

**DISCUSSION DRAFT**  
**Creating Quality Environmental Documents:**  
**Recommendations from the Joint AASHTO/ACEC/FHWA Task Group**  
**On Quality and Clarity of NEPA Documents**

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# Chapter 1 Introduction

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## 1.1 What is the joint AASHTO/ACEC/FHWA Initiative on Improving the Quality of NEPA Documents?

This draft report documents an initiative of transportation practitioners nationwide to improve the quality of Environmental Impact Statements and Environmental Assessments written to comply with the National Environmental Policy Act (NEPA).

It is a joint effort of the American Association of State Highway and Transportation Officials (AASHTO), the American Council of Engineering Companies (ACEC), and the Federal Highway Administration (FHWA).

The recommendations are based on a joint survey of transportation agencies and engineering firms conducted in 2003-2004, followed by two joint AASHTO/ACEC/FHWA workshops held in conjunction with the AASHTO Standing Committee on the Environment's annual meetings in 2004 and 2005.

The AASHTO/ACEC/FHWA committee designated task groups to address the following goals of the initiative:

- Improving the quality and clarity of NEPA documents;
- Addressing legal sufficiency requirements for NEPA documents; and
- Improving training.

Through this effort, the Task Team on Quality and Clarity of NEPA Documents seeks to improve the quality of NEPA documents by making them more effective, engaging, and useful for the public and decision-makers, keeping in mind the needs of reviewing regulatory agencies and the legal community.

In this report, the Task Team embraces and expands on findings and recommendations of National Cooperative Highway Research Program Project 25-25 (01), *Synthesis of Data Needs for EA and EIS Documentation – A Blueprint for NEPA Document Content*; Washington State DOT's *Reader Friendly Document Tool Kit*; Caltrans' *North and Central Regions Style Guide for Environmental Documents*; and other resources and document examples discussed during the joint workshops. These efforts underscore a national trend focused on producing documents that better fulfill the spirit and the letter of the NEPA statute.

Based on the recent body of research and deliberations of transportation practitioners, the report identifies the overarching principles essential to improving NEPA documents. Quality NEPA

"NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA. Most important, NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail."

-CEQ Regulations  
Sec. 1500.1(b)

documents effectively “tell the project story” through clear, concise writing; effective organization and formatting; and effective use of visual elements. Documents must explain project decisions in simple, concise terms that are understandable to the public, while clearly demonstrating compliance with regulatory and legal requirements.

The team recommends a basic framework applicable to most NEPA documents based on the “Blueprint” presented in the NCHRP 25-25(01) project report. It also suggests procedural steps for successful document preparation and offers observations on use of specialized and advanced techniques.

This report addresses only issues related to writing quality, format, and overall document quality. Aside from general recommendations in the Blueprint, this report does not address specific aspects of the NEPA process, such as improving purpose and need statements, analysis of alternatives, and indirect and cumulative impacts analysis.

Recommendations of the Task Team on Quality and Clarity of NEPA Documents were developed on a parallel track with the other task groups. The three groups intend to incorporate their separate findings into a common framework that will provide recommendations for improving environmental documents.

## 1.2 Why do we need to improve NEPA documents?

NEPA requires agencies to disclose environmental impacts of their decisions in a way that is understandable to the public and to decision-makers.

In the last few decades, NEPA documents have evolved into voluminous collections of data aimed at meeting increasing legal requirements. In many cases, these documents have become overwhelming and incomprehensible to the layperson. Many EISs and EAs are not clearly written, are poorly organized, and are presented in a format that is difficult to follow.

This trend has occurred despite NEPA regulations and federal agency guidance that provide adequate flexibility for documents to be written in a way that will more effectively communicate to the public. In fact, the regulations require clear, understandable documents that “concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail.”<sup>1</sup>

AASHTO, ACEC, and FHWA practitioners identified a range of problems with NEPA documents, with numerous concerns related to writing quality and document format. The top concern was the unwieldy size of the documents, with respondents complaining that

AASHTO and ACEC survey respondents identified a range of problems related to writing quality and format of NEPA documents:

- Too large, wordy, repetitive, complex and cumbersome
- Lack of consistency in format, approach
- Lack of a coherent story with a logical progression
- Too much focus on legal “air-tight” document versus writing for the public
- Too much focus on “the look” of the document vs. useability for decisions
- Lack of communication among multiple authors

<sup>1</sup> CEQ Regulations, 40 C.F.R. 1500.1(b)

documents are too large, wordy, repetitive, complex and cumbersome.<sup>2</sup> It is not at all uncommon for EIS documents to approach 1,000 pages.<sup>3</sup> Other key concerns included poor writing quality and the need for better technical editing.

According to the NCHRP report, “the length and complexity of environmental documents may deter some people from reading and comprehending them, which is antithetical to their very purpose.”<sup>4</sup>

For example, a study by University of Illinois researchers found that the majority of citizens they tested showed no better understanding of a project after they read the project’s EIS document than they had before they read it.<sup>5</sup>

State transportation officials point to a variety of circumstances that contribute to the growing size and complexity of environmental documents, including changing expectations from regulatory agencies, legal concerns related to court challenges, and information requests from the public or special interest groups.

“We recognize that our environmental documents must continue to meet the needs of regulatory agencies and the attorneys that defend our projects, but they also need to meet the needs of the public that we serve,” WSDOT said in its Reader Friendly Document Tool Kit. WSDOT’s Tool Kit provides NEPA document writers with practical advice for achieving the state’s goals to produce “reader-friendly” environmental documents.

And while most EISs and EAs will not require the drastically different approach taken for some recent environmental documents, numerous recent projects offer valuable lessons for developing environmental documents that are effective communication tools.

In evaluating a range of projects, the NCHRP report authors noted the difficulties in balancing the need to ensure regulatory compliance with the need for clear writing and effective presentation of information. Not surprisingly, practitioners tend to err on the side of caution in applying new approaches.<sup>6</sup>

But among these efforts, a key theme is emerging: quality NEPA documents must effectively “tell the project story” through clear, concise writing; effective organization and formatting; and effective use of visual elements. This report endorses these findings, stressing the need to tell the story of the *project* – but also to tell the story of the *process* used to reach good decisions.

**CEQ - Regulations for Implementing NEPA**

**40 CFR Sec. 1502.1 Purpose.**

The primary purpose of an environmental impact statement is to serve as an action-forcing device to insure that the policies and goals defined in the Act are infused into the ongoing programs and actions of the Federal Government. It shall provide full and fair discussion of significant environmental impacts and shall inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment. Agencies shall focus on significant environmental issues and alternatives and shall reduce paperwork and the accumulation of extraneous background data. Statements shall be concise, clear, and to the point, and shall be supported by evidence that the agency has made the necessary environmental analyses. An environmental impact statement is more than a disclosure document. It shall be used by Federal officials in conjunction with other relevant material to plan actions and make decisions.

<sup>2</sup> *Synthesis of Data Needs for EA and EIS Documentation – A Blueprint for NEPA Document Content*, NCHRP Project 25-25(01), January 2005, Appendix C, page A-5.

<sup>3</sup> Washington State Department of Transportation *Reader-Friendly Document Tool Kit*, page 2-2

<sup>4</sup> *Ibid.*, page 1

<sup>5</sup> *Assessing The Impact Of Environmental Impact Statements On Citizens*, Environmental Impact Assessment Review, Volume 16, Issue 3, May 1996, Pages 171-182.

<sup>6</sup> *Synthesis of Data Needs for EA and EIS Documentation*, page 2.

# Chapter 2 Core Principles for Improving the Quality of NEPA Documents

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## 2.1 What are the core principles for quality NEPA Documents?

Based on the NCHRP research and deliberations of the joint AASHTO/ACEC/FHWA committee, the following “core principles” have received general consensus as the basis for quality NEPA documents:

**Principle 1:** Tell the story of the project so that the reader can easily understand the purpose and need for the project, how each alternative would meet the project goals, and the strengths and weaknesses associated with each alternative.

**Principle 2:** Keep the document as brief as possible, using clear, concise writing; an easy-to-use format; effective graphics and visual elements; and discussion of issues and impacts in proportion to their significance.

**Principle 3:** Ensure that the document meets all legal requirements in a way that is easy to follow for regulators and technical reviewers.

These principles are applicable to any environmental document and will go a long way toward achieving informed decisions that are understandable to the public.

## 2.2 How do you tell the story of the project?

Effective NEPA documents provide a clear path of logic with a consistent theme or “thread” throughout the document based on what the project is trying to accomplish. EISs and EAs should provide the reader with a clear understanding of how decisions were reached and will be reached, answering key questions and discussing relevant findings related to each alternative.

The “story of the project” should be understandable to a broad audience, serving the needs of public as well as document reviewers. Multiple technical subjects should be integrated based on the common question: what is the project trying to accomplish and what are its effects?

The project purpose and need, alternatives analysis, and impacts should be clearly presented in plain language using effective visual elements. Document writers should focus on information that is relevant to the project decision, keeping the document as brief as possible.

“Ultimately, of course, it is not better documents but better decisions that count. NEPA’s purpose is not to generate paperwork—even excellent paperwork—but to foster excellent action.”  
--CEQ Regulations  
40 CFR Sec. 1500.1(c)

“Environmental impact statements shall be written in plain language and may use appropriate graphics so that decisionmakers and the public can readily understand them.”  
--CEQ Regulations, 40 CFR Sec. 1502.8



Washington State’s Reader Friendly Document Tool Kit illustrates how a traditional EIS could be reorganized to more clearly engage readers and tell the project story using a question-and-answer format.<sup>7</sup>

Question-and-answer headings help direct readers to the information they are most interested in. They also give writers an opportunity to cover NEPA required topics (such as logical project termini) in a way that is more interesting to the reader. Examples of traditional EIS headings transformed into question-and-answer headings are shown below.

<b>Question-and-Answer EIS/EA Headings</b>	
<b>Traditional EIS</b>	<b>Reader-Friendly EIS</b>
Purpose and Need	Why do we need the project?
Project termini and why are they logical	Where is the project located and why were these boundaries selected?
Alternative Description Structures Design Standards Illumination Pedestrian and Bicycle Facilities Construction	What is the alternative? How would it be built? How would it change access? How would it affect travel times and traffic flow? How would pedestrians and bicycles be affected?
Impacts and Mitigation Land Use Noise Social and community impacts	How would it change the character and land use in the project area? How would noise levels change? How would the alternative affect neighborhoods and the people who live there?

“Sometimes the reason environmental documents are difficult to understand isn’t just because the writing is poor—sometimes the thinking is incomplete. If the author doesn’t know what the analysis or data demonstrate, writing clearly is impossible.”

--WSDOT Reader Friendly Document Toolkit

“The effort to make NEPA documents more accessible to the general public should not be viewed as an effort to oversimplify complex technical issues or to substitute generalizations for specifics. The real goal is more difficult: preparers of NEPA documents must understand technical issues well enough that they can explain those issues in a manner that is understandable to the general reader.”

--NCHRP 25-25(01)

This format offers one option for organizing the document. Other approaches include reorganization for better flow, with “the story” told as with chapters in a book.

Traditional NEPA document organization also can be used to tell the project story.

<sup>7</sup> WSDOT Reader-Friendly Document Tool Kit, pages 2-7

## 2.3 How do you keep the document brief?

A renewed focus is needed on readability of NEPA documents, reflecting the intent of CEQ's implementing regulations:

- Use clear, concise writing;
- Provide effective summaries;
- Select an easy-to-use format;
- Summarize information and use pictures and effective graphics to help communicate complex issues or comparisons;
- Separate technical information or high-volume materials into appendices or use cross-references as appropriate; and
- Include only the most relevant information—don't discuss effects that don't matter. .

Writers should use simple language presented in an active voice to engage the reader. The writer should avoid technical jargon, minimize abbreviations, define terms, and spell out acronyms.

Question-and-answer headings are effective to help readers focus on the most relevant information. The document should explain the problem and why people should care, answering questions such as:

- What is the problem the project will fix?
- How will each alternative affect users and other stakeholders?

Writing with greater clarity does not mean removing technical details from NEPA documents; it means explaining technical details in a way that is understandable to non-technical readers.<sup>8</sup> The most important job of the document writer is to explain what the technical data mean in relation to the decision to be made. The writer should capture compelling cross-cutting issues that are important for the project and summarize key issues with perspective.

According to CEQ, "if only technically trained individuals are likely to understand a particular discussion, then it should go in the appendix, and a plain language summary of the analysis and conclusions of that technical discussion should go in the text of the EIS."<sup>9</sup>

## 2.4 How do you ensure that the document meets all legal requirements in a way that is easy to follow for regulators and technical reviewers?

Effective NEPA documents must strike a careful balance: they must include sufficient technical detail to ensure compliance with a range of legal requirements; explain complex information in an understandable

"Many NEPA documents today are frustrating to the general public not simply because they contain highly technical information, but because they fail to explain that information clearly. Agency reviewers and courts share the same frustration. They, too, are seeking clearer and more concise explanations of complex technical issues."  
--NCHRP 25-25(01)

<sup>8</sup> *Synthesis of Data Needs for EA and EIS Documentation – A Blueprint for NEPA Document Content*, NCHRP Project 25-25(01), January 2005, pages 37-38.

<sup>9</sup> *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations*, Council on Environmental Quality, March 23, 1981, <http://ceq.eh.doe.gov/nepa/regs/40/20-29.HTM#25>



manner; and present information in a way that is easy to follow for agency reviewers, courts, and the public.

There are several steps that can help strike this balance.<sup>10</sup> Some of the key steps outlined in the NCHRP 25-25(01) report are reprinted below:

- **Identify and Explain Key Assumptions.** The technical analyses contained in a NEPA document generally are based on a series of assumptions. For example, traffic forecasts are based on assumptions about future population and employment trends. These underlying assumptions must be credible in order for the results to be credible. Therefore, in presenting technical information, preparers of NEPA documents should specifically identify key assumptions and explain why those assumptions were made.
- **Describe Methods Used to Develop Data.** The persuasive power of technical data depends heavily on the reader's confidence in the methods used to generate that data. If the reader cannot understand how the data were developed, the reader is essentially being asked to "take it on faith." Thus, the credibility of a NEPA document can be enhanced by describing the methodologies used to develop the data. This approach requires more than giving the name of the model used; it requires explaining in simple terms how that model works and what type of information it provides. It also means explaining any inherent limitations in that model. [Note: The methodology used to develop data can be presented at various points throughout a NEPA document. In general, it is preferable to explain the methodology in the same section of the document that contains the results. It also may be helpful to include a methodology section at the beginning of the Environmental Consequences chapter, if there are some general points that need to be explained with regard to the impacts analysis for all categories of impacts. It is also possible to have a stand-alone chapter early in the EIS that covers methodology issues across the board. The level of detail included in the main body of the NEPA document will vary according to the project and the potential risk for litigation. In many cases, it may be preferable to briefly summarize the methods and refer the technical reader to the relevant discipline report for details.]
- **Use Effective Visuals to Present Key Results.** In addition to their value for the general reader, visual aids can be particularly helpful in litigation. The basic challenge facing attorneys in a NEPA case is to explain a complex series of events as briefly as possible. In most cases, the entire legal brief defending a NEPA study is less than 50 pages long, and often it is much shorter than that. Within

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<sup>10</sup> *Synthesis of Data Needs for EA and EIS Documentation – A Blueprint for NEPA Document Content*, NCHRP Project 25-25(01), January 2005, pages 37-40.

those space constraints, there may be only a few pages available to explain the entire history of a single complex issue. As a result, a single visual aid can be profoundly helpful in litigation – not just because it reinforces a key argument, but also because it frees up space to develop other arguments more fully.

- **Don't Just Summarize the Data, Analyze It.** A NEPA document presents a vast quantity of technical information. The most fundamental task of a NEPA document preparer is to explain what that data means. Explaining the data involves more than reciting in text the data that appears in an accompanying table or figure. The explanation should connect the dots – that is, it should identify patterns in the data, explain causal relationships, and explain anomalous or otherwise unexpected results. The data rarely speaks for itself; the responsibility for explaining the data rests with the preparer of the NEPA document.
- **Document Compliance with Key Regulatory Requirements.** The NEPA process is typically used as the vehicle for achieving compliance not only with NEPA, but also with a range of other laws, including Section 7 of the Endangered Species Act, Section 106 of the National Historic Preservation Act, Section 4(f) of the Department of Transportation Act, Section 404 of the Clean Water Act, and air quality conformity requirements under Section 176(c) of the Clean Air Act. These regulatory requirements often are the subject of legal disputes. Given the potential for disputes, it is prudent for a NEPA document to include a systematic, point-by-point review of these regulatory requirements – explaining which are applicable, which are not applicable, and how the applicable requirements have been met. This overview of regulatory compliance may have limited value for the general reader, but has great value for a reviewing court. [Note: The issue of regulatory compliance can be addressed in two places. It can be covered in the Summary section of the document, by briefly reviewing each of the major regulatory issues and explaining whether they are applicable and how they have been addressed for the project; if additional steps are needed to achieve compliance, those can be noted. Regulatory compliance also can be addressed in the individual section of the document that is pertinent to the regulatory requirement.]
- **Provide Overview of Major Project Issues.** In most NEPA studies, there are a few issues that receive a disproportionate amount of attention from regulatory agencies, interest groups, or the public. These issues often involve long-running efforts to resolve complex or controversial issues. By the time the NEPA process is completed, the issue may have generated hundreds of pages of technical studies, dozens of letters among agency

officials, and hundreds of public comments. For permitting agencies or a reviewing court, it can be difficult to assess the lead agency's handling of such a complex issue. The NEPA document can greatly facilitate the task of agency reviewers and the courts by listing these major issues and briefly explaining the concerns that were raised and how those concerns were addressed. This summary should provide cross-references to other locations in the document where more detail is provided.

- **Systematically Review Data to Ensure Internal Consistency.** The large amount of data presented in a NEPA document creates numerous opportunities for internal inconsistencies and contradictions. There may be inconsistencies in a single section between the tables and the text; there may be inconsistencies between discussions of the same issue in different sections; and there may be inconsistencies between discussions of different issues that happen to involve the same data (e.g., traffic, noise, and air quality). There is no simple or easy way to eliminate these inconsistencies; cross-checking is an inherently time-consuming and onerous task. Nonetheless, careful cross-checking to ensure rigorous consistency is a valuable effort that enhances the credibility of the document for the public, agency reviewers, and a reviewing court.

## **2.5 What are some of the benefits of applying the core principles?**

By applying the principles outlined in this chapter, agencies will improve the likelihood that the NEPA documents they produce can be used to inform decision-makers and the public on the project – explaining what alternatives were considered, how well they fulfilled the stated purpose and need, and how they addressed anticipated environmental effects.

A NEPA document must ensure that the agency's decision is informed by thorough analysis of the environmental impacts of a proposal. At the same time, it must guarantee that this information will be available to the public, whose concerns and insight may then be incorporated into the decision.

Quality NEPA documents will achieve the dual goals of public involvement and regulatory compliance, resulting in good decisions.

Clear, understandable NEPA documents will help project proponents:

- demonstrate accountability and build trust;
- engage the public, decision-makers, and reviewing regulatory agencies in a meaningful dialogue about projects that will form and define communities for years, and sometimes generations.
- document agency decision-making; and

- avoid lawsuits.

In fact, transportation agencies that have experimented with more readable document formats are reporting positive results.

Washington State DOT's project teams reported that the level of public comments on their "reader-friendly" documents were more sophisticated and specific to the project. Comments were substantive rather than broad brush, and citizens seemed to comprehend the elements of the proposed action far better than in the past.<sup>11</sup>

The following NEPA documents profiled in the NCHRP 25-25(01) report are among those that are demonstrating new and effective ways to present information in NEPA documents:

- Alaskan Way Viaduct and Seawall Replacement Project (Washington State DOT)
- Mon/Fayette Transportation Project, PA Route 51 to I-376 (Pennsylvania Turnpike Commission)
- Route Post 13 (I-15) Interchange (Utah DOT)
- Southern Corridor (I-15) (Utah DOT)
- Vancouver Rail Project (Washington State DOT)
- Fulton Street Transit Center (New York Metropolitan Transit Authority)
- US 93 Somers to Whitefish (Montana DOT)
- I-69 Evansville to Indianapolis (Indiana DOT)
- Mid-Currituck Sound Bridge (North Carolina DOT)
- Reno Railroad Corridor (Nevada DOT)

Compared to typical NEPA documents, the report said, these documents "are not necessarily shorter, nor may they be quicker to prepare. They are, however, clearer, and according to those who prepared and/or reviewed them, they have helped improve decision-making and project delivery."<sup>12</sup>

While the NEPA documents used for these projects were important, other aspects of these projects, including public involvement, also were important to the projects' success.

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<sup>11</sup> Correspondence from Washington State DOT environmental services policy manager Carol Lee Roalkvam, 8/19/05. Projects include Kirkland EA, SR 502, Alaskan Way Viaduct, Bremerton Tunnel. See the WSDOT Website for links to recent documents <http://www.wsdot.wa.gov/environment/compliance/ReaderFriendly.htm>.

<sup>12</sup> *Synthesis of Data Needs for EA and EIS Documentation – A Blueprint for NEPA Document Content*, NCHRP Project 25-25(01), January 2005, page 8

## Chapter 3 – Content and Process

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### 3.1 Is there a recommended organization for most environmental documents?

Yes. Some agencies have developed templates and style guides that outline the elements to be included in their environmental documents. While not providing a template, the AASHTO/ACEC/FHWA Joint Committee endorses the basic blueprint outlined in NCHRP project 25-25(01) as an effective organization for most EIS documents.<sup>13</sup>

Drawing on practices that states already are using, the Blueprint outlines the three core components of a NEPA document, each of which should focus on “telling the project decision-making story clearly, while still meeting legal sufficiency needs.”

The Blueprint differs from traditional NEPA documents in two key areas. It combines the Affected Environment and Environmental Consequences discussions into one chapter. This is done to provide readers with a full understanding of which environmental issues are significant in the project area and how each alternative affects them.

In addition, the Blueprint divides the Alternatives chapter into two separate chapters. One chapter identifies preliminary alternatives, explains the screening process, and discusses how alternatives were brought forward. A separate chapter provides a comparison of the reasonable alternatives that were carried forward for detailed study, and describes the preferred alternative once it is identified.

The Blueprint sets forth the following components for NEPA documents:

- **The Document Summary.** The summary should provide a synopsis of why the project is needed, what alternatives were considered, how the alternatives affect the environment, and (at least in the FEIS) the rationale for selecting the preferred alternative. It should emphasize the key issues as well as major environmental and community concerns that may be controversial and difficult to resolve. The summary is a vital component, as it may be the only part of the document that many people read. It must adequately and accurately summarize all key aspects of the EIS.

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<sup>13</sup> *Synthesis of Data Needs for EA and EIS Documentation – A Blueprint for NEPA Document Content*, NCHRP Project 25-25(01), January 2005, pages 27-36.

- **Main Body.** The Main Body of the document includes sections that are similar to a traditional EIS:

**Purpose and Need.** This section is the foundation of the NEPA document. It introduces the reader to the project and focuses on why the project is proposed and important.

**Alternatives Considered.** This section identifies the preliminary alternatives developed in the scoping process; explains the methods used for screening alternatives; summarizes the results of screening processes, including the reasons for eliminating any alternatives from consideration; describes each of the alternatives carried forward for detailed study; and explains how the alternatives carried forward achieve the project's purpose and need.

**Environmental Resources, Impacts, and Mitigation.** In the Blueprint, this section combines the *Affected Environment* and *Environmental Consequences* chapters of a traditional NEPA document. It presents a discussion of impacts for each of the reasonable alternatives, presenting information in a neutral and objective fashion, even if a preferred alternative is identified later in the document. The volume of information in this section is weighted toward environmental impacts of most relevance to the decision-making process.

**Public Comments and Agency Coordination.** This section discusses the processes for public involvement and agency coordination, and addresses comments and suggestions emanating from these processes.

**Section 4(f) Chapter.** Traditionally, FHWA has required a separate Section 4(f) chapter, but the agency's current thinking is that Section 4(f) could be addressed in an appendix, and then discussed as appropriate in the main body of the EIS document. A standalone Section 4(f) appendix would be required for any project that results in the use of a Section 4(f) resource.

**Comparison and Selection of Alternatives.** This section analyzes each of the reasonable alternatives in light of the information presented in the preceding chapters on the benefits, impacts, and costs of those alternatives. If a preferred alternative has not yet been identified, this section describes each alternative and identifies the principal advantages and disadvantages of each. Once a preferred alternative is identified, this chapter also includes the rationale for selecting that alternative. This section is intended to address one of the most common shortcomings of NEPA documents – that they may be rich in data, but fail to “tell the story” of what the data



mean and how the data led to the selection of the preferred alternative.

- **Appendices and Technical Reports.** The use of appendices and technical reports as a repository for voluminous material offers the greatest opportunity to “de-clutter” the main body of the document. Appendices and technical reports include information that is important to document in support of information and analyses contained in the main body.

The blueprint offered in the NCHRP 25-25(01) report is not intended as an ironclad, one-size-fits-all recipe, but rather as a starting framework.

Although it may be used as the basic outline for NEPA documents, the Blueprint is not intended to be prescriptive. The NCHRP report authors stressed that “many layers of detail must be addressed for the Blueprint to be implemented in any individual case.”

The components of the blueprint can be re-organized if necessary to meet the needs of individual projects.

### **3.2 How will the content be different than traditional NEPA documents?**

An easy-to-use, understandable NEPA document does not translate into “NEPA-light.” Quality NEPA documents will have content as well as format focused to “tell the project story” to multiple audiences. Documents should use a variety of techniques to communicate complex issues, moving away from jargon and acronyms. And while the document should be concise, it also should communicate strong, well-grounded findings. Quality NEPA documents also should highlight project-related environmental benefits, as well as impacts.

### **3.3 What is the recommended process to produce a quality NEPA document?**

A quality NEPA document requires careful management of the entire document creation process by the right team. The team should be designated early in the process.

Ideally, one individual, such as an “editor-in-chief,” would be responsible for managing the document itself as well as establishing clear roles for team members, setting schedules, monitoring timing, and ensuring quality.

The editor-in-chief would be responsible for ensuring that the document meets all legal requirements while telling the project story in a way that is understandable to the public as well as regulators. In a role separate from that of the project manager – the editor-in-chief

When organizing the writing of a document, start by understanding the nature and extent of the project. This must be the first step in working out the simplest structure for your work. What essential information must you communicate? What is the simplest way to communicate it?  
--*CalTrans Style Guide for Environmental Documents*

would be responsible for ensuring that the document meets the highest standards, while achieving budget and schedule requirements. The editor-in-chief should have excellent organizational skills as well as writing and leadership skills, and should ensure that the NEPA document effectively communicates the project decisions.

The editor-in-chief should decide up-front the appropriate format and whether it will be a “standard” document, or a more customized approach.

In addition to the editor-in-chief, the team should include the project manager; key agency staff; technical experts for discipline reports; and the EIS or EA development team (writers, graphic designer, technical experts, technical editors).

The document must be edited to achieve a single voice, to bring together work of multiple authors, and to ensure quality control.

The editor-in-chief should determine the expectations for the NEPA document, identifying the audience and determining the framework for document organization. Key decisions include planning out development of the materials, determining what work needs to be done, who will do the work, and how the document will be integrated.

Oversight of the document starts with the editorial process—planning the concept with storyboards, outlining, and planning assembly and integration.

Quality assurance/quality control also are vital and must be ensured from all perspectives:

- Editorial quality (check grammar, spelling, syntax, fact-checking, place names, etc.)
- Technical validity (make sure technical validity has survived editing process);
- Legal sufficiency (make sure lawyers are OK); and
- Overall effectiveness (make sure the right message comes through).

### **3.4 What should be considered regarding document production?**

The following basic recommendations can assist in effective document production:

- Consider early on whether to use word processing software (which may look more ‘bookish’ vs. desktop publishing software (which may facilitate use of many graphics);
- Think about graphic design early and allow time and budget to create graphics;

- Organize the document and develop an outline for both text and graphics;
- Use visuals appropriately to communicate complex data – consider whether to use photos, photosimulation, maps, graphs, charts, tables. Locate text and graphics on the same page where possible, never more than one page apart;
- Make sure the layout is easy to read, and consider using standardized formats or templates;
- Use markers and overviews to guide readers (i.e., headings, section summaries, tabs, dividers, highlighting, bullets, various fonts, text boxes, sidebars, etc.);
- Ensure that the document has a consistent “look and feel”;
- Use computer technology effectively - ensure NEPA documents are transferable across media.

DRAFT

# Chapter 4 – Advanced and Specialized Techniques

## 4.1 What are some alternative approaches to format NEPA documents?

States are experimenting with a range of alternative approaches to make NEPA documents more readable:

- Use of larger page size, such as 11-inch by 17-inch paper in a landscape format;
- Extensive use of color graphics and photography;
- Investment in high-end graphic design;
- Use of non-traditional chapter organization, such as structuring the document around major anticipated questions;
- Use of advanced printing techniques; and
- Incorporation of simulations (video or still).

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Some states have developed separate summary documents targeted to the general public that incorporate the “reader-friendly” concepts. Practitioners in North Carolina have developed stand-alone “Citizen Summaries” for several projects as a public education tool issued in conjunction with NEPA documents. In some cases, such a user-friendly summary could substitute for the NEPA document executive summary.<sup>14</sup>

“We came up with the idea of a magazine-style, reader-friendly concept to communicate to lay people the critical elements of the EIS and those elements the public and local officials tended to be most interested in.”  
-- Jill Gurak, PBS&J, Raleigh, N.C.

## 4.2 When are alternative formats appropriate?

All NEPA documents should be customized to some degree to meet the needs of the project, the intended audience, and the agency proposing the project. The degree to which a document should be customized by using alternative formats depends on the goals and what makes sense for your project. For some projects, writing more clearly and using question-and-answer headings may be sufficient. For complex projects with a great deal at stake, it may be worth the additional effort make the document engaging and easy to understand.

NEPA regulations do not specify the document page size or design. However, NEPA practitioners and agency reviewers have become accustomed to 8 ½-inch by 11-inch standard size documents that generally follow a familiar outline. These documents are typically produced using word processing software such as Microsoft Word with graphics from computer-assisted design and drawing (CADD) engineering drawings or spreadsheet programs.

<sup>14</sup> Comments of Jill Gurak, PBS&J, Raleigh, N.C., on FHWA Re:NEPA Community of Practice Web site, NEPA Process and Documentation Topic Area, 11/2/05.

For many NEPA projects this approach is sufficient, although some would benefit by using an alternative approach – specifically one that enlists the expertise of graphic design and document layout professionals. The phrase “a picture is worth a thousand words” is often true when trying to communicate complex information to a broad audience. The document’s ability to effectively convey information substantially improves when well-designed graphics and clearly written text are integrated on the same page using document layout tools.

Use of alternative formats should add value in some way, such as reaching a wider audience, getting media attention, or obtaining a wider base of interest in the project.

Alternative formats should be considered on a case-by-case basis and based on factors such as:

- Importance of the project;
- Complexity of the issues of concern;
- Level of controversy; and
- Budget available for the document.

#### **4.3 What are the benefits of developing alternative formats?**

Alternative formats offer several potential benefits. First, these documents excel at meeting the intent of NEPA by making complex information understandable and accessible. If the text and graphics are thoughtfully produced, they can go a long way toward clearly illustrating complex issues and building trust between project proponents, the public, and regulatory agencies. An EIS that is clearly written and carefully organized with effective graphics integrated within its layout conveys complex information much more effectively than a traditional document. These elements work together: clearly written text provides understandable information, professional graphics provide visual and spatial relationships, and thoughtful page layout puts text and graphics together so the reader can more easily assimilate the information.

Making complex information understandable engages an informed dialogue between the public and decisionmakers, improving the decision-making process. In the case of the Alaskan Way Viaduct Project Draft EIS, WSDOT found that the comments received focused on substantive issues, suggesting that people really understood the issues presented in the document.

The goal, no matter what format is used, is to make better decisions and successfully deliver projects. When there is a great deal at stake, alternative document formats can help agencies better meet these goals.

#### 4.4 What is FHWA policy on alternative formats?

FHWA's 1987 Technical Advisory T 6640.8A, *Guidance For Preparing And Processing Environmental And Section 4(f) Documents*, sets forth the agency's latest recommended format for environmental documents. Although this guidance is still in effect, the agency has recently accepted and even encouraged experimentation with alternative document content and format, with due consideration of the flexibility granted in the CEQ regulations.

Although no formal FHWA guidance has been issued related to alternative formats for NEPA documents, the following excerpt from a 2003 FHWA guidance document on indirect and cumulative effects<sup>15</sup> indicates the agency's thinking on document format, and supports the principles for quality NEPA documents set forth in this report:

“While documentation is not the end-all-be-all of the NEPA process, it is important that we do a reasonably good job of communicating the purpose and need of the project; the values used to develop and compare alternatives; the results of analysis for direct, indirect impacts, and cumulative impacts; and mitigation as required by relevant regulation. An environmental impact statement (EIS), or in some cases an environmental assessment (EA), may be the most obvious and scrutinized part of the NEPA process. It provides evidence to the public and participating agencies of our commitment to, and satisfaction of the NEPA requirements. Environmental documentation must communicate clearly the results of project analysis and the subsequent decisions.

We should be mindful of the fact that the adequacy of an EIS document is evidenced by a reasonably thorough discussion of the probable environmental consequences of a proposal. The format and content must provide for informed decisionmaking and fully discuss the analysis and reasoning in choosing a particular course of action over another. There is an established relationship between adequate documentation and the project scope, in terms of detail. The environmental document should focus on the important concerns as opposed to trivial and minor issues. If a topic doesn't add value to the project decision, the related decisions of other agencies, or promote full disclosure, then it should only be briefly discussed or in some cases not included all.

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<sup>15</sup> *Questions and Answers Regarding the Consideration of Indirect and Cumulative Impacts in the NEPA Process*, Federal Highway Administration, Jan. 31, 2003, <http://environment.fhwa.dot.gov/guidebook/Gqaimpact.htm>.



“The following are suggestions for improving and reducing the length of EIS documents taken from the CEQ regulations (40 CFR § 1500.4 Reducing paperwork):

- Set appropriate page limits (1501.7(b)(1) and 1502.7);
- Prepare analytic rather than encyclopedic environmental impact statements (1502.2(a));
- Briefly discuss the minor and less than significant issues (1502.2(b));
- Write in plain language (1502.8);
- Follow a clear format (1502.10);
- Emphasize the portions of the environmental impact statement that are useful to decisionmakers and the public (1502.14 and 1502.15);
- Reduce the emphasis on background material (1502.16);
- Focus on the important environmental issues identified in the scoping process (1501.7);
- Summarize the environmental impact statement (1502.12) and circulate the summary if the environmental impact statement is unusually long (1502.19);
- Incorporate information and data by reference (1502.21);
- Combine environmental documents with other documents (1506.4).”

#### **4.5 Are there other options for flexible approaches?**

Yes. Both CEQ and FHWA regulations and guidance make it clear that the flexibility and encouragement exists to dramatically improve the form and substance of environmental documents.

For example, the FHWA Technical Advisory suggests the use of “condensed” or “abbreviated” formats for Final EISs (FEIS).<sup>16</sup>

A condensed FEIS incorporates by reference the draft EIS. Under this approach, the FEIS “is a much shorter document than under the traditional approach; however, it should afford the reader a complete overview of the project and its impacts on the human environment.”

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

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<sup>16</sup> FHWA Technical Advisory T 6640.8A, Guidance For Preparing and Processing Environmental And Section 4(f) Documents, Section VI.

In addition, FHWA said the CEQ regulations (40 CFR 1503.4(c)) provide the opportunity to use an abbreviated final EIS “to expedite the final EIS preparation where the only changes needed in the document are minor and consist of factual corrections and/or an explanation of why the comments received on the draft EIS do not warrant further response.”

An abbreviated FIES should consist of the draft EIS and an attachment containing errata sheets making any necessary corrections to the draft EIS; a section identifying the preferred alternative and a discussion of the reasons it was selected; and if applicable, a discussion of the Section 4(f) evaluations, wetland finding, floodplain findings, and mitigation commitments. Copies of comments received on the draft EIS and public hearings also should be attached.

In using the abbreviated format, FHWA stressed that the errata sheets together with the draft EIS must “constitute a readable, understandable, full disclosure document.”

#### **4.6 How will document reviewers and the public respond to alternative approaches?**

As states continue to experiment with alternative formats allowed by the regulations, stakeholders and agency reviewers must become familiar and comfortable with a new approach and a “new look” for NEPA documents. New approaches to NEPA document organization, content, and format will be well received if they effectively communicate project decisions.

Transportation agencies must learn to “break the mold,” and find people with the right talent and skills to customize documents in a way that is most successful for a given project.

Agencies also must ensure that customization does not compromise the legal sufficiency of their documents. If a new format is used, document writers should include tools to help regulatory agencies find key information and allow some time for agency reviewers to get used to new formats. Where significant departures from traditional formats are considered, the team should consult FHWA legal counsel and FHWA NEPA program staff.

Issues surrounding legal sufficiency are analyzed in further detail by the Legal Sufficiency Task Group’s analysis, prepared in conjunction with this report.

In addition, the Task Group on Training will elaborate on means to better educate practitioners on developing successful NEPA documents.

## Chapter 5 – Achieving Continuous Improvement

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This Joint AASHTO/ACEC/FHWA Task Group Report On Quality and Clarity of NEPA Documents offers an important new beginning to DOTs and their consultants, and to FHWA and resource agencies, in how environmental documents might be developed and how they can become more effective in communicating information and satisfying legal requirements.

For some time, environmental documents have grown in size but may have declined in quality. This report offers an opportunity to reverse that trend. But it is very much a beginning rather than the end of the story. Only through numerous and diverse attempts to implement the principles and practices suggested in this report will the fruits of this immediate effort be reaped and the seeds for continuous learning and future improvement be sown.

Preparing environmental documents is a process that will be with us as long as we continue to propose improvement to our infrastructure. There will be ample opportunity to measure progress and results, evaluate shortcomings and opportunities, and perhaps to reconvene similar task forces in the years ahead to assess progress and offer new insights.

To facilitate this learning process, AASHTO plans to use the Center for Environmental Excellence and its Web site<sup>17</sup> to disseminate the results of this effort as well to establish a way to keep the subject alive and relevant for practitioners in the months and years to come.

Meanwhile, the dialogue will continue at a Jan. 22, 2006, workshop planned as part of the Transportation Research Board annual meeting in Washington D.C. The chairs of the three task groups will present the groups' preliminary findings and solicit feedback on next steps in improving NEPA documents.

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<sup>17</sup> The AASHTO Center for Environmental Excellence Web site may be accessed at [www.environment.transportation.org](http://www.environment.transportation.org).

## Resources

### NEPA Style Guides

*Environmental Document Quality Improvement Tools*, Utah DOT Web site: [www.dot.state.ut.us/index.php/m=c/tid=1028](http://www.dot.state.ut.us/index.php/m=c/tid=1028)

*WSDOT Reader Friendly Document Toolkit*,  
<http://www.wsdot.wa.gov/environment/compliance/ReaderFriendly.htm>

*Synthesis of Data Needs for EA and EIS Documentation – A Blueprint for NEPA Document Content*, National Cooperative Highway Research Program Project 25-25(01) ,  
[http://www4.trb.org/trb/crp/nsf/reference/boilerplate/Attachments/\\$file/25-25\(1\)\\_FR.pdf](http://www4.trb.org/trb/crp/nsf/reference/boilerplate/Attachments/$file/25-25(1)_FR.pdf)

*Style Guide for Environmental Documents*, Caltrans, April 2002;  
<http://www.dot.ca.gov/ser/downloads/templates/EDStyleGuideApril2002.pdf>

*How to Write Quality EISs and EAs*, Shipley Group, 1998 (Franklin Covey)

Bass, R.E., A.I. Herson and K.M. Bogdan. *The NEPA Book – A Step-by-Step Guide on How to Comply with the National Environmental Policy Act*. 2001 (Second Edition). Solano Press Books, Point Arena, California

UK documents for Environmental Appraisal of highway schemes.  
<http://www.official-documents.co.uk/document/deps/ha/dmrb/index.htm>

### General Plain Language Style Guides

*Communications Guide for Federal, State, Regional, and Local Communicators*, Federal Communications Network, Dec. 2000

*Writing User-Friendly Documents*, National Partnership for Reinventing Government, Bureau of Land Management, 1993

Redish & Associates Consulting in Usability and Clear Communications Web site: [www.redish.net](http://www.redish.net)

The Plain Language Action and Information Network (PLAIN), hosted by FAA. [www.PlainLanguage.gov](http://www.PlainLanguage.gov)

Planning in Plain English, Natalie Macris, American Planning Association.

*US Government Printing Office Style Manual 2000* (US GPO Web site)

Tufte, Edward R. *Envisioning Information*. 1990. Graphics Press.

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Tufte, Edward R. *The Visual Display of Quantitative Information*. 1983. Graphics Press.

Tufte, Edward R. *Visual Explanations: Images Quantities, Evidence and Narrative*. 1997. Graphics Press.

Tufte, Edward. Website: *The Work of Edward and Graphics Press*. <http://www.edwardtufte.com/tufte/>.

### **Sample EISs**

Vancouver Rail Project EIS, WSDOT, Feb. 2002

Alaskan Way Viaduct Draft EIS

<http://www.wsdot.wa.gov/projects/Viaduct/DEIS.htm>

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### **Other Resources**

*Some Modest Suggestions for Improving Implementation of the National Environmental Policy Act*, CEQ General Counsel Dinah Bear, University of New Mexico School of Law, Natural Resources Journal, Vol. 43, No. 4, Fall 2003

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### **Legal/Regulatory Requirements and Guidance**

National Environmental Policy Act,

<http://ceq.eh.doe.gov/nepa/regs/nepa/nepaeqia.htm>

Council on Environmental Quality Regulations for Implementing NEPA, 40 CFR 1500 through 1508,

[http://ceq.eh.doe.gov/nepa/regs/ceq/toc\\_ceq.htm](http://ceq.eh.doe.gov/nepa/regs/ceq/toc_ceq.htm)

*Questions and Answers Regarding the Consideration of Indirect and Cumulative Impacts in the NEPA Process*, Federal Highway Administration, Jan. 31, 2003,

<http://environment.fhwa.dot.gov/guidebook/Gqaimpact.htm>

FHWA Technical Advisory T 6640.8A, Guidance For Preparing and Processing Environmental And Section 4(f) Documents,

<http://www.fhwa.dot.gov/legregs/directives/techadv/t664008a.htm>

*The NEPA Task Force Report to the Council on Environmental Quality Modernizing NEPA Implementation*,

<http://ceq.eh.doe.gov/ntf/report/index.html>