Chapter 4: Environmental Impact Statement (Class I)

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4. ENVIRONMENTAL IMPACT STATEMENT (CLASS I)

An Environmental Impact Statement (EIS) is prepared when a proposed action may significantly affect the quality of the human environment. The purpose of an EIS is to "serve as an action-forcing device to ensure that the policies and goals defined in the National Environmental Policy Act (NEPA) are infused into the on-going programs and actions of the federal government" (Council on Environmental Quality ([CEQ] 40 Code of Federal Regulations [CFR] § 1502.1). An EIS is not merely a disclosure document; it is to be used by Colorado Department of Transportation (CDOT) in conjunction with other relevant information to plan actions and make informed project decisions.

CEQ § 1508.27.

"Significantly" as used in NEPA requires considerations of both context and intensity.

An EIS details the process through which a transportation project is developed, including consideration of a range of reasonable alternatives and detailed analysis of the potential impacts resulting from each. It documents compliance with other applicable environmental laws, regulations, and executive orders. This chapter outlines the process of an EIS from initiation to completion.

Agency coordination and public involvement are continuous throughout the process. Additional information on agency coordination and public involvement is included in **Section 3.1.2, Section 3.1.3,** and **Chapter 7**.

4.1 EIS Initiation

Section 6002.139 of the Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU, 23 USC § 1001 – 11167) requires CDOT to initiate the environmental review process for an EIS by sending a notification letter to the Federal Highway Administration (FHWA) Division Administrator. The completed notification letter identifies the "type of work, termini, length and general location of the project." It also should identify any federal approvals anticipated to be necessary for the proposed project. The timing of the notification is flexible and occurs either when the project is sufficiently defined, and/or when the project sponsor is ready to proceed with the NEPA phase. The notification will normally occur before the publication of the Notice of Intent (NOI) in the Federal Register. After FHWA receives/approves the notification, the EIS process, as described in the following sections, can begin.

A proposed action is what CDOT is thinking about doing when the EIS analysis begins. It may or may not be what is finally chosen to implement.

4.2 Activities Prior to Publication of a Notice of Intent (NOI)

Executive Order 13807 *Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure Projects* requires federal agencies to process environmental reviews and authorization decisions for major infrastructure projects as One Federal Decision (OFD) and sets a government-wide goal of reducing the average time to complete required environmental reviews and authorization decisions for

major infrastructure project to not more than two years from publication of a NOI to prepare an EIS to issuance of a ROD. Before initiating a new EIS and publication of a NOI for a major infrastructure project, the lead agency in consultation with the cooperating and participating agencies and project sponsor should:

- Identify cooperating and participating agencies for the project,
- Develop a draft Purpose and Need,
- Develop a draft Coordination Plan that includes a permitting timetable,
- Identify community and stakeholders affected and develop a Public Involvement Plan,
- Identify a preliminary range of alternatives,
- Determine the extent of analysis needed for each resource,
- Initiate applicable resource surveys/studies,
- Identify potentially significant environmental issues,
- Identify potential mitigation strategies, and
- Initiate permit activities as soon as possible, such as pre-application processes.

A major infrastructure project is an infrastructure project for which multiple federal authorizations will be required to proceed with construction; the lead federal agency has determined that it will prepare an EIS under NEPA; and the project sponsor has identified the reasonable availability of funds sufficient to complete the project.

4.3 Agency Coordination in an EIS

At the beginning of the EIS process, the involved agencies will be identified, as defined below in accordance with Section 6002 of SAFETEA-LU:

- The direct recipients of federal funds must serve as joint lead agencies. Typically, this is FHWA and/or the Federal Transit Administration (FTA) and CDOT. In addition to the traditional responsibilities, the lead agencies must provide increased oversight in managing the NEPA process and resolving issues.
- Federal agencies, other than the lead agency, that may have jurisdiction by law or special expertise regarding environmental impacts from the project (e.g., US Fish and Wildlife Service [USFWS], US Army Corps of Engineers [USACE], and US Environmental Protection Agency [EPA]) serve as cooperating agencies. State or local agencies with special environmental expertise may also become a cooperating agency by agreement with the lead agencies (e.g., Colorado Parks and Wildlife [CPW] and the State Historic Preservation Officer [SHPO]). These cooperating agencies have a similar but higher degree of authority, responsibility, and involvement in the environmental review process than the participating agencies.
- Federal, state, tribal, regional, and local government agencies that may have an interest in the project should be invited to serve as participating agencies. Non-governmental organizations and private entities cannot serve as participating agencies. Agencies participate in the scoping and NEPA process; identify, as early as practicable, issues of concern; and contribute to issue resolution.

CEQ § 1508.22.

"Notice of Intent" means a notice that an EIS will be prepared and considered. The notice shall briefly:

- describe the proposed action and possible alternatives;
- describe the agency's proposed scoping process including whether, when, and where any scoping meeting will be held; and
- state the name and address of a person within the agency who can answer questions about the proposed action and the EIS.

Section 1305 of the Moving Ahead for Progress in the 21st Century Act (MAP-21) included a new category of participating agencies for federal, state, and local agencies and Tribal nations that have an interest in the project. In addition, the lead agency must create a coordination plan for agency and public participation and comment. Section 1306 of MAP-21 establishes a framework for setting deadlines for decision-making with the following provisions:

- US Department of Transportation (USDOT) may convene a meeting 30 days after a Draft EIS is issued with resource agencies and others to ensure all are on schedule to meet deadlines for project decisions;
- Establishes a process for issue resolution that may be initiated by USDOT; and
- Establishes financial penalties for agencies that fail to make a decision within the specified timeframe.

Section 1304 of the Fixing America's Surface Transportation (FAST) Act expands the breadth of the MAP-21 to include all USDOT agencies in the definition of multimodal projects. Other changes include provisions to ensure transparency and clarity during programmatic reviews, reduces multiple NEPA documents by requiring the lead agency to identify any federal and non-federal agencies that might have an interest in the project, imposes specific time frames for response by federal agencies during the project initiation process, requires a plan for coordinating public and agency participation within 90 days after the NOI to prepare environmental documentation, permits a lead agency to use an errata sheet to respond to minor comments on a Final EIS, and finally establishes a website where the status and progress of projects are publicly displayed.

The OFD Memorandum of Understanding for Major Infrastructure Projects (OFD MOU) establishes a process for environmental reviews of major infrastructure projects. It describes the roles and responsibilities for the lead, cooperating, and participating agencies, as well as the permitting milestones. The OFD MOU identifies three concurrence points where the lead federal agency must request the concurrence of cooperating agencies with authorization decision responsibilities:

- Purpose and Need (prior to issuance of the NOI)
- Alternatives to be carried forward for evaluation (prior to detailed analysis in the Draft EIS)
- Identified Preferred Alternative (Prior to the Final EIS)

The concurrence points are to prevent delay to permitting by ensuring agencies address key concerns and issues early in the process. Once a concurrence point is reached, the lead agencies will request written concurrence, and cooperating agencies have 10 days to concur or non-concur. Concurrence means confirmation by each agency that the information is sufficient for that stage in the process.

OFD sets a government-wide goal of reducing the EIS process from publication of NOI to issuance of a ROD to not more than two years.

Since 2010, USDOT has averaged over six years to obtain a ROD for its Environmental Impact Statements.

The I-70 East EIS was a 13.5-year process from initiation of the project in July 2003 to completion of ROD 1 for Phase 1 of the project in January 2017.

OFD information is available on the FHWA website:

https://www.environment.fhwa.dot.gov/nepa/oneFederal_decision.aspx

4.4 Preparation of the Notice of Intent

Once the decision is made to prepare an EIS for a project, CDOT prepares a NOI for FHWA to publish in the Federal Register that informs the general public of the scope of the project. The NOI briefly summarizes the proposed action explaining who wants to do what, where, and why they want to do it. At this stage, it is uncertain what the outcome of the NEPA analysis will be. Therefore, the project must always be referred to as the proposed action. Any abbreviations used in the text must be minimal and, if used, must be clarified. The NOI should include the following information:

- **Agency -** Include lead and cooperating agencies. FHWA must always be listed first when other agencies (federal, state, or local) are listed as being involved in the preparation of the EIS.
- **Action -** The title of the proposed action and a statement that the project is being evaluated through the EIS process.
- **Summary -** A summary of the elements of the proposed action must be included, such as any information relevant to the project location, size, related actions, and area affected; a brief description of the scoping process for the particular action, including when and where the scoping meeting(s) will be held; and other information obtained from the scoping meeting or field view.
- **Dates**
- **Addresses**
- **For Further Information Contact** – A point of contact, typically the FHWA Operations Engineer and the CDOT project manager, should be provided for the project in case the public or agencies have any questions. Information should include name, telephone number, email address, mailing address, and fax number.
- **Supplementary Information -** Include supplementary information or studies that are relevant to the project and available to the public.

NOIs should be single-sided. For an example NOI and additional information on drafting a NOI, see http://www.archives.gov/federal-register/write/handbook

FHWA sends three (3) originals of the NOI, each signed in ink by the issuing officer, or one (1) original and two (2) certified copies to:

Federal Register (NF)
National Archives and Records Administration
700 Pennsylvania Avenue NW
Washington, DC 20408-00001

If a single original and two certified copies are sent, the statement "CERTIFIED TO BE A TRUE COPY OF THE ORIGINAL" and the signature of a duly authorized certifying officer must appear on each certified copy.

A record must be kept of the date each notice is mailed to the Federal Register. A copy of the notice, once published, is sent to CDOT for inclusion in the administrative record further discussed in **Section 4.23.**

4.5 Early Project Scoping

Scoping is the process by which a lead agency solicits input from the public and other agencies regarding the breadth and depth of issues to be addressed as well as the minor issues related to a proposed action (CEQ 40 CFR § 1501.7). The scoping process can begin after the lead agency has published the NOI.

4.5.1 Agency Coordination Plan

The preparation of a Coordination Plan meets one of several requirements under Section 6002 of the SAFETEA-LU. The purpose of a Coordination Plan is to coordinate agency (FHWA, CDOT, cooperating and participating agencies) participation and comment during the environmental review process associated with the preparation of an EIS. In accordance with MAP-21, participating agencies must concur on the project schedule, if a project schedule is included in the project coordination plan. FAST Act requires a schedule to be part of a project coordination plan and requires the creation of a checklist to help project sponsors identify natural, cultural, and historic resources in the area of a proposed project. An Agency Coordination Plan integrates the NEPA requirements with other environmental review and consultation requirements to reduce delay in the environmental review process. Additional information on agency coordination is included in **Chapter 3, Sections 3.1.2** and **3.1.3. Appendix E** provides a template for an Agency Coordination Plan.

Those projects involving FTA can reference the guidance provided in **Chapter 10** *FTA NEPA Compliance***.**

4.5.2 Agency Scoping

The lead agency is required to invite the participation of any interested agencies, Native American tribes, project proponents, and other interested persons, and to consult with and obtain the comments of any federal agency with jurisdiction by law or special expertise with respect to any environmental impact of the proposed action. NEPA encourages the use of scoping as early as reasonable in the project planning process and again at the initiation of the NEPA process.

Meetings and substantive contacts with government agencies regarding scoping must be documented. Correspondence with participating and cooperating agencies or the public becomes a part of the administrative record. Pertinent correspondence is also incorporated into the Draft and Final EIS, under "Summary of Public Involvement."

For an EIS, the project team should discuss the early environmental review logistics outlined in Section 6002 of SAFETEA-LU such as the topics discussed below:

- **Agency Coordination Plan and Schedule -** As mentioned above, the planned approach for public involvement and agency participation should be established early in the process and documented in a Coordination Plan. The approach should coordinate with the project schedule. Topics and issues specific to the project should be identified in this plan and schedule.

Refer to SAFETEA-LU Environmental Review Process Final Guidance – Pub L 109-59, Nov. 15, 2006, for additional information including, however not limited to, Project Initiation Letter (Questions 11-13); Cooperating Agencies (Questions 30 and 31); and Participating Agencies (Questions 21-29). If unsure who should be invited to participate in the NEPA process, consult with the RPEM.

- **Reviews -** Determine the responsibility and schedules of each federal agency to carry out its obligations under applicable laws concurrently and in conjunction with the review required under NEPA in a timely, coordinated, and environmentally responsible manner, so long as this does not impede its statutory obligations. **Chapter 8** establishes a procedure for review of CDOT NEPA documents, including EISs.
- **Issues of Concern -** Determine how best to coordinate and handle informative and timely communication between lead and cooperating agencies so that potential issues of concern can be identified and resolved through the appropriate procedure.

4.5.3 Public Scoping

It is helpful to maintain a brief summary of public involvement activities and the issues raised as they occur (e.g., dates of key meetings and correspondence), so it can be easily added to the EIS without having to reconstruct the information from the project file.

Use simple terms understandable to a layperson.

The project team should send correspondence to property owners who may be affected by a project, as well as to organizations and individuals who have previously expressed an interest in the project or requested notification. In every case, the CDOT project manager must coordinate with the CDOT Right-of-Way office, and in some cases, the CDOT Public Relations office, to ensure that communications with property owners are handled appropriately and that a clear message is sent to the public.

Where there is a high level of public controversy, the formation of citizen committees and specialized efforts aimed at issue identification and resolution are encouraged. Public involvement efforts should follow the guidance provided in **Chapter 7**. Results from the agency and public scoping can be used to better allow CDOT to focus on the topics and depth of analysis for the EIS.

4.6 EIS Documentation Content

CEQ regulations (CEQ 40 CFR § 1500 – 1500) and FHWA's Technical Advisory T6640.8A Guidance for Preparing and Processing Environmental and Section 4(f) Documents (FHWA, 1987) specify several required sections for an EIS. Technical information and studies developed to analyze impacts are summarized in the EIS and/or incorporated by reference. Technical studies that support the EIS are a part of the project file and are public documents that must be available for review.

4.6.1 Standardization of EIS Sections

CDOT has a recommended standard EIS format to ensure consistency in EISs across CDOT Regions. The following guidelines provide direction on the scale of the EIS, formatting, and how to present any supporting documentation:

- **LENGTH** - The adequacy of an EIS is measured by its functional usefulness in decision-making, not by its size or level of detail. Level of detail should be commensurate with the scale of the proposed project and the related impact.
- **LAYOUT** - Text should be presented in the portrait page setup printing format. Landscape format may be used to present large graphics as necessary.
- **LINE SPACING** - In the spirit of CDOT going paperless, electronic copies are preferred, when applicable. Line spacing should be single-spaced and the document should be printed using both sides of the paper. Single-spaced, double-sided copies are suggested to save paper and reduce both EIS distribution and reproduction costs.
- **PAGE NUMBERING** - All pages in the EIS should be numbered and appear in a document footer at the bottom of each page. Page numbers should correspond to the appropriate chapter/appendix number of the EIS.
- **LINE NUMBERING** - All lines in the EIS should be numbered and appear in the left-hand margin. Line numbers begin back at 1 at the beginning of each new page.
- **FONT** - Print type should be of adequate size and style to be easily read.
- **EXHIBITS** - Exhibits (figures, charts, tables, maps, and other graphics) are useful in reducing the amount of narrative required. Such exhibits should be technically accurate and of high quality. Avoid complex, busy figures, overly complex charts, and matrices when possible. EISs should be composed to convey to the reader, in understandable terms, the composition of the project and the extent of its impact on the human environment.
- **CROSS REFERENCING** — When referencing supporting technical documents, ensure the specific section number and section title are provided to assist the reader in accurately locating the reference. Cross referencing helps keep documents brief and concise.

The recommended CDOT outline for an EIS includes the following sections, which are discussed in detail in this chapter. However, Section 4(f) is discussed in detail in **Chapter 9** of this Manual, and public involvement is discussed in detail in **Chapter 7**.

- **EIS Cover and Consultant Information**
- **Cover Sheet**
- **Table of Contents**
- **Executive Summary**

- **Chapter 1 - Purpose of and Need for Action**
- **Chapter 2 - Alternatives Analysis**
- **Chapter 3 - Environmental Consequences (Including Mitigation Measures and Cumulative Impacts)**
- **Chapter 4 - Section 4(f) Evaluation, if required**
- **Chapter 5 - Agency Coordination and Public Involvement**
- **Chapter 6 - List of Preparers**
- **Chapter 7 - List of Agencies, Organizations, and Persons to Whom Copies of the EIS are Sent**
- **References and Citations**
- **Index**
- **Appendices**

Chapter 8 *Document Review Procedures* of this Manual has a signature format checklist for the cover sheet.

4.6.2 EIS and Associated Technical Report Covers and Consultant Information

At the Region's discretion, an EIS cover may be an illustration of a project; however, consultant logos and information are not to be used on the cover of any EIS or associated technical reports. Consultant information may be shown in the list of references for any supporting documentation for the EIS (i.e., Noise Impact Assessment, Air Quality Report, Preliminary Engineering Report). It is important for users of the EIS to know who prepared the document in case they have questions or comments. All consultant contributions should be documented in the list of preparers for an EIS.

FHWA Technical Advisory T6640.8A. 1987. *Guidance for Preparing and Processing Environmental and Section 4(f) Documents*. October 30.

AASHTO, ACEC, and FHWA. 2006. Improving the Quality of Environmental Documents. May.

http://environment.transportation.org/pdf/IQED-1_for_CEE.pdf

4.6.3 Cover Sheet

The cover sheet is a mandatory component of an EIS (CEQ 40 CFR § 1502.11). It should not exceed one page and must include the following components:

- Project name and CDOT project number
- Type of document (i.e., EA, Programmatic or Supplemental EIS, or ROD)
- Title and location of the project; identify route number, local name, project limits, and county in which project is located
- Responsible agencies, including the lead agency, co-lead agency, and any cooperating agencies
- Federal authority for which the EIS is being prepared (i.e., Submitted pursuant to 42 USC 4332 (2)(c))
- Date and signature block for the CDOT Region Transportation Director, CDOT Chief Engineer and FHWA Colorado Division Administrator (only RODs have the FHWA Colorado Division Administrator's signature)
- An abstract or a brief project description limited to one paragraph, which includes the length, number of lanes, and major structures

involved (bridges, interchanges, park-n-Ride lots, ramps, etc.). For a ROD, the brief abstract should include significant impacts that would result from the preferred alternative.

Appendix C ,*Style Guide for NEPA Documents*, provides an example of a cover sheet.

4.6.4 Table of Contents

The table of contents must include the major EIS components (as discussed in this section), as well as a list of figures, tables, and appendices. It should be of sufficient detail to provide adequate direction to users reading the EIS and allow the reader to easily navigate the document.

4.6.5 Executive Summary

An executive summary is a mandatory component of an EIS (CEQ 40 CFR § 1502.12). The summary forms the reader's first and lasting impression of the EIS and should include sufficient information to allow the reader to gain a complete understanding of the issues addressed in the body of the EIS. It should list all reasonable alternatives considered, major environmental resource impacts, and proposed mitigation measures in a comparative form. The executive summary should be succinct (usually not exceeding 15 pages), but of sufficient detail to serve as a stand-alone document. The use of a matrix or table(s) is encouraged to present information concisely.

CEQ § 1501.12 "Summary."

Each EIS shall contain a summary which adequately and accurately summarizes the statement. The summary shall stress the major conclusions, areas of controversy (including issues raised by agencies and the public), and the issues to be resolved (including the choice among alternatives). The summary will normally not exceed 15 pages.

The executive summary in a Final EIS is more conclusive than in a Draft EIS. In the Final EIS, the executive summary should document specific findings, results of consultations, recommendations, commitments, and major changes from the Draft to Final document. For an EIS, the executive summary should provide the components that will be used in final decision-making and later be documented in the ROD.

In general, the executive summary should serve to highlight for the reader the major findings and conclusions of the environmental analyses and should include the following:

- Purpose of and need for the project.
- Project issues and impacts (and areas of controversy and unresolved issues if applicable) in proportion to their importance.
- A reasonable range of alternatives considered (and identification of the preferred alternative if applicable).
- Principal environmental issues and key differences among alternatives (highlight any significant impacts, impacts that cannot be avoided, impacts that can be mitigated, and additional review or permits required before taking action).
- Any recommendations, commitments, mitigation, or interagency agreements that may have been reached over the course of the study (if applicable).

- Appropriate findings reached and concluding statement of findings to comply with Executive Orders 11990 (Wetlands) and 11988 (Floodplains). A statement of no findings is required if no wetlands or floodplains are involved in the project.
- Appropriate findings reached and concluding statement of findings where there is involvement with Section 4(f) or Section 106 resources. Discussion must state that no feasible and prudent alternative exists and that all practicable measures to minimize harm have been taken. A statement of no findings is required if there are no Section 4(f) or Section 106 resources involved in the project.
- An effects determination for threatened and endangered species or their critical habitat and coordination with the USFWS. A statement of no findings is required if there are no threatened and endangered species or their critical habitat involved in the project.
- Appropriate findings reached and concluding statement of findings where there is involvement with prime or unique farmlands and coordination with the Natural Resources Conservation Service (NRCS).

4.6.6 Project Description

The EIS for a proposed transportation plan includes a detailed project description. The following information is required, but not limited to:

- A brief description of the existing transportation system
- A location map that shows the project limits and displays key landmarks
- A description of the limits of the proposed project, including its length and logical termini
- The name of the city and county where the project is to be located
- A description of the proposed improvements, including the number of lanes, type of median, and any major structures

4.7 Purpose of and Need for the Project

CEQ regulations implementing NEPA requires that an EIS include a statement of purpose and need. The purpose and need chapter, typically Chapter 1 in an EIS, provides a brief but important overview of information that must be considered in defining a purpose and need statement for the project. It is essentially the foundation of the EIS and decision-making process. FHWA issued guidance in 1990 that summarizes the three key points relative to the purpose and need statement. The guidance states that the purpose and need statement should be:

- Justification of why the improvement must be implemented;
- As comprehensive and specific as possible; and
- Reexamined and updated as appropriate through the project development process.

The Proposed Action is not discussed in the purpose and need statement. The statement should be an honest, full explanation of why the agency is considering the action and what the agency objectives include.

The purpose and need chapter in the EIS takes the goals, objectives, and corridor visions developed in a transportation plan to the next logical step—implementing those goals and objectives through on-the-ground project development. The planning level goals and objectives describe the transportation problem(s) that need to be addressed. This chapter also looks into the future an average of 20 years (based on planning horizons) to determine the needs of the project area in that future. **Chapter 3** of this Manual discusses CDOT's planning and project development process.

CEQ § 1501.13 "Purpose and Need."

The statement shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.

A NEPA purpose and need statement within the chapter provides the details about the transportation-related needs and describes the what and why of the project. The purpose and need statement defines the criteria under which transportation alternatives are initially evaluated. Build alternatives should fully address the stated purpose and need. Those alternatives that do not fully address the purpose and need can be eliminated from further consideration. A proposed project should have clearly identified objectives for improving transportation conditions, such as:

- Achieving a transportation objective identified in an applicable statewide or metropolitan transportation plan
- Serving national defense, national security, or other national objectives, as established in federal laws, plans, or policies
- Consistent with approved planned land use, or growth objectives established in applicable federal, state, local, or tribal plans

A proposed project's purpose and need should be well defined and help refine the reasonable alternatives that should be analyzed to address the transportation problem.

Transportation planning data developed for regional, sub-area, and corridor planning can be an excellent primary source of information to assist in establishing a purpose and need statement. The purpose and need should briefly describe the project context including actions taken to date, other agencies and governmental units involved, actions pending, schedules, etc.

The resulting purpose and need chapter should be succinct yet include enough information to clearly identify a problem and a need to fix it that may require the expenditure of funds. It should be narrowly defined enough to serve as an effective means to screen/evaluate alternatives but not so narrow as to preclude reasonable alternatives. The initial purpose and need statement may change during the NEPA process if new information or needs are discovered or public input provides suggestions for improving the purpose and need statement. If the initial purpose and need statement changes substantially during the process, the lead agency will need to be cognizant of the impacts that will have on the selection of alternatives or the criteria used to evaluate and screen alternatives. The purpose and need statement should identify both the underlying need and purpose for the Proposed Action—what CDOT is planning to accomplish and why it is necessary—but cannot predetermine a particular alternative. This guidance does not mandate identification of any particular alternative other than the No Action alternative within the purpose and need statement but does recognize that the statement will by necessity be project specific.

The purpose and need statement is vital to meeting the requirements of Section 4(f) of the Department of Transportation Act (49 USC 303); Executive Orders 11990 (Wetlands) and 11988 (Floodplains); and Clean Water Act Section 404(b)(1) Guidelines. The Section 404(b)(1) Guidelines are the only regulations other than NEPA that require a purpose statement. In addition, under the NEPA/404 Merger Process, the USACE, in consultation with the USEPA and USFWS, must concur on the purpose and need statement for projects that require an individual Section 404 permit. This enables USACE approvals under the Clean Water Act to move forward in parallel with the NEPA process. In accordance with SAFETEA-LU, the lead agency should develop the purpose and need statement and provide opportunities for participating agencies and the public to provide input.

The purpose and need statement should be an honest, full explanation of why the agency is considering the action and what the agency objectives are.

The project's need may be considered as the transportation problem, while the purpose may be thought of as the intention to solve the problem. The CDOT Environmental Stewardship Guide (CDOT, 2017a) incorporates FHWA guidance and interpretive memoranda that provide additional guidance on how the purpose and need statement is to be written. Further guidance regarding the development of a purpose and need statement can be found in CDOT's Purpose and Need Guidance, FHWA Technical Advisory T6640.8A (FHWA, 1987), FHWA Memorandum *The Importance of Purpose and Need* (FHWA, 1990), and AASHTO Practitioner's Handbook *Defining the Purpose and Need and Determining the Range of Alternatives for Transportation Projects* (AASHTO, 2016). For an EIS, purpose and need statements must be made available for public review.

FHWA Technical Advisory T6640.8A and FHWA Memorandum, *The Importance of Purpose and Need* (September 18, 1990) https://www.environment.fhwa.dot.gov/projdev/tdmneed.asp

AASHTO Practitioner's Handbook *Defining the Purpose and Need and Determining the Range of Alternatives for Transportation Projects* (AASHTO, 2016) https://environment.transportation.org/pdf/programs/ph07-2.pdf

4.7.1 Purpose of the Project

The project purpose statement is a broad statement of the primary intended transportation result and other related objectives to be achieved by a proposed transportation improvement. The purpose must be written clearly and must be supported by the identified needs. It should not include planning decisions or be written so that the selection of a specific alternative is predetermined.

The project purpose statement guides the range of alternatives that will be considered in response to the established need. As such, the statement of purpose should be broad enough to encompass a reasonable range of alternatives, but it need not be so broad that it encompasses every possible alternative. Conversely, it should not be so narrow that it precludes a range of alternatives that could reasonably meet the defined objectives or restrict decision-makers' flexibility in resolving conflicting interests.

The following are examples of possible project purposes:

- Improve traffic operations
- Accommodate high traffic volumes
- Increase multimodal travel options
- Provide lane continuity and balance
- Optimize highway system operations

- Improve connectivity among transportation modes
- Improve pedestrian/bicycle mobility
- Increase safety for motorists, pedestrians, and bicyclists
- Reduce congestion and delays

Many transportation projects are proposed with the expectation that they will help promote economic growth; however, the potential for economic development benefit does not necessarily mean that economic development should be defined as a project purpose. In most cases, the project purpose can best be expressed by addressing the transportation purpose (e.g., improve traffic operations, accommodate high traffic volumes, reduce congestion and delays, etc.) that would occur due to the planned economic development/land use changes. By focusing on the transportation system, this approach avoids defining a purpose so broad that non-transportation alternatives would be necessary for consideration to address.

Similarly to economic development, environmental protection is often proposed as a project purpose. Considerations that relate to the manner in which the project is carried out, such as minimizing or mitigating environmental impacts, should be distinct from the purpose and need. Although environmental protection and community enhancement are important values/visions for a project and should be incorporated into the alternatives analysis as evaluation criteria, these issues should not be a part of the purpose and need statement itself.

4.7.2 Need for the Project

The need for the project is a more detailed explaining, with supporting data, of the specific transportation problems, deficiencies or opportunities that exist, or are expected to exist in the future that justify the Proposed Action. The needs should be demonstrated through specific quantitative investigation. Each need for action should enable decision makers to evaluate alternatives by providing measurable objectives or specifications.

Major milestones such as the Purpose and Need Statement should be documented in project meeting minutes and identified as a concurrence point.

The need for the project should provide the rationale for how the project addresses the identified problems, issues, and concerns. This section must outline and discuss any established community goals and objectives that pertain to the project. This section serves as the foundation for the proposed project and provides the principal information upon which the No Action alternative discussion is based. This section establishes the rationale for pursuing the action and explains how the actions proposed are consistent with local transportation planning, local comprehensive planning, land use planning, and growth management efforts.

The following are examples of possible project needs:

- **System Linkage** - Describe how the project fits into the existing transportation system
- **Transportation Demand** - Describe relationships to any statewide plan or other transportation plan together with an explanation of the project's traffic forecasts

- **Capacity** - Describe how the capacity of the existing transportation system is inadequate for the present or projected system load. Clearly define what level(s) of service are required for existing and proposed facilities
- **Legislation** - State the federal, state, or local governmental mandates that must be met by the project
- **Social Demands or Economic Development** - Clearly identify all planned economic development/land use changes driving the need for the project. These include new employment, schools, land use plans, and recreation
- **Modal Interrelationships** - Describe how the proposed project evaluates modes of transportation as an alternative to highway travel and how the project interfaces with and serves to complement other transportation features existing in the corridor, including existing highways, airports, rail and intermodal facilities, and mass transit services
- **Safety** - Describe the existing or potential safety hazards within the project area, including data related to existing accident rates as well as other plans or projects designed to improve the situation
- **Roadway Deficiencies** - Describe any existing deficiencies associated with the project area roadways (e.g., substandard or outdated geometrics, load limits on structures, inadequate cross section, or high maintenance costs)

The statement of need should consist of a factual, objective description of the specific transportation problem with a summary of the data and analysis that supports the conclusion that there is a problem requiring action. Quantified data, such as vehicle miles of travel, travel speeds, time of day characteristics, current and projected levels of service, accident rates, and/or road condition assessments, should be used where applicable. Full documentation, such as reports and studies developed in the project planning process, should be referenced in the need statement and must be available on request of reviewing agencies and the public.

There are often multiple deficiencies or desires that establish the project need and, therefore, are often multiple needs. These needs can be separated into two categories: area-wide needs and project corridor needs. Area-wide needs relate to system deficiencies and local government or community desires. Project corridor needs relate to route deficiencies and specific community desires within the corridor. Examples of each are provided below.

Area-Wide Needs:

- Federal, State, or Local Government Authority Desires or Requirements

Project Corridor Needs:

- System Linkage
- Capacity
- Structural Sufficiency

4.7.3 Purpose and Need and the NEPA/404 Merger

A merger agreement has been developed between CDOT and the USACE for projects that must comply with NEPA and that also require a Clean Water Act Section 404 Individual permit. The merger process facilitates early and ongoing integration and coordination of Clean Water Act and NEPA requirements. For these types of projects, two or more agencies (CDOT and USACE) would have a decision to make for the same proposed action and the responsibility to comply with NEPA or a similar statute. During the development of the purpose and need for the project, those agencies should jointly develop the statement. The most current version of the NEPA/404 Merger Agreement between CDOT and USACE can be found on CDOT's website.

The CDOT NEPA/404 Merger Agreement can be found on CDOT's website at: https://www.codot.gov/programs/environmental/wetlands/2019-final-merger-agreement/view

One of the main steps in the NEPA/404 Merger process is for the project team to present the draft purpose and need, goals and objectives, and evaluation criteria to the USACE for concurrence. The project team will then identify any alternatives screened out during preliminary screening based on practicability or significant impacts to the natural environment. This decision-making process should be thoroughly documented to provide evidence that the lead agency has not inappropriately eliminated the "Least Environmentally Damaging Practicable Alternative" (LEDPA) from further consideration and receive USACE concurrence. The CDOT NEPA/404 Merger process is a sequential process that requires concurrence at three key milestones: 1) Purpose and Need and Alternative Screening Criteria, 2) Alternatives Selected for Detailed Evaluation, and 3) the Preferred Alternative.

4.8 Alternatives Analysis

The alternatives analysis chapter in the EIS clearly indicates why the particular range of alternatives was developed, the process used, and public and agency input. Alternatives analysis generally occurs in Chapter 2 of an EIS. NEPA and its related regulations require that a range of reasonable alternatives and a No Action alternative be presented and evaluated in detail in an EIS. The language of NEPA has been interpreted to require that FHWA take a hard look at alternatives that result in avoidance or minimization of impacts to the environment, community, or economy. Alternatives analysis can be the single most costly aspect of developing the EIS and will require close management by the CDOT project manager.

CEQ's regulations identify the alternatives chapter as the heart of the EIS. The alternatives chapter requires an agency to "rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated" (CEQ 40 CFR § 1502.14). It is not required that all possible alternatives be considered, rather that a reasonable range of alternatives be presented.

There is a logical way to step through the alternatives process that makes their analysis and screening easier to obtain.

Typically an alternatives process occurs in the following steps:

- Development and description of all reasonable alternatives for the proposed action
- Comparison and screening of all reasonable alternatives to eliminate unreasonable alternatives
- Comparison of alternatives to determine differences in impacts and achievement of meeting purpose and need
- Identification of the preferred alternative
- Issuance of a ROD selecting an alternative for implementation

As emerging transportation technologies become available such as autonomous vehicles, these priorities can be identified in the project purpose and need statement and alternatives analysis. Analysis of such technologies in NEPA will continue to evolve as technologies are implemented.

4.8.1 Developing Reasonable Alternatives to the Proposed Action

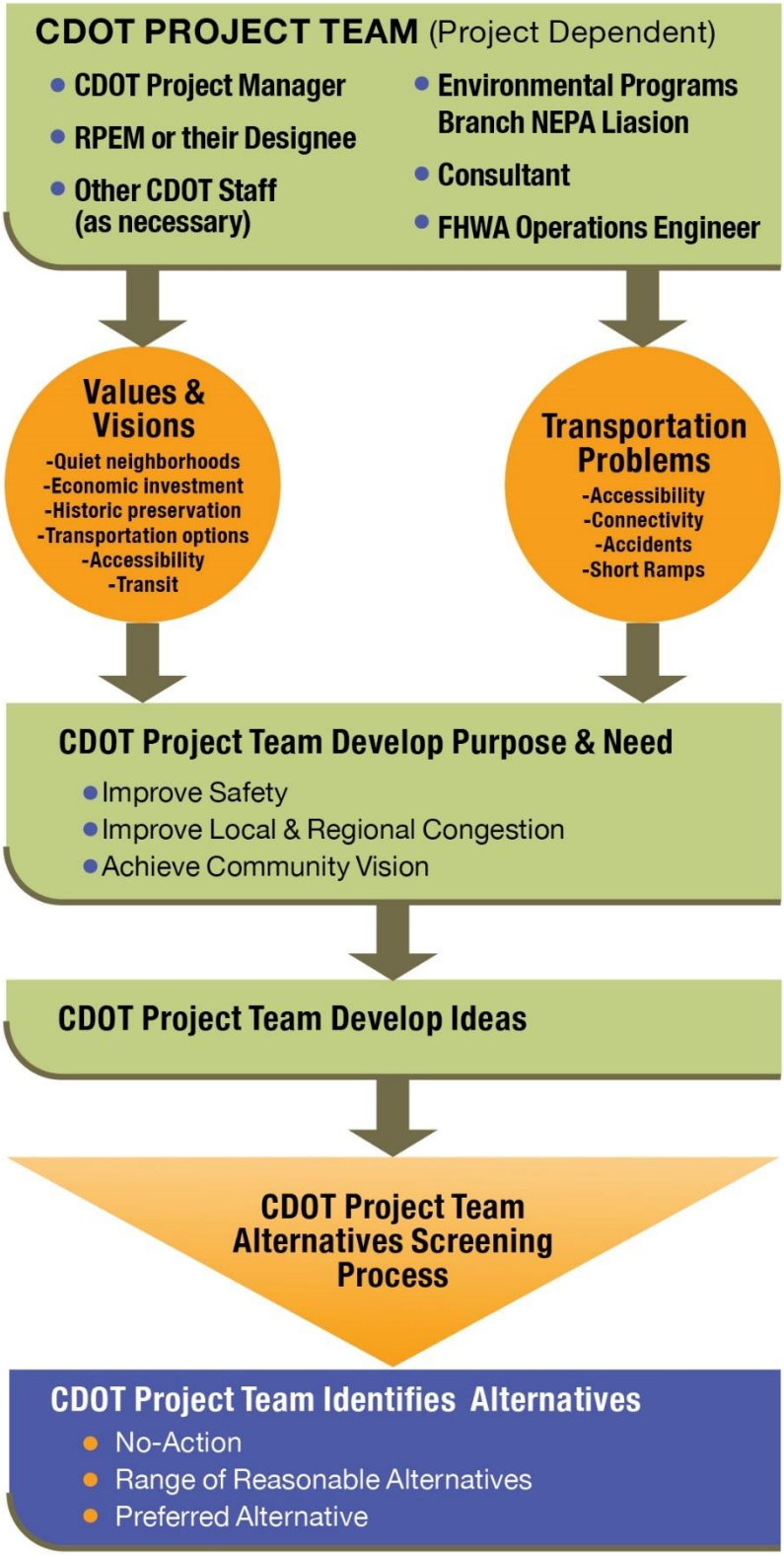
The CEQ defines the term "reasonable" as those alternatives that are "practical and feasible from a technical and economic standpoint using common sense" (CEQ NEPA's 40 Most Frequently Asked Questions, Guidance, Question 2A). For complete text of the NEPA language regarding reasonable alternatives, see CEQ 40 CFR § 1502.14. The key to a successful project is the exercise of professional judgment in determining the reasonableness of an alternative. This judgment is informed by experience and case law. Reasonable alternatives are to be evaluated and decisions made in the overall public interest taking into consideration the need for safe and efficient transportation, social, economic, and environmental impacts of the proposed transportation improvements, and national, state, and local environmental protection goals (FHWA and FTA, 23 CFR § 771.105). **Figure 4-1** provides an example of an alternatives development process.

For an EIS, a reasonable range could include:

- A variety of modes (even those the lead agency cannot pursue)
- A reasonable number (representative examples)
- Avoidance alternatives (these usually get developed in accordance with other parallel regulations under the NEPA umbrella [such as Section 404, Section 4(f), Section 7, etc.])

Alternatives should be developed that achieve the purpose of and need for the project while providing a reasonable range of alternatives for equivalent evaluation with the No Action alternative. The advantages and disadvantages of each alternative will be compared in the EIS and assessed to determine how each alternative addresses the transportation issues identified in the purpose and need, as well as potential impacts to resources identified in the Affected Environment.

Figure 4-1 Example Alternatives Development Process



CEQ requires that agencies:

- Devote substantial treatment to each alternative considered in detail so that reviewers may evaluate their comparative merits
- Include reasonable alternatives not within the jurisdiction of the lead agency
- Include the No Action alternative and carry it through screening
- Identify the agency's preferred alternative or alternatives, if one or more exists, in the Draft EIS and identify such alternative in the Final EIS unless another law prohibits the expression of such a preference
- Include appropriate mitigation measures not already included in the alternatives
- Identify those aspects of the preferred alternative that were designed to be mitigation measures

Further information on logical termini and independent utility can be found at FHWA and FTA, 23 CFR § 771.111(f).

As alternatives are defined, it is important that the scope of the alternative be comprehensive enough to address the project's purpose and need. FHWA regulations state that to ensure meaningful evaluation of alternatives and to avoid commitments to transportation improvements before they are fully evaluated, the proposed action evaluated in the EIS must (FHWA and FTA, 23 CFR § 771.111(f) and CEQ, 40 CFR § 1508.25):

- Have logical termini and be of sufficient length to address environmental matters on a broad scope
- Have independent utility or independent significance; that is, be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made
- Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements

The federal courts have considered a fourth factor: whether or not the proposed project "irretrievably commit[s] federal funds for closely related projects" (Piedmont Heights Civic Club v. Moreland, 637 F2d 430 [5th Cir. 1981]).

Therefore, for a transportation corridor where the improvements are so related to one another that they should be considered one project, the project scope should not be selected solely on the basis of what is programmed in a short-range improvement program. Instead the several related construction projects should be evaluated as one project. Construction can be programmed for shorter sections or finite construction elements as funding permits. If a project is not funded and funding cannot be reasonably expected within the planning horizon for the project, a determination of whether a project-specific EIS, Tiered EIS, or PEL document is applicable for the corridor should occur in consultation with FHWA and CDOT. Tiered documents and RODs are further discussed in **Section 4.20** and **Section 4.21**. PEL documents are further discussed in **Chapter 3, Section 3.2.**

With the proper project scope determined, decision-makers and the public will have a clearer picture of the transportation requirements in the project area and a better understanding of how the proposed project will meet the purpose and need.

A comparative table of all alternatives and associated impacts can be presented in common terms that the public can easily understand. This comparison follows the resource-specific Affected Environment presentation and alternative impact evaluation and provides a comparison among all evaluated alternatives at a logical place in the document.

What constitutes a reasonable range of alternatives depends on the nature of the proposal and the facts in each case. The number of alternatives, within a reasonable range, is directly related to the purpose and need statement. A well-defined purpose and need section will assist in limiting the number of alternatives that will achieve the project goals and provide the basis for a legally defensible alternatives discussion. FHWA Technical Advisory T6640.8A provides a detailed discussion of the factors that might be considered in determining what constitutes a reasonable range of transportation alternatives.

Transportation System Management (TSM) and Transportation Demand Management (TDM) Alternatives

While each component of the TSM programs may not be used exclusively as an alternative, components may be used in conjunction with broader alternatives to provide a complete package of transportation services to the public. These programs emphasize getting the most capacity out of existing or proposed transportation facilities.

Consider TSM alternatives to maximize the efficiency of the present system. These limited construction alternatives are generally relevant only for major projects in urban areas with a population greater than 200,000 residents. TSM alternatives include options such as fringe parking, ridesharing, mass transit (e.g., bus, rail), high-occupancy vehicle (HOV) lanes, and traffic signal timing. HOV lanes should be considered as an alternative for all major urban projects. For rural areas, an alternative that considers reconstruction and rehabilitation of the existing system should be included before selecting an alternative on a new alignment.

TDM strategies are implemented to make transportation systems more efficient, safe, or convenient. TDM strategies focus on changing or reducing travel demand, particularly at peak commute hours, instead of increasing roadway capacity, to make more efficient use of the current roadway system. TDM strategies include carpooling, vanpooling, guaranteed ride home programs, walking, bicycling, alternative working arrangements (e.g., telecommuting, flex-place, and flextime), and congestion pricing (such as variable toll fees).

Either the term No Action alternative or No Build alternative may be used to explain the scenario of no action, but they should not be used interchangeably within the same document.

FHWA guidance indicates that TSM/TDM alternatives should be considered even though they may not be within the existing FHWA funding authority (FHWA Technical Advisory T6640.8A). Their evaluation and consideration may require coordination with entities outside CDOT, such as regional transportation authorities, major employers, or major destinations (such as sports venues, ski areas, or other entertainment venues). Agreements must be secured with these entities before considering TSM/TDM alternatives to be viable.

CDOT has established statewide guidelines for the evaluation of managed lanes. These Guidelines support Policy Directive 1603.0 (PD) to ensure that managed lanes are strongly considered during the planning and development of capacity improvements on state highway facilities.

Several factors contribute to the emergence of managed lane projects as a tactic for consideration in congested urban areas. With limited financial resources to build new infrastructure, right-of-way (ROW) needs associated with corridor expansion, and the recognition that we cannot build our way out of congestion, managed lanes provide a solution for enhancing mobility, mode choice, and public-private partnerships to accommodate Colorado's population and vehicle traffic growth.

CDOT's Managed Lanes Guidelines are a tool designed to support project managers and other practitioners in addressing PD 1603.0 as well as determining the viability of managed lanes for new projects. The Guidelines are a collaborative effort among CDOT's Transportation Systems Management and Operations (TSM&O), the Division of Transportation Development (DTD), the Division of Transit and Rail (DTR), the Office of Policy and Government Relations, the High-Performance Transportation Enterprise (HPTE), and CDOT Region 1 and 2 staff representatives. The Guidelines were developed based on previous implementations within the state, national best practices, and oversight of a CDOT Leadership Team.

CDOT's Managed Lanes Guidelines can be found at: https://www.codot.gov/library/traffic/traffic-manuals-and-guidelines/traffic-guidelines-info/managed-lane-guidelines.pdf

No Action Alternative

The No Action alternative is included as one of the alternatives evaluated. CEQ regulations (CEQ 40 CFR § 1502.14) require the consideration of the existing situation without the proposed action. This is called the No Action alternative and includes other programmed activities already in the Statewide Transportation Improvement Plan (STIP), approved through the NEPA process, or longer-term maintenance activities that would occur even if none of the build alternatives is selected.

The No Action alternative is fully assessed in the same manner as the other alternatives as an alternative and is used as a baseline comparison for environmental analysis against which to compare the impacts of all other alternatives.

The No Action alternative can have two meanings: 1) continue present management activities but do not do the proposed project and 2) do not take any action. It is important to indicate to readers which meaning of No Action the EIS is using. The No Action alternative also includes other projects already approved. The No Action alternative should always be fully analyzed and discussed for comparison.

The EIS should thoroughly describe the current transportation need and paint a picture of a future in which the proposed project is not implemented. For purposes of travel demand forecasting and identifying resource impacts that are directly related to traffic volume, such as air quality and noise, transportation projects currently planned in the project vicinity should be included along with the No Action alternative. Transportation projects that may occur independent of the No Action alternative can be located in the Transportation Improvement Plan (TIP) and STIP. These other transportation projects have committed or identified funds for construction and will be made regardless of whether or not any other improvements are made as part of the proposed action. Travel demand forecasting predicts traffic conditions that are expected to occur on the transportation system in the design year.

The current TIP/STIP can be found at: https://www.codot.gov/programs/planning/transportation-plans-and-studies/stip

4.8.2 Comparing Alternatives

All reasonable alternatives under consideration need to be rigorously explored and evaluated objectively. These alternatives should each provide equivalent detail, allowing the reader to evaluate their comparative merits. This does not dictate an amount of information to be provided for each alternative; rather, it prescribes a level of treatment that may, in turn, require varying amounts of information to enable a reader to evaluate and compare alternatives. Each alternative should be described briefly using maps, plans, or other visual tools. At a minimum, the discussion of each alternative should include a clear, non-technical description of the project concept, location, termini, costs, status of right-of-way needs, and any features of the project that help to clarify differences among alternatives. The Alternatives chapter of the EIS should be devoted to describing and comparing the alternatives, with the impact discussion limited to a concise summary in a comparative form. The Environmental Consequences chapter of the EIS is the appropriate place to discuss detailed scientific analysis of the direct and indirect environmental impacts of each alternative. However, redundancy between these sections should be avoided.

4.8.3 Screening Alternatives

For EISs, the evaluation may consider many alternatives and screen them down several times before a preferred alternative is identified. The CDOT project manager and project team should take special note that the No Action alternative is always included as an alternative.

The EIS must include the rationale for screening out alternatives that are impractical or unfeasible from a technical, environmental, or economic standpoint. It is important to be consistent when using the developed rationale for screening of alternatives. In some cases, technical memoranda that provided additional details about the alternative screening process are helpful. This documentation should be summarized in the EIS and should be made part of the project file.

Just as important as analyzing alternatives is explaining why alternatives have been eliminated from consideration during the NEPA process (the criteria used, the point in the process where alternatives were eliminated, and disclosure of the parties involved in establishing the criteria for assessing alternatives and measures of effectiveness). The alternatives documentation should also define the role of other applicable regulations such as Clean Water Act Section 404, Section 4(f) of the Department of Transportation Act, and Section 106 of the National Historic Preservation Act in avoidance and minimization. Care should be taken in the screening process not to be arbitrary or capricious and to ensure that the form and extent of screening is within the discretion of the lead agency, typically FHWA for an EIS.

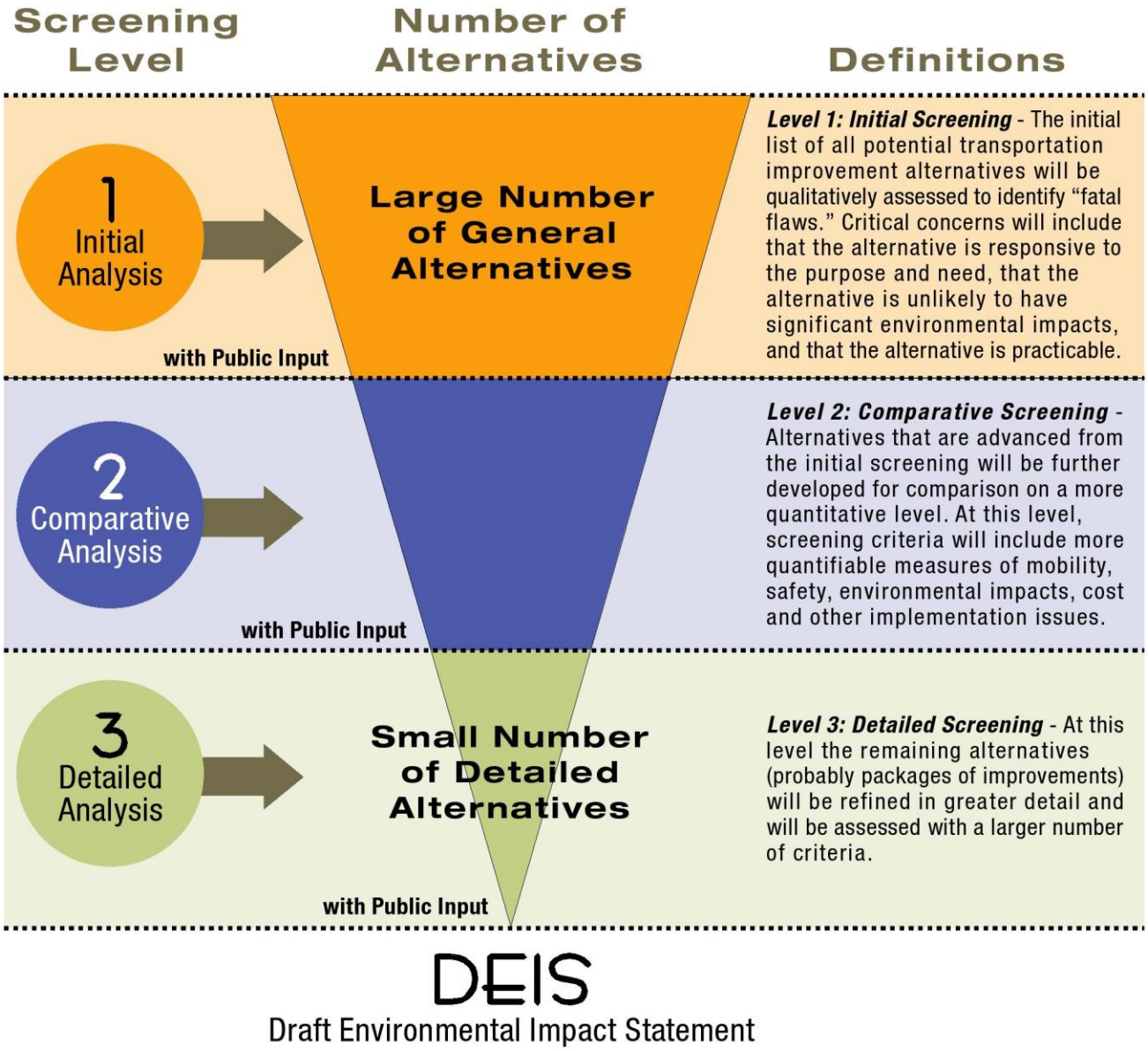
Screening may be simple and straightforward, depending on the complexity of the project, or may involve several levels of analysis before the list of alternatives can be narrowed to a reasonable set for final evaluation. **Figure 4-2** provides an example alternatives screening approach. Although depicted in **Figure 4-2** as three levels of screening, screening may consist of more or less screening levels depending on the project.

In preparing an EIS, it is important to be explicit about the rationale for generating, evaluating, and eliminating alternatives. Being as specific as possible is also essential—if an alternative is eliminated from further consideration because it "does not meet the purpose and need," there should be adequate explanation of why this is true.

Requirements under SAFETEA-LU must be reviewed to determine how to include agencies and the public in the development and screening of alternatives, as the approach may vary among projects. Public and agencies must have an opportunity to provide input/comments on the range of alternatives developed for the project. See **Chapter 2** for the SAFETEA-LU discussion.

CEQ requires that alternatives that were considered in the planning process and subsequently rejected be briefly described and the reasons for their elimination discussed (CEQ 40 CFR § 1502.14[a]). Alternatives suggested by cooperating and participating agencies or the public during scoping that are eliminated without detailed study should be adequately documented and discussed as to why they were eliminated. Include sufficient detail in the EIS to ensure legal requirements have been met and are well documented.

Figure 4-2 Example of an Approach to Narrowing Down Alternatives



4.8.4 Screening and the NEPA/404 Merger

Projects being conducted under the NEPA/404 merger should document the reasons why none of the eliminated alternatives could be considered the LEDPA and, therefore, require full USACE evaluation under their guidance. The project team should present results of the alternatives screening (provide documentation supporting screening of alternatives based on quantitative objectives where data is available) to USACE for concurrence. The project team will then identify primary pros/cons of remaining alternatives with respect to aquatic ecosystems and other potentially significant effects.

The USACE guidance for documenting the LEDPA can be retrieved at:

https://www.codot.gov/programs/environmental/wetlands/guidance.html

4.8.5 Selecting a Preferred Alternative

The preferred alternative is generally the one that the lead agency, typically FHWA, believes would best fulfill CDOT's mission and responsibilities while meeting project purpose and need, minimizing impacts to the environment (natural, cultural, and socioeconomic), and is supported by the public and resource agencies. Typically, alternatives are adjusted throughout the NEPA process to minimize harm to the environment and communities. The preferred alternative is typically the alternative that has incorporated these changes and achieves the best balance among needs, impacts, costs, etc.

Evaluation of alternatives should present the preferred alternative and all of the alternatives in comparative form to best define the issues and provide a clear basis for choice among the options.

When a preferred alternative is clear based on the analyses developed during the Draft EIS process, CDOT is required to disclose the preliminarily identified preferred alternative at that time. Where the preferred alternative is not clear, it is not essential that the preferred alternative be identified at the draft level. However, the Draft EIS should state that:

- A preferred alternative has not been identified
- Reasonable alternatives are under consideration
- The final selection of an alternative will not be made until after any new proposed reasonable alternatives and public comments on the Final EIS have been fully evaluated

It is not necessary to preliminarily identify a preferred alternative in the Draft EIS. The Final EIS must identify and describe the preferred alternative and the basis for that decision. An alternative is selected for implementation in the ROD (and it may not be the same preferred alternative as that described in the Draft EIS and/or Final EIS).

If a preferred alternative has been preliminarily identified in the Draft EIS, it is acceptable to collect additional information relevant to that alternative to more fully develop it and better understand its impacts. However, such information should not be used in comparing and deciding among the full range of alternatives being evaluated. If the preliminarily identified preferred alternative is modified or is no longer the preferred alternative after the Draft EIS, the Final EIS must clearly identify the changes and discuss the reasons why any new impacts are not of major concern.

FHWA Environmental Review Toolkit:

http://www.environment.fhwa.dot.gov/index.asp

The Final EIS must identify the preferred alternative and discuss the basis for its identification (FHWA and FTA, 23 CFR § 771.125[a][1]). The discussion must provide relevant information and rationale for the identification. The identification of a preferred alternative does not lessen the responsibility to

give all alternatives a similar degree of analysis and evaluation during the EIS process.

It is important to note that the analysis presented must be neutral and objective in regard to all alternatives and cannot be slanted to support a preferred alternative over other reasonable and feasible alternatives. Once the preferred alternative has been identified, it may be developed to a higher level of detail than other alternatives to facilitate development of mitigation measures or concurrence compliance with other laws, if the lead agency so directs and determines that this would not prevent an impartial decision (SAFETEA-LU § 6002 [f][4][D]).

Major milestones such as the identification of the Preferred Alternative should be documented in project meeting minutes and identified as a concurrence point.

A preferred alternative is selected in the ROD. If the identified preferred alternative from the Final EIS is modified or is not the selected preferred alternative, the ROD must clearly address the changes.

The term environmentally preferable alternative is slightly different from the term preferred alternative in that the environmentally preferable alternative promotes the national environmental policy, which ordinarily means it is the alternative that causes the least damage to the biological and physical environment; it also means the alternative that best protects, preserves, and enhances historic, cultural, and natural resources. For EIS projects, the ROD must identify the environmentally preferable alternative. If it is not the selected alternative, the ROD must explain why a different alternative was selected.

Therefore, the concept of an agency's preferred alternative may be different from the environmentally preferable alternative, though in many cases one alternative may be both. Identifying the environmentally preferable alternative during EIS preparation may help other agencies and the public to address the question of which alternative is environmentally preferable. However, the agency is not required to specify an environmentally preferable alternative until the preparation of the ROD.

EISs must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail (40 CFR § 1500.1(b)).

4.8.6 Preferred Alternative and the NEPA/404 Merger

If an EIS project uses the NEPA/404 Merger process, CDOT will provide to USACE the results of detailed analysis and recommendation for the preferred alternative/LEDPA (which may be different from the environmentally preferable alternative) for concurrence. This may happen prior to issuance of the Final EIS (or Draft EIS if a preferred alternative has been preliminarily identified).

4.9 Environmental Consequences

The Environmental Consequences chapter, typically Chapter 3 in an EIS, combines the Affected Environment and the Environmental Consequences of a project.

4.9.1 Affected Environment

The Affected Environment discussion provides a brief overview of early considerations when establishing the existing conditions information on the project study area — typically referred to in NEPA as describing the Affected Environment. The Affected Environment section sets the context for developing alternatives and assessing impacts.

The FHWA *Environmental Review Toolkit* website, as well as the FHWA Technical Advisory T6640.8A on NEPA, provides excellent guidance for gathering data and setting up the EIS.

At this stage, the project team may also be able to identify potential environmental impacts resulting from the project. It is best to develop a good definition of the project's Affected Environment before proceeding with project design or alternatives analysis. A complete baseline encourages more accurate project budgeting and provides a better basis for determining the appropriate level of NEPA documentation, project schedule, and funding.

Preliminary environmental analysis varies with the complexity of the project. For example, for smaller projects, the initial site visit to the project area by the project engineer and key environmental specialists may be sufficient to gather the information necessary to form existing conditions within the project area and identify potential impacts. For more complex projects, multiple site visits with a multidisciplinary team may be necessary to collect relevant existing condition information, identify potential impacts that need to be considered, and identify future data needs including supplemental field studies. For more complex projects, it is often useful at this stage to consider the potential geographic area(s) in which indirect and cumulative impacts will be assessed, as data will often need to be gathered in a broader area than the project study area for direct impacts. The project manager should use early field visits and discussions to feed information into the overall project schedule and budget, allowing time for longer-term monitoring requirements and other environmental issues.

The description of the Affected Environment associated with the project area provides the context for evaluating environmental impacts. The existing conditions should rely heavily on information already available from known, reliable sources, including agencies responsible for environmental resources. In all cases the context and complexity of the project as they relate to the surrounding area should be taken into consideration. This data set should address all of the resources, ecosystems, and human communities potentially affected by the project. Data gaps should be identified and noted, since supplemental field studies may be required to provide the missing information depending on scoping conclusions and overall project need. The

CEQ § 1502.15 "Affected Environment ":

The EIS shall succinctly describe the environment of the area(s) to be affected or created by the alternatives under consideration.

initial Affected Environment description should contain the following information to the extent that it is readily available and not considered confidential (i.e. specific locations of cultural artifacts):

- The status and location of important natural, cultural, social, or economic resources and systems
- Important environmental or social stress factors and constraints
- Pertinent development plans, local regulations and local administrative standards
- Environmental and socioeconomic trends

The description of the project's Affected Environment should not only provide the existing conditions required for evaluating potential Environmental Consequences of transportation strategies, it should also be a strong resource for developing alternatives that will avoid or minimize impacts associated with the project. The more complete the description, the more accurately potential impacts can be predicted.

The Affected Environment discussion should succinctly describe the environment of the area(s) to be affected by the alternatives under consideration. The descriptions should be no longer than is necessary to understand the impacts of the alternatives. Data and analyses in a statement must be commensurate with the importance of the impact, with less important material summarized, consolidated, or simply referenced. Agencies are urged to avoid useless bulk during the EIS process and concentrate efforts and attention on important issues. Verbose descriptions of the Affected Environment are themselves no measure of the adequacy of an EIS (CEQ, 40 CFR § 1502.15). Refer to American Association of State Highway and Transportation Officials' 2006 (AASHTO's) *Improving the Quality of Environmental Documents* for suggestions on preparing good, concise, readable, and legally sufficient EISs. **Appendix C** of this Manual provides a recommended style guide for preparation of EIS.

Early descriptions should be limited to readily available information because the Affected Environment and Environmental Consequences will be further refined during preparation of the EIS. **Chapter 9** of this Manual discusses resource-specific impact analysis and mitigation measures.

Environmental Background

Environmental background information is usually collected early in the project planning process or may be generated by statewide planning processes, or the metropolitan or non-metropolitan transportation planning region and can be used to support the Affected Environment discussion. **Chapter 3** discusses CDOT's planning and project development process. Such information can also be obtained during the initial site visits.

Some background data may need to be researched before the site visit, including a review of area maps or GIS information, relevant environmental or transportation reports, previous surveys, and consultation with resource experts including external agency personnel. Specific certifications may be required to legally conduct some of the supporting studies that require

collection of field data. For example, a field survey of archaeological properties is performed by personnel who are listed in the Directory of Cultural Resource Management Agencies, Consultants and Personnel for Colorado, as holding a state permit to do fieldwork in archaeology on state, county, city, and some private lands in Colorado (but not on federal or tribal lands). This is because there are minimum qualifications for state permits (Office of Archaeology and Historic Preservation, History Colorado, Publication #1308b, 8CCR 1504–7 Rules and Procedures Historical, Prehistorical, and Archaeological Resources Act (revised 09/11)) that help to ensure that the permit holder will collect reliable and legally compliant data.

In addition, field surveys of fish and wildlife species that require handling to be surveyed may require a permit from CPW and/or the USFWS. The population status of the species to be studied frequently determines whether a permit is required. Field surveys that rely solely on observation seldom require permits.

Verify that consultants hired to perform supplemental field studies have or can readily obtain the required permits in time to perform the needed field work in the appropriate season(s). **Chapter 9** includes additional information on resource-specific methodologies.

Supplemental Field Studies

If gaps exist in the information required to characterize specific resources or identify potential project impacts, the project team may need to conduct supplemental field studies to fill these gaps.

Supplemental field studies should begin early in the process to avoid affecting the project schedule and budget. These studies are frequently restricted to specific seasons, may take a long time to complete, or need to be coordinated with other agencies.

Use the information gained from field studies to evaluate alternatives; this information should clearly support the analysis of impacts. Having the appropriate detailed information from these studies will avoid project delays and cost increases. The results of existing conditions data collection and supplemental field studies may require additional budget for data collection and additional environmental analyses. Project budgets may need to increase or could be decreased depending on the findings. Similar impacts on the project schedule should also be anticipated. **Chapter 9** provides further detail on supplemental field studies by resource.

The timeline for determining how field studies fit into the overall project schedule should be discussed during early site visits and adjusted as necessary throughout the project. The schedule could be developed during the official project scoping at the onset of the NEPA process.

4.9.2 Environmental Consequences

The analysis of Environmental Consequences and associated mitigation measures forms the basis for comparing alternatives. This section of the EIS addresses the impacts of the project alternatives on the quality of the human environment, and describes the measures proposed to mitigate potential adverse impacts of the project. NEPA defines the human environment broadly to include many aspects of the natural and built environments. The analysis presented in the EIS should be of sufficient detail to establish the reasonableness of a conclusion that an impact will or will not occur and whether the impacts are substantial. The description and analysis of impacts must be supported by the information and data presented in each of the specific resource sections and need to estimate both impact and the significance to the human environment.

The allocation of environmental study resources should be in proportion to the importance of the potential impacts identified in the scoping process with the resource agencies and the public. Information developed in the project planning process and studies conducted by environmental specialists should provide the basis for determining what areas of the environment may be impacted and therefore require specific analysis in the EIS.

A summary of the results of studies undertaken should be included, but not all information resulting from specialist studies and reports needs to be incorporated. All special studies referenced are a part of the public record and must be available with the EIS at the CDOT regional office and/or local agency and public reading rooms for public inspection. Where quantitative data support conclusions, they should be included. FHWA encourages the use of charts, tables, matrices, and other graphics as a means of comparing the impacts of the different project alternatives. It should be noted that quantitative data does not always show the whole picture. Qualitative data is sometimes needed to get a clearer picture.

The key to managing the considerable amounts of data required to conduct a full NEPA analysis is to determine what is important in terms of disclosing environmental impacts. For example, if the project is in an urban setting with no farmlands, then farmland impacts are not discussed. If the project is a highway widening in an area inhabited by an endangered mammal, the wildlife surveys, background data, Biological Assessment and Biological Opinion, and a thorough discussion of avoidance and mitigation measures may all be appropriate for inclusion in the main body of the document, in an appendix, and in associated technical reports.

To aid readers in understanding the logical progression of the EIS, the structure of the Environmental Consequences section should parallel the Affected Environment section. The organization of the Environmental Consequences should be relatively consistent between technical sections. Statements that describe impacts for a particular alternative should not be repeated for another alternative if this sort of redundancy can be avoided with a better organization of the analysis. Reader understanding and simplicity should overrule format consistency.

When preparing the decision document, the impacts and mitigation measures of the alternatives, particularly the preferred alternative, may need to be discussed in more detail to elaborate on information, firm-up commitments, or address issues raised during the public comment period.

The decision document should also identify any new impacts (and their implications) that may have resulted from modification or identification of substantive new circumstances or information regarding the preferred alternative following the EIS circulation. Where new major impacts are identified between preparation of the Draft and Final EIS, a supplemental EIS may be required (CEQ, 40 CFR § 1502.9[c]). See **Section 4.21** for more details.

4.9.3 Types of Impacts

NEPA uses the terms "impact", "effect", and "consequence" synonymously. This Manual uses "impact". For an action to impact (positively or negatively) the environment, it must have a causal relationship with the environment. NEPA distinguishes three types of causal impacts: direct, indirect, and cumulative.

- **Direct impacts** are caused by the action and occur at the same time and place (CEQ 40 CFR § 1508.8). For example, highway construction that occurs within a wetland would completely remove the wetland or modify the structure and function of the wetland. This would, therefore, be a direct impact on wetlands.
- **Indirect impacts** are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect impacts may include those related to induced changes in land use patterns, population density or growth rate, and related impacts on air and water and other natural systems, including ecosystems (CEQ 40 CFR § 1508.8). For example, highway construction that alters the hydrology of an area could increase or decrease overland water flow to nearby wetlands and streams, which would have an indirect effect on the structure and function of these water resources. Additional indirect impacts could occur to plant and animal species that inhabit the affected wetlands and streams.
- **Cumulative impacts** result from the incremental impact of the action when it is 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 could result from individually minor, but collectively significant, actions that take place over time (CEQ 40 CFR § 1508.7).

Impacts may be ecological, aesthetic, historical, cultural, economic, or social, or may be either beneficial or adverse. Beneficial impacts may occur when a proposed action improves a situation (e.g., lessens serious traffic congestion). However, even when the impact of an action will be generally environmentally beneficial, adverse environmental impacts may still occur in other resource areas.

Impacts discussions and associated findings should reflect realistic impact potentials rather than what might be possible if well-known requirements, mandates and commitments to avoid, minimize, and mitigate impacts did not exist.

FHWA's Technical Advisory T6640.8A notes that the level of impacts should not be described using the term significant (FHWA, 1987). However, when conclusions regarding the significance of an impact have received concurrence from consulting or jurisdictional agencies, this information should be included (for instance, there may be concurrence on a Finding of Adverse Effect under Section 106 of the Historic Preservation Act). Furthermore, if the term significant is used, it should be consistent with the CEQ definition and supported by factual information (CEQ 40 CFR § 1508.27).

Clearly state all assumptions and methods so that it is obvious how results and conclusions were formed. Anyone with the appropriate skills should be able to duplicate the work.

To help the project team completely understand how a resource will be impacted, context, intensity, duration, and timing must be considered. Context is defined as the setting of the proposed action and is established in the description of the Affected Environment (are the impacts site-specific, local, or regional). Intensity is considered the severity of the impact (are the impacts negligible, minor, moderate, or major).

As required by CEQ regulations, the severity of an impact requires consideration of a number of the following factors:

- Degree of effect on public health or safety
- Presence of unique characteristics of the project area such as proximity to resources or protected areas
- Degree of controversy
- Degree to which possible effects are uncertain or involve unique or unknown risks
- Degree to which the action would set a precedent for future actions with significant effects
- Contribution to cumulatively significant effects
- Degree to which there may be adverse effects to scientific, cultural, or historical resources
- Degree to which there may be adverse effects on an endangered or a threatened species or its critical habitat
- Conflict with federal, state, or local laws for the protection of the environment

Impacts should also be characterized as temporary or permanent. Temporary impacts are generally those that result from demolition, site preparation, and construction activities, and will not persist once project construction is completed. Common examples of possible temporary impacts include dust generation, erosion, construction noise, stream diversion, or traffic congestion. When analyzing temporary impacts, all aspects of project construction should be considered within the project footprint such as use of areas to store equipment and materials or set up a construction office, construction of roads to gain access to the site, or use of areas for borrow of fill or disposal of excavated material.

Permanent impacts are those that persist after a project has been completed. Common examples of permanent impacts include creating cut-and-fill areas or right-of-way acquisition. Some impacts, such as changes in

noise levels or changes in access to local businesses or residences, may be temporary or permanent or both, depending on project specifics.

Cumulative impacts are typically discussed in Chapter 4 of an EIS. In mandating cumulative impacts analysis, CEQ seeks to ensure that EISs consider not only the project and its alternatives, but the other actions that could contribute to long-term environmental degradation. For example, a CDOT highway project may be just one piece of the bigger growth picture in a county. Other pieces of this picture include new retail (a new mall), new business parks (such as Interlocken or the Denver Tech Center in the Denver Metro Area, or Centerra in Loveland), new housing developments (occurring all around Colorado), and the competing demands of new residents for open space, parks, hospitals, and schools. In this example, land use is the resource being evaluated in a cumulative impact context; the growth in the area would supply information about the existing conditions and future conditions. Methodology for a cumulative impact section is further discussed in **Chapter 9**.

4.9.4 Mitigation and Monitoring Commitments

Prior to mitigation, CDOT always makes best efforts to:

- Avoid the impact altogether by not taking a certain action or parts of an action
- Minimize impacts by limiting the degree or magnitude of the action and its implementation

However, if avoidance or minimization is not feasible then mitigation measures may be implemented including:

- Rectifying the impact by repairing, rehabilitating, or restoring the Affected Environment
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action
- Compensating for the impact by replacing or providing substitute resources or environments (CEQ, 40 CFR § 1508.20)

FHWA regulations require that mitigation measures presented as commitments in the final EIS be incorporated into a project (FHWA and FTA, 23 CFR § 771.109[b] and 23 CFR § 771.125[a][1]). Monitoring conducted during project construction and operation is the means to ensure mitigation measures are effectively implemented. If monitoring identifies any deficiencies in mitigating the impact, adjustments to the level, timing, and/or procedure of mitigation must be made accordingly. It is important for the project team to note that long-term mitigation measures may include multi-year environmental monitoring and other components that have an effect on project schedule, budget, and long-term maintenance and operation.

CDOT's Mitigation Tracking Spreadsheet is used to keep track of project impacts and associated mitigation commitments.

Chapter 9 includes additional information on mitigation and monitoring commitments.

Mitigation and the NEPA/404 Merger

If the EIS project is using the NEPA/404 Merger process, CDOT will provide USACE estimated unavoidable impacts of the preferred alternative to wetlands and other waters of the US and a conceptual compensatory mitigation plan for concurrence. This will occur prior to the issuance of the Final EIS (or Draft EIS if a preferred alternative has been preliminarily identified). **Chapter 9** includes additional information on mitigation and monitoring commitments.

4.9.5 Other EIS Analysis Requirements

Irreversible and Irretrievable Commitment of Resources

42 USC § 4332 102(C)(v) requires a discussion of any irreversible or irretrievable commitments of resources that would be involved in the proposal should it be implemented. An irretrievable commitment of a resource is one in which the resource or its use is lost for a period of time (e.g., land used in the construction of the proposed project). An irreversible commitment of a resource is one that cannot be reversed (e.g., fossil fuels, labor, and materials used during the construction of the proposed project).

Short-term Uses versus Long-Term Productivity

42 USC 4332 102(C)(iv) requires discussion of the relationship between local, short-term uses of man's environment and the maintenance and enhancement of long-term productivity of resources. This section compares short-term gains with the long-term expense that may result from a loss of future productivity. While it is assumed that there will be benefits resulting from the proposed project, all projects involve costs, side effects, and potential loss of natural resources that have long-term productive value. This section should point out that transportation improvements are based on state and/or local comprehensive planning that consider(s) the need for present and future traffic requirements within the context of present and future land use development.

Incomplete or Unavailable Information

When evaluating reasonably foreseeable significant adverse impacts on the human environment in an EIS, and when there is incomplete or unavailable information, it is important for the document to indicate that such information is lacking.

CEQ 40 CFR §1502.22 states:

(a) If the incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice

among alternatives and the overall costs of obtaining it are not exorbitant, the agency shall include the information in the EIS.

(b) If the information relevant to reasonably foreseeable significant adverse impacts cannot be obtained because the overall costs of obtaining it are exorbitant or the means to obtain it are not known, the agency shall include within the EIS:

1. A statement that such information is incomplete or unavailable.
2. A statement of the relevance of the incomplete or unavailable information to evaluating reasonably foreseeable significant adverse impacts on the human environment.
3. A summary of existing credible scientific evidence that is relevant to evaluating the reasonably foreseeable significant adverse impacts on the human environment.
4. The agency's evaluation of such impacts based upon theoretical approaches or research methods generally accepted in the scientific community. For the purposes of this section, reasonably foreseeable includes impacts that have catastrophic consequences, even if their probability of occurrence is low, provided that the analysis of the impacts is supported by credible scientific evidence, is not based on pure conjecture, and is within the rule of reason.

4.10 Section 4(f) Evaluation

Section 4(f) guidance for publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites is discussed in detail in **Chapter 9** of this Manual. Section 4(f) findings are typically Chapter 5 in an EIS, if required.

4.11 Agency Coordination and Public Involvement

Chapter 7 of this Manual discusses agency coordination and public involvement guidance. Agency coordination and public involvement is typically discussed in Chapter 6 of an EIS.

4.12 List of Preparers

CEQ regulations require the inclusion of the names and brief qualifications (expertise, experience, professional disciplines) of persons primarily responsible for preparing the EIS or conducting environmental studies (CEQ, 40 CFR § 1502.17). This should include state (and/or local) agency staff, FHWA staff, and consultants preparing all or part of the document, even if the consultant's contribution was modified by the agency. Technical editors and graphic support personnel are included. FHWA's Technical Advisory

T6640.8A calls for listing the FHWA personnel primarily responsible for preparing or reviewing the EIS and their qualifications. The list should also indicate the portion of the EIS that the individual prepared. This information can be presented in tables. To obtain accurate information for the list of preparers, each person should be contacted to verify educational and professional experience and the number of years employed.

4.13 List of Agencies, Organizations, and Persons to Whom Copies of the EIS Are Sent

The distribution list should name all federal, state, and local agencies and persons to whom copies of the EIS are sent (CEQ, 40 CFR § 1502.10). FHWA's Technical Advisory T6640.8A notes that the EIS should list all entities from which comments are requested. This should include local agencies and organizations likely to have an interest in all or part of the proposed project.

4.13.1 Consultation and Coordination

The EIS summarizes public involvement, consultation, and coordination efforts. CDOT has specific policies regarding public involvement that are discussed in **Chapter 7**. In addition to the information listed above, the consultation and coordination chapter should:

- Provide a chronology of key public and stakeholder meetings and events that have occurred on the project, including the early coordination and scoping processes
- Document all meetings with government leaders, government agencies (including Cooperating and Participating Agencies), Native American interests, community and advisory groups, and individual citizens
- Summarize all issues raised by agencies and the public

The EIS (both Draft and Final) document should contain copies of pertinent interagency correspondence in an appendix, including consultation with USFWS, Section 106 coordination with the SHPO, and important communications with similar agencies.

4.14 References and Citations

The EIS must cite the references used in preparing the document. The citations should include the technical studies used to substantiate the analyses and conclusions in the document. They may also cite other relevant sources, such as local or regional planning documents, pertinent scientific studies, or other relevant materials. Materials prepared by other agencies in compliance with other regulatory processes (e.g., a Biological Opinion) should also be referenced. There are specific CEQ regulations for references and citations.

4.15 Appendices and Technical Reports

NEPA guidance emphasizes that EISs should be succinct statements of the information on environmental impacts and alternatives that the decision-maker and the public need to make decisions and to ascertain that significant factors have been examined. The appendices should include only material that is directly relevant to the EIS and that substantiates data that is important to the analysis and supports the conclusions.

Lengthy technical discussions should be contained in separate technical reports. Technical reports are not treated as appendices to the EIS. They are bound as separate documents and referenced. While separate technical reports are not circulated with the EIS during public review, they are public documents and must be available for review. They must also be submitted along with copies of the preliminary draft for CDOT headquarters (Environmental Programs Branch [EPB] and others) review and FHWA review and approval. During the public comment period, the EIS and the technical reports are placed in convenient locations for public review and copying (typically libraries or other easily accessible public buildings).

Relevant appended information may include listings (e.g., wildlife species common to the project area), letters of agreement, Memoranda of Understanding, or Referendums. The appendices to an EIS must contain all correspondence received from government agencies and private interest groups concerning the project. However, they do not include any letters between CDOT and FHWA or internal CDOT memos or letters.

Appendices contain detailed information that is not essential to a basic understanding of the document and the results obtained but may be helpful to readers. Appendices help to streamline the content of the document. They should not contain unnecessary information but be discriminating about what information is included. The Draft EIS is expected to contain the following appendices:

- Agency Coordination
- Public Involvement and Coordination

Other appendices may be added if appropriate. All appendices must be called out in the body of the document. They are lettered sequentially (i.e., Appendix A, Appendix B, etc.) at the end of the document in the order in which they are called out.

CEQ § 1502.18 "Appendix."

If any agency prepares an appendix to an EIS, the appendix shall:

(a) consist of material prepared in connection with an EIS
(b) normally consist of material which substantiates any analysis fundamental to the EIS
(c) normally be analytic and relevant to the decision to be made
(d) be circulated with the EIS or be readily available on request

4.16 Index

The index of an EIS should include important subjects and areas of major impacts so that a reviewer need not read the entire document to obtain information on a specific subject or impact. It should have a level of detail sufficient to focus on areas of the document of reasonable interest to any reader. However, it need not identify every conceivable term or phrase.

CEQ § 1502.10 "Index."

The CEQ regulations require that an index be prepared for all EISs. However, the regulations do not state how the index should be written.

4.17 Notice of Availability

FHWA sends the Notice of Availability (NOA) to EPA, and EPA files the NOA. FHWA can also file its own NOA, but FHWA relies on the EPA filing. The EPA's notice in the Federal Register is the official NOA that the document is available. EPA publishes the notice on Friday, unless a holiday falls on Friday and then it is posted on Thursday. The designated FHWA Colorado Division Office staff will submit the electronic EIS to e-NEPA.

In preparing the NOA, a certain format must be followed. *The Federal Register Drafting Handbook* is available on the Internet to assist with preparing the NOA, as well as other types of notices.

Agencies should also be diligent in involving the public in the NEPA process by providing public notice of NEPA-related hearings, public meetings, and availability of environmental documents (CEQ 40 CFR § Regulations 1506.6). Publication in local newspapers (in papers of general circulation rather than legal papers) is one way to send notice to the public in addition to the Federal Register. Other means include other local media, newsletters, direct mailings, posting of notices, press releases, and community organizations. **Chapter 7** discusses the specific policies that CDOT uses for public involvement. These additional advertisements should be done at the time of the NOA and at least 15 days before a public hearing.

4.18 Draft EIS

4.18.1 Comments on the Draft EIS

Chapter 8 provides specific direction on document review procedures. The Final EIS should include a copy of substantive comments from the cooperating agencies, participating agencies, and other stakeholders who commented on the Draft EIS during the public comment period. Where the response from these parties is exceptionally voluminous, the comments may be summarized. The Final EIS should provide an appropriate response for each substantive comment. If the final NEPA text is revised as a result of the comments received, a copy of the comments should contain references indicating where revisions were made. The response should address the issue or concern raised by the commenter adequately or, where substantive comments do not warrant further response, explain why they do not, and provide sufficient information to support that position. The Final EIS should:

- Summarize the substantive comments on social, economic, environmental, and engineering issues made at the public hearing, if one is held, or the public involvement activities
- Discuss the consideration given to any substantive issue raised and provide sufficient information to support that position

Chapter 8 *Document Review Procedures* of this Manual includes information on document distribution requirements.

4.18.2 Circulation of the Draft EIS

After approval by FHWA and placement of the NOA, copies of all Draft EISs must be made available to the public and circulated for comments by CDOT (CEQ 40 CFR § 1502.19 and 1503.1) to the following parties:

- All public officials, private interest groups, and members of the public known to have an interest in the proposed action or the Draft EIS
- All federal, state, and local government agencies expected to have jurisdiction, responsibility, interest, or expertise in the proposed action
- States and federal land management entities that may be affected by the proposed action or any of the alternatives

Distribution must be made no later than the time the document is filed with EPA for Federal Register publication and must allow a minimum 30-day review period, or 45-day if the document contains a Section 4(f) evaluation (CEQ 40 CFR § 1506.9 and 1506.10).

The document should include adequate information for FHWA and CDOT to ascertain the disposition of the comment(s). **Chapter 8** provides additional details regarding EIS distribution.

CDOT follows the FHWA directives in 23 CFR § 223 771.123 (Draft EIS), 771.125 (Final EIS), and 771.127 (ROD). Available at: http://www.fhwa.dot.gov/legsregs/directives/fapg/cfr0771.htm

4.19 Final EIS

4.19.1 Options for Preparing the Final EIS

The CEQ regulations place heavy emphasis on reducing paperwork, avoiding unnecessary work, and producing documents that are useful to decision-makers and to the public. With these objectives in mind, the Moving Ahead for Progress in the 21st Century Act (MAP-21) Section 1319, Accelerated Decision-making in Environmental Reviews, requires that to the extent practicable, the lead agency develop a single document that combines the Final EIS and ROD. For information on what information the ROD should contain, see **Section 4.19**. If not practicable to do a combined Final EIS and ROD, there are three approaches to preparing the Final EIS: traditional, condensed, and abbreviated. The first two approaches can be used on any project. The third approach is restricted to the conditions specified by CEQ 40 CFR § 1503.4(c). The CDOT project team makes an initial recommendation to FHWA for which approach seems applicable for the project. FHWA will make the final determination as to which approach will be used.

Guidance on MAP-21 Section 1319 is available for the combined Final EIS/ROD approach.

Traditional – The Final EIS incorporates the Draft EIS (essentially in its entirety) with changes made as appropriate throughout the document to reflect the identification of a preferred alternative, modifications to the project, updated information on the Affected Environment, changes in the assessment of impacts, the selection of mitigation measures, wetland and floodplain findings, the results of coordination, and comments received on the Draft EIS and responses to these comments. Because a large amount of information is carried over from the Draft EIS to the Final EIS, important

changes are sometimes difficult for the reader to identify. Nevertheless, this is the approach most familiar to participants in the NEPA process.

Condensed – This approach avoids repetition of material from the Draft EIS by incorporating, by reference, the Draft EIS. Thus, the Final EIS is a much shorter document than under the traditional approach; however, it should afford the reader a complete overview of the project and its impacts on the human environment.

The purpose of the condensed approach is to briefly reference and summarize information from the Draft EIS that has not changed and to focus the Final EIS discussion on changes in the project, its setting, impacts, technical analysis, and mitigation that have occurred since the Draft EIS was circulated. In addition, the condensed Final EIS must identify the preferred alternative, explain the basis for its identification, describe coordination efforts, and include agency and public comments, responses to these comments, and any required findings or determinations (CEQ 40 CFR § 1502.14(e) and FHWA and FTA, 23 CFR § 771.125(a)).

Interim guidance on The Moving Ahead for Progress in the 21st Century (MAP-21) Section 1319 Accelerated Decision-making in Environmental Reviews addresses the circulation and filing of a Final EIS using errata sheets.

The format of the Final EIS should parallel the Draft EIS. Each major section of the Final EIS should briefly summarize the important information contained in the corresponding section of the Draft EIS, reference the section of the Draft EIS that provides more detailed information, and discuss any noteworthy changes that have occurred since the Draft EIS was circulated.

At the time that the Final EIS is circulated, an additional copy of the Draft EIS need not be provided to those parties that received a copy of the Draft EIS when it was circulated. Nevertheless, if due to the passage of time or other reasons it is likely that they will have disposed of their original copy of the Draft EIS, then a copy of the Draft EIS should be provided with the Final EIS (CEQ 40 CFR (a) § 1503.4(c)). In any case, sufficient copies of the Draft EIS should be on hand to satisfy requests for additional copies. Both the Draft EIS and the condensed Final EIS should be filed with EPA under a single Final EIS cover sheet (CEQ 40 CFR § 1503.4(c)).

Abbreviated – CEQ regulation 40 CFR § 1503.4(c) provides the opportunity to expedite the Final EIS preparation where the only changes needed in the document are minor and consist of factual corrections and/or explain why the comments received on the Draft EIS do not warrant further response. In using this approach, care should be exercised to assure that the Draft EIS contains sufficient information to make the findings, and that the number of errata sheets used to make required changes is small and that these errata sheets, together with the Draft EIS, constitute a readable, understandable, full disclosure document. The Final EIS should consist of the Draft EIS and an attachment containing the following:

- Errata sheets making any necessary corrections to the Draft EIS
- A section identifying the preferred alternative and discussing the reasons it was identified as the preferred alternative. The following should also be included in this section where applicable:
    - Final Section 4(f) evaluations

- Wetland finding(s)
- Floodplain finding(s)
- A list of commitments for mitigation measures for the preferred alternative; and copies (or summaries) of comments received from circulation of the Draft EIS and public hearing and responses thereto.

Chapter 8 *Document Review Procedures* of this Manual includes information on document distribution requirements.

4.19.2 EIS Approval Process

Chapter 8 discusses specific details regarding the NEPA review process for Final EISs.

4.19.3 Compliance with Applicable Laws

The Final EIS should demonstrate compliance with requirements of all applicable environmental laws, executive orders, and other related requirements, such as Title VI of the Civil Rights Act of 1964. To the extent possible, all environmental issues should be resolved prior to the submission of the Final EIS. When disagreement on project issues exists with another agency, coordination with the agency should be undertaken to resolve the issues before issuing the Final EIS. Where the issues cannot be resolved, the Final EIS should identify any remaining unresolved issues, the steps taken to resolve the issues, and the positions of the respective parties. Where issues are resolved through this effort, the Final EIS should demonstrate resolution of the concerns. For a list of NEPA-related regulations that are often considered during a CDOT NEPA effort, refer to **Figure 2-1** in **Chapter 2** of this Manual.

4.19.4 Circulation of the Final EIS

The Final EIS shall be transmitted to any persons, organizations, or agencies that made substantive comments on the Draft EIS or requested a copy, no later than the time the document is filed with EPA. In the case of lengthy documents, the CDOT may provide alternative circulation processes in accordance with CEQ 40 CFR § 1502.19. CDOT shall also publish a notice in local newspapers. When the document is filed with EPA, the Final EIS shall be available for public review at the CDOT offices and at appropriate Region offices. A copy should also be made available for public review at institutions such as local government offices, libraries, and schools, as appropriate.

4.20 Record of Decision

If a combined Final EIS and ROD is not practicable, and there are no changes after the Final EIS that would warrant a Reevaluation or Supplemental document, a separate ROD follows the Final EIS and selects a preferred alternative (it may or may not be the preferred alternative from the Final EIS) for implementation.

The ROD explains the reasons for the project decision, summarizes any mitigation measures that will be incorporated in the project, and documents any required Section 4(f) approval. While cross-referencing and

incorporating the Final EIS (and other documents) as appropriate, the ROD must explain the basis for the project decision as completely as possible, based on the information contained in the EIS (CEQ 40 CFR § 1502.2). It is important to note that only FHWA has approval/issuing authority for a ROD, whether or not the NEPA process has been merged with, for example, USACE 404 (b)1. The ROD may not be issued sooner than 30 days after the approved Final EIS is distributed.

The following key items are addressed in the ROD:

- **Decision** - Describe the selected alternative for implementation and the basis for its selection.
- **Alternatives Considered** - Briefly describe each alternative and explain the balancing of values that formed the basis for the decision. Identify the environmentally preferable alternative(s) and, if the alternative selected is not the environmentally preferable alternative, clearly state the reasons for not selecting it. Also identify the LEDPA, if applicable.
- **Section 4(f)** - Summarize the basis for any Section 4(f) approval, when applicable (FHWA and FTA, 23 CFR § 771.127[a]).
- **Measures to Minimize Harm** - Describe the specific measures adopted to minimize environmental harm and identify those standard measures. State whether all practicable measures to minimize environmental harm have been incorporated into the decision and, if not, why they were not (CEQ 40 CFR § 1505.2[c]). Identify any impacts that cannot be mitigated. Include the CDOT Mitigation Tracking Spreadsheet in the ROD. **Chapter 9** includes additional information on mitigation and monitoring commitments.
- **Monitoring or Enforcement Program** - Describe any monitoring or enforcement program adopted for specific mitigation measures, as outlined in the Final EIS. Include the CDOT Mitigation Tracking Spreadsheet from the Final EIS in the ROD.
- **Comments on Final EIS** - Include substantive comments received on the Final EIS and the given appropriate responses. Summarize other comments and responses where appropriate

4.21 Other Clearances (Tiered Analyses, Reevaluations, Supplemental EIS)

4.21.1 Tiered NEPA Analyses

CEQ regulations allow agencies to tier their EISs to eliminate repetitive discussions of the same issues and to focus on the actual issues needing decision at each level of environmental review. FHWA regulations (FHWA and FTA, 23 CFR § 711.111[g]) state that "for major transportation actions, the tiering of EISs as discussed in the CEQ regulation (40 CFR § 1502.20) may be appropriate." The CDOT project team makes an initial recommendation to FHWA regarding whether a project should use a tiered approach. FHWA makes the final determination for using tiering.

Two tiers can be used for the tiered approach. Tier 1 is equivalent to programmatic (i.e., big picture) documents, which focus on broad policy decisions like general location, mode choice, and area-wide air quality and land use implications of major alternatives. Tier 2 is equivalent to project-specific documents. These documents address site-specific details on impacts, costs, and mitigation measures. By following a tiered process and focusing the Tier 1 document on strategies for an entire corridor, the goal is to expedite the Tier 2 evaluation since overall corridor issues have been addressed up front, and detailed environmental studies have been reserved for specific project locations. Tier 2 documents allow FHWA and CDOT to focus on analyzing project-specific impacts and issues in the second tier.

With the availability of the PEL process (further discussed in **Chapter 3, Section 3.2**), Tier 1 studies are less common as they have been in the past.

Note that the term "tiering" is also used in a general sense to mean dependence on information from previously published documents, which are referenced, without repeating their information in the current document. The phrase "to tier to" another document means to incorporate by reference without repeating.

4.21.2 Reevaluation of an EIS

Before implementation of a project that received NEPA approval, CDOT must consult with FHWA before requesting any major approvals to establish whether the approved EIS remains valid. If circumstances have changed, FHWA may require a Reevaluation to determine what changes have occurred and whether new documentation or a supplemental EIS is necessary.

The Reevaluation is for the entire document or project (i.e., same limits as the original environmental document). The Reevaluation should consider the entire project but focus on the validity of the EIS and/or project decision as related to the current phase or work, major approval, or action to be taken by FHWA to advance the project. If documentation of the Reevaluation is necessary, previous phases would be referenced as previous actions and summarized as background information. The current phase would be discussed in more detail, but only to the extent that there have been changes to the project or Affected Environment. Future phases could be mentioned and discussed, but the detail could be delayed until approval is needed to proceed with the future phase. There is no requirement to modify phases

A Reevaluation is prepared with the purpose to determine whether or not a supplement to the EIS is needed.

already built or reconsider previous designs when the next phase is being built.

If the project decision, Affected Environment, mitigation or other environmental commitments, or environmental requirements have not changed or if the changes examined do not result in the determination by FHWA that the environmental document is no longer valid, the Reevaluation process is completed. If the Reevaluation process determines that the approved environmental document is no longer adequate, then supplemental environmental documentation is needed to fully analyze the changes that have occurred (FHWA and FTA, 23 CFR § 771.129).

The question of whether the design year and traffic numbers need updating for the final segment or the entire project under a Reevaluation should be examined case by case and may be commensurate with the time lapse between the original environmental document and decision and the current FHWA approval action. For example, if the project is so old that the design would not be appropriate, it should probably be changed. There is no requirement to change the design year (and associated traffic numbers) of a project during Reevaluation of the environmental document.

23 USC 109 provides that a project must adequately serve the existing and planned future traffic of a highway in a manner conducive to safety, durability and economy of maintenance. In accordance with AASHTO's *A Policy on Design Standards – Interstate System,* "In all but extraordinary circumstances, the design year for new construction and complete reconstruction is to be at least 20 years beyond that which the plans, specifications, and estimate for construction for the section are approved." FHWA does not have a requirement for design year on non-interstate facilities.

A Reevaluation is required under the following conditions:

- If an acceptable Final EIS is not received by FHWA within three years from the date of the Draft EIS circulation, to determine whether there have been changes in the project or its surroundings or new information (i.e., new environmental impact not previously discussed or new regulations or laws) that would require a supplement to the Draft EIS or a new Draft EIS (FHWA and FTA, 23 CFR § 771.129(a)).
- If CDOT has not taken additional major steps to advance the project within any three year time period of the Final EIS, the final supplemental EIS, or the last major FHWA approval action (FHWA and FTA, 23 CFR § 771.129(b)).
- After approval of the EIS, CDOT shall consult with FHWA before requesting any major approvals for major production phases (preliminary engineering, right-of-way acquisition, and construction advertisement) or grants to establish whether or not the approved EIS remains valid for the requested action (FHWA and FTA, 23 CFR § 771.129(c)). Consultations between CDOT and FHWA should be documented when determined necessary by FHWA.

- Any time during the project development process when a major change in the project's concept has occurred.
- For a ROD, if more than three years have elapsed since approval of the Final EIS.

4.21.3 Reevaluation of a ROD

In accordance with CFR § 771.129 (c) after approval of the ROD, the applicant shall consult with the FHWA before requesting any major approvals or grants to establish whether or not the approved environmental document designation remains valid for the requested administration action. These consultations will be documented when determined necessary by FHWA. The shelf life of a Draft EIS and a Final EIS is 3 years.

The conditions under which a Reevaluation of a ROD would be required are listed in **Section 4.20.2** in the bulleted list.

Reevaluation of a ROD vs. Revised ROD

A reevaluation is intended to encompass the same project limits as the original environmental document and focuses on the validity of the ROD or project decision with respect to the current phase of the project.

A revised ROD is intended to approve an alternative, or a new component of an alternative (e.g., interchange configuration), that was not originally in the EIS but still meets the purpose and need.

4.21.4 Revised ROD

In accordance with CFR § 771.127 (b) if FHWA subsequently desires to approve an alternative that was not identified as the preferred alternative but was fully evaluated in the final EIS, or proposes to make substantial changes to the mitigation measures or findings discussed in the ROD, a revised ROD shall be subject to review by FHWA. To the extent practicable the approved revised ROD shall be provided to all persons, organizations, and agencies that received a copy of the Final EIS pursuant to CFR § 771.125(g).

CDOT Form 1399 indicates (Section VII. Additional Requirements for Proposed Action):

- Supplemental EIS is required because the changes to the proposed action will result in significant impacts not evaluated in the EIS.
- Supplemental EIS is required because new information or circumstances will result in significant environmental impacts not evaluated in the EIS.
- A revised ROD is required because an alternative is recommended that was fully evaluated in an approved Final EIS but was not identified as the preferred alternative.

Guidance for completing Form 1399 is available at:

https://expresslanes.codot.gov/programs/environmental/nepa-program/form-1399-guidance_043014.pdf

4.21.5 Reevaluation of a Tiered EIS

This section discusses the Reevaluation of a Tiered EIS. Tiered EISs are further discussed in **Section 4.20.1**. Once FHWA approves a Tier 1 document, it is assumed that the actions evaluated in the Tier 1 document will not cause significant impacts and the actions move into Tier 2 analysis. However, between the completion of the Tier 1 and the start of the Tier 2 document, new information or circumstances may result in needing to adjust what was approved in the Tier 1 document (i.e., a new component to an alternative such as consideration of tolling). Under FHWA regulations, a Reevaluation can be prepared to determine whether the new information or changes in a project require supplementation of a previously issued Tier 1 document. If

the Reevaluation determines that the changes cause additional significant impacts at the Tier 1 level of analysis, then completion of a Tier 1 Supplemental EIS would be required. However, if it is determined that the new information or circumstances do not cause additional significant impacts at the Tier 1 level of analysis, then the Reevaluation suffices for changing the findings in the Tier 1, and the change in analysis from the Reevaluation can move forward into the Tier 2 document.

4.21.6 Documenting Reevaluations Using CDOT Form 1399

CDOT Form 1399 is to be used when completing a Reevaluation. There are three primary reasons that CDOT completes a Reevaluation:

1. Project is proceeding to the next federal major approval or action (23 CFR 771.129(c)).
2. Project changes such as laws, policies, guidelines, design, environmental setting, impacts, or mitigation have occurred. Sometimes the design that was originally approved changes in final design, resulting in newly discovered or otherwise unaccounted for impacts to resources not initially evaluated in the NEPA document. Reevaluations may also be completed to serve as field verifications to ensure that impacts documented in the initial NEPA clearance are still correct and that the same mitigation measures apply.
3. Greater than three years have elapsed since approval of the Draft EIS (23 CFR 771.129(a)) or FHWA's last major approval action for the Final EIS (23 CFR 771.129(b)). Sometimes after a preferred alternative is identified in an EA or EIS, it is not constructed due to funding limitations or other constraints. CDOT uses Reevaluations to “refresh” project information that may have exceeded its shelf life. The passing of time following the approval of a NEPA document to the point of the alternative being implemented is referred to as the shelf-life.

A Reevaluation determines whether or not the environmental document reviewed is still valid. Should it be determined that no substantial changes have occurred, the project can advance to the next phase of project development. However, should it be determined that the NEPA document is no longer valid and more information is needed, then additional work will be required.

Signature of the Reevaluation form completes the NEPA requirement for the project; however, it is not the final step in the process. The CDOT Form 128 must also be completed for all Reevaluations. Section C of the CDOT Form 128 includes information regarding Permits and Additional Requirements, and Section E includes the Environmental Project Certification. Completion of these two sections is required for the project to move into construction.

4.22 Supplemental EIS Analyses

Whenever there are changes, new information, or further developments on a project that may result in significant environmental impacts not identified in the most recently distributed version of the Draft or Final EIS, a supplemental EIS is necessary (FHWA and FTA, 23 CFR § 771.130). These changes occur following the last approval (Draft EIS, Final EIS, or ROD). Supplemental EISs normally do not require reinitiating the entire environmental process. Instead, the supplemental EIS is for the last approval. If a ROD has been granted, only the Final EIS will need to be supplemented.

If the changes are of such magnitude to require a reassessment of the entire action, or more than a limited portion of the overall action, FHWA/CDOT will suspend any activities that would have adverse environmental impacts or limit the choice of alternatives until the supplemental EIS is complete.

A supplemental EIS is needed in the following cases:

- Changes have occurred in the purpose of or need for the project requiring analysis of completely new alternatives.
- Schedule changes require the evaluation of previously unexplored options.
- Changes have been made to the design or scope of the project.
- Significant changes to the Environmental Consequences of the project (determined following completion of the environmental approval process) may require supplemental documentation to determine whether the conclusions in the EIS are valid.
- FHWA or CDOT determines that new information or circumstances would result in substantial environmental impacts not evaluated in the EIS.

In some cases, supplemental information may be required to address issues of limited scope such as the extent of proposed mitigation, the evaluation of location, or design variations for a limited portion of the overall project. When this is the case, preparation of the supplemental EIS will not prevent granting new approvals, require the withdrawal of previous approvals, or require suspension of project activities for any activity not directly affected by the supplement.

A supplemental EIS will be reviewed and distributed in the same manner as its previous Draft and Final versions (FHWA and FTA, 23 CFR § 771.130[d]) to ensure that the public and interested agencies understand the changes in status of the project.

4.23 Project Files and Administrative Records

This section establishes what should be maintained in a project file and provides information for compiling the administrative record should a lawsuit be filed.

CDOT PMs are responsible for establishing electronic naming conventions for emails at the beginning of a project. A standard indicator should be used throughout the project in the subject line to easily track project-related emails.

4.23.1 Project File

Throughout the life of a NEPA project, project materials are generated by the entire project team. All of the materials maintained by the project team are considered the project file. The size of the project file may depend on the type of project; a CatEx for an intersection improvement may have a small file whereas an EIS for an interstate widening will have a larger file.

Items that make up the project file may include:

- Email messages and any attachments
- Letters/memoranda and any attachments
- Meeting materials (e.g., agenda, sign-in, handouts, minutes)
- GIS information and data layers
- Modeling results
- Maps, drawings, and displays
- Project documents in original formats (for example, Word or CAD)
- Policies, guidelines, directives and manuals, or easy references to these materials as long as they are readily available
- Articles and books (be sensitive to copyright laws governing duplication)
- Factual information or data
- Communications received from other agencies and from the public, and any responses to those communications
- Documents and materials containing information that supports or opposes the challenged agency decision
- All draft documents circulated for comment either outside the agency or outside the author's immediate office, if changes in these documents reflect significant input into the decision-making process
- Technical information, sampling results, survey information, and engineering reports or studies (keep certain technical information, such as threatened/endangered species, historic, and archaeological resource survey reports, in the files but label "SENSITIVE – NOT FOR PUBLIC RELEASE" due to their sensitive nature)
- Decision documents
- Documentation of telephone conversations and meetings, such as memoranda or handwritten notes, unless they are personal notes
- Alternatives screening and development information
- Public comment correspondence
- Documentation of public involvement efforts

As a general rule, do not include internal working drafts of documents that may be superseded by a later, more complete, edited version of the same document.

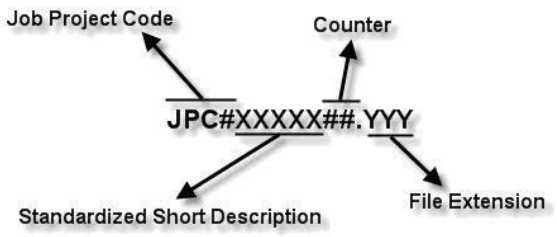
All written documentation should contain a date, indicate to/from (or attendees for meetings), location (for meetings), and be clear on subject matter. The project team may want to consider establishing a template for internal communications, memos, emails (e.g., always using the project number in the subject line of an email) early in the NEPA process.

At the beginning of the project, it is important to determine the following to ensure an adequate project file:

- Who is responsible for maintaining the project file (i.e., project manager, project coordinator)
- Whether or not a database will be used to manage files
- Where files will be housed during the project
- How electronic and hard copy information will be filed; when possible, CDOT prefers electronic copies
- If a project email will be established where all email correspondence will be sent or copied to assist with record keeping

CDOT has a naming standard that uses a formula that restricts the character placement, ensures unique file names, and identifies the information contained in the file. All CDOT projects now must follow these file naming conventions. The naming standard creates consistency between projects being completed by different firms and in different Regions. Standardizing file names is necessary for effective management of the large numbers of files needed to produce project deliverables. CDOT files are named in a standard format that identifies the file's project, the data contained within it, and product used for its creation.

The naming convention is illustrated as follows:



Job Project Code (JPC) is the CDOT project code, formerly known as the project subaccount number. **Example - 16602**

Standardized Short Description of data may contain as many characters within reason to describe the contents and purpose of the file. **Example - Aerial**

CDOT has adopted the AASHTO Practitioner's Handbook *Maintaining a Project File and Preparing an Administrative Record for a NEPA Study* (July 2016) for further guidance on the administrative record documentation.

http://environment.transportation.org/flipbooks/practitioners_handbook/01_Maint_Proj_Prep_Admin_Rec_NEPA_Study_Aug_16/

Counter indicates more than one file of a specific type. **Example - Aerial_02**

File Extensions define the product used for its creation. **Example - .doc**

Full Example of a file naming convention 16602_Aerial.doc or 16602_Aerial_02.doc

The project file may be kept at a central location at a consulting firm where project files are maintained throughout the project. However, a decision must be made on how the files will be provided to CDOT at the close of the project. Given that some projects have numerous consulting firms involved, it is necessary to obtain all the appropriate files from each firm, organize into logical folders (hardcopy and electronic), and provide to CDOT. In cases where the majority of files have been maintained electronically, a final deliverable to CDOT must include an electronic deliverable.

The CDOT Generic Scope of Work Section 2. G. Administrative Record task is a place to include the effort for maintaining the project file (CDOT, 2017b). Although the task is labeled administrative record, it can be changed in the project specific scope to include the project file, as well. Regardless of the project size, hours and effort need to be allocated in the project budget for this task.

There is no general NEPA guidance on how long a project file should be kept and federal agencies are free to establish their own guidelines on retention of files. However, once a project has been completed, prudence dictates that the following types of data should be permanently retained:

- Design and as-built drawings and specifications in both hard copy and electronic format
- Deeds and titles
- All information considered under NEPA in selecting the alternative that was implemented

Such information may be useful in assessing and resolving future problems with project structures, ownership, or choices associated with implementation.

A well-organized project file is the foundation for putting together the administrative record.

4.23.2 Administrative Record

Should the NEPA decision be challenged in court, the project file provides a starting point for preparing the administrative record. When a project faces litigation, the administrative record must be prepared, which includes all materials that are submitted to the court.

Under the Administrative Procedure Act, a court reviews an agency's action to determine if it was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law" (5 USC § 706[2][A]). In making this determination, a court evaluates the agency's administrative record. The administrative record is the paper trail that documents the agency's decision-making process and the basis for the agency's decision.

The administrative record for each project will be drawn from the project file as needed. Not all material in the project file will necessarily become part of the administrative record; however; any information that supports the final decision should be part of it. As established by case law, the general rule is that the administrative record should contain "all documents and materials directly or indirectly considered by the agency" in making its decision.

What kinds of records should be included in an administrative record? (This list is not all inclusive.)

- Documents vital to the "decision," such as the Draft EIS, Final EIS, or ROD
- Federal register notices (for example, the NOI)
- Agency and public comments and responses
- Public transcripts, handouts, sign-in sheets, and exhibits from public meetings
- Final versions of discipline reports/technical reports, modeling inputs, preliminary reports, studies, site evaluations, screening documents, memos, and any other documents showing the basis and reasoning for conclusions/decisions
- Planning documents, such as the long range plan (LRP) and the Statewide Transportation Improvement Program (STIP)
- Emails documenting process and smaller and larger decisions throughout the NEPA process
- Evidence of compliance with other laws, e.g., Section 4(f), National Historic Preservation Act (Section 106), Section 404 Permit, and Endangered Species Act
- Guidance relied on during the NEPA process (for example, the Section 4(f) Policy Paper)
- Anything the agency used in the decision-making process, even if not specifically mentioned by the final decision-maker
- Files by CDOT and its consultants that relate to the final decision
- Memorandum to the File memorializing a decision

An administrative record most likely will not include:

- Personal notes taken by an individual unless they are transmitted to someone or if they are in the agency file for a specific purpose.
- Privileged documents such as attorney-client privileged communication, attorney work product and deliberative product documents.
- Internal "working" draft documents—but sometimes these can be included if relevant to an important decision or shows process.
- Non-"relevant" information, including emails containing irrelevant information such as lunch plans or chit-chat between people working

on the project—if this is mixed in with information relevant to a decision, it might be included anyway or segregated or redacted.

- Pre-decisional documents made prior to a final decision being made; often these take the form of emails. This is a complicated category and should be dealt with on a case-by-case basis.
- Duplicates of documents already in the record.
- Documents made after the decision (ROD, FONSI, etc.) was completed.

An administrative record can be in electronic, hard copy, or a combination format. It is ultimately up to the court to decide which format is preferred. It is important to note that if electronic documents are converted to PDF format, the original source files must also be available.

For projects where litigation is expected, it is a good practice to prepare the administrative record before the ROD/FONSI is signed. Some general guidance for organizing an administrative record includes ensuring all items have a date, an author, and a version number (preferably on each page if multi-page), that items are organized in a logical and an accessible way (for example, chronological or by topic), and an index completed. The index should list documents in chronological order, assign unique page numbers to documents, include brief descriptions of each document, and include the author of each document.

FHWA is ultimately responsible for the administrative record as the decision-maker. Therefore, it is important to work closely with FHWA staff when preparing an administrative record to ensure that it contains the appropriate information and is in the appropriate format(s).

4.24 Statute of Limitations

Section 1308 of MAP-21 established a 150-day limitation on litigation claims for projects being implemented. The 150-day clock starts with Federal Register publication of a notice that a permit, license, or approval action is final. It should be noted that for projects conducted under the NEPA/404 merger agreement, the notice of final action will be placed in the Federal Register after both the NEPA and 404 approvals are complete.

The following language is standard language that should be included in all EIS documents (typically on the reverse side of the signature page). This language is also presented in **Appendix F**.

The Federal Highway Administration may publish a notice in the Federal Register, pursuant to 23 United States Code (USC) § 139(l), once the Record of Decision is approved. If such notice is published, a claim arising under Federal law seeking judicial review of a permit, license, or approval issued by a Federal agency for a highway or public transportation capital project shall be barred unless it is filed within 150 days after publication of a notice in the Federal Register announcing that the permit, license, or approval is final pursuant to the law under which judicial review is allowed. If no notice is published, then the periods of time that otherwise are provided by the Federal laws governing such claims will apply.

4.25 References

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