Ken Katt
Document Number: IND-86	City, Zip Code: Littleton, 80120

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: October 21, 2010

10 Our founding fathers, the individuals
11 who established this wonderful nation we live in,
12 they wanted a seat at the table of democracy,
13 because they had adopted the attitude of, "Don't
14 tread on me." Unfortunately, in today's world,
15 there are too many people wanting a seat at the
16 table, not because they have the attitude of,
17 "Don't tread on me," but rather because they
18 perverted that into, "Hey, what's in it for me?"
19 That helps to explain why our nation is
20 now umpteen trillion dollars in debt, with no end
21 in sight. It also helps to explain how this got
22 to be a \$20 billion preferred alternative, as
23 opposed to something that might be a little bit
24 more affordable.
25 I think it's necessary to comment,
1 then, about Clear Creek County, because there's
2 been a handful of spokespeople out there trying to
3 represent the viewpoint of the entire county.
4 I've been doing my best, as a non-resident, to
5 adopt the "Don't tread on me" approach; "Don't
6 destroy the county and its quality of life by
7 shredding through it with a road project to widen
8 the highway."

Response to IND-86

A. The Colorado Department of Transportation formed a 27-member Collaborative Effort team to develop consensus on a preferred alternative. Clear Creek County was represented on the Collaborative Effort by a Clear Creek County commissioner. Please refer to *I-70 Mountain Corridor PEIS Public and Agency Involvement Technical Report* (included electronically on CD-ROM in Volume 6 of the Technical Reports and on the project website) for a complete list of Collaborative Effort team members.

The PEIS acknowledges that highway capacity improvements in Clear Creek County, and particularly within Idaho Springs, could have an effect on communities, both from direct encroachment of the highway into properties and through the construction disruption that would occur in this constrained area. The Preferred Alternative specifically addresses impacts in these areas by including six-lane capacity and interchange improvements only after certain triggers are met. If the six-lane capacity in the Maximum Program of the Preferred Alternative is implemented, options such as structured lanes through Idaho Springs would be further considered in Tier 2 processes to minimize impacts on the community and adjacent resources (see **Section 2.6.4, Action Alternative Components** of the PEIS). The PEIS assumed structured lanes in the Idaho Springs area for the purpose of impact analysis. Please also refer to comment [IND-27-C](#).

Comments

Responses

Source: Private Comment at Public Hearing	Name: Ken Katt (continued)
Document Number: IND-86	City, Zip Code: Littleton, 80120

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: October 21, 2010

9 I've talked about a bus alternative,
10 which would be introduced at a fairly reasonable
11 cost, provide fairly reasonable benefit, and to do
12 so in a way that would be sensitive to the very
13 valid concerns of Clear Creek County citizens.

B 14 Unfortunately, for the loudest
15 spokespeople from Clear Creek County, they keep
16 pushing for an ultra-expensive high-speed rail --
17 monorail system that they don't have a clue as to
18 how it's going to get paid for; which, in my book,
19 demonstrates a "Hey, what's in it for me"
20 attitude. Thank you.

Response to IND-86 (continued)

B. Please see the response to [IND-81-B](#) for a response to this portion of your comment.

Comments

Responses

Source: Private Comment at Public Hearing	Name: Nick Dodich
Document Number: IND-87	City, Zip Code: Arvada, 80004

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: October 21, 2010

4 MR. DODICH: Okay. I'll start. The
5 best people mover is the railroad. And in 1881,
6 the St. Gotthard First Tunnel, which was a
7 two-track, to and fro, railroad tunnel, not a road
8 tunnel, I traveled that. And, unsuspectingly, I
9 found out I had to go on a flatbed trailer. And
10 it was about a nine-mile trek, and it took less
11 than ten minutes.

12 And the beauty of that was it was by
13 electric train. There was no pollution, and you
14 didn't need any special pollution evacuation fans
15 or anything like that. And it was very
16 comfortable, because we were in a tunnel, and we
17 were just laughing and whatnot.

18 The Swiss were very advanced for that
19 time, because they figured the train was the best
20 people mover and freight mover. And they have
21 since 19 -- no, '80, I think, or is it '20? Just
22 a minute once. Oh, 1920, they made another
23 tunnel, which was a road tunnel to compliment that
24 so cars can go. And they continued the rail
25 tunnel, because they wanted to avoid all the

A

Response to IND-87

A. A wide variety of tunnels were evaluated during the alternatives development and screening process to meet design and operational needs of highway and transit improvements. Tunnels through Silverthorne, Loveland Pass, Silver Plume, the Georgetown Incline, and Mount Vernon were studied to meet transit needs. Tunnels through Georgetown, Dowd Canyon, Hidden Valley, Floyd Hill, and Silverthorne to Empire were studied to meet highway needs. Tunnels along alternate routes outside the Corridor were assessed for their environmental impacts and location and included Georgia Pass and Rawlins Pass.

Ultimately, the Preferred Alternative includes new or additional tunnel bores at Dowd Canyon, Eisenhower-Johnson Memorial Tunnels, Twin Tunnels, and Floyd Hill to support highway and transit components of the alternative. The other tunnels evaluated during alternatives development and screening were eliminated because of geological conditions, environmental impacts, or because the transit or highway improvements they supported were not carried forward.

For more information on tunnels considered, please review the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website).

Comments

Responses

Source: Private Comment at Public Hearing	Name: Nick Dodich (continued)
Document Number: IND-87	City, Zip Code: Arvada, 80004

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: October 21, 2010

1 trucks going through the Alps that were creating
 2 pollution. And it was kind of risky going around
 3 the curves. Whereas, they put all the freight
 4 into the rail tunnels. Now, they were searching
 5 for a good route to go from Genoa, Italy to
 6 Rotterdam, The Netherlands.

A

7 And just this month or last month, they
 8 tunneled through 35.4 miles of tunnel for rail,
 9 mostly rail, to stop the trucks from going over
 10 the mountains polluting the high altitude. The
 11 tunnels are the way to go to remove all the bad
 12 curvature of snaking roads and precipitous
 13 fall-off. Switzerland was very, very successful
 14 there. And I think we can learn a lot by reading
 15 this. And I have some literature here I'll submit
 16 through the proper people.

17 Now, there's also another item I'd like
 18 to bring up. I took a trip to New Zealand a
 19 couple years ago; oh, maybe five, I don't know.
 20 Over there in Auckland, which is on the north
 21 island, they have a big harbor. And the harbor is
 22 on the east side, the City of Auckland on the west
 23 side, more or less the hinterland. But there was

B

Response to IND-87 (continued)

B. Tier 2 processes are required to develop design options such as bridges. During those Tier 2 processes, all reasonable designs and methods will be evaluated.

Comments

Responses

Source: Private Comment at Public Hearing	Name: Nick Dodich (continued)
Document Number: IND-87	City, Zip Code: Arvada, 80004

Response to IND-87 (continued)

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: October 21, 2010

1 Auckland to the market.

2 But the long circuitous bay trip was

3 not very favorable, so they wanted to have a

4 bridge. So they started to make a pontoon type of

5 bridge, and that didn't work. It was too

6 expensive and not very reliable. So after the

7 second war, it was a serious problem, because more

8 cars were on the road, and more people were around

9 there, and visitors were coming in and renting

10 cars, and it was a dire problem.

11 So what happened was that they put out

12 a bid around the world for foreign companies to

13 come in and give them some kind of a bid how to

14 increase the present bridge that was there. That

15 bridge was four lanes; two lanes east, two lanes

16 west, and they had to increase it. It was a long

17 bridge. And they used to call it the coat hanger,

18 because it had a curvature on the top.

19 So, also, the best bid they got was

20 from Japan, and that was in about 1960, I think.

21 And the New Zealanders and Australians are not too

22 forgiving to the Japanese for the war, because

23 their soldiers were abused terribly by the

24 Japanese. But they gave the contract to the

25 Japanese. The Japanese evaluated that bridge.

B

Comments

Responses

Source: Private Comment at Public Hearing	Name: Nick Dodich (continued)
Document Number: IND-87	City, Zip Code: Arvada, 80004

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: October 21, 2010

6 Let's see. What else is there that I
7 may say? Oh, yeah. I am a fan of tunnel boring
8 machines. And I gave some information -- mailed
9 it to Scott McDaniel. And these machines are
10 very, very good, very versatile. They have
11 another application, not just to bore tunnels.
12 But what I've learned is some people are using
13 them to go into the mountains, into hard rock;
14 bore a big hole through, maybe 2,000 feet, or
15 whatever you want. And that makes your garage, it
16 can make your offices, it can make your sand
17 storage, vehicle storage.

18 The beauty is, you don't have to fight
19 for land. The land is there, the mountain belongs
20 to the state, and you don't have to build a
21 building. You don't have to paint it, so to
22 speak, a superstructure. You don't have to use
23 too much steel. All you need is a front door.
24 And the beauty of that is like a cave. Most
25 places like that that are caves or a hole in the
1 wall, even in the winter and the summer, the
2 temperatures are about 55 degrees. So all you
3 have to do is just add 15 more degrees, and you've
4 got a 70 degree environment.

C

C

Response to IND-87 (continued)

C. Please see the response to your comment [IND-01-C](#) regarding construction equipment used for CDOT projects.

Comments

Responses

Source: Private Comment at Public Hearing	Name: Nick Dodich (continued)
Document Number: IND-87	City, Zip Code: Arvada, 80004

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
 HEARING DATE: October 21, 2010

D
 5 I think that more or less does it. I
 6 probably can think of something else, but I was in
 7 a rush, I didn't have time to prepare. But I do
 8 have a passion to see that this I-70 gets going,
 9 especially the 15-mile segment. I think that
 10 would really, really help the commerce and the
 11 safety of the I-70 Corridor. And people will not
 12 regret it. I think the quicker the better,
 13 because inflation costs can really eat up your
 14 budget.

E
 15 And I mentioned over there, I did some
 16 lobbying in Washington. The money is there in
 17 Washington. It's -- it's not what you know, it's
 18 who you know. I hate to say that, but that's it.
 19 If you know where to go and who to talk to, you
 20 can get it. And I can give you instances how even
 21 some of that was abused, which I hate to say. But
 22 I don't recommend abuse. Do it the right way. It
 23 is there, and it can be done.

24 I want to just speak philosophically
 25 now. I'm a product of Croatian immigrants. And I

Response to IND-87 (continued)

- D. The Colorado Department of Transportation considered the 15-mile segment of the I-70 highway between Twin Tunnels and Empire Junction and the economic impacts and benefits derived from the Action Alternatives, including improving this 15-mile segment. Please refer to the response to your comment [IND-01-B](#) regarding the 15-mile segment you mention and [IND-01-D](#) for an explanation of the economic impacts associated with the Action Alternatives.
- E. The Colorado Department of Transportation agrees that collaboration is required to create and implement a solution for the I-70 Mountain Corridor. The lead agencies are committed to continuing to work with stakeholders in a collaborative manner, following I-70 Mountain Corridor Context Sensitive Solutions for all Tier 2 processes.

Comments

Responses

Source: Private Comment at Public Hearing	Name: Nick Dodich (continued)
Document Number: IND-87	City, Zip Code: Arvada, 80004

Response to IND-87 (continued)

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: October 21, 2010

9

1 am a student of history also; you know,
2 hobby-like. I have studied the colonial times,
3 the Revolutionary War. We had people that were
4 abused by the royalty and the young King George.
5 They were abused terribly. They got together,
6 like we got together tonight. If they had a
7 problem, "Let's solve it, and we'll solve it
8 together." They produced the best nation in the
9 world, the United States of America, my home.

10 And looking at that group there
11 reminded me of these colonists. We're all
12 concerned about a problem we have here in
13 Colorado. And just like those colonists, we are
14 contributing what thoughts and ideas we have to
15 make Colorado a great state; not only great, but
16 greater -- I think we are great already -- but
17 greater. And I think if everybody participates
18 like we have tonight, we will see it most likely
19 sooner than later. Thank you.

Comments

Responses

Source: Private Comment at Public Hearing	Name: Bob Vermillion
Document Number: IND-88	City, Zip Code: Louisville

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: October 21, 2010

4 MR. VERMILLION: The comments are
5 directed to the presentation. And I did shake the
6 guy's hand, even though I didn't enjoy the
7 presentation; because it did not deal with the
8 metro residents, it dealt with transportation, how
9 to move vehicles. And it didn't deal -- like the
10 first young lady that talked about people that
11 want to hike, and camp, and fish, and ski, and do
12 all these things that you can't do from a
13 monorail, unless you jump out while it's running.
14 The thing that competes with that, I
15 think, if they would really seriously take a look
16 at it, and not get overwhelmed by the groups that
17 have an agenda to support, and that would be bus
18 lanes only. I would be willing to bet that if
19 they constructed a monorail to Vail, and they
20 constructed a bus lane only to Vail, the bus lane
21 would beat the monorail hands down. So speed
22 isn't the issue when you got all these winding
23 roads and tunnels and everything else. The other
24 thing is that you can add another bus very
25 quickly. The monorail has to go back to Denver to
A | 1 get another load.

Response to IND-88

A. Denver metropolitan area residents are a major source of trips in the Corridor, and the PEIS travel demand model captures Denver metropolitan are used to analyze traffic volumes in the Corridor ea travelers. The Preferred Alternative is a multimodal solution that serves the varied needs and travelers using the Corridor.

As the Advanced Guideway System is developed in more detail, considerations for the types of trips served and how to connect travelers and their gear to their final destinations will be important to determining how the system will function and serve Corridor travelers. The response to comment [IND-104-A](#) provides more detail about recreation trips and transit.

A Reversible HOV/HOT Lanes Alternative, which is similar to a bus-only lane, was studied in the PEIS and does address congestion well, but it does not accommodate future projected unmet demand well, as described in **Section 2.8.1, Transportation Comparisons** of the PEIS. **Chapter 3** of the *I-70 Mountain Corridor Transportation Analysis Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website) shows that initial ridership modeling estimates the Advanced Guideway System would attract more riders than a bus system.

Comments

Responses

Source: Private Comment at Public Hearing	Name: Bob Vermillion (continued)
Document Number: IND-88	City, Zip Code: Louisville

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: October 21, 2010

B

2 The final thing that I think is most
3 important is that -- I mentioned that a secretary
4 in Idaho Springs can work at 17th Street with a
5 bus lane only that has continual, regular patterns
6 of work; and not just in downtown Denver, but they
7 can go to the Denver Tech Center. So are they
8 going to take the monorail on down to Denver Tech
9 Center? Or not just to the Denver Tech Center and
10 downtown, they can take them on to DIA. Are they
11 going to run the monorail out to DIA?

Response to IND-88 (Continued)

B. The project termini are based on the purpose and need for the project. In this case, the purpose and need focuses on mobility, congestion, accessibility, and capacity in the I-70 Mountain Corridor. C-470/Jeffco Government Center light rail station is the eastern terminus for all modes due to the system interchange of I-70 and C-470, the increase in I-70 highway traffic volumes, and the predominance of urban travel patterns to the east of C-470. Stakeholders have advocated for expanding the termini to locations east in Denver and Denver International Airport. The focus of this study, however, is the I-70 Mountain Corridor, which has distinct needs, travel patterns, and trip purposes from the Denver metropolitan area. The connection of the Advanced Guideway System to the Jeffco Government Center light rail station in Golden allows people from the Denver metropolitan area to ride a bus or light rail train and then transfer to the Advanced Guideway System. This terminus does not preclude other NEPA transportation improvement studies outside the Corridor.

To study the integration of high-speed rail projects, including the I-70 Mountain Corridor Advanced Guideway System, with the FasTracks system in the Denver area, CDOT will be conducting a Colorado Interregional Connectivity Study. This study will identify how the Advanced Guideway System should work with and connect to the Regional Transportation District's FasTracks system. Feasibility studies and related Tier 2 processes will determine specific operating characteristics of the Advanced Guideway System.

Comments

Responses

Source: Private Comment at Public Hearing	Name: Bob Vermillion (continued)
Document Number: IND-88	City, Zip Code: Louisville

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: October 21, 2010

12 The flexibility for a bus lane only is
13 not even questionable. The cost is the big issue.
14 I would venture to say bus lanes only would be a
15 third of the cost of a monorail. And, further,
16 the maintenance and upkeep and the cost of -- you
17 know, either they're going to put gasoline to us
18 at 4, 5, 6 bucks a gallon to pay it, or they're
19 going to charge an exorbitant fee that only the
20 guys that are flying out from New York that are
21 going to stay in Vail at 400 or \$500 a night can
22 afford a ticket on the monorail.

23 You're not going to find my wife and I,
24 who would like to go up to -- I'm trying to think
25 of the shopping market there in Silverthorne -- go
1 up there and shop in those discount stores, and
2 have lunch, and then get the bus on the way back;
3 or take a bus out of the Corridor to Estes Park or
4 anything. The bus is, by far, more convenient and
5 more flexible and super less costly than a
6 monorail.

Response to IND-88 (Continued)

C. The PEIS considered alternatives with buses. Variations of these alternatives include buses operating in HOV lanes, buses operating in transitways (exclusive lanes), and buses operating in guideways (with guided tracks). Ultimately, as described in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website), several bus technologies were retained and evaluated in the PEIS, but the Preferred Alternative with an Advanced Guideway System was found to have the best opportunity to meet the purpose and need while minimizing impacts. Please see the response to comment [IND-26-C](#) for more information on the bus transit alternatives in the PEIS.

As presented in **Chapter 5, Financial Considerations** of the PEIS and detailed in the *I-70 Mountain Corridor PEIS Cost Estimates Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website), the cost of the Bus in Guideway alternatives is about \$10.5 billion, while the Combination Six-Lane Highway with Bus in Guideway alternatives are about \$13 billion in year of expenditure, which in this case is considered to be the mid-year of construction, or 2025. Initial ridership modeling estimates the Advanced Guideway System would attract more riders than a bus system. The alternatives with the Advanced Guideway System (including the Preferred Alternative) are estimated to cost about 30 percent more than the Bus in Guideway alternatives. The combination of transit and highway improvements proposed under the Preferred Alternative best meet the project's purpose and need in addressing safety, mobility, and congestion relief while minimizing impacts. Neither mode by itself will address the 2050 purpose and need.

Comments

Responses

Source: Private Comment at Public Hearing	Name: Bob Vermillion (continued)
Document Number: IND-88	City, Zip Code: Louisville

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: October 21, 2010

D

7 I think we need both additional lanes,
8 and we need bus lanes only, and we need to elevate
9 the road. Like going through Idaho Springs, you
10 just ramp up like they've gone through Commerce
11 City and they've built roads right over the
12 existing road.

Response to IND-88 (Continued)

D. The PEIS considers additional lanes, bus-only lanes, and elevated roadway. Additional highway lanes are included in the Preferred Alternative, as presented in **Chapter 2, Summary and Comparison of Alternatives** of the PEIS. Bus-only lanes were evaluated but ultimately, as described in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website), bus-only lanes or a bus-only transit system were not found to meet the purpose and need as well as the highway capacity improvements combined with the Advanced Guideway System. Elevated lanes were considered and are proposed in the Idaho Springs area as part of the Preferred Alternative Maximum Program of Improvements. Elevated lanes will be evaluated with other alternatives in Tier 2 processes.

Comments

Responses

Source: Private Comment at Public Hearing	Name: Bob Vermillion (continued)
Document Number: IND-88	City, Zip Code: Louisville

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: October 21, 2010

13 The other item that I don't know that
14 was really spoken to was the phasing. You got a
15 string from Denver to Vail. That's the rail. It
16 doesn't work until you get the whole string built.

ε

17 With a bus system, you can build a phase of the
18 bus lane only, and when it disappears, you can
19 enter back into the normal traffic. And when you
20 get another section done, it can appear again.
21 And you can actually make those bus lanes only,
22 where the bus triggers a gate, and it shuts down
23 so the guy that wants to follow the bus isn't
24 going to make it.

25 And, really, there's so much more they
1 can do with buses. There's a new company in
2 Lakewood that -- they look like Cadillacs. And
3 they're much more visible than a monorail and much
4 less expensive to maintain. And they are coming
5 to a situation where my wife and I would say,
6 "Well, shall we take the bus, or shall we drive?"
7 And I'll say, "Well, gas is now at 4.50 a gallon,
8 why don't we take the bus, and we can chat and
9 hold hands and all that kind of stuff." I hope
10 I've given you something that's worthwhile. Thank
11 you.

ε

Response to IND-88 (Continued)

E. Bus in Guideway alternatives are easier to phase than an Advanced Guideway System due to the operational characteristics noted in your comment. The ability to phase construction and operation of the Bus in Guideway alternatives requires less initial funding for construction of these alternatives. However, initial ridership modeling estimates the Advanced Guideway System would attract more riders than a bus system, and the Preferred Alternative was found to provide the best opportunity to meet the 2050 purpose and need while minimizing impacts. Phasing will be considered during Advanced Guideway System feasibility studies and related Tier 2 processes.

If an Advanced Guideway System is found to be infeasible, the lead agencies could at any time consider other transit technologies evaluated in the PEIS. The Colorado Department of Transportation will convene a committee that retains the Collaborative Effort member profile to check in at least every two years to review progress and conduct a thorough reassessment of the overall purpose and need and effectiveness of the improvements in 2020.

Comments

Responses

Source: Website Comment	Name: Susan Williams
Document Number: IND-89	City, Zip Code: Lakewood, 80214-6039

A

This is pretty silly, from my point of view. By the year 2035, exactly how much snow do you expect to have in the Colorado Rockies attracting how many tourists-drivers? Climate change is going to make this OBE (overcome by events). My guess is that anything that even looks like moisture by that time will be committed to keeping people alive and growing crops. In fact, there may not be any skiing anywhere in the world. I sure wish my government, at all levels and throughout all its branches, would get its act together and start setting REALISTIC policies! I am appalled you even spent money to study this, all the while people are losing their jobs!

Response to IND-89

- A. The I-70 Mountain Corridor is of statewide importance and carries a wide mix of residents and visitors, commuters and recreation travelers, freight haulers and sightseers, people driving across town and others across the state. The purpose and needs focus on mobility, congestion, accessibility, and capacity in the I-70 Mountain Corridor – which will benefit everyone who travels in this Corridor with different trip purposes.

Comments

Responses

Source: Website Comment	Name: Peter Stekr
Document Number: IND-90	City, Zip Code: Golden, 80401

A

Why don't we stop building roads and put in a train. It would make sense to put in a main line train from Golden to Beaver creek. Ideally a connection from the airport would be in place by this time. A service running every 15 minutes that has connecting buses from points like Empire, Loveland pass, dillion/frisco, copper, vail and beaver creek would make sense. It would alieviate weather issues for drivrs(bringing more skiers+revenue), lessen polution, save energy in the long run, lessen road wear and many other positives. Building more roads is not a long run solution. As oil and gas become more evpensive Colorado will see fewer skiers and less revenue.

Response to IND-90

- A. The Preferred Alternative is a multimodal solution with transit, highway, and non-infrastructure improvements through the Corridor to provide additional capacity and congestion relief. Analysis in the PEIS shows that a multimodal alternative provides the best opportunity to meet the 2050 purpose and need for the Corridor while minimizing impacts. Transit is needed to address capacity, while highway improvements are necessary to address congestion and safety. Operations of transit, including frequency of service, will be determined in feasibility studies and related Tier 2 processes.

Comments

Responses

Source: Website Comment	Name: Carl Richard
Document Number: IND-91	City, Zip Code: Dillon, 80435

A

I think the PEIS represents a great "vision", however, the focus should be on "present reality". Government agencies', officials', and other stakeholders', public and private, efforts should be focused and based on realistic alternatives for which funding is likely possible to be attained and obtained, and which have much more immediate impact in the next 10-15 years.

Response to IND-91

A. The Preferred Alternative provides a comprehensive proposal for improvements to the I-70 highway and allows CDOT to meet the forecasted 2050 travel demands for the Corridor. The Colorado Department of Transportation is committed to implementing recommended improvements as funding allows; the Preferred Alternative includes a process for evaluating Corridor conditions and effectiveness of improvements every two years. This adaptive management approach allows CDOT to maximize the effectiveness of improvements and leverage available funding to meet both short- and long-term needs.

Addressing immediate needs, CDOT has been making ongoing, shorter-term safety and operational improvements in some Corridor locations, including truck chain up areas, improved traveler message signs, park-and-ride locations, rockfall mitigation, better emergency response plans, roadside safety enhancements, median barrier improvements, and tunnel enhancements. These types of improvements would continue with implementation of the Preferred Alternative.

Comments

Responses

Source: Website Comment	Name: Carl Richard (continued)
Document Number: IND-91	City, Zip Code: Dillon, 80435

B

The PEIS "preferred alternative" proposes alternatives that aren't within presently known to be viable transportation technologies that will require further studies that may result in further controversy and thus delays. Funds that would or could otherwise be dedicated to presently well understood, "proven" and economically viable alternatives would be expended resulting in additional funding shortfalls and further delays. Let's get REAL and return the focus of this project and funding to the immediate future and let the long-term future be a consideration that includes "course corrections," to present plans as technology and funding catch-up and/or allow.

Response to IND-91 (continued)

B. The purpose and need of the project focuses on meeting both the short-term and long-term mobility, congestion, accessibility, and capacity needs in the I-70 Mountain Corridor. Analysis in the PEIS shows that a multimodal alternative provides the best opportunity to meet the long-term needs for the Corridor. Implementation of non-infrastructure components could begin immediately after the Record of Decision is issued and funding is identified, and early action projects identified in the **Introduction** of the PEIS are likely to be studied and implemented more quickly as funding is identified.

While some of the technologies considered for an Advanced Guideway System are not presently known to be viable transportation technologies at this time, the actual technology is not defined. The description of the Preferred Alternative in **Chapter 2, Summary and Comparison of Alternatives** of the PEIS has been revised to clarify the definition of the Advanced Guideway System and the operational characteristics that must be considered as the final Advanced Guideway System technology is identified in Tier 2 processes.

Advanced Guideway System feasibility studies and related Tier 2 processes will help to further define the feasibility of the Advanced Guideway System and its technology. Advanced Guideway System studies and related Tier 2 processes will be designed to address funding, power supply, operations, ridership, and other related issues. A recent high speed rail study conducted by the Rocky Mountain Rail Authority indicated that some traditional, "proven" high speed rail technologies could meet many of the Advanced Guideway System criteria.

If an Advanced Guideway System is found to be infeasible, the lead agencies could at any time consider other transit technologies evaluated in the PEIS. The Preferred Alternative is an incremental, multimodal solution that is responsive and adaptive to future trends in the Corridor. The use of triggers recognizes that future travel demand and travel behavior is uncertain. Additional transportation solutions should be based on proven need. The Preferred Alternative is an incremental, multimodal solution

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Carl Richard (continued)
Document Number: IND-91	City, Zip Code: Dillon, 80435

Response to IND-91 (continued)

B. (Continued from previous page)

that is responsive and adaptive to future trends in the Corridor. The use of triggers recognizes that future travel demand and travel behavior is uncertain. Additional transportation solutions should be based on proven need. The Colorado Department of Transportation will convene a committee that retains the Collaborative Effort member profile to check in at least every two years to review progress and a thorough reassessment of the overall purpose and need and effectiveness of the improvements will occur in 2020. Please see **Section 2.7.2 “What are the triggers for additional highway capacity improvements?”** of the PEIS for more information on the triggers and adaptive approach of the Preferred Alternative.

Comments

Responses

Source: Website Comment	Name: Ted Hartridge
Document Number: IND-92	City, Zip Code: Avon, 81620

A

Look at Zermatt, Switzerland, train from major cities, with electric transportation for area.
 use rail between hwy lanes traditional plus cog or mag train.
 Vast majority know we need additional and optional forms of transportation, look 100 years out, not short term. We must invest in infrastructure now. People of Colorado need to get their head out of the sand.
 With a train, put the bond cost into the train ticket cost.
 Good luck.

Response to IND-92

A. The Preferred Alternative recognizes the need to plan for a longer than typical horizon and, therefore, relies on a 50-year vision for the Corridor. Analysis in the PEIS shows that a multimodal alternative provides the best opportunity to meet the 2050 purpose and need for the Corridor. Transit is needed to address capacity, while highway improvements are necessary to address congestion and safety. The Colorado Department of Transportation will continue to collaborate with Corridor stakeholders throughout Tier 2 processes.

At this Tier 1 level, the Preferred Alternative proposes using the I-70 highway median or existing highway right-of-way for an Advanced Guideway System, where feasible, to reduce right-of-way requirements and limit disturbance to adjacent lands. However, using the median may not always be feasible due to median width and safety standards; therefore, specific alignments and footprints for improvements would be determined in Tier 2 processes.

The Colorado Department of Transportation is considering a variety of funding strategies, including bonding, which are discussed in **Chapter 5, Financial Considerations** of the PEIS.

Comments

Responses

Source: Website Comment	Name: Helen Bushnell
Document Number: IND-93	City, Zip Code: Lakewood, 80215

A

I am concerned that the rail portion of the I-70 project is being designed for looks rather than usability or even modernity. What makes a train modern is not necessarily the track (rail on steel vs. maglev). A modern train has modern signals. A modern train has a modern dispatch system. A modern train has operators, both on the train, and in the operations offices, who are both well-trained and well-paid. In the last ten years we have seen new kinds of engines and new kinds of wheels. There are trains that look exactly like the trains of fifty years ago that are wonders of modern engineering. And there are trains that look very modern that in fact don't work very well and are in fact quite primitive.

As rail systems across the USA are being modernized, Colorado is falling behind. People in Colorado are still being forced to drive as train ridership across the country increases every year. We need a rail system that connects into the nation's system, and we need a system that serves Colorado's citizens.

Response to IND-93

A. The lead agencies and local communities recognized that, to address the purpose and need for the project, a fixed guideway system would need to be part of the solution and the system would need to have competitive travel times and be able to accommodate the harsh mountain environment. While maglev systems have been considered for an Advanced Guideway System, the actual technology is not specified in the PEIS. The description of the Preferred Alternative in **Chapter 2, Summary and Comparison of Alternatives** of the PEIS has been revised to clarify the definition of the Advanced Guideway System and the operational characteristics that must be considered as the final Advanced Guideway System technology is identified.

The CDOT Division of Transit and Rail's Colorado State Passenger and Freight Rail Plan will evaluate existing and planned rail projects statewide, including the connectivity of the I-70 Mountain Corridor Advanced Guideway System with other transit and rail services in the state.

Comments

Responses

Source: Website Comment	Name: Julian Vogt
Document Number: IND-94	City, Zip Code: Glenwood Springs, 81601

A

Improve and pave Cottonwood Pass road for emergency route when Glenwood Canyon is blocked, which happens too often. Thanks, Julian Vogt

Response to IND-94

- A. Improving and paving the Cottonwood Pass Road between Glenwood Springs and Gypsum to provide effective emergency access would be challenging, due to its overall length of 33 miles (when combined with Cattle Creek Road and SH 82), and the rugged steep terrain over Cottonwood Pass. This two-lane county road through private and National Forest System lands has limited capacity. The current estimated travel time of approximately two hours to travel the road may not be substantially improved by paving, due to the alignment over Cottonwood Pass. The general remoteness of this road makes it an unreliable alternate route for emergency use.

Comments

Responses

Source: Website Comment	Name: David Bowman
Document Number: IND-95	City, Zip Code: Douglas County

A Please realize that this problem is killing our state and the ability to attract new businesses and tourists.
 I would like you to consider building a route out of Summit County over Georgia Pass (similar to Berthod Pass) that ties into US-285 near Jefferson. This route would be only a couple of miles longer than the I-70 route to Morrison.
 I realize that this route will take a long time to build, much less get through all of the red tape.

B In the mean time you must start building new lanes on I-70 from the tunnel to Floyd Hill.

Response to IND-95

- A. The economic analysis (see **Section 3.8, Social and Economic Values** of the PEIS) shows that the No Action Alternative likely suppresses economic conditions in the nine county Corridor study area, as you suggest. Although the Preferred Alternative likely suppresses economic growth during construction, by 2035 it surpasses the Gross Regional Product of the No Action Alternative by at least \$10 billion per year.

 The lead agencies evaluated an alternate route along US 285 between Denver and Copper Mountain and a new tunnel under Georgia Pass. This route was eliminated due to the substantial impacts to natural and cultural resources in southern Park County. Additionally, this route would take 118 minutes to travel between Denver and Copper Mountain compared to 74 minutes on the I-70 highway during uncongested travel times under existing conditions. For further information on alternative routes screening, please see the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website).
- B. The Preferred Alternative includes expanding the I-70 highway from four- to six-lane capacity between Floyd Hill through the Twin Tunnels. This expansion is part of the Minimum Program of Improvements for the Preferred Alternative and is expected to be implemented in the shorter-term as described in **Chapter 2, Summary and Comparison of Alternatives** of the PEIS.

Comments

Responses

Source: Website Comment	Name: David Bowman (continued)
Document Number: IND-95	City, Zip Code: Douglas County

C

This also will take some time so in the mean time please consider letting all of the semi drivers sleep in on Saturday and Sunday mornings going West. Close I-70 westbound to semis from 6AM to 10AM between Denver and Vail. Close I-70 eastbound to semis from 1PM to 7PM.

I am making these suggestions from experience. I have lived all of my 50+ years in the front range of Colorado going skiing most winter weekends and other activities in the summer. I know the problem as I am in it all of the time. I have seen many accidents involving other vehicles around semi trucks in our mountains. The truck drivers are the best of drivers but the difference between how fast a car can go and the trucks is the problem, especilly in adverse conditions. Your three lane highway is really a two lane highway plus a truck lane. This is not efficient.

D

Conclusion:

1. Get trucks off I-70 during peak hours
2. Begin widening I-70 between tunnel and Floyd Hill.
3. Begin the process to put another highway out of Summit County over Georgia Pass onto 285 at Jefferson.

Response to IND-95 (continued)

C. The restriction of trucks on an interstate facility is regulated by the FHWA pursuant to 23 CFR 658.11. This could include restrictions such as time of day. The process identified in 23 CFR 658.111 includes coordination with local governments, analysis of effects to mobility and safety for all interstate users, and ultimate approval by FHWA.

Many freight operations have some scheduling flexibility, and therefore avoid peak travel/congestion times to the extent possible. However, other freight operations have more strict delivery timing requirements and must operate in the Corridor regardless of traffic conditions (for example, bulk mail, food service, scheduled packaged delivery and just-in-time shipments). Additionally, limited truck parking resources and Federal Hours-of-Service regulations further limit options for the commercial vehicle driver in the I-70 Mountain Corridor. It should be noted that the portion of heavy trucks varies greatly along the Corridor; there are more trucks on weekdays compared to weekends.

The lead agencies considered and advanced a slow-moving vehicle plan as a transportation management alternative element, included as a non-infrastructure component of the Preferred Alternative. Some of the elements of that plan specifically targeted at truck traffic, such as improved chain up stations and rest areas, can proceed with no further approval from FHWA. Improved chain up areas and enhanced traveler information strategies have recently been installed in some Corridor locations by CDOT.

The Colorado Department of Transportation is committed to improving safety and mobility of all of the users of the I-70 highway and will continue to explore all options available to do so.

D. Please see the responses to your comments [IND-95-A](#) through [IND-95-C](#) for an explanation of these requested actions.

Comments

Responses

Source: Website Comment	Name: James Cahalin
Document Number: IND-96	City, Zip Code: Denver, 80209

- A The traffic problem in the winter is rather simple to solve. Trucks have a chain law, if we also have a 4wd OR awd drive law when that chain law is in affect the 1 or 2 people (usually Texans in their mustangs) won't hold everyone up. There is no cost involved in this option.
- B Sooner or later we will need more lanes on I70. From a business sense, a high speed train is also simple. Siemens has the technology to build this for us already, we just need someone to approach them and sell them. Let them absorb all the construction costs and charge for passengers as well as give them tax breaks. Taxpayers would pay nothing.
- C Summertime traffic is much more involved to remedy. People typically bring way too much camping equipment to take a train and the only common sense fix would be more traffic lanes. Eastbound on Sunday's seems to be the worst. The turns at Georgetown and Idaho Springs are incredibly backed up because, yet again, 1 or 2 cars can't negotiate them properly without slowing down to 35mph. Surprisingly enough, they almost always have Texas or California plates on their cars. Better enforcement from the state highway patrol for driving too slow and make the fine for traveling in the left lane and getting passed in the right lane so steep that people will stop doing it.

Response to IND-96

- A. You are correct that winter travel in the Colorado mountains presents some unique driving challenges. The Colorado Department of Transportation must accommodate all drivers on the interstate system and cannot restrict the type of cars driving on the I-70 highway. However, CDOT has been making ongoing, shorter-term safety and operational improvements along the Corridor, including truck chain up areas, improved traveler message signs, park-and-ride locations, rockfall mitigation, better emergency response plans, and roadside safety enhancements in some Corridor locations. The advantages of projects like this are that they are less expensive than new or reconstructed infrastructure and implementation can begin in the near-term.
- B. The Preferred Alternative includes expanding portions of the I-70 highway from four- to six-lane capacity. The Preferred Alternative is a multimodal solution that includes non-infrastructure components along with transit and highway improvements through the Corridor to provide additional capacity and congestion relief. Advanced Guideway System feasibility studies and related Tier 2 processes will help to further define the feasibility of the Advanced Guideway System and its technology. While there are many details that have not been determined in the Tier 1 PEIS, feasibility studies and related Tier 2 processes will be designed to address the funding, power supply, operations, ridership, and other related issues.

Chapter 5, Financial Considerations of the PEIS and the *I-70 Mountain Corridor PEIS Financial Considerations Technical Report* (included electronically on CD-ROM in Volume 6 of the Technical Reports and on the project website) describe a variety of innovative funding sources that could be used to pay for improvements. Public-private partnerships are one of several alternative sources of funding discussed. See **Section 5.7, "What are potential funding sources and their limitations?"**

Comments

Responses

Source: Website Comment	Name: James Cahalin (continued)
Document Number: IND-96	City, Zip Code: Denver, 80209

C. Summertime traffic is much more involved to remedy. People typically bring way too much camping equipment to take a train and the only common sense fix would be more traffic lanes. Eastbound on Sunday's seems to be the worst. The turns at Georgetown and Idaho Springs are incredibly backed up because, yet again, 1 or 2 cars can't negotiate them properly without slowing down to 35mph. Surprisingly enough, they almost always have Texas or California plates on their cars. Better enforcement from the state highway patrol for driving too slow and make the fine for traveling in the left lane and getting passed in the right lane so steep that people will stop doing it.

Response to IND-96 (continued)

C. Trips for recreational purposes have different characteristics than commuting trips. Transit service will require longer boarding times and at-grade platforms to allow passengers sufficient time and ease to board with recreational equipment. Transit operating characteristics will be defined during feasibility studies and related Tier 2 processes. The Advanced Guideway System includes transit stops throughout the Corridor, providing access to recreation resources. Section 4.2.1 of the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website), explains that recreationalists have predictable travel patterns, including travel demand during specific peak periods and relatively concentrated travel destinations. Shuttle systems are likely to be needed to accommodate distribution needs from the proposed Advanced Guideway System stations to local destinations.

The Preferred Alternative as described in **Chapter 2, Summary and Comparison of Alternatives** of the PEIS includes a variety of non-infrastructure components, including increased enforcement and a slow-moving vehicle plan as a transportation management alternative element. The Colorado Department of Transportation is committed to improving safety and mobility of all of the users of the I-70 highway and will continue to explore all options available to do so.

Comments

Responses

Source: Website Comment	Name: Ryan Johnson
Document Number: IND-97	City, Zip Code: Lakewood, 80232

A

I'm not sure if it has been brought up yet, but why don't we do a toll road going up that functions similarly to the one in Denver and could change directions with traffic volumes? We could even charge a toll to help pay for it.

Response to IND-97

A. **Chapter 5, Financial Considerations** of the PEIS acknowledges that alternative funding sources will be needed to pay for I-70 highway improvements. Tolling is one of the funding options that CDOT will consider in future Tier 2 processes. With appropriate approvals, CDOT could consider tolls for new or existing lanes as a way to fund improvements.

Providing a peak-direction-only high occupancy vehicle/high occupancy toll lane or a reversible high occupancy vehicle/high occupancy toll lane is evaluated in the PEIS as the Reversible HOT/HOV Lanes Alternative. The alternative would add travel lanes that would be managed for peak flows, changing direction as needed to accommodate peak traffic demand. As explained in **Section 2.8.1, Transportation Comparisons** of the PEIS, this alternative does not meet the 2050 purpose and need for the Corridor because it does not provide for unmet demand and will result in a system at network capacity in 2035 to 2040.

Comments

Responses

Source: Website Comment	Name: Tom Carllon
Document Number: IND-98	City, Zip Code: Lakewood, 80226

Comments on I-70 DPEIS

At ES.20, Is the Money for this Project Available?

From the Executive Summary:

“The Transportation Finance and Implementation Panel formed by Governor Ritter released a 2008 report proposing a statewide vision for transportation, policy change recommendations, new investment categories, and funding for increased investment in transportation. The report estimates a minimum of \$1.5 billion is needed annually above the existing investment to improve Colorado’s transportation system.”

Comment:

It would be helpful to identify what portion of the \$1.5 billion is identified to Tier 1 (and to Tier 2, if possible) activities identified in this Revised Draft PEIS for I-70.

At 5.4: How much funding is currently allocated to the I-70 Mountain Corridor?

From the Revised Draft PEIS:

“As part of the amended 2035 Statewide Transportation Plan (CDOT, March 2008), \$218 million is allocated for the I-70 Mountain Corridor in Fiscal Year (FY) 2012-2017 and \$989 million is identified for the Corridor during FY 2018–2035.”

Comment:

It would be helpful to know what portion of the \$218 million and of the \$989 million is identified to Tier 1 (and to Tier 2, if possible) activities identified in this Revised Draft PEIS for I-70.

For project specific clarity, the public needs to be able to analyze data and correlate data within and between reports.

Response to IND-98

A. The text you reference from Section ES.20 has been removed from the Executive Summary and is located in **Section 5.7 “What are potential funding sources and their limitations?”** of the PEIS. Governor Ritter’s Blue Ribbon Transportation Finance and Implementation Panel produced a *Report to Colorado* in 2008 regarding the state of transportation funding in Colorado. According to Section Six: Funding and Investment Category Recommendations in the report, the \$1.5 billion funding threshold identified by the Transportation Finance and Implementation Panel Report would make it possible for the state to address needs across all program areas. One-third of the new revenue would be focused on safely preserving roads, bridges, shoulders, and other existing components of infrastructure. The other \$1 billion would go to projects designed to relieve traffic congestion, better connect regions of Colorado, improve local roads, and add more transit options.

While the report did not specifically identify funding for specific projects, it did demonstrate what additional revenues could fund at a programmatic level. A \$56 million line-item for Strategic Projects and Strategic Transit was included, which would have accelerated the state’s funding obligation to these 28 projects (including the I-70 Mountain Corridor) by five years and raised the transit level of service from a D to a C-. The Panel’s recommendations also assumed that continued Senate Bill 97-01 transfers from Colorado’s General Fund would continue for the strategic project program; however, this funding source was repealed in 2009. The \$1 billion for projects designed to relieve traffic congestion, improve regional connections, improve local roads, and add more transit options would not fully fund the necessary capital improvements on major interstate and U.S. highways in Colorado such as I-70, I-25, and US 36.

All of the funding allocated to the I-70 Mountain Corridor (\$218 million and \$989 million) is for implementation of the Preferred Alternative. The PEIS identifies the specific elements of the Preferred Alternative and the planning process that CDOT uses to prioritize projects for available funding.

Comments

Responses

Source: Website Comment	Name: Mike Gregory
Document Number: IND-99	City, Zip Code: Avon, 81620

The longer term focus this program has, then the better it will be. It is appalling to think that a good solution is adding lanes and that the government would waste our taxpayers money doing it. Let's look to successful mass transit solutions, like rail, which has worked in other parts of the world in Europe and Japan for example. Government leaders are supposed to be that - Leaders! Visionary. Creative. Problem Solvers.

A

I am frustrated hearing ideas that will barely move the needle to resolve the problems by the time they are implemented. If money is a problem, how can part of the program be completed with private funding? There are ways to make this work and I see kernels of it in this presentation. Keep looking forward to what would work best in the future and focus on making it happen please. - Mike

Response to IND-99

A. The Preferred Alternative recognizes the need to plan for a longer horizon and, therefore, relies on a 50-year vision for the Corridor. **Section 1.4, "What are the horizon years of analysis for the study?"** of the PEIS describes the horizon years of analysis for the study, and the **Introduction** describes the relationship between the Corridor vision and statewide planning process. Based on the 50-year vision, the Preferred Alternative, with its multimodal solution (including non-infrastructure components), has the best opportunity to meet the purpose and need for the I-70 Mountain Corridor while minimizing impacts, largely because the phasing and implementation of the program of improvements is adaptive to future needs and trends. The transit component of the Preferred Alternative, the Advanced Guideway System, both shifts some travel from roadways to transit and accommodates more trips than could be provided by highway improvements alone.

Due to the uncertainty of funding, the timing of improvements is also uncertain. No travel demand or population forecasts can reliably predict trends longer than 50 years. It is unlikely, based on funding scenarios, that any transportation solution will meet needs more than 50 years after it is built.

Public private partnerships are one of several alternative sources of funding discussed in **Chapter 5, Financial Considerations** of the PEIS. See particularly **Section 5.7, "What are potential funding sources and their limitations?"** of the PEIS.

Comments

Responses

Source: Website Comment	Name: Rodney, Barron
Document Number: IND-100	City, Zip Code: Dillon, 80435

Response to IND-100

A. Please see the response to your comment [IND-04-A.](#)

A

I-70 mountain corridor congestion, pollution, and safety are problems that will get worse unless fixed.

A safe, cheap, and quick alternate route would be a solution, not more pavement. Cars and trucks could be re-routed to ride on improved existing heavy rail. Traffic congestion and pollution along I-70 could be reduced. Put the cars and trucks on trains.

Rail transportation costs about three cents per ton mile. The 244 mile trip from Denver to Grand Junction by rail would relieve the I-70 mountain corridor of more concrete, pollution, and danger. The 244 mile trip would cost the railroad about \$21.96 for a three ton auto. An additional charge for passengers to enjoy a comfortable coach would be extra. At twenty miles per gallon, the 244 mile trip would cost \$36.60 at \$3 a gallon in gas alone. Trains get about ten times the fuel mileage of trucks. This would increase safety, prevent pollution, and lower the consumption of fuel and help global warming.

Our existing railroads still use spikes nailed into wooden ties to hold the rails. Heat changes, humidity changes, and vibration loosen the spikes that hold the rails resulting in accidents. China, Europe, and most of the rest of the world use steel reinforced concrete ties with large steel spring clips for securing highspeed rails. Our railroads must upgrade to allow modern high speed freight and passenger traffic to safely travel. Once the rail is improved, cheap, safe, and fast travel would entice interstate traffic to use this attractive alternative transportation. An ongoing advertising program will help fill the trains.

The railroad industry would need enticements such as government subsidies to encourage them to upgrade and provide suitable auto, truck, and passenger transport. The highway gas tax we now use to repair and improve interstate highways would be one source of cash for the railroads to transport cars and trucks.

Just imagine travel on I-70 without inexperienced mountain drivers and interstate trucks. Costly highway widening and new tunnels wouldn't be needed.

Comments

Responses

Source: Website Comment	Name: Doug Johnson
Document Number: IND-101	City, Zip Code: Vail, 81657

A

1) Any addition of a 3rd lane that is temporary (only to blend back into a 2 lane road) will create backups and bottlenecks. Only if that 3rd lane continues on will traffic congestion be assisted.

B

2) I that vein I am opposed to a 'zipper lane'.

Response to IND-101

A. Highway capacity improvements are a component of the Preferred Alternative. The Maximum Program of Improvements includes six-lane capacity from Floyd Hill through the Eisenhower-Johnson Memorial Tunnels and auxiliary lanes in some locations to improve safety and reduce conflicts from speed differentials.

It is true that under the Minimum Program of the Preferred Alternative, "pinch points" will remain in the Corridor where three lanes narrow to two. However, congestion does not occur consistently throughout the Corridor, and additional lanes are proposed in those areas where they are most needed. Auxiliary lanes are identified on the west side of Vail Pass and on the east side of the Eisenhower-Johnson Memorial Tunnels under the Minimum Program of the Preferred Alternative as high priority near-term solutions to relieve traffic congestion.

The adaptive management component of the Preferred Alternative allows the lead agencies to assess the need for additional highway capacity at a future time. Longer term solutions under the Maximum Program of the Preferred Alternative propose six-lane capacity from Floyd Hill to the Eisenhower-Johnson Memorial Tunnels. With these longer term solutions in place, the Preferred Alternative provides adequate capacity for projected traffic volumes until the year 2050.

B. Comment noted. Please refer to response to comment [IND-15-B](#) discussing the scope of the *I-70 West Reversible Lane Study*, also called the zipper lane study.

Comments

Responses

Source: Website Comment	Name: Doug Johnson (continued)
Document Number: IND-101	City, Zip Code: Vail, 81657

C

3) The main area of congestion (in my opinion) is east bound I-70 Idaho Springs area. If the twin tunnels can be improved (adding a 3rd lane EB) and then a 3rd lane added as far west as possible, will traffic flow be improved.

D

4) Please look into changing the speed limit from 75 to 65 along I-70 between the exits for Avon and Edwards in both directions. It is too fast for the amount of use.

Response to IND-101 (continued)

C. Yes, this is an area of congestion in the Corridor. The Preferred Alternative includes a third bore through the Twin Tunnels to support the highway and transit improvements that would occur on either side of the tunnel (as do the other Highway and Combination alternatives considered in the PEIS) so that the tunnels do not become a bottleneck between improvements. The Preferred Alternative Minimum Program of Improvements includes six-lane highway capacity between the Twin Tunnels (including the tunnels) and Floyd Hill. Under the Maximum Program of Improvements, the Preferred Alternative includes six-lane capacity from the Twin Tunnels through the Eisenhower-Johnson Memorial Tunnels.

D. Speed limits for existing highways are established per state law (CRS 42-4-1102) and FHWA's "Manual on Uniform Traffic Control Devices (MUTCD)." The Colorado Department of Transportation is required by law to perform speed studies per the MUTCD to establish the appropriate speed for a highway or segment of highway. The speed limit of 75 mph has been established as the appropriate speed along the I-70 highway in the area you discuss, based on the MUTCD.

The Colorado Department of Transportation conducted a safety assessment (*Safety Assessment Report, SH 70: MP 130.29-MP 189.98, Region 3*, November 15, 2007) for the I-70 highway through Eagle County, which evaluated accidents in that segment for a three-year period. Based on the accident data, the study recommended safety improvements, such as eliminating pavement edge drop-offs, checking retroreflectivity of curve warning signs and delineators, appropriate advance warning signing of intersections and curves, as well as other measures. It also noted a project installing wildlife fencing to reduce vehicle/wildlife collisions, which was subsequently completed in 2008. The study's recommendations did not include reducing the existing set speed limit.

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Doug Johnson (continued)
Document Number: IND-101	City, Zip Code: Vail, 81657

5) Regardless of freeway speed limits please look into adding length to the off and on ramps at both Avon (main exit) and Edwards exchanges. When drivers apply their brakes, while still on the freeway, to slow down for the exit ramps, it creates a very unsafe freeway condition. Also, both EB entrances have a slight uphill to them creating difficulty for vehicles to acquire freeway speeds for convenient merging. Again, an unsafe environment for vehicles already on the freeway and the merging vehicle.

Response to IND-101 (continued)

- D. (Continued from previous page)

One of the non-infrastructure components of the Preferred Alternative includes Transportation System Management (TSM), which involves operational improvements to existing transportation facilities to maximize capacity and improve safety, including speed harmonization. Speed harmonization is a TSM technique that is used to reduce vehicle speeds during high volume periods using variable speed limit signs. The non-infrastructure components of the Preferred Alternative may be implemented in the shorter term, and this strategy may be evaluated during Tier 2 processes.
- E. The Preferred Alternative includes improvements at both the Avon and Edwards interchanges. Prior to implementing these improvements, Tier 2 processes would be completed, evaluating both safety and capacity issues, such as ramp lengths. In addition, the Preferred Alternative includes an eastbound auxiliary lane between the Avon interchange and the Post Boulevard interchange to accommodate slower moving vehicles on the uphill grade.

Comments

Responses

Source: Website Comment	Name: Jim Eshbaugh
Document Number: IND-102	City, Zip Code: Douglas County

A [Need to find funding for this important Co corridor.

Response to IND-102

A. As discussed in **Chapter 5, Financial Considerations**, the lead agencies agree that additional revenue, leadership, and support from the citizens of Colorado will be required to implement the Preferred Alternative. The Colorado Department of Transportation’s budget is insufficient to implement the entire Preferred Alternative. The I-70 Mountain Corridor is important to Colorado’s economy and multimodal improvements are one of the highest transportation priorities in the state. Options for innovative funding sources include public/private partnerships, tolling, bonding/loans, and Corridor-specific resources (which are funding sources that apply to limited geographic areas and require voter approval, constitutional amendments, or both). These will be further evaluated in Tier 2 processes.

Comments

Responses

Source: Website	Name: Laura Van Dyne
Document Number: IND-103	City, Zip Code: Carbondale 81623

Response to IND-103

A. In order to best meet the purpose and need for the project while minimizing impacts, a multimodal solution is necessary. The Preferred Alternative includes non-infrastructure components along with transit and roadway improvements. The Advanced Guideway System will be further defined in feasibility studies and related Tier 2 processes, which will include considerations for freight as well as passenger travel, but an “autotrain” concept is not envisioned. Please refer to response to comment [IND-04-A](#), which explains why an autotrain system is not practical for the I-70 Mountain Corridor.

A {
 My comment was about the need for public transportation along the corridor. High speed train being very important- to the extent that one could put one’s car on the train and travel to Denver, drive while there then ride the train back.
 Long distances should be traveled using public transit and while the American public is very resistant to this idea (because we have been spoiled by easy, cheap use of the individual auto) we will, by necessity, have to change our ways.

Comments

Responses

Source: Website Comment	Name: Steve Parmelee
Document Number: IND-104	City, Zip Code: Pitkin County, CO

Comments... Add another lane everywhere...where possible.

Start with new lanes in uphill sections for slow trucks (there are many easy opportunities now) and add another tunnel everywhere (Eisenhower and others) which would help with weekend traffic flows and maintenance issues.

Colorado citizens travel with boats, campers, etc. in the summer and then ski equipment, changes of clothes, etc. in the winter. Thus : just one example [of many] on why the train idea will never work.

Even large American cities on flat terrain (Colorado has mountains) that cater to two daily trips of office workers (five times per week) lose big money on their trains. Trains sound nice, but it makes no economic nor engineering sense in the Colorado mountains for another passenger train . The Winter Park train died and there is a train from Denver to Glenwood Springs already.

Response to IND-104

A. The Preferred Alternative relies on a multimodal solution (including non-infrastructure components), and the lead agencies recognize the importance of both transit and highway improvements in providing needed capacity and movement of people through the Corridor. The Advanced Guideway System will both shift some travel from roadways to transit and accommodate more trips than could be provided by highway improvements alone. The Preferred Alternative would not reduce the volume of highway traffic; together, the highway and transit improvements would accommodate the projected increase in trip demand for the Corridor. The Preferred Alternative includes a third bore at both the Twin Tunnels and the Eisenhower-Johnson Memorial Tunnels to support highway and transit improvements in the Corridor.

Highway capacity improvements are a component of the Preferred Alternative. Auxiliary lanes are identified on the west side of Vail Pass and on the east side of Eisenhower-Johnson Memorial Tunnels under the Minimum Program of the Preferred Alternative as near-term solutions to relieve traffic congestion, along with six-lane capacity from Floyd Hill through the Twin Tunnels. The adaptive management component of the Preferred Alternative allows the lead agencies to assess the need for additional highway capacity at a future time. Longer term solutions under the Maximum Program of the Preferred Alternative propose six-lane capacity from the Twin Tunnels to the Eisenhower-Johnson Memorial Tunnels.

You are correct that trips for recreational purposes have different characteristics than commuting trips. Transit service will require longer boarding times and at-grade platforms to allow passengers sufficient time and ease to board with recreational equipment. Transit operating characteristics will be defined during feasibility studies and related Tier 2 processes. The Advanced Guideway System includes transit stops throughout the Corridor, providing access to recreation resources. Section 4.2.1 of the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Steve Parmelee
Document Number: IND-104	City, Zip Code: Pitkin County, CO

Response to IND-104 (continued)

A. (Continued from previous page)

Volume 2 of the Technical Reports and on the project website), explains that recreationalists have predictable travel patterns, including travel demand during specific peak periods and relatively concentrated travel destinations.

The trains that you mention serve different purposes and different destinations than those proposed for the Corridor. There remains a need for increased capacity and mobility in the I-70 Mountain Corridor. Future feasibility studies and related Tier 2 processes will consider the types of trips served and how best to connect travelers to their final destinations, and will be important to determining how the system will function and serve Corridor travelers. Shuttle services likely need to be considered to coordinate end-to-end transportation for passengers. Fare subsidies, measured by the difference between operating costs and passenger fare revenues, are common for public transportation systems. Fare structures and subsidies, as well as other operating plans specific to transit components, would be developed in subsequent feasibility studies and related Tier 2 processes.

Comments

Responses

Source: Website Comment	Name: Steve Parmelee (continued)
Document Number: IND-104	City, Zip Code: Pitkin County, CO

B

Forget the Zip line idea and please stop wasting money on repeated studies that do not help the public (a few lawyers and their pals can find money elsewhere).

C

Other western slope towns and cities need the six lanes for their customers, too. We should not focus so much state tax revenue and vehicle gasoline tax revenue only on a few towns and a few counties.

Response to IND-104 (continued)

B. The Colorado Department of Transportation is currently conducting a feasibility study for adding reversible or “zipper” lanes on the I-70 highway between Georgetown and Floyd Hill in response to legislation passed by the Colorado General Assembly in 2010.

The purpose of the *I-70 West Reversible Lane Study* is to identify short-term operational actions to decrease congestion on the I-70 highway during peak periods for this specific segment of the Corridor. This study is not a part of the I-70 Mountain Corridor PEIS. The entire study can be found at: www.coloradodot.info/projects/I70reversiblelane. The *I-70 West Reversible Lane Study* does not meet the 2050 purpose and need of the PEIS.

C. The I-70 highway is one of the state’s most heavily traveled roadways. Access to destinations along the Corridor is important to the state’s economy and quality of life. As part of the interstate highway system, the road carries a wide mix of residents and visitors, commuters and recreation travelers, freight haulers and sightseers, people driving across town and others traveling across the state. The proposed transportation improvements identified within the Preferred Alternative will benefit intra- and interstate travel along the Corridor, addressing mobility, congestion, accessibility and capacity needs. The cost of doing nothing will result in increased traffic and congestion, negatively affecting residents and visitors traveling within the Corridor and beyond.

This PEIS does not preclude other studies of transportation improvements elsewhere on the I-70 highway in Colorado. Yet federal and state gas tax revenues are inadequate to maintain Colorado’s current infrastructure. Governor Ritter’s Transportation Infrastructure and Financing Panel found CDOT would need an additional \$500 million to just maintain the state’s roads and bridges; and another \$1.5 billion to begin to achieve the state’s long-term transportation vision. The Colorado Department of Transportation’s budget is insufficient implement the entire Preferred Alternative. Options for innovative funding sources for the I-70 Mountain

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Steve Parmelee (continued)
Document Number: IND-104	City, Zip Code: Pitkin County, CO

Response to IND-104 (continued)

C. (Continued from previous page)

Corridor include public/private partnerships, tolling, bonding/loans, and Corridor-specific resources (which are funding sources that apply to limited geographic areas and require voter approval, constitutional amendments, or both). Please see **Chapter 5, Financial Considerations** of the PEIS for more information.

Comments

Responses

Source: Website Comment	Name: David Panzer
Document Number: IND-105	City, Zip Code: Jefferson County, CO

- A I am writing in support of the Preferred Alternative. It is a balanced plan that effectively deals with the reality of our current and future transportation challenges. Without this investment, we face significant degradation of all aspects of quality of life in Colorado. The inclusion of the AGS is a critical component, and I ask that CDOT continue to be innovative in all aspects of the plan, as the project documents demonstrate has already been the case.
- B Funding of the plan is obviously a big challenge. CDOT should explore the use of Public Private Partnerships and Tolling, plus increased taxation in Colorado. The residents of Colorado need to invest in long-term infrastructure.

Response to IND-105

- A. The Colorado Department of Transportation will study the Advanced Guideway System and other components of the Preferred Alternative in future feasibility studies and related Tier 2 processes. The Colorado Department of Transportation will examine current and available information on technology, funding, and operation innovations during these feasibility studies and related Tier 2 processes.
- B. The lead agencies agree that additional revenue, leadership, and support from the citizens of Colorado will be required to implement the Preferred Alternative. The Colorado Department of Transportation’s budget is insufficient to implement the entire Preferred Alternative. **Chapter 5, Financial Considerations** of the PEIS summarizes the cost of the Preferred Alternative, the sources of CDOT’s funding (and its limitations), and other potential funding sources, including public-private partnerships and tolling. **Chapter 5, Financial Considerations** of the PEIS and the *I-70 Mountain Corridor PEIS Financial Considerations Technical Report* (included electronically on CD-ROM in Volume 6 of the Technical Reports and on the project website) describe a variety of innovative funding sources that could be used to pay for improvements. See particularly **Section 5.7, “What are potential funding sources and their limitations?”** of the PEIS.

Comments

Responses

Source: Website Comment	Name: Dominica Mueller
Document Number: IND-106	City, Zip Code: Denver, CO

A

I would like to thank the Colorado Department of Transportation for recognizing wildlife as an environmental resource of greatest public concern and, as such, including wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. As CDOT is well aware, wildlife fencing alone will not address both the safety and ecological concerns of the I-70 corridor. In fact, wildlife fencing alone, without proper wildlife crossings, will create more of a barrier for wildlife movement.

B

I encourage CDOT to use new data, including the current EcoLogical project underway to study wildlife movement along I-70 and make recommendations on the placement and structure of wildlife crossings. The study is being completed by CDOT, Western Transportation Institute, Center for Native Ecosystems, ECO-resolutions, and Colorado Watershed Assembly. I also encourage the agency to develop and adhere to Best Management Practices for wildlife into the revised PEIS, which will ensure that wildlife crossings are designed and constructed in a way that improves both driver safety as well as wildlife movement across the Interstate.

C

Thank you for your participation in the ARC International Wildlife Crossings Design Competition currently taking place at West Vail Pass (<http://www.arc-competition.com/>). I encourage your agency to utilize the innovative solutions that are produced from the ARC competition at West Vail Pass for any early action project concerning the construction of wildlife crossings.

D

Finally, thank you for including an elevated Advanced Guideway System in the Preferred Alternative. Not only will this improve mobility and reduce congestion, it is the best transit alternative for alleviating the barrier effect of I-70 for wildlife movement.

Response to IND-106

- A. A key premise of the ALIVE commitments is to provide multi-faceted solutions to address wildlife barriers. The approach to mitigating the barrier to wildlife movement created by the I-70 highway could include many elements, including signage to alert drivers of wildlife presence, and wildlife crossings in key locations, along with wildlife fencing. See **Section 3.2, Biological Resources**, and **Appendix E, A Landscape Level Inventory of Valued Ecosystem Components (ALIVE) Memorandum of Understanding** of the PEIS for more information on ALIVE.
- B. The Colorado Department of Transportation will use current information on wildlife movement and wildlife crossings as it becomes available during Tier 2 processes. The Colorado Department of Transportation will use best management practices for wildlife, to make sure any wildlife crossings are designed and constructed to improve driver safety and to accommodate wildlife movement across the I-70 highway. The Colorado Department of Transportation is committed to adhering to the mitigation measures and agreements listed in the ALIVE documentation and to implementing solutions based on research on Linkage Interference Zones and wildlife connectivity.
- C. During Tier 2 processes, CDOT will review the need for wildlife crossings (underpasses and overpasses) and if an overpass is needed, will incorporate feasible and practical ideas that come out of the ARC competition.
- D. Wildlife crossings are an important component of the Preferred Alternative, and the ability to elevate the Advanced Guideway System assists in the lessening of the barrier effect of I-70 highway transportation infrastructure. **Section 3.2, Biological Resources** of the PEIS concludes that the elevated Advanced Guideway System has less impact on wildlife movement than at-grade bus and heavy rail transit systems.

Comments

Responses

Source: Website Comment	Name: Donald Gravell
Document Number: IND-107	City, Zip Code: Hope, RI 02831

Response to IND-107

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

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Finally, thank you for including an elevated Advanced Guideway System in the Preferred Alternative. Not only will this improve mobility and reduce congestion, it is the best transit alternative for alleviating the barrier effect of I-70 for wildlife movement.

Comments

Responses

Source: Website Comment	Name: Barbara Lewis
Document Number: IND-108	City, Zip Code: Littleton, 80125

A

To be thinking beyond the short term, often ill-conceived needs of homo sapiens, let us think of our planet. One good move in that direction: passage ways for wildlife around/under our super highways. Please!

Response to IND-108

A. Wildlife crossings are an important component of the Preferred Alternative. The Colorado Department of Transportation is committed to adhering to the mitigation measures and agreements listed in the ALIVE documentation, included in **Appendix E, A Landscape Level Inventory of Valued Ecosystem Components (ALIVE) Memorandum of Understanding** of the PEIS, during Tier 2 processes.

Comments

Responses

Source: Website Comment	Name: Carolyn Campbell
Document Number: IND-109	City, Zip Code: Morrison, 80465

Response to IND-109

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

I would like to thank the Colorado Department of Transportation for recognizing wildlife as an environmental resource of greatest public concern and, as such, including wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. As CDOT is well aware, wildlife fencing alone will not address both the safety and ecological concerns of the I-70 corridor. In fact, wildlife fencing alone, without proper wildlife crossings, will create more of a barrier for wildlife movement.

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Comments

Responses

Source: Website Comment	Name: Alison Huyett
Document Number: IND-110	City, Zip Code: Denver, CO

Response to IND-110

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

I would like to thank the Colorado Department of Transportation for recognizing wildlife as an environmental resource of greatest public concern and, as such, including wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. As CDOT is well aware, wildlife fencing alone will not address both the safety and ecological concerns of the I-70 corridor. In fact, wildlife fencing alone, without proper wildlife crossings, will create more of a barrier for wildlife movement.

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Comments

Responses

Source: Website Comment	Name: Janet Harm
Document Number: IND-111	City, Zip Code: Highlands Ranch, 80129

Response to IND-111

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

I would like to thank the Colorado Department of Transportation for recognizing wildlife as an environmental resource of greatest public concern and, as such, including wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. As CDOT is well aware, wildlife fencing alone will not address both the safety and ecological concerns of the I-70 corridor. In fact, wildlife fencing alone, without proper wildlife crossings, will create more of a barrier for wildlife movement.

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Comments

Responses

Source: Website Comment	Name: Charles Kuhn
Document Number: IND-112	City, Zip Code: Denver, CO

Response to IND-112

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

I would like to thank the Colorado Department of Transportation for recognizing wildlife as an environmental resource of greatest public concern and, as such, including wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. As CDOT is well aware, wildlife fencing alone will not address both the safety and ecological concerns of the I-70 corridor. In fact, wildlife fencing alone, without proper wildlife crossings, will create more of a barrier for wildlife movement.

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Comments

Responses

Source: Website Comment	Name: Chris Case
Document Number: IND-113	City, Zip Code: Golden, 80401

Response to IND-113

- A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

I would like to thank the Colorado Department of Transportation for recognizing wildlife as an environmental resource of greatest public concern and, as such, including wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. As CDOT is well aware, wildlife fencing alone will not address both the safety and ecological concerns of the I-70 corridor. In fact, wildlife fencing alone, without proper wildlife crossings, will create more of a barrier for wildlife movement.

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Comments

Responses

Source: Website Comment	Name: Matt Bergles
Document Number: IND-114	City, Zip Code: Denver, 80220

A

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Response to IND-114

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

Comments

Responses

Source: Website Comment	Name: Jennifer Clanahan
Document Number: IND-115	City, Zip Code: Denver, CO

Response to IND-115

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

I would like to thank the Colorado Department of Transportation for recognizing wildlife as an environmental resource of greatest public concern and, as such, including wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. As CDOT is well aware, wildlife fencing alone will not address both the safety and ecological concerns of the I-70 corridor. In fact, wildlife fencing alone, without proper wildlife crossings, will create more of a barrier for wildlife movement.

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Comments

Responses

Source: Website Comment	Name: Stele Ely
Document Number: IND-116	City, Zip Code: Boulder, 80305

A

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I ASK the CDOT to use new data, including the current EcoLogical project underway to study wildlife movement along I-70 and make recommendations on the placement and structure of wildlife crossings. The study is being completed by CDOT, Western Transportation Institute, Center for Native Ecosystems, ECO-resolutions, and Colorado Watershed Assembly. I also encourage the agency to develop and adhere to Best Management Practices for wildlife into the revised PEIS, which will ensure that wildlife crossings are designed and constructed in a way that improves both driver safety as well as wildlife movement across the Interstate.

Thank you for your participation in the ARC International Wildlife Crossings Design Competition currently taking place at West Vail Pass (<http://www.arc-competition.com/>). I encourage your agency to utilize the innovative solutions that are produced from the ARC competition at West Vail Pass for any early action project concerning the construction of wildlife crossings.

Finally, merci beaucoup for including an elevated Advanced Guideway System in the Preferred Alternative. Not only will this improve mobility and reduce congestion, it is the best transit alternative for alleviating the barrier effect of I-70 for wildlife movement.

Response to IND-116

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

Comments

Responses

Source: Website Comment	Name: David Parker
Document Number: IND-117	City, Zip Code: Sherwood, AR 72120

Response to IND-117

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

I would like to thank the Colorado Department of Transportation for recognizing wildlife as an environmental resource of greatest public concern and, as such, including wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. As CDOT is well aware, wildlife fencing alone will not address both the safety and ecological concerns of the I-70 corridor. In fact, wildlife fencing alone, without proper wildlife crossings, will create more of a barrier for wildlife movement.

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Comments

Responses

Source: Website Comment	Name: Lydia Garvey
Document Number: IND-118	City, Zip Code: Clinton, OK 73601

A

I highly commend CDOT enlightened efforts to protect wildlife & human drivers by including wildlife crossings in the PEIS for I-70.
 I strongly urge you to include & implement the new data from the Ecological project study, to ensure maximum wildlife & driver safety!
 Your attention to this most urgent matter would be much appreciated by all present & future generations of all species.
 Thank you

Response to IND-118

- A. The Colorado Department of Transportation, in coordination with the ALIVE committee, will incorporate the most readily available current data during Tier 2 processes, including the findings of the Ecological Study.

Comments

Responses

Source: Website Comment	Name: Deanne O'Donnell
Document Number: IND-119	City, Zip Code: Greensburg, PA 15601-5344

Response to IND-119

- A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

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Comments

Responses

Source: Website Comment	Name: Lexi Ruskin
Document Number: IND-120	City, Zip Code: Boulder, CO

Response to IND-120

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

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A

Comments

Responses

Source: Website Comment	Name: Carol Monaco
Document Number: IND-121	City, Zip Code: Adams County, CO

Response to IND-121

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

I would like to thank the Colorado Department of Transportation for recognizing wildlife as an environmental resource of greatest public concern and, as such, including wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. As CDOT is well aware, wildlife fencing alone will not address both the safety and ecological concerns of the I-70 corridor. In fact, wildlife fencing alone, without proper wildlife crossings, will create more of a barrier for wildlife movement.

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Thank you for your participation in the ARC International Wildlife Crossings Design Competition currently taking place at West Vail Pass (<http://cts.vresp.com/c/?CenterforNativeEcosy/73c797c243/e37829054d/61e2bd9df4>). I encourage your agency to utilize the innovative solutions that are produced from the ARC competition at West Vail Pass for any early action project concerning the construction of wildlife crossings.

Finally, thank you for including an elevated Advanced Guideway System in the Preferred Alternative. Not only will this improve mobility and reduce congestion, it is the best transit alternative for alleviating the barrier effect of I-70 for wildlife movement.

Sincerely,

Comments

Responses

Source: Website Comment	Name: Maureen Detmer
Document Number: IND-122	City, Zip Code: Lafayette, 80026

Response to IND-122

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

I would like to thank the Colorado Department of Transportation for recognizing wildlife as an environmental resource of greatest public concern and, as such, including wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. As CDOT is well aware, wildlife fencing alone will not address both the safety and ecological concerns of the I-70 corridor. In fact, wildlife fencing alone, without proper wildlife crossings, will create more of a barrier for wildlife movement.

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Comments

Responses

Source: Website Comment	Name: Doug Steen
Document Number: IND-123	City, Zip Code: Boulder, 80305

Response to IND-123

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

I would like to thank the Colorado Department of Transportation for recognizing wildlife as an environmental resource of greatest public concern and, as such, including wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. As CDOT is well aware, wildlife fencing alone will not address both the safety and ecological concerns of the I-70 corridor. In fact, wildlife fencing alone, without proper wildlife crossings, will create more of a barrier for wildlife movement.

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Comments

Responses

Source: Website Comment	Name: Allison Shaw
Document Number: IND-124	City, Zip Code: Larimer County

Response to IND-124

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

I would like to thank the Colorado Department of Transportation for recognizing wildlife as an environmental resource of greatest public concern and, as such, including wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. As CDOT is well aware, wildlife fencing alone will not address both the safety and ecological concerns of the I-70 corridor. In fact, wildlife fencing alone, without proper wildlife crossings, will create more of a barrier for wildlife movement.

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Comments

Responses

Source: Website Comment	Name: Naseem Munshi
Document Number: IND-125	City, Zip Code: Boulder, 80026

Response to IND-125

- A. Please see the response to comment [IND-106](#), which is the same comment as yours.

I would like to thank the Colorado Department of Transportation for recognizing wildlife as an environmental resource of greatest public concern and, as such, including wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. As CDOT is well aware, wildlife fencing alone will not address both the safety and ecological concerns of the I-70 corridor. In fact, wildlife fencing alone, without proper wildlife crossings, will create more of a barrier for wildlife movement.

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Comments

Responses

Source: Website Comment	Name: Martin Wolf
Document Number: IND-126	City, Zip Code: El Paso, 80919

Response to IND-126

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

I would like to thank the Colorado Department of Transportation for recognizing wildlife as an environmental resource of greatest public concern and, as such, including wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. As CDOT is well aware, wildlife fencing alone will not address both the safety and ecological concerns of the I-70 corridor. In fact, wildlife fencing alone, without proper wildlife crossings, will create more of a barrier for wildlife movement.

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Comments

Responses

Source: Website Comment	Name: Ann Tagawa
Document Number: IND-127	City, Zip Code: Boulder, CO

Response to IND-127

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

I would like to thank the Colorado Department of Transportation for recognizing wildlife as an environmental resource of greatest public concern and, as such, including wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. As CDOT is well aware, wildlife fencing alone will not address both the safety and ecological concerns of the I-70 corridor. In fact, wildlife fencing alone, without proper wildlife crossings, will create more of a barrier for wildlife movement.

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Comments

Responses

Source: Website Comment	Name: Matthew Machado
Document Number: IND-128	City, Zip Code: Dillon, 80435

Response to IND-128

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

I support wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. Wildlife fencing cannot address the ecological impacts of the I-70 corridor, because it creates a barrier for wildlife movement.

I encourage CDOT to use new data, including the current EcoLogical project underway to study wildlife movement along I-70 and make recommendations on the placement and structure of wildlife crossings. The study is being completed by CDOT, Western Transportation Institute, Center for Native Ecosystems, ECO-resolutions, and Colorado Watershed Assembly. I also encourage the agency to develop and adhere to Best Management Practices for wildlife into the revised PEIS, which will ensure that wildlife crossings are designed and constructed in a way that improves both driver safety as well as wildlife movement across the Interstate. I encourage your agency to utilize the innovative solutions that are produced from the ARC competition at West Vail Pass for any early action project concerning the construction of wildlife crossings.

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Comments

Responses

Source: Website Comment	Name: Caroline Cammack
Document Number: IND-129	City, Zip Code: Denver, 80220

Response to IND-129

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

I would like to thank the Colorado Department of Transportation for recognizing wildlife as an environmental resource of greatest public concern and, as such, including wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. As CDOT is well aware, wildlife fencing alone will not address both the safety and ecological concerns of the I-70 corridor. In fact, wildlife fencing alone, without proper wildlife crossings, will create more of a barrier for wildlife movement.

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Comments

Responses

Source: Website Comment	Name: Judy Borsheim
Document Number: IND-130	City, Zip Code: Arapahoe County

Response to IND-130

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

Thank you for considering wildlife in your plan to address traffic congestion and such on I-70 between Golden and Glenwood Springs now and into the future. Wildlife crossings will result in a safer-to-drive, less congested I-70 and, as a mega-bonus, will help protect something so many treasure about Colorado: our wild animals.

I encourage CDOT to use new data, including the current EcoLogical project underway to study wildlife movement along I-70 and make recommendations on the placement and structure of wildlife crossings. The study is being completed by CDOT, Western Transportation Institute, Center for Native Ecosystems, ECO-resolutions, and Colorado Watershed Assembly. I also encourage the agency to develop and adhere to Best Management Practices for wildlife into the revised PEIS, which will ensure that wildlife crossings are designed and constructed in a way that improves both driver safety and wildlife movement across the Interstate.

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Comments

Responses

Source: Website	Name: Andrea West
Document Number: IND-131	City, Zip Code: Denver

Response to IND-131

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

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Comments

Responses

Source: Website Comment	Name: Elizabeth Lounsberry
Document Number: IND-132	City, Zip Code: Eagle, 81631

A

I am very much in favor of the high speed rail from Denver to the Eagle County Airport, along the median of I-70. It would resolve much of the traffic problems on I-70, and create a safe and easy way for tourists and Denver residents to get to the mountains for recreation and vacation. It would also allow for easy transport from the mountains to Denver for work, meetings, recreation and sports events. It would benefit every community from Denver to Gypsum along I-70. Millions of residents of Colorado, and its many visitors, would have a safe, environmentally low-impact, and efficient way of easily transporting between Denver and the mountains.

Response to IND-132

A. The Preferred Alternative is a multimodal solution that includes an Advanced Guideway System component between the Eagle County Regional Airport and the Jeffco Government Center light rail station in Golden. The multimodal solution provides the best opportunity to meet the project's purpose and need while minimizing environmental impacts. The Advanced Guideway System provides needed capacity in the Corridor. The Preferred Alternative also includes highway improvements that are needed to reduce congestion and improve safety.

The Tier 1 PEIS identifies the location of improvements as generally along the existing I-70 highway alignment. The median is used for the Advanced Guideway System as much as possible, but using the median is not always feasible due to median width and safety standards. Advanced Guideway System studies and related Tier 2 processes will determine the feasibility of the Advanced Guideway System and refine its alignment.

The Preferred Alternative offers enhanced mobility, reduced congestion, and improved safety for Corridor users. It brings improvements to communities across the Corridor, including improved air and water quality and reduced noise levels, and facilitates economic growth for Corridor communities.

Comments

Responses

Source: Website Comment	Name: Paula Mitchell
Document Number: IND-133	City, Zip Code: Arapahoe County

Response to IND-133

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

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Comments

Responses

Source: Website Comment	Name: Sue Osborn
Document Number: IND-134	City, Zip Code: Jefferson County

Response to IND-134

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

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Comments

Responses

Source: Website Comment	Name: Alexander Schuler
Document Number: IND-135	City, Zip Code: Boulder, 80304

A 1) Ban 18 wheeler trucks from using the highway between Denver and Eagle on Friday and Sunday afternoons, as well as other identified heavy traffic periods.

Response to IND-135

A. The lead agencies recognize that truck traffic affects traffic operations on the I-70 highway, which worsens during peak periods. The Colorado Department of Transportation explored limiting truck travel in the Corridor during peak periods. The restriction of trucks on an interstate facility is regulated by the FHWA pursuant to 23 CFR 658.11. This could include restrictions such as time of day. The process identified in 23 CFR 658.111 includes coordination with local governments, analysis of effects to mobility and safety for all interstate users, and ultimate approval by FHWA. Truck drivers already voluntarily limit their usage of the I-70 highway to avoid peak periods of travel, as much as they can. The majority of motor freight has destinations within the Corridor study area, and some freight movement has time-of-day requirements.

The lead agencies considered and advanced a slow-moving vehicle plan as a transportation management alternative element, included as a non-infrastructure component of the Preferred Alternative. Some of the elements of that plan specifically targeted at truck traffic, such as improved chain up stations and rest areas, can proceed with no further approval from FHWA. Improved chain up areas and enhanced traveler information strategies have already been recently installed in some Corridor locations by CDOT. The Colorado Department of Transportation is committed to improving safety and mobility of all of the users of the I-70 highway and will continue to explore all options available to do so.

Comments

Responses

Source: Website Comment	Name: Alexander Schuler
Document Number: IND-135	City, Zip Code: Boulder, 80304

B

2) Create a subsidized bus system during the winter which will bring passengers from the Dinosaur lots in Golden directly to the ski areas that are within a 2 hour drive. Online ticket system for reservations and purchasing tickets. For a \$10-\$20 round trip fee, if the bus went directly to the snow, this would create a great incentive to use the system.

Response to IND-135

B. The PEIS has identified that for a transit system to successfully serve the Corridor, it must offer competitive travel times to the highway. Operating buses in mixed traffic does not meet the project’s purpose and need as a standalone alternative because it would not address travel times or congestion. However, similar to your proposal, the Preferred Alternative includes non-infrastructure components with elements such as bus, van, or shuttle services in mixed traffic, expanded park-and-Ride locations, and strategies to promote increased carpooling, as described in **Chapter 2, Summary and Comparison of Alternatives** of the PEIS. These non-infrastructure elements can be implemented or encouraged to address immediate issues in the Corridor in advance of major infrastructure improvements. Fare structures and subsidies, as well as other operating plans specific to transit components, would be developed in subsequent feasibility studies and related Tier 2 processes.

Comments

Responses

Source: Website Comment	Name: Jennifer Sandler
Document Number: IND-136	City, Zip Code: Denver, 80212

Response to IND-136

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

I would like to thank the Colorado Department of Transportation for recognizing wildlife as an environmental resource of greatest public concern and, as such, including wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. As CDOT is well aware, wildlife fencing alone will not address both the safety and ecological concerns of the I-70 corridor. In fact, wildlife fencing alone, without proper wildlife crossings, will create more of a barrier for wildlife movement.

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Comments

Responses

Source: Website Comment	Name: Sara Aufderhar
Document Number: IND-137	City, Zip Code: Denver, 80246

Response to IND-137

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

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A

Comments

Responses

Source: Website Comment	Name: Susan Hall
Document Number: IND-138	City, Zip Code: Evergreen, 80439

A

The original PEIS contained discussion related to private groundwater wells adjacent to the proposed Floyd Hill tunnel. Please correct me if wrong, but the revised PDEIS does not address private wells at all, either in relation to tunnels or in regards to corridor widening, nor does it refer the issue to future analysis.

As a homeowner with a private hardrock well within 5 miles of the proposed Floyd Hill tunnel, analysis is needed regarding the potential impacts and mitigation to private wells from the construction of the proposed tunnel or from any blasting to widen the corridor. It is unlikely that simply redrilling wells in the area will mitigate the impacts if serious water issues result from fracture collapse, contamination, or loss of groundwater.

B

One additional note - The organization of the the revised PDEIS online could be improved. Links to specific portions of the document at the main level could be more accurately labeled.

Response to IND-138

- A. To clarify, the tunnel bore proposed for eastbound traffic at Floyd Hill would only be constructed to accommodate the 65 mph design option; the 55 mph option uses the existing I-70 highway alignment. Groundwater in the vicinity of the tunnel follows the natural fractures in bedrock and does not form a constant groundwater table. Drilling conducted for the slide investigation encountered groundwater at varying elevations typical of fracture groundwater aquifers; this is further supported by the fact that water wells in this area used for domestic water vary in depth and productivity. Groundwater that flows through fractures in metamorphic rock can be sensitive to blasting and other fracture modifications. Additional information on subsurface conditions is required to assess various construction techniques and their potential effects on groundwater sources; this data will be collected during Tier 2 processes. Care will be required during the construction of a tunnel in the Floyd Hill area in order to minimize any impact that could occur to the domestic water well production in the area. Information about the impacts of tunnel boring on groundwater and private wells has been added to **Section 3.4, Water Resources** in the Final PEIS.
- B. Bookmarks and links to technical reports have been included in the electronic Table of Contents for easier cross-referencing on the project website. Additionally, a list of contents of each of the volumes of technical reports has been added to the website for easier reference to individual technical reports. The PEIS and Technical Reports can be accessed at: <http://www.coloradodot.info/projects/i-70mountaincorridor>.

Comments

Responses

Source: Website Comment	Name: Brian Rice
Document Number: IND-139	City, Zip Code: Lakewood, 80228

A. Blast the mountain where the tunnel is East of Idaho Springs, traffic always slows there and breaks right after that tunnel.

Response to IND-139

A. It is recognized that tightly constrained cross-sections (as often found at tunnels) reduce travel speeds and often lead to more congested conditions. However, even without the tunnel cross-section east of Idaho Springs, future travel demand cannot be accommodated without adding further capacity.

While the environmental impacts of removing the tunnels were not evaluated, the Twin Tunnels Wildlife Land Bridge is a known and important wildlife crossing and is identified as a potential Section 4(f) property. As a Section 4(f) property, it is afforded special protection. During Tier 2 processes, if a prudent and feasible alternative exists to avoid use of this Section 4(f) property, that alternative must be chosen. Section 4(f) also requires that all possible planning to minimize harm to the Twin Tunnels Wildlife Land Bridge be done. Additionally, blasting the tunnels would likely have adverse environmental impacts, generate large quantities of waste materials, and create an area prone to rockslides and other geologic hazards that would be difficult to manage.

To increase the capacity of the I-70 Corridor, the Preferred Alternative includes a third bore in the Twin Tunnels. Additional capacity is provided in the form of a new transit mode and six-lane capacity through the tunnels.

Comments

Responses

Source: Website Comment	Name: Susan Hall
Document Number: IND-140	City, Zip Code: Clear Creek County

A

If you are a weekend I-70 commuter in Clear Creek County between 8:00 and 10:00 A.M. or between 4:00 and 7:00 P.M., especially in the winter, you cannot help notice that the single greatest impediment to traffic flow (beyond vehicular crashes) are semi-trucks, tractor-trailers, and the like. By their very nature, these vehicles are the slowest to regain freeway speed during a slowdown, and can and routinely do back up traffic on steeper grades. If semi use was restricted during those weekend hours, it would greatly relieve weekend congestion in Clear Creek County. As part of the non-construction component of the Preferred Alternative, will this be addressed?

Response to IND-140

A. The lead agencies recognize that truck traffic affects traffic operations on the I-70 highway, which worsens during peak periods. The Colorado Department of Transportation explored limiting truck travel in the Corridor during peak periods. The restriction of trucks on an interstate facility is regulated by FHWA pursuant to 23 CFR 658.11. This could include restrictions such as time of day. The process identified in 23 CFR 658.111 includes coordination with local governments, analysis of effects to mobility and safety for all interstate users, and ultimate approval by FHWA. Truck drivers on the I-70 highway already voluntarily limit their usage of the I-70 highway to avoid peak periods of travel, as much as they can.

The lead agencies considered and advanced a slow-moving vehicle plan as a transportation management alternative element, included as a non-infrastructure component of the Preferred Alternative. Some of the elements of that plan specifically targeted at truck traffic, such as improved chain up stations and rest areas, can proceed with no further approval from FHWA. Improved chain up areas and enhanced traveler information strategies have already been recently installed in some Corridor locations by CDOT. The Colorado Department of Transportation is committed to improving safety and mobility of all of the users of the I-70 highway and will continue to explore all options available to do so. Specific details, including additional programs for improving truck movements, will be assessed during Tier 2 processes.

Comments

Responses

Source: Website Comment	Name: Talley Farnham
Document Number: IND-141	City, Zip Code: Arapahoe County

Response to IND-141

- A. Please see the response to comment [IND-106](#), which is the same comment as yours.

I would like to thank the Colorado Department of Transportation for recognizing wildlife as an environmental resource of greatest public concern and, as such, including wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. As CDOT is well aware, wildlife fencing alone will not address both the safety and ecological concerns of the I-70 corridor. In fact, wildlife fencing alone, without proper wildlife crossings, will create more of a barrier for wildlife movement.

I encourage CDOT to use new data, including the current EcoLogical project underway to study wildlife movement along I-70 and make recommendations on the placement and structure of wildlife crossings. The study is being completed by CDOT, Western Transportation Institute, Center for Native Ecosystems, ECO-resolutions, and Colorado Watershed Assembly. I also encourage the agency to develop and adhere to Best Management Practices for wildlife into the revised PEIS, which will ensure that wildlife crossings are designed and constructed in a way that improves both driver safety as well as wildlife movement across the Interstate.

Thank you for your participation in the ARC International Wildlife Crossings Design Competition currently taking place at West Vail Pass (<http://www.arc-competition.com/>). I encourage your agency to utilize the innovative solutions that are produced from the ARC competition at West Vail Pass for any early action project concerning the construction of wildlife crossings.

Finally, thank you for including an elevated Advanced Guideway System in the Preferred Alternative. Not only will this improve mobility and reduce congestion, it is the best transit alternative for alleviating the barrier effect of I-70 for wildlife movement.

A

Comments

Responses

Source: Website Comment	Name: Sara Coulter
Document Number: IND-142	City, Zip Code: Ridgway, 81432

Response to IND-142

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

I would like to thank the Colorado Department of Transportation for recognizing wildlife as an environmental resource of greatest public concern and, as such, including wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. As CDOT is well aware, wildlife fencing alone will not address both the safety and ecological concerns of the I-70 corridor. In fact, wildlife fencing alone, without proper wildlife crossings, will create more of a barrier for wildlife movement.

I encourage CDOT to use new data, including the current EcoLogical project underway to study wildlife movement along I-70 and make recommendations on the placement and structure of wildlife crossings. The study is being completed by CDOT, Western Transportation Institute, Center for Native Ecosystems, ECO-resolutions, and Colorado Watershed Assembly. I also encourage the agency to develop and adhere to Best Management Practices for wildlife into the revised PEIS, which will ensure that wildlife crossings are designed and constructed in a way that improves both driver safety as well as wildlife movement across the Interstate.

Thank you for your participation in the ARC International Wildlife Crossings Design Competition currently taking place at West Vail Pass (www.arc-competition.com). I encourage your agency to utilize the innovative solutions that are produced from the ARC competition at West Vail Pass for any early action project concerning the construction of wildlife crossings.

Finally, thank you for including an elevated Advanced Guideway System in the Preferred Alternative. Not only will this improve mobility and reduce congestion, it is the best transit alternative for alleviating the barrier effect of I-70 for wildlife movement.

As a leader in the San Juan Corridors Coalition working to improve wildlife crossings on 550 in Montrose and Ouray Counties, I am aware of how important wildlife crossings are as a complement to fencing and as a significant way to improve public safety.

Comments

Responses

Source: Website Comment	Name: Aaron O'Quinn
Document Number: IND-143	City, Zip Code: Denver, 80209

A { As a frequent user of the I-70 corridor from Denver to Glenwood Springs, I would like to add that I believe it is important to incentivize carpooling and low-emissions vehicles. I would propose that one lane of each direction, during peak travel times be designated as an HOV lane or low-emissions vehicle lane. I would also like to see measures put in place to manage traffic flow such as speed control (cameras that fine individuals for driving too fast or too slow).

Response to IND-143


A. The lead agencies evaluated alternatives to provide new high-occupancy vehicle (HOV)/high-occupancy toll (HOT) lanes through the Corridor that could be used only for buses, carpools, or low-occupancy vehicles that have paid a toll. The evaluation showed that this alternative did not meet the 2050 purpose and need and would reach network capacity between 2035 and 2040. Please refer to the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website) for an expanded description and discussion of all alternatives considered.

The Preferred Alternative includes non-infrastructure components which include transportation management measures, as described in **Chapter 2, Summary and Comparison of Alternatives** of the PEIS. Some of these involve operational improvements to manage traffic flow on existing transportation facilities, including ramp metering, variable message signs, and speed harmonization. Specific measures will be evaluated during Tier 2 processes. In general, these non-infrastructure strategies can be implemented or encouraged to address immediate issues in the Corridor in advance of major infrastructure improvements.

Comments

Responses

Source: Website Comment	Name: Ruth Edmonds
Document Number: IND-144	City, Zip Code: Glenwood Springs, 81601

A  Could you divide the project & start with the transit system?

Response to IND-144

A. The Advanced Guideway System is a central part of the Preferred Alternative and includes the commitment by the lead agencies to evaluate and implement, if feasible, an Advanced Guideway System within the Corridor. The Advanced Guideway System, along with non-infrastructure components and specific highway improvements—including curve safety improvements, auxiliary lanes, and interchange improvements in select locations—represent the initial set of improvements under the Minimum Program of Improvements.

Additional studies and related Tier 2 processes are required for the Advanced Guideway System component before implementation of the transit system can occur. The Colorado Department of Transportation has secured funding for initial study of the Advanced Guideway System to determine its viability.

The Colorado Department of Transportation is committed to implementing recommended improvements as funding allows, and the Preferred Alternative includes a process for reassessing Corridor conditions and effectiveness of improvements every two years. This adaptive management approach allows CDOT to maximize the effectiveness of improvements and leverage available funding to meet both short- and long-term needs. The timing of construction is based on priorities established in the statewide planning process and available funding. Due to the uncertainty of funding, the timing of improvements is also uncertain.

Comments

Responses

Source: Website Comment	Name: Shepard Rockwood
Document Number: IND-145	City, Zip Code: Garfield County

A

I would like to see this project come to pass. The traffic jams on I-70 are terrible and make travel more dangerous - especially in the winter and storms. I have spent over 5 hours between Eagle and Denver - normally a 2 hour max trip, and there was no weather problems at the time. It was just weekend traffic.

B

I believe there should be improvements all the way to Vail. The idea of an advanced guideway transit system will only work if it goes all the way to Vail.

C

Thank you for the planning and effort CDOT puts into keeping I-70 in as good condition as possible and looking for ways to improve our safety and reduce travel - energy costs.

Response to IND-145

- A. Yes, as described in **Chapter 1, Purpose and Need** of the PEIS, there are currently long travel times to traverse the Corridor during peak conditions, and these travel times will grow longer on weekends as well as weekdays due to projected growth. The Preferred Alternative is a multimodal solution that includes an Advanced Guideway System component between the Eagle County Regional Airport and the Jeffco Government Center light rail station in Golden. A multimodal solution provides the best opportunity to meet the 2050 purpose and need while minimizing environmental impacts. The Advanced Guideway System provides needed capacity in the Corridor. The Preferred Alternative also includes highway improvements that are needed to reduce congestion and improve safety.
- B. As noted above, the Advanced Guideway System of the Preferred Alternative travels from the Eagle County Regional Airport to the Jeffco Government Center light rail station in Golden, and this route includes Vail. Additionally, the Vail West/Simba Run, Vail, and Vail East interchanges are reconstructed within the town of Vail and an auxiliary lane is added in each direction of travel on the west side of Vail Pass, beginning at the east Vail exit as part of the Minimum Program of Improvements.
- C. Comment noted.

Comments

Responses

Source: Website Comment	Name: David Powell
Document Number: IND-146	City, Zip Code: Carbondale, 81623

A

I drive I-70 every weekend between Glenwood Springs and Boulder. I agree with the preferred alternative especially because it includes the Advanced Guideway System. I believe the Advanced Guideway System to be the ultimate long-term solution for travel between Eagle and Denver.

B

For the last 8 years, as I return to Glenwood Springs on Sunday, I have observed the phenomenon of the Sunday evening return traffic backing up at the Twin Tunnels outside of Idaho Springs. I believe that a significant problem with the current Twin Tunnel design is psychological. Traffic to the east of the Twin Tunnels is free flowing and traffic on the west side of the Twin Tunnels is backed up to Georgetown and beyond. As cars enter the twin tunnels they inevitably tap on their brakes to slow down as they enter the confined space of the tunnel. I believe any improvements to the Twin Tunnels should include a widening and lighting improvement to alleviate the psychological barrier associated with their current design.

Response to IND-146

- A. The Preferred Alternative is a multimodal solution that includes an Advanced Guideway System component between the Eagle County Regional Airport and the Jeffco Government Center light rail station in Golden. The Advanced Guideway System provides needed capacity in the Corridor. The Preferred Alternative also includes highway improvements that are needed to reduce congestion and improve safety. Based on available data, both the Advanced Guideway System and highway improvements are needed to provide the opportunity to meet the 2050 purpose and need while minimizing impacts.
- B. Yes, the geometric conditions of the Twin Tunnels create a bottleneck and exacerbate congestion in this area. To increase capacity and decrease congestion on the I-70 Corridor, the Preferred Alternative includes a third bore at the Twin Tunnels south of the existing tunnel bores to accommodate the bidirectional Advanced Guideway System. Site specific design details, including design speeds and tunnel improvements such as lighting, will be further analyzed in Tier 2 processes and will follow I-70 Mountain Corridor Context Sensitive Solutions guidelines.

Comments

Responses

Source: Website Comment	Name: Chris Durloo
Document Number: IND-147	City, Zip Code: Dillon, 80435

A expansion of the transportation system between the Denver area and the mountain communities of Summit and Eagle counties has been needed for years and needs to be addressed as soon as possible to promote reasonable and safe transportation in the area.

B This corridor is insufficient to handle today's needs and needs to be expanded to support future demand. A mass transit solution such as a train, monorail or other system seems to make the most sense as many visitors and residents could use mass transit versus their own cars.

Response to IND-147

A. The Colorado Department of Transportation is committed to implementing recommended improvements as funding allows, and the Preferred Alternative includes a process for evaluating Corridor conditions and effectiveness of improvements every two years. This adaptive management approach allows CDOT to maximize the effectiveness of improvements and leverage available funding to best meet both short- and long-term needs.

The Preferred Alternative, as described in **Chapter 2, Summary and Comparison of Alternatives** of the PEIS, includes non-infrastructure components with elements such as expanded shuttle services, expanded park-and-ride locations, and strategies to promote increased carpooling. These non-infrastructure elements can be implemented or encouraged to address immediate issues in the Corridor in advance of major infrastructure improvements.

B. You are correct. The Corridor does not have adequate capacity to serve travelers today or in the future. **Chapter 1, Purpose and Need** of the PEIS describes the transportation problems that exist today and are forecast to exist in the future.

The Preferred Alternative relies on a multimodal solution and recognizes the importance of transit in providing needed capacity and movement of people through the Corridor. As described in **Section 2.8.1, Transportation Comparisons**, the Preferred Alternative has the best opportunity to meet the needs in the Corridor while minimizing environmental and community impacts. Based on available data, non-infrastructure components along with transit and highway improvements are needed to accommodate the 2050 travel demand.

Comments

Responses

Source: Website Comment	Name: David Marony
Document Number: IND-148	City, Zip Code: Silverthorne, 80498

I am a resident of Silverthorne, CO, and I am against the proposed I-70 Mountain Corridor rail/guideway transit system.

My concern is that the Colorado DOT's plan projects to deliver 9 million more people into Summit County annually--something its mountain towns' infrastructures cannot accommodate. The impact of this massive increase in visitors would have detrimental effects on the local environment, as well as the overall quality of life of its residents.

A Yes, Summit County is a desirable place to live--and visit--because of its recreational opportunities, natural beauty, and remoteness from the "hustle and bustle" of larger towns and cities. But can you imagine how much more trash and damage 9 million additional people will leave behind each year on the trails and wetlands, and among the already decimated forests? Can you imagine how difficult it will be to navigate the local ski hills, find parking, get a seat at a restaurant, or even have enough groceries available for everyone in the county with 9 million more visitors here each year?

Don't let this happen; don't make this happen. Preserve Summit County, and keep it from becoming another suburb of Denver.

Response to IND-148

A. The PEIS describes that with the No Action Alternative, by 2050, an annual total of up to 9 million trips, not total people, will be suppressed. This number is not specific to Summit County, and these trips do not necessarily originate outside the Corridor. The 9 million suppressed trips include local population as well as populations outside the Corridor who opt to not travel to avoid traffic congestion.

There is a direct correlation between suppressed trips and economic suppression. The No Action Alternative is also expected to suppress the economies of communities in the I-70 Corridor by suppressing population, jobs, personal income, and the gross regional product. The forecasted economic suppression is a result of traffic congestion and inaccessibility. The beneficial economic growth under the Preferred Alternative could have either positive or negative effects on social values, depending on local planning policies. Pressures from growth could negatively affect quality of life, community services and infrastructure, and commuting patterns if local planning efforts and mitigation measures do not adequately address them. The Preferred Alternative's adaptive management approach allows improvements to be implemented over time, which may allow communities to manage the indirect effects associated with the improvements better. For more information on social and economic values, see **Section 3.8, Social and Economic Values** of the PEIS and the *I-70 Mountain Corridor PEIS Social and Economic Values Technical Report* (included on CD-ROM in Volume 4 of the Technical Reports and on the project website).

Planning efforts are emerging in some Corridor counties and municipalities to handle growth in a coordinated manner, balancing the impacts of growth with sustaining environmental quality. The adaptive management component of the Preferred Alternative allows it to be implemented in coordination with Corridor communities over time, based on future needs and associated triggers for further action, and is more compatible with Corridor planning policies. As discussed in **Section 3.7, Land Use and Right-of-Way** of the PEIS, without proper land use planning controls,

(Continued on next page)

Comments

Responses

Source: Website Comment	Name: David Marony (continued)
Document Number: IND-148	City, Zip Code: Silverthorne, 80498

Response to IND-148 (continued)

A. (Continued from previous page)

induced growth leads to undesirable land use patterns that strain environmental and community resources. To responsibly manage growth pressures, local governments will need to adopt land use policies that guide and adapt to the induced development. The Colorado Department of Transportation will consider an approach to promote and assist communities, as possible, in the adoption of more comprehensive, regional growth management plans that can be applied to Tier 2 processes. While the lead agencies will consider this type of policy approach, efforts to control growth are greatly dependent on local planning and community political direction.

Mitigation of indirect impacts to recreation resources from the alternatives includes strategies outlined in the *Statewide Comprehensive Outdoor Recreation Plan* from the Colorado State Parks, and United States Forest Service consideration of forest management plans and the continuing and evolving use of forest management techniques. For more information on impacts to recreation facilities, see **Section 3.12, Recreation Resources and Section 6(f) Discussion** of the PEIS. For information regarding the potential impacts to wetlands, please review **Section 3.3, Wetlands and Other Waters of the U.S.** in the PEIS.

Please also see response to comment [IND-196-A](#), which discusses historical growth trends in the Corridor.

Comments

Responses

Source: Website Comment	Name: Carisa Peterson
Document Number: IND-149	City, Zip Code: Breckenridge, 80424

Response to IND-149

I own a house in Alma, but work in Breckenridge and my elderly parents live in Denver. I think the rail line between Denver and Summit County is a great idea for a number of reasons, and I have the following comments:

1) I feel that driving the corridor is a death-defying task during any of our frequent snowstorms, best avoided at almost any cost. I'm terrified that I will have to make the journey more frequently now, with my parents' medical needs increasing (and yes, I have a 4WD). I would find the rail line to be a sane alternative to driving oneself in a blizzard on a traffic-packed curvy interstate.

2) I am a highly functional, educated adult and yet I've found in my experience and those of others that rarely does one manage to attain a living wage. So I shop in Denver—where I will purchase most of my household and 'major' goods to take advantage of fair, competitive pricing. I might use the rail system to transport me on these every-few-months "Errand Days".

3) I noticed in the article I read about it, that expected pricing will be in the \$30-\$40 range. Because I can see it as a potentially viable option for us locals that have reasons like I've mentioned above to travel to and from Denver, I'd also like to suggest a slightly lower rate—I would have to continue to drive myself, instead of paying \$30-\$40 per way (or even round-trip), and try and go as infrequently as possible. But I would probably be utilizing the service almost every week, or at least several times a month—if a rate could be extended to those of us living here closer to the \$10/way mark.

In closing, I think it's a great idea overall and I would bet there are hundreds of others who have reasons to go to Denver that are similar to mine who would favor the consideration of the rail line for partly 'commuter' use in addition to the tourist use, at a frequent-user price.

- A. As noted in the PEIS, improving safety was one of the key factors considered during the alternatives development and evaluation process. The Preferred Alternative includes an Advanced Guideway System from the Eagle County Regional Airport to the Jeffco Government Center light rail station in Golden to provide needed capacity in the Corridor, and it includes highway improvements, which include curve safety improvements, to reduce congestion and improve safety. The Preferred Alternative, if fully implemented, is projected to reduce the fatality rate from 0.50 per 100 million person miles to a range of 0.31 to 0.34 per 100 million person miles, and the majority of those are on the highway.
- B. The PEIS assumes all transit alternatives studied would connect with the Regional Transportation District West Corridor line in Golden. Travelers would be able to transfer to the Regional Transportation District system and use its network of light rail and bus for trips in the Denver metropolitan area.
- C. Fare subsidies (measured by the difference between operating costs and passenger fare revenues) are common for public transportation systems. Fare pricing seeks to find the best balance between ridership (number of people that use transit) and operations cost recovery. The fare that CDOT assumed for a one-way transit trip between the Denver metropolitan area and Eagle County is \$14. Appendix A of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website) provides further details on transit fares. Additional feasibility studies and related Tier 2 processes will be performed for the Advanced Guideway System to develop fare structures, subsidies, and other operating plans specific to transit components.

Comments

Responses

Source: Website Comment	Name: E. Olson
Document Number: IND-150	City, Zip Code: Summit County

A

I support the rail option for the inherent environmental benefits. Responding to the mounting energy/fossil fuel/green house gas emission issues in a proactive way will help to provide for a more sustainable future that everyone can enjoy.

Response to IND-150

A. The Preferred Alternative includes both highway and transit components. The Preferred Alternative provides the best opportunity to meet the 2050 purpose and need in the Corridor while minimizing impacts. **Table 3-16-1** of the PEIS includes a chart that presents estimated vehicle miles of travel on the I-70 highway, daily transit energy consumption, and other factors to approximate changes in energy consumption relative to the No Action Alternative. Based on this information, the Preferred Alternative is anticipated to increase daily energy consumption by 6 to 7 percent. The alternatives that do not include rail transit are anticipated to increase energy consumption by up to 17 percent.

The PEIS also calculated the emissions associated with all Action Alternatives, and results are presented in **Section 3.1, Climate and Air Quality Resources** of the PEIS and in the *I-70 Mountain Corridor PEIS Climate and Air Quality Technical Report* (included electronically on CD-ROM in Volume 3 of the Technical Reports and on the project website). Generally, transit alternatives resulted in reduced emissions as you suggest.

Sustainability is an overarching core value identified during the I-70 Mountain Corridor Context Sensitive Solutions process. The Preferred Alternative incorporates this core value of sustainability by providing a multimodal solution that includes alternative transportation modes and potentially alternative energy sources. The Preferred Alternative also includes mitigation commitments that address sustainability, such as supporting regional planning with municipalities to promote responsible managed growth and development and working collaboratively with land management agencies to improve resource conservation. The Preferred Alternative considers global trends such as climate change through the use of an adaptive management approach, as described in **Section 2.7.2** of the PEIS.

Comments

Responses

Source: Website Comment	Name: Adam Nabors
Document Number: IND-151	City, Zip Code: Breckenridge, 80424

A

I would like to comment in FAVOR of the proposed widening and especially the 'advanced guideway transit system'. Please start this project as soon as possible, we're already behind!

Response to IND-151

A. The Preferred Alternative provides a comprehensive proposal for improvements to the I-70 highway. It is a multimodal solution that includes non-infrastructure components, an Advanced Guideway System, and highway improvements. Based on available data, a multimodal solution is needed to accommodate the 2050 travel demand. The Advanced Guideway System provides needed capacity in the Corridor. Highway improvements reduce congestion and improve safety. The Preferred Alternative provides the opportunity to meet the 2050 purpose and need for the Corridor.

The Colorado Department of Transportation is committed to implementing recommended improvements as funding allows, and the Preferred Alternative includes a process for evaluating Corridor conditions and effectiveness of improvements every two years. This adaptive management approach allows CDOT to maximize the effectiveness of improvements and leverage available funding to meet both short- and long-term needs.

The Preferred Alternative, as described in **Chapter 2, Summary and Comparison of Alternatives** of the PEIS, includes non-infrastructure components with elements such as expanded shuttle services, expanded park-and-ride locations, and strategies to promote increased carpooling. These non-infrastructure elements can be implemented or encouraged to address immediate issues in the Corridor in advance of major infrastructure improvements.

Comments

Responses

Source: Website Comment	Name: Paul Dal Pozzo
Document Number: IND-152	City, Zip Code: Summit County, 80443

A

In my opinion the only option should be a full sized train. Colorado should buy the same trains that Switzerland uses to get people to and from places like Zermatt. The demand to and from Denver is only going to increase over time, and any sort of half measure like a "guided system" and/or road widening is a waste of money in my view.

It may seem like the right idea to buy what appears to be a cheaper system, however there is no system like what is proposed in existence today - and if history is a guide, is consequently guaranteed to have MASSIVE cost over runs and technical problems for a long time. History also shows that untested systems sometimes have limits that are not known at the time of building, like the ability to function during periods of intense snow. It is better to go with a slightly more expensive option that is already proven and easily scalable, like a true rail system.

Response to IND-152

A. The Preferred Alternative provides a comprehensive proposal for improvements to the I-70 highway. It is a multimodal solution that includes non-infrastructure components, an Advanced Guideway System, and highway improvements. Based on available data, a multimodal solution is needed to accommodate the 2050 travel demand. The Advanced Guideway System provides needed capacity in the Corridor. Highway improvements reduce congestion and improve safety. The Preferred Alternative provides the opportunity to meet the 2050 purpose and need for the Corridor.

The lead agencies and local communities recognized that, to address the purpose and need for the project, a fixed guideway system would need to be part of the solution and the system would need to have competitive travel times and be able to accommodate the harsh mountain environment. The resulting Advanced Guideway System identified in the Preferred Alternative is defined as meeting general performance criteria related to speed, capacity, freight movement, passenger comfort, operating conditions, and others. The technology that addresses the Advanced Guideway System performance criteria could be a yet undiscovered or untested technology, as you mentioned, or it could be a variation of an existing rail technology, as you suggested.

Advanced Guideway System feasibility studies and related Tier 2 processes will further define the feasibility of the Advanced Guideway System and its technology. While there are many details that have not been determined in the Tier 1 PEIS, the feasibility studies and related Tier 2 processes will be designed to address the funding, operations, weather, ridership, and other related issues. A recent high speed rail study conducted by the Rocky Mountain Rail Authority indicated that some traditional high speed steel rail technologies could meet many of the Advanced Guideway System performance criteria. The train system that provides service to Zermatt

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Paul Dal Pozzo (continued)
Document Number: IND-152	City, Zip Code: Summit County, 80443

B

In addition to passenger traffic, the rail system could also deliver goods to the mountain region; further saving on emissions, cost, and reducing wear and required maintenance on the roadways.

Response to IND-152 (continued)

- A. (Continued from previous page)

includes a cog system to accommodate the steep grades and could not provide competitive travel times in the I-70 Corridor. This is clarified in **Chapter 2, Summary and Comparison of Alternatives** of the PEIS.

While there are past projects where new technology has resulted in cost overruns, upcoming studies will determine the risks and ability to implement the recommended technology.

As part of the multimodal solution, highway improvements are also needed to address the project's purpose and need. These include interchange replacements, curve safety modifications, auxiliary lanes, and additional capacity.
- B. Regarding the use of rail or an Advanced Guideway System for delivering goods to the Corridor, these transit systems are primarily intended as passenger systems, transportation travelers and their luggage and other gear. The potential for the Advanced Guideway System to accommodate some light freight will be determined during feasibility studies and related Tier 2 processes.

Comments

Responses

Source: Website Comment	Name: Joseph Ferrara
Document Number: IND-153	City, Zip Code: Minturn, 81645

A

I have lived in the I 70 corridor for 13 years and have seen the opportunity to have a study for the monorail funded by the Federal Gov. go down in flames and have seen the economy go to hell in a hand basket during my stay here. Many studies have been done and no single project will solve the problem so I would think the private and State would want to come up with the funds and get the project going before it costs more and we lose all the revenue and tax base for the State. I does anger me how like myself I came here to live the good life and still had to work but see people complain about the economy and yet wnat to limmit the influx of business and developement that is necessary to prevent our area from economic disaster. The influx will limit itself from availability of rooms, homes and space and not only Breck will benefit but so too will Vail and even as far as Aspen Wake up public

Response to IND-153

A. The Preferred Alternative is a multimodal alternative. A multimodal solution including transit and highway improvements provides the best opportunity to meet the purpose and need of the project while minimizing environmental impacts. All Preferred Alternative components, including transit, must go through the established planning process to identify and prioritize projects. The Colorado Department of Transportation and the stakeholders will assess the Corridor’s needs and priorities for recommendations by the Collaborative Effort, including assessments of larger projects for feasible options to phase and implement through planning and Tier 2 processes.

As discussed in **Chapter 5, Financial Considerations** of the PEIS, the lead agencies agree that additional revenue, leadership, and support from the citizens of Colorado will be required to implement the Preferred Alternative. The Colorado Department of Transportation’s budget is insufficient to implement the entire Preferred Alternative. The I-70 Mountain Corridor is important to Colorado’s economy, and multimodal improvements are one of the highest transportation priorities in the state. Options for innovative funding sources include public/private partnerships, tolling, bonding/loans, and Corridor-specific resources (which are funding sources that apply to limited geographic areas and require voter approval, constitutional amendments, or both). These will be further evaluated in Tier 2 processes.

The PEIS evaluated the induced growth in both population and jobs that is expected to result from the Action Alternatives, including the Preferred Alternative. The Preferred Alternative is expected to increase total population, number of jobs, personal income, and the gross regional product (amount of new goods and services annually). In contrast, the No Action Alternative is expected to suppress the economies of communities in the I-70 Corridor by reducing population, jobs, personal income, and the gross regional product. The forecasted economic reduction is a result of traffic congestion and inaccessibility. For more information on social and economic values, see **Section 3.8, Social and Economic Values** of the PEIS and the *I-70 Mountain Corridor PEIS Social and Economic Values Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website).

Comments

Responses

Source: Website Comment	Name: Marguerite Shugda
Document Number: IND-154	City, Zip Code: Summit County

Several years ago I went to an informational meeting about the Lite Rail. I asked them to describe how a family of 4 on a ski vacation would get from DIA to Keystone. Did they have to move all their luggage? Did they have to walk it somewhere to get the trail? Did they then have to check it or take it on the train with them to their seat? Once they got to Keystone how do they get around? If there is a baggage car it would need to be secure not just pile your stuff in since we all know what would happen unfortunately. The people there could not answer these questions. They said this had not be figured out. Maybe this should be thought out because people are not going to want to have to handle skis etc with children for any amount of time. Putting into a rental car once is easier.
As for day trippers 2 or 4 people in a car cost gas and parking if you splurge. That is a lot cheaper than the train!

Response to IND-154

A. The Preferred Alternative is a multimodal solution with non-infrastructure, highway, and transit components. The Advanced Guideway System may not serve every traveler’s needs. For this reason and others there will be continued demand for private automobiles, and the highway improvements included in the Preferred Alternative serve those travelers.

Trips for recreational purposes do have different characteristics than commuting trips. Transit service will require longer boarding times and at-grade platforms to allow passengers sufficient time and ease to board with recreational equipment and luggage. The Advanced Guideway System includes transit stops throughout the Corridor, providing access to recreation resources, and expanded shuttle and local transit systems to serve travelers in the local communities and to/from the Advanced Guideway System stations. Section 4.2.1 of the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website), describes travel patterns of recreationalists, including largely predictable travel demand during specific peak periods.

The Advanced Guideway System feasibility studies and related Tier 2 processes will consider the types of trips served and how to connect travelers and their gear to their final destinations, and will be important to determining how the system will function and serve Corridor travelers. Advanced Guideway System service is intended to connect to shuttle services at destinations to provide end-to-end transportation for passengers.

The fare that CDOT assumed for a one-way transit trip between the Denver metropolitan area and Eagle County is \$14. Appendix A of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website) provides further details on transit fares. Fare structures would be further developed in subsequent feasibility studies and related Tier 2 processes.

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Marguerite Shugda (continued)
Document Number: IND-154	City, Zip Code: Summit County

As to widening I 70 Has anyone ever been to Cape Cod in the summer? There are highways down to the Cape but then the Cape as I remember it was two lane roads that were impacted with cars and you didn't move. So are you going to make all the roads in Summit 4 or 6 lane to handle all the people that can get to the exits?

Response to IND-154 (continued)

- A. (Continued from previous page)
Depending on a number of factors, including the number of carpoolers, the trip origin and destination, the price of gas, automobile gas mileage, and fare, carpooling could be less expensive than the Advanced Guideway System for some travelers.
- B. Transportation needs and impacts on roads directly connecting to and adjacent to I-70 highway interchanges will be evaluated, disclosed, and addressed as part of the Tier 2 processes. This means mitigation measures to address these impacts will be developed as part of the needed improvements. The Tier 2 processes will determine the appropriate number of lanes and other improvements on those nearby facilities that may be affected by improvements to the I-70 highway.

Comments

Responses

Source: Website Comment	Name: Amber Winston
Document Number: IND-155	City, Zip Code: Silverthorne, 80498

A { With all of the issues that come when high traffic volumes meets heavy winter storms; I would love to see any kind of improvement on I-70 to lessen the environmental impact as well as accidents and traffic.

Response to IND-155

A. The Colorado Department of Transportation agrees that avoiding, minimizing, and mitigating for environmental impacts must be balanced with providing needed traffic and safety improvements along the Corridor. As noted in **Section 1.6, “What is the purpose and need for transportation improvement sin the Corridor?”** of the PEIS, many safety conditions along the Corridor directly affect the project need — specifically the mobility, accessibility, and congestion elements of the project need. The Preferred Alternative includes highway improvements, such as interchange modifications and additional travel and auxiliary lanes, which improve safety by improving traffic operations on the I-70 highway. This also has the effect of improving traffic flow, reducing congestion, and as a result, improving localized air quality. Non-infrastructure components such as increased enforcement and driver education through the use of variable message signs also address safety.

Preserving environmental quality and promoting environmental sustainability are two of the core values of the I-70 Mountain Corridor Context Sensitive Solutions process that will be followed during the development of Tier 2 processes. **Chapter 3, Affected Environment and Environmental Consequences** of the PEIS discloses the impacts caused by each of the alternatives considered, including impacts on natural and community resources. **Section 2.8.2** of the PEIS summarizes the impact comparison among the alternatives.

Comments

Responses

Source: Website Comment	Name: Michelle Miller
Document Number: IND-156	City, Zip Code: Breckenridge

A

I am completely against this rail idea. It is an expensive proposal that would really only help commuters. As a family of 4 It would be unaffordable to ride, plus as skiers there is just too much equipment involved to be prepared for all weather conditions. Most Denver families would not use the rail and so your traffic problems would not be eased. Also the traffic problems are one direction, one day a week. If you want to make this rail, why not put it somewhere it's be used 24/7?for instance Colorado Springs to Denver?

Response to IND-156

A. The I-70 Corridor serves a variety of trip purposes (commuting, local, freight, and recreation) and the Preferred Alternative provides a multimodal solution that considers all users' needs. The transit component offers Corridor users an alternative mode of travel to the automobile and may not be suitable for every need. A multimodal solution (including non-infrastructure components along with transit and highway improvements) is needed to meet the project's purpose and need of addressing capacity and mobility for the year 2050 forecasted travel demands in this Corridor.

Trips for recreational purposes do have different characteristics than commuting trips. To accommodate recreational trips, transit service will require longer boarding times and at-grade platforms to allow passengers sufficient time and ease to board with recreational equipment and luggage. The Advanced Guideway System includes transit stops throughout the Corridor, providing access to recreation resources, and expanded shuttle and local transit systems to serve travelers in the local communities and to/from the Advanced Guideway System stations. Section 4.2.1 of the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website), explains that recreationalists provide predictable travel patterns, including travel demand during specific peak periods and relatively concentrated travel destinations.

The Advanced Guideway System feasibility studies and related Tier 2 processes will consider the types of trips served and how to connect travelers and their gear to their final destinations, and will be important to determining how the system will function and serve Corridor travelers. Advanced Guideway System service is intended to connect to shuttle services at destinations to provide end-to-end transportation for passengers.

While it is anticipated that transit riders would pay a fare to use the service, the details of user fees associated with the Advanced Guideway System would be determined in subsequent feasibility studies and related Tier 2 processes.

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Michelle Miller (continued)
Document Number: IND-156	City, Zip Code: Breckenridge

B

also, if you want to see how many people would ride public transportation with all their ski gear, how about test marketing some free buses. Or another solution could be making I-70 and HOV road during 2 peak times. you could ticket the hell out of violators to pay for the free bus! Please quit wasting money on all these studies! It's wasteful!

Response to IND-156 (continued)

A. (Continued from previous page)

Traffic problems in the Corridor are more than one-direction one day a week. Along the length of the 144-mile Corridor, congestion occurs on some segments on weekdays and weekends, at different time periods and directions. These trends will continue in the future. Future conditions of congestion by segment are described further in Section 11 of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* and **Appendix D** of this same technical report.

Regarding the study of rail between Colorado Springs and Denver, the purpose of this PEIS is to address needs in the I-70 Mountain Corridor. The CDOT Division of Transit and Rail's Colorado State Passenger and Freight Rail Plan will evaluate existing and planned rail projects statewide. That Division will also examine the I-70 Mountain Corridor Advanced Guideway System connection with other transit and rail services in the state.

B. The PEIS has identified that for a transit system to successfully serve the Corridor, it must offer competitive travel times to the highway. Without highway improvements, buses operating in mixed traffic would offer similar travel times to automobiles and would be subject to the same congestion.

Providing a peak-direction only HOV/HOT lane or a reversible HOV/HOT lane is evaluated in the Reversible HOV/HOT Lanes Alternative in the PEIS. This alternative does not meet the 2050 purpose and need; its network capacity does not accommodate 2050 travel demand. The Preferred Alternative provides the best opportunity to meet the project's purpose and need while minimizing environmental impacts.

Please refer to the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website) for an expanded description and discussion of all alternatives considered. As a

(Continued on next page)

Comments

Responses

Source: Website Comment	Name: Michelle Miller (continued)
Document Number: IND-156	City, Zip Code: Breckenridge

Response to IND-156 (continued)

B. (Continued from previous page)

public interstate facility, prohibiting single occupancy vehicles is not feasible, even during peak periods.

We recognize your concern over the cost of developing studies for the I-70 Mountain Corridor. However, studies and Tier 2 processes are required to select an appropriate and viable technology as well as to determine costs and benefits, safety, reliability, environmental impacts, and other considerations to support this substantial monetary investment.

Comments

Responses

Source: Website Comment	Name: Matt Morgan
Document Number: IND-157	City, Zip Code: Frisco, 80443

Response to IND-157

A. Comment noted.

A

[No Train!

Comments

Responses

Source: Website Comment	Name: Sharon Rosema
Document Number: IND-158	City, Zip Code: Golden, 80402

A I am Sharon Rosema, owner of the Silver Valley Ranch, two miles west of Silver Plume, Colorado.

The Silver Valley Ranch was a beautiful, valuable, historic, serene, secluded property when my family purchased it.

Land was taken from the Silver Valley Ranch for a highway project in the past.

Noise from the interstate has tremendously affected the rest of the property.

To add insult to injury, rumble bars which are especially loud, probably due to the narrow valley, were added to the interstate. The noise from the rumble bars reverberates/echoes in the narrow, steep canyon.

B I-70 noise has ruined the valley.

Additional expansion of I-70 will further affect my property.

I oppose the I-70 project.

C Go work on 285 and 40 - let those people share the pain - you have done way more than enough damage in Clear Creek valley!

All privately owned vehicles (POV) going west do NOT have to all go on one road (I-70)!

Response to IND-158

- A. It is acknowledged that the construction of the I-70 highway along US 6, including the Silver Plume area, required the taking of land from land owners.
- B. Traffic noise impacts to residents living near the I-70 highway are recognized as an important issue by the lead agencies. **Section 3.10, Noise** of the PEIS provides information on noise levels in the Silver Plume area, as well as approaches for mitigation planning. In addition, the *I-70 Mountain Corridor PEIS Noise Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website) describes the influence of topography on noise levels in the Silver Plume area. The Colorado Department of Transportation has provided scored pavement along the shoulder of the I-70 highway in many locations for safety purposes to alert drivers of the road edge. The lead agencies will analyze noise during Tier 2 processes. Where noise impacts occur, CDOT will consider a full range of mitigation options in Tier 2 processes to reduce highway noise for impacted receivers.
- C. Please see the response to your comment [IND-158-E](#) below.

Comments

Responses

Source: Website Comment	Name: Sharon Rosema (continued)
Document Number: IND-158	City, Zip Code: Golden, 80402

The ski train is a great idea! That could take care of part of the Berthoud Pass (40) issue.

D

I was amazed at the number of people on the Silver Plume train recently. I had a very enjoyable trip on the Durango-Silverton train. People LIKE trains – take advantage of them/similar.

Response to IND-158 (continued)

D. The Colorado Department of Transportation looked at expanding the existing rail corridor from Denver through the Moffat Tunnel to Winter Park and Glenwood Springs (with options for service to terminate in Winter Park or Glenwood Springs). This alternative, which is described in more detail in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website), does not meet the project's needs because the alignment requires use of locomotive-hauled passenger rail cars, which have low capacity (serving a maximum of 1,400 passengers per hour) and slow travel speeds (23 to 27 miles per hour). Low capacity does not remove enough trips from the I-70 highway to affect congestion, and slow travel speeds do not make an attractive alternative to automobile travel. Additionally, this alignment serves only a limited number of Corridor destinations and does not meet the accessibility and mobility needs for the Corridor.

The Colorado Department of Transportation also considered options for increasing the frequency of service for the Winter Park ski train (discontinued in 2009). However, due to the volume of freight traffic through the Moffat Tunnel and limited air ventilation in the tunnel, the existing line cannot accommodate more than two round-trip passenger trains per day. Because this service has relatively low travel speeds and low capacity, it is not able to remove enough traffic to change operations or reduce travel time in the Corridor to meet the purpose and need of the project, and it was eliminated as a standalone alternative. A revived ski train service could be considered by others but does not address the purpose and need for the I-70 Mountain Corridor.

Comments

Responses

Source: Website Comment	Name: Sharon Rosema (continued)
Document Number: IND-158	City, Zip Code: Golden, 80402

2

Institute something like this on 285 – take the people going to Breckenridge, etc., directly there via 285. People might actually LIKE going different routes to see the scenery/do something different! Make it fun for them to do so! Maybe put the light rail/whatever system on 285 with the ski train on 40. This makes sense because a large portion of the traffic on I-70 is going to the towns that could just as easily be reached by 285 and 40 as by I-70.

Response to IND-158 (continued)

E. The PEIS considered 17 potential alternate routes to serve travel demand in the I-70 Mountain Corridor, which are illustrated and described in Section 4.7 of the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website). These alternate routes were developed and evaluated to determine if the travel times and speeds could be competitive enough to attract enough Corridor travelers to the degree that no mobility improvements are needed in the I-70 Corridor. These Alternate Routes were eliminated from consideration for one or more of the following reasons: they (1) result in travel times noticeably longer than times experienced by travelers on the I-70 highway, (2) do not provide sufficient accessibility to I-70 Mountain Corridor communities because of their location miles away from these communities, (3) do not have the potential to divert much traffic from the I-70 highway, and/or (4) have substantial environmental impacts and poorer performance compared with improving the I-70 highway.

Comments

Responses

Source: Website Comment	Name: Sharon Rosema (continued)
Document Number: IND-158	City, Zip Code: Golden, 80402

Ski train – apparently the issue with it is the insurance? Well, stop to think about this. How much does the insurance cost for the POVs that are on I-70? \$1,000 per year per how many cars? You do the math!

Work with the insurance companies or set up your own plan! It can not be more risky to ride a train than to drive I-70/the passes!

Top priority should be the ski train – it might help alleviate some of the twin tunnel (and everything west) congestion. The ski train could be an immediate fix for this ski season!

People ride buses to Central City. There is no reason they couldn't ride buses/whatever to the ski areas!

If the ski areas would work with the transportation companies, that would take care of a very large portion of the problem currently seen on I-70.

F

Response to IND-158 (continued)

F. The ski train was discontinued in 2009, and this alternative fails to meet the project's purpose and need as a standalone alternative. Because this service has relatively low travel speeds and low capacity, it is not able to remove enough traffic to change operations or reduce travel time in the Corridor to meet the purpose and need of the project, and it was eliminated as a standalone alternative. Please see the response to your comment [IND-158-D](#) above for more detailed information. Additionally, liability insurance for the ski train is a matter between the rail operator and its insurer. It is not within CDOT's purview or ability to influence railroad operators regarding their insurance requirements.

The Preferred Alternative includes many non-infrastructure components that could be implemented to help manage transportation to ski resorts for recreational travelers. Transportation management strategies associated with the non-infrastructure components of the Preferred Alternative may include strategies such as packages and discounts for van and shuttle bus riders; bundling transportation and recreation in travel packages; partnering with airlines, lodging, restaurant groups, and travel agencies to serve out of town travelers; and investing in shuttle services. These and other transportation management considerations are detailed in Appendix A of the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report*, included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website.

Comments

Responses

Source: Website Comment	Name: Sharon Rosema (continued)
Document Number: IND-158	City, Zip Code: Golden, 80402

G

I was in the Los Angeles area as a teenager. I went back 30-40 years later and was astounded. Yes, they keep building more lanes. Can that be done in Clear Creek valley? NO! The valley is too steep and there will be traffic from one side of the valley to the other (already is in some cases). Will that solve the problem? NO! You must do something different. IF you plan to put in 6 lanes now, by the time that work is done, you will be trying to put in 8 lanes. There IS a limit as to how much you can do in that narrow valley! Solution? Get more people on 40 and 285!

Response to IND-158 (continued)

G. The Preferred Alternative is a multimodal solution that recognizes the importance of transit in providing needed capacity and movement of people through the Corridor.

The highway capacity improvements are limited to six-lane capacity in some areas only after certain triggers are met. If the six-lane capacity improvements in the Maximum Program are fully implemented, options to reduce impacts in constricted areas, such as structured lanes through Idaho Springs, will be considered in Tier 2 processes. Please see **Section 2.7, "What was the decision making process for identifying the Preferred Alternative?"** of the PEIS for more detailed information on the Preferred Alternative.

Regarding your mention of US 40 and US 285, please refer to the response to your comment [IND-158-E](#) for information on the alternate routes considered.

Comments

Responses

Source: Website Comment	Name: Sharon Rosema (continued)
Document Number: IND-158	City, Zip Code: Golden, 80402

Another excellent reason for having good roads on 285 and 40 is that IF there ever were a disaster in Denver, more people would be able to escape via those routes. Thus, in addition to ski trains/light rail/whatever, you really should have roads similar to I-70 on 285 and 40 AND that means some other route to 40 other than via I-70!

Get away from the concept that I-70 is the ONLY way to go! It is not! There ARE other options!

Embrace some of the great ideas given by the people attending your meetings!

H

Response to IND-158 (continued)

H. Constructing the original I-70 highway was politically and technically challenging, and constructing a parallel route would face similar or greater obstacles. The mountainous terrain encountered west of Fort Collins, Denver, Colorado Springs, and Pueblo severely limits the range of a parallel route.

As noted above in response to your comment [IND-158-E](#), the PEIS considered 17 potential alternate routes to serve travel demand in the I-70 Mountain Corridor. Eight of these routes specifically looked at diverting traffic originating from or destined for areas north and south of the Denver metropolitan area from the I-70 highway. These Alternate Routes were eliminated from consideration for one or more of the reasons listed in response to your comment [IND-158-E](#).

During the PEIS process, CDOT has conducted an extensive outreach program to solicit ideas and input for the I-70 Corridor. The Colorado Department of Transportation considers and/or responds to all of the ideas expressed by the public to ensure that the best recommendation for the I-70 Mountain Corridor has been identified in the PEIS. For more information on public involvement and outreach, please see the *I-70 Mountain Corridor PEIS Public and Agency Involvement Technical Report* (included electronically on CD-ROM in Volume 6 of the Technical Reports and on the project website).

Comments

Responses

Source: Comment Sheet	Name: Bruce I. Brown
Document Number: IND-159	City, Zip Code: Evergreen, 80439

What are your comments?

A

The financial commitment to improving I-70 is unfeasible at this time. Emphasis should be to coordinate existing, non-infrastructure dependant improvements. For example, utilization of park & ride facilities to transport skiers by bus to areas during the winter. During the summer, mass transit could also be implemented with the availability of rental cars, bikes and other large things used to recreate, strategically along the corridor.

Response to IND-159

A. Although the cost of implementing the Preferred Alternative is high, the lead agencies consider the Preferred Alternative to be an investment in Colorado's economic future.

The Preferred Alternative, as described in **Chapter 2, Summary and Comparison of Alternatives** of the PEIS, includes many of the non-infrastructure components you suggest, such as expanded shuttle services, expanded park-and-ride locations, and strategies to encourage increased carpooling. These actions can be implemented immediately after a Record of Decision is issued and funding is identified to address issues in the Corridor in advance of major infrastructure improvements. See the response to comment [LO-02-B](#) for an expanded discussion of bus and carpooling options considered and included in the Preferred Alternative as interim or complementary measures that could be implemented.

The Preferred Alternative allows CDOT to focus on these and other lower cost, short-term improvements while maintaining the vision of meeting the 2050 forecast travel demands for the Corridor. The Colorado Department of Transportation is committed to implementing recommended improvements as funding allows, and the Preferred Alternative includes a process for evaluating Corridor conditions and effectiveness of improvements every two years. This adaptive management approach allows CDOT to maximize the effectiveness of improvements and leverage available funding to meet both short- and long-term needs.

Chapter 5, Financial Considerations of the PEIS acknowledges that a variety of funding sources will be required to pay for the I-70 highway improvements. Please see the response to comment [LO-01-C](#) for more information on funding of the Preferred Alternative.

Comments

Responses

Source: Comment sheet	Name: Mark C. Sabatini
Document Number: IND-160	City, Zip Code: Frisco, 80443

A

What are your comments?
 THE TEN MILE CREEK IN THE CANYON BETWEEN MP-201 AND MP-198 INDEED TO SUMMIT OF VAIL PASS PROVIDED A REAL OPPORTUNITY FOR INTERPRETIVE SOLUTIONS FOR WILDLIFE. THE BEAVER POPULATION CAN CO-EXIST WITH THE REC. PATH/BIKE PATH. I SUGGEST THAT INTERPRETIVE AREAS BE DESIGNED, LOCATED AND BUILT-CONSTRUCTED AS IMPROVEMENTS TO HIGHWAY OCCUR.
 THE BEAVER AND TROUT POPULATIONS ARE VALUABLE TO MAINTAIN OPTIMAL USER EXPERIENCES ALONG MOTORIZED & NON-MOTORIZED RIGHTS OF WAY.
 WILDLIFE ABOUNDS IN THIS CANYON IF ONE WILL JUST SLOW DOWN AND LOOK. I SUGGEST ENHANCEMENT OF THE HABITAT WITH RECONFIRMATION OF THE STREAM AS FOLLOWS:
 1. EXTRACT THE AGGREGATE RESOURCE & USE FOR ROADWAY IMPROVEMENTS WHEN FEASIBLE. A NUMBER OF THE EXISTING PONDS CAME ABOUT THE ORIGINAL/EXISTING ALIGNMENT WHEN THE ROAD WAS BUILT.
 2. USE EXISTING LANDFORMS AS A BASE FOR INTERPRETIVE AREA PARKING.
 3. AGGREGATE EXTRACTION WILL EXPEDITE VOID SPACE NEEDS FOR TROUT HABITAT.
 Mark C. Sabatini

The Ten Mile Creek in the canyon between MP-201 – MP 198 indeed to summit of Vail Pass provided a real opportunity for interpretive solutions for wildlife. The beaver population can co-exist with the rec. path/bike path. I suggest the interpretive areas be designed, located and built-constructed as improvements to highway occur. The beaver and trout populations are valuable to maintain optimal user experiences along motorized & non motorized rights of way. Wildlife abounds in this canyon if one will just slow down and look. I suggest enhancement of the habitat with reconfirmation of the stream as follows:

1. Extract the aggregate resource & use for roadway improvements when feasible. A number of the existing ponds came about when the original/existing alignment was built.
2. Use existing land forms as a base for interpretive area parking.
3. Aggregate extraction will expedite void space needs for trout habitat.

Response to IND-160

A. The Colorado Department of Transportation is committed to applying I-70 Mountain Corridor Context Sensitive Solutions to planning efforts in Tier 2 processes. The Colorado Department of Transportation also recognizes the importance and value of wildlife (including aquatic species) and recreational uses within the I-70 Corridor, including educational opportunities such as interpretive signs and wildlife viewing areas. Potential areas that could be used as wildlife interpretation opportunities will be identified during Tier 2 processes, where feasible and safe.

Although sources of aggregate for the roadway improvements will be identified during Tier 2 processes, local sources of aggregate will likely be preferred. Aggregate extraction in rivers and streams is restricted by the water usage rights of downstream users and Clean Water Act jurisdiction.

As noted in **Section 3.19, Mitigation Summary** of the PEIS, the lead agencies will follow these agreements related to wildlife and streams:

- Fulfill responsibilities set forth in the ALIVE Memorandum of Understanding (A Landscape level Inventory of Valued Ecosystem components) to be developed in conjunction with the ALIVE committee comprised of city, county, local, and federal representatives. The ALIVE program provides opportunities to address issues related to improving wildlife movement and reducing habitat fragmentation in the Corridor.
- Engage stakeholders to continue the work of the Stream and Wetland Ecological Enhancement Program (SWEEP) committee to integrate water resource needs (such as water quality, fisheries, wetlands, and riparian areas) with design elements for construction activities and long-term maintenance and operations of the transportation system.

For more detailed information, see **Section 3.2, Biological Resources** of the PEIS.


Comments

Responses

Source: Comment sheet	Name: Jennifer Gonzales
Document Number: IND-161	City, Zip Code: City, Zip

A

I am completely for the construction of the monorail. This goes to help the economy of our country by creating more jobs. We need to improve the area to make it more accessible for the tourists that visit. They contribute to our economy by the so much, we you should provide them good quality services.



Public Hearing October 2010

SUBMIT A COMMENT

All comments submitted during the 60-day Revised Draft PEIS comment period will be considered prior to the Final PEIS, responses to comments will be included with the Final PEIS.

NAME Jennifer Gonzalez ND-161

ORGANIZATION _____

ADDRESS _____

CITY _____

PHONE _____

What are your comments?

Estoy totalmente de acuerdo con la construcción del monorail. Esto va ayudar a la economía de nuestro estado ayudando a que haya más trabajos.

Somos un condado de servicios y turística, y nuestra deber es de acondicionar el área y hacerlo más accesible a los turistas que nos visitan.

Ellas aportan a nuestra economía por lo tanto nosotros debemos velar por proveerles un buen servicio de calidad.

Response to IND-161

A. The Preferred Alternative is a multimodal alternative. Transit, highway improvements, and non-infrastructure improvements are integral to meeting the purpose and need of the project, which includes mobility and accessibility for all users, while minimizing environmental impacts. Additional study is required for the Advanced Guideway System component of the Preferred Alternative specifically. As discussed in Section 2.7.1 of the PEIS, the Advanced Guideway System represents a mode encompassing a range of technologies that would be capable of being fully elevated for the length of the Corridor. Subsequent feasibility studies and related Tier 2 processes are required to select an appropriate and viable technology as well as to determine costs and benefits, safety, reliability, environmental impacts, and other considerations to support this substantial monetary investment.

The PEIS evaluated the induced growth in both population and jobs that is expected to result from the Action Alternatives, including the Preferred Alternative. The Preferred Alternative is expected to increase total population, number of jobs, personal income, and the gross regional product (amount of new goods and services annually). In contrast, the No Action Alternative is expected to suppress the economies of communities in the I-70 Corridor by reducing population, jobs, personal income, and the gross regional product. The forecasted economic reduction is a result of traffic congestion and inaccessibility. For more information on social and economic values, see Section 3.8, Social and Economic Values of the PEIS and the I-70 Mountain Corridor PEIS Social and Economic Values Technical Report (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website).

Comments

Responses

Source: Comment sheet	Name: Laurie Meador
Document Number: IND-162	City, Zip Code: Silverthorne, 80498

What are your comments?
 I suggest:
 D.R. Mag-lev train from Denver to the Eisenhower Johnson tunnel.
 Then Public Transportation buses from the east side of the tunnel to
 Vail, Frisco, Silverthorne.
 B Extend RTD to include Summit and Eagle Counties.

Response to IND-162

A. While the specific technology has not been identified at this first tier of analysis, the Preferred Alternative does include an Advanced Guideway System. It is intended to be a fixed guideway transit (rail) option between the Eagle County Regional Airport and the Jeffco Government Center light rail station in Golden. The technology that would address the Advanced Guideway System performance criteria could be a yet undiscovered and unproven technology or it could be a variation of an existing rail technology such as maglev, monorail, or traditional steel on rail. Please see the response to comment [ORG-04-E](#) for further information on the Advanced Guideway System.

Operating buses in mixed traffic does not meet the project's purpose and need because it would not address travel times or congestion. However, part of the non-infrastructure components of the Preferred Alternative includes bus, van, or shuttle service in mixed traffic. See **Section 2.7, "What was the decision making process for identifying the Preferred Alternative?"** for more information on the Preferred Alternative.

B. The Preferred Alternative would provide transit infrastructure to Clear Creek, Summit, and Eagle Counties. However, a transit operator has yet to be identified for this service. The Regional Transportation District currently provides transit services to the Denver metropolitan area, and Summit and Eagle Counties have their own local transit services. The CDOT Division of Transit and Rail has the authority to plan, develop, finance, operate, and integrate transit and rail services statewide, and the Division will work in coordination with other transit and rail providers to plan, promote, and implement investments in transit and rail services throughout the state.

Comments

Responses

Source: Comment sheet	Name: Laurie Meador
Document Number: IND-162	City, Zip Code: Silverthorne, 80498

D
C 3) leave it (I-70) as it is and mandate that the ski areas are to provide free bus transportation to their resorts.

Response to IND-162 (continued)

C. Providing bus service alone to ski areas would not meet the purpose and need to reduce congestion or improve mobility for the I-70 Mountain Corridor. Buses operating in mixed traffic are subject to highway congestion and cannot provide reliable service. While bus service was not advanced as the primary transit mode in the Preferred Alternative, promoting the use of shuttle and bus services in mixed traffic in the Corridor is part of the non-infrastructure components that can provide a short-term solution for the Corridor ahead of implementing the Advanced Guideway System and highway improvements. Limited capacity and congestion are problems in the Corridor during both the winter and summer seasons, so ski area buses alone do not meet the purpose and need of the project.

Comments

Responses

Source: Website Comment	Name: Laurie Meador (continued)
Document Number: IND-162	City, Zip Code: Silverthorne, 80498

D 1) Leave it (I-70) as it is and make it a toll road. There could be exemptions for carpoolers and buses. (Semi-tractor-trailer rigs).
 2) Any combination of the above.
 3) More (bigger) roads = more people who will just need more (bigger) roads later on.
 Thank you.
 Laurie J. Meador

Response to IND-162 (continued)

D. As discussed in **Chapter 5, Financial Considerations** of the PEIS, tolling is one of the funding options that CDOT can consider in future Tier 2 processes. With appropriate approvals, CDOT could consider tolls for new or, if supported by communities, existing lanes as a way to fund improvements. Tolloed lanes also could include exceptions for high occupancy travel. However, the occupancy rate in the Corridor is higher than average already, at 2.8 persons per vehicle.

The No Action Alternative (leaving the I-70 highway as it is) coupled with tolling does not serve the Corridor’s short- or long-term travel needs. Without improvements, congestion and travel times will increase substantially, and congested conditions will cause many people to choose not to travel in the Corridor.

E. The Preferred Alternative is a multimodal solution that includes an Advanced Guideway System, highway improvements, and non-infrastructure improvements that incorporates some of your suggestions above.

Analysis in the PEIS shows that increasing highway capacity without providing transit will not serve the 2050 purpose and need because the Highway-only alternatives do not provide adequate capacity beyond 2030 or 2035 and do not serve unmet demand. However, adding highway capacity is a necessary component toward meeting the purpose and need for the I-70 Mountain Corridor. Please refer to **Chapter 2, Summary and Comparison of Alternatives** of the PEIS for a discussion of the alternatives considered for this Corridor.

Comments

Responses

Source: Website Comment	Name: Todd Nelson
Document Number: IND-163	City, Zip Code: Louisville, 80027

A

The Advanced Guideway System should receive preference over any of the other alternatives. Consider the following AGS benefits:

- * A better, more social experience for the riders; they are not white-knuckled by driving in blizzard conditions, or enraged by hours of road congestion
- * AGS may achieve higher speeds than roadway, which will make it an attractive option
- * More flexible for increased future capacity. Roads have a fixed upper capacity. With AGS you could increase capacity as technology improves: faster trains, more trains, bigger trains, etc.
- * Planning for increased capacity via electric train fits much better with inevitable future energy and environmental conditions as compared to meeting that capacity by adding more cars to the road. The future is solar, wind, fuel-cell, low-emissions, low environmental impact. The AGS aligns much better with this future than does adding cars to the road.
- * The AGS better serves a wider demographic. To benefit from additional highway lanes you need a car (or a ride in someone else's car), a barrier to participation for many. To ride on a train, you just need a ticket, a much lower barrier to participation.
- * The AGS might allow creative ridership promotion by the mountain resorts. They might offer a subsidized "season ski and rail pass" to bring in additional business.
- * It's criminally dumb not to implement the AGS. Sure, it will cost billions. Probably way over the projections. But it will repay those costs many, many times over to the Colorado economy. More skier visits, more vacation visits, more traffic transiting DIA. Continued pre-eminence of Colorado as a world-wide vacation destination, as opposed to "used to be such a great place before the I-70 Gridlock".
- *

Response to IND-163

A. The Advanced Guideway System has many benefits and is the preferred transit mode for the I-70 Mountain Corridor. Additional study is required and will be undertaken through feasibility studies and related Tier 2 processes to clarify the details of the system operation, including an expanded discussion of its potential impacts and benefits. The benefits that you describe will be further analyzed as the technology, ridership, cost, and other details are refined. Fare structures and subsidies, as well as other operating plans specific to transit components, would be developed in subsequent feasibility studies and related Tier 2 processes.

As part of the multimodal solution, highway improvements are also needed to address the project's purpose and need.

The Preferred Alternative is likely to stimulate economic and population growth along the Corridor, especially around transit stations. Under the Preferred Alternative, Summit and Eagle counties encounter growth pressures beyond what is planned both in areas surrounding transit centers and in rural areas. The Preferred Alternative improves the regional economy, increasing gross regional product annually by at least \$10 billion more than the No Action Alternative. The Preferred Alternative continues to stimulate economic growth throughout the Corridor as described in **Section 3.8, Social and Economic Values**. Gross regional product is projected to be \$45.38-\$46.05 billion under the Action Alternatives (except the Minimal Action Alternative), compared to \$35.85 billion under the No Action Alternative. See **Section 3.8, Social and Economic Values** for more information on economic conditions in the Corridor and the types of impacts associated with growth under the Action Alternatives.

Providing rail to the Denver International Airport and connecting that service throughout the Denver metropolitan area is currently being implemented by the Regional Transportation District. The PEIS assumes all transit alternatives studied would connect with the Regional Transportation District West Corridor line in Golden.

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Todd Nelson (continued)
Document Number: IND-163	City, Zip Code: Louisville, 80027

Response to IND-163 (continued)

A. (Continued from previous page)

To study the integration of high-speed rail projects, including the I-70 Mountain Corridor Advanced Guideway System, with the FasTracks system in the Denver area, CDOT will be conducting a Colorado Interregional Connectivity Study. This will identify how the Advanced Guideway System should connect with RTD's FasTracks system.

Comments

Responses

Source: Website Comment	Name: Atul Subberwal
Document Number: IND-164	City, Zip Code: Summit County

A

As a former Planning Commission member of a Summit County town, I realize the importance of matching infrastructure development with demand.

My submission is that any expansion of the I-70 corridor, or addition of a rail system, will only create gridlock in other areas of towns like the parking areas, roads, limited grocery stores, etc. In addition, the ski slopes already appear to operate at near full capacity on the weekends.

If there is a legitimate problem of commercial traffic during the ski seasons, US-40 could be better developed to handle trucks seeking routes to the West.

Response to IND-164

A. Expanding the capacity of the I-70 Mountain Corridor is necessary to meet future travel needs. Without improvements, travel times through the Corridor would more than double by 2035, the I-70 highway would be congested for many hours of the day, and mobility throughout the Corridor, including in and around Corridor communities, would be hampered greatly.

All of the Action Alternatives, except the Minimal Action Alternative, induce growth in Eagle County. Only the Combination alternatives, including the Preferred Alternative, induce growth in Summit County. As discussed in **Section 3.7, Land Use and Right-of-Way** of the PEIS, without proper land use planning controls, induced growth leads to undesirable land use patterns that strain environmental and community resources. Planning efforts are emerging in some Corridor counties and municipalities to handle growth in a coordinated manner, balancing the impacts of growth with sustaining environmental quality. To responsibly manage growth pressures, local governments will need to adopt land use policies that guide and adapt to the induced development. The Colorado Department of Transportation will consider an approach to promote and assist communities, as possible, in the adoption of more comprehensive, regional growth management plans that can be applied to Tier 2 processes. The adaptive management component of the Preferred Alternative allows it to be implemented in coordination with Corridor communities over time, based on future needs and associated triggers for further action, and is more compatible with Corridor planning policies. While the lead agencies will consider ways to assist Corridor communities manage growth, efforts to control growth are greatly dependent on local planning and community political direction.

Regarding pressure on ski areas, **Chapter 4, Cumulative Impacts Analysis** of the PEIS describes ski area expansions planned for Breckenridge, Keystone, Vail, and Winter Park. The ski areas are located

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Atul Subberwal (continued)
Document Number: IND-164	City, Zip Code: Summit County

Response to IND-164 (continued)

A. (Continued from previous page)

on National Forest System lands, and the United States Forest Service has already granted expansions of these ski resorts. The ski area expansions will occur whether the Preferred Alternative is implemented or not.

Regarding developing US 40 as an alternate route for commercial traffic, this was an option considered by the lead agencies. US 40 does not provide a continuous alternative and does not serve as an effective secondary route to many I-70 Corridor destinations; it therefore would not meet purpose and need of the project.

Note, limited capacity and congestion are problems in the Corridor during both the winter and summer seasons. The Preferred Alternative provides a multimodal solution that provides improvements for all seasons.

Comments

Responses

Source: Website Comment	Name: Henry Wiethake
Document Number: IND-165	City, Zip Code: Silverthorne, 80498

A

I am sure that someone has made this proposal. Why not build a new interstate highway using Rt. 285... a new tunnel through Weston Pass connecting to Leadville and continuing on Rt. 24 to the west side of Vail. The Red Cliff area could be a construction concern... this would allow all those visitors to Vail Valley and Beaver Creek a way around Summit County.

Response to IND-165

A. The PEIS considered 17 potential alternate routes to serve travel demand in the I-70 Mountain Corridor, which are illustrated and described in Section 4.7 of the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website). None of the routes meet the purpose and need to reduce congestion and improve mobility along the I-70 Mountain Corridor.

Weston Pass was not specifically evaluated as a potential alternate route, but eight of the routes that were evaluated specifically looked at diverting traffic originating from or destined for areas north and south of the Denver metropolitan area from the I-70 highway. Travel demand modeling conducted in year 2000 to support the analysis of these alternate routes found that travelers originating from the South Front Range (including Pueblo and Colorado Springs) average only 3.6 percent of total traffic on the I-70 highway. The majority of travel originates from the Denver metropolitan area counties, the Corridor counties, or out-of-state.

These Alternate Routes were eliminated from consideration for one or more of the following reasons: they (1) result in travel times noticeably longer than times experienced by travelers on the I-70 highway, (2) do not provide sufficient accessibility to I-70 Mountain Corridor communities because of their location miles away from these communities, (3) do not have the potential to divert much traffic from the I-70 highway, and/or (4) have substantial environmental impacts and poorer performance compared with improving the I-70 highway.

Comments

Responses

Source: Website Comment	Name: Henry Wiethake (continued)
Document Number: IND-165	City, Zip Code: Silverthorne, 80498

B Another thought would be to make a fifth lane on I 70... with zipper... 3 lanes up on Friday and 3 lanes down on Sunday

Response to IND-165 (continued)

B. As part of the PEIS, CDOT considered a movable median alternative element that would provide a reversible fifth lane in the Corridor. This alternative element was found not to provide enough capacity to meet the purpose and need. Please refer to the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website) for an expanded description and discussion of this alternative element.

The Colorado Department of Transportation is currently conducting a feasibility study for adding reversible or “zipper” lanes for a specific area of the Corridor between Georgetown and Floyd Hill in response to legislation passed by the Colorado General Assembly in 2010. That study is evaluating using existing lanes, where three lanes would be provided in the peak direction and one in the non-peak direction (that is, using existing lanes rather than adding a fifth lane). The purpose of the *I-70 West Reversible Lane Study* (which can be found online at www.coloradodot.info/projects/I70reversiblelane) is to identify short-term operational actions to decrease congestion on the I-70 highway during peak periods for this specific segment of the Corridor. The *I-70 West Reversible Lane Study* does not meet the 2050 purpose and need of the PEIS.

Comments

Responses

Source: Website Comment	Name: David Hula
Document Number: IND-166	City, Zip Code: Larimer County

A

Given the cost of construction and expected low ridership levels on transit solutions such as rail, I think the focus should be on increasing highway capacity in the short term, with an emphasis on redundancy. A big problem with rail or other transit, even bus, is that it will only serve a small segment of the traveling public as many people want to lug their kids, dogs, toys, etc. up and down the mountain corridor. In addition, there is no significant infrastructure present in the mountains to distribute the people to where they want to go once they arrive on transit. By redundancy I mean there always needs to be at least 2 lanes open in each direction. Any one lane solution will bog down in a hurry with a slow vehicle or accident, and limit emergency access. I support building additional lanes or parallel roadways funded by way of tolls (pay to use), and even support adding tolls to the current roadway to generate revenue for capacity improvements and to manage demand (i.e. higher tolls during peak periods, reduced tools for carpooling.) Face it, as long as petroleum is inexpensive and the cost of driving a personal vehicle is lower or comparable to taking transit, people will drive for their own freedom and flexibility. Only a significant rise in the cost of oil will drive transit solutions in the long term.

Response to IND-166

A. The Preferred Alternative is a multimodal solution with highway, transit (Advanced Guideway System), and non-infrastructure components. The Advanced Guideway System may not serve every traveler’s needs. For this reason and others there will be continued demand for private automobiles and the highway improvements to serve those travelers.

It is recognized that some convenient local distribution systems, such as shuttle systems, are likely to be needed to meet the travel needs of the Advanced Guideway System users so that travelers can get to their final destination with relative ease. As the Advanced Guideway System is developed in more detail in feasibility studies and related Tier 2 processes, considerations for the types of trips served and how to connect travelers to their final destinations will be important to determining how the system will function and serve Corridor travelers.

To provide redundancy where possible, the Preferred Alternative includes six-lane capacity improvements in some areas under the Minimum Program of Improvements, and six-lane capacity in additional areas under the Maximum Program of Improvements if certain triggers are met, as discussed in **Section 2.7.2** of the PEIS.

As noted in response to comment [IND-158-E](#), the PEIS considered 17 potential alternate routes to serve travel demand in the I-70 Mountain Corridor. These Alternate Routes were eliminated from consideration for one or more of the following reasons: they (1) result in travel times noticeably longer than times experienced by travelers on the I-70 highway, (2) do not provide sufficient accessibility to I-70 Mountain Corridor communities because of their location miles away from these communities, (3) do not have the potential to divert much traffic from the I-70 highway, and/or (4) have substantial environmental impacts and poorer performance compared with improving the I-70 highway.

(continued on next page)

Comments

Responses

Source: Website Comment	Name: David Hula (continued)
Document Number: IND-166	City, Zip Code: Larimer County

Response to IND-166 (continued)

A. (Continued from previous page)

As discussed in **Chapter 5, Financial Considerations** of the PEIS, options for innovative funding sources include public private partnerships, tolling, bonding/loans, and Corridor-specific resources (which are funding sources that apply to limited geographic areas and require voter approval, constitutional amendments, or both). With appropriate approvals, CDOT could consider tolls for new or, if supported by communities, existing lanes as a way to fund improvements. Colorado law allows for the tolling of new capacity as well as the tolling of existing capacity if supported by local communities.

The travel demand modeling conducted for this Corridor suggests that trips in the Corridor are not very sensitive to gasoline prices. Please refer to the *I-70 Mountain Corridor PEIS Social and Economic Values Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website) for additional detail.

Comments

Responses

Source: Website Comment	Name: Jim Boyer
Document Number: IND-167	City, Zip Code: Evergreen, 80439

A

Each of the public transportation alternatives - bus guideways, heavy rail, and elevated guideway - though creative and exciting to envision - suffers from the same drawbacks. The requisite technology ranges from unproven to non-existent, the construction and operating costs would be staggering, and construction would require many years, with costly tunneling and grading that would impact many areas of expensive and valued real estate.

Response to IND-167

A. CDOT and project stakeholders recognize the value of a viable transit mode in the I-70 Mountain Corridor. After extensive evaluation of transit alternatives, CDOT determined an Advanced Guideway System in conjunction with highway and non-infrastructure improvements provides the best opportunity for meeting the 2050 purpose and need while minimizing impacts. Additional study is required for the Advanced Guideway System component of the Preferred Alternative before implementation of the transit system can occur.

Regarding Bus in Guideway and heavy rail (Rail with Intermountain Connection) alternatives, **Section 2.6.4** and **Section 2.6.5** of the PEIS describe the components of these alternatives. These alternatives on their own do not meet the 2050 purpose and need for the Corridor. In conjunction with highway improvements, as part of the Combination alternatives, they do meet the 2050 purpose and need. The technologies for both Bus in Guideway and Rail with Intermountain Connection are proven technologies in use today.

As discussed in **Section 2.7.1** of the PEIS, the Advanced Guideway System represents a mode of transit encompassing a range of technologies. The actual technology for the Advanced Guideway System is not defined because there is a wide range of technologies that have the potential to meet the Advanced Guideway System performance criteria in the PEIS. Subsequent feasibility studies and related Tier 2 processes are required to select an appropriate and viable technology and to determine costs and benefits, safety, reliability, environmental impacts, and other considerations to support this substantial monetary investment.

Although the cost of implementing the Preferred Alternative is high, the lead agencies consider the Preferred Alternative to be an investment in Colorado's economic future. The Preferred Alternative represents a long-term plan with a package of short-term solutions to help address some of the more immediate concerns. Construction of the Preferred Alternative would not occur all at once or in any one location for the duration of the

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Jim Boyer (continued)
Document Number: IND-167	City, Zip Code: Evergreen, 80439

Response to IND-167 (continued)

A. (Continued from previous page)

construction period. Rather, construction would be phased over a long period of time and would occur in different locations throughout the construction period.

As discussed in **Chapter 5, Financial Considerations** of the PEIS, the lead agencies recognize that additional revenue, leadership, and support from the citizens of Colorado will be required to implement the Preferred Alternative. The Colorado Department of Transportation's budget is insufficient to implement the entire Preferred Alternative. The I-70 Mountain Corridor is important to Colorado's economy, and multimodal improvements are one of the highest transportation priorities in the state. Options for innovative funding sources include public/private partnerships, tolling, bonding/loans, and Corridor-specific resources (which are funding sources that apply to limited geographic areas and require voter approval, constitutional amendments, or both). These will be further evaluated in Tier 2 processes.

The Colorado Department of Transportation is committed to implementing recommended improvements as funding allows, and the Preferred Alternative includes a process for evaluating Corridor conditions and effectiveness of improvements every two years. As you suggest, any alternative that provides long-term solutions is costly and would require many years to construct. The adaptive management approach of the Preferred Alternative allows CDOT to maximize the effectiveness of improvements and leverage available funding to meet both short- and long-term needs. Further, the lead agencies are committed to transportation improvements that enhance the Corridor and minimize impacts by applying the I-70 Mountain Corridor Context Sensitive Solutions guidance on all future Corridor projects.

Comments

Responses

Source: Website Comment	Name: Jim Boyer (continued)
Document Number: IND-167	City, Zip Code: Evergreen, 80439

B

In addition, there is the very, very real concern that the recreational public might not provide sufficient patronage to make the systems self-supporting, and, indeed, even worth undertaking. To begin with, even though both ends of the system, and intervening points, would be completely accessible, numerous and repeated shuttles would be required. Since the transportation need would be largely in peak hours and on weekends, large amounts of rolling stock would be required and would pose storage problems at both ends, not to mention the question of whether even a vast fleet of equipment could move thousands of travelers, with the headway that would have to be maintained for safety, and the passing facilities required for local versus express transit.

Response to IND-167 (continued)

B. The travel demand forecasting model used for the PEIS indicates that the Advanced Guideway System would attract a reasonable amount of ridership and that the Preferred Alternative would reduce congestion and provide adequate capacity in the Corridor until the year 2050. The travel demand model is documented in Appendix A of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website). Additional and more detailed ridership forecasting will be conducted in Advanced Guideway System feasibility studies and related Tier 2 processes.

It is recognized that some convenient local distribution systems, such as shuttle systems, are likely to be needed to meet the travel needs of the Advanced Guideway System users so that travelers can get to their final destination with relative ease. As the Advanced Guideway System is developed in more detail in feasibility studies and related Tier 2 processes, considerations for the types of trips served and how to connect travelers to their final destinations will be important to determining how the system will function and serve Corridor travelers.

The specific operating plans, fleet size, maintenance and storage facility requirements, the placement of passing tracks, and many other issues will be investigated in Advanced Guideway System feasibility studies and related Tier 2 processes.

Comments

Responses

Source: Website Comment	Name: Jim Boyer (continued)
Document Number: IND-167	City, Zip Code: Evergreen, 80439

C

Not only that, it is almost certain that the winter sports recreation traveler would balk at having to travel fairly cramped on heated trains or buses, in heavy winter clothing, and carrying cumbersome skis, boots, snowboards, poles, etc. It would be a real and unpleasant ordeal. In addition, the summer traveler would resist public transit because, short of renting or maintaining an additional vehicle in the mountains area, there would be no convenient way to get around at the destination. All the fun of an excursion would be gone with the attendant restrictions on ease of movement. People are just not going to take the train or bus in large numbers, although they will certainly wish that someone else would. This can and should be validated by extensive surveying, with particular attention to who, if anyone, is willing to pay \$25, \$50, or \$100 each way not to have to drive.

Response to IND-167 (continued)

C. The comfort, size, and heating on the future Advanced Guideway System has not yet been defined. It may be that the system is more spacious and less cumbersome than many private vehicles. The Advanced Guideway System feasibility studies and related Tier 2 processes will include a comprehensive in-depth study of potential ridership that will take into account the effect of recreational travelers' unique gear and destination requirements. Transit will not serve every user; the Preferred Alternative is a multimodal solution that includes highway improvements.

A ridership survey was conducted for the PEIS to address the issue of mode choice between auto and transit trips in the Corridor, as a part of the I-70 travel demand model process. Details of the I-70 Ridership Survey are presented in Appendix B of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website).

The fare that CDOT assumed for a one-way trip between the Denver metropolitan area and Eagle County is \$14. Appendix A of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website) provides details on transit fares. The Colorado Department of Transportation will study detailed fare structure design during feasibility studies and related Tier 2 processes.

The scope of the Advanced Guideway System feasibility studies has not been defined at this time; your comment about the need for an updated and extensive survey that gauges travelers' reaction to potential fare costs is noted.

Comments

Responses

Source: Website Comment	Name: Jim Boyer (continued)
Document Number: IND-167	City, Zip Code: Evergreen, 80439

Lastly, a sober thought is that the onslaught of climate change is going to painfully shorten the ski season, and reduce the portion of mountains covered by snow, with the result that fewer people will want to ski or snowboard at all, so the demand for transit may limit itself at the current level of inconvenience or its apparent equivalent, even with highway improvements, which, of course, can and should be made.

Response to IND-167 (continued)

D. The lead agencies recognize that climate change may play a larger role in the future by affecting the Corridor’s resources more than is currently experienced today. One of the impacts from climate change could include reduced snow pack, and this would affect the ski industry and visitation. Decreased availability of fossil fuels may also affect travel by 2050. In anticipation of and to combat these changes, elected officials are promoting policies that reduce greenhouse gas emissions and promote energy efficiency. Mass transit systems, including the Advanced Guideway System component of the Preferred Alternative, can assist with these policies.

It should be noted that congestion on the I-70 highway occurs during both winter and summer months. Even if winter visitation decreases, summer traffic volumes would likely remain unaffected. This is the case for both weekends and weekdays. Traffic on a typical summer weekend day in years 2000 and 2035 at the Eisenhower-Johnson Memorial Tunnels is about 45 percent higher than in the winter. At this same location, typical summer weekday traffic is about 15 percent greater than in the winter. The need remains for congestion relief and expanded capacity, regardless of the season.

The Preferred Alternative offers a multimodal solution, combining non-infrastructure components along with highway and transit improvements, to provide expanded person trip capacity. The transit component of the Preferred Alternative provides needed capacity that highway improvements alone cannot provide, and the adaptive management component of the Preferred Alternative allows the lead agencies to respond to changing conditions, like snow pack and gas prices, in the state and Corridor in order to implement improvements that reflect the need.

Comments

Responses

Source: Website Comment	Name: Jim Boyer (continued)
Document Number: IND-167	City, Zip Code: Evergreen, 80439

2

And finally, if all this is not gloom enough, consider that not only a growing population, but falling wages and inflation of all sorts of costs is going to dampen the public's enthusiasm for any sort of recreation anywhere, even if they can somehow afford it, which looks increasingly uncertain. We just cannot countenance spending untold billions of dollars to satisfy a demand that just may not be there in the future. I hate to be a poor sport, but there are some things, like the DIA baggage system that just cannot be made to work, there are things like the SST (supersonic transport) that should not be attempted for not being justified, and there will always be things we can dream of that just aren't needed. Thanks, and congratulations, however, for a very comprehensive and open study that will bring to light just what we need, what we can afford, and what we can make work. I look forward to the final outcome, whatever it may be, although a multi-billion dollar highway/rail system would certainly be too much, too late.

Response to IND-167 (continued)

E. Regarding recreation use and associated travel demand in the Corridor, the lead agencies did consider future social, economic, and recreation conditions in assessing impacts from the Preferred Alternative. The Preferred Alternative is expected to increase personal income and the gross regional product by \$10 billion more per year than the No Action Alternative (see **Section 3.8, Social and Economic Values**, of the PEIS) as a result of improved accessibility and mobility. The Preferred Alternative is also anticipated to induce visitation to recreation resources in the Corridor because of improved accessibility and mobility. The travel demand forecasting model used for the PEIS indicates that the Advanced Guideway System would attract a reasonable amount of ridership and that the Preferred Alternative would reduce congestion and provide adequate capacity in the Corridor until the year 2050. Additional demand modeling will occur during feasibility studies and related Tier 2 processes to better identify need and anticipated ridership.

The elements included in the Preferred Alternative, and the process for Collaborative Effort review of progress, provide CDOT the ability to balance short-term and long-term needs in the Corridor. Non-infrastructure components of the Preferred Alternative can be implemented immediately after the Record of Decision is issued and funding is identified, to address issues in the Corridor in advance of major infrastructure improvements. These components are listed in **Section 2.7.1** of the PEIS and include bus, van, or shuttle services in mixed traffic and Transportation Demand Management measures. The lead agencies have also identified early action projects that can be studied immediately. These projects are listed in the **Introduction ("What activities can occur before the Record of Decision"** section) of the PEIS.

Improvements meeting long-term needs will require more time to obtain funding, study, and implement. The Colorado Department of Transportation recognizes funding sources are limited. Although the cost of implementing the Preferred Alternative is high, the lead agencies consider the Preferred Alternative to be an investment in Colorado's economic future, and are committed to implementing the alternative as funding allows.

Comments

Responses

Source: Website Comment	Name: Alicia Miers
Document Number: IND-168	City, Zip Code: Boulder County

Response to IND-168

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

I would like to thank the Colorado Department of Transportation for recognizing wildlife as an environmental resource of greatest public concern and, as such, including wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. As CDOT is well aware, wildlife fencing alone will not address both the safety and ecological concerns of the I-70 corridor. In fact, wildlife fencing alone, without proper wildlife crossings, will create more of a barrier for wildlife movement.

I encourage CDOT to use new data, including the current EcoLogical project underway to study wildlife movement along I-70 and make recommendations on the placement and structure of wildlife crossings. The study is being completed by CDOT, Western Transportation Institute, Center for Native Ecosystems, ECO-resolutions, and Colorado Watershed Assembly. I also encourage the agency to develop and adhere to Best Management Practices for wildlife into the revised PEIS, which will ensure that wildlife crossings are designed and constructed in a way that improves both driver safety as well as wildlife movement across the Interstate.

Thank you for your participation in the ARC International Wildlife Crossings Design Competition currently taking place at West Vail Pass (<http://www.arc-competition.com/>). I encourage your agency to utilize the innovative solutions that are produced from the ARC competition at West Vail Pass for any early action project concerning the construction of wildlife crossings.

Finally, thank you for including an elevated Advanced Guideway System in the Preferred Alternative. Not only will this improve mobility and reduce congestion, it is the best transit alternative for alleviating the barrier effect of I-70 for wildlife movement.

Comments

Responses

Source: Website Comment	Name: Barbara Coffey
Document Number: IND-169	City, Zip Code: Frisco, 80443

A

I live in Frisco. I have ridden many public transportation trains here and in Europe (including ski trains in Switzerland)

I fear this would be too expensive for Denver to Summit County. Remember the s]distances are shorter in Switzerland and they travel very often. Why not see if there is any interest in a train from Golden/Denver to Evergreen..that would give you some notion of ridership.

Spent July driving in East..they have many four lane roads going almost the same places some Toll (I do favor Tolls). Could we make State 34 four lanes over the Mtns to get rid of some of the truck traffic on I-70?

I notice that there is a real delay on the hill going East into Georgetown..mostly trucks during heavy traffic. Can you ban trucks on Friday and Sunday afternoon?

I never see a problem from Flyd Hill to tunnels..it is when I-70 goes from 3 lanes each way to two at the top of Floyd Hill going West.

I am a great believer in Toll Roads..It is a user tax but some other road must also be provided..maybe a bit slower but at least a choice.

Response to IND-169

A. The cost of transit trips and potential ridership in the Corridor are recognized as key aspects to the viability of introducing an Advanced Guideway System into the Corridor. At this Tier 1 level of study, a cost of \$0.10 per mile was established as a rate that could result in an optimum balance of revenue and ridership, as discussed in Appendix A of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website). Advanced Guideway System feasibility studies and related Tier 2 processes will address transit cost and ridership in more detail. Developing a transit system from the Golden area near the C-470/I-70 interchange to Evergreen would not provide service for recreation trips or decrease congestion in the Corridor and, therefore, would not meet the purpose and need of the project.

During the alternatives development and screening process, 17 alternate routes were identified, with eastern termini ranging from Fort Collins to Pueblo and western termini at various points along the I-70 highway west of the Continental Divide as far west as Glenwood Springs. US 34 was studied as a possible alternate route for the I-70 highway. However, US 34 was screened out due to the low percentage (1.9%) of Corridor travelers originating from the area in 1999 and 2000.

The lead agencies recognize that truck traffic affects traffic operations on the I-70 highway, which worsens during peak periods and on heavy snow days. The Colorado Department of Transportation explored limiting truck travel in the Corridor during peak periods. The restriction of trucks on an interstate facility is regulated by FHWA pursuant to 23 CFR 658.11. This could include restrictions such as time of day. The process identified in 23 CFR 658.111 includes coordination with local governments, analysis of effects to mobility and safety for all interstate users, and ultimate approval by FHWA. Truck drivers voluntarily limit their usage of the I-70 highway to avoid peak periods of travel, as much as they can.

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Barbara Coffey (continued)
Document Number: IND-169	City, Zip Code: Frisco, 80443

Response to IND-169 (continued)

A. (Continued from previous page)

The lead agencies considered and advanced a slow-moving vehicle plan as a transportation management alternative element, included as a non-infrastructure component of the Preferred Alternative. Some of the elements of that plan specifically targeted at truck traffic, such as improved chain up stations and rest areas, can proceed with no further approval from FHWA. Improved chain up areas and enhanced traveler information strategies have been recently installed in some Corridor locations by CDOT. The Colorado Department of Transportation is committed to improving safety and mobility of all of the users of the I-70 highway and will continue to explore all options available to do so.

The Preferred Alternative includes increasing the capacity of the westbound portion of the I-70 highway from Floyd Hill through the Twin Tunnels.

Opportunities for tolling as a source of funding are discussed in **Chapter 5, Financial Considerations**. Colorado law allows for the tolling of new capacity as well as the tolling of existing capacity if supported by local communities.

Comments

Responses

Source: Email	Name: Steve Roberts
Document Number: IND-170	City, Zip Code: not provided

We are presenting our proprietary design so that CDOT may consider this in pricing, minimal operating segments, timely execution and in consideration of the environmental impact during construction. We do not seek the 'command' the use of our design, but to request the CDOT conduct such technical and commercial analyses of the concept as may be necessary to enable CDOT to accept the concept as an alternative construction method.

We are confident of the design and construction approach for the Mountain Corridor and for a number of alternative propulsion technologies.

Please advise of how CDOT might invite SYSTRA to work within the Department's technical and procurement processes to accomplish the above. No doubt this effort would involve the concrete construction industry as well as our technical experts.

Thank you.
Steve

From Steve Roberts, Systra

Dear Wendy,

To reinforce the testimony of several participants in the I-70 PEIS hearings, CDOT efforts for the Mountain Corridor ought to work with Union Pacific, the Anshutz interests with the Ski Train franchise and perhaps Amtrak or other passenger carriers to restore rail passenger service along the route of the Ski Train (and not simply for the Ski season) to serve the immediate purpose of maintaining traffic during construction. This effort would come into play even in the early action efforts with the improvements at Empire. Maintaining traffic during construction with a train may be most famously illustrated with the establishment of Tri-Rail in South Florida.

A further and long term purpose for the service would be to serve the demand that gets on and off the interstate at the US 40 interchange at Empire, there is no way that the ability to serve that 15% of the travel demand in the Mountain Corridor, which has been identified in the PEIS, should have solutions constrained by solutions which are solely highway-oriented. There is probably a way to offer a station on the railroad for the Central City/Blackhawk travelers too.

Amtrak might be convinced to offer CDOT the 'maintenance of traffic' service without the insurance debacle that attended the Iowa Pacific fumbling last year. Amtrak can offer 'corridor service' with state support.

UP will have to be convinced, but no doubt the commercial interests in the Winter Park, Granby, Frazier corridor will be interested in efforts to provide reliable access and connections to the greater Denver metropolitan area.

Response to IND-170

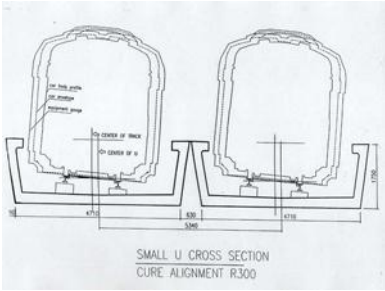
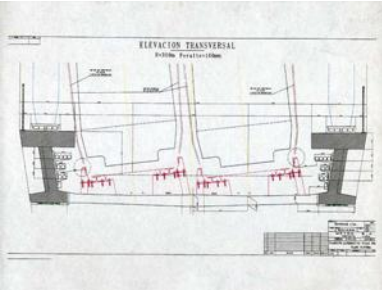
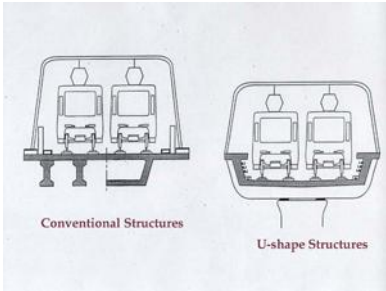
- A. Potential Advanced Guideway System technologies will be evaluated in feasibility studies and related Tier 2 processes for their ability to meet the performance criteria established for this project. The Colorado Department of Transportation has not determined the contracting method for future projects in the Corridor.
- B. While the ski train was popular until it was discontinued in 2009, this alternative fails to meet the project's purpose and need as a standalone alternative. Due to the volume of freight traffic through the Moffat Tunnel and limited air ventilation in the tunnel, the existing line cannot accommodate more than two round-trip passenger trains per day. Because this service has relatively low travel speeds and low capacity, it is not able to remove enough traffic to change operations or reduce travel time in the Corridor to meet the purpose and need of the project, and it was eliminated as a standalone alternative. A revived ski train service could be considered by others but does not address the purpose and need for the I-70 Mountain Corridor. Regarding providing a stop for Central City/Blackhawk, the nearest community on the ski train route would be Rollinsville, Colorado located about 15 miles to the north of Central City, and therefore shuttle service would need to be provided in order to provide end-to-end service.

In regards to insurance, liability insurance for the ski train is a matter between the rail operator and its insurer. It is not within CDOT's purview or ability to influence railroad operators regarding their insurance requirements.

Regarding maintenance of traffic during construction, CDOT will consider mitigation strategies listed in **Section 3.19, Mitigation Summary** of the PEIS during Tier 2 processes. Lane restrictions in the peak direction generally would not be permitted during peak hours. During Tier 2 processes, CDOT will also determine whether day or night scheduling of construction is more appropriate. The Colorado Department of Transportation will work with local business owners, residents, and officials to provide adequate signage during construction.

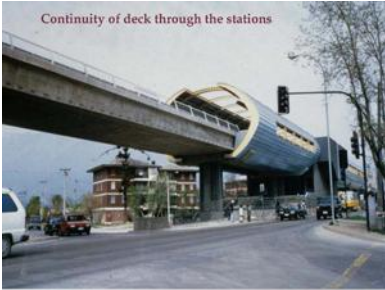
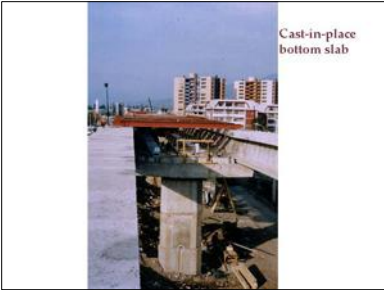
Comments

Responses



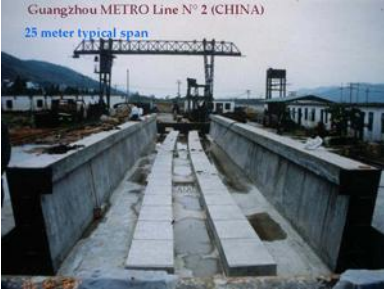
Comments

Responses



Comments

Responses



Comments

Responses



Santiago METRO Line N° 4 (CHILE)



Placing of the precast span (130 tons)
in 1 hour



Comments

Responses



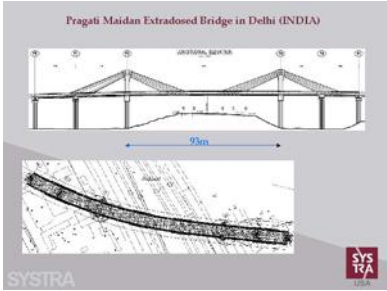
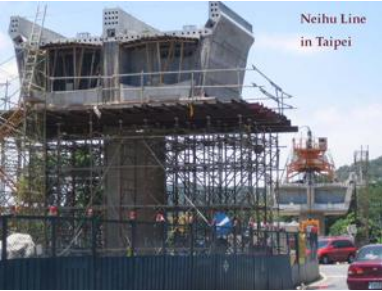
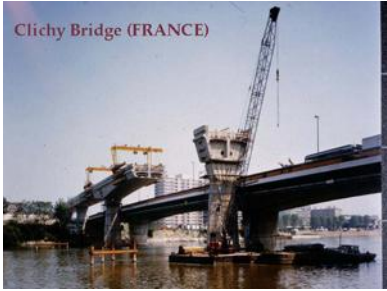
Comments

Responses



Comments

Responses



Comments

Responses



Comments

Responses

Source: Website Comment	Name: Warren May
Document Number: IND-171	City, Zip Code: Denver, 80231

Response to IND-171

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

I would like to thank the Colorado Department of Transportation for recognizing wildlife as an environmental resource of greatest public concern and, as such, including wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. As CDOT is well aware, wildlife fencing alone will not address both the safety and ecological concerns of the I-70 corridor. In fact, wildlife fencing alone, without proper wildlife crossings, will create more of a barrier for wildlife movement.

I encourage CDOT to use new data, including the current EcoLogical project underway to study wildlife movement along I-70 and make recommendations on the placement and structure of wildlife crossings. The study is being completed by CDOT, Western Transportation Institute, Center for Native Ecosystems, ECO-resolutions, and Colorado Watershed Assembly. I also encourage the agency to develop and adhere to Best Management Practices for wildlife into the revised PEIS, which will ensure that wildlife crossings are designed and constructed in a way that improves both driver safety as well as wildlife movement across the Interstate.

Thank you for your participation in the ARC International Wildlife Crossings Design Competition currently taking place at West Vail Pass (<http://www.arc-competition.com/>). I encourage your agency to utilize the innovative solutions that are produced from the ARC competition at West Vail Pass for any early action project concerning the construction of wildlife crossings.

Finally, thank you for including an elevated Advanced Guideway System in the Preferred Alternative. Not only will this improve mobility and reduce congestion, it is the best transit alternative for alleviating the barrier effect of I-70 for wildlife movement.

Comments

Responses

Source: Website Comment	Name: Rebecca Richman
Document Number: IND-172	City, Zip Code: Parker, 80134

Response to IND-172

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

A

Thank you for this opportunity to share my thoughts regarding the Colorado Department of Transportation's direction to recognize Colorado's natural heritage as an environmental resource of greatest public concern and, as such, including wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. As CDOT is well aware, wildlife fencing alone will not address both the safety and ecological concerns of the I-70 corridor. In fact, wildlife fencing alone, without proper wildlife crossings, will create more of a barrier for wildlife movement.

I encourage CDOT to use new data, including the current EcoLogical project underway to study wildlife movement along I-70 and make recommendations on the placement and structure of wildlife crossings. The study is being completed by CDOT, Western Transportation Institute, Center for Native Ecosystems, ECO-resolutions, and Colorado Watershed Assembly. I also encourage the agency to develop and adhere to Best Management Practices for wildlife into the revised PEIS, which will ensure that wildlife crossings are designed and constructed in a way that improves both driver safety as well as wildlife movement across the Interstate.

Thank you for your participation in the ARC International Wildlife Crossings Design Competition currently taking place at West Vail Pass (<http://www.arc-competition.com/>). I encourage your agency to utilize the innovative solutions that are produced from the ARC competition at West Vail Pass for any early action project concerning the construction of wildlife crossings.

Finally, thank you for including an elevated Advanced Guideway System in the Preferred Alternative. Not only will this improve mobility and reduce congestion, it is the best transit alternative for alleviating the barrier effect of I-70 for wildlife movement. Again, I applaud you for taking important steps to ensure the safety of people and our natural heritage.

Comments

Responses

Source: Website Comment	Name: Conrad Doggett
Document Number: IND-173	City, Zip Code: Eagle County

A

Everyone talks about highway congestion and how much it is going to cost to add extra lanes or trains. Why not stiffen the penalty for driving without a license and/or insurance. Seizing and selling the vehicles of those individuals will insure that they are no longer on the road. Congestion on all the roads could be reduced by 10% to 20% with little or no cost to the taxpayer's.

Response to IND-173

- A. The type of action suggested by the commenter is beyond the jurisdiction of CDOT but could be considered at the state level through the legislative process. It would likely affect statewide travel. Specific data regarding the number of unlicensed and uninsured drivers on the I-70 highway has not been assembled by the project team. While it is possible that removing vehicles from drivers who do not have insurance or licenses could affect the number of vehicles on the I-70 highway, this would not reduce the demand to travel in the Corridor. While the actual trips that could be reduced by this approach would open up some highway capacity, this capacity would likely be taken up by the trips that are not being made because of I-70 highway congestion, also known as unmet demand (unmet demand is the number of trips that are not taken, but otherwise would have been taken if not for congestion and long travel times). The net effect would be little or no reduction in congestion. This unmet demand has been documented by the project team and is discussed in **Chapter 1, Purpose and Need** of the PEIS.

Comments

Responses

Source: Website Comment	Name: Tom Helms
Document Number: IND-174	City, Zip Code: Eagle, 81631

A { 20 billion dollars would go a long way to improve I-70, traffic isn't going to get any better. Rail system is someones pipe dream, be neat to have one, but its unproven. Engineers are more capable of a solution than government, say the existing I-70 corridor is a pilot bore, its there, it works, it just needs improved on. More road, more bridges, more tunnels. We need a solution now, or in the near future not 20 years from now.

Response to IND-174

A. The rail component of the Preferred Alternative is identified as an Advanced Guideway System. The specific technology for the Advanced Guideway System has not been identified, and feasibility studies and related Tier 2 processes are required to refine the technological and other operating details. A recent high speed rail study conducted by the Rocky Mountain Rail Authority indicated that some traditional, "proven" high speed rail technologies could meet many of the Advanced Guideway System criteria.

Highway improvements are another major component to the Preferred Alternative and include capacity, interchange, and safety improvements. The Preferred Alternative also includes new or additional tunnel bores at Dowd Canyon, Eisenhower-Johnson Memorial Tunnels, Twin Tunnels, and Floyd Hill to support highway and transit components of the alternative. The other tunnels evaluated during alternatives development and screening were eliminated because of geological conditions, environmental impacts, or because the transit or highway improvements they supported were not carried forward.

The Preferred Alternative is the first comprehensive proposal for improvements to the I-70 highway since its construction. The Colorado Department of Transportation is committed to implementing recommended improvements as funding allows, and the Preferred Alternative includes a process for evaluating Corridor conditions and effectiveness of improvements every two years. This adaptive management approach allows CDOT to maximize the effectiveness of improvements and leverage available funding to meet both short- and long-term needs. In the meantime, CDOT continues to make ongoing, shorter-term safety and operational improvements in some Corridor locations, such as truck chain up areas, improved traveler message signs, park-and-ride locations, rockfall mitigation, better emergency response plans, roadside safety enhancements, and median barrier improvements.

Comments

Responses

Source: Website Comment	Name: Patrick Johnson
Document Number: IND-175	City, Zip Code: Gypsum, 81637

A My idea, would be to disallow all truck traffic between Glenwood Springs and C-470 on I-70 during the peak flow periods and on the heavy snow days. Place a substantial fine on the shippers, not the drivers or truck owners. This will force the shippers to allow additional delivery time and or find alternate shipping routes or methods. By doing this you will eliminate the bottleneck of 2 full lanes of moving traffic from trying to squeeze into one lane around a slow moving truck. This also costs the State minimal dollars to implement but creates almost instant response to positive traffic flow.

Response to IND-175

A. The lead agencies recognize that truck traffic affects traffic operations on the I-70 highway, which worsens during peak periods and on heavy snow days. The Colorado Department of Transportation explored limiting truck travel in the Corridor during peak periods. The restriction of trucks on an interstate facility is regulated by FHWA pursuant to 23 CFR 658.11. This could include restrictions such as time of day. The process identified in 23 CFR 658.111 includes coordination with local governments, analysis of effects to mobility and safety for all interstate users, and ultimate approval by FHWA. Truck drivers already voluntarily limit their usage of the I-70 highway to avoid peak periods of travel, as much as they can.

The lead agencies considered and advanced a slow-moving vehicle plan as a transportation management alternative element, included as a non-infrastructure component of the Preferred Alternative. Some of the elements of that plan specifically targeted at truck traffic, such as improved chain up stations and rest areas, can proceed with no further approval from FHWA. Improved chain up areas and enhanced traveler information strategies have been recently installed in some Corridor locations by CDOT. The Colorado Department of Transportation is committed to improving safety and mobility of all of the users of the I-70 highway and will continue to explore all options available to do so.

The Preferred Alternative provides auxiliary lanes for eastbound and westbound traffic on the west side of Vail Pass, beginning at the East Vail exit, and an eastbound auxiliary lane between Frisco and Silverthorne. Additionally, auxiliary lanes are provided for both westbound and eastbound traffic on the east side of the Eisenhower-Johnson Memorial Tunnels, beginning at approximately Bakerville and Herman Gulch, respectively; for westbound traffic between Morrison and Chief Hosa; and for eastbound traffic from Avon to Post Boulevard. These auxiliary lanes allow slow moving vehicles to pass using the middle lanes, instead of, as you suggest, creating a bottleneck in the fast lane. These highway improvements relieve congestion and improve safety for all motorists on the I-70 highway.

Comments

Responses

Source: Website Comment	Name: Jaime Jacob
Document Number: IND-176	City, Zip Code: Denver

A

I agree with the Preferred Alternative in regard to the Advanced Guideway System for the public transit option. From personal experience here in Denver, I know that people prefer train service over bus service and a train would have a better chance of being successful. It could be very successful if there is good bus service in the communities where the train stops. If advanced guideway rail isn't feasible, Bus in Guideway would be my second choice for transit, since a bus can drive directly to the stops in the communities. Also, with a guideway, accidents/traffic delays shouldn't be much of a problem. It would be fantastic to have a public transportation alternative, especially on busy weekends in the summer and winter.

Thank you for the opportunity to provide input.

Response to IND-176

A. Transit is an integral component to any transportation solution on this Corridor, and an Advanced Guideway System is identified as the preferred transit mode, in part because it is projected to attract more riders than bus service. Feasibility studies and related Tier 2 processes will focus on the feasibility of Advanced Guideway System technologies. If the Advanced Guideway System is found to be infeasible, the lead agencies could reconsider other transit technologies evaluated in the PEIS, such as bus in guideway. The Preferred Alternative allows a thorough reassessment of the effectiveness of improvements in 2020, at which time a full range of alternatives considered in the PEIS could be reconsidered.

While transit provides additional capacity to meet future travel demand to year 2050, highway improvements are also needed to address congestion and safety. The Preferred Alternative is a multimodal solution and provides the best opportunity to meet the 2050 purpose and need for the Corridor while minimizing environmental impacts.

Comments

Responses

Source: Website Comment	Name: Rob Burnett
Document Number: IND-177	City, Zip Code: Mineral County

Response to IND-177

A. Please see the response to comment [IND-106](#), which is the same comment as yours.

I would like to thank the Colorado Department of Transportation for recognizing wildlife as an environmental resource of greatest public concern and, as such, including wildlife crossings in the preferred alternative of the revised Programmatic Environmental Impact Statement (PEIS) for the Interstate 70 mountain corridor. As CDOT is well aware, wildlife fencing alone will not address both the safety and ecological concerns of the I-70 corridor. In fact, wildlife fencing alone, without proper wildlife crossings, will create more of a barrier for wildlife movement.

I encourage CDOT to use new data, including the current EcoLogical project underway to study wildlife movement along I-70 and make recommendations on the placement and structure of wildlife crossings. The study is being completed by CDOT, Western Transportation Institute, Center for Native Ecosystems, ECO-resolutions, and Colorado Watershed Assembly. I also encourage the agency to develop and adhere to Best Management Practices for wildlife into the revised PEIS, which will ensure that wildlife crossings are designed and constructed in a way that improves both driver safety as well as wildlife movement across the Interstate.

Thank you for your participation in the ARC International Wildlife Crossings Design Competition currently taking place at West Vail Pass (www.arc-competition.com). I encourage your agency to utilize the innovative solutions that are produced from the ARC competition at West Vail Pass for any early action project concerning the construction of wildlife crossings.

Finally, thank you for including an elevated Advanced Guideway System in the Preferred Alternative. Not only will this improve mobility and reduce congestion, it is the best transit alternative for alleviating the barrier effect of I-70 for wildlife movement.

Comments

Responses

Source: Website Comment	Name: Otto Vangeet
Document Number: IND-178	City, Zip Code: Idaho Springs, CO 80452

A the revised PEIS is excellent and represents a good minimum impact strategy, large improvement over previous study. I have the following concerns:

1. Incremental improvements such as interchange improvement will occur without funding for the long term preferred alternative of elevated fixed guideway. Could result in more lanes and destroying the mountain corridor with no long term solution.

Response to IND-178

A. The Colorado Department of Transportation recognizes that sufficient funding has not been identified to implement the Preferred Alternative, or any of the alternatives evaluated in the PEIS. The timing of construction of the Preferred Alternative will be based on priorities established in the statewide planning process and available funding. Due to the uncertainty of funding, the timing of improvements is also uncertain. However, the Preferred Alternative allows CDOT to focus on near-term issues while maintaining the vision of meeting the 2050 forecast travel demands for the Corridor. This adaptive management approach allows CDOT to optimize the effectiveness of improvements and leverage available funding to meet both short- and long-term needs.

The Colorado Department of Transportation is committed to implementing recommended improvements as funding allows, and the Preferred Alternative includes a process for evaluating Corridor conditions and effectiveness of improvements every two years. Acknowledging that future trends and conditions are dynamic, the Preferred Alternative uses triggers to recommend future additional transportation solutions based on proven need.

The Preferred Alternative prioritizes some interchange modifications, safety improvements, and limited capacity improvements such as adding a third bore to the Twin Tunnels, making improvements to the east of the Twin Tunnels, addressing interchange deficiencies at Empire Junction, and adding or thoroughly evaluating an Advanced Guideway System, ahead of providing six-lane highway capacity. Improvements are phased this way to minimize construction disruption and optimize capacity and congestion relief. These initial improvements will be designed to allow the implementation of the Advanced Guideway System, and will be completed under Tier 2 processes. Every effort will be made to avoid, minimize, and mitigate impacts on the Corridor.

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Otto Vangeet (continued)
Document Number: IND-178	City, Zip Code: Idaho Springs, CO 80452

Response to IND-178 (continued)

A. (Continued)

The Advance Guideway System is a major component of the Preferred Alternative, and the lead agencies are committed to evaluating an Advanced Guideway System within the Corridor. However, before implementation of the Advanced Guideway System component, additional study is required. These subsequent feasibility studies and related Tier 2 processes are needed to select an appropriate and viable technology as well as to determine costs and benefits, safety, reliability, environmental impacts, and other considerations to support this substantial monetary investment.

Comments

Responses

Source: Website Comment	Name: Otto Vangeet (continued)
Document Number: IND-178	City, Zip Code: Idaho Springs, CO 80452

B

2. If the "high tech" solution becomes unfeasible then elevated conventional steel wheel rail should be considered before adding additional lanes. Modern steel wheels rail on concrete ties and welded rail remains the current solution in similar terrain in the Alps and around the world. If steel wheel rail become the solution then the route must be allowed to occasionally go outside the boundaries of the current I-70 corridor.

C

3. A first phase rail solution should be between Golden as proposed to the transfer station in Frisco, that is the most congested portion of the corridor. Future phases should then be to Vail, Avon, Glenwood Springs and ultimately Grand Junction to be a true solution. The Frisco to Vail extension should be cofunded by Vail (does not effect PEIS).

Response to IND-178 (continued)

B. Advanced Guideway System feasibility studies and related Tier 2 processes will further define the feasibility of the Advanced Guideway System and its technology. A recent high speed rail study conducted by the Rocky Mountain Rail Authority indicated that some traditional, "proven" high speed rail technologies could meet many of the Advanced Guideway System criteria. If the Advanced Guideway System is found to be infeasible, the lead agencies could revise the Record of Decision to consider other transit technologies fully evaluated in the PEIS, including heavy rail. The Tier 1 PEIS identifies the general location of improvements as generally along the existing I-70 highway alignment. However, specific alignments and footprints for improvements would be determined in Tier 2 processes.

C. Note that while Genesee to Frisco is an identified congestion area, congestion also regularly occurs between Vail and Vail Pass, and in the Dowd Canyon area. See **Figure 1-10** of the PEIS for problem areas of mobility, congestion, and safety.

Phasing of the rail solution will be addressed as part of the planned Advanced Guideway System feasibility studies and related Tier 2 processes. These studies will evaluate priorities, including phasing, with regard to congestion relief, construction cost, and ridership.

Funding options for the Advanced Guideway System will be examined during feasibility studies and related Tier 2 processes, including funding sources from entities that would benefit, such as Vail. **Chapter 5, Financial Considerations** of the PEIS summarizes the cost of the Preferred Alternative, funding allocated to the I-70 Mountain Corridor, sources for CDOT's funding (and its limitations), and other potential funding sources, including funding sources that apply to limited geographical areas, such as Vail, and require voter approval, constitutional amendments, or both.

The western terminus of the PEIS is at Glenwood Springs, and the Advanced Guideway System terminates at the Eagle County Airport. This would not preclude extension to Grand Junction in the future under separate studies.

Comments

Responses

Source: Website Comment	Name: Otto Vangeet (continued)
Document Number: IND-178	City, Zip Code: Idaho Springs, CO 80452

D 4. Before significant paving alternatives are considered the cumulative effect of additional car and truck traffic needs to be considered including pollution (including CO2 and global warming) from vehicles, accidents/injuries, additional drilling required by fossil fuel, etc.

Response to IND-178 (continued)

D. Cumulative impacts were evaluated in **Chapter 4, Cumulative Impacts Analysis** of the PEIS and are discussed in detail in the *I-70 Mountain Corridor PEIS Cumulative Impacts Technical Report* (included electronically on CD-ROM in Volume 6 of the Technical Reports and on the project website).

The PEIS evaluated the increased energy demands for the various alternatives included in the PEIS. **Table 3.16-1** of the PEIS includes a chart that presents estimated vehicle miles of travel on the I-70 highway, daily transit energy consumption and other factors to approximate changes in energy consumption relative to the No Action Alternative. Based on this information, the Preferred Alternative is anticipated to increase daily energy consumption by 6 to 7 percent. The alternatives that do not include rail transit are anticipated to increase energy consumption by up to 17 percent.

Air pollutant emissions in year 2035 and 2050 are anticipated to be less than current day emissions for the Action Alternatives, including the Preferred Alternative, even though 2035 and 2050 traffic volumes will be higher than year 2000 volumes. Emissions in the future are assumed to be lower because stricter regulations are being enacted to control emissions, and older, higher-polluting vehicles will continue to be replaced by newer, lower-polluting vehicles. Tier 2 processes will take into account the latest laws, regulations, and circumstances.

The PEIS also evaluated the safety of the various alternatives. Improving safety was one of the key factors considered during the development and evaluation process. The Preferred Alternative includes an Advanced Guideway System to provide needed capacity in the Corridor and highway improvements to reduce congestion and improve safety. The Preferred Alternative, if fully implemented, is projected to reduce the fatality rate from 0.50 per 100 million person miles to a range of 0.31 to 0.34 per 100 million person miles, and the majority of those are on the highway.

Some project-specific Tier 2 processes will also evaluate cumulative impacts for specific projects in combination with past, present, and future reasonably foreseeable actions.

Comments

Responses

Source: Website Comment	Name: Otto Vangeet (continued)
Document Number: IND-178	City, Zip Code: Idaho Springs, CO 80452

5. Recommend other transportation solutions in conjunction with recommended solution such as a revised ski train to winter park, encouraging more rail freight to reduce truck traffic which causes much of the problem, opening up the abandoned Tennessee Pass line, restrict truck traffic during peak weekend times by charging a truck fee if operating during those times (could be done at weight stations), running additional bus service from existing RTD park and ride lots to Frisco transportation center and other locations, etc.

Response to IND-178 (continued)

E. The Colorado Department of Transportation considered options for increasing the frequency of service for the Winter Park ski train (discontinued in 2009). However, due to the volume of freight traffic through the Moffat Tunnel and limited air ventilation in the tunnel, the existing line cannot accommodate more than two round-trip passenger trains per day. Because this service has relatively low travel speeds and low capacity, it is not able to remove enough traffic to change operations or reduce travel time in the Corridor to meet the purpose and need of the project, and it was eliminated as a standalone alternative. A revived ski train service could be considered by others but does not address the purpose and need for the I-70 Mountain Corridor.

It is not within the purview of CDOT to regulate the movement of freight. Union Pacific, which owns the line over Tennessee Pass, would need to look at re-opening the line. The Tennessee Pass Line is currently classified by the Surface Transportation Board as out-of-service from Gypsum to Parkdale. For this portion of the line to be reactivated, it would require approval from the Surface Transportation Board. It would likely be expensive to rehabilitate the Gypsum to Parkdale portion of the line, the crossings, and yards. Given the steep grades on this line, operational costs for freight trains could be less economical than trucking.

The restriction of trucks on an interstate facility is regulated by FHWA pursuant to 23 CFR 658.11. This could include restrictions such as time of day. The process identified in 23 CFR 658.111 includes coordination with local governments, analysis of effects to mobility and safety for all interstate users, and ultimate approval by FHWA. Truck drivers voluntarily limit their usage of the I-70 highway to avoid peak periods of travel, as much as they can.

The lead agencies considered and advanced a slow-moving vehicle plan as a transportation management alternative element, included as a non-infrastructure component of the Preferred Alternative. Some of the elements

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Otto Vangeet (continued)
Document Number: IND-178	City, Zip Code: Idaho Springs, CO 80452

Response to IND-178 (continued)

E. (Continued from previous page)

of that plan specifically targeted at truck traffic, such as improved chain up stations and rest areas, can proceed with no further approval from FHWA. Improved chain up areas and enhanced traveler information strategies have been recently installed in some Corridor locations by CDOT. The Colorado Department of Transportation is committed to improving safety and mobility of all of the users of the I-70 highway and will continue to explore all options available to do so.

Private transit providers will continue to operate in the Corridor. While bus service was not advanced as the primary transit mode in the Preferred Alternative, promoting the use of shuttle and bus services in mixed traffic in the Corridor is part of the non-infrastructure components that can provide a short-term solution for the Corridor ahead of implementing the Advanced Guideway System and highway improvements.

Comments

Responses

Source: Website Comment	Name: Otto Vangeet (continued)
Document Number: IND-178	City, Zip Code: Idaho Springs, CO 80452

6. Ultimate solution will need to involve DRCOG and better connection to transportation hubs such as Union station and maybe DIA - however just point this out and do not delay PEIS.

Response to IND-178 (continued)

F. The Denver Regional Council of Governments has been and will continue to be involved in all future processes.

Future rail studies, such as the Colorado State Passenger and Freight Rail Plan and Colorado Interregional Connectivity Study, are planned to address Denver regional rail connectivity. In addition, Advanced Guideway System feasibility studies and related Tier 2 processes are planned to specifically address the viability of rail, including effects of connections on technology and ridership projections

Rail service to Denver International Airport and other locations throughout the Denver metropolitan area is currently being implemented RTD. The PEIS assumes all transit alternatives studied would connect with the RTD West Corridor line in Golden. As noted in **Section 1.5, "What are the study limits and why were they selected?"** of the PEIS, the project termini do not preclude other National Environmental Policy Act transportation improvement studies to address transit needs outside the Corridor. Additional connections between improvements in the Corridor and RTD's FasTracks rail system will need to be coordinated between the lead agencies, RTD, and DRCOG.

Comments

Responses

Source: Website Comment	Name: Eileen & Walter Kintsch
Document Number: IND-179	City, Zip Code: Boulder, 80302

A As long-time Colorado residents we are of course alarmed at the increasing traffic congestion along the I-70 Mountain Corridor, especially on weekends. In redeveloping the Mountain Corridor we fully support the goal of the revised PEIS draft to improve transportation efficiency by providing alternative modes of transportation: specifically, rail development as an alternative to broadening the existing highway to 6 lanes.

B The high upfront costs of rail building are ultimately offset by reduced impact on the surrounding environment, on the wildlife that inhabits these areas, and on the mountain communities that line the corridor. In planning the redevelopment and during construction we urge you to be sensitive to these issues by providing suitable crossing structures and other wildlife mitigation measures along the full length of the corridor. Wildlife, especially migrating species, need multiple well-designed structures in order to safely cross the traffic corridor that divides their habitat. Maintaining healthy and diverse wildlife populations is an important goal in itself, but we should also be aware that our abundant wildlife is a major attraction for Colorado visitors and residents alike. Please know that your efforts to mitigate environmental impacts are appreciated.

Response to IND-179

- A. The Preferred Alternative is a multimodal solution that includes non-infrastructure, transit, and highway improvements. The Advanced Guideway System provides needed capacity in the Corridor. The highway improvements are needed to reduce congestion and improve safety. The Preferred Alternative provides the opportunity to meet 2050 purpose and need for the Corridor. Without the transit component of the Preferred Alternative, the highway improvements alone would not provide sufficient capacity through 2050.
- B. Wildlife crossings are an important component of the Preferred Alternative. The Colorado Department of Transportation is committed to adhering to the mitigation measures and agreements listed in the ALIVE documentation, included in **Appendix E, A Landscape Level Inventory of Valued Ecosystem Components (ALIVE) Memorandum of Understanding** of the PEIS, during Tier 2 processes.

The Colorado Department of Transportation will use currently available information on wildlife movement and wildlife crossings during Tier 2 processes. The Colorado Department of Transportation will use best management practices for wildlife to make sure wildlife crossings are designed and constructed to improve driver safety and to accommodate wildlife movement across the I-70 highway.

Comments

Responses

Source: Website Comment	Name: Wayne Graham
Document Number: IND-180	City, Zip Code: Denver, 80220

I am providing the following comments regarding the Interstate 70 Mountain Corridor Revised Draft Programmatic Environmental Impact Statement, made available on September 10, 2010 for public review and comment:

A

I attended the 2006 Winter Olympics in Turin, Italy. Using two-lane (one lane in each direction) roadways, officials moved a large number of people from urban centers to the mountain villages/venue by establishing rules that promoted the use of the free bus system and discouraged the use of private vehicles. For I-70, greater attention needs to be placed on transporting more people using the roadway as currently configured. Financial incentives for car pooling/bus use and disincentives for single-occupancy vehicle use may help achieve this.

Response to IND-180

A. Traffic management for major events such as the Olympics serves a limited number of destinations, schedules, and trip purposes. This is different than the traffic management requirements for the travelers on the 144-mile I-70 Mountain Corridor, as there are a diverse number of trip purposes, destinations, and time-of-travel patterns.

The PEIS has identified that for a transit system to successfully serve the Corridor, it must offer competitive travel times to the highway. Operating buses in mixed traffic does not meet the project’s purpose and need because it would not address travel times or congestion.

The Colorado Department of Transportation agrees that using the existing infrastructure more efficiently is important to help address both short- and long-term needs in the Corridor. The Preferred Alternative, as described in **Chapter 2, Purpose and Need** of the PEIS, includes non-infrastructure components to promote increased transit use, promote high occupancy travel and public transportation, convert single occupancy vehicle commuters to high occupancy travel and/or public transportation, and implement transit promotion and incentives. These actions can be implemented immediately after a Record of Decision is issued and funding is identified to address immediate issues in the Corridor in advance of major infrastructure improvements. See the response to comment [LO-02-B](#) for an expanded discussion of bus and carpooling options considered and included in the Preferred Alternative as interim or complementary measures that could be implemented. Note that the existing vehicle occupancy of 2.8 persons per vehicle in the Corridor is already high. These and other transportation management considerations are detailed in Appendix A of the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website).

Comments

Responses

Source: Website Comment	Name: Wayne Graham (continued)
Document Number: IND-180	City, Zip Code: Denver, 80220

B

The Advanced Guideway System/Train is very expensive and I don't think that it would be heavily used except at very limited times. You can't put kayaks, a trunk full of camping equipment, snowmobiles, motorcycles in tow, or many other things on a train. The Ski Train, from Union Station to Winter Park, ceased operation after the 2008-2009 ski season. Attempts by a new operator to revive the ski train for the 2009-2010 season failed. If a train could not be operated profitably on this route when the track already exists, it would be IMPOSSIBLE to profitably operate a train along the I-70 corridor where BILLIONS would be needed to construct the track/guideway. I believe that the guideway system/train does not meet the test of being "economically viable over the long term."

Response to IND-180 (continued)

B. Although the cost of implementing the Preferred Alternative is high, the lead agencies consider it to be a necessary investment that provides the best opportunity to meet the 2050 purpose and need in the Corridor while minimizing environmental and community impacts. The Advanced Guideway System may not serve every traveler's needs, as you suggest. For this reason and others there will be continued demand for private automobiles, and the highway improvements included in the Preferred Alternative serve those travelers too.

You are correct that trips for recreational purposes have different characteristics than commuting trips. Transit service will require longer boarding times and at-grade platforms to allow passengers sufficient time and ease to board with recreational equipment. Transit operating characteristics will be defined during feasibility studies and related Tier 2 processes. The Advanced Guideway System includes transit stops throughout the Corridor, providing access to recreation resources. Section 4.2.1 of the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website), explains that recreationalists provide predictable travel patterns, including travel demand during specific peak periods and relatively concentrated travel destinations.

The Winter Park train that you mention served a different purpose and different destinations than those in the Corridor and does not address the need for increased capacity and mobility in the I-70 Mountain Corridor. The economic model for the Winter Park ski train is also different than that of the proposed Advanced Guideway System, but the lead agencies agree that additional information about the viability of the Advanced Guideway System, including costs, will need to be gathered during feasibility studies and related Tier 2 processes.

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Wayne Graham (continued)
Document Number: IND-180	City, Zip Code: Denver, 80220

A high priority associated with the preferred alternative includes widening I-70 to six lanes (3 in each direction) between Floyd Hill and the Twin Tunnels. Page ES-25 states: "That five-mile segment from Genesee to the tunnels just east of Idaho Springs is where some of the worst weekend congestion occurs." I personally have never experienced any significant delays on eastbound trips once I have passed Idaho Springs and the twin tunnels. On westbound trips, delays do occur along the five-mile segment noted. I believe that this is due to more vehicles on I-70 within this stretch than can be conveyed by the two westbound lanes of I-70 at the tunnels, Idaho Springs, Downieville, etc. If each of the two westbound lanes can handle, at most, 2,000 vehicles per hour, vehicles will back up, somewhere, when the inflow of vehicles exceeds this. If the roadway upstream from the restriction was increased to 10 lanes, just as many vehicles would back up, they would just do so closer to the source of the restriction, but they wouldn't get through the restriction any faster.

Response to IND-180 (continued)

- B. (Continued from previous page)

Feasibility studies and related Tier 2 processes will determine fare pricing for the Advanced Guideway System. Fare pricing seeks to find the best balance between ridership (number of people that use transit) and operations cost recovery. Fare subsidies, measured by the difference between operating costs and passenger fare revenues, are common for public transportation systems. Fare structures and subsidies, as well as other operating plans specific to transit components, will be developed in these subsequent studies and related Tier 2 processes.
- C. Agreed, the sentence has been rewritten accordingly in **Section ES.22** of the PEIS as follows: "This 5-mile segment from Floyd Hill to the Twin Tunnels has some of the worst weekend congestion in the westbound direction. The reduction from three lanes to two lanes at Floyd Hill and the constriction at the Twin Tunnels both contribute to this congestion."

The eastbound direction is affected by the constriction at the Twin Tunnels, resulting in backups to the west. Six-lane capacity improvements through the Twin Tunnels under the Preferred Alternative Minimum Program of Improvements alleviates these backups and accommodates the increased demand to the east.

Comments

Responses

Source: Website Comment	Name: Bill Petersen
Document Number: IND-181	City, Zip Code: Denver

Let us not forget that I-70 is a transportation corridor for every town it passes near to. The products that each town and its citizens/visitors use are delivered by truck.

A

Just as any new guideway system to be built will be built as safe as possible so too should I-70 be built as safe as possible. I-70 will be a safer "trucking" road if three lanes are used in the corridor between Floyd hill and exit 195. I-70 will be safer with three lanes vs. two in each direction because the right lane will always be used by slow, heavy vehicles and allowing two lanes rather than one to flow past those slow, heavy vehicles creates a safer and higher speed interstate.

Response to IND-181

A. Yes, the majority of truck trips in the Corridor serve destinations within the Corridor. The Colorado Department of Transportation has been making ongoing, shorter-term safety and operational improvements in some Corridor locations, including truck chain up areas, improved traveler message signs, park-and-ride locations, rockfall mitigation, better emergency response plans, roadside safety enhancements, median barrier improvements, and tunnel enhancements.

Heavy trucks do contribute to congestion; in the shorter term, the Preferred Alternative includes auxiliary lanes in specific locations to alleviate these congested conditions. If the Maximum Program of Improvements is fully implemented, six-lane capacity would be provided from Floyd Hill to the Eisenhower-Johnson Memorial Tunnels. Long-term improvements improve safety for all travelers in the Corridor.

The lead agencies considered and advanced a slow-moving vehicle plan as a transportation management alternative element, included as a non-infrastructure component of the Preferred Alternative. Some of the elements of that plan specifically targeted at truck traffic, such as improved chain up stations and rest areas, can proceed with no further approval from FHWA. Improved chain up areas and enhanced traveler information strategies have been recently installed in some Corridor locations by CDOT.

Comments

Responses

Source: Website Comment	Name: Nick Isenberg
Document Number: IND-182	City, Zip Code: Glenwood Springs, 81601

A

It is essential to connect Colorado's major airports by rail. It doesn't matter if it is monorail or more traditional rail as long as it is moderately high speed, frequent and dependable.

Dependable reasonably priced rail to Denver, DIA and the Grand Junction airport would totally change how I would travel to the Eastern slope and fly out of Grand Junction.

Right now, if I have to fly out of Denver, even late in the day or evening, I have to go the day before to be certain to connect with my flight.

Dependable rail would eliminate the need for staying in motels as often in Denver before flights and make it possible for us to travel more often for less.

It would reduce the use of our cars and allow us to travel more at the same time.

Response to IND-182

A. The project limits for the I-70 Mountain Corridor are based on the needs of the I-70 Mountain Corridor. While the I-70 Mountain Corridor improvements do not preclude and could even support the development of a regional transit system, connecting Colorado's major airports and providing a regional transit system does not meet the PEIS purpose and need and is outside the scope of the Corridor improvements.

Based on the travel demand model described in the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the FPEIS Technical Reports and on the project website), a direct connection from the Corridor to Denver International Airport would increase ridership by approximately 10 percent. Capturing this small volume of transit riders (and diverted traffic) is not required to meet the purpose and need for the Mountain Corridor and does not warrant the expense or impacts of extending the termini to Denver International Airport.

Comparatively speaking, the number of recreational visitors using the Corridor arriving at Denver International Airport is very small in comparison to the number of visitors that use the Corridor that originate in the Denver metropolitan area and Corridor communities. Extending the system east to Denver International Airport or west to Glenwood Springs is not part of this project but would not be precluded in the future. Please also see the response to [IND-202-B](#) for a more detailed discussion of project termini.

The Preferred Alternative is a multimodal solution, which includes non-infrastructure improvements, highway improvements, and, as your comment notes, an Advanced Guideway System. Connections between this Advanced Guideway System component of the Preferred Alternative and other locations in the Denver metropolitan area will be studied as part of the Colorado Interregional Connectivity Study being conducted by CDOT in coordination with RTD.

Comments

Responses

Source: Website Comment	Name: Susan Snyder
Document Number: IND-183	City, Zip Code: El Paso County

I am impressed how thorough the PEIS is. My preference would be for 6 lane- 65 mph option. Something needs to be done soon! With respect to the HOV lanes or premium travel times, or lane shifting: good idea. Was there any consideration to allotting travel times to passenger vehicles. People choose their return time from the mountains, for example. Once the max quantity of vehicles have been attained during those times, then that departure time is no longer available. Other drivers must choose a different departure time. If people depart outside of their assigned time, they have to pay a premium toll charge..

The elevated rail idea is great. It does minimize the visual scenery, but a worthy solution.

Regarding the necessary 3 tunnels for the 6 lane widening. Go for it. Contact the Swiss, they are efficient and brilliant at digging tunnels.

Response to IND-183

A. The Preferred Alternative includes a non-infrastructure component, highway improvements, and an Advanced Guideway System. The highway improvements have both 55 mph and 65 mph design options, and decisions on those options will be made during project-specific Tier 2 processes.

The Colorado Department of Transportation has been making ongoing, short-term safety and operational improvements in some Corridor locations, including truck chain up areas, improved traveler message signs, park-and-ride locations, rockfall mitigation, better emergency response plans, roadside safety enhancements, median barrier improvements, and tunnel enhancements.

The Preferred Alternative includes use of a variety of technology advancements to improve management of traffic operations. However, restricting drivers to specific times of travel is not being considered and is not consistent with operation of a federal interstate.

The Advanced Guideway System does result in visual impacts because it is elevated throughout most of its reach. However, it can be constructed at grade in some locations to minimize impacts. Tier 2 processes will consider ways to minimize visual impacts and blend the system into the landscape through the I-70 Mountain Corridor Context Sensitive Solutions process.

Tunneling construction options will be looked at in Tier 2 processes.

Comments

Responses

Source: Letter	Name: Dave Watts
Document Number: IND-184	City, Zip Code: Castle Rock, 80104

Castle Rock, CO 80104-1207

A Please put in a "Bike Trail" to support tourism, recreation & alternative Dan

Response to IND-184

- A. It is assumed the commenter meant to say "Please put in a "bike trail" to support tourism, recreation, and alternative modes." The PEIS found that bicycle improvements alone do not have the ability to remove substantial traffic from the Corridor in order to reduce congestion and were screened out as stand-alone alternative elements for this reason. However, bike improvements are an integrated multimodal component of the Preferred Alternative. The specific highway improvements identified in the Consensus Recommendation propose a bike trail from Idaho Springs to Hidden Valley and from Hidden Valley to US 6.

Comments

Responses

Source: Letter	Name: Bert Melcher
Document Number: IND-185	City, Zip Code: Denver, 80237

In addition to the printed document of my formal comments on the subject Draft that I mailed on November 4, 2010, I am supplementing it with these comments on the Comments by others on the subject Draft.

1. I support the comments of the Center for Native Ecosystems *in toto*.
2. I support the comments of the Colorado Rail Passenger Association submitted by Mrs. Edit Bryan *in toto*.
3. I support the comments of the Colorado Environmental Coalition *in toto*, with the added comment that the ridership survey they conducted should be expanded into a larger and more detailed study to use in demand modeling and forecasting..
4. I support the comments of Trout Unlimited *in toto*.
5. I support the comments of the Southwest Energy and Efficiency Project *in toto*.
6. I support the comments of the Sierra Club *in toto* subject to the comment that the Tier 1 Final PEIS should be the organ for overview aspects of the Sierra Club concerns about connectivity and the Tier 2 studies should address the details with intensity and extensity for areas east and west of C-470.

A

Response to IND-185

A. Please refer to responses to the comment documents you reference (in order): [ORG-26](#), [ORG-04](#), [ORG-17](#), [ORG-27](#), [ORG-22](#), and [ORG-16](#).

Regarding expanding the ridership survey by the Colorado Environmental Coalition, the lead agencies agree that additional and updated ridership studies will need to be conducted and will be included in feasibility studies and related Tier 2 processes.

Comments

Responses

Source: Website Comment	Name: Ken Katt
Document Number: IND-186	City, Zip Code: Littleton, 80120

CDOT has come up with a \$20 billion "Preferred Alternative" for the I-70 mountain corridor at a time when it lacks the financial resources necessary to provide basic maintenance throughout the state of Colorado.

So, let's do some basic math...

After budget overruns and interest costs are included, a \$20 billion project will actually end up costing in excess of \$50 billion - minimum - which is \$10,000 for every man, woman and child in Colorado.

Even a shorter rail/monorail system from Golden to Frisco would have a capital cost price-tag of \$5 billion, which would come to at least \$15 billion after budget overruns and interest costs are included. That's \$3,000 for every man, woman and child in Colorado.

Does CDOT honestly believe we should seriously consider wasting that kind of money on the mountain corridor when we can't even find the money to pay for bridge repairs in other areas of the state, including \$800 million or so to repair the I-70 viaduct in the Vasquez/Colorado Blvds area?

A

Response to IND-186

A. The Colorado Department of Transportation originally placed a \$4 billion threshold on the cost of preferred transportation solutions for the Corridor. Stakeholders strongly objected to this threshold; they felt it was arbitrary, limited the possible transportation solutions, and did not accommodate a long-term vision for the Corridor. In response to these comments, CDOT committed to a long-term (50-year) vision, removed the \$4 billion threshold, and convened the Collaborative Effort. The Collaborative Effort was charged with reaching consensus on a recommended transportation solution for the I-70 Mountain Corridor. The group reached a consensus on a multimodal recommendation that addresses long-term and short-term needs. The Consensus Recommendation was identified as the Preferred Alternative in the PEIS. For more information on the process used for identifying the Preferred Alternative, see **Section 2.7, "What was the decision making process for identifying the Preferred Alternative?"** of the PEIS.

Cost estimates for alternatives were developed in 2004 from preliminary design item costs, cost estimating contingency factors, and other component costs. The Colorado Department of Transportation updated the 2010 cost estimate based on a revised methodology to provide a more reasonable range of costs consistent with a Tier 1 document for the 21 Action Alternatives, including the Preferred Alternative. The revised methodology focuses on Year of Expenditure cost using a midyear of construction of 2020 for the Minimal Action, while all other alternatives use a midyear construction of 2025, which is the midyear of the planning period. **Chart 5-1 in Chapter 5, Financial Considerations** of the PEIS shows capital cost by alternative; you will note that a \$50 billion cost is not envisioned, but could be possible with a later year of expenditures or greater risks than those identified. See the *I-70 Mountain Corridor PEIS Cost Estimates Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website) for details on estimated methodology and assumptions.

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Ken Katt (continued)
Document Number: IND-186	City, Zip Code: Littleton, 80120

Response to IND-186 (continued)

A. (Continued from previous page)

The timeframe for implementing components of the Preferred Alternative is wide ranging; future Tier 2 processes will identify project level improvements. Those studies will include more detailed design information, specific mitigation measures to offset impacts, and project-specific cost estimates.

The lead agencies recognize that additional revenue, leadership, and support from the citizens of Colorado will be required to implement the Preferred Alternative. As discussed in **Chapter 5, Financial Considerations** of the PEIS, CDOT's budget is insufficient to implement the entire Preferred Alternative. The I-70 Mountain Corridor is important to Colorado's economy, and multimodal improvements are one of the highest transportation priorities in the state. Options for innovative funding sources include public/private partnerships, tolling, bonding/loans, and Corridor-specific resources (which are funding sources that apply to limited geographic areas and require voter approval, constitutional amendments, or both). These will be further evaluated in Tier 2 processes.

Comments

Responses

Source: Website Comment	Name: Ken Katt
Document Number: IND-187	City, Zip Code: Littleton, 80120

What CDOT hasn't gone out of their way to publicize is the fact that both the EPA and Army Corps of Engineers both rated the "bus" alternatives at, or near, the very top of their lists when they were required to weigh in on the matter as part of the PEIS process.

X Since the EPA has oversight responsibilities for NEPA, and the Corps has oversight responsibilities for the Clean Water Act, this speaks well for the environmentally-friendly nature of the "bus" alternatives.

In fact, with the EPA rating the rail and/or AGS options significantly lower than the bus alternatives, it makes you wonder why other so-called environmental groups are supporting the more expensive options. Could it be that they're simply trying to delay the process so that nothing ever gets done?

Response to IND-187

A. The Environmental Protection Agency and U.S. Army Corps of Engineers did rate bus alternatives highly based on the 2004 Draft PEIS. However, the primary reason that the bus alternatives rated higher was that the bus alternatives as described in the 2004 Draft did not extend west of the Eisenhower-Johnson Memorial Tunnels and did not provide adequate capacity past the year 2025. As such, these alternatives also performed poorly for meeting the purpose and need for the project (based on access and congestion relief), particularly when the planning horizon was extended to 2050. In the Revised Draft PEIS, the rubber tire transit alternatives, including Bus in Guideway alternatives, were extended to Eagle County Regional Airport in order to provide the best opportunity to meet the 2050 purpose and need and be more comparable to the fixed guideway transit alternatives. The Preferred Alternative is a multimodal solution that has the best opportunity to meet the purpose and need while minimizing environmental impacts.

Comments

Responses

Source: Website Comment	Name: Ken Katt
Document Number: IND-188	City, Zip Code: Littleton, 80120

Response to IND-188

A. Please see the response to your comment [IND-186](#) for a discussion of project costs and funding.

CDOT's "handling" of the I-70 mountain corridor issue under the Ritter/George administration leaves a lot to be desired.

What needs to be answered by either Russell George or Gov. Bill Ritter is how, under their "leadership", this went from a project with a \$4 billion cap - which we didn't have a clue how to pay for -to a \$20 billion "Preferred Alternative" - that we have even less of a clue how to pay for. Unless, of course, one of them found that magic forest where money actually does grow on trees!!

A

And to think that CDOT wasted only an additional \$5 million to provide more "studies" that helped it come to this conclusion makes me wonder what they would have ended up with if they'd wasted \$10 billion on a "Revised Draft PEIS"!! Hell, maybe it would have come up with a \$50 billion "Preferred Alternative", which is actually how much it will cost - minimum - after cost overruns and interest costs are added.

That comes out to \$10,000 for every man, woman and child in Colorado - current population 5 million. Wow!! What a sweet deal for the taxpayers!! Thanks CDOT!!

Comments

Responses

Source: Website Comment	Name: Ken Katt
Document Number: IND-189	City, Zip Code: Littleton, 80120

Here's an idea: Instead of constantly trying to eliminate congestion by continually widening the highway, why don't we simply provide a means for a traveler to bypass the congestion by opting for a "transit" option, rather than a "driving" option?

A

In other words, we don't need to build out a full-blown high-speed rail/monorail system as proposed by those wanting to benefit from development opportunities - also known as TOD. All we need to do is provide a "bypass" mechanism where there's systemic congestion.

Response to IND-189

A. A "bypass" or transit option, as suggested in your comment, is a solution that has been identified by the lead agencies as a component of the Preferred Alternative. Transit alone does not meet the purpose and need of the project. The lead agencies recognize the importance of both transit and highway improvements as a means for providing needed capacity and enhanced mobility in the Corridor. The transit component, an Advanced Guideway System, will shift some travel from roadways to transit and will accommodate more trips than could be provided by highway improvements alone. The transit system extends continuously through much of the Corridor (from the Eagle County Regional Airport to the Jeffco Government Center light rail station in Golden) because systemic congestion occurs through much of the Corridor and because a "piecemeal" approach to a transit solution would not meet the project's purpose and need of enhancing mobility and reducing congestion.

Under the adaptive management approach of the Preferred Alternative, additional highway capacity would only occur at specific locations in the Corridor, and capacity improvements would not be triggered until the Advanced Guideway System is implemented or is determined infeasible. Together, the highway and transit improvements accommodate the predicted future travel demand, provide for a greater number of person trips, and reduce travel times.

Comments

Responses

Source: Website Comment	Name: Ken Katt
Document Number: IND-190	City, Zip Code: Littleton, 80120

I'm not sure why CDOT thinks they need to pay for so many bus stations that are included as part of the "bus-in-guideway" alternatives. Seems to me that existing RTD Park-n-Rides could be used in the Denver area, and there's not much need for them anywhere else, at least not initially.

If, at a later point in time there's a particular municipality - Idaho Springs for instance? - who feel they need a station, that's something that should be paid for with their own "local" dollars, not CDOT's.

A

If you remove all the bus stations included in the bus alternatives as a cost item, that's \$160 million less that CDOT will need to spend. Unless, of course, CDOT is actually looking for reasons to waste excessive amounts of taxpayer dollars. (Based on everything else I've seen from CDOT, that's not an unreasonable conclusion.)

Response to IND-190

A. The travel demand analysis provided in the PEIS suggests that mass transit, in combination with highway improvements, is needed to relieve congestion, enhance mobility, and improve safety throughout the I-70 Mountain Corridor. The transit component of the Preferred Alternative can accommodate more trips than could be provided by highway improvements alone. It is for this reason, among others, that transit and transit stops are proposed throughout the Corridor.

In order to guide Corridor users away from automobiles, the transit option must be able to provide reasonable access to destinations on the same level an automobile allows. Although buses may not stop at every station, depending on route purpose, the option to stop is necessary to increase use and create a diverse route system. Without a system of stops that provides this variety, ridership cannot be expected to increase to projected numbers and meet the intent of the alternative, or the purpose and need of the project. The specific locations and costs of stations for the bus alternatives have not been determined in this Tier 1 PEIS.

As discussed in **Chapter 5, Financial Considerations** of the PEIS, lawmakers and citizens recognize the I-70 Mountain Corridor is a key component of Colorado's economy and competes as one of the highest priorities in the state in need of capital improvements as new funding opportunities arise. The Colorado Department of Transportation's budget is not sufficient to implement the entire Preferred Alternative, and additional funding sources must be secured. **Chapter 5, Financial Considerations** of the PEIS also summarizes the cost of the Preferred Alternative, funding allocated to the I-70 Mountain Corridor, sources for CDOT's funding (and its limitations), and other potential funding sources. Options for innovative funding sources include public/private partnerships, tolling, bonding/loans, and Corridor-specific resources (which are funding sources that apply to limited geographical areas and require voter approval, constitutional amendments, or both).

Comments

Responses

Source: Website Comment	Name: Ken Katt
Document Number: IND-191	City, Zip Code: Littleton, 80120

The same way that investment advisors are required to warn their clients that past performance can't be relied on to accurately predict future results, CDOT needs to review its traffic projections under the same basis.

For example, since Colorado has limited water resources - and it wasn't that long ago when Lake Dillon wasn't much more than a really big mud puddle - CDOT's traffic projections 40 years into the future are highly suspect.

In other words, CDOT needs to review their projections using a better system than simply extrapolating past increases into future projections.

Response to IND-191

A. Traffic projections were developed using a travel demand model, which is a widely accepted planning tool for estimating future roadway and transit volumes. The primary input to the model is projections of future population and employment. The PEIS has also used socioeconomic projections by the Colorado Department of Local Affairs, which reference local comprehensive and regional plans to develop growth forecasts. Historical traffic trends are reviewed but are not the only factor in the future projections.

The PEIS acknowledges the uncertainties associated with forecasting future travel activity; these are described in detail in Sections 7.3, 8.3, and 9.3 of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website). The travel demand model uses a range of projections for the year 2050 to accommodate some of these uncertainties.

The traffic projections will be updated in Tier 2 processes, using updated models and new information regarding population and employment forecasts (which are affected by water resource availability as well as many other factors).

Comments

Responses

Source: Website Comment	Name: Ken Katt
Document Number: IND-192	City, Zip Code: Littleton, 80120

It's unfortunate that we're not able to put CDOT on the stand and interrogate them in regard to some of the assertions they make and reasons given for eliminating certain alternatives, because some of the reasoning CDOT uses is, to say the least, highly suspect.

For example, eliminating the peak-direction only bus options due to the quaint notion of "schedule reliability" is completely laughable. The Ski Train to Winter Park never offered "schedule reliability", yet it was almost completely full every weekend it ran. RTD in Denver can't ensure "schedule reliability" either, even though if you miss a connecting bus, it can make you at least half an hour late for work in the morning, or to pick up a child from daycare in the afternoon. Yet, RTD still runs a bus system rather successfully.

It makes you wonder exactly what CDOT has in mind that they think we need to replicate RTD's very busy bus system in the mountain corridor. In short, the notion that a peak-direction only bus option should be eliminated due to "schedule reliability" is something that CDOT needs to explain further, because it makes no sense.

Response to IND-192

- A. "Peak direction only" bus alternative elements were eliminated on the basis of comparison to "both direction" bus alternative elements, which would operate in both directions in a two-lane transitway or guideway. Analyses showed that the "peak direction only" bus alternative elements require nearly as much right-of-way width as the "both direction" bus alternative elements and provide less operational flexibility and schedule dependability.

Comments

Responses

Source: Website Comment	Name: Eileen Wheelock
Document Number: IND-193	City, Zip Code: Empire, 80438

Response to IND-193

- A. The curves at Fall River Road west of Idaho Springs are identified as requiring safety improvements in the PEIS. Specific highway improvements included in the Preferred Alternative Minimum Program of Improvements in Clear Creek County do not include any alignment or capacity improvements west of the Twin Tunnels, due to the combined concerns for the environmental sensitivity and community values of the area. Curve safety modifications at Fall River Road are included in the Maximum Program of Improvements for this reason. The safety concerns associated with the curves along the I-70 highway near Fall River Road are described in the *I-70 Mountain Corridor PEIS Safety Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website). The safety issues along the I-70 highway in the Fall River Road area could be addressed with non-infrastructure strategies that can begin in advance of major infrastructure improvements. These strategies include traveler information and other Intelligent Transportation System concepts to inform travelers of conditions in the area. Other measures to improve the safety of these curves will be addressed in Tier 2 processes, in conjunction with other possible highway improvements. Please refer to **Section 2.7.1** for additional information on the Preferred Alternative.
- B. The need for potential temporary use of the frontage roads during construction of the Preferred Alternative will be assessed during site-specific Tier 2 processes. The Preferred Alternative's specific highway improvements identified from Floyd Hill through the Twin Tunnels include a bike trail and frontage roads from Idaho Springs to Hidden Valley and Hidden Valley to US 6 in order to improve emergency and local access. The site-specific design of the improvements to the frontage roads in this section, and the phasing plan of the frontage road improvements, will also consider the potential needs during construction of the main highway and transit facilities.

A 1) Why is the Fall River Road curve not dealt with until the Maximum Program (Curve safety modification at Fall River Road, slide 21)?
 This curve is very dangerous and has caused multiple accidents that cause death, injuries, and road backups. Eastbound entering the curve you are travelling at a higher speed due to the long, straight section of road from Dumont as you approach the curve. There are no signs on either east or westbound sides warning of sharp curves. In the winter it is a very cold spot and ice/slush build up is common, including the extra coolness of a bridge within the curve. On the eastbound lane, you have a choice of going up the embankment of the median or, in one section where there is no guardrail, off the road towards the creek. I travel that road at least 5 days a week and have seen several accidents going both directions, and know people who have been in them, one died. I feel that the least that needs to be done soon is more highly visible signage warning people of the icy bridge and dangerous curves. A flashing icy bridge sign like the one in Evergreen would be very helpful.

B 2) As you have planned for the expansion, have you planned for the impact to the frontage roads (Stanley and Alvarado)?
 I apologize if it is in the PEIS. I have not read this. I did attend the Evergreen presentation in October, but have not read the study. I was on that road many times during the rock slide just west of I.S. in 2009. All traffic from both directions was put on that road at times and I would imagine that could be the scenario again with improvements to I-70 in the future. When you have large vehicles (semis, etc.) going both ways, there is little room to move one way or the other for large emergency vehicles to maneuver swiftly through the traffic. There are few places to pull over or off, but several areas are only as wide as the road and are potentially dangerous spots as well (Fall River curve). I don't have any real answers, just that it really needs to be studied well before any major I-70 improvements get started. There are enough things that can happen on this highway at any time that could cause us to have to totally depend on that frontage road and we should be prepared.

C 3) On slide 20 you show Empire Junction interchange as one of the Specific Highway Improvements, but you don't really say what those would be.
 Some of the same things pertain to this as in my first and second comments above as well. When the I-70 gets backed up travelers use this junction from all directions, many not knowing where to turn, causing dangerous situations for everyone. Coming down Empire hill, it is hard to see oncoming traffic coming off of I-70 up and over the bridge until the almost at the junction too. Some people travel in the wrong lanes not realizing the G-town lane is turn only, and then jump back in traffic at the last minute. Travel is fast down Empire hill and trying to make a turn on to the frontage road to the east is almost asking for a rear-end collision, even with proper and timely signaling. Travelers coming from G-town to that junction cannot see well enough to their right to see oncoming traffic coming off of I-70 up and over the bridge. They also do not realize the speed at which people come down Empire hill, nor that once they pull away from the stop sign they need to get up to speed ASAP. When people exit I-70 west the exit ramp has a poor visibility road coming in from the left. That road has shrubbery in the summer that you do not see the cars coming up the exit ramp, nor do you

Comments

Responses

Source: Website Comment	Name: Eileen Wheelock (continued)
Document Number: IND-193	City, Zip Code: Empire, 80438

Response to IND-193 (continued)

C

3) On slide 20 you show Empire Junction interchange as one of the Specific Highway Improvements, but you don't really say what those would be. Some of the same things pertain to this as in my first and second comments above as well. When the I-70 gets backed up travelers use this junction from all directions, many not knowing where to turn, causing dangerous situations for everyone. Coming down Empire hill, it is hard to see oncoming traffic coming off of I-70 up and over the bridge until the almost at the junction too. Some people travel in the wrong lanes not realizing the G-town lane is turn only, and then jump back in traffic at the last minute. Travel is fast down Empire hill and trying to make a turn on to the frontage road to the east is almost asking for a rear-end collision, even with proper and timely signaling. Travelers coming from G-town to that junction cannot see well enough to their right to see oncoming traffic coming off of I-70 up and over the bridge. They also do not realize the speed at which people come down Empire hill, nor that once they pull away from the stop sign they need to get up to speed ASAP. When people exit I-70 west the exit ramp has a poor visibility road coming in from the left. That road has shrubbery in the summer that you do not see the cars coming up the exit ramp, nor do you realize you need to stop real soon. Seen accidents there too and feel a little shy of that area every time I drive by, making sure if someone is coming they see me and are stopping. As you approach the junction you can go left to G-town or up Hwy 40, but there is NO SIGN that says that and so people waver back and forth on which way they should go. At the top of Empire hill the traffic is very dangerously unaware of the 2 lanes merging to 1 lane. The sign showing that is not very noticeable and could be a flashing light to get better attention. We have many bicyclists in the summer including some large group events that come through our county. The combination of what I mentioned above and the bikes is really SCARY! There definitely needs better signage west and east for all the roads intersecting there. I would be happy to discuss in person any of my comments and concerns as I have been involved in this I-70 process the last 20 years and I drive it a lot. Thank you for this opportunity.

C. The Colorado Department of Transportation will begin studying the Empire Junction interchange in early 2011 in more detail as an early action project. The information you have provided about traffic and safety problems in the Empire Junction area, including the issues you specifically address of sight distance and safety problems, has been forwarded to the CDOT team who will begin study of this area in early 2011. As stated in the **Introduction** of the PEIS, this document is a Tier 1 study identifying mode, general location, and capacity of improvements in the Corridor. However, this study does not contain sufficient design details to determine specific improvements at specific locations in the Corridor.

Comments

Responses

Source: Website Comment	Name: Edie Bryan
Document Number: IND-194	City, Zip Code: Lakewood, 80232

A.

1. Connecting the proposed AGS service directly to Denver Union Station would provide a great deal of connectivity with access to "the complete transportation hub" with many bus routes, etc.

Response to IND-194

A. The project termini are based on the purpose and need for the project. In this case, the purpose and need focuses on mobility, congestion, accessibility, and capacity in the I-70 Mountain Corridor. The system interchange at the I-70 highway and C-470 marks a change in travel patterns where the Corridor connects to the Denver metropolitan area and its higher traffic volumes. This eastern intersection also represents a transition to Denver metropolitan area transportation systems, including urban highways and transit systems, such as the Regional Transportation District's FasTracks light rail system.

Providing rail to Denver Union Station and connecting that service throughout the Denver metropolitan area is currently being implemented by the Regional Transportation District. The PEIS assumes all transit alternatives studied would connect with the Regional Transportation District West Corridor line at the Jeffco Government Center station in Golden. As noted in **Section 1.5, "What are the study limits and why were they selected?"** of the PEIS, the project termini do not preclude other transportation improvement studies beyond the Corridor if needed. Future rail studies, such as a Colorado State Passenger and Freight Rail Plan and the Colorado Interregional Connectivity Study, are planned to address the rail connectivity.

Comments

Responses

Source: Website Comment	Name: Edie Bryan (continued)
Document Number: IND-194	City, Zip Code: Lakewood, 80232

B

2.A future project that would add a huge amount of capacity for east-west passenger service AND for freight is to add a second bore to the Moffat tunnel. While a major expensive project 6.2 miles long, it would add capacity perhaps greater than the AGS plus highway improvements. Other improvements would be needed with this to add double track capacity. The Moffat tunnel was running trains at its maximum capacity of about 30 trains per day prior to the present economic recession. This is a magnificent scenic route and would enhance Colorado's tourist appeal and be an economic generator.

Response to IND-194 (continued)

B. The Colorado Department of Transportation looked at expanding the existing rail corridor from Denver through the Moffat Tunnel, Winter Park, and Glenwood Springs (with options for service to terminate in Winter Park or Glenwood Springs). This alternative, which is described in more detail in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website), does not meet the project's needs because the alignment requires use of locomotive-hauled passenger rail cars, which have low capacity (serving a maximum of 1,400 passengers per hour) and slow travel speeds (23 to 27 miles per hour). Low capacity does not remove enough trips from the I-70 highway to affect congestion, and slow travel speeds do not make the alternative an attractive alternative to automobile travel. Additionally, this alignment serves only a limited number of Corridor destinations and does not meet the accessibility and mobility needs for the Corridor.

Another travel management alternative considered would have increased the frequency of service for the Winter Park ski train (discontinued in 2009). Due to the volume of freight traffic through the Moffat Tunnel and limited air ventilation in the tunnel, the existing line cannot accommodate more than two round-trip passenger trains per day. Because this service has relatively low travel speeds and low capacity, it is not able to remove enough traffic to change operations or reduce travel time in the Corridor to meet the purpose and need of the project, and it was eliminated as a standalone alternative. A revived ski train service could be considered by others but does not address the purpose and need for the I-70 Mountain Corridor.

Comments

Responses

Source: Website Comment	Name: Edie Bryan (continued)
Document Number: IND-194	City, Zip Code: Lakewood, 80232

3. The Tennessee Pass line was designed for the heavy travel to be toward the west. Its double tracks would have to be re-engineered for present day freight service, which is primarily to the south with coal trains. It terminates at Pueblo now and there are no tracks east of there, except the Towner line which ends at Towner, east of Pueblo. That segment from Pueblo to Towner is owned by the state of Colorado. Preliminary sketches do exist for these modifications of the Tennessee Pass line that would be needed to realign these tracks.

Response to IND-194 (continued)

C. We assume that you are referring to reactivating Tennessee Pass as a way to move freight through the Corridor. It is not within the purview of the Colorado Department of Transportation to regulate the movement of freight. Union Pacific, who owns the line over Tennessee Pass, would need to look at re-opening the Pass. The Tennessee Pass Line is currently classified by the Surface Transportation Board as out-of-service from Gypsum to Parkdale. For this portion of the line to be reactivated, it would require approval from the Surface Transportation Board. It would likely be expensive to rehabilitate the Gypsum to Parkdale portion of the line, the crossings, and yards. Given the steep grades on this line, operational costs for freight trains could be less economical than trucking. The Colorado Department of Transportation is beginning the Colorado State Passenger and Freight Rail Plan and will be engaged in conversations with the freight railroads as part of that effort. That study will examine the existing rail lines in the state and the needs and proposed improvements associated with them, as well as potential new rail lines.

Comments

Responses

Source: Website Comment	Name: Bastiaan Pot
Document Number: IND-195	City, Zip Code: Frisco, 80443

I am strongly opposed to the proposed high speed train system because of the following reasons:

1. We have a limited amount of ski area, and we cannot feasibly turn every mountain and national forest area into a ski resort. Also, no one wants to bulldoze all the trees on existing ski resorts to make room for more runs for more skiers.
2. We have a limited amount of housing, buildable land, and resources. If too many people come here, underground parking and view-obstructing high-rise buildings will need to be built to accommodate the increase in residents and tourists.
3. The love and passion for our county is unique and would be overrun if it were too easy for people to live here and work in Denver. People who work in Denver would be less invested in this county and the overall mentality would change.

Summit County is not like a regular city area where more people equates to more money. People come to Summit County because of its beautiful and limited natural resources. Moving more people to Summit County will only diminish the positive aspects that draw people here in the first place.

Response to IND-195

A. 1 – As explained in **Chapter 4, Cumulative Impacts Analysis** of the PEIS, ski area expansions are planned for Breckenridge, Keystone, Vail, and Winter Park. The ski areas are located on National Forest System lands, and the United States Forest Service has already granted expansions of these ski resorts. The ski area expansions will occur whether the Advanced Guideway System is implemented or not.

2 – Changes to the transportation system are not the only factors influencing growth in the Corridor; other factors include water supply, public policy, and geographic issues. However, induced growth is an indirect effect of the Preferred Alternative. The adaptive management component of the Preferred Alternative allows it to be implemented in coordination with Corridor communities over time, based on future needs and associated triggers for further action, and is more compatible with Corridor planning policies. The Colorado Department of Transportation will consider an approach to promote and assist communities, as possible, in the adoption of more comprehensive, regional growth management plans that can be applied to Tier 2 processes. Efforts to control growth are greatly dependent on local planning and community political direction. For more information on induced growth, see **Section 3.7, Land Use and Right-of-Way** and **Chapter 4, Cumulative Impacts Analysis** of the PEIS and the *I-70 Mountain Corridor PEIS Land Use Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website).

3 – As discussed above, efforts to control growth are greatly dependent on local planning and community political direction.

The majority of Corridor municipalities and counties have development review design standards that are considered during the development review process. Many of these standards include preserving ridgelines, encouraging cluster development, and maintaining distinct buffers between towns. Municipalities and counties will be principally responsible for the manner in which future development is constructed and the way in which it interacts with the natural landscapes.

Please see **Chapter 3, Affected Environment and Environmental Consequences** of the PEIS for discussions of impacts to resources by the Action Alternatives and mitigation strategies associated with each.

Comments

Responses

Source: Website Comment	Name: Rebekah Pot
Document Number: IND-196	City, Zip Code: Frisco, 80443

I am in favor of the interstate expansion because it would encourage people to continue vacationing/visiting Summit County which would benefit our local economy.

A

I am NOT in favor of the railway system because it would encourage Denver residents to relocate to Summit County. I believe that things that are worth having are worth working for and that directly applies to living in Summit County. The railway system would make it too easy for people to live in Summit County without caring passionately about it and that would change our community dramatically.

Response to IND-196

A. The PEIS provides an analysis of historical population growth and anticipated future induced growth. Population and traffic have been increasing in the Corridor since the initial construction of the I-70 highway. Clear Creek, Gilpin, Pitkin, Park, and Grand counties experienced steady, moderate growth in recent decades, where Garfield, Eagle, and Summit Counties experienced dramatic growth every year since about 1970.

The transit alternative elements, including the Advanced Guideway System, would allow people to relocate to Summit County and work in the Denver metropolitan area, as you note. However, only the Combination alternatives, including the Preferred Alternative, are expected to induce growth in Summit County. As explained in **Section 3.8, Social and Economic Values**, the PEIS analysis suggests Transit alternatives concentrate growth in areas of existing or planned urban development in Eagle County; Highway Alternatives distribute growth based on existing trends, resulting in more acres of developed land in rural areas in Eagle County; and Combination alternatives, including the Preferred Alternative, distribute growth equally, resulting in increased pressure in both urban and rural areas in both Summit and Eagle counties.

Induced growth beyond planned growth is not consistent with existing county and community land use plans and policies. Transit alternatives may be more compatible with some planning policies that encourage future development in and around existing communities and allow rural areas to remain less developed. In contrast, Highway and Combination alternatives are less compatible with such planning policies, as they may encourage more dispersed and rural development. The adaptive management component of the Preferred Alternative allows it to be implemented in coordination with Corridor communities over time, based on future needs and associated triggers for further action, and is more compatible with Corridor planning policies.

(continued on next page)

Comments

Responses

Source: Website Comment	Name: Rebekah Pot (continued)
Document Number: IND-196	City, Zip Code: Frisco, 80443

Response to IND-196 (continued)

A. (Continued from previous page)

Planning efforts are emerging in some Corridor counties and municipalities to handle growth in a coordinated manner, balancing the impacts of growth with sustaining environmental quality. Please also see response to comment [IND-148-A](#) for more information on land use, social, and economic benefits and impacts of the Preferred Alternative.

Comments

Responses

Source: Website Comment	Name: Bruce Butler
Document Number: IND-197	City, Zip Code: Silverthorne, 80498

A

While I have some difficulty embracing an I-70 public transit option that: (1) is both financially and technically prohibitive, (2) fails to address the peak volume issues—especially in the summer travel months, and (3) will only serve to transform Summit and Eagle counties into viable commuting suburbs without any consideration of the associated consequences, I understand the need to account for any and all possible uses within the I-70 right-of-way. However, I much prefer solving problems to creating insanely expensive new ones.

Response to IND-197

A. 1 – Please see response to comment [IND-26-A](#) for information on why there were no funding restrictions during the development of the Action Alternatives and how funding will be addressed.

2 - As presented in **Chapter 2, Summary and Comparison of Alternatives**, the PEIS compares the performance of alternatives against a number of metrics and concludes the Preferred Alternative has the best opportunity to meet the 2050 purpose and need while minimizing environmental and community impacts. This is because it is a multimodal solution that provides more than just highway expansion and because implementation of the Preferred Alternative is adaptive to Corridor needs and conditions. One of the comparisons of alternatives included in **Section 2.8.1** of the PEIS is the year that network capacity is reached under each alternative. This measure helps define the longevity of improvements in meeting long-term transportation needs. Based on available data, the comparison shows that the only alternatives with network capacity to accommodate the 2050 travel demand are the multimodal Combination alternatives, including the Preferred Alternative Maximum Program. The *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the PEIS Technical Reports and on the project website) contains an expanded discussion of network capacity.

3 – Please see responses to comments [IND-195-A](#) and [IND-196-A](#) for information on induced growth.

Comments

Responses

Source: Website Comment	Name: Bruce Butler (continued)
Document Number: IND-197	City, Zip Code: Silverthorne, 80498

Response to IND-197 (continued)

As a resident who commuted daily from Silverthorne to Denver West for 4.5 years, there is no congestion problem on I-70 except for specific peak times on weekends, both summer and winter. The solution to this problem is not an expensive expansion of the roadway or commuter rail. Instead, I would urge CDOT to consider improving the existing shoulder of the eastbound and westbound lanes to an AASHTO highway lane standard. At peak times, traffic at the Eisenhower-Johnson Tunnel could pass through in three lanes and then be redirected back into its existing east/west lanes. The existing shoulder would be opened up as a HOV lane at peak times (the same green arrow and red "x" scheme used in the tunnel could be installed on existing overhead signs designating the HOV lane as open or closed). This system has been very successfully employed between Front Royal and Vienna, Virginia, on Interstate 66, and is used during AM/PM rush hours.

To address the understandable aversion of Idaho Springs/Clear Creek County residents to removing the mountain containing the twin tunnels, a one-lane fly-around could be constructed. The lane would have both eastbound and westbound access, and would only be open during times the shoulder is operating as a HOV lane. This enables I-70 to operate in 3-lanes eastbound or westbound from Silverthorne to Floyd Hill—significantly addressing major congestion points. It also reduces the need to condemn additional property necessary to widen the roadway, a major benefit to Idaho Springs, Dumont, etc. Lastly, this plan should be easier to navigate through the environmental approval process, as the footprint of the roadway is largely unchanged.

When a major weather event occurs, and public safety requires the shoulder be used as a safe zone for disabled vehicles, simply suspend the HOV lanes by closing the shoulder. The worst that happens is the current Sunday afternoon status quo. (Good luck moving zipper lane barriers in six inches of blowing snow on top of three inches of hard pack.)

This proposed solution is logistically feasible, comparatively less expensive than other options in the PEIS, and could be implemented in a much shorter period of time. Thank you for your consideration of this idea.

B. The use of shoulders as an additional lane would pose several safety and logistical problems as a long-term solution. The Colorado Department of Transportation considered a similar proposal for flex lanes (see **Section 2.5.5** of the PEIS). On some segments along the Corridor, there is not room to make the shoulder a standard lane width, and a reduced-width lane would have less room for driver flexibility, resulting in less safe conditions. Shoulders are important for stalled vehicles and emergency maneuvers; without shoulders stalled vehicles would cause congestion problems and safety hazards, and emergency maneuvers could result in more crashes. In addition, the availability of shoulders is important to allow emergency vehicles to pass. At the Eisenhower-Johnson Memorial Tunnels, one lane of travel in the off-peak direction does not provide sufficient capacity to serve the demand. Future traffic is expected to be more balanced between the east and west directions. Currently, peak periods are stretching into Friday PM and Monday AM time periods. Future travel patterns will continue to expand into the weekdays, in addition to weekends. The use of shoulders could be considered as a short-term measure to address safety or congestion issues but must be consistent with long-term needs.

Assuming a one-lane fly-around is constructed on the existing footprint, it would function similarly to the shoulder suggested above. If this is a separate facility, it would be similar to a reversible lane concept. This concept was considered in the PEIS process but was found to not provide enough future capacity to address the purpose and need.

The Preferred Alternative provides a multimodal solution that has the best opportunity to meet the purpose and need for I-70 Mountain Corridor improvements, while minimizing impacts. In Tier 2 processes, structured lanes and other measures will be considered in Idaho Springs and elsewhere in Clear Creek County to avoid or minimize the amount of property acquisitions required in these communities.

Comments

Responses

Source: Website Comment	Name: John Carpenter
Document Number: IND-198	City, Zip Code:

A

I own property in the Riva Chase subdivision, and I believe that the noise level exceeds the Federal Guidelines at my property, as well as for others that own property in this subdivision, and therefore would require that a noise barrier be installed along I-70 directly across from this subdivision to mitigate this noise.

Response to IND-198

- A. The Advanced Guideway System and a westbound auxiliary lane are proposed through the segment of the I-70 highway in which the Riva Chase subdivision is located. Noise measurements will be taken and a thorough assessment of potential noise impacts will be evaluated during Tier 2 processes. Noise abatement may be warranted under the Preferred Alternative if noise levels are or are projected to be above noise abatement criteria or if noise levels increase substantially (10 decibels or more). Since the likely noise source for your area is the Advanced Guideway System, the noise analysis would follow Federal Transit Administration procedures. If warranted, all feasible and reasonable mitigation measures will be assessed during Tier 2 processes.

Comments

Responses

Source: Website Comment	Name: John Aldridge
Document Number: IND-199	City, Zip Code: Jefferson County

Response to IND-199

A. The Colorado Department of Transportation originally placed a \$4 billion threshold on the cost of preferred transportation solutions for the Corridor. Stakeholders strongly objected to this threshold; they felt it was arbitrary, limited the possible transportation solutions, and did not accommodate a long-term vision for the Corridor. In response to these comments, CDOT committed to a long-term (50-year) vision, removed the \$4 billion threshold, and convened the Collaborative Effort. The Collaborative Effort was charged with reaching consensus on a recommended transportation solution for the I-70 Mountain Corridor. The group reached a consensus on a multimodal recommendation that addresses long-term and short-term needs. The Consensus Recommendation was identified as the Preferred Alternative in the PEIS. For more information on the process used for identifying the Preferred Alternative, see **Section 2.7, "What was the decision making process for identifying the Preferred Alternative?"** of the PEIS.

The lead agencies recognize that additional revenue, leadership, and support from the citizens of Colorado will be required to implement the Preferred Alternative. The Colorado Department of Transportation's budget is not sufficient to implement the entire Preferred Alternative. **Chapter 5, Financial Considerations** of the PEIS summarizes the cost of the Preferred Alternative, funding allocated to the I-70 Mountain Corridor, sources for CDOT's funding (and its limitations), and other potential funding sources.

It is true that a number of details regarding the feasibility of the Advanced Guideway System, including those that you mention regarding technology, feasibility, station location, ridership, and connectivity, need to be evaluated before it can be implemented. Please see the responses to your comments [IND-199-B](#) and [IND-199-C](#) below.

This paper provides a strategic and methodical plan to resolve immediate capacity and congestion problems and put into place a program to research and develop the stakeholders vision of an automated guideway system (AGS) for the 2035 and 2050 design years.

Introduction

After years of intense study costing Coloradoans about \$30 million, the revised Draft Programmatic Environmental Impact Statement (DPEIS) describes the Preferred Alternative, the Colorado Department of Transportation's (CDOT) recommended solution for the capacity and congestion problems in the I-70 Mountain Corridor. The Preferred Alternative is an Advanced Guideway System (AGS), a passenger train on an elevated and electrified track, from Golden to the Eagle County Airport (118 miles). Some highway improvements are permitted under the alternative but nothing meaningful can be done in the critical area of congestion from west of the twin tunnels through Idaho Springs to Empire Junction until the AGS is operating or studies show that it is technically and/or financially infeasible. The Preferred Alternative evolved from a myriad of realistic and affordable alternatives ranging from minimal-action to various highway widening options including reversible HOV/HOT lanes.

The estimated cost for the Preferred Alternative is an astonishing \$16 - \$20 billion. Put into perspective, that is 20 times CDOT's annual budget to build new facilities and to maintain and operate the entire state highway system. CDOT readily admits there is no money for this alternative and the likelihood of obtaining federal money is slim to none.

CDOT also acknowledges there is no "off-the-shelf" AGS that can operate in a harsh mountain environment. Just to determine if it is even feasible will require many more years if not decades of additional research and development in the Tier 2 stage of the DPEIS (the next step). CDOT states it doesn't know if the Preferred Alternative should be a monorail or magnetic levitation (maglev), how much tunneling would be required, where stations would be located, where the power would come from to operate it, and how riders would get to and from their final destination (i.e. off-corridor destinations such as Winter Park, Breckenridge, A-Basin, Keystone, etc.).

Comments

Responses

Source: Website Comment	Name: John Aldridge (continued)
Document Number: IND-199	City, Zip Code: Jefferson County

AGS State-of-the-Art
 There are only two maglev systems in the world (none in the US) in commercial operation as opposed to airports and amusement parks. The Shanghai high-speed (300+ mph) maglev was built as a demonstration system, but because of extraordinary construction costs, poor service record, and low ridership it was rejected as alternative for extensive deployment in China. The Japanese CHSST system, which served as the model for the Colorado Maglev Project in 2004, is only 5.5 miles long and has nine stops. It regularly shuts down when wind gusts are over 50 miles per hour. The Colorado Maglev Project Final Report and a recent Federal Transit Authority (FTA) report, Lessons Learned, identify a myriad of extremely difficult technological problems. For instance, the CHSST system must be completely redesigned to meet US safety standards and ADA compliance. The track must be free of ice and snow (presumably, it has to be heated and/or covered). In addition, because of a minimum 3/8" cushion of air requirement, the freeze/thaw problem on design of the girder joints is a major design challenge. These issues are desperately complex and likely to add millions to the total cost for technical research, prototype development, construction of a test track, and obtaining federal approvals.

b

In the meantime, Coloradoans and all I-70 travelers must live with worsening congestion and wait decades for an AGS that may only partially resolve the problem. No matter what the technology, an AGS would only provide station-to-station service, not door-to-door. Many travelers would find this inconvenient and continue to use personal vehicles. In fact, the DPEIS projections on transit share show that AGS would not carry enough trips to eliminate the need for major highway improvements.

b

Response to IND-199 (continued)

B. The lead agencies and local communities recognized that, to address the purpose and need for the project, a fixed guideway system would need to be part of the solution and would need to have competitive travel times and be able to accommodate the harsh mountain environment. The resulting Advanced Guideway System identified in the Preferred Alternative is defined as meeting general performance criteria related to speed, capacity, freight movement, passenger comfort, operating conditions, and other considerations. While maglev systems, like those you mentioned, have been considered to address these performance criteria, the actual technology of the Advanced Guideway System is not defined and will require additional studies.

Feasibility studies and related Tier 2 processes will help to further define the feasibility of the Advanced Guideway System and its technology. While there are many details that have not been determined in the Tier 1 PEIS, the feasibility studies and related Tier 2 processes will be designed to address the funding, operations, weather, ridership, and other related issues. A recent high speed rail study conducted by the Rocky Mountain Rail Authority indicated that some existing high speed rail systems could address many of the performance criteria. Regardless of the technology, the PEIS found that a multimodal solution that includes non-infrastructure components along with transit and highway improvements are needed to address the purpose and need for the project. Bus transit options that could provide door to door service were found to provide lower ridership projections than the Advanced Guideway System.

You are correct that PEIS projections on transit share show that the Advanced Guideway System would not carry enough trips to eliminate the need for major highway improvements. However, an Advanced Guideway System meeting the specific criteria defined in the PEIS, combined with highway improvements, best provides sufficient additional capacity to meet the purpose and need for the Corridor.

(continued on next page)

Comments

Responses

Source: Website Comment	Name: John Aldridge (continued)
Document Number: IND-199	City, Zip Code: Jefferson County

Response to IND-199 (continued)

B. (continued from previous page)

Also, the Preferred Alternative includes an approach that requires triggers and other considerations to be met before most major highway improvements occur. If transit improvements exceed the minimum required criteria and highway improvements are not needed, they will not be constructed. See **Section 2.7.2** of the PEIS for more information on triggers.

Comments

Responses

Source: Website Comment	Name: John Aldridge (continued)
Document Number: IND-199	City, Zip Code: Jefferson County

Response to IND-199 (continued)

C. The Colorado Department of Transportation is aware of the technical and financial challenges of the Advanced Guideway System. As you mentioned, the PEIS commits to a future study of the Advanced Guideway System to investigate these issues as part of the Preferred Alternative.

Note that a Reversible HOT/HOV Lanes Alternative is evaluated in the PEIS. As explained in **Section 2.8.1** of the PEIS, this alternative does not meet the 2050 purpose and need for the Corridor because it does not include transit, does not provide for unmet demand, and will result in a system that reaches network capacity between 2035 to 2040. However, reversible HOT/HOV lanes were not evaluated in conjunction with the Advanced Guideway System.

The Preferred Alternative includes a process for revisions through regular review of Corridor conditions and effectiveness of improvements. The Collaborative Effort stakeholder committee will review progress and effects of the Preferred Alternative every two years and conduct a thorough reassessment of transportation needs in 2020. This adaptive collaborative approach is the process that will be used to identify any changes to the Preferred Alternative.

Note that for immediate relief, some interim, short-term solutions can and are being developed and implemented in some Corridor locations. These include truck chain-up stations, improved traveler information systems, improved incident management practices, active traffic management systems, and other ITS deployment strategies.

(continued on next page)

Recommended Solution

Although AGS faces immense technical and financially challenging, it is nonetheless the vision of the future for many stakeholders and environmental activists in the corridor. In addition, through the revised DPEIS, CDOT and FHWA made a commitment to fund additional study of AGS in Tier 2 of the DPEIS.

The solution, then, needs to merge the immediate need for relief and the long-term vision. To accomplish this merger, the following revisions to the preferred alternative and the consensus recommendation are essential:

1. Permit construction as soon as possible of reversible HOV/HOT lanes from Floyd Hill to Empire Junction. The reconstruction must comply with the Contest Sensitive Solution (CSS) guidelines and provide opportunities for improved bus and van trip making.
2. Form an AGS research and development program and construction of a test track/facility funded with a revenue commitment from HOV/HOT tolls.
3. Operate the AGS program under the auspices of CDOT and include a Colorado university adjunct, private enterprise participation, and the FTA. Make the I-70 Corridor Committee responsible for oversight and review.
4. Initiate a project to locate a suitable area in the corridor to construct a test track.
5. Concurrently, authorize the research and development team to conduct studies on active management systems, ITS deployment, and improved incident management in the corridor.

The solution provides immediate and long-lasting relief, improves opportunities for mass transit options, establishes an essential AGS research and development program, commits to funding the program with a guaranteed source, and it would put CDOT and Colorado at the forefront of AGS development throughout the world.

Comments

Responses

Source: Website Comment	Name: John Aldridge (continued)
Document Number: IND-199	City, Zip Code: Jefferson County

Response to IND-199 (continued)

C. (Continued from previous page)

Your suggestions on Advanced Guideway System research, construction, and funding commitments provide good input for the Advanced Guideway System feasibility studies and related Tier 2 processes. The scope of the Advanced Guideway System feasibility study has not been completed at this time. Construction of any project, even a test track, will require completion of a Tier 2 process. Any transit program will also include participation of FTA and/or FRA and will include review and oversight of the Collaborative Effort.

Chapter 5, Financial Considerations of the PEIS summarizes the cost of the Preferred Alternative, funding allocated to the I-70 Mountain Corridor, sources for CDOT's funding (and its limitations), and other potential funding sources. Options for innovative funding sources include public/private partnerships, tolling, bonding/loans, and Corridor-specific resources (which are funding sources that apply to limited geographical areas and require voter approval, constitutional amendments, or both).

Comments

Responses

Source: Website Comment	Name: John K. Knopp
Document Number: IND-200	City, Zip Code: Aurora

Response to IND-200

A. Thank you for your suggestions on both short-term and long-term improvements for the I-70 Mountain Corridor between Floyd Hill and Empire Junction. First one note of clarification in the first paragraph of your comment. This Tier 1 PEIS is not a clearance document for interim or long-term improvements in the Corridor. This PEIS does document the programmatic improvements best suited to addressing the purpose and need for the project based on the 20-year planning horizon and 50-year vision. Tier 2 processes will be needed for clearances of the improvements identified in the PEIS. The Tier 1 document makes decisions only about mode, general location, and capacity of improvements in the Corridor.

The Colorado Department of Transportation and FHWA are aware of the proposed reversible lane project on the I-70 highway as directed by the State Legislature. This project, which is not part of the PEIS, is currently being analyzed and evaluated by CDOT, including potential safety concerns such as you identify, including emergency vehicle access. The PEIS cannot assume that the I-70 highway will be widened to six lanes in the future, as the Preferred Alternative in the PEIS does not commit to six lanes in this area until, and if, a series of specific triggers are met. Similarly, the PEIS cannot assume full shoulder widening or re-grading of the roadbed to make both directions at the same elevation without further Tier 2 processes and triggers being met. While the *I-70 Reversible Lane Study* is considering some limited geometric improvements, these are considered interim improvements and do not preclude longer-term improvements as identified in the Preferred Alternative in the PEIS. For more information, see <http://www.coloradodot.info/projects/I70reversiblelane>.

(continued on next page)

A

Thank you for the opportunity to comment on the proposed I-70 Mountain Corridor Project and the Tier 1 PEIS. This process is a very good process that brings about clearances for interim improvements to be built in the corridor and assures the public that the expenditures for those improvements will fit into an overall plan for the corridor. Although I have only been able to review the Executive Summary due to time constraints, and am not as familiar as I would like to be with all of the proposed interim improvements, I would like to propose an additional interim improvement that will fit both the short term and the long term plan for I-70 and that by adopting and constructing this plan it will have a tremendous improvement in safety for the interim work. As you know, the Colorado State Legislature has proposed a reversible lane, by means of a moveable median barrier, in the narrow section of I-70 in Clear Creek County, and around Idaho Springs. The major safety problem with this proposal, particularly around Idaho Springs, is the lack of adequate shoulders on the outside of the existing two though lanes. This safety problem is especially true in the off peak direction with only one lane, but it also continues the current safety problems even with the three lanes in the peak direction. It was widely reported that with only one lane and no shoulders in the off peak direction, a breakdown or accident would completely stop all traffic in that direction and would eliminate emergency vehicle access for any accident or vehicle breakdown. This is clearly unacceptable. I would like to propose that a design be considered that would provide for the reversible three-lane/one-lane configuration in the initial construction. These interim improvements should be designed to go a little further than the Legislatures proposal by widening the roadway in both directions for full shoulders. At locations with structures, the bridges would be built for the ultimate width required for the ultimate six-lane I-70 improvements. The full width roadway for the future construction would flare out only at the bridges to provide a safe transition. The median areas would be closed and paved for the reversible lane concept. Some portions of I-70 would have to be rebuilt to bring one direction of the lanes up to the same elevation as the other direction in order for the reversible concept to work. This proposal would provide immediate relief of congestion on I-70 by providing three lanes in the peak direction, e.g. I-70 WB Saturday AM and I-70 EB Sunday PM. This would also reduce costs associated with the probable future widening on I-70 to the full six lane section.

Comments

Responses

Source: Website Comment	Name: John K. Knopp (continued)
Document Number: IND-200	City, Zip Code: Aurora

Response to IND-200 (continued)

A. (Continued from previous page)

Two alternatives similar to proposals in the *I-70 Reversible Lane Study* are evaluated in the PEIS. The first of these alternatives includes a five lane highway with a reversible middle lane that uses a movable median. A specially equipped vehicle lifts portable barrier segments and shifts them laterally to produce a new lane configuration. This alternative was eliminated from consideration during screening, due to the reduction of mobility as a result of loss in the travel time it would take to clear the traffic lanes and move the median.

The second of these alternatives is the Reversible High Occupancy Vehicle (HOV)/High Occupancy Toll (HOT) Lanes. This alternative includes a reversible lane facility that accommodates HOV and HOT lanes and changes traffic flow directions as needed to accommodate peak traffic demand. The alternative includes reversible traffic lanes from the Eisenhower-Johnson Memorial Tunnels to just east of Floyd Hill. In the Mountain Corridor, projected traffic volumes do not have a large enough direction split to limit travel to only two lanes in one direction; therefore, the Reversible HOV/HOT Lanes Alternative reaches network capacity between 2035 and 2040 and does not provide adequate capacity to meet the 2050 purpose and need. More information on both reversible lane alternatives can be found in **Chapter 2, Summary and Comparison of Alternatives** of the I-70 Mountain Corridor Revised PEIS.

Comments

Responses

Source: Website Comment	Name: John K. Knopp (continued)
Document Number: IND-200	City, Zip Code: Aurora

Response to IND-200 (continued)

B. The initial findings from the reversible lane study confirm that the one-lane off-peak section will become congested fairly quickly, as you noted. Your suggestion to build six-lane capacity early on from Empire to the Twin Tunnels cannot be completed until the triggers and conditions, as agreed to by the Collaborative Effort in the Consensus Recommendation and included in the Preferred Alternative, are met. Triggers are described in **Section 2.7.2** of the PEIS.

It appears that your proposal is to construct reversible lanes in a six-lane section with the middle two lanes being reversible during peak periods, adjustable by a movable barrier. This would require all six lanes of traffic to be at the same grade and would require that sections of the existing I-70 highway be rebuilt so both directions are at the same grade. As noted in the response to your previous comment [IND-200-A](#), the lead agencies considered a similar reversible lane concept in the Reversible High-Occupancy Vehicle (HOV)/High-Occupancy Toll (HOT) Lanes Alternative described in **Chapter 2, Summary and Comparison of Alternatives** of the PEIS. However, it does not meet the 2050 purpose and need. It should be noted that the Reversible High-Occupancy Vehicle (HOV)/High-Occupancy Toll (HOT) Lanes Alternative was considered as a standalone Highway alternative. It was not combined with the Advanced Guideway System or another transit element in the Combination alternatives; other highway components were considered better matches for transit pairing. the Reversible High-Occupancy Vehicle (HOV)/High-Occupancy Toll (HOT) Lanes Alternative would have better performance characteristics if combined with transit than as a standalone alternative, but its performance would still be limited by the future directional split of traffic.

(continued on next page)

I do agree, however, that the one lane section (off peak) will become quickly congested and will need to be widened to two lanes shortly thereafter. In the event that your traffic studies show that this is not feasible, or not for very long, i.e. less than two to five years after construction, then I would like to propose that the six lane section be built early on, from Empire Junction to the twin tunnels, with a reversible lane, by means of a moveable barrier, in the median. This would provide four lanes in the peak direction and two in the off peak direction, with full shoulders for safety. This concept will allow great flexibility for managing traffic on weekends and holidays and will allow the greatest traffic improvement with the least disruption. This would also have the biggest benefit to Idaho Springs and Clear Creek County by doing all of the 13 miles of work, from empire Jct. to Floyd Hill at one time (bonding perhaps?) and eliminating the "constant construction" criticisms with the longer term phased approach. This approach is a serious one and need to be considered in detail. Operationally, the improvement of I-70 down Floyd Hill, widening to three lanes WB, and merging with US 6 will result in 4 lanes, with a lane drop in normal operation. The third tunnel at the twin tunnels would be a reversible tunnel, with two-way traffic in normal operation, and one-way traffic (two lanes) in the peak direction. Once through the "triple tunnels" traffic would then merge back to either normal six lane operation or the 4-2 operation for the peak direction. I fully recognize that there are a myriad of technical problems that must be solved, such as weaving between the two interchanges and the merge and diverge for splitting traffic through the "triple tunnels" and the reconstruction of the offset roadways to match a single grade line. Hopefully some of these details have already been worked out in concept since the "triple tunnels" are a part of the recommended plan for the interim improvements.

From the west, eastbound I-70 would pick up the third lane, and/or the fourth in peak times, at Empire Junction and those four lanes would continue eastbound to the US 6 Exit. Of course, I-70 eastbound would carry four lanes, as a climbing lane, up Floyd Hill. This proposal would have lane balance and basic number of lanes for the most critical section of I-70 and yet would serve the week day traffic with a basic six lane highway in off peak, weekday times. This proposal still fits within the basic six lane footprint of I-70 for the ultimate design through Clear Creek County, yet maximizes the carrying capacity of I-70 with the reversible lanes. It should not have any more Environmental Impacts than the basic six lane I-70, and may possibly reduce vehicle emissions since traffic will be moving much better in the out years due to the flexibility of the moveable median barrier. Operationally, this should work quite well, as I-70 would have two lanes in the off peak direction and four lanes in the peak direction, reversible with the moveable median barrier.

Comments

Responses

Source: Website Comment	Name: John K. Knopp (continued)
Document Number: IND-200	City, Zip Code: Aurora

Response to IND-200 (continued)

B. (Continued from previous page)

The Preferred Alternative adds a third bore to the Twin Tunnels (“triple tunnels”) and improves the existing bores to accommodate traffic in both directions and transit. The complexity of traffic operations for merge and diverge movements presented by a reversible lane alternative is another reason the alternative was not identified as the Preferred Alternative.

Minimizing environmental impacts and maximizing carrying capacity were strongly considered in the evaluation of the alternatives. The Preferred Alternative, with its multimodal approach and adaptive management component, was found to best address these considerations and the 2050 purpose and need while minimizing impacts. Tier 2 processes will analyze weaving and traffic operations along the I-70 highway.

Comments

Responses

Source: Website Comment	Name: John K. Knopp (continued)
Document Number: IND-200	City, Zip Code: Aurora

Response to IND-200 (continued)

C. The Tier 1 PEIS has been revised to clarify the location of improvements as generally along the existing I-70 highway alignment without specifying future right-of-way needs. Advanced Guideway System studies and related Tier 2 processes will help to further define the feasibility of the Advanced Guideway System and refine its alignment. While there are many details that have not been determined in the Tier 1 PEIS, feasibility studies and related Tier 2 processes will be designed to address the alignment, develop ridership estimates, determine costs and benefits, study the types of trips served and how to connect travelers to their final destinations, and evaluate safety, reliability, environmental impacts, and other considerations to support this substantial monetary investment.

The travel demand forecasting model used for the PEIS indicates that the Advanced Guideway System would attract a reasonable amount of ridership and, based on available data, that the Preferred Alternative would reduce congestion and provide adequate capacity in the Corridor until the year 2050. The travel model is documented in Appendix A of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website). Additional and more detailed ridership forecasting will be conducted in Advanced Guideway System feasibility studies and related Tier 2 processes as needed.

Regarding the cost/benefit ratio, maximizing this ratio is one consideration for prioritizing Preferred Alternative components. Projects that include benefits to performance, operations, economics, the environment, and maintenance relative to the costs of financial investment and environmental impacts will be prioritized during the planning process. The cost of doing nothing (the No Action Alternative) is expected to suppress the economies of communities in the I-70 Corridor by reducing population, jobs, personal income, and the gross regional product compared to expanded growth opportunities forecast under the Preferred Alternative. The forecasted economic reduction is a result of traffic congestion and inaccessibility. In

(continued on next page)

As for the Advanced Guideway System option or the Rail with Intermountain Connection, the alignment would need to be on separate alignment or adjacent to one side of the highway in this section. This will not significantly change the cost of the Advanced Guideway, since it is to be elevated for most, if not all, of the route. It may also make stations less expensive since the passengers will be able to depart or get on the transit without bridging over one portion of the highway.

I personally do not favor a fixed guideway or rail system as the economic benefit/cost ratio will never justify its construction. It will not reduce congestion materially, nor will it be convenient. It will, most likely, be a pork barrel type of project with minimal usage and with high construction and maintenance costs. See scanned article from The Denver Post, October 24, 2010, "Pork barrels rolling along at high speed", by Robert J. Samuelson of the Washington Post, as attached. To quote Mr. Samuelson: "The Absurdity is apparent. High-speed rail would subsidize a tiny group of travelers and do little else."

Comments

Responses

Source: Website Comment	Name: John K. Knopp (continued)
Document Number: IND-200	City, Zip Code: Aurora

Response to IND-200 (continued)

C. (Continued from previous page)

addition to total population and the number of jobs that are projected to increase, the Preferred Alternative is expected to increase personal income and the gross regional product (amount of new goods and services annually) by \$10 million over the No Action Alternative.

Any infrastructure improvement implemented in the Corridor will have associated costs to maintain the system. Maintenance costs of both the transit and highway components of the Preferred Alternative will be evaluated during Tier 2 processes.

D. For evaluation purposes in the PEIS, transit trips in the I-70 highway travel demand model account for a range of I-70 highway users or trip purposes, as well as different transit operating plans. Included are transit service plans with "skip stops" during peak periods, to enable travelers to reach recreation destinations with less delay than they would encounter with "local" trips that stop at each station. There is great flexibility for transit system planning options at Tier 2 that could further optimize transit service and schedules for different trip purposes, such as weekday work trips for commuting, and weekend recreation trips to selected destination points in the Corridor. The Preferred Alternative includes a commitment by the lead agencies to study the Advanced Guideway System in more detail to determine its feasibility. Feasibility studies and related Tier 2 process will include an analysis of the effects of connections, parking, and costs on ridership projections and overall system functionality.

The Advanced Guideway System, as described by the Preferred Alternative must have overall travel times (including station stops) comparable or faster than automobile traffic and must be convenient to use. These attributes are considered necessary to attract the ridership needed to address the purpose and need for the project and minimize lost time to the traveler.

(continued on next page)

D
Either rail system will not be used by campers, and only by a minority of skiers. The many stops it will make will result in unacceptable travel delays for the skiers. It will not be convenient to park at the System Interchange of C-470 and I-70 and transfer from automobile to the rail system. This will add significant cost to the project and time lost to the traveler.

Comments

Responses

Source: Website Comment	Name: John K. Knopp (continued)
Document Number: IND-200	City, Zip Code: Aurora

Response to IND-200 (continued)

D. (Continued from previous page)

As documented in Appendix A of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website), the travel demand model considers full access and egress to the transit system alternatives at the Jeffco Government Center light rail station location from anywhere in the Denver metropolitan area. Similarly, the model considers the time and directness of reaching recreational or other destinations from the transit station. The model predicts the transit mode share for each trip purpose for each alternative. **Chapter 2, Summary and Comparison of Alternatives** of the PEIS and the *I-70 Mountain Corridor Transportation Analysis Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website) include travel time analyses for alternatives. The evaluations of transit travel time include the time required for boarding and departing from the transit system, as well as the time trains spend decelerating before stations, stopped at stations to allow passengers to board and alight, and accelerating after leaving stations.

Results of the travel demand model analyses and travel time performance modeling indicate that the Preferred Alternative, with multimodal service, will reduce the travel time and congestion for recreation trips on the I-70 highway more than the Highway-only alternatives.

Comments

Responses

Source: Website Comment	Name: John K. Knopp (continued)
Document Number: IND-200	City, Zip Code: Aurora

Is the cost of a local access interchange and a parking structure, mixed in with the existing Freeway to Freeway interchange, part of the transit project cost or the highway cost? Is the

Jefferson Station/C470 at I-70 and C-470, or at US 6 and C-470? If it is at US 6, then the document should state such a fact and not let the reader assume that a Light Rail spur will be built from the US 6 Light Rail Line down the one mile C-470 Extension to the I-70/C-470 Interchange. If not, I assume that the transit option will go north to US 6 and C-470 to tie in with the Light Rail Jefferson Station. The Tier 1 PEIS document should state such.

Response to IND-200 (continued)

E. Costs for the Preferred Alternative were not divided specifically into transit and highway costs. Rather, the costs of the alternatives were estimated according to the Estimating Methodology described in the *I-70 Mountain Corridor PEIS Cost Estimating Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website). The cost of each alternative element was estimated using unit costs. Mark-ups and inflation were then applied to determine an overall cost for the alternative.

Section ES.26 “How do metro Denver metropolitan residents access the Advanced Guideway System?” has been revised to clarify that the Advanced Guideway System connects to the FasTracks West Corridor Jeffco Government Center Station, as follows: “At its eastern terminus, the Advanced Guideway System connects to the Jeffco Government Center Station of the Regional Transportation District’s West Corridor light rail in Jefferson County...”

Comments

Responses

Source: Website Comment	Name: John K. Knopp (continued)
Document Number: IND-200	City, Zip Code: Aurora

Response to IND-200 (continued)

F. The Colorado Department of Transportation agrees that the questions posed by the commenter should be addressed in Tier 2 processes.

The PEIS did address the energy requirements of the alternatives in **Section 3.16, Energy. Table 3.16-1** presents energy consumption for each alternative, broken down by both transit travel and vehicles on the road.

The Colorado Department of Transportation will conduct more detailed analyses of energy impacts during future Tier 2 processes, and will use the most current data and guidance available. The PEIS considered fossil fuel as the primary fuel source when calculating energy consumption. However, Tier 2 processes will consider other power sources and mixes of energy supply types (renewable/alternative energy, fossil fuel, and other future concepts).

G. The attached editorial provides an assessment of high-speed rail throughout the country, which is distinct from the Advanced Guideway System in the I-70 Mountain Corridor. Please see the response to your comment [IND-200-C](#), which references this editorial, for responses specific to the I-70 Mountain Corridor PEIS.

Some additional questions to consider for both the Advanced Guideway System and the Rail with Intermountain Connection:

- How much electrical power will either system require?
- Is there sufficient surplus generation capacity for the rail system?
- If needed, where will the additional power generation plant be built to supply electricity for the transit option?
- What source of fuel will be used in the new power generation plant?
 - o Natural Gas?
 - o Coal?
 - o Nuclear?
- If the fuel is coal, the plant will need to be located at a site where freight rail service is existent or can be built by railroads.
- Are there feasible locations for a new power plant?
- Has Xcel Energy been contacted about this possibility?
- How long will it take to gain environmental clearances for a new power generation plant?
- Where will the power lines be located to supply electricity to the transit option?
- How long will it take to gain environmental clearances for construction of the power lines, especially if they are required to supply electricity at various points along the 118 mile route?

These questions need to be addressed in the Tier 2 document when the Transit options are fully considered and ALL the ENVIRONMENTAL IMPACTS are included in the analysis, as appropriate for Tier 2 Evaluation.

Sincerely,

John K. Knop, P.E.
Aurora, Colorado

Attachment: The Denver Post, October 24, 2010

ROBERT J. SAMUELSON The Washington Post
Pork barrels rolling along at high speed
WASHINGTON»
Somehow, it's become fashionable to think that high-speed trains connecting major cities will help "save the planet." They won't. They're a perfect example of wasteful spending masquerading as a respectable social cause. Let's suppose, the Obama administration gets its wish to build high-speed rail systems in 13 urban corridors. The administration has already committed \$10.5 billion, and that's just a token down payment. California wants about \$19 billion for an 800-mile track from Anaheim to San Francisco. Constructing all 13 corridors could easily approach \$200 billion. Most of that would have to come from government at some level. What would we get for this huge investment?

Not much. Here's-what we wouldn't get: any meaningful reduction in traffic congestion, greenhouse-gas emissions, air travel, oil consumption or imports. Nada, zip. Even trains need energy High-speed inter-city trains (not commuter lines) travel at up to 250 mph and are most

F

G

Comments

Responses

Source: Website Comment	Name: John K. Knopp (continued)
Document Number: IND-200	City, Zip Code: Aurora

Response to IND-200 (continued)

competitive with planes and cars over distances of less than 500 miles. In a report on high-speed rail, the nonpartisan Congressional Research Service examined the 12 corridors of 500 miles or less with the most daily air traffic in 2007. Los Angeles to San Francisco led the list with 13,838 passengers; altogether, daily air passengers in these 12 corridors totaled 52,934. If all of them hypothetically switched to trains, the total number of daily airline passengers, would drop only 2.5 percent. Any fuel savings would be less than that; even trains need energy. We are prisoners of economic geography. Suburbanization after World War II made most rail travel impractical. Only in places (Europe, Asia) with greater population densities is high-speed rail potentially attractive. Even there, most of the existing high-speed trains don't earn "enough revenue to cover both their construction and operating costs," the Congressional Research Service report said. President Obama calls high-speed rail essential "infrastructure" when it's actually old-fashioned "pork barrel."

Private investors absent

Consider California. Its budget is a shambles. To save money, it furloughs state workers. Still, it clings to its high speed rail project. No one knows the cost. In 2009, the California High-Speed Rail Authority estimated \$42.6 billion, up from \$33.6 billion in 2008. The CHSRA wants the federal government to pay almost half the cost. Even if it does and the state issues \$9.95 billion in approved bonds, a financing gap of perhaps \$15 billion would remain. Somehow that is to be extracted from cities, towns and investors. The CHSRA says the completed system will generate annual operating profits, \$3 billion by 2030. If private investors concurred, they'd be clamoring to commit funds; they aren't.

All this would further mortgage California's future with more debt and, conceivably, subsidies to keep the trains running. And for what? In 2030; high-speed rail trains would provide only about 4 percent of California's inter-regional trips, the CHSRA projects.

The absurdity is apparent. High-speed rail would subsidize a tiny group of travelers and do little else. If states want these projects, they should pay all costs because there are no meaningful national gains. The administration's championing and subsidies represent shortsighted, thoughtless government at its worst. It's a triumph of politically expedient fiction over logic and evidence.

With governments everywhere pressed for funds, how can anyone justify a program whose main effect will simply be to make matters worse? speed trains. don't earn "enough revenue to cover both their construction approved bonds, a financing gap of perhaps \$15 billion would remain.

Comments

Responses

Source: Website Comment	Name: John K. Knopp (continued)
Document Number: IND-200	City, Zip Code: Aurora

Response to IND-200 (continued)

Somehow that is to be extracted from cities, towns and investors. The CHSRA says the completed system will generate annual operating profits, \$3 billion by 2030. If private investors concurred, they'd be clamoring to commit funds; they aren't. All this would further mortgage California's future with more debt and, conceivably, subsidies to keep the trains running. And for what? In 2030; high-speed rail trains would provide only .about 4 percent of California's interregional trips, the CHSRA projects .. The absurdity is apparent. High-speed rail would subsidize a tiny group of travelers and do little else. If states want these projects, they should pay all costs because there are no meaningful national gains. The administration's championing and subsidies represent shortsighted, thoughtless government at its worst. It's a triumph of politically expedient fiction over logic and evidence. With governments everywhere pressed for funds, how can anyone

6 justify a program whose main effect will simply be to make matters worse?

Comments

Responses

Source: Email Comment	Name: Kevin Clark
Document Number: IND-201	City, Zip Code: Not Provided

A

I apologize if not reaching the appropriate person but I have one quick question regarding the I-70 expansion project. Has the option of creating a second corridor into Summit County been looked at? Increasing capacity on US 285 and then tunneling through to somewhere in Summit County? For instance- US 285 to County Rd. 60 (just past Grant), tunneling through to the West side near County Rd. 5, and return to I-70?

Just curious-

Response to IND-201

A. The PEIS considered 17 potential Alternate Routes to serve travel demand on the I-70 Mountain Corridor. These potential Alternate Routes involved improving existing state highways and building new connections (often tunnels) to shorten distances and travel times.

Six separate alternate routes from the Denver area to the Dillon area were considered, two include tunnels and four are on improved surface roads. These are described as Alternate Routes 8, 9, 11, 12, 15, and 16 in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the PEIS Technical Reports and on the project website). Route 8 (US 285 via Hoosier Pass) was eliminated based on long travel times and an inability to provide adequate access to Corridor communities, while the others were eliminated because they did not divert enough traffic from the I-70 highway to meet the purpose and need for improving mobility and reducing congestion along the Corridor.

Comments

Responses

Source: Letter	Name: Bert Melcher
Document Number: IND-202	City, Zip Code: Denver, 80237

Thank you for the opportunity to submit comments on the subject Draft. I submit comments as a private citizen, not representing any organization. However, my involvement in this EIS process commenced in 2001 when, as Chair of the Transportation Committee, Rocky Mountain Chapter, Sierra Club, I became a member of the Mountain Corridor Advisory Committee (MCAC) representing the Environmental Community. In that position, I submitted formal comments for the Sierra Club on the 2004 Draft PEIS. I continued involvement as a Member of the Collaborative Effort (CE) conflict resolution panel. Since May 2008, when the CE presented its Agreement, I have only had a minimal involvement with this I-70 project. However, since 2000, I have been on committees and served as Sierra Club representative on other EIS projects of some relevance to this on, such as Denver Union Station, I-70 East and Northwest Corridor. Additionally, I represented the Environmental Community on the Technical Advisory Committee to the DRCOG Regional Transportation Committee from 2003 to 2008, and am one of three people to have served on both the State Highway Division/CDOT Commission and the RTD Board of Directors. My I-70 Corridor area involvement commenced with surveying as a Highway Division Engineering Aide (1946) and continued as originator of the design committee and process for the Hogback Cut and the Glenwood Canyon project (1968), and with the EIS process for Vail Pass. I hold Master of Science degree in Civil Engineering.

Following are my comments

1. The purpose of a Draft PEIS is to obtain review, comment and guidance on desirable improvements before there is a Final PEIS and a Record of Decision that has binding requirements for the future. The National Environmental Policy Act is our Environmental Bill of Rights and we must avoid any abuse or misuse of it. I am focusing only on the most significant and critical deficiency in the EIS document and process, and I am offering hopefully constructive comments in the interests of expediting the development of the multimodal transportation system for the users of I-70 and the quality of the Colorado environment.
2. This deficiency is that, despite its name of "Mountain Corridor," this Tier 1 NEPA report should deal with an entire integrated transportation system and associated cumulative impacts, but it does not. First, it includes some of the elements of transportation analysis in the "Area of Potential Effects" in the portion of the system that is east of the junction of I-70 and C-470 but does not include other

Response to IND-202

- A. Thank you for your long involvement in the I-70 Mountain Corridor and participation in the Collaborative Effort.
- B. The Federal Highway Administration, in its regulations implementing the National Environmental Policy Act (NEPA), recognizes that transportation improvements considered in the NEPA process must have boundaries. As specified in 23 CFR 771.111(f), boundaries can be chosen as long as they allow for "meaningful evaluation of alternatives and to avoid commitments to transportation improvements before they are fully evaluated." The termini used for the I-70 Mountain Corridor PEIS meet the requirements of 23 CFR 771.111. The termini chosen connect logical termini, are of sufficient length (144 miles) to address environmental matters on a broad scope, have independent utility, and do not restrict consideration of alternatives for other reasonably foreseeable future transportation improvements.

The project termini are based on the purpose and need for the project. In this case, the purpose and need focuses on mobility, congestion, accessibility, and capacity in the I-70 Mountain Corridor, which has distinct needs, travel patterns, and trip purposes from the Denver metropolitan area and other areas in Colorado. The western terminus for highway improvements at Glenwood Springs was chosen due to the change in travel patterns, including a drop in the number of recreation trips and overall traffic volumes, west of Glenwood Springs. Transit improvements terminate at Eagle County Regional Airport because this facility provides an intermodal connection between aviation and transit service in the region.

The eastern terminus at C-470/Jeffco Government Center light rail station was chosen because it marks a change in travel patterns where the Corridor connects to the Denver metropolitan area and its higher traffic volumes. This location also represents a transition to Denver metropolitan area transportation systems, including urban highways and transit systems, such as the Regional Transportation District (RTD) FasTracks rail system. The pattern of travel (and carpooling) is well established at the east end of the Corridor, and while trips bound for the Corridor may come from many

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vital elements and effects/impacts. In short, it deals with a part of a system, a segment, but not the complete system. It does not deal with cause and effect: the effect is severe congestion in the mountain corridor; the major cause is the 2.5 million Metro Denver residents and visitors to Colorado who are here in no small measure because of our great mountains. They are stakeholders. Second, all Tier 1 aspects and general alternatives of the entire system – the in-corridor and the affected areas – should be integrated in this one document. It is illogical and evasive to separate Tier 1 policy and program matters into two segments, with one segment to be ignored and treated independently later. This dis-integration is especially contradictory not only to NEPA but to sound technical analysis because the bulk of the corridor users and their quantification and travel demands/elasticities are disregarded.

B

3. The C-470 boundary is artificial. At the level of policy and program planning, i.e., the Tier 1 PEIS, it creates very bad transportation planning and evades coming to grips with the opportunities, constraints and cost of movement from Metro origins to mountain destinations and the reverse movement. It is contrary to the laws and intent of the National Environmental Policy Act, including provisions of full disclosure and transparency as regards all of us who live east of the foothills. This issue has been raised long ago, going back to 2005, and in the on-going process since then.

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B. (Continued from previous page)

locations, nearly all that originate in the Denver metropolitan area pass through the I-70/C-470 system interchange.

The I-70 travel demand model used to analyze traffic volumes in the Corridor covers a study area that includes the Corridor, the Denver metropolitan area, the North Front Range, the Colorado Springs and Pueblo metropolitan areas, and the Western Slope. It therefore quantifies the travel demand characteristics of Corridor users from all of these areas, including the Denver metropolitan area. **Chapter 1, Purpose and Need** of the PEIS describes the travel demand and causes of congestion in the Corridor and notes that, as you point out, Front Range users account for a large portion of trips in the Corridor. The *I-70 User Study* conducted by CDOT in 2000 found that 59% of I-70 travelers at Idaho Springs, 46% at Frisco, and 26% at Vail came from the Front Range. These Front Range travelers, along with those from other areas of Colorado, are included in the travel demand model (described in detail in the *I-70 Mountain Corridor PEIS Travel Demand Technical Report*, included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website).

Based on the travel demand model, a direct connection from the Corridor to Denver International Airport would increase ridership by approximately 10 percent. Capturing this small volume of transit riders (and diverted traffic) is not required to meet the purpose and need for the I-70 Mountain Corridor and does not warrant the expense or impacts of extending the termini to Denver International Airport. Comparatively speaking, the number of recreational visitors using the Corridor arriving at Denver International Airport is very small in comparison to the number of Corridor users that originate in the Denver metropolitan area and Corridor communities. While Denver Union Station is a planned transit transfer station for the Denver metropolitan area, it serves only a small fraction of Denver's population directly without transfers, and does not originate a large number of transit trips. Travelers transferring from car or transit to the Advanced Guideway

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System can do so as conveniently at the Jeffco Government Center light rail station as at Denver Union Station.

Transfers between the RTD West Corridor light rail line and the Corridor Advanced Guideway System would generate some of the additional ridership that could otherwise occur through direct connection between the Corridor and Denver Union Station or Denver International Airport. The additional ridership generated by the light rail connection would not be as high as through direct connection, because of the transfer required. However, as noted in the previous paragraph, the additional ridership generated through a direct connection is not required to meet the purpose and need for the Corridor.

Study and implementation of an Advanced Guideway System between the Eagle County Regional Airport and the Jeffco Government Center light rail station does not preclude other NEPA transportation improvement studies outside the Corridor. Additional studies and NEPA processes may extend beyond these termini if needed. The CDOT Division of Transit and Rail is conducting two studies, the Colorado State Passenger and Freight Rail Plan and the Colorado Interregional Connectivity Study, to evaluate transit connections throughout the state, including connections to the I-70 Mountain Corridor and to the RTD FasTracks system in the Denver metropolitan area.

The study limits have been clarified in **Section 1.5, “What are the study limits and how were they selected?”** of the PEIS, which now provides a similar discussion to the response to this comment.

Stakeholders from the Denver metropolitan area have been included in public involvement and outreach efforts throughout the PEIS process. Some of the formal roles have included membership of the Denver Mayor’s Office and Denver Metro Area Chamber of Commerce in the Collaborative Effort;

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membership of Jefferson County in the Project Leadership Team; and membership of the Denver Regional Council of Governments in the I-70 Coalition. Availability of the Revised Draft PEIS was announced in Denver metropolitan area media, and a public hearing was held in Denver. More detailed information about Denver metropolitan area representation in I-70 stakeholder groups and public outreach efforts in the Denver area can be found in the *I-70 Mountain Corridor PEIS Public and Agency Involvement Technical Report* (included electronically on CD-ROM in Volume 6 of the Technical Reports and on the project website).

C. The Tier 1 PEIS Cumulative Impacts analysis focuses on the possible cumulative impacts identified during the scoping process. These are identified in **Chapter 4, Cumulative Impacts Analysis**, Table 4-1, and include air quality, biological resources, wetlands, water resources, socioeconomic impacts, land use, recreation, visual resources, and historic properties. The study area for the analysis encompasses those areas that would likely experience cumulative effects as a result of improvements to the I-70 Mountain Corridor, and is focused on portions of the Eagle River, Blue River, and Clear Creek watersheds.

The cumulative impacts study area does not include the Denver metropolitan area because improvements to the I-70 Mountain Corridor would not cause measurable cumulative effects in the Denver area. Travel in the I-70 Mountain Corridor is small relative to travel in the Denver metropolitan area. Year 2035 highway vehicle miles traveled and person miles traveled within the Corridor are about ten times smaller than their corresponding values in the Denver metropolitan area. Population and employment in the nine-county Corridor region is similarly about ten times smaller than in the Denver metropolitan area. Cumulative effects of Corridor improvements on the Denver area would not be measurable and do not warrant expanding the geographic scope of the cumulative impact analysis to the Denver area.

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4. NAPA requires examination and full disclosure of Direct, Indirect and Cumulative impacts and effects. The Revised Draft PEIS in Section 4.2 asks "What are cumulative impacts and why are they important?" and answers: "This analysis examines direct and indirect actions occurring as a result of the proposed actions and how they affect the resources of concern. These impacts are additive and do not always result in a one-to-one relationship but rather can compound the degree of effect."

The focus of this first tier assessment is to evaluate the inter-relationships between the transportation network and community values and environmental resources within the Corridor and surrounding counties, National Forests, and watersheds; and to identify possible cumulative impacts that may result from reasonably foreseeable future actions, from project alternatives, and from both of those combined.

This cumulative impact assessment describes possible future land use and socioeconomic growth scenarios that alternatives could impact, including the potential environmental consequences of inducing growth beyond local agency planning and the population and employment projections for the Corridor.

This is not a standard cumulative impact analysis approach, but due to the overarching concern about induced growth and its contribution to cumulative effects, this analysis focused on the effects to resources from travel demand, population increases and development associated with the Action Alternatives."

However, even though the Draft describes many direct, indirect cumulative impacts for areas not actually in the corridor, as it is required to do, it does not address and disclose other critical impacts and potential effects in the corridor-related area of Metro Denver, the Front Range and visitors to this associated area who travel into the Corridor. It does not properly address their mobility, access opportunities and economics, recreation and quality of life. In short, even though the Draft asks the questions quoted above, it fails to address them.

Additionally, NEPA requires that linked action be considered together. East of C-470 and west of it are linked in every possible form of linkage.

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C. (continued from previous page)

The PEIS provides extensive analysis of direct and indirect effects, including the impacts you mention to mobility, access opportunities, economics, recreation, and quality of life. These mobility, access, economic, and recreation impacts on Denver metropolitan area residents, as they travel in the Corridor, are addressed in the following sections of the PEIS:

Mobility impacts that Denver area travelers would experience are discussed in **Section 2.8.1, Transportation Comparisons** of the PEIS. The travel demand model used to calculate mobility impacts captures Denver area travelers.

The potential effects of increased access to the Corridor by Denver area travelers (and other travelers) is described in the *I-70 Mountain Corridor PEIS Land Use Technical Report* (provided electronically on CD-ROM in **Volume 4** of the Technical Reports and on the project website).

Economic impacts (such as travel delays during construction) to Denver area travelers are described in **Section 3.8.5, “How do the alternatives potentially affect social and economic values?”** of the PEIS. The economic analysis that was conducted included Jefferson County, in the Denver metropolitan area.

Recreation impacts that affect Denver area travelers were examined and are presented in **Section 3.12.5, “How do the alternatives potentially affect recreation and Section 6(f) resources?”** of the PEIS.

The Council on Environmental Quality regulations implementing NEPA specify consideration of connected actions, which means that they are closely related and therefore should be discussed in the same impact statement. Actions are connected if they:

- (i) Automatically trigger other actions which may require environmental impact statements.

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- C. (Continued from previous page)
 - (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.
 - (iii) Are interdependent parts of a larger action and depend on the larger action for their justification.

Alternatives that have been developed for the I-70 Mountain Corridor and actions to be considered east of the project termini in the Denver metropolitan area do not fit the definition of connected actions. I-70 Mountain Corridor alternatives, including the Preferred Alternative, do not automatically trigger other actions; highway components can connect to the existing highway system, and Advanced Guideway System travelers can connect to the RTD FasTracks system or to the highway system C-470/Jeffco Government Center light rail station. Similarly, the I-70 Mountain Corridor alternatives, including the Preferred Alternative, can proceed with no other transportation improvements in the Denver metropolitan area. Finally, the I-70 Mountain Corridor alternatives, including the Preferred Alternative, do not depend on a larger action for their justification.

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5. NEPA also mandates the assessment of reasonably foreseeable alternatives. In this case, the mobility of people accessing the corridor by rail is limited to one basic alternative, the "Jefferson Station", with sub-alternatives of driving to it and parking or of riding the RTD West Line and transferring to the mountain AGS. There are others that could be beneficial in terms of a higher modal split and better mobility for Metro travelers. Some of these have been identified and/or studied. The Demand Model, which includes "Travel Analysis Zones" in the Metro area, does not model potential effects on alternative travel methods from different Metro portions of the overall system or of potential impacts of adverse transfer conditions (number, convenience, time for total trip.) Hence, very little can be disclosed in the NEPA context to the affected Metro public on these concerns.

D. The Council on Environmental Quality regulations implementing NEPA (40 CFR 1502.14) state that reasonable alternatives to the proposed action need to be identified, rigorously explored, and objectively evaluated. Reasonable alternatives are those that are practical or feasible and meet the purpose and need for the project. Alternatives east of the eastern project terminus at C-470/Jeffco Government Center light rail station do not meet the purpose and need to reduce traffic congestion and increase capacity, mobility, and accessibility in the Corridor. As noted in response to your comment [IND-202-B](#), transportation improvements east of the Corridor will be examined during upcoming studies, including the Colorado Interregional Connectivity Study, which will evaluate connections between rail along I-70 and along I-25 and the RTD FasTracks system in the Denver metropolitan area.

An I-70 Ridership Survey was conducted to address the issue of mode choice between auto and transit trips in the Corridor, as a part of the PEIS travel demand modeling process. The survey—and therefore the travel demand forecasting models developed from it— address the time spent waiting for each transit vehicle, and transfers between the Advanced Guideway System and the local bus systems in the Corridor. The 2001 "pre-FasTracks" Ridership Survey design does not address the issue of rail-to-rail transfers that emerged with the development of the FasTracks plan. However, CDOT did anticipate transfer concerns, and the travel demand model applies a travel time penalty for each transfer, in addition to the time spent waiting. This penalty addresses the lost convenience of having to transfer bags and equipment, find a new seat, and move to another transit vehicle. Overall transit ridership is based largely on the comparative travel times between the transit trip, including all penalties, and the highway trip. This methodology has been validated on numerous travel demand models across the country. Details of the I-70 Ridership Survey are presented in Appendix B of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (provided electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website).

Comments

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6. Just as with the mountain portion of the study, details can and must be deferred to Tier 2 studies, but the policy and possible procedures for this eastern situation must be identified. What are the alternatives for getting people from the Metro area and DIA to C-470 and hence to mountain destinations? Can they be efficient, seamless, convenient and fast or will they be the opposite such that people will not leave their cars for the entire trip? What are the agencies involved, and can this Tier 1 help guide the forthcoming Colorado State Rail Plan of CDOT? What are these agencies' mandates, planning and capabilities? Are the modeling and analysis tasks up-to-date, comprehensive, and realistic or are there flawed, obsolete and unrealistic inputs and elasticities? What Metro area infrastructure can be used or added, in general? What general environmental and sustainability factors are relevant? How do we best avoid foreclosing desirable options for the future (as was recently done in the Denver Union Station case)? What general guidance should emerge for implementing the Tier 2 detailed study? Should prior ridership surveys be revisited?

Response to IND-202 (continued)

E. Parking, transfers, and regional connectivity will be considered as part of future feasibility studies and related Tier 2 processes to determine Advanced Guideway System feasibility. It is recognized that convenient local distribution systems are likely to be needed to meet the travel needs of the Advanced Guideway System users so that travelers can get to their final destination with relative ease. Studying and implementing an Advanced Guideway System between Glenwood Springs and the Jeffco Government Center light rail station does not preclude the study of improvements outside the Corridor, such as the alternatives you note in your comment for getting people from the Denver area and Denver International Airport to the Corridor Advanced Guideway System and hence to mountain destinations.

The CDOT Division of Transit and Rail has the authority to plan, develop, finance, operate, and integrate transit and rail services statewide. The Division will work in coordination with other transit and rail providers to plan, promote, and implement investments in transit and rail services statewide. The Division's Colorado State Passenger and Freight Rail Plan and Colorado Interregional Connectivity Study will evaluate existing and planned rail projects and rail connectivity and will evaluate the use of existing infrastructure.

The travel modeling performed for the PEIS is a state-of-the-practice planning tool that comprehensively forecasts the needs of the Corridor to the year 2035 based on up-to-date population and employment forecasts, and to the year 2050 based on available projections. The travel model is documented in Appendix A, Travel Model of the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* included electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website. The travel model and ridership study used for the PEIS do not need to be revisited at the Tier 1 level; they provide a basis for evaluating and comparing performance of the alternatives analyzed in the PEIS. Additional and updated ridership studies and travel demand modeling will need to be conducted and will be included in Tier 2 processes. Please see the response

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to comment [ORG-17-D](#) for additional information about the ridership survey and its incorporation into the travel demand model.

The PEIS documents a full range of environmental and sustainability factors that are relevant to identifying the Preferred Alternative, and the Preferred Alternative’s adaptive management approach allows the implementation of improvements to happen incrementally and respond to trends and Corridor conditions. Tier 2 processes will follow existing NEPA laws and guidance.

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F

CEC's statement that "What is not specified is the timing of the AGS feasibility process vs. the timing of the specific highway improvements. We would like to see a commitment from the agencies that the two processes will occur simultaneously" is highly relevant and important. Additionally, equally so is the CEC position: "After nearly two and a half years, CDOT has not elaborated on or quantified metrics that would be used in application of those triggers to make a decision on the feasibility of an AGS system. While we realize the feasibility study will be a Tier Two study, we think that the Tier One final document needs to contain more specificity on these triggers." These two task requests for CEC and the points on my comments dovetail perfectly.

G

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7. EIS's must have boundaries but they can and must deal with effects and impacts in related affected areas. To defer these matters to a future Tier 2 study will result in a Tier 1 Final EIS that would be flawed, misleading, and producing an unnecessary and undesirable delay in coming to grips with the general a policy-level issues for our transportation system. It could result in foreclosed options and higher future costs and it would be an abuse of the letter and spirit of NEPA. It would fail as a "full disclosure" document. I am not suggesting a new Draft or discarding it and starting over, or any serious delay in the Final EIS. Rather this Tier 1 additional analysis in the affected area, and the potential general effects of such, will expedite the implementation of actual development.

Response to IND-202 (continued)

F. The timing of Minimum Program specific highway improvements in relation to Advanced Guideway System feasibility studies and Tier 2 processes is not known since funding for these studies and Tier 2 processes has not been identified. The timing of studies and implementation of improvements is dependent on funding availability and must go through the established planning process, described in the **Introduction** of the PEIS, to identify and prioritize projects. The Colorado Department of Transportation is committed to initiating Advanced Guideway System feasibility studies and related Tier 2 processes as soon as possible and has secured funding to begin these studies.

Please see the response to the Colorado Environmental Coalition's comment [ORG-17-B](#) for information about triggers and the feasibility of the Advanced Guideway System.

G. The lead agencies agree that Environmental Impact Statements must have boundaries. As noted in the response to [IND-202-B](#), FHWA regulations for implementing NEPA clearly set forth the requirements for setting these boundaries.

Also as noted in response to your comment [IND-202-B](#), developing a regional transit system in the Denver metro area does not meet the purpose and need of the I-70 Mountain Corridor. However, the Preferred Alternative does not preclude and could be a supporting component of such a system.

The Preferred Alternative is flexible in its implementation and also prescribes regular reevaluation of Corridor conditions and effectiveness of improvements, allowing the alternative to adapt to the types of implementation challenges described in your comment. Rather than preclude options, the Preferred Alternative includes an adaptive management approach that allows flexibility in considering new data and adapting to current trends and conditions.

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H.

8. In short, proper NEPA compliance requires:

- no segmentation - address the complete transportation situation;
- full public disclosure and transparency;
- identification of programmatic-level alternatives;
- identification of significant impacts for analysis (as is done west of C470, and land use east of C470 and at it, and sustainability)
- Proper cumulative impact/effect analysis, especially Sustainability
- Proper identification of alternatives
- Institutional arrangements: who are the players and what are their legal mandates and processes: DUSPA, RTD, CDOT with new divisions, private "Eagle" PPP, DRCOG/MPO

9. Appended hereto are some excerpts from CEQ law, regulations and this Draft that support my comment in Item 8 above.

Response to IND-202 (continued)

- H. The lead agencies have been diligent in following the regulations that the U.S. Department of Transportation has adopted relative to the application of NEPA (23 CFR 771) and the CEQ regulations (40 CFR) and guidelines for implementing NEPA. This includes the following:
- Regarding the comment on segmentation, as documented above in the response to [IND-202-B](#), the selection of the project termini meets the requirements of ensuring meaningful evaluation of alternatives and avoiding commitments to transportation improvements before they are fully evaluated.
 - A robust public involvement program engaged the public and interested agencies in the process of PEIS preparation. **Chapter 6, Public and Agency Involvement** of the PEIS describes the public and agency involvement and shows how the project was conducted with full public disclosure and transparency. This public and agency involvement program meets the stated U.S. Department of Transportation policy to provide public involvement as an essential part of a proposal being considered during the NEPA process.
 - **Chapter 2, Summary and Comparison of Alternatives** of the PEIS includes identification and assessment of programmatic level alternatives that meet the purpose and need for the I-70 Mountain Corridor as defined in **Chapter 1, Purpose and Need**. Twenty-two alternatives were evaluated, and the results of these analyses are summarized in **Chapter 2, Summary and Comparison of Alternatives** and detailed by resource in **Chapter 3, Environmental Consequences** of the PEIS.
 - An impact analysis is required by NEPA. Impact analysis was conducted within the study area, which comprises the I-70 Mountain Corridor between Glenwood Springs and C-470/Jeffco Government Center light rail station. The land use east of C-470/Jeffco Government Center light rail station was not part of the analysis because it is outside the study area.

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Response to IND-202 (continued)

- H. (Continued from previous page)
 - A cumulative impact analysis was conducted and is the subject of **Chapter 4, Cumulative Impacts Analysis**. Please see the response to your comment [IND-202-C](#) for additional discussion of the geographic scope of the cumulative impacts analysis. Regarding the incorporation of sustainability into the project, please see the response to your comment [IND-202-K](#).
 - Although there is no requirement in 23 CFR Part 771 to discuss institutional arrangements and provide legal mandate information and processes for participating agencies, **Chapter 6, Public and Agency Involvement** of the PEIS describes the stakeholders and provides documentation of their involvement during the PEIS process and defines methods for ongoing participation in future Tier 2 processes.

The PEIS complies with DOT and CEQ regulations implementing NEPA as described in response to your other comments in [IND-202](#).

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I

10. Proper and responsible transportation planning in a PEIS requires:
- Proper inputs into and operation of travel demand models;
 - Relevant meaningful model outputs;
 - Operational characteristics and geography in the Metro area of AGS and non-AGS modes (such as FasTracks LRT and Commuter rail) and opportunities/constraints in these matters;
 - A better overview of technologies (fast steel-on-steel commuter rail for example) and alternative termini;
 - General costs of alternatives,
 - Comparison/melding of various studies/models such as RMRA, CDOT, RTD (I see some real defects here and there in the model and in disclosure.)
 - Tier 1 design for Tier 2 updating/expanding 2000 and other ridership surveys
 - More thorough analysis of Sustainability, VMT

Response to IND-202 (continued)

I. The Colorado Department of Transportation recognizes the responsibility to develop meaningful travel demand forecasts for the I-70 Mountain Corridor. The forecast planning tool developed for the I-70 Mountain Corridor is a state-of-the-practice travel demand model. Its major input of future population and employment forecasts are based on the information available today from the State of Colorado Department of Local Affairs and Regional Transportation Plan projections. The travel model network encompasses the area from Denver International Airport to the Utah border, and from the Wyoming border to Pueblo. The model was developed through extensive interaction with technical specialists from FHWA, CDOT, the Denver Regional Council of Governments, and local planning agencies, and a peer review panel reviewed each step of the model development process. Complete documentation of the travel demand model, including its major input assumptions, validation, and outputs, is provided in the *I-70 Mountain Corridor PEIS Travel Demand Technical Report* (provided electronically on CD-ROM in Volume 1 of the Technical Reports and on the project website) and its appendices.

The PEIS is a Tier 1 document that establishes the travel mode, capacity, and general location for a transportation solution. The Advanced Guideway System feasibility studies and related Tier 2 processes will be designed to address technology, funding, power supply, operational characteristics, ridership, costs/benefits, and other related issues and will consider the logistics of transfers to other transit systems and technologies and the effects these transfers may have on ridership. As noted in response to your comment [IND-202-B](#), transportation improvements east of the Corridor will be examined during upcoming studies, including the Colorado Interregional Connectivity Study.

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The Advanced Guideway System feasibility studies and related Tier 2 processes will evaluate technologies that could meet the performance criteria required for the I-70 Mountain Corridor. Multiple transit technologies were considered for the PEIS, including diesel and electric light rail and heavy rail transit technologies (including the steel-wheel-on-steel-rail technology you mention), diesel and electric locomotive hauled and multiple unit passenger rail technologies, electric conventional monorail and magnetic levitation advanced guideway system technologies, and automated guideway transit using monorail and conventional rail technologies. These technologies are described in the *I-70 Mountain Corridor PEIS Alternatives Development and Screening Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website).

Regarding alternative termini, please see the response to your comment [IND-202-B](#) for a discussion of the project termini for the PEIS.

Chapter 5, Financial Considerations of the PEIS provides information about the costs of the alternatives, and Chart 5-1 in that chapter provides a graphic comparison of their costs. More detailed cost information is provided in the *I-70 Mountain Corridor PEIS Cost Estimating Technical Report* (included electronically on CD-ROM in Volume 2 of the Technical Reports and on the project website).

The Advanced Guideway System feasibility studies and related Tier 2 processes will consider information from the Rocky Mountain Rail Authority study and information provided by RTD, the Denver Regional Council of Governments, and other sources to develop a thorough and detailed evaluation of the Advanced Guideway System for the Corridor. Additional and updated ridership studies and travel demand modeling will need to be conducted and will be included in Tier 2 processes.

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- I. (Continued from previous page)
Sustainability is an overarching core value identified during the I-70 Mountain Corridor Context Sensitive Solutions process. Regarding the incorporation of sustainability into the project, please see the response to your comment [IND-202-K](#). Vehicle miles traveled for each of the alternatives is provided in **Section 3.16, Energy** of the PEIS.

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11. Additionally, these factors are important in the Final PEIS and possibly in the ROD:

- Insuring integrity of the CE Panel and Agreement:
- Not jeopardizing the agreed-upon operation of triggers, and expanding these trigger criteria;
- Following and honoring the general intent of CE Panel that is not included in the Agreement such as expediting buses in mixed traffic, tying to DIA and DUS, etc.
- Review CSS process for AGS east of C470
- Public support (future voting)
- Legislative/agency changes

Response to IND-202 (continued)

J. The **Introduction** of the PEIS describes the programmatic NEPA process that guides the PEIS process, including the Final PEIS and the Record of Decision. The lead agencies are committed to carrying out the I-70 Collaborative Effort Consensus Recommendations as documented in **Appendix C, Consensus Recommendation** and implementing the I-70 Mountain Corridor Context Sensitive Solutions (CSS) process described in **Appendix A, I-70 Mountain Corridor PEIS Context Sensitive Solutions** during Tier 2 processes. The triggers that will be used as the Preferred Alternative is developed are described in **Section 2.7.2** of the PEIS.

The lead agencies commit to implementing improvements identified in the Consensus Recommendation and Record of Decision as funding allows. The Preferred Alternative is a comprehensive proposal for improvements to the I-70 Mountain Corridor, and includes non-infrastructure components, highway capacity and safety improvements, and the Advanced Guideway System as described in **Section 2.7.1** of the PEIS. The non-infrastructure strategies, such as the bus in mixed traffic service you note in your comment, are an important element of the Preferred Alternative because they could be implemented in the near-term to address issues in the Corridor and remove cars from the road in advance of major infrastructure improvements. The Colorado Department of Transportation has committed to continuous stakeholder involvement following the I-70 Mountain Corridor Context Sensitive Solutions process and working with the Collaborative Effort team for all tasks and projects conducted on the I-70 Mountain Corridor. As noted in response to your comment [IND-202-B](#), connections to Denver Union Station and Denver International Airport will be examined during upcoming studies, including the Colorado Interregional Connectivity Study.

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Response to IND-202 (continued)

J. (Continued from previous page)

The I-70 Mountain Corridor Context Sensitive Solutions process does not apply to the study of transit or other improvements east of the C-470/ Jefferson Government Center light rail station terminus. The Colorado Department of Transportation regularly implements a public and agency involvement process for virtually all of its studies, however, and will do so for the upcoming Colorado State Passenger and Freight Rail Plan and Colorado Interregional Connectivity Study.

Future public voting for any improvements in the I-70 Mountain Corridor would only be required if certain funding mechanisms, such as tax increases or bonding approvals, were to be employed. Regarding legislative and agency changes, CDOT is committed to implementing improvements identified in the Consensus Recommendation and Record of Decision as funding allows and to continuous stakeholder involvement following the I-70 Mountain Corridor Context Sensitive Solutions process. The lead agencies acknowledge that additional revenue, leadership, and support from the citizens and elected officials of Colorado will be required to implement the Preferred Alternative.

Comments

Responses

Source: Letter	Name: Bert Melcher (continued)
Document Number: IND-202	City, Zip Code: Denver, 80237

K

12. The Draft has minimal discussion of Sustainability, which was one of the major concerns of the CE panel: it is "overarching". Also, the CSS position on Sustainability tries to come to grips with what is meant by Sustainability by listing a number of citizen thoughts on the subject. Sustainability is best stated in a concise sentence which relates directly to Section 101(b) of NEPA and which is the generally-accepted international definition: "Development that meets the needs of the present generation without compromising the ability of future generations to meet their needs." ("World Commission on Environment and Development" aka "Brundtland Report"). In this context, the Draft ought to provide an improve discussion of sustainability issues. One is resource depletion, specifically, global oil. Appended hereto is a document of excerpts from the web site of the international Association for the Study of Peak Oil (ASPO). Any models, forecasts or future visions that ignore the studies of ASPO and implications, including regional economic impacts and potential socio-economic disruptions, of price and availability of liquid fuels are not realistic.

I sincerely hope that these comment will be helpful and will be used to provide an improved Final EIS and subsequent Tier 2 studies and projects.

Response to IND-202 (continued)

K. Sustainability is an overarching core value identified during the I-70 Mountain Corridor Context Sensitive Solutions process. The Preferred Alternative incorporates this core value of sustainability by incorporating a multimodal solution that provides alternative transportation modes and potentially alternative energy sources. The Preferred Alternative also includes mitigation commitments that address sustainability, such as supporting regional planning with municipalities to promote responsible managed growth and development, and working collaboratively with land management agencies to improve resource conservation. The Preferred Alternative considers global trends such as climate change and fossil fuel use (and oil supply) through the use of an adaptive management approach, as described in **Section 2.7.2** of the PEIS.

Section 3.16, Energy of the PEIS discusses energy consumption and the future decreased availability of fossil fuels. The issue of peak oil is discussed in **Section 4.4** of the *I-70 Mountain Corridor Energy Technical Report* (CDOT, 2011), which also explains why analysis of peak oil is not included in the PEIS, "Peak oil is a term that refers to the global peak in oil production, which occurs when the amount of oil produced worldwide reaches a peak and starts declining. Predictions for when this peak will occur are controversial and range from now to 2035 and beyond. There are also those who believe the peak has already been reached. This decline in oil production does not signify 'running out of oil' but it does mean the end of cheap oil, which will have worldwide consequences. Since peak oil is an issue of national and global importance, this topic has not been and will not be used in Tier 2 processes as a comparative feature of Action Alternatives."

The lead agencies acknowledge that by 2050, the decreased availability of fossil fuels is likely to affect travel. Potential effects include a change of fuel type resulting in more hybrids and electrically powered vehicles. Reductions in fossil fuel supply could also result in changes in public policy such as a
(continued on next page)

Comments

Responses

Source: Letter	Name: Bert Melcher (continued)
Document Number: IND-202	City, Zip Code: Denver, 80237

Response to IND-202 (continued)

K. (continued from previous page)

carbon tax or vehicle miles of travel, which could decrease travel overall. Reductions in fossil fuel supply could also result in dramatically increased fuel costs, which could decrease travel overall. Therefore, based on available information about fossil fuel availability, vehicle technology advancements, and the trends from 2035 data related to traffic flow improvement from the Action Alternatives, the Preferred Alternative continues to be among the lowest of all alternatives in operational energy consumption. Because construction of the Preferred Alternative occurs over a longer period of time (2050 rather than 2035), energy impacts from construction are more spread out over time.

Comments

Responses

Source: Letter	Name: Bert Melcher (continued)
Document Number: IND-202	City, Zip Code: Denver, 80237

Response to IND-202 (continued)

Attachment I
Law/Regulation Excerpts Relevant of Comments

1. The National Environmental Policy Act of 1969, as amended (Pub. L. 91-190) , Sec. 1502.16 Environmental consequences.

This section forms the scientific and analytic basis for the comparisons under Sec. 1502.14. It shall consolidate the discussions of those elements required by sections 102(2)(C)(i), (ii), (iv), and (v) of NEPA which are within the scope of the statement and as much of section 102(2)(C)(iii) as is necessary to support the comparisons. The discussion will include the environmental impacts of the alternatives including the proposed action, any adverse environmental effects which cannot be avoided should the proposal be implemented, the relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources which would be involved in the proposal should it be implemented. This section should not duplicate discussions in Sec. 1502.14. It shall include discussions of:

- (a) Direct effects and their significance (Sec. 1508.8).
- (b) Indirect effects and their significance (Sec. 1508.8).
- (c) Possible conflicts between the proposed action and the objectives of Federal, regional, State, and local (and in the case of a reservation, Indian tribe) land use plans, policies and controls for the area concerned. (See Sec. 1506.2(d).)
- (d) The environmental effects of alternatives including the proposed action. The comparisons under Sec. 1502.14 will be based on this discussion.
- (e) Energy requirements and conservation potential of various alternatives and mitigation measures.
- (f) Natural or depletable resource requirements and conservation potential of various alternatives and mitigation measures.
- (g) Urban quality, historic and cultural resources, and the design of the built environment, including the reuse and conservation potential of various alternatives and mitigation measures.
- (h) Means to mitigate adverse environmental impacts (if not fully covered under Sec. 1502.14(f)).

[43 FR 55994, Nov. 29, 1978; 44 FR 873, Jan. 3, 1979]

2. PL90-190Sec. 1502.15 Affected environment.
The environmental impact statement shall succinctly describe the environment of the area(s) to be affected or created by the alternatives under consideration. The descriptions shall be no longer than is necessary to understand the effects of the alternatives. Data and analyses in a statement shall be commensurate with the importance of the impact, with less important material summarized, consolidated, or simply referenced. Agencies shall avoid useless bulk in statements and shall concentrate effort and attention on important issues. Verbose descriptions of the affected environment are themselves no measure of the adequacy of an environmental impact statement.

3. CEQ website
VII. Connected Actions
Blue Ocean Preservation Society v. Watkins, 745 F. Supp. 1450 (D. HI. 1991)
FACTS: The State of Hawaii developed the Hawaii Geothermal Project (HGP) consisting of four phases: 1) exploration and testing of geothermal resources; 2)

Comments

Responses

Source: Letter	Name: Bert Melcher (continued)
Document Number: IND-202	City, Zip Code: Denver, 80237

Response to IND-202 (continued)

research regarding the feasibility of transporting the power via underwater cables; 3) a program involving the drilling of exploration wells; 4) construction of separate geothermal power plants. The Department of Energy (DOE) provided funds for the first 2 phases; in 1988, Congress appropriated an additional \$5 million for use in phase 3, the first of three such appropriations anticipated from Congress over the next three years. Congress stated in a Conference Report that while phase 3 was "research," not a major federal action subject to NEPA, DOE should nevertheless earmark some of the funds for an EA/EIS for the project. In 1990, plaintiffs sued DOE seeking to compel preparation of an EIS, and to enjoin further federal participation in the HGP until the EIS was completed. FINDINGS: The court rejected Congress' characterization of phase 3, and held that phases 3 and 4 were connected actions that must be considered in one EIS. The court further held that the "research work" contemplated by phase 3 "alone easily satisfies the statutory standards for 'major federal action' based simply on the extent of federal funding."

VIII. Cumulative Impacts

A. Fritiofson v. Alexander, 772 F.2d 1225 (5th Cir. 1985)

FACTS: This involved a challenge to an Army Corps' decision to prepare an EA on a '404 permit to fill wetlands for a development on Galveston Island (Texas). By all accounts, further development affecting those wetlands was being planned, but those plans were not yet pending before the Corps. In addition, it was acknowledged that this particular proposal would not have significant effects--the Corps said that it had to go no further. The court disagreed.

FINDINGS: The court makes a distinction between the requirement to analyze cumulative actions and the requirement for an analysis of cumulative impacts. Specifically, with respect to cumulative actions, the court noted that CEQ scoping regulations require connected, cumulative, and similar actions to be considered together in the same EIS--where proposals up for decision are functionally or economically related, those proposals must be considered in one EIS. "If proceeding with one project will, because of functional or economic dependence, foreclose options or irretrievably commit resources to future projects,

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With respect to cumulative impacts, the court noted that the CEQ regulations require analysis of direct, indirect, and cumulative impacts and held that in this context, the impacts were not limited to those from actual proposals, but must also include impacts from actions which are merely being contemplated (i.e., are not yet ripe for decision). However, the court noted that contemplated actions must be "reasonably foreseeable," not speculative and not off in the distant future.

4. FHWA ENVIRONMENTAL GUIDEBOOK Home >

Comments

Responses

Source: Letter	Name: Bert Melcher (continued)
Document Number: IND-202	City, Zip Code: Denver, 80237

Response to IND-202 (continued)

Cumulative and Indirect Impacts

An essential element of NEPA decisionmaking for transportation projects is the consideration and analysis of the potential environmental impacts or effects (ecological, aesthetic, historic, cultural, economic, social, or health) of our projects and actions. This includes not only the direct impacts, but also indirect effects (sometimes called secondary effects) and cumulative impacts. Keep in mind that these impacts are different and distinct from one another and are treated differently in environmental analyses. The CEQ Regulations defines direct and indirect effects and cumulative impacts at 1508.7 and 1508.8:

Cumulative impact - the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Direct effects - are caused by the action and occur at the same time and place.

Indirect effects - are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

5. FHWA TECHNICAL ADVISORY T 6640.8A
October 30, 1987
ATTACHMENT: GUIDANCE FOR PREPARING AND PROCESSING ENVIRONMENTAL AND SECTION 4(F) DOCUMENTS
System Linkage – Is the proposed project a "connecting link?" How does it fit in the transportation system?
Social Demands or Economic Development – New employment, schools, land use plans, recreation, etc. What projected economic development/land use changes indicate the need to improve or add to the highway capacity?
Modal Interrelationships – How will the proposed facility interface with and serve to complement airports, rail and port facilities, mass transit services, etc.?

6. FHWA NEPA Documentation - Environmental Impact Statement (EIS) Affected Environment. This section provides information on the existing resources and condition of the environment. Generally this section should focus on the important issues in order to provide an understanding of the project area relative to the impacts of the alternatives. The affected environment should discuss, commensurate with the importance of the potential impacts, the existing social, economic, and environmental settings surrounding the project. It should also identify environmentally sensitive features in the project corridor.

7. Interim Guidance on the Application of Travel and Land Use Forecasting in NEPA
Federal Highway Administration, March 2010
2.1.2.2 Geographic Scope of Analysis

Comments

Responses

Source: Letter	Name: Bert Melcher (continued)
Document Number: IND-202	City, Zip Code: Denver, 80237

Response to IND-202 (continued)

It is important to ensure that the forecasting is extensive enough in its geographic reach to estimate travel behavior, transportation, and land development effects.[6] Unique issues may arise when applying a model to evaluate a project near a model boundary. In such cases, model refinements may be needed. In these boundary conditions the traffic analysis zones (TAZs) are typically large, the coded road network is sparse, and travel patterns are heavily affected by external demand. Taken together, these issues lead to both less detail and less model sensitivity. If the project is proximate to the boundary of the model area, it is suggested that the study team code a more detailed road network. It is also suggested that the study team consider both adding more detail to the TAZ structure and expansion of the model to extend its boundary. Refining or expanding the model may lead to significant efforts such as the collection of additional land use data and the need to forecast land use changes for that area, the need to do additional model validation, or, in the case of expanding the model, the integration of land use data and forecasts from a different planning jurisdiction.

CEQ website on laws:
 Sierra Club, Ill. Chapter v. U.S. Dep't of Transp., 962 F. Supp. 1037, 1043 (N.D. Ill. 1997)
 The Court found that, while it is legally sufficient to rely on existing transportation needs to justify a project even if the future needs analysis is flawed, in this case the FEIS contained no analysis of how the project would improve travel times, enhance community linkages, or alleviate other existing transportation problems. The Court found the FEIS legally insufficient because of the absence of such information.
 1. Senville v. Peters, 327 F. Supp. 2d 335, 368-69 (D. Vt. 2004)
 The Court held that, even though the FHWA had taken a "hard look" at whether an alternative would cause growth that would not have occurred without construction, the agency failed to consider other requisite aspects of the induced growth issue. . . . There was no discussion of the potential detrimental (or positive) impact upon areas from which population and resources would be drained...

8. Revised Draft PEIS
4.2 What are cumulative impacts and why are they important?
 This analysis examines direct and indirect actions occurring as a result of the proposed actions and how they affect the resources of concern. These impacts are additive and do not always result in a one-to-one relationship but rather can compound the degree of effect.
 The focus of this first tier assessment is to evaluate the inter-relationships between the transportation network and community values and environmental resources within the Corridor and surrounding counties, National Forests, and watersheds; and to identify possible cumulative impacts that may result from reasonably foreseeable future actions, from project alternatives, and from both of those combined.
 This cumulative impact assessment describes possible future land use and socioeconomic growth scenarios that alternatives could impact, including the potential environmental consequences of inducing growth beyond local agency planning and the population and employment projections for the Corridor.
 This is not a standard cumulative impact analysis approach, but due to the overarching concern about induced growth and its contribution to cumulative effects, this analysis focused on the effects to resources from travel demand, population increases and development associated with the Action Alternatives.

Comments

Responses

Source: Letter	Name: Bert Melcher (continued)
Document Number: IND-202	City, Zip Code: Denver, 80237

Response to IND-202 (continued)

Attachment 2
Sustainability: Resource Depletion

PEAK OIL

ASSOCIATION FOR THE STUDY OF PEAK OIL & GAS

Welcome to ASPO International

ASPO is a network of scientists and others, having an interest in determining the date and impact of the peak and decline of the world's production of oil and gas, due to resource constraints.

Excerpts from <http://www.peakoil.net/>

Peak Oil Theory

M. King Hubbert, a former Shell geologist and university professor, originally developed the peak oil model, which came to be known as "Hubbert's Peak" or "Hubbert's Curve." Essentially, Hubbert observed and theorized that oil production follows a bell curve shape some years after the bell curve of oil discovery, and that the peak of the production curves typically occur somewhere around the halfway point of total production. This offered a way to model the production curve for a given assumed ultimate recovery volume.

In 1956, Hubbert correctly predicted that US oil production would peak between 1965 and 1970. In 1976, Hubbert also correctly predicted that the worldwide peak of conventional crude would happen in the 2005 timeframe (plus or minus geopolitical uncertainty). Hubbert was one of the first to suggest that the fossil fuel era would be of very short duration (see: "Energy from Fossil Fuels," *Science*, February 4, 1949).

The peak oil theory **does not state** that conventional oil production will peak and decline when exactly half the assumed global endowment has been used up. That notion assumes that we know with some certainty what the world's recoverable reserve volumes actually are, and that the producing countries will extract their oil in an unconstrained way. The halfway mark supposition comes from applying the derivative of a symmetric logistic function to estimate future oil production, as Hubbert did. This mathematical method was first employed in 1838 by Pierre Verhulst to model exponential growth in finite systems. A mathematical variant called a Hubbert Linearization is used to estimate remaining recoverable reserves.

Analysts use these methods, and others, to estimate the total global amount of recoverable oil. In 2010, a group of Kuwait researchers applied a multi-cyclic Hubbert model with excellent results.

Peak Oil Data

Comments

Responses

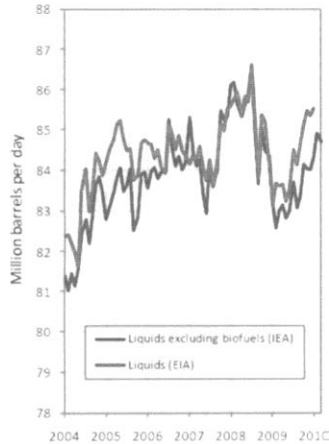
Source: Letter	Name: Bert Melcher (continued)
Document Number: IND-202	City, Zip Code: Denver, 80237

Response to IND-202 (continued)

The worldwide rate of conventional crude oil production peaked at the end of 2004, and has remained between 72 and 74 million barrels per day (mbpd) ever since. The subsequent tripling of oil prices did not bring new oil to market—a classic signal of peak oil. Oil discovery is in long-term decline, and the world has reached the point at which new drilling has failed to overcome the depletion of mature fields.

Adding natural gas liquids, biofuels, synthetic liquid fuel made from tar sands, and other unconventional liquids to conventional crude brings the current “all liquids” total to about 86 mbpd. Unconventional liquids have been responsible for nearly all of the growth in world “oil” production since 2005.

The world has reached a “bumpy plateau” in production, as shown in the following chart.



Source: Oilwatch Monthly, April 2010

A detailed review of the flow rates of the world’s oil producers tells us that world production may not ever exceed 90 mbpd. It appears we are now on the peak oil plateau, or close enough to it that the date of the technical, absolute peak doesn’t matter.

The global peak of all liquids will likely occur by 2015 at 95 mbpd or less, but it will only be visible in the rear-view mirror. It does not matter much if the 2015 date is off by a few years in either direction.

Comments

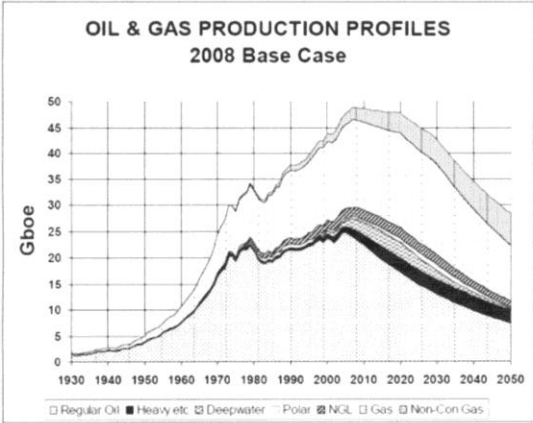
Responses

Source: Letter	Name: Bert Melcher (continued)
Document Number: IND-202	City, Zip Code: Denver, 80237

Response to IND-202 (continued)

As ASPO founder Colin Campbell has said, "Arguing endlessly over the precise date of the peak also rather misses the point, when what matters is the vision of the long slope that comes into sight on the other side of it."

The following chart shows Campbell's 2009 model of past and future oil production. This model is based upon a detailed study of all the world's major oil fields, with all forms of petroleum taken into account.



ESTIMATED PRODUCTION TO 2100										
Amount			Annual Production - Regular Oil					Total	Peak	
G/b			M/b/d					G/b	Date	
Regular Oil			2008	2010	2015	2020	2030			
Past	Future	Total	US-48	2.9	2.6	2.1	1.7	1.1	200	1970
Known Fields	New		Europe	4.0	3.5	2.5	1.8	0.9	75	1999
1054	736	110	Russia	8.8	8.2	6.8	5.7	4.0	230	1987
		846	ME Gulf	20	20	20	19	16	673	1974
All Liquids			Other	28	27	23	19	14	722	2005
1156	1269	2425	World	64	61	54	47	36	1900	2005
2008 Base Scenario			Non-Conventional							
Regular Oil excludes Heavy Oils			Heavy etc.	4.3	5.0	6.5	7.2	7.7	226	2030
inc. tarsands, oilshales; Polar & Deepwater Oil & gasplant NGL			Deepwater	5.9	6.6	8.1	8.1	4.7	89	2013
and Refinery Gains of ~3%			Polar	1.4	1.5	1.7	2.0	2.3	52	2030
Reference date - end 2008			Gas Liquid	5.1	5.5	5.6	5.9	5.6	156	2020
Revised 10/03/2009			Rounding						-1	2
			ALL	81	80	75	70	55	2425	2008

Comments

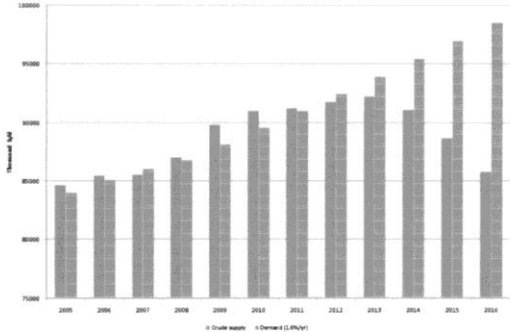
Responses

Source: Letter	Name: Bert Melcher (continued)
Document Number: IND-202	City, Zip Code: Denver, 80237

Response to IND-202 (continued)

Colin Campbell's World Oil Production Model
Source: ASPO-Ireland Newsletter No. 100 - April 2009

Supply and demand to 2016



ASPO-7 BARCELONA 09-11 October 2008

Comments


Responses

Source: Comment sheet	Name: Roberto Velasco
Document Number: IND-203	City, Zip Code: Avon, 81620

I want the fast railroad. It is necessary for all the communities in the areas. If we don't build the railroad, there will be no work.

I am also in favor of widening the interstate. It will provide the benefit of being able to get to jobs and also get to Denver Airport and Glenwood Springs.

I say go ahead with the project.



Public Hearing October 2010

SUBMIT A COMMENT

All comments submitted during the 60-day Revised Draft PEIS comment period will be considered prior to the Final PEIS, responses to comments will be included with the Final PEIS.

NAME Roberto Velasco

ORGANIZATION NONE NINGUNA

ADDRESS _____

CITY _____ STATE _____ ZIP CODE _____

PHONE _____ E-MAIL _____

What are your comments?

No si quiero que se controle el Ferrocarril Rapido. Por que es muy necesario un servicio Rapido. es muy Beneficiosa para todas las comunidades que abarca el Ferrocarril. Ahora en futuro no le dara mucho trabajo la misma con la ampliacion de la interestada. Lo mas Beneficiana para todas con ese servicio con el trabajo y desayunos para Rapido serian los viajes a Denver y al aeropuerto a Glenwood Springs. Pues por consiguiente este es que se lleve a cabo estos proyectos.

Atentamente Roberto Velasco

Response to IND-203

A. A multimodal solution with transit, highway improvements, and non-infrastructure improvements are integral to meeting the purpose and need of the project while minimizing environmental impacts. The Advanced Guideway System provides needed capacity in the Corridor, while the highway improvements are needed to reduce congestion and improve safety. The Advanced Guideway System would provide transit service from the Eagle County Regional Airport to the Jeffco Government Center light rail station in Golden, a distance of approximately 118 miles, and will connect to the Regional Transportation District West Corridor line in Golden. Extending the system east to Denver International Airport or west to Glenwood Springs is not part of this project but would not be precluded in the future.

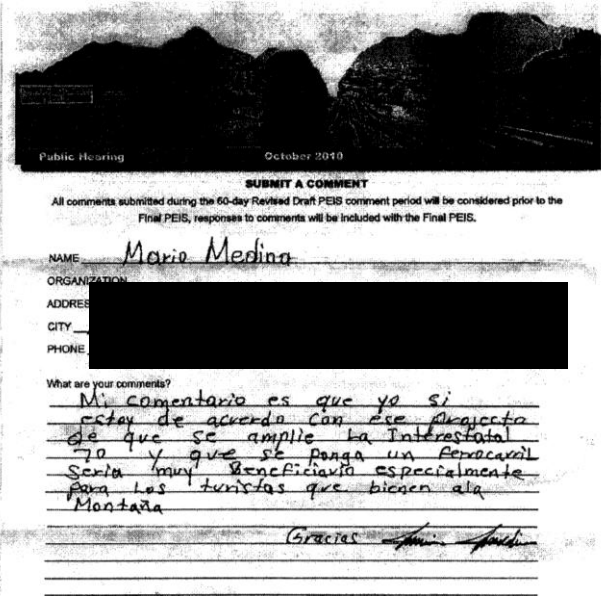
Although during construction, economic growth in the Corridor would be suppressed, by 2035 after construction is completed, all of the Action Alternatives, except the Minimal Action, would meet or surpass a gross regional product of \$45 billion per year. Implementation of the Preferred Alternative will provide economic benefits, such as increased jobs, increased personal income, and increased gross regional product (a measure of new goods and services in the region) in comparison to the No Action Alternative. The No Action alternative is expected to suppress (reduce) the number of jobs, personal incomes, and the gross regional product due to increased highway congestion and reduced access to recreational and tourist amenities. For more information on social and economic values, see **Section 3.8, Social and Economic Values** of the PEIS and the *I-70 Mountain Corridor PEIS Social and Economic Values Technical Report* (included electronically on CD-ROM in Volume 4 of the Technical Reports and on the project website).

Comments

Responses

Source: Comment Sheet	Name: Mario Medina
Document Number: IND-204	City, Zip Code: City, Zip

A My comment is that I am in support of the project to expand the Interstate 70, and to put in a railroad. It would be very beneficial especially for the tourists that come to the Mountains.



Public Hearing October 2010

SUBMIT A COMMENT

All comments submitted during the 60-day Revised Draft PEIS comment period will be considered prior to the Final PEIS, responses to comments will be included with the Final PEIS.

NAME Mario Medina

ORGANIZATION [Redacted]

ADDRESS [Redacted]

CITY [Redacted]

PHONE [Redacted]

What are your comments?

Mi comentario es que yo si
estoy de acuerdo con ese proyecto
de que se amplie la Interestatal
70 y que se ponga un ferrocarril
seria muy beneficiaria especialmente
para los turistas que vienen a la
Montaña

Gracias

Response to IND-204

A. Transit, highway improvements, and non-infrastructure improvements are integral to meeting the purpose and need of the project while minimizing environmental impacts. The Advanced Guideway System provides needed capacity in the Corridor while the highway improvements are needed to reduce congestion and improve safety.

Implementation of the Preferred Alternative will improve travel conditions for all travelers in the Corridor, including tourists.

Comments

Responses

Source: Letter	Name: Michael Hocevar
Document Number: IND-205	City, Zip Code: Georgetown, 80444

Response to IND-205

A. Please see the responses to your previous comments [IND-24-A](#) through [IND-24-E](#).

It has been observed that the key to getting people to use a train (advanced high speed guide-way) system is that it has to provide a significant time advantage over driving. The original proposal, I first read about in the Clear Creek Courant; maybe about 15 years ago, for a train system was to take a path that is almost a straight line from DIA to Vail. **It would go through the rugged terrain with a lot of trestles and tunnels.** This would provide a very efficient means of transportation and minimal impact on the environment. The time saving for travelers would be significant. I am sure it would be highly popular for anyone using the airport and going to the resorts. This route would pass through the Central City area, a stop there may be popular.

In more detail this would only pass through the north end of the metro area, not having to go as far south as I-70, and have a stop north of Silverthorne and then in Vail.

Although this route was the originally proposed one, I have not heard any mention to it since then. The answers I am getting are that theirs just too much environmental work to do. Sure it would be a lot of work to build it. However, going through the existing corridor is also a tremendous amount of work and major environmental impact. Hidden Valley, Idaho Spring and Silver Plume Hill are large hurdles with a ridiculous amount of rock removal while traffic is on the highway. This would make the traffic worse for the construction phase and then the time difference may not be much, particularly going up Silver Plume Hill. Then the ridership runs a risk of being low.

Another problem is that both the train (guide-way) would run side by side. Therefore if something like a mudslide occurred it would affect both the cars and transit.

My suggestion would be to either significantly improve transportation time and routing by going through the originally proposed route or just keep I-70 the way it is and travelers and developers will have to live within the means provided.

A

Comments

Responses

Source: Comment sheet	Name: Brandi Thompson
Document Number: IND-206	City, Zip Code: Breckenridge

I'd love to see a monorail along the I-70 corridor. The road would still be necessary, but less use means less wear, which means less tax payer dollars to maintain the highway. This money can be used for other things, like schools & health care.

Also, a monorail is MUCH safer. And can be used for cargo. And is pro-friendly. Europe does it, we can too! It could maybe even cut down times, if it is high speed.

A I am in full support of a monorail. If the road is widened, & construction takes 5+ years, there are going to be a LOT of cranky people. & in a time of recession & dept, it is not the time to be spending money. It is not for long term. Monorails over time are much cheaper - continual maintenance is not as demanding.

Response to IND-206

A. Yes, the Preferred Alternative is a multimodal solution that includes an Advanced Guideway System transit component between the Eagle County Regional Airport and the Jeffco Government Center light rail station in Golden. To clarify, the Advanced Guideway System is capable of being fully elevated, but the specific Advanced Guideway System technology has not yet been determined (note monorail is one of several specific transit technologies that will be evaluated in future Advanced Guideway System feasibility studies and related Tier 2 processes). A multimodal solution provides the best opportunity to meet the project's purpose and need while minimizing environmental impacts. The Advanced Guideway System provides needed capacity in the Corridor. Highway improvements are needed to reduce congestion and improve safety. Based on available data, the Preferred Alternative provides the best opportunity to meet the 2050 purpose and need for the Corridor while minimizing impacts. For more information on the Preferred Alternative, see **Section 2.7, "What was the decision making process for identifying the Preferred Alternative?"** of the PEIS.

The construction of both the Advanced Guideway System and the highway improvements will affect travelers, but impacts will be mitigated as much as possible. The construction period will most likely occur over a period longer than five years, but not all along the entire Corridor at once. After individual Tier 2 processes are complete and funding is identified, construction phasing schedules will be developed.

The maintenance requirements of the Advanced Guideway System will not be known until the Advanced Guideway System feasibility studies and related Tier 2 processes are completed. Regarding highway maintenance, some vehicle trips would shift to the Advanced Guideway System, but the available capacity on the highway would be taken up by new trips that are currently not being made because of existing I-70 highway congestion, also known as unmet demand. Highway maintenance requirements would not be reduced.