



APPENDIX C
STYLE GUIDE FOR NEPA DOCUMENTS

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1.0 INTRODUCTION

This appendix discusses the recommended content, format, style, and presentation for preparation of National Environmental Policy Act (NEPA) documentation. Although this appendix focuses on Environmental Impact Statements (EISs) and Environmental Assessments (EAs), the information also applies to the supporting technical documents (including memoranda, meeting minutes, correspondence, technical reports, etc.), which are prepared in support of NEPA documents. This style guide does not address technical or regulatory issues.

This guidance is expected to help promote clarity, accuracy, and consistency and provide for uniformity in document development. The guidance is not intended to be prescriptive, but includes some useful tools to help project team members with document organization, content, and formatting at the onset of projects. The recommendations in this style guide come from a variety of different standard reference style guides. For information not contained in this style guide, one of these standard style guides should be referenced. **Section 7.0** provides a list of the standard reference style guides.

It is extremely important to maintain the following when preparing NEPA documents:

- ▶ Document quality
- ▶ Efficiency in technical and policy review
- ▶ Consistency in information development
- ▶ Expediency in CDOT and FHWA review and approval
- ▶ Clarity to all readers/reviewers

Council on Environmental Quality (CEQ) regulations specify a recommended format for NEPA EIS documents (CEQ, 40 Code of Federal Regulations [CFR] § 1502.10), which is consistent with the CDOT recommended format. The Colorado Department of Transportation (CDOT) recommends using a format for EISs that clearly presents alternatives to encourage good analysis and support efficient and effective decision-making. EAs also have a similar structure and format; however, the level of detail will vary commensurate with the scale of the proposed project and the related impact and following project scoping.

For additional discussion of the major components of NEPA documents, refer to **Chapters 4** and **6** of this NEPA Manual, CEQ's regulations for implementing NEPA (CEQ, 40 CFR § 1502.10 through 1502.18), and Federal Highway Administration (FHWA) Technical Advisory T 6640.8A



Quality NEPA documents effectively tell the project story through clear, concise writing; effective organization and formatting; and effective use of visual elements.

-AASHTO/ACEC/FHWA
*Improving the Quality of
Environmental Documents*



Guidance for Preparing and Processing Environmental and Section 4(f) Documents (FHWA, 1987). Suggested guidance to improve the readability and functionality of NEPA documents for transportation projects also is included in the American Association of State Highway and Transportation Officials report, *Improving the Quality of Environmental Documents* (AASHTO and others, 2006).

2.0 STANDARD DOCUMENT CONTENT AND FORMAT

CDOT has a recommended standard document outline to ensure consistency in NEPA documents across CDOT Regions. The recommended CDOT outline for an EIS or EA document includes the following content, which is discussed in more detail in this appendix:

- ▶ Cover
- ▶ Cover Sheet/Signature Page
- ▶ Executive Summary (not required for an EA, but recommended)
- ▶ Table of Contents, List of Figures, List of Tables, and List of Abbreviated Terms
- ▶ Purpose of and Need for the Project
- ▶ Alternatives Analysis
- ▶ Affected Environment
- ▶ Environmental Consequences and Mitigation
- ▶ Section 4(f) Evaluation (if required)
- ▶ Agency Coordination and Public Involvement
- ▶ List of Preparers (not required for an EA)
- ▶ Distribution List of Agencies, Organizations, and Persons to Whom Copies of the NEPA document are sent (not required for an EA, but recommended)
- ▶ References and Citations
- ▶ Index (not required for an EA)
- ▶ Appendices



2.1 Front Cover

The front cover should include the following components:

- ▶ Project name and designation of administrative action (i.e., Draft or Final, Programmatic or Supplemental, EA or EIS, Finding of No Significant Impact [FONSI] or Record of Decision [ROD]).
- ▶ Responsible agencies, including the lead agency, co-lead agency, and any cooperating agencies.
- ▶ Document date

At the Region's discretion, a document cover may be superimposed over an illustration of a project; however, consultant logos and information are not to be used on the front cover of any environmental documents. Consultant logos may be shown on the title page of a NEPA document and any supporting documentation for a NEPA document (e.g., Noise Impact Assessment, Air Quality Report, Preliminary Engineering Report). All consultant contributions to an EIS should be documented in the list of preparers.

2.2 Cover Sheet/Signature Page

The cover sheet/signature page is a mandatory component of a NEPA document (CEQ, 40 CFR § 1502.11). It should not exceed one double-sided page and must include the following components:

- ▶ Designation of administrative action (i.e., Draft or Final, Programmatic or Supplemental, EA or EIS, Finding of No Significant Impact [FONSI] or Record of Decision [ROD]).
- ▶ Title and location of the project; identify route number, local name, project limits, and county in which the project is located.
- ▶ Responsible agencies, including the lead agency, co-lead agency, and any cooperating agencies.
- ▶ Cite the federal authority for which the document is being prepared (i.e., Submitted Pursuant to 42 USC 4332 (2)(c)).
- ▶ Provide date and signature block for the FHWA Division Administrator, CDOT Region Transportation Director, and CDOT Chief Engineer.
- ▶ Brief project abstract limited to one paragraph. The abstract should include a short project description and the purpose and need for the project. For FONSI or ROD, the brief abstract should include reasons why the action would not have a significant effect on the



human environment (FONSI) or the significant effects from the project (ROD).

- ▶ The date by which comments must be received.
- ▶ A disclaimer stating the 150-day statute of limitations on legal actions following publication of a Federal Register notice that the final environmental approval or permit has been issued for a project.

The CDOT and FHWA Colorado Division signature process for NEPA documents is a formal, established process to assure that appropriate parties have reviewed the documents in the appropriate order. For additional information, a NEPA Document Signature Page Format Checklist is included in Chapter 8, NEPA Document Review Procedures. **Figure 2-1** includes an example Cover Sheet/Signature Page Layout. Information within the brackets within **Figure 2-1** is intended to be customized for each project.



Figure 2-1 Sample Cover Sheet/Signature Page Layout

[INSERT Federal Identification Number]

[INSERT CDOT Project #]
 [INSERT Project Name]
 [INSERT Type of Document –DEIS, FEIS, EA]
 Draft Section 4(f) Evaluation (if required)

Submitted Pursuant to
 42 USC 4332 (2)(c), 49 USC 303, & 16 USC 460 (if Section 6(f) Evaluation required)

By the
 US DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 FEDERAL TRANSIT ADMINISTRATION (if applicable)

and
 COLORADO DEPARTMENT OF TRANSPORTATION
 [INSERT Cooperating Agencies, if applicable]

Submitted by:

 [INSERT Name]
 Region [INSERT Region Number] Transportation Director
 Colorado Department of Transportation

 Date

Concurred by:

 [INSERT Name]
 Chief Engineer
 Colorado Department of Transportation

 Date

Approved by:

 [INSERT Name]
 Division Administrator, Colorado Division
 Federal Highway Administration

 Date





[INSERT Statute of Limitations Disclaimer in NEPA document]

A Federal agency may publish a notice in the Federal Register, pursuant to 23 United States Code (USC) § 139(l), indicating that one or more Federal agencies have taken final actions on permits, licenses, or approvals for a transportation project. If such notice is published, claims seeking judicial review of those Federal agency actions will be barred unless such claims are filed within 150 days after the date of the notice, or within such shorter time period as is specified in the Federal laws pursuant to which judicial review of the Federal agency action 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.

2.3 *Executive Summary*

The executive summary is a mandatory component of an EIS (CEQ, 40 CFR § 1502.12), and is recommended for an EA. The summary is the reader's introduction to the NEPA document and should include sufficient information to allow the reader to gain a complete understanding of the issues addressed in the body of the NEPA document. It should list all reasonable alternatives considered, major environmental resource impacts, and proposed mitigation measures in a comparative form. The summary should use a matrix or table(s) to present information concisely. Detail in an executive summary should be succinct, but of sufficient detail to serve as a stand-alone document that can be used for decision-making regarding the recommended Preferred Alternative. It is useful to include a project map in the summary.

Additional information concerning the elements of the Executive Summary is included in **Chapter 4** (Environmental Impact Statement [Class I]) and **Chapter 6** (Environmental Assessment [Class III]).



2.4 Table of Contents

The table of contents for NEPA documents must include the major document components, as discussed in this section, as well as a list of tables and figures and appendices. It should be of sufficient detail to provide a “road map” to reading the document and allow the reader to easily navigate the document. The executive summary should be included in the Table of Contents. It is recommended that Table of Contents includes first, second, and third-level headings only. A list of supporting technical documents is also recommended for inclusion in the Table of Contents. **Figure 2-2** provides a sample Table of Contents for an EIS and **Figure 2-3** provides a sample Table of Contents for a NEPA decision document.



Figure 2-2 Sample Table of Contents for an EIS

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 1.2 Project Location..... 1-1

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CHAPTER 2 ALTERNATIVES ANALYSIS 2-1

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APPENDIX A		PUBLIC INVOLVEMENT	
APPENDIX B		AGENCY COORDINATION	

SUPPORTING TECHNICAL REPORTS

CONTAINED ON THE CD AT THE BACK OF THIS DOCUMENT

- Traffic Noise and Vibration Impact Analysis
- Water Quality Technical Report
- Air Quality Technical Report
- Wetlands Technical Report
- Historic Resources Survey Report





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Note: Organizing the List of Figures or List of Tables by chapter may be useful for larger NEPA documents.



Figure 2-3 Sample Table of Contents for a Decision Document

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SIGNATURE PAGE

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APPENDIX D — AGENCY COORDINATION AND COMMENTS

APPENDIX E — [INSERT PROJECT NAME] ENVIRONMENTAL ASSESSMENT AND APPENDICES
(SEE ATTACHED CD)





2.5 Purpose and Need for the Project

A statement of the underlying purpose and need for action is a mandatory component of a NEPA document (CEQ, 40 CFR § 1502.13). It is essentially the foundation of the NEPA document and decision-making process. The purpose and need statement establishes why the agency is proposing a specific transportation project. A concise, well-justified purpose and need section explains to the public and decision-makers why the proposed expenditure of funds is necessary and worthwhile, and why the priority of the project is warranted relative to other needed transportation projects. The purpose and need statement establishes the basis for selecting reasonable alternatives and the ultimate selection of a Preferred Alternative.

Additional information concerning the elements of the purpose and need statement is included in Chapter 4 (Environmental Impact Statement [Class I]) and Chapter 6 (Environmental Assessment [Class III]).



CDOT's Purpose and Need Guidance

FHWA Technical Advisory T 6640.8A. and FHWA Memorandum, The Importance of Purpose and Need. (September 18, 1990)



COLORADO
Department of
Transportation



2.6 Alternatives Analysis

A NEPA document helps to make informed decisions from among reasonable alternatives. In order to define the scope of the NEPA document, it is important to accurately present the range of reasonable alternatives. Additional information concerning the elements of the alternatives analysis is included in Chapter 4 (Environmental Impact Statement [Class I]) and Chapter 6, (Environmental Assessment [Class III]).

2.7 Affected Environment

Present your discussion of the affected environment on a resource-by-resource basis, in the same order that resources are evaluated in the environmental consequences section, if a separate chapter. The Affected Environment section is required to indicate the presence or absence of resources that must be covered by law and regulation. If resources are absent from the project area, it is helpful to identify these resources in the beginning of the chapter. Also, similar resources should be grouped together (e.g., water resources, wetlands, and floodplains). However, these resource areas are not all-inclusive. Additional topics or issues may be needed to establish a thorough understanding of the affected area. NEPA documents must concentrate on the issues that are “truly significant to the action in question, rather than amassing needless detail” (40CFR 1500.1[b]). Additional information concerning the elements of the Affected Environment section is included in **Chapter 4** (Environmental Impact Statement [Class I]) and **Chapter 6** (Environmental Assessment [Class III]).



2.8 *Environmental Consequences and Mitigation*

Information concerning the elements of the Environmental Consequences section, including mitigation and monitoring commitments is included in **Chapter 4** (Environmental Impact Statement [Class I]) and **Chapter 6** (Environmental Assessment [Class III]).

2.9 *List of Preparers*

The list of preparers includes the credentials of personnel who contributed to the project. Gather the following information so that the list of preparers can be compiled: full name, job title(s) and license(s), discipline area, educational degree(s), years of experience, and contribution (role on the project). Two examples are provided below in **Figure 2-4**.



Figure 2-4 Sample List of Preparers

Example 1

Federal Highway Administration	
Jane Doe, PE Program Delivery Engineer BS, Civil Engineering 25 years of experience	
Colorado Department of Transportation	
Jeff Doe, PE CDOT Region 1 Resident Engineer MS, Civil Engineering BS, Civil Engineering 13 years of experience	Jane Doe, PE CDOT Region 1 Project Engineer MS, Civil Engineering BS, Civil Engineering 15 years of experience
Consultant Name	
Sarah Doe Water Resources MS, Environmental Policy BA, Environmental Science 5 years of experience	

Example 2

Project Team Member	Background (Education, License)	Experience
Federal Highway Administration		
Jane Doe Program Delivery Engineer	BS, Civil Engineering PE (Colorado)	25 years of experience in transportation engineering
Colorado Department of Transportation		
Jeff Doe CDOT Region 1 Resident Engineer	MS, Civil Engineering BS, Civil Engineering PE (Colorado)	15 years of experience in transportation engineering
Consultant Company Name		
Sarah Doe Environmental Specialist Water Resources	MS, Environmental Policy BA, Environmental Science	5 years of experience NEPA analysis



2.10 Distribution List

The distribution list includes all agencies and persons to whom copies of the EIS (not required for an EA, but recommended) are sent. Additional information concerning the elements of the distribution list is included in Chapter 4 (Environmental Impact Statement [Class I]). Avoid using acronyms abbreviations and acronyms in the distribution list. Figure 2-5 provides a sample distribution list.

Figure 2-5 Sample Distribution List

Distribution List	
Federal Agencies Jane Doe, Title Federal Highway Administration 12300 W. Dakota Ave., #180 Lakewood, CO 80228	Regional Agencies Jane Doe, Title North Front Range Metropolitan Planning Organization 235 Matthews Street Ft. Collins, CO 80524
State Agencies Jane Doe, Title Colorado Division of Wildlife 4207 W Country Road 16E Loveland, CO. 80537	Local Agencies Jane Doe, Title City of Loveland Parks and Recreation Department 500 East Third Loveland, CO 80537
Libraries and other Document Viewing Locations Greeley Lincoln Park Library 919 7th St., #100 Greeley, CO 80631	

2.11 References and Citations

Be sure to acknowledge all referenced material (e.g., ideas, data, photographs, illustrations, publications of other works in the subject area) using in-text citations and a list of references. It is important to cite documents (e.g., book, technical research reports, and maps), personal communications (e.g., phone conversations, emails, meetings), and unpublished data appropriately. See below for selected examples. Reference your standard style guide of choice for more specific information. Section 7.0 provides a list of the standard reference style guides.





2.11.1 In Text Example

Citations in the text for documents should be written (Last Name of First Author/Organization, Date of Source Material/Year of Publication) as shown below:

- ▶ The Colorado Department of Public Health and Environment has classified the South Platte River as a Recreation II water body (CDPHE, 2001).
- ▶ Large game species are not present in the project area (J. Smith, personal communication, Colorado Division of Wildlife, June 1, 2008). Note: Personal communications are not typically included in reference lists because they are not recoverable.

2.11.2 Reference List Examples

The reference list should be compiled generally using the following reference guidelines.

Report

Federal Highway Administration (FHWA). 1990. Pollutant Loadings and Impacts from Highway Stormwater Runoff. Volumes I, II, and III. FHWA-RD-88-006; FHWA-RD-88-007; and FHWA-RD-88-008. April.

Regulation

Colorado Department of Public Health and Environment (CDPHE). 2006. Regulation 42: Site Specific Water Quality Classification and Standards for Groundwater. Water Quality Control Commission.

Book

Forman, R. T. 1995. Landscape mosaics: The ecology of landscapes and regions. Cambridge, UK: Cambridge University Press.

Book Chapter

Dennis, S. 2001. Theoretical and legal foundations of public involvement. In S. Dennis (Ed.), *Natural resources and the informed citizen* (pp. 147-153). Champagne, Illinois: Sagamore Publishing.

Technical Journal Article

Rhodes, Rocky. 2009. "Evaluation of Asphalt Types Used for Noise Suppression in the Desert Southwest U.S." in **Journal of Asphalt**, April 15.



Electronic Sources

Electronic sources refers to any material transmitted through a computer (databases, the world wide web and internet sites, online journals and magazines, newsgroups, discussion grouped, online forums, e-mail messages, etc.).The following should be recorded for all referenced electronic material: the complete URL (web address) for that page, author and title of the material, date of the material itself, and date you accessed this material. It is recommended that the material referenced is printed out for the administrative record. If the document is lengthy, print out the first few pages and any other pertinent information only. Also save an electronic copy of the document to the project file.

Electronic source references should be written as such:

United States Environmental Protection Agency (EPA). 2008. Urban BMP Performance Tool. Retrieved January 27, 2008, from <http://cfpub.epa.gov/npdes/stormwater/urbanbmp/bmpeffectiveness.cfm>.

Figure 2-6 provides a sample List of References.

Figure 2-6 Sample List of References

List of References

- American Association of State Highway Transportation Officials (AASHTO). 2004. A Policy on Geometric Design of Highways and Streets.
- Consultant Company Name. 2008. Package Concept Plans. Prepared for the Highway XX Project EIS.
- Consultant Company Name. 2008. Technical Memorandum: Land Use Conditions and Impacts. Prepared for the Highway XX Project EIS.



2.11.3 Appendices

Appendices contain detailed information that is not essential to a basic understanding of the document and the results obtained but may be helpful to certain readers (e.g., technical agency reviewers). Appendices help to streamline the content of the main document. However, like the main document, appendices should not contain unnecessary information; be very discriminating about what information you include. The NEPA document is expected to contain the following appendices:

- ▶ Agency Coordination (e.g., agency correspondence, meeting minutes)
- ▶ Public Involvement and Coordination (e.g., copies of public hearing notifications)

Other appendices may be added, as appropriate. All appendices must be called out in the body of the main 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. **Figure 2-7** includes an example Appendices Cover Page.



Figure 2-7 Sample Appendix Cover Sheets

Appendix A Public Involvement

This appendix contains the following project documents listed in the order they are presented.

- ▶ CDOT Press Releases
- ▶ Project Newsletters
- ▶ Invitations to Public Hearings
- ▶ Public Meeting Summaries

Appendix B Agency Coordination

This appendix includes correspondence to and from agencies and minutes from meetings with agencies.

Date	Letter Recipient/ Meeting Attendees	Letter Submitter/ Meeting Initiator	Subject
January 1, 2009	Multiple Resource Agencies (CPW, USFWS)	[INSERT Name], CDOT	Invitation letters to resource agency scoping meeting
January 24, 2009	US Army Corps of Engineers (USACE), FHWA, EPA, CDOT	[INSERT Name], CDOT	Scoping meeting
January 24, 2009	CDOT	US Fish and Wildlife Service (USFWS)	Review comments on the Notice of Intent
March 2, 2009	USDA Natural Resources Conservation Service (NRCS)	[INSERT Name], CDOT	Letter to NCRS Platte Valley District requesting soil lists for Prime or Unique Farmland, and/or Farmlands of Statewide or Local Importance
May 1, 2009	State Historic Preservation Officer (SHPO)	[INSERT Name], CDOT	Review of Area of Potential Effect (APE



2.12 General Format and Style Guidelines

The following guidelines provide direction on the scale of the NEPA document, formatting, and how to present any supporting documentation. Use these guidelines at the start of every project to customize a project-specific writing style guide. It is also helpful to create a project-specific template for your technical authors to use that contains information on your selected style for fonts, tables, headings, graphic formatting, references, bulleted lists, etc. Additionally, provide your technical authors with a list of project terminology for document consistency. **Figure 2-8** includes an example of some terms that might be useful to include in a list of project terminology.

Figure 2-8 Example List of Common Terminology

Avenue, not Ave.
bridge (don't uppercase with name of bridge, i.e., Broadway bridge)
Boulevard, not Blvd.
CDOT, not the CDOT
CDPHE, not the CDPHE
CO 99 not CO99 or CO-99 (county route numbers)
Drive, not Dr.
EPA, not the EPA
1 st , not 1st
park-n-Ride (within RTD district), not park n Ride or Park-n-Ride
park-and-ride (outside RTD district)
railroad (capitalize proper name of railroad, but not word "railroad," e.g., "Burlington Northern Santa Fe railroad, not Burlington Northern Santa Fe Railroad, since the correct proper name is Burlington Northern Santa Fe Railway)
SH 99, not SH-99 or SH99
Street, not St.
U.S., not US
USACE, not the USACE not COE





2.12.1 Length

The adequacy of a NEPA document 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. In an effort to help eliminate lengthy NEPA documents, it is useful to incorporate supporting information in appendices and technical reports and reference them throughout the NEPA document.

When supporting technical documents are referenced, ensure that specific section numbers and section titles are provided to assist the reader in locating the reference accurately within the document. Cross-referencing also helps keep NEPA documents short and concise.

2.12.2 Page Layout

- ▶ **ORIENTATION** — Present text in the portrait page setup printing format. Landscape format may be used to present large graphics or tables, as necessary, but should be used sparingly.
- ▶ **COLUMN FORMAT** — Use the one-column format for documents instead of the two-column format. Two-column documents can be difficult to navigate and read in electronic format.
- ▶ **SPACING** — Single space documents. CDOT requires that the document be printed using both sides of the paper, when possible. Place a single space after punctuation marks at the end of a sentence.
- ▶ **PAGE NUMBERING** — Number all pages in the document. The number should appear in a document footer at the bottom of each page. Page numbers should correspond to the appropriate chapter/appendix number of the document (e.g., 1-1, 2-1, A-1). To help reduce document size, avoid adding unnecessary blank pages to the document that read “This page is intentionally left blank.”
- ▶ **MARGINS** — Set margins at 1.00 inch top and bottom, and 1.25 inch left and right.
- ▶ **JUSTIFICATION** — Left justify body text.
- ▶ **HEADERS** — Include the document type (Draft or Final EA or EIS, ROD, FONSI) and project name in the document header.
- ▶ **FOOTERS** — Include the chapter name and page number in the document footer.



Keep the document short and straightforward. Try to limit the average sentence length to 20 words or less.



Engage your reader with easy-to-read layouts.



2.12.3 Font and Styles

Body Text

Body text is used in the body of the document. The print type should be of adequate size and style to be easily read, such as 11-point or 12-point font in the Arial family or the Times family type fonts.

- ▶ This is an example 11-point Arial font.
- ▶ This is an example 12-point Times New Roman font.

Heading Text

Headings are a helpful cross-referencing tool for the document reader. The level-one heading is generally the largest font size, with subheadings decreasing in font size. Using different colors may help make headings easier to find in the document. **Figure 2-9** includes example headings.

Figure 2-9 Sample Headings

1.0 MAJOR HEADING

An example major heading style is shown above. This is a 16-point Arial Font, bold, title case, and left justified.

1.1 Heading 2

An example heading 2 style is shown above. This is a 14-point Arial Font, bold, and left justified.

1.1.1 Heading 3

An example heading 3 style is shown above. This is a 13-point Arial Font, bold, and left justified.

1.1.1.1 Heading 4

An example heading 4 style is shown above. This is a 12-point Arial Font, bold, and left justified.

2.12.4 Graphics

Integrate visual graphics into NEPA documents, including figures, tables, cross-sections, side-bars (also referred to as call-outs), and other graphics, to reduce the amount of narrative required and make documents more reader-friendly. Graphics help to convey to the reader, in understandable terms, the composition of the project and the extent of its impact on the human environment.

Graphics should be technically accurate and of high quality. Avoid complex, busy figures, overly complex charts, and matrices when possible. When tables are overly complex, consider using a bar chart as an alternate way of



Use call-outs to highlight key concepts, but do not repeat wording already present in the text.





demonstrating the information. Produce graphics that clearly depict information regardless of whether the document is printed in black and white or color. **Table 2-1** provides an example table format. In general, include data in a table when presenting more than three pieces of data.

Other helpful suggestions related to graphics include:

- ▶ Graphics should have succinct but definitive titles.
- ▶ Number graphics sequentially within each chapter. List the chapter number first, followed by a hyphen, and then the graphic number (e.g., Table 1-2, Figure 2-3).
- ▶ Reference all graphics within the text of the NEPA document. Place the graphic on the page immediately after it has first been referenced, or integrate the graphic within the text on the same page as the reference.
- ▶ If the graphic requires a full-page, try to keep it on one 8.5 x 11-inch portrait page.
- ▶ Graphics should include a source citation.
- ▶ Certain graphics, such as maps, should include a scale and legend, if appropriate.
- ▶ When maps are used, the orientation should be north/south, with the north end at the top of the page.
- ▶ Ensure that streets, neighborhoods, streams, etc. that are mentioned in the text are clearly labeled on the map.

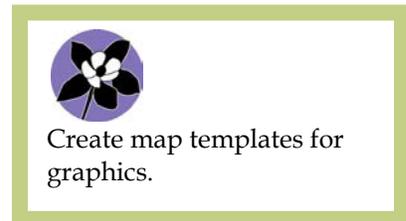


Table 2-1 Existing Land Use within Project Study Area

Major Land Use	Acres	Percent
Developed Land	2,748	51%
Agricultural Land	825	15%
Upland Habitat	1,630	30%
Water Features	55	1%
Wetland Habitat	32	<1%
Mines/Quarries	88	2%
Total	5,378	100%

Sources: City of Lakewood, 2008; Project Field Data, 2008





2.12.5 Document Production

Print documents on recycled paper and, when possible, make electronic copies should be made available on re-writable CDs. CDOT requires double-sided copies in order to save paper and reduce both document distribution and reproduction costs and use of materials. Single-sided documents must be the exception and not the rule. To help reduce document size, avoid adding unnecessary blank pages to the document that read "This page is intentionally left blank."

2.13 Responses to Public and Agency Comments

Figure 2-10 and Figure 2-11 are examples of how to incorporate responses to public and agency comments into NEPA documents. Information within the brackets within Figures 2-10 and 2-11 is intended to be customized for each project

Specifically, Figure 2-10 provides an example of how to incorporate responses into a NEPA document when numerous, long public and agency comments are received. Figure 2-11 provides an example of how to incorporate responses into a NEPA document where only a few, short public and agency comments are received. In this case, it is acceptable to incorporate the response within the text.

This format (side-by-side comment and response with the comment and its response on the same page) is suggested as the easiest for a person to read and can be used for all responses to comments regardless of number or length. This may entail breaking the comment into sections. Also, numbering the comment and the response helps the reader identify those that go together. If a comment response is repeated, it is acceptable to refer back to the first instance of the comment response (see Figure 2-10). This table can also be used for individual public comments. If the original comment is handwritten and it is typed into the table and broken up, be sure to include all of the original comments in an appendix.



Figure 2-10 Sample Comment Response Formats

Sample 1

Comment	Response to Comment
STATE AND FEDERAL AGENCIES	
[INSERT AGENCY NAME, INSERT CONTACT NAME] Comment #1 Comment # 1-1: [INSERT Comment] Comment # 1-2: [INSERT Comment]	Response to Comment #1-1: [INSERT Response] Response to Comment #1-2: [INSERT Response]
[INSERT AGENCY NAME, INSERT CONTACT NAME] Comment #2 Comment # 2-1: [INSERT Comment] Comment # 2-2: [INSERT Comment]	Response to Comment #2-1: [INSERT Response] Response to Comment #2-2: See response to Comment #1-1.
PUBLIC	
[INSERT CONTACT NAME, INSERT AFFILIATION (if any or private citizen)] Comment #1 Comment #1-1: [INSERT Comment] Comment #1-2: [INSERT Comment]	Response to Comment #1-1: [INSERT Response] Response to Comment #1-2: [INSERT Response]

Sample 2

Comment #	Subject	Comment	Response to Comment	Comment From
1	Water Quality	[INSERT Comment]	[INSERT Response]	[INSERT Commenter Name(s)]
2	Wetlands	[INSERT Comment]	[INSERT Response]	[INSERT Commenter Name(s)]



Figure 2-11 Sample Comment Response Format #2

4.1 Public Comments and Responses

4.1.1 Written Comments

Copies of the written comments are included in Appendix (INSERT Appendix Letter). Each written comment and a corresponding response are listed below.

1. COMMENT FROM [INSERT NAME]

[INSERT Method of Delivery – i.e., email to project manager], [INSERT Date]:

[INSERT Comment]

RESPONSE:

[INSERT Response]

4.1.2 Public Hearing Comments

[INSERT number] people commented at the Public Hearing and those comments are included in Appendix [INSERT Appendix Letter] Public Hearing Transcript. Each comment and corresponding response are listed below.

1. COMMENT FROM [INSERT NAME]:

[INSERT Comment]

RESPONSE:

[INSERT Response]

4.2 Agency Comment and Responses

Written comments were received from [INSERT Agency Names] during the comment period and have been included in Appendix [INSERT Appendix Letter], Agency Coordination and Comments. Letters from the [INSERT Agency Names] have been summarized and responses to comments are provided below. Changes to the EA text have been recorded in Section [INSERT Section Number], Clarifications to the Environmental Assessment.

4.2.1 [INSERT AGENCY NAME]

SUMMARIZE LETTER IF LENGTHY

Response:

[INSERT Response]





3.0 USAGE

This section provides guidelines on how to use numbers, abbreviated terms and acronyms, capitalization, compound words, and bulleted lists.

3.1 Numbers

The following are the basic rules for using numbers in technical material.

Written in words:

- ▶ Spell out numbers 1 through 9 and numbers less than 100 preceding a unit modifier containing a figure.

Example: One, two, three, and four; twelve 4-foot boulders

- ▶ Spell out numbers at the beginning of a sentence. If the number requires more than two words, reword the sentence.

Example: Five streams are located in the project area.

- ▶ Use ordinals

Example: Use first, second, and third, rather than 1st, 2nd, and 3rd
Note: Superscripts should not be used in formal names (e.g., 20th century).

- ▶ Percent

Example: Approximately 12 percent of the project area is within the South Platte River watershed.



Written as numbers:

- ▶ Numbers 10 and above

Example: The project area encompasses 11 communities.

- ▶ Where numbers both above and below 10 are used in a sentence, use numerals.

Example: The wetlands along the project from east to west are 4, 7, 18, and 23 acres in size, respectively.

- ▶ Numbers less than one should be written as numbers.

Example: The project is 0.4 mile long.

- ▶ Avoid making numbers less than one plural in a sentence. (**Incorrect:** The project is 0.4 miles long. **Correct:** The project is 0.4 mile long.)

- ▶ Fractions

Example: Write the number 2½ or convert it to a decimal (i.e., 2.5), but be consistent with the method you select. Exception: Spell out fractions without a whole number (e.g., one third of the project area)

- ▶ Quantities and Measurements (Time, decimals, ratios, percentages, measurements, page numbers, money, proportion, ages)

Example 1: Approximately 12 percent of the project area is within the South Platte River watershed.

Example 2: The development is 3 years old.

- ▶ Decimals expressed in figures. Remember to use a zero before the decimal in numbers less than zero. Zero should be omitted after a decimal point unless they indicate exact measurements. Keep significant figures consistent in tables of data. Generally, rounded numbers should not exceed the hundredth place.

Example: 0.46

- ▶ Approximate numbers in the millions or higher should be expressed as follows: 2.4 million, 3 billion, etc.

- ▶ Use numerals when a number scale is used.

Example: On a scale of 1 to 10.



Use four digits when referring to a year





3.1.1 Dates

- ▶ Express complete dates in month-day-year sequence. Separate the date by the appropriate punctuation from the remainder of the sentence.

Example: The hazardous materials site visit was completed on July 1, 2008, by the staff.

- ▶ Do not include an apostrophe when referring to a decade or century.

Example: 1970s, rather than 1970's.

- ▶ Use four digits when referring to a year.

Example: 1995, rather than '95.

3.1.2 Money

- ▶ Use figures to express exact or approximate amounts of money, and generally round up to the whole dollar amount.

Example: The cost to construct the underpass is approximately \$500,000.

- ▶ Do not include decimal points or zeros for whole dollar amounts.

Example: \$125 rather than \$125.00.

- ▶ Express related numbers in the same way.

Example: \$350,000 to \$500,000, rather than \$350,000 to \$0.5 million.

3.1.3 Measurements

CDOT has decided that all NEPA documents will use the English System of measurement (U.S. customary, e.g., inch/pound).

3.2 Abbreviated Terms and Acronyms

Appendix A of this NEPA Manual contains a list of abbreviations and acronyms typically used in NEPA documentation. On first reference, terms that are used more than twice should be spelled out, followed by the abbreviation or acronym in parentheses. Spelling out the term on first reference must be done on first reference, in each chapter, and in each appendix in which the term appears. Not everyone will read the entire document. In figures and tables, define abbreviated terms and acronyms in a general footnote to the table. Spell out measurements (e.g., feet, pounds) unless included in a table. When possible, avoid an over reliance on abbreviations and acronyms; remember that your reader is the public. Terms used only once or twice should not be abbreviated.



Be sure to list the abbreviated term or acronym with its spelled-out version in a List of Abbreviated Terms and Acronyms.



3.3 Capitalization

Capitals are used for two basic purposes: to mark a beginning (as of a sentence) and to indicate a proper noun, pronoun, or adjective.

Capitalize the initial letter of:

- ▶ The first word of every sentence
- ▶ The first word of a direct quotation, if it was capitalized in the original source

Example: According to the report, “Displacement of businesses, agricultural operations, and houses would be mitigated through relocation.”

- ▶ The first word after each bullet in bullet text

Example:

- Erosion
- Sedimentation
- Reduced habitat quality

- ▶ Each word in a title or heading, with the exception of conjunctions, prepositions, and articles

Example: Archaeological Resources Survey, Biological Assessment, and Abbreviated Terms and Acronyms

- ▶ Professional titles preceding a name and not separated by a comma

Example: Vice President Carol Jones, *but* Carol Jones, vice president

- ▶ Proper nouns, pronouns, and adjectives

Example: Names, geographical references, government agencies, organizations, historical periods, historical events, months, days of the week, holidays

- ▶ Derivatives of proper names

Example: Swainson’s hawk, Aleutian Canada geese

- ▶ Descriptive terms, if they refer to a definite geographical region or designate the inhabitants of some geographical region

Example: a Southern accent, West Grant Avenue, *but* west of the Rockies, West Coast (of the United States), Lower 48 (States)



On first reference, the proper name and scientific name identifying genus should be used (e.g., Ute Ladies’ -Tresses orchid [*Spiranthes diluvialis*]).

For bird species every word in the common name of the bird should be capitalized for example: Yellow-headed Blackbird.

Following the first use, the proper name should be used. This should be done in the Executive Summary, each chapter, and each appendix in which the term appears.



- ▶ Names of religions, denominations, and religious orders

Example: Judaism, Chapel Hill Adventist Church, *but* the local Baptist church

- ▶ Scientific names identifying genus, *but* not species

Example: *Pieris rapae*, *Ranunculus acris*

Do **not** capitalize:

- ▶ The words government, city, county, state, or federal when used generically

Example: county population; City and County of Denver; near the city of Denver or, more appropriately, near Denver [see "City of..." in Section 4])

- ▶ Seasons of the year

Example: spring, summer, fall, winter 2008

- ▶ Abbreviations for units of measurement (e.g., length) used in tables.

Example: Use the abbreviation ft, rather than Ft

- ▶ Spelled-out chemical names

Example: polychlorinated biphenyls

- ▶ Professional titles separated from a name by a comma

Example: John Doe, senior environmental planner; data from the biologist, Jane Doe

3.4 Compound Words

A compound word is one that is formed by the union of two or more words; for example, soundwall or right-of-way. "Soundwall" is an example of a closed compound, where there is no space or hyphen between words. Hyphenated compounds like "right-of-way" are joined by a hyphen. Use a hyphen to prevent mispronunciation or avoid ambiguity. When you are uncertain whether or not a word is an accepted compound, refer to your dictionary.

Examples of Closed Compounds:

- ▶ Runoff
- ▶ Setup
- ▶ Groundwater
- ▶ Overcrossing



- ▶ Undercrossing
- ▶ Onsite
- ▶ Offsite
- ▶ Stormwater
- ▶ Northeast

Examples of Hyphenated Compounds when followed by a noun:

- ▶ On-ramp (drivers take the on ramp to I-25, *but* the on-ramp speed is 25)
- ▶ Off-ramp (the truckers were directed to the off ramp, *but* the off-ramp toll gate did not function)
- ▶ Off-road (the land use in the neighborhood is considered off road, *but* the off-road impacts are plentiful)
- ▶ North-northeast

Place a hyphen between words that form a compound adjective, directly preceding the word being modified:

- ▶ Single-family home, *but* the home houses a single family
- ▶ Coal-fired power plant, *but* the power plant is coal fired
- ▶ Well-drained soil, *but* the soil is well drained

Place a hyphen in adjective compounds beginning with a number as shown:

- ▶ 8-hour day
- ▶ 30-foot pole
- ▶ 3-to-1 ratio
- ▶ 10- to 20-foot drop
- ▶ 42- to 60-inch-diameter outfall

Do not hyphenate numbers when they are used to indicate a measurement versus an adjective. Below are some examples:

- ▶ The road is 80 miles long
- ▶ The project will replace 18 feet of pipe line

3.5 *Bulleted Lists*

Bulleted lists are generally used to highlight important information within the text of NEPA documents. As a general rule, if you have more than 3 items



Do not hyphenate numbers when they are used to indicate a measurement versus as an adjective.





that you would like to emphasize in your list, consider adding the items to a bulleted list. Following are some general guidelines about bulleted lists:

- ▶ Use a lead-in sentence to introduce bulleted lists, followed by a colon.
- ▶ Capitalize the first word for each item in the list.
- ▶ Punctuate the end of the sentence only if it is a complete sentence.
- ▶ Avoid having more than 6 items in a bulleted list.
- ▶ Avoid using articles (e.g., a, an, the) at the beginning of bulleted lists.

3.6 *Emphasis*

- ▶ To emphasize words within text, use *italics* rather than **bold**.
- ▶ **Bold** should be used in text when a reference has been made to a Table, Figure, and Section/Chapter within the document.

Example: Land uses within the project area are listed in **Table 2-1**.

4.0 ELEMENTS OF COMPOSITION

This chapter provides some hints on word use that can help make your technical writing more concise.

4.1 *Word Use*

The guiding principle in technical writing is to keep it simple, short, and concise. One simple exercise is to scan your writing for words ending in “ion” – these words usually indicate prepositional phrases where a simple verb will do, and over writing, in general. **Table 5-1** includes a list of some overwritten expressions that can be replaced by the preferred word or phrase to the right:

Table 4-1 Overwritten Expressions and Preferred Words or Phrases

Overwritten Expression	Preferred Word or Phrase
a majority of	most
a number of	many
anticipate	expect
as per your request	as requested
as to whether	whether
as yet	yet
at the present time	now
based on the fact that	because





Overwritten Expression	Preferred Word or Phrase
due to	because
end result	result
fewer in number	fewer
finalize	end, complete
for the purpose of	for
in close proximity	close, near
in connection with	with, along with
in need of	needs
in order to	to
in the event that	if
it is suggested that	initiate
it should be noted that	note that
on a daily basis	daily
perform	do
prior to	before
take into consideration	consider
terminate	end
traverse	cross, go through, go over
utilize	use
with reference to	about

Although the goal is to keep NEPA documents simple, short, and concise, it is better to use an extra sentence to explain an idea or a technical term to ensure that readers understand the concept, when needed.

- ▶ **Example:** Suspended sediment increases *turbidity* and reduces aquatic plant life productivity. Turbidity refers to water clarity. Therefore, water will appear murkier when more suspended sediment is present.
- ▶ **Example:** There are four sites with recognized environmental conditions. Recognized environmental conditions are sites with the presence of potential or known soil and groundwater contamination from hazardous materials.

Overall, try to avoid over-using technical jargon. Select terms that a public reader will understand. For example, use the term clean-up instead of remediate.

- ▶ **Example:** Within the project area there are several gas stations that have undergone clean-up due to leaking underground storage tanks.



Use simple terms understandable to a lay person.



4.2 Active Voice and Passive Voice

CDOT recommends using an active voice to make your writing stronger and more direct. When you write in active —rather than passive—voice, you usually use fewer words, resulting in a shorter document. Always use active voice when describing mitigation on local agency projects in an effort to be clear about the mitigation responsibility (i.e., CDOT versus local agency).

Here's an example of active and passive voice.

Passive: The bridge would be constructed by CDOT.

Active: CDOT would construct the bridge.

Another example of passive voice commonly used is:

Passive: There are several factors to be considered in deciding which alternative to select.

To make this active, restructure so that someone is doing the action:

Active: CDOT and FHWA will consider several factors to determine which alternative to select.

NEPA documents lend themselves to passive voice sentence construction; you have to make a real effort to rewrite them in active voice. You can turn around the passive sentences by adding an appropriate subject but be aware that you could be faced with another concern: using the same subject repeatedly. Consequently, you must think about the flow of your text. Use active voice as much as possible, but don't be afraid to include a passive voice sentence for variety.

4.3 Sentence Structure

4.3.1 Parallel Construction

Sentence elements (i.e., verbs, nouns, adjectives, infinitive phrases) of equal rank must be "balanced" or "matched."

Incorrect: The purpose of the roadway project is safety, to reduce congestion, and so that commuters would bypass the historic downtown business district.

Correct: The purpose of the roadway project is to improve safety, reduce congestion, and allow commuters to bypass the historic downtown business district.



Notice that in the correct example a verb is matched by a verb and a noun by a noun - "improve safety," "reduce congestion," and "allow commuters." The same is true in the following example:

Incorrect: The mitigation would involve replacing and replanting shrubs, an analysis for the presence of beetles, and the Colorado Parks and Wildlife (CPW) would have to be informed before any plants are removed or destroyed.

Correct: The mitigation would involve replacing and replanting shrubs, analyzing whether beetles are present, and informing the CPW before removing or destroying any plants.

Notice that the verbs in the correct example match in form ("replacing and replanting," "analyzing," "informing," and "removing or destroying").

Parallel structure also applies to bulleted lists.

Incorrect:

The duties of the environmental planner are:

- ▶ To coordinate the environmental document preparation
- ▶ Writing the environmental document
- ▶ Analysis of the data gathered by the specialists

Correct:

The duties of the environmental planner are to:

- ▶ Coordinate the environmental document preparation
- ▶ Write the environmental document
- ▶ Analyze the data gathered by the specialists

Remember, you can write your sentences any number of ways to achieve parallel construction. The way you do it is up to you but make sure your elements agree.

4.3.2 Subject-Verb Agreement

The number of the subject always determines the number of the verb. Do not be confused by words or phrases that come between the subject and the verb.



Incorrect: The historical importance of the site—its high architectural integrity and its link with Denver’s earliest pioneer family—have been established.

Correct: The historical importance of the site—its high architectural integrity and its link with Denver’s earliest pioneer family—has been established.

Use a singular verb following each, either, everyone, everybody, neither, nobody, and someone.

Incorrect: Neither of the alternatives have a substantial impact on visual quality.

Each of the households being displaced are assigned a relocation advisor.

The easiest way to remember this is to avoid the phrase “of the” as shown in the improved versions below.

Correct: Neither alternative has a substantial impact on visual quality.

Each household being displaced is assigned a relocation advisor.

In this way, subject/verb agreement is more evident.

The word none is usually followed by the singular verb form, since none usually means “no one” or “not one.”

Incorrect: None of the alternatives are without substantial biological impacts.

Correct: None of the alternatives is without substantial biological impacts.

Whenever two or more nouns are joined by “and”, the verb form will almost always be plural.

Example: The Chatfield Dam and the Cherry Creek Dam are located upstream of the project area.

When nouns are joined by with, as well as, in addition to, except, together with, and no less than, the subject is still considered singular, meaning that the verb also remains singular.

Example: The Chatfield Dam as well as the Cherry Creek Dam is located upstream of the project area.





4.4 Punctuation

This section outlines the preferred punctuation for NEPA documents.

4.4.1 Apostrophe

- ▶ Use chiefly to indicate the possessive case (except for the word its), indicate contractions, and create certain plurals (e.g., BTU's)

Example: For more information, please refer to CDOT's revised NEPA Manual.

- ▶ Do not use an apostrophe with acronyms

Example: 2 EISs, rather than 2 EIS's. (Note: You do use an apostrophe in the unlikely event that you're talking possessive EIS. "The EIS's appendices were bulky." In cases like this, try to re-write the sentence to avoid possessive EIS: "The appendices in the EIS were bulky.")

4.4.2 Brackets

- ▶ Use to set off editorial matter within quoted material (i.e., information added to the work of another author)

Example: "Construction of the Chatfield Dam [located in the project area] began in 1967"

- ▶ Use as parentheses within parentheses

Example: It can be assumed that an alternative with a higher predicted load (i.e., a greater quantity of constituent [such as dissolved copper] leaving the road) would have more water quality impacts than another alternative.

4.4.3 Comma

- ▶ Mark brief pauses in the flow of ideas and avoid misunderstandings.

- ▶ In a series of three or more terms, use a comma after each term

Example: frogs, snails, and turtles

- ▶ Enclose parenthetical expressions (unrestricted clauses) between commas.

Example: Alternative 2, which crosses over the river, would affect spawning gravels.



- ▶ Put a comma before a conjunction introducing an independent clause.

Example: Alternative 3 crosses over the river, but it does not affect any spawning gravel sites.

- ▶ Comma use in bulleted lists is optional, but not recommended. If commas are used, place an “and” after the second to the last item in the list.

Example:

- Frogs,
- Snakes, and
- Turtles

4.4.4 Period

- ▶ Periods indicate an idea is complete.
- ▶ Do not use periods in acronyms

Example: CPW, not C.P.W.

- ▶ Use a period after most abbreviations

Example: e.g., i.e., etc.

- ▶ Do not use a period after abbreviated units of measure

Example: ft, rather than ft.

- ▶ Use in bulleted lists only for items that are complete sentences

Example: The actions identified below will help avoid construction impacts:

- If lead paint is present, this material must not be allowed to flake off and enter receiving waters.
- Caissons used to create bridge piers could require dewatering. A discharge permit and a treatment strategy will be needed before dewatering activities can occur.

4.4.5 M-Dash

You use the m-dash (slightly longer than a regular dash) in tables and figures to indicate range (e.g., 1990–2000). Words should be used in body text in place of the dash (e.g., from 1990 to 2000).

To insert an m-dash, from the Word pull-down menu, select Insert, Symbol, and select the Special Character tab. You can also use the keyboard shortcut (Ctrl + Num- [This is the dash on the number keypad, not the dash to the right of and above the letter “p”.]])



Section 4.4 includes general guidance on the use of the hyphen (i.e., En-dash).

4.4.6 Parentheses

If a parenthetical expression is an independent sentence, its first word should be capitalized and the period (or other punctuation) should be included inside the parenthesis. (This sentence is an example of how an independent parenthetical statement should look.)

If a parenthetical expression occurs within a sentence (even if it could stand alone as an independent sentence) it is not capitalized and no period is placed inside the parenthesis; however, a question mark or an exclamation point may be used (just like the parenthetical statements in this sentence!).

4.4.7 Colon

- ▶ Use to indicate an enumeration, a quotation, an example, or an explanation will follow.
- ▶ Use phrases such as: *such as*, *as follows*, *the following*, *these things* prior to the colon.

Example: Several resources need re-analysis, as follows: water quality, wetlands, and wildlife.

- ▶ Do not use a colon if the list follows a verb.

Example: The road improvements *include* a widened shoulder, new sidewalk, and new pedestrian crossing.

- ▶ Use to separate numbers.

Example: The vote passed 2:1.

4.4.8 Semicolon

- ▶ Use to link independent clauses not joined by a conjunction (and, but, for, yet).

Example: Alternative 1 affects 0.005 acre of wetlands and waters of the US; Alternative 2 affects 0.003 acre of wetlands and waters of the US.

- ▶ Use to link clauses joined by a conjunctive adverb (consequently, furthermore, however)

Example: Existing I-70 mainline and ramp operations are marginally acceptable; however, the eastbound off-ramp intersection with Youngfield Street operates at LOS F [or failing] during the afternoon peak hour.



- ▶ Use to separate phrases that contain commas

Example: Portland, Oregon; Springfield, Illinois; and Savannah, Georgia.

- ▶ Place semicolon outside of quotations and parentheses

Example: The speed limit is currently 65 miles per hour (mph); an increase to this limit may be considered in the future.

4.4.9 Quotation Marks

- ▶ Use to set off word-for-word quoted material from another source
- ▶ Punctuation associated with the quoted material should be included inside the quotation marks.
- ▶ Cite the source directly after the quote, but do not include within the quotation marks.

Example 1: "Construction of the Chatfield Dam began in 1967" (Source, Date, page number).

Example 2: Mid-sentence quote: According to the report, "Water quality in the South Platte River has improved" (Source, Date, page number), although no specific water quality data was provided.

Example 3: End of the sentence quote: The Colorado Department of Public Health and Environment (2001) reported "improved water quality in Sand Creek" (page number).

- ▶ Use an ellipsis (i.e., ...) when omitting material from a quotation.

Example : As summarized by Baker and Knight (2000), "...road density exhibits an apparent threshold of 0.37 miles per square mile, above which natural populations of certain large vertebrates decline" (p.98).

Reference your standard style guide of choice for more specific information on quotation marks. **Section 7.0** provides a list of the standard reference style guides.



5.0 COMMONLY MISUSED WORDS AND EXPRESSIONS

This chapter addresses more than just the misuse of English grammar and words. It also addresses style. To communicate effectively, you want to make clear, definite statements. This means that you must have a clear and definite understanding of the words that you use and how you use them.

- ▶ **About. Approximately.** About is an estimate and less exact than approximately, which implies an attempt at calculation.

- ▶ **Accept. Except.** Accept is a verb meaning “to receive.”

Example: They accepted the offer of assistance.

Except means “other than” or “excluding.”

Example: All roads, except Gunther Avenue, will be repaved.

- ▶ **Aesthetic. Esthetic.** Aesthetic is preferred.

- ▶ **Affect. Effect. Impact.** Affect is a verb meaning “to influence” or “to change.” It is rarely used as a noun. Effects and impacts are synonymous. Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions which may have both beneficial and detrimental effects, even if on balance the agency believes that the effect will be beneficial.

- ▶ *Example:* The weather may affect construction.

Effect is used as a noun meaning “result” or “outcome.”

Example: The effects of heavy rain would be runoff.

Effect can also be used as a verb meaning “to bring about,” “to accomplish.”

Example: The heavy rain effected substantial flooding and runoff.

As a noun, impact means “the force of impression of one thing on another: a significant or major effect.” It is a much stronger word than effect; use it accordingly. In most of your document writing, you will not use impact as a verb, which refers to pressing things together, such as impacted teeth. (**Incorrect:** The project impacted the subdivision. **Correct:** The project affected the subdivision.)



- ▶ **Aggravate. Irritate.** To aggravate is “to make worse, more serious, or more severe.” To irritate is “to provoke” or “to annoy.”
- ▶ **Among. Between.** Among implies more than two. Between implies only two.
- ▶ **And/or.** This is a shortcut that is discouraged. The meaning can almost always be better put, with less ambiguity.
- ▶ **Apparent. Evident. Obvious.** All refer to something easily perceived. Apparent applies to that which can readily be seen or perceived: an apparent effort. Evident applies to that which facts or circumstances make plain: His innocence was evident. Obvious applies to that which is unquestionable, because of being completely manifest or noticeable: an obvious change of method.
- ▶ **Archaeology. Archeology.** Archaeology is preferred.
- ▶ **Assure. Ensure. Insure.** Ensure, insure, and assure are synonyms and interchangeable in many contexts where they indicate the making certain or inevitability of an outcome.

Example: Changing the alignment will ensure that all impacts to wetlands are avoided.

Insure sometimes stresses the taking of necessary measures beforehand (such as an insurance policy).

Example: The project contractor is properly insured.

Assure distinctively implies the removal of doubt and suspense from a person’s mind (a guarantee of an outcome.)

Example: The contractor assured the project manager that the project schedule will be met.

- ▶ **Being.** Do not use after “regard as”. (**Incorrect:** This location is regarded as being the best. **Correct:** This location is regarded as the best.)
- ▶ **build alternatives.** Notice the capitalization of this term. Build Alternative is the name of a specific alternative and a proper noun (capitalize); build alternatives is not specific and refers to a group of alternatives (do not capitalize). Capitalize when referring to a specific alternative, such as Alternative 2.
- ▶ **But.** Do not use after doubt or help. (**Incorrect:** no doubt but that; could not help but see. **Correct:** no doubt that; could not help seeing.)



- ▶ **Can. May.** Means “am (is, are) able.” Do not use in place of may, which expresses permission or possibility.
- ▶ **Capitol. Capital.** Capitol refers to the building or group of buildings in which state government functions are conducted, while capital refers to accumulated goods, net worth, a letter, or the city serving as a seat of government.
- ▶ **City of...** When referring to a city, do not use the construction City of...unless you are referring to the city government. Simply write the name of the city. (**Incorrect:** The City of Lakewood is located west of the City and County of Denver. **Correct:** Lakewood is located west of Denver. **Incorrect:** Denver is improving pedestrian and bike lanes throughout the city. **Correct:** The City and County of Denver is improving pedestrian and bike lanes throughout the city.)
- ▶ **Clearance. Clearances.** These words should generally be avoided as they imply that all review and analysis is complete and never has to be revisited.. Examples of preferred wording would be “...compliance with the Historic Preservation Act...and...consultation with appropriate agencies.”
- ▶ **Commonly. Generally. Usually.** All words can be used to describe something that occurs more often than not.
Example: Generally, a site visit will be required for a new project.
- ▶ **Typically.** Use to describe something that occurs in a typical manner or circumstance.
Example: Typically, the public comment period lasts 30 days.
- ▶ **Criterion. Criteria.** Criterion is singular and criteria is plural.
- ▶ **Data. Datum.** Data is plural and is best used with a plural verb. (These data are...). Data is the plural of datum.
- ▶ **Different than.** Than is not the correct preposition. It should be different from.
- ▶ **Disinterested.** Do not confuse this word with uninterested, which means “not interested in.” Disinterested means “impartial” or “unbiased.”
- ▶ **e.g., i.e., etc.** e.g. is an abbreviation for “for example”. i.e. is an abbreviation for “that is”. etc. is an abbreviation for “and so forth”. Always use commas after these abbreviations. If your sentence includes, “e.g.”, do not follow this with “etc.”, because this would be repetitive.



- ▶ **Fact. Information.** Use this word only when referring to something “actual” or “verifiable.” This word should not be used in matters of judgment (e.g., the fact that the location is beautiful). Information is the knowledge obtained from investigation, study, or instruction and can include **facts** and **data**.

- ▶ **Facility.** Avoid this word. Use the specific word, such as hospital, office, church, gymnasium, and school instead of facility, unless there are multiple facilities to which you are referring.

Example: There are several important community facilities in the project area.

- ▶ **Farther. Further.** Farther is best used when referring to distance. Further is best used when referring to time or quantity.

Example: “Hard” ground is more reflective and will produce louder sound levels farther from the source. The proposed development, combined with projected regional growth, will place additional traffic demands on the interchange that will further degrade operations.

- ▶ **Foreseeable future.** This phrase is intended primarily to be used in conjunction with cumulative impacts (40 CFR 1508.7). Avoid using this phrase in other contexts. Be specific.

- ▶ **However.** Do not use the word “however” at the beginning of a sentence when you actually mean “nevertheless.” “However” generally works best when not placed in the first position.

- ▶ **Imply. Infer.** These words are not interchangeable. To imply is “to suggest” or “to indicate” something without expressing it. To infer is “to deduce” or “to arrive at a conclusion by reasoning from evidence.”

- ▶ **Irregardless. Regardless.** Do not use irregardless. It is an American dialectal term for regardless. Although it is becoming more accepted in speech, it is not appropriate for print. Use regardless.

- ▶ **Its. It’s.** Its is a possessive pronoun.

Example: CDOT is a state government agency. Its mission is to improve mobility across Colorado.

It’s is the contraction of it is. The use of “it’s” should be avoided in technical writing.

Example: It’s too early to develop specific relinquishment details for each build alternative.





- ▶ **-ize.** Avoid “izing.” Unfortunately, this suffix is added to many words: finalize, educationalize, containerize, prioritize, utilize. Do not apply -ize to a noun to create a verb. You will often find that a useful verb already exists. Consult your dictionary or thesaurus for better options.
- ▶ **Less. Fewer.** Less refers to value, degree, or amount. Fewer refers to countable items.
- ▶ **Lie. Lay.** Lie means “to occupy a certain relative place or position or to have a place in relation to something else.” Avoid using the word lay.

Example: The project area lies north of Denver.

- ▶ **Like.** Do not use for the conjunction as. (**Incorrect:** Biologists will complete protocol surveys, like CPW requires. **Correct:** Biologists will complete protocol surveys, as required by the CPW.)
- ▶ **Mitigate.** Mitigate is a verb meaning “to cause to become less harsh or hostile,” and should normally not be attached to a preposition (i.e., mitigate for, mitigate against). Also make sure you refer mitigation to the correct noun. Do not mitigate for the kit fox; instead, mitigate effects on the kit fox.
- ▶ **Neither...nor.** Use this construction only when connecting a subject of two or more singular words.

Example: Neither air quality nor water quality would be impacted.

- ▶ **Nor.** After a negative expression, the correct word is or. (**Incorrect:** CDOT would not relocate any farm nor business without providing proper relocation services. **Correct:** CDOT would not relocate any farm or business without providing proper relocation services.)
- ▶ **Numerous. Many. Several. Various.** Use numerous or many to describe something that consists of great numbers of units or individuals (e.g., numerous accidents have occurred on this stretch of road) Use several to describe something that has an indefinite number more than two and fewer than many. Use various to describe something that has an indefinite number greater than one (e.g., various methods of public outreach will be implemented).
- ▶ **One of the most.** There is nothing wrong with the grammar here. This is just an empty phrase. Try omitting it and see if it takes away from the meaning of your sentence—in most cases it will not.





- ▶ **Over. More than.** Over implies position. Do not use over when you mean more than.
Example: There are more than 250 businesses in the project area.
- ▶ **Percent. Percentage. %.** Percent means “per hundred.” Percentage means “proportion or share in relation to a whole.” The symbol, %, is only acceptable in tables or figures. Do not use the symbol in the document text.
- ▶ **Possess.** This word sounds more impressive than have or own, which is exactly why it should be avoided.
- ▶ **Principal. Principle.** When used as a noun, principal means “a person in authority.” As an adjective, it means “chief,” “main,” or “most important.” Principle is a noun only, and means “rule,” “code,” or “doctrine.”
- ▶ **Proposed Action. Preferred Alternative.** The proposed action is the action that CDOT proposes to take. The Preferred Alternative is how you accomplish the proposed action – construct a four-lane arterial roadway.
- ▶ **Respective. Respectively.** These words can usually be left out and the sentence restructured. In most cases, this will enhance clarity and readability.
- ▶ **Right-of-way (ROW).** The term right-of-way should always be hyphenated and lowercase (unless at the beginning of a sentence or part of a title). The acronym, however, is not hyphenated. The plural is rights-of-way.
- ▶ **Signalize.** This bit of jargon, which means “to install traffic signals,” can be done away with. Why not simply install traffic signals? This wording does not take away from the technical meaning of the term, and improves clarity and general understanding.
- ▶ **Significant.** Avoid using significant in environmental documents, as this has a specific meaning under NEPA (42 United States Code [USC] 4321 et seq). Substantial is usually an appropriate substitute. Use subjective words carefully in your documents.
- ▶ **Than. Then.** These two words are often confused. Then generally means “at that time” or “next in order of time or position.” Than is a term used for comparison. Be careful not to leave out any necessary words when using than in a sentence; it can cause ambiguity. (**Incorrect:** Alternative 1 would affect air quality more than Alternative 2 [grammatically, this means that Alternative 1 would affect air quality more than Alternative 1 would affect



Alternative 2]. **Correct:** Alternative 1 would affect air quality more than Alternative 2 would.)

- ▶ **That. Which.** Use that for restrictive clauses (those that cannot be removed without distorting the meaning of a sentence). Use which for nonrestrictive clauses (those that can be put in parentheses or removed). Which is normally set off by commas.
- ▶ **Transpire.** This word is often incorrectly used to mean “happen” or “come to pass.” The correct meaning is “to be revealed” or “to become known.”
- ▶ **Who. That/Which.** Use “who” to refer to human beings and animals with a given name. That and which are used to refer to inanimate objects or animals without a given name.
- ▶ **Windshield Surveys.** This term should either be avoided or defined when it is used. To the average reader this would imply a survey of windshields, when it actually means a survey conducted by driving by a site and visually inspecting it from the automobile.
- ▶ **Would. Will. Shall.** Use “would” in all cases where no definite course of action has been decided. Use “will” only when a definite course is known, or with the qualifier if. (**Incorrect:** CDOT would build a soundwall adjacent to the residential area. **Correct:** CDOT will build a soundwall adjacent to the residential area.) Avoid the use of shall. Please note that mitigation requirements are commitments, while impacts are not considered definite until a Preferred Alternative is selected.
- ▶ **Verbal. Oral.** Verbal applies to spoken rather than written words. Oral applies only to spoken words.



6.0 LIST OF HELPFUL RESOURCES

Improving the Quality of NEPA Documents

American Association of State Highway and Transportation Officials (AASHTO), American Council of Engineering Companies (ACEC), and Federal Highway Administration (FHWA). 2006. Improving the Quality of Environmental Documents. May. Retrieved December 2012 from http://www.environment.fhwa.dot.gov/projdev/pd_doc_quality.asp

Ready-Friendly Document Tool Kit

Washington Department of Transportation. 2008. Ready-Friendly Document Tool Kit. June. Retrieved December 2012, from: <http://www.wsdot.wa.gov/Environment/ReaderFriendly.htm>

Standard Reference Style Guides

American Psychological Association. 2009. Publication Manual of the American Psychological Association, 6th Edition. July.

Modern Language Association of America (MLA). 2008. MLA Style Manual and Guide to Scholarly Publishing, 3rd Edition. June.

MLA. 2009. MLA Handbook for Writers of Research Papers, 7th Edition. March.

University of Chicago Press. 2010. The Chicago Manual of Style, 16th Edition. August.



7.0 REFERENCES

- AASHTO, ACEC, and Federal Highway Administration (FHWA). 2006. Improving the Quality of Environmental Documents. May. Retrieved December 2012 from http://environment.transportation.org/pdf/IOED-1_for_CEE.pdf.
- Council on Environmental Quality (CEQ). 1978. National Environmental Policy Act (NEPA) Regulations. 40 Code of Federal Regulations (CFR) § 1500 – 1508. Retrieved December 2012 from http://ceq.hss.doe.gov/nepa/regs/ceq/toc_ceq.htm.
- Federal Highway Administration (FHWA). Technical Advisory T 6640.8A. 1987. Guidance for Preparing and Processing Environmental and Section 4(f) Documents. October 30. Retrieved December 2012 from <http://www.environment.fhwa.dot.gov/guidebook/vol2/doc7i.pdf>.
- FHWA. 1990. The Importance of Purpose and Need. September 18.
- Washington Department of Transportation. 2008. Ready-Friendly Document Tool Kit June. Retrieved December 2012 from: <http://www.wsdot.wa.gov/Environment/ReaderFriendly.htm>.