



## I-225 PEL FROM YOSEMITE TO I-25 PEL QUESTIONNAIRE

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This questionnaire is intended to act as a summary of the Planning process and ease the transition from planning to a National Environmental Policy Act (NEPA) analysis. Often, there is no overlap in personnel between the planning and NEPA phases of a project, so consequently much (or all) of the history of decisions made in the planning phase is lost. Different planning processes take projects through analysis at different levels of detail. NEPA project teams may not be aware of relevant planning information and may re-do work that has already been done. This questionnaire is consistent with the 23 CFR 450 (Planning regulations) and other FHWA policy on Planning and Environmental Linkage (PEL) process.

The Planning and Environmental Linkages study (PEL Study) is used in this questionnaire as a generic term to mean any type of planning study conducted at the corridor or subarea level which is more focused than studies at the regional or system planning levels. Many states may use other terminology to define studies of this type and those are considered to have the same meaning as a PEL study.

At the inception of the PEL study, the study team should decide how the work may later be incorporated into subsequent NEPA efforts. A key consideration is whether the PEL study will meet standards established by NEPA regulations and guidance. One example is the use of terminology consistent with NEPA vocabulary (e.g. purpose and need, alternatives, affected environment, environmental consequences).

*Instructions: These questions should be used as a guide throughout the planning process, not just answered near completion of the process. When a PEL study is started, this questionnaire will be given to the project team. Some of the basic questions to consider are: "What did you do?," "What didn't you do?," and "Why?". When the team submits a PEL study to FHWA for review, the completed questionnaire will be included with the submittal. FHWA will use this questionnaire to assist it in determining if the study meets the requirements of 23 CFR §§ 450.212 or 450.318. The questionnaire should be included in the planning document as an executive summary, chapter, or appendix.*

### 1. **BACKGROUND:**

A. Who is the sponsor of the PEL study? (state DOT, Local Agency, Other)

The Colorado Department of Transportation (CDOT) is the project sponsor of the I-225 Planning and Environmental Linkages Study from Yosemite Street to I-25 (PEL Study).

B. What is the name of the PEL study document and other identifying project information (e.g. sub-account or STIP numbers, long-range plan, or transportation improvement program years)?

The PEL Study document is the *Planning and Environmental Linkages (PEL) Report for Interstate Highway 225 (I-225)*, which was initiated by CDOT in February 2013 and plans to be completed by end of August 2014. PEL documents can be found online at the following address: <http://www.coloradodot.info/projects/i-225pel>. The subaccount numbers and code for this project are STA 2254-085 and 19187, respectively.

## I-225 PEL Yosemite to I-25



- C. Who was included on the study team (Name and title of agency representatives, consultants, etc.)?

Felsburg Holt & Ullevig was the lead consultant for the PEL Study. Apex Design, FMLA, Hartwig & Associates, Lund Partnership, and Solutions Engineering & Facilitating were part of the Consultant team.

A Project Management Team (PMT) and a Technical Working Group (TWG) were formed to discuss goals, identify study area concerns, develop concepts, and contribute in making key decisions throughout the project. The PMT consisted of CDOT representatives from the traffic, design and environmental departments and the Consultant team members.

The TWG consisted of CDOT, Consultants, and representatives from Arapahoe County (Bryan Weimer, Transportation Division Manager), City of Aurora (Mac Callison, Transportation Planning Supervisor), City and County of Denver (Karen Good, Development and Planning Supervisor), Denver Regional Council of Governments (DRCOG) (Steve Cook, MPO Planning Program Manager), Federal Highway Administration (FHWA) (Dahir Egal, Safety/Traffic Engineer - Region 1 South), City of Greenwood Village (Joy McGee, Planning Manager), Regional Transportation District (RTD) (Chuck Culig, I-225 Engineering Project Manager), Goldsmith Metro District (Doug Scott, Manager), and Madre Metro District ((Bob Blodgett, District Manager).

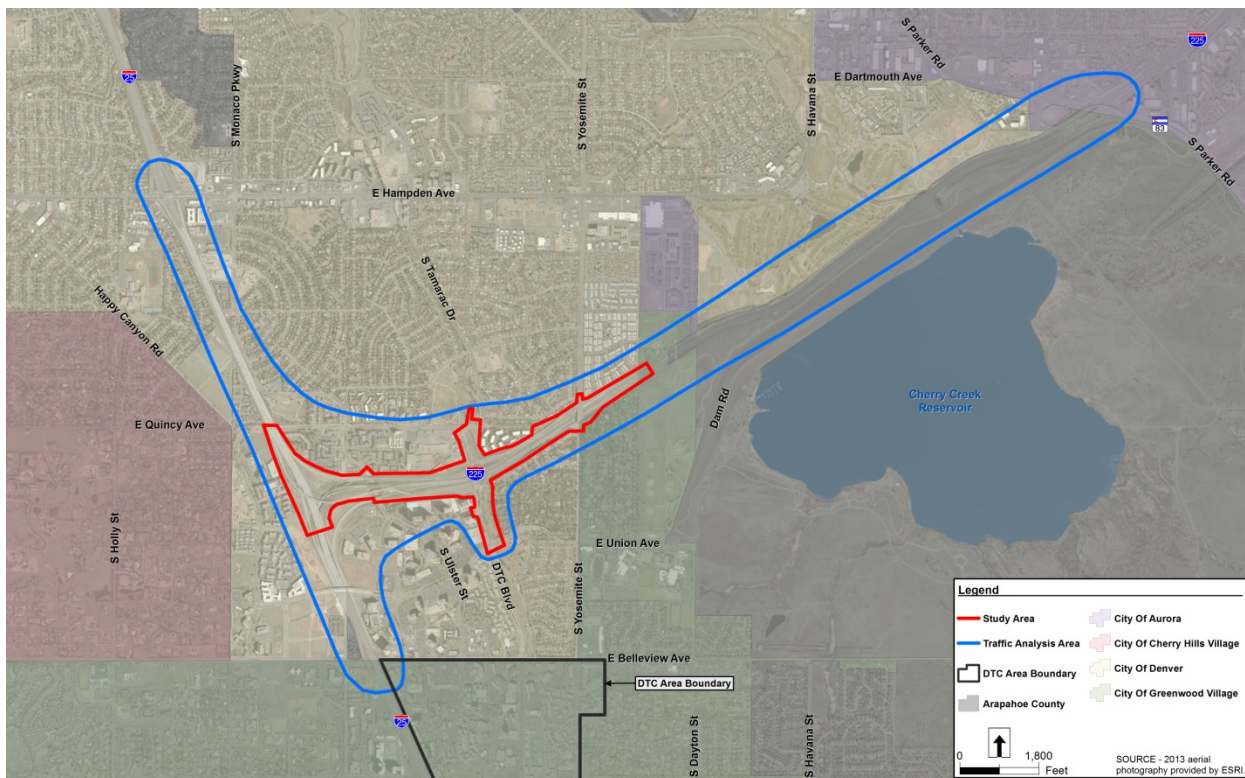
- D. Provide a description of the existing transportation facility within the corridor, including project limits, modes, functional classification, number of lanes, shoulder width, access control and type of surrounding environment (urban vs. rural, residential vs. commercial, etc.)

The PEL Study determined solutions to resolving the bottleneck on southbound I-225 from Yosemite to Interstate 25 (I-25) within the City and County of Denver. The Study and Traffic Analysis Area Map is provided below.

Within the study area of the I-225 PEL, I-225 consists of two to three 12-foot travel lanes with 3- to 10-foot inside shoulders and 6- to 28-foot outside shoulders. The posted speed limit for this section of I-225 is 55 to 65 miles per hour (mph). The barrier separated median between northbound and southbound directions is approximately 40 feet wide throughout the study corridor. Regional Transportation District light rail transit runs along the median through the study area.

The posted speed limit along I-225 from Yosemite to I-25 is 65 mph to 55 mph. Actual southbound travel speeds tend to vary and are typically the lowest during peak commuter periods of travel, particularly the AM peak period. Congestion and associated low travel speeds are due to heavy traffic entering the system at the Parker Road interchange, where six lanes are provided, narrowing down to just two lanes at the DTC Boulevard bridge. This lane reduction along southbound I-225 causes a bottleneck at the DTC Boulevard bridge. This directly translates into extended queues and travel times along the corridor, particularly during the AM peak hour along southbound I-225.

The study area is in an urban area with a variety of existing commercial and residential land uses. Commercial (retail) properties are located northwest of the I-225/DTC Boulevard interchange, while commercial (office) properties are primarily located southwest of the interchange. Residential properties are located to the northeast and southeast of the interchange. The Goldsmith Gulch Park and George M. Wallace Park are located east of DTC Boulevard, which transects the project area.



E. Provide a brief chronology of the planning activities (PEL study) including the year(s) the studies were completed.

Relevant previous studies include:

- Denver Regional Council of Governments, *Freeway Bottleneck Locations in the Denver Region* (2009)
- Colorado Department of Transportation, *Denver Metro Area Active Traffic Management Feasibility Study* (2011)

F. Are there recent, current, or near future planning studies or projects in the vicinity? What is the relationship of this project to those studies/projects?

Recent, current, or near future planning studies or projects in the vicinity include:

- CDOT and FHWA, *Southeast Corridor Final EIS* (1999) – This study was used as a foundation for identifying the environmental resources in the study area.
- City of Greenwood Village, *Comprehensive Plan* (2004, as amended)
- DRCOG, *2035 Metro Vision Regional Transportation Plan* (2007, as amended)
- RTD, *I-225 Light Rail Transit Environmental Evaluation* (2009)
- Arapahoe County, *Parker Corridor Study* (2009)
- City of Aurora, *2009 Comprehensive Plan* (2009)
- Arapahoe County, *2035 Transportation Plan* (2010)
- City of Aurora, *2012 Nine Mile Station Area Plan* (2012)
- Arapahoe County, *Bellevue Avenue Corridor Study* (Current) – Slight land use changes were incorporated from this study to provide future 2035 traffic forecasts.

Section 1.2 of the PEL study provides a summary of these studies and their relationship to the project.

**2. METHODOLOGY USED:**



A. What was the scope of the PEL study and the reason for completing it?  
CDOT identified the scope for the PEL Study in a Request for Proposal dated August 30, 2012, to determine a solution to reduce congestion and improve traffic operations along southbound I-225 between Yosemite and I-25. CDOT is currently making improvements north of the study area to provide consistent three mainline lanes in each direction and auxiliary lanes between interchanges, which will be completed in fall 2014, leaving the study area as the only segment that is two lanes along the entire I-225 corridor. The goal of the project is to reduce congestion to an acceptable level for the 2035 design year.

B. Did you use NEPA-like language? Why or why not?  
Yes, a NEPA-like process was intentionally used such that as funding becomes available for construction, the project can progress directly into a NEPA process. NEPA language was used throughout the process and in the study documents.

C. What were the actual terms used and how did you define them? (Provide examples or list)

The following list of terms and definitions were used in the PEL Study:

**Purpose and Need** – The purpose and need is a detailed statement describing the Purpose for the project and the Need for the project that is supported by data.

**No Action** – The No Action Alternative reflects a scenario should CDOT select to not build any further improvements than those already being constructed. The No Action Alternative is also used as a baseline comparison for alternative development and screening. This alternative would leave southbound I-225 with two lanes passing over the DTC Boulevard bridge, but improvements upstream along I-225 are anticipated to be in place. These would include the widening of I-225 from Parker Road to Mississippi Avenue, which is currently under construction. Upon completion, I-225 will be a six-lane facility its entire length (except for the southbound segment crossing DTC Boulevard/Tamarac Parkway). One other planned/funded improvement along the I-225 corridor includes the completion of the FasTracks Light Rail Transit (LRT) line. Specifically, the LRT that currently terminates at Nine Mile Station (near I-225 / Parker Road) will be extended north along I-225, pass through the Aurora City Center area, pass through the Fitzsimons/Anschutz Campus, and terminate at the East Rail Line near Peoria Street and Smith Road. The completion of this rail line would dramatically improve the level of transit service provided along I-225 and is reflected in the 2035 No Action volumes developed from the DRCOG travel demand model.

**Alternative Concept** – This term was used to describe the reasonable range of different solutions developed to address the traffic congestion along southbound I-225.

**Screening Process** – This term is used to describe the evaluation of alternatives that leads to the selection of appropriate concepts to move forward for further study and ultimately to a recommended alternative concept(s). A three-step evaluation process was used for this PEL study.

**Recommended Alternative Concept(s)** – This term refers to the ultimate and recommended solution based on the screening process that will advance into the NEPA process and further design.



**Affected Environment** – This term refers to the baseline conditions for community and environmental resources in the study area.

**Environmental Consequences** – This term refers to the direct impacts of the proposed transportation improvements on community and environmental resources in the study area.

D. How do you see these terms being used in NEPA documents?

The terms used in the PEL Study are similar to other NEPA documents produced for CDOT and FHWA in the state of Colorado. It is anticipated that the same terms will be used in the same manner throughout the NEPA study.

E. What were the key steps and coordination points in the PEL decision-making process? Who were the decision-makers and who else participated in those key steps? For example, for the corridor vision, the decision was made by state DOT and the local agency, with buy-in from FHWA, the USACE, and USFWS and other resource/regulatory agencies.

The project team received concurrence from FHWA for key steps and coordination points in the PEL decision-making process:

- Purpose and Need – October 11, 2013
- Tier 1 Evaluation – October 11, 2013
- Tier 2 Evaluation – January 15, 2014
- Tier 3 Evaluation – April 16, 2014

The Resource Agencies (USFWS, CDPHE WQCD, CPW, EPA, SHPO, UDFCD, and USACE) were invited to participate in the PEL and were provided the *Environmental Analysis and Existing Conditions Assessment Report* for review. Comments were received from: USFWS, CPW, CDPHE WQCD, and SHPO.

In addition, several meetings have been conducted with CDOT, FHWA, Stakeholders, and the public for the PEL Study, which included:

- More than seventeen PMT meetings with CDOT
- More than nine TWG meetings with FHWA and Stakeholders
- One public Telephone Town Hall Meeting and one public open house
- One final newsletter to be distributed

FHWA and CDOT are the final decision makers for the PEL study with input from the above listed activities.

F. How should the PEL information be presented in NEPA?

The PEL information will be summarized in the *Planning and Environmental Linkages (PEL) Report for Interstate Highway 225 (I-225)* (PEL Report) and should be used as the starting point for the NEPA process. Coordination with the same agencies in the PEL Study should continue into NEPA, with additional ones added based on resources reviewed.



If it is determined that a Categorical Exclusion (CE) is the correct NEPA document with which to move forward, then the concept screening, environmental resource information, and agency and public involvement information can be directly referenced in the CE. If an Environmental Assessment (EA) or Template EA is determined as the appropriate NEPA process with which to move forward, then the PEL information can be used to develop the purpose and need section of the EA and can be the basis for more in-depth evaluation of the remaining concepts carried into NEPA and expanding on the environmental resources and associated impacts. The next steps are documented in Chapter 7 of the PEL Report.

### 3. AGENCY COORDINATION:

- A. Provide a synopsis of coordination with Federal, tribal, state and local environmental, regulatory and resource agencies. Describe their level of participation and how you coordinated with them.

Agency meetings have been conducted with CDOT, FHWA, Stakeholders, resource agencies, and the public for the PEL Study from Yosemite and I-25, which included:

- More than seventeen PMT meetings with CDOT
- More than nine TWG meetings with FHWA and Stakeholders
- Agency coordination through a mailing and follow-up calls

The TWG was composed of representatives from the following agencies:

- |                             |                            |
|-----------------------------|----------------------------|
| ▶ CDOT                      | ▶ Arapahoe County          |
| ▶ FHWA                      | ▶ DRCOG                    |
| ▶ City of Aurora            | ▶ RTD                      |
| ▶ City and County of Denver | ▶ Goldsmith Metro District |
| ▶ City of Greenwood Village | ▶ Madre Metro District     |

No tribal coordination is anticipated as part of NEPA for this project at this time. The Resource Agencies (USFWS, CDPHE WQCD, CPW, EPA, SHPO, UDFCD, and USACE) were invited to participate in this PEL. Chapter 6 of the PEL Report provides agency coordination documentation.

- B. What transportation agencies (e.g. for adjacent jurisdictions) did you coordinate with or were involved during the PEL study?  
A number of agencies were a part of the TWG for this study, including Arapahoe County, City of Aurora, City and County of Denver, DRCOG, FHWA, City of Greenwood Village, RTD, South I-25 Urban Corridor TMA, Goldsmith Metro District, and Madre Metro District. For a summary of the Stakeholders, see Chapter 6 of the PEL Report.
- C. What steps will need to be taken with each agency during NEPA scoping?  
A scoping meeting, a series of smaller scoping meetings, or similar level of outreach will need to be held with each transportation and resource agency to inform these agencies of the findings of the PEL Study and to discuss the NEPA process for the project. Information obtained and evaluated during the PEL Study process will be used to conduct the NEPA process and provide further and expanded evaluation of environmental resources. The agencies will be consulted during the scoping process to



determine any concerns or obtain any additional information identified since the PEL Study.

#### **4. PUBLIC COORDINATION:**

##### **A. Provide a synopsis of your coordination efforts with the public and stakeholders.**

A public involvement program was developed for the PEL Study to provide outreach to the public and stakeholders using meetings, including a public telephone town hall meeting and open house; project website; hand-delivered and emailed flyers; social media; and a newsletter. We provided a Contact Us link on the website for comments and have provided responses to those that request a response.

We have held more than seventeen PMT meetings with CDOT and more are anticipated to discuss the project process, concept alternatives, goals, and screening. We have also held more than nine TWG meetings with FHWA and Stakeholders and more are anticipated to discuss similar items as at the PMT meetings to assist in reaching decisions to advance the project. Stakeholders are encouraged to share the information with their elected officials.

To date, one public telephone town hall meeting was held to announce the project PEL Study and to listen to comments on the corridor issues and the public's interest in improving the congestion and safety concerns. Project website information was distributed and questions were answered live. Over 1,000 people participated in the meeting and more than 50 completed the survey polling questions. A public open house was held on March 19, 2014, at the Cherry Creek High School West Cafeteria. More than 60 people and elected officials attended the open house. Also, a final newsletter will be distributed and posted on the website once the PEL Report has been completed.

For a summary of the Stakeholder and public involvement process, see Chapter 6 of the PEL Report.

#### **5. PURPOSE AND NEED FOR THE PEL STUDY:**

##### **A. What was the scope of the PEL study and the reason for completing it?**

CDOT identified the scope for the PEL Study in a Request for Proposal dated August 30, 2012, to determine a solution to reduce congestion and improve traffic operations between Yosemite and I-25. CDOT is currently making improvements north of the study area to provide consistent three mainline lanes in each direction and auxiliary lanes between interchanges, which will be completed in fall 2014, leaving the study area as the only segment that is two lanes along the entire I-225 corridor. The PEL Study is being conducted to assess existing conditions, identify anticipated problem areas, and develop and evaluate transportation improvements for reducing congestion, improving mobility, and enhancing the safety of the I-225 within the study area. The goal of the PEL is to reduce congestion to an acceptable level for the 2035 design year.



- B. Provide the purpose and need statement, or the corridor vision and transportation goals and objectives to realize that vision.  
Chapter 2 of the PEL Report includes the purpose and need statement and the goals

### Purpose of the Project

The purpose of the transportation improvements along southbound I-225 between Yosemite Street and I-25 is to reduce existing and future traffic congestion and travel time for southbound I-225.

### Need for the Improvements

The proposed transportation improvements for the bottleneck on southbound I-225 are needed to improve:

- **Traffic Congestion**
- **Traffic Operations**
- **Safety**

- C. What steps will need to be taken during the NEPA process to make this a project-level purpose and need statement?  
A goal of this PEL Study was to provide a project-level purpose and need statement that can be transitioned into NEPA.

6. **RANGE OF ALTERNATIVES:** Planning teams need to be cautious during the alternative screen process; alternative screening should focus on purpose and need/corridor vision, fatal flaw analysis, and possibly mode selection. This may help minimize problems during discussions with resource agencies. Alternatives that have fatal flaws or do not meet the purpose and need/corridor vision will not be considered reasonable alternatives, even if they reduce impacts to a particular resource. Detail the range of alternatives considered, screening criteria, and screening process, including:

- A. What types of alternatives were looked at? (Provide a one or two sentence summary and reference document.)  
The alternative concept development and screening process began with the identification of 21 concepts. These concepts included a broad range of ideas and improvements focusing on interchange modifications, managed lanes, travel demand strategies, additional travel lanes, speed harmonization, queue warning, rerouting local traffic onto southbound I-225, full or partial on ramp closures, and transportation system management. In **Table 2.1** of the PEL Study, the 21 concepts are defined and, when applicable, a graphic representation is included.

- B. How did you select the screening criteria and screening process?  
Several meetings were held with the PMT and TWG to develop the purpose and need for the project and determine the project goals. These goals led to the development of screening criteria for the agreed three-tier screening process with the first screening based entirely on meeting the purpose and need and a second screening to meet a specific set of goals and reduce the concepts to a reasonable range for further in-depth evaluation. A third tier of screening is based on quantitative evaluation of screening criteria to reach a Recommended Alternative Concept.





Documenting the elimination of alternative concepts was a critical part of the process to avoid the need to further consider an alternative concept during the future NEPA process once it has been eliminated and focus on the Recommended Alternative Concept and those Not Recommended.

Chapters 2 and 3 of the PEL Report provide a summary of the process and results.

- C. For alternative(s) that were screened out, briefly summarize the reasons for eliminating the alternative(s). (During the initial screenings, this generally will focus on fatal flaws.) During Tier 1 screening, the concepts were compared and measured against the project purpose and need. Concepts that met the purpose and need were retained for further evaluation in Tier 2. During Tier 2, several goals were identified with criteria that were agreed upon that could be used to evaluate at a higher level since more than 15 concepts remained for review. Many of the concepts were eliminated during Tier 2 due to unacceptable mainline and ramp intersection operations, inability to meet driver's expectation, a greater number of lane changes in the weave area, extensive out-of-direction travel distance, and extensive queue lengths at ramp intersections causing backups into adjacent intersections. During Tier 3 screening, impacts by the concepts were evaluated, quantified, and compared against each other. Many of the concepts were eliminated if they did not reduce weaving, extensive queue lengths at ramp intersections causing backups into adjacent intersections, inability to meet driver's expectations, due to substantial right-of-way (ROW) impacts and displacements; or incurred additional environmental impacts compared to other concepts.

Chapter 2 of the PEL Report includes a summary of screening results.

- D. Which alternatives should be brought forward into NEPA and why?  
Concept 19 was determined to be the Recommended Alternative Concept and provided the most benefit to meeting the purpose and need compared to other concepts while minimizing impact to the community and environmental resources. It should advance to NEPA. Although Concept 17 was Not Recommended, there was not sufficient information to eliminate it. The main difference between Concept 17 and Concept 19 is that Concept 17 eliminates a slip ramp that currently provides access from southbound I-225 to DTC Boulevard/Tamarac Parkway without having to go through the Yosemite Street ramp intersection. Public comments from the public open house expressed that the community did not want this ramp eliminated which would not preserve the existing system interchange access. This is one of the main reasons why this concept was not recommended. A regional bus route would need to be rerouted with Concept 17. Therefore, Concept 17 should advance to NEPA for further evaluation.

- E. Did the public, stakeholders, and agencies have an opportunity to comment during this process?  
Yes, Stakeholders, including public agencies, and the public were involved throughout the process and will continue to be involved until the PEL Study is completed. Public meetings were held in June 2013 and in March 2014. The first public meeting was a telephone town hall meeting. The second meeting was an open house and was held at the Cherry Creek High School West Cafeteria. Information also was available on the project website for public comment. Chapter 6 of the PEL Report includes a summary of agency coordination and public involvement.



- F. Were there unresolved issues with the public, stakeholders, and/or agencies?  
There were no unresolved issues with the PEL Study.

**7. PLANNING ASSUMPTIONS AND ANALYTICAL METHODS:**

- A. What is the forecast year used in the PEL study?  
The forecast year used in the PEL Study was 2035.
- B. What method was used for forecasting traffic volumes?  
The *I-225 Existing Conditions Assessment Report for Interstate Highway 225 (I-225) Planning and Environmental Linkages (PEL) Study*, November 2013, documents the methodology for the traffic forecasts.

The project team used the DRCOG 2035 fiscally constrained regional travel demand model, including the 2035 land use forecast assumptions to develop the 2035 traffic forecasts. The project team used the most current version available at the time of this study, with slight land use changes incorporated from the *Bellevue Avenue Corridor Study*. The changes reflect the current projections of build-out for the Bellevue Station development situated just beyond the study area between Bellevue Avenue, Union Boulevard, Monaco Parkway, and Quebec Street. The project team used the NCHRP 255 Modeling Adjustment process to adjust the output from the model. The NCHRP 255 Modeling Adjustment process uses model growth and observed counts to arrive at a final volume.

- C. Are the planning assumptions and the corridor vision/purpose and need statement consistent with each other and with the long-range transportation plan? Are the assumptions still valid?  
Yes. The latest DRCOG 2035 fiscally constrained model was used, as well as information from an adjacent corridor study that was used in developing the planning assumptions and the purpose and need statement.
- D. What were the future year policy and/or data assumptions used in the transportation planning process related to land use, economic development, transportation costs, and network expansion?  
Future land use characteristics, including household and employment data, were reviewed. Information included in our assumptions is outlined below:

For transportation planning purposes, DRCOG has divided the entire Denver metropolitan region into Transportation Analysis Zones (TAZ). DRCOG estimates socioeconomic variables, including population, household, employment, and income, for each TAZ and project through 2035 for local and regional planning purposes. DRCOG incorporates many variables in their estimates and projections, including, but not limited to, overall regional growth, each jurisdiction's potential share of future growth, and current and long-range development plans.

The study area covers areas of the City and County of Denver, the City of Aurora, and the City of Greenwood Village. Within these three municipalities are the counties of Denver and Arapahoe. Each local government has a comprehensive plan that discusses current and future land uses within each respective boundary.



Between 2010 and 2035, DRCOG projects an additional estimated 9,000 households and 19,000 jobs in the study area. The area around the I-25/I-225 Interchange is projected for relatively small increases in household and employment growth.

8. **ENVIRONMENTAL RESOURCES** (wetlands, cultural, etc.) reviewed. For each resource or group of resources reviewed, provide the following:

A. In the PEL study, at what level of detail was the resource reviewed and what was the method of review?

The environmental resources studied were selected based on the characteristics of the study area, previous reports, and Stakeholder input. The resources that were considered are generally consistent with NEPA, its implementing regulations, and FHWA and CDOT NEPA/PEL guidelines. The following resources were considered red flag environmental resources with separate regulatory drivers, such as the Endangered Species Act (ESA) or Clean Water Act, or are typically resources of concern for the general public, such as traffic noise:

- Parks and Recreation Resources
- Traffic Noise
- Historic Resources
- Floodways and 100-year Floodplains
- Wetlands and Waters of the US
- Wildlife/Threatened and Endangered Species
- Hazardous Materials
- Viewshed
- Water Quality

For each resource, a technical memorandum was prepared. The technical memorandum included the following basic format: project description, regulatory background, resource review/existing conditions, and resource analysis. The resource review consistent of readily available existing information and a “windshield” survey of the study area. Additional survey/assessment will be required as part of NEPA. These technical memoranda are included in Appendix B of the Environmental Analysis and Existing Conditions Report.

B. Is this resource present in the area and what is the existing environmental condition for this resource?

The following resources were considered red flag environmental resources with separate regulatory drivers, such as the ESA or Clean Water Act, or are typically resources of concern for the general public, such as traffic noise:

- Parks and Recreation Resources – The park properties present within the study area include Eastmoor Park, Rosamond Park, Goldsmith Gulch North Park and North Middle Park, George M. Wallace Park and Park North, Goldsmith Gulch Trail, Village Greens Park, Cherry Creek State Park and Reservoir, and Samuels Elementary School Playground.
- Traffic Noise – The study area contains many residential neighborhoods (Noise Abatement Criteria Category B). Likewise, several Category C areas, such as Goldsmith Gulch North Middle Park and Samuels Elementary School Playground, are also spread throughout the study area. All of the residential areas adjoining I-225



have a noise abatement feature in place. Along this corridor, sound walls have demonstrated to be effective in abating traffic noise from I-225.

- Historic Resources – There are no historic properties within the study area.
- Floodways and 100-year Floodplains – The study area contains only one Federal Emergency Management Agency (FEMA)-designated drainageway, Goldsmith Gulch. FEMA has designated Zone AE and Zone X in the Goldsmith Gulch Floodplain. According to FEMA, the full 100-year flood flow passes through these culverts. The culverts that travel under DTC Boulevard are not certified as a levee control mechanism. Thus, if a major flood event occurred (assuming no levee exists), DTC Boulevard would be in the floodway.
- Wetlands and Waters of the US – Most wetlands identified within the corridor are small palustrine emergent wetlands, with most occurring in a narrow fringe in isolated locations along Goldsmith Gulch and in a stormwater pond in CDOT’s ROW at the I-25/I-225 Interchange. Previous studies considered these wetlands as low-quality wetlands.
- Wildlife/Threatened and Endangered Species – Under the Migratory Bird Treaty Act, the study area contains suitable habitats for Cliff Swallows (*Petrochelidon pyrrhonota*). The field survey sighted one Black-Tailed Prairie Dog (*Cynomys ludovicianus*) colony. Habitat exists for the Preble’s Meadow Jumping Mouse (*Zapus hudsonius preblei*), but the study area is located in a block clearance zone for this species.
- Hazardous Materials – A total of 10 sites with recognized potential environmental conditions are identified within 1/8 mile from the existing ROW within the study area. Two of these sites are leaking underground storage tanks that are closed and cleanup is complete. The remaining sites are associated with historical auto operations, historical dry cleaner operations, or current dry cleaner operations. These sites have previously been redeveloped, thereby making them a low risk for contamination issues.

C. What are the issues that need to be considered during NEPA, including potential resource impacts and potential mitigation requirements (if known)?

See Chapter 5, Affected Environment, Environmental Consequences, and Mitigation Strategies, of the PEL Report for understanding the supplemental data needed for NEPA. Table 5.1 and 5.2 summarize the potential resource impacts, mitigation strategies, and next steps.

D. How will the planning data provided need to be supplemented during NEPA?

See Chapter 7, Next Steps, of the PEL Report for understanding the supplemental data needed for NEPA and additional process requirements.

9. List environmental resources you are aware of that were not reviewed in the PEL study and why. Indicate whether or not they will need to be reviewed in NEPA and explain why.

Table 5.2 identifies the Next Steps that will be required for each environmental resource, including those that were not review in the PEL Study. The resources were considered are red flag environmental resources with separate regulatory drivers, such as the Endangered Species Act (ESA) or Clean Water Act, or are typically resources of concern for the general public, such as traffic noise. Resources that were not evaluated as part of this PEL were determined not to meet these criteria. These resources include:



Environmental Justice, Archaeological Resources, Paleontology, Noxious Weeds, and Soils and Geology.

10. Were cumulative impacts considered in the PEL study? If yes, provide the information or reference where the analysis can be found.

Yes, cumulative impacts have been examined for this project and the surrounding area including the Cities of Aurora and Greenwood Village, the City and County of Denver, and Arapahoe County. Development is expected to continue and will be dominated by economic development in and around the Denver Technological Center. Impacts from the Recommended Alternative Concept would not incrementally result in substantial cumulative impacts for the resources analyzed. Additional analysis is anticipated during NEPA.

11. Describe any mitigation strategies discussed at the planning level that should be analyzed during NEPA.

Table 5.2 of the PEL Report lists the impact and the proposed mitigation commitments for ROW; parks and recreational resources; traffic noise; floodways, 100-year floodplains, and water quality; and wetlands and other waters of the US.

12. What needs to be done during NEPA to make information from the PEL study available to the agencies and the public? Are there PEL study products which can be used or provided to agencies or the public during the NEPA scoping process?

The NEPA process will use the PEL Study information as a starting point and the documents developed during the PEL are available at the project website (<http://www.coloradodot.info/projects/I-225pel/i225peloverview.html>) or at CDOT R1 offices and should be added or linked from the NEPA project website at a minimum. Any and all of the documents should be reviewed during the NEPA scoping process to ensure the tasks needed for NEPA are properly identified. Documents include the *Planning and Environmental Linkages (PEL) Report for Interstate Highway 225 (I-225)*, August 2014, and the *I-225 Existing Conditions Assessment Report for Interstate Highway 225 (I-225) Planning and Environmental Linkages (PEL) Study*, November 2013.

13. Are there any other issues a future project team should be aware of?

A. Examples: Controversy, utility problems, access or ROW issues, encroachments into ROW, problematic land owners and/or groups, contact information for stakeholders, special or unique resources in the area, etc.

I-25 is a very congested highway and will worsen before 2035. Any improvements along southbound I-225 at the I-25 terminus will be impacted by I-25. Additional traffic modeling may be required for a longer stretch of I-25 to fully understand the impacts on southbound I-225.

The property on the northwest quadrant of southbound I-225 and DTC Boulevard/Tamarac Parkway may redevelop, and the new development will need to be considered for impacts due to the potential land use change.

The Recommended Alternative Concept was developed to a conceptual design level. During NEPA and preliminary and final design, other items that require further consideration include water quality requirements and analysis; construction phasing and traffic control; and utility research and analysis.