



## Chapter 6: Environmental Assessment (Class III)

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## 6. ENVIRONMENTAL ASSESSMENT (CLASS III)

An Environmental Assessment (EA) is prepared for an action where the significance of impacts is uncertain. It may also be prepared for projects that do not fit the Categorical Exclusion (Cat Ex) category and is not expected to require the preparation of an Environmental Impact Statement (EIS), or where the Colorado Department of Transportation (CDOT) believes an EA would assist in determining the need for an EIS (23 Code of Federal Regulations [CFR] § 771.119). An EA is not merely a disclosure document; CDOT is to use it in conjunction with other relevant information to plan actions, make informed project decisions, and determine whether or not significant environmental impacts are expected.

The EA should concentrate attention on environmental resources with impacts that may be significant or that could be a discerning factor in alternative selection; therefore, this approach should result in a much shorter and more focused document than with an EIS. An EA details the process through which a transportation project is developed, including consideration of alternatives and analysis of the potential impacts, as well as providing an avenue for public involvement. It documents compliance with other applicable environmental laws, regulations, and executive orders. This chapter outlines the process of an EA 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**.

### 6.1 EA Initiation

At the beginning of the EA process, informal consultation with state and federal agencies is undertaken. There is no formal scoping requirement for an EA; however, an early coordination process is important in defining the logical termini, length, and general location of the project; as well as purpose and need, alternatives, environmental consequences, and mitigation.

At the beginning of the EA process, the project team will identify appropriate agencies. While Section 6002 of Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users (SAFETEA-LU) is required for an EIS, the decision on the use of Section 6002 for EA projects will be made by the project team, with the concurrence of the other lead agency(ies), on a case-by-case basis. According to SAFETEA-LU, the “default” assumption is that the Section 6002 environmental review process is not applied to EAs. Cooperating agencies are sent letters inviting them to participate in the development of the EA. Jurisdictional agencies, such as US Army Corps of Engineers (USACE) or US Fish and Wildlife Service (USFWS), are invited in writing to participate in early meetings to discuss issues and permits that



CEQ § 1508.27 “Significantly” as used in the National Environmental Policy Act (NEPA) requires considerations of both context and intensity.



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



may be involved in the project. When an action may affect Native American tribal lands, the Tribal Government should be involved in early coordination.

Section 1305 of the Moving Ahead for Progress in the 21<sup>st</sup> 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. Section 1304 of the Fixing America’s Surface Transportation (FAST) Act expands the breadth of 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, and imposes specific time frames for response by federal agencies during the project initiation process.

Copies of early coordination letters are included in the appendices of the EA. Meetings and substantive contacts with agencies are also documented. Public and agency involvement are continuous throughout the EA process. **Chapter 7** provides more information on public and agency involvement.

### 6.1.1 Agency Early Coordination Process

The lead agency (typically CDOT or FHWA) may invite the participation of any interested agencies, Native American tribes, project proponents or opponents, and other interested persons; and will 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 build alternative. During the early coordination process, CDOT may request other agencies having special interest or expertise to become cooperating agencies. Agencies with jurisdiction by law must be requested to become cooperating agencies (FHWA and FTA, 23 CFR § 771.111).

Meetings and substantive contacts with government agencies during the early coordination process must be documented. Correspondence (including written correspondence and meeting minutes) with participating and cooperating agencies or the public becomes a part of the administrative record (**Section 6.15.2**). Pertinent correspondence and results of agency coordination will be incorporated into the EA, typically in an appendix.

### 6.1.2 Public Early Coordination Process

It is helpful to maintain a 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 incorporated into the EA without having to reconstruct the information from the project file.

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.



Projects that involve a Recommended Alternative from a Planning and Environmental Linkages (PEL) study should reference the agency scoping conducted during the PEL in the coordination letters.



Those projects involving Federal Transit Administration (FTA) can reference the guidance provided in Chapter 10 *FTA NEPA Compliance*.



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**.

## 6.2 EA Documentation Content

CEQ regulations 40 CFR § 1500 - 1508 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, but not specifically for an EA. However, CDOT's recommended format for an EA is similar to that of an EIS. An EA summarizes and incorporates technical information and studies developed to analyze impacts by reference. Technical studies that support the EA are a part of the project file and are public documents that must be available for review.

Projects with limited alternatives analysis (e.g., a No Action alternative and a proposed action), can be documented using CDOT's EA Template. A Finding of No Significant Impact (FONSI) Template is also available for use for projects that use the EA Template. The templates include a question and answer format with tables that summarize how the alternatives meet the purpose and need, impacts of each alternative, and mitigation commitments. Technical reports with details are included as appendices. Both the EA and FONSI templates and guidance are available online at: <https://www.codot.gov/programs/environmental/resources/forms>.

### 6.2.1 CDOT EA Template

CDOT has created a template for EAs to streamline the EA documentation process. While the discretion is given to the Regions to use the EA Template, the default for most EAs can be to use the EA Template. The template provides a layout that follows traditional EA sections, as presented in **Section 6.2.2**, but streamlines the presentation of material, relies on technical reports for most technical information, and uses tables to present existing conditions, impacts, and mitigation measures.

### 6.2.2 Standard EA Sections

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

- ▶ **LENGTH** - The adequacy of an EA 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.



CDOT has developed a template that is the default format for most EAs. The EA Template is located here:

<https://www.codot.gov/programs/environmental/nepa-program/cdot-nepa-tools>



Use simple terms understandable to a layperson.



- ▶ **LINE SPACING** - Single-spaced, double-sided prints are suggested to save paper and reduce both EA distribution and reproduction costs.
- ▶ **PAGE NUMBERING** - All pages in the EA 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 EA.
- ▶ **LINE NUMBERING** - All lines in the EA 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, as well as overly complex charts and matrices when possible. An EA 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.



Exhibits must have a legend, scale, north arrow, note any prominent features referenced in the text, and citation of the source material.

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

- ▶ **EA Cover**
- ▶ **Cover Sheet**
- ▶ **Table of Contents**
- ▶ **Executive Summary**
- ▶ **Chapter 1** - Purpose of and Need for the Proposed Action
- ▶ **Chapter 2** - Alternatives Analysis
- ▶ **Chapter 3** - Affected Environment and 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** - References and Citations
- ▶ **Appendices**

The EA Template has an established format and a layout that includes the items in the bulleted list above in a streamlined format.



### 6.2.3 EA Cover and Consultant Information

At the Region’s discretion, an EA cover may be the illustration of a project; however, consultant logos and information are not to be used on the front cover of any EA.

Consultant information may be in the list of references for any supporting documentation for the EA (i.e., Noise Impact Assessment, Air Quality Report, and Conceptual Engineering Report). The EA Template has the same information on the cover.

### 6.2.4 Cover Sheet

The FHWA T6640.8A guidance recommends following the EIS cover sheet format for an EA. The EA Template has the same information on the cover sheet. It should not exceed one page and must include the following components:

- ▶ Project name and CDOT project number
- ▶ Type of document
- ▶ Title and location of the project; 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 EA is being prepared (i.e., “Submitted pursuant to 42 United States Code [USC] 4332 (2)(c)”)
- ▶ Date and signature block for the Region Transportation Director, Chief Engineer, and FHWA Division Administrator



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

### 6.2.5 Table of Contents

The table of contents must include the major EA 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 EA and allow the reader to easily navigate the document. The EA Template has the table of contents at the beginning of the document.

### 6.2.6 Executive Summary

The executive summary is a not a mandatory component of an EA but is highly recommended. An executive summary is not required in the EA Template but can be added if determined necessary. The executive summary should provide the components that will be used in final decision-making and later be documented in a FONSI. The summary forms a reader’s first and lasting impression of the EA and should include sufficient information to allow the reader to gain a complete understanding of the issues addressed in the body of the EA. It should discuss alternatives to the proposed action, major environmental resource impacts, and proposed mitigation measures in a comparative form. The executive summary should be succinct 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.

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.
- ▶ Identification of project issues and impacts (and areas of controversy and unresolved issues if applicable) in proportion to their importance.
- ▶ The alternatives considered (and identification of the proposed action if applicable).
- ▶ Identification of principal environmental issues and key differences among alternatives (highlight any noteworthy impacts, impacts that cannot be avoided, impacts that can be mitigated, and additional review or permits required before taking action). If impacts are determined to be “significant,” the EA process would stop and a decision would be made to either go forward with an EIS or change the project so that it does not have significant impacts.
- ▶ 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 there are no wetlands or floodplains 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).



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





## 6.2.7 Project Description

A detailed project description is included in a traditional EA and in the EA Template for a proposed transportation project. 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

## 6.3 Purpose of and Need for the Project

CEQ regulations implementing NEPA require that an EA include a statement of purpose and need. The purpose and need chapter, typically Chapter 1 in an EA, provides a brief but important overview of information that must be considered in defining a purpose and need statement for the project. The purpose and need is essentially the foundation of the EA 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 purpose and need chapter in the EA 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. For more information on CDOT’s planning and project development process, see the Project Development Manual and CDOT’s Statewide/Regional Planning website.

An EA purpose and need statement 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.



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



CEQ § 1502.13 “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.



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. 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 it 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 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).

### 6.3.1 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 alternatives that will be considered in response to the established need. The following are examples of possible project purposes:

- ▶ Improve traffic operations
- ▶ Accommodate high traffic volumes
- ▶ Increase multimodal travel options



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.



- ▶ 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.

### 6.3.2 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.

The need for the project should provide the rationale for how the project addresses the problems, issues, and concerns identified. 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** - Explain relationships to any statewide plan or other transportation plan together with the project's traffic forecasts.
- ▶ **Capacity** - Describe how the capacity of the existing transportation system is inadequate for the present or projected system load. Define what level(s) of service are required for existing and proposed facilities.
- ▶ **Legislation** - Identify federal, state, or local governmental mandates that must be met by the project.
- ▶ **Social Demands or Economic Development** - Identify all planned economic development/land use changes driving the need for the project, including new employment, schools, land use plans, and recreation.
- ▶ **Modal Interrelationships** - Describe how the build alternative 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** - Discuss 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 upon request of reviewing agencies and the public.

There are often multiple deficiencies or desires that establish the project need and, therefore, often become 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.



"The EA does not need to evaluate in detail all reasonable alternatives for the project, and may be prepared for one or more build alternatives."

FHWA Technical Advisory  
T6640.8A



Examples of each include:

**Area-Wide Needs:**

- ▶ Federal, state, or local government authority desires or requirements

**Project Corridor Needs:**

- ▶ System linkage
- ▶ Capacity
- ▶ Structural sufficiency

## 6.4 *Alternatives Analysis*

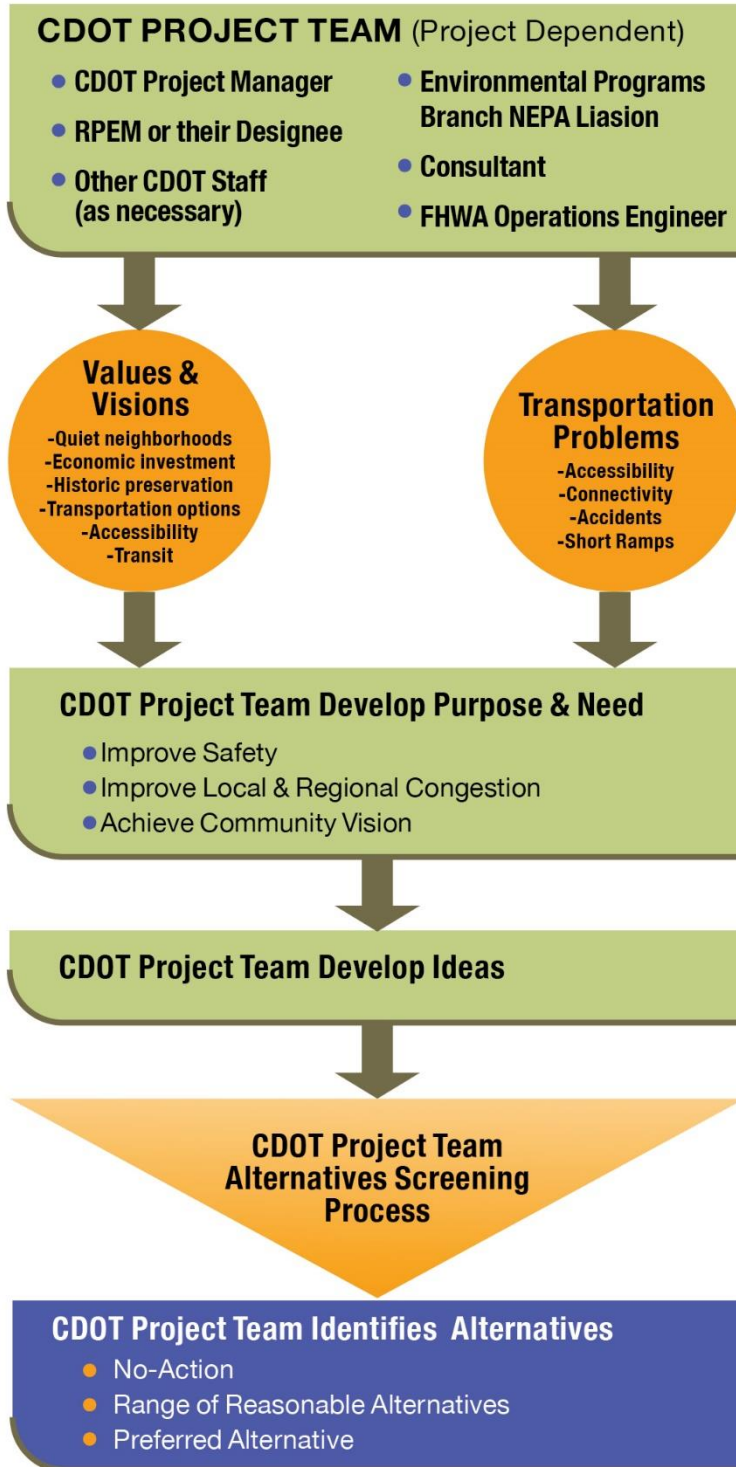
Alternatives analysis generally occurs in Chapter 2 of an EA. If the CDOT Template EA is being used, the alternatives analysis can be included in a technical report as an appendix to the EA. In general, the range of alternatives is often broader and the number of alternatives subject to analysis of impacts is greater in an EIS than in an EA. For an EA, there may be only one build alternative or one build alternative with options. An EA is not required to analyze all reasonable alternatives. A build alternative and No Action alternative are sufficient for an EA.

The alternatives analysis chapter in the EA discusses alternatives to the build alternative, including the No Action alternative. The process used to develop the alternatives is discussed, and a summary of public and agency input is included. 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, to the community, or to the economy. Alternatives analysis can be the single most costly aspect of developing the EA and will require close management by the CDOT project manager. **Figure 6-1** shows an example alternatives development process.

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



Figure 6-1 Example Alternatives Development Process







## *No Action Alternative*

The “No Action” alternative includes other programmed activities already in the fiscally constrained statewide plan and approved through the NEPA process or longer-term maintenance activities that would occur even if the No Action alternative is selected. The No Action alternative is included as an alternative in an EA.

The No Action alternative is fully assessed in the same manner 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 a build alternative and (2) do not take any action. The No Action alternative also includes actions already approved in the project area. It is important to indicate to readers which meaning of No Action the EA 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 and cannot be removed from analysis because it does not meet the purpose and need.

The EA should present a thorough description of the current transportation need and describe and project future operational/environmental conditions of a future in which a build alternative 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 Program (TIP) and Statewide Transportation Improvement Program (STIP). These other transportation projects have committed or identified funds for construction and will be completed regardless of whether or not any other improvements are made as part of the build alternative. Travel demand forecasting predicts traffic conditions that are expected to occur on the transportation system in the design year.



Either the term No Action alternative or No Build alternative may be used to explain the scenario of no action.



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





## 6.4.1 Alternatives Considered but Dismissed from Further Evaluation

Since an EA is required to have only one alternative in addition to the No Action alternative, other alternatives may have existed that are no longer considered. CDOT recommends keeping information on these previous alternatives but not necessarily within the EA. The level of detail to present in the EA for alternatives considered should be decided by the CDOT project team. However, one option is to have an Alternatives Analysis Technical Report to the EA that contains the information. If more than one action alternative is being evaluated in the EA, an EA Template may not be appropriate to use.

Each alternative analyzed in the EA should have equivalent detail provided, 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. The alternatives chapter of the EA should be devoted to describing and comparing the alternatives, with impact discussion limited to a concise summary in a comparative form. The environmental consequences chapter of the EA is the appropriate place for a discussion of detailed scientific analysis of the direct and indirect environmental impacts of the build alternative. However, redundancy between these sections should be avoided.

Just as important as analyzing alternatives is maintaining documentation explaining why alternatives have been considered but dismissed from further evaluation 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 the Clean Water Act Section 404, Section 4(f) of the Department of Transportation Act, and Section 106 of the National Historic Preservation Act as they pertain to avoidance and minimization. Documentation can be maintained in the project file or in the administrative record (**Section 6.15**).

Deciding which alternatives to consider but dismiss from further evaluation 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 set for final evaluation.

In preparing an EA, retaining documentation to support the rationale for generating, evaluating, and eliminating alternatives is critical. This documentation can be maintained in an Alternatives Analysis Technical Report. 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,” the text should provide an adequate explanation of why this is true in the project file or technical report. Alternatives suggested during the early coordination process by cooperating and participating agencies, or the



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.



public, that are eliminated without detailed study should be adequately documented in the project file or technical report, and discussed as to why the alternatives were eliminated.

## 6.4.2 Identifying a Proposed Action

The proposed action is generally the one that the lead agency, typically FHWA, believes would meet the 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 proposed action is typically the alternative that has incorporated these changes and achieves the best balance among needs, impacts, costs, etc. For an EA, if there are only two alternatives (build alternative and No Action alternative), the proposed action may be obvious.

When a proposed action is clear based on the analyses developed during the EA process, CDOT is required to disclose the proposed action. Where the proposed action is not clear, it is not essential that the proposed action be identified within the EA and may be disclosed within the FONSI. However, the EA should state that the proposed action has not been identified but will be in the FONSI decision document.

If a proposed action has been identified in the EA, it is acceptable to collect additional information relevant to that alternative to more fully develop it and better understand its impacts before the FONSI is released. If the proposed action is modified after the EA, the FONSI must clearly identify the changes and discuss the reasons why any new impacts are not of major concern.

The level of analysis presented must be neutral and objective in regard to all alternatives and cannot be slanted to support a proposed action over any other alternative.



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



## 6.5 Affected Environment and Environmental Consequences

Chapter 3 in an EA typically presents the affected environment, environmental consequences, mitigation, and cumulative impacts.

### 6.5.1 Affected Environment

The affected environment section sets the context for assisting with decision-making and assessing impacts.

The affected environment chapter should succinctly describe the environment of the area(s) to be affected or created by the alternatives under consideration. Table 2 of the EA Template presents the affected environment. The descriptions should be no longer than is necessary to understand the impacts of the alternative(s). 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 EA process and to concentrate efforts and attention on important issues. Refer to American Association of State Highway and Transportation Officials (AASHTO) *Improving the Quality of Environmental Documents* (AASHTO, ACEC, FHWA, 2006) for suggestions on preparing a concise, readable, and legally sufficient EA. **Appendix C** of this Manual provides a recommended style guide for EA preparation.

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. At this stage, the project team may also be able to identify potential environmental impacts resulting from the project.

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, a database search, combined with 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 or required interviews with a knowledgeable public or agencies. For all projects, this is also the 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 analysis requirements and other environmental issues.



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



CEQ § 1502.15 “Affected Environment “. . . shall succinctly describe the environment of the area(s) to be affected or created by the alternatives under consideration.



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. Early descriptions should be limited to readily available information because the affected environment and environmental consequences will be further refined during preparation of the EA. In all cases, the context and complexity of the project as it relates to the surrounding area should be taken into consideration. The environmental 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 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
- ▶ Demographic and land use data

The description of the project's affected environment should not only provide the existing conditions required for evaluating potential environmental consequences of transportation strategies, but 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.

**Chapter 9** 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. It can be used to support the affected environment chapter. 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 geographic information systems (GIS) information, relevant environmental or transportation reports, previous surveys, and consultation with resource experts including external agency personnel.

Verify that consultants hired to perform supplemental field studies have or can readily obtain the required approvals for right of entry in time to perform



the needed field work in the appropriate season(s). **Chapter 9** of this Manual provides 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.

Specific certifications may be required to legally conduct some of the supporting studies that require collection of field data. For example, field survey of historic 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 and paleontology 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 species handling may require a permit from Colorado Parks and Wildlife (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.

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 alternative(s); 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. Further detail on supplemental field studies is provided by resource in **Chapter 9**.

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.



## 6.5.2 Environmental Consequences

The analysis of environmental consequences forms the basis for comparing alternatives. This section of the EA addresses the impacts of the build alternative(s) and No Action on the quality of the human environment. It also describes the measures proposed to mitigate potential adverse impacts of the project. This information is presented in the EA Template in Table 3. NEPA defines the “human environment” broadly to include many aspects of the natural and built environments. The analysis presented in the EA 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 significant. The description and analysis of impacts must be supported by the information and data presented in each specific resource section 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 EA, and whether or not the impacts are significant and justify an EIS.

A summary of the results of technical studies and reports undertaken should be included, but not all information resulting from technical studies and reports needs to be incorporated. Where quantitative data support conclusions, they should be included. CDOT encourages the use of charts, tables, matrices, and other graphics as a means of comparing the impacts of the build alternative(s) and No Action alternative. 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.

When preparing the decision document (FONSI, if no significant impacts), the impacts and mitigation measures of the preferred alternative may need to be discussed in more detail to elaborate on information, provide more detail on commitments, or address issues raised during the public comment period. The decision document should also identify any new impacts (and their implication) that may have resulted from modification or identification of substantive new circumstances or information regarding the build alternative following the document’s circulation.



A short introductory paragraph should be placed at the beginning of the Existing Environment and Environmental Consequences chapter briefly outlining those resources that were investigated but that there were no impacts and announce that, therefore, no further analysis of these resources is required in this section.





## 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 patterns of land use, 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, and social. Impacts may be either beneficial or adverse. Beneficial impacts may occur when a build alternative 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.

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).

To help CDOT program managers completely understand how a resource will be impacted, context, intensity, duration, and timing must be considered. Context is defined as the setting of the build alternative and is established



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.





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 impacts are uncertain or involve unique or unknown risks
- ▶ Degree to which the action would set a precedent for future actions with significant impacts
- ▶ Contribution to cumulatively significant impacts
- ▶ Degree to which there may be adverse impacts to scientific, cultural, or historical resources
- ▶ Degree to which there may be adverse impacts on an endangered or 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 to 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.

In mandating cumulative impacts analysis, CEQ seeks to ensure that projects 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



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.



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**.

### 6.5.3 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 EA and decision document (FONSI, if no significant impacts) 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 implemented effectively. If monitoring identifies any deficiencies in mitigating the impact, adjustments to the level, timing, and/or procedure of mitigation must be made accordingly.

**Chapter 9** includes additional information on mitigation and monitoring commitments.

## 6.6 Section 4(f) Evaluation

**Chapter 9** of this Manual discusses in detail Section 4(f) guidance for publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites. Section 4(f) findings are typically Chapter 4 in an EA, if required. Section 4(f) findings are presented in Table 2 and Table 3 in the EA Template.



CDOT's Mitigation Tracking Spreadsheet can be located at:

[https://www.codot.gov/programs/environmental/resources/forms/CDOT%20Mitigation%20Tracking%20Spreadsheet\\_June%202012.xlsx/view](https://www.codot.gov/programs/environmental/resources/forms/CDOT%20Mitigation%20Tracking%20Spreadsheet_June%202012.xlsx/view)



## 6.7 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 5 in an EA (if a Section 4(f) chapter is present; otherwise Chapter 4).

### 6.7.1 Consultation and Coordination

Public involvement, consultation, and coordination efforts are summarized in the EA, typically in Chapter 4 or 5 (depending on whether or not a Section 4(f) analysis is present as Chapter 4). These efforts are presented in the EA Template in a question format. CDOT has specific policies regarding public involvement that are discussed in **Chapter 7**. In addition to the information in **Chapter 7**, 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 and other correspondence 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 EA document should contain copies of pertinent interagency correspondence in an appendix, consultation with USFWS, Section 106 coordination with the SHPO, and important communications with similar agencies.

## 6.8 References and Citations

The EA 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. These references must support information in tables and figures as well, which are often overlooked in documents. 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 no specific CEQ regulations for references and citations.



## 6.9 *Appendices and Technical Reports*

The EA should be a concise document and should not contain long descriptions or detailed information that may have been gathered or analyses that may have been conducted for the build alternative. NEPA guidance emphasizes that EA should be succinct statements of the information on environmental impacts to determine whether or not significant impacts will occur from the build alternative, and if an EIS should be prepared. The appendices should include only material that is directly relevant to the EA and that substantiates data important to the analysis, and supports the conclusions of whether or not an EIS is warranted.

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 EA must contain correspondence, or summaries of 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 information that may be helpful to readers. Appendices help to streamline the content of the document.

The EA is expected to contain the following appendices:

- ▶ Agency Coordination
- ▶ Public Involvement and Coordination

Lengthy technical discussions should be contained in separate technical reports. Technical reports are not treated as appendices to the EA. They are bound as separate documents and referenced. While separate technical reports are not circulated with the EA during public review, they are public documents and must be available for review. They must also be submitted, along with copies of the preliminary copy for CDOT headquarters (Environmental Programs Branch [EPB] and others) review and FHWA review and approval. Some EAs may have reports available on CD-ROM or via the internet. During the public comment period, the EA and the technical reports are placed in convenient locations for public review and copying (typically libraries or other easily accessible public buildings). **Chapter 7** provides detailed guidance for the agency and public involvement process.

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.



An appendix for an EA should:

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



## 6.10 Compliance with Applicable Laws

The EA should demonstrate compliance with requirements of all applicable environmental laws, executive orders, and other related requirements. 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.

## 6.11 Announcing the EA Availability

Agencies should 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). To announce the availability of the EA, publication can occur in local newspapers (in papers of general circulation rather than legal papers), local media, newsletters, direct mailings, posting of notices, press releases, and community organizations. **Chapter 7** includes CDOT's guidance for public involvement. The EA announcement should include the following:

- ▶ A brief description of the project
- ▶ A brief summary of environmental consequences
- ▶ Time period and dates of the public comment period (30 days)
- ▶ Locations where the document is available for public review (examples include libraries or municipal offices)
- ▶ Location, date, and time of public meetings, if held. The EA must be available for public review at least two weeks before a public meeting (Section 7.3.7)
- ▶ A point of contact at CDOT for further information

## 6.12 EA Public Review

When FHWA expects to issue a FONSI for an action described in FHWA and FTA, 23 CFR § 771.115(a), copies of the EA shall be made available for public review (including the affected units of government) for a minimum of 30 days before FHWA makes its final decision (40 CFR § 1501.4[e] [2].) This public availability shall be announced by a notice similar to a public hearing notice. If, at any point in the EA process, FHWA determines that the action is likely to have a significant impact on the environment, that EA process will stop and the preparation of an EIS will be required.

The following steps summarize the public coordination process for completion of an EA.

- ▶ Upon the announcement of availability, the public and agencies have 30 calendar days to submit comments. During this time, a public meeting or hearing is also recommended, but not required. Note that to call a public meeting a hearing, there must be a court reporter and the opportunity for members of the public to speak in front of the group.



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



There are no differences in the announcement of a traditional EA and the EA Template.



- ▶ After the 30-day public comment period concludes, the comments gathered are evaluated to determine where changes to the analysis would affect the decision. Responses to substantive comments must be prepared, and the comments and responses must be submitted to FHWA.

If comments are received during the public availability period that indicate that changes are necessary, then a clarification is made in the FONSI, or an addendum to the EA is prepared to:

- ▶ Reflect changes in the build alternative(s) or mitigation measures resulting from comments received on the EA or at the public hearing (if one is held) and any impacts of the changes
- ▶ Include any necessary findings, agreements, or determination (e.g., wetlands, Section 106, Section 4(f)) required for the proposal
- ▶ Include a copy of pertinent comments received on the EA and appropriate responses to the comments

Upon conclusion of the public comment period, the public comments are considered and a determination of the significance of the impacts is made. **Chapter 8** discusses specific details regarding the NEPA review process for an EA.

### 6.13 Finding of No Significant Impact

If FHWA agrees with the applicant’s (CDOT’s) recommendations pursuant to 23 CFR §771.119(g), FHWA will prepare a separate written FONSI incorporating by reference the EA and any other appropriate environmental documents. In the case of FHWA and CDOT acting as co-lead agencies for a project, CDOT prepares the FONSI for FHWA signature.

The CEQ Regulation 40 CFR §1508.13 states that a “finding of no significant impact is a document by a federal agency briefly presenting the reasons why an action, not otherwise excluded (40 CFR §1508.4), will not have a significant effect on the human environment and for which an environmental impact statement therefore will not be prepared. It shall include the environmental assessment or a summary of it and shall note any other environmental documents related to it (40 CFR §1501.7[a] [5]). If the assessment is included, the finding need not repeat any of the discussion in the assessment but may incorporate it by reference.”

The FONSI should contain the following information:

- ▶ Selection of the Preferred Alternative for construction
- ▶ Summary of all environmental impacts associated with the project, including a statement of findings on all relevant impact categories
- ▶ Summary of full mitigation of impacts.

CDOT sends an announcement of availability of the FONSI to the affected units of federal, state, and local government, and the FONSI is made available from CDOT and FHWA upon request by the public. Notice is also



The project described in the EA must be in a fiscally-constrained plan for FHWA to sign a FONSI.



CDOT has developed a FONSI Template that can be used with either a Standard EA or an EA Template. The FONSI Template is located here:

<https://www.codot.gov/programs/environmental/nepa-program/cdot-nepa-tools>





sent to the state intergovernmental review contacts established under Executive Order 12372.

If another federal agency has issued a FONSI on an action that includes an element proposed for FHWA funding, FHWA will review the other agency's FONSI. If FHWA determines that this element of the project and its environmental impacts have been adequately identified and assessed, and concurs with the decision to issue a FONSI, FHWA will issue its own FONSI incorporating the other agency's FONSI. If environmental issues have not been adequately identified and assessed, FHWA will require appropriate environmental studies (FHWA Regulation 23 CFR §771.121).

## 6.14 EA Reevaluations

Periodically, the preferred alternative in the EA is not constructed following release of the FONSI due to funding limitations or other constraints. The passage of time following the approval of the EA to the point of the build alternative being implemented is referred to in the *CDOT Environmental Stewardship Guide* as the “shelf-life” of the EA. The *CDOT Environmental Stewardship Guide* states that “after approval of the FONSI, CDOT shall consult with FHWA prior to requesting any major approvals or grants to establish whether or not the approved environmental document remains valid for the requested Administration action.”

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 EA 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, the previous phases would be referenced as a previous action 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 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 result in the determination by FHWA that the environmental document is 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).

Determining if the design year and traffic numbers need updating for the final segment or the entire project under a Reevaluation should be examined on a case-by-case basis 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



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





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 the project must adequately serve the existing and planned future traffic of the highway in a manner that is 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.

### 6.14.1 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 major federal 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 EA (23 CFR 771.129(a)) or FHWA's last major approval action for the FONSI (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



Guidance for completing the Form 1399 is available at:

[https://expresslanes.codot.gov/programs/environmental/nepa-program/form-1399-guidance\\_043014.pdf](https://expresslanes.codot.gov/programs/environmental/nepa-program/form-1399-guidance_043014.pdf)



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.

## 6.15 *Project Files and Administrative Record*

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

### 6.15.1 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 (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 that contain information that supports or opposes the challenged agency decision
- ▶ All draft documents that were 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; certain technical information, such as threatened/endangered species, historic, and archaeological



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.



resource survey reports, should be kept in the files but labeled “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 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

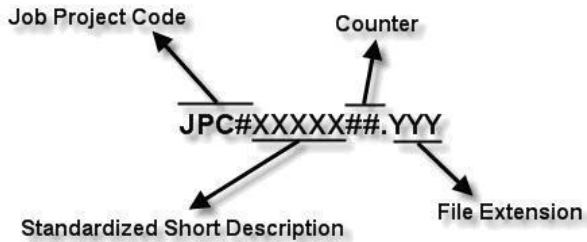
CDOT has a naming standard that uses a formula that restricts the character placement, ensures unique file names, and identifies the information contained in the file. All CDOT projects must follow these file naming conventions. The naming standard creates consistency among projects being completed by 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.



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



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**

**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 most 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, 2017). 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 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 hardcopy 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.



## 6.15.2 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 kind of records should be included in an administrative record? (This list is not all inclusive.)

- ▶ Documents vital to the "decision" such as the technical reports.
- ▶ 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 used by the agency 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.



CDOT has adopted the AASHTO Practitioner's Handbook *Maintaining a Project File and Preparing an Administrative Record for a NEPA Study* (July 2006) for further guidance on the administrative record documentation.

<http://environment.transportation.org/pdf/programs/PG01.pdf>



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 such as 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 before 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, hardcopy, 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 FONSI is signed. Some general guidance for organizing an administrative record includes ensuring all items have a date, author, and version number (preferably on each page if multi-page), that items are organized in a logical and accessible way (for example, chronological or by topic), and that an index is 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).

## 6.16 *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.

The following language is standard language that should be included in all EA 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 Finding of No Significant Impact 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.





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