

# *Reader-Friendly Document* Tool Kit

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***TELL A STORY***

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***ENGAGE THE READER***

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***MAKE IT VISUAL***

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***MAKE IT BRIEF***



**Washington State  
Department of Transportation**

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JUNE 2008

# TABLE OF CONTENTS

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ACRONYMS .....	III
CHAPTER 1 INTRODUCTION .....	1-1
CHAPTER 2 KEY READER-FRIENDLY CONCEPTS .....	2-1
1 Why does WSDOT want to create environmental documents that are reader-friendly? .....	2-1
2 What's happening nationally? .....	2-2
3 What's happening locally? .....	2-3
4 What key concepts can be used to create documents that are more reader-friendly? .....	2-4
5 How do you tell a story? .....	2-7
6 How do you engage the reader? .....	2-11
7 How do you make it visual? .....	2-14
8 How do you make it brief? .....	2-20
CHAPTER 3 TIPS FOR CREATING READER-FRIENDLY ENVIRONMENTAL DOCUMENTS .....	3-1
1 What special skills are needed to create reader-friendly documents? .....	3-1
2 What are the tradeoffs between having one document author versus a few authors? .....	3-2
3 How can you apply reader-friendly concepts to projects of all shapes and sizes? .....	3-3
4 What is the Document Creator? .....	3-4
5 Why should you use the Document Creator? .....	3-5
6 Do you have to use the Document Creator to create WSDOT Environmental Documents? .....	3-5
7 When should technical reviewers (such as other regulatory agencies) be involved in reader-friendly document development? .....	3-6
8 What can be done to avoid inconsistencies between the EIS/EA and technical reports? .....	3-6
9 Should reader-friendly concepts be applied differently between the EIS/EA and supporting technical reports? .....	3-7
10 Are there other ideas you should try to incorporate in your environmental document? .....	3-7
11 What additional tips can help me create good graphics for my document? .....	3-11
12 Are there any other tips for developing reader-friendly environmental documents? .....	3-13
CHAPTER 4 TOOLS FOR DEVELOPING THE EIS/EA .....	4-1
1 Is an outline of the EIS/EA needed? .....	4-1
2 How should reader-friendly EISs/EAs be organized? .....	4-1
3 What are some examples of how EISs/EAs can be organized? .....	4-3
4 What chapters can help make EISs/EAs more reader-friendly? .....	4-4
5 What tools should be developed to guide technical reviewers through the EIS/EA? .....	4-6
6 What should be considered when developing the EIS/EA document layout? .....	4-7
CHAPTER 5 TOOLS FOR DEVELOPING TECHNICAL REPORTS .....	5-1
1 What tools can help the technical team? .....	5-1
2 How can you link the discipline report outline to the WSDOT Environmental Procedures Manual? .....	5-2
3 How can the technical report authors help make sure important points are included in the EIS/EA? .....	5-3
4 Does the project description need to be repeated in every technical report? .....	5-3

5	What tools can help facilitate the flow of information between engineers and the environmental team? .....	5-4
CHAPTER 6 TOOLS FOR THE REVIEW PROCESS .....		6-2
1	What is the review process? .....	6-2
2	What tools and tips are available to help guide the internal review process? .....	6-2
3	What tools and tips can you use to help manage agency reviews? .....	6-5
4	What resources are available to help you manage public comments?.....	6-5
LIST OF EXHIBITS		
Exhibit 2-1 EIS Outline .....		2-8
Exhibit 2-2 EIS Headings .....		2-11
Exhibit 2-3 Engaging Your Readers.....		2-12
Exhibit 2-4 Noise Levels for Each Alternative .....		2-15
Exhibit 2-5 2030 Corridor Travel Times.....		2-16
Exhibit 2-6 Southbound Travel Times .....		2-16
Exhibit 2-7 Congested Intersections by Sub-Area.....		2-17
Exhibit 2-8 Surface Alternative Congested Intersections .....		2-18
Exhibit 2-9 Typical EIS Summary Table.....		2-19
Exhibit 2-10 The Alternatives .....		2-19
Exhibit 2-11 Alternatives Construction Chart.....		2-21
Exhibit 4-1 Effects Discussion.....		4-4
LIST OF APPENDICES .....		R-1
REFERENCES .....		R-3

# ACRONYMS

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<b>A</b>	
AASHTO	American Association of State Highway and Transportation Officials
ACEC	American Council of Engineering Companies
<b>E</b>	
EAs	environmental assessments
EISs	environmental impact statements
<b>F</b>	
FHWA	Federal Highway Administration
<b>N</b>	
NEPA	National Environmental Policy Act
<b>W</b>	
WSDOT	Washington State Department of Transportation

This document was updated in March 2011 to remove references to the Document Creator software. The software is no longer supported due to compatibility issues and budget constraints. Please use the format guideline in Appendix B to create your own templates.

# Chapter 1 Introduction

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Are you on the verge of creating an environmental document for the Washington State Department of Transportation (WSDOT)? If so, you've probably heard that WSDOT wants your document to be more "reader-friendly." This request has probably left you with lots of questions, including:

- What is a reader-friendly document?
- How do I make environmental documents more reader-friendly?
- How is a reader-friendly environmental document different from a typical environmental document?

If you are wrestling with these important questions, then welcome to the *Reader-Friendly Document Tool Kit*. This tool kit provides managers, coordinators, and writers with tools to help you create more reader-friendly environmental documents. WSDOT is working hard to make all of our agency's documents easier for the public to read and understand. For this to happen, we recognize that we need to give you, our staff, clear direction on what you can do to improve your documents and make them more reader-friendly. We also want to give you tools you can use to make your job easier.

This tool kit provides tips and tools to help you create environmental documents such as environmental impact statements (EISs), environmental assessments (EAs), and discipline reports. We are providing specific tools for environmental documents because they are complex and they

must meet the needs of several different audiences, including regulatory agencies, the public, decision makers, and attorneys.

This tool kit is a companion document to WSDOT's *Environmental Procedures Manual*. You should use both the tool kit and the *Environmental Procedures Manual* when you prepare WSDOT environmental documents. The *Environmental Procedures Manual* provides you with WSDOT environmental procedures and guidance. The tool kit gives you specific tools you can use to make your documents easier to understand.

This tool kit provides you with key concepts and tools, but there is plenty of room for you to be creative to meet the specific needs of your project, the public, and key decision makers. The tool kit is a dynamic document, meaning new ideas and tools will be added as they are developed. This tool kit contains the following components:

- Chapter 2 Describes why WSDOT wants documents to be more reader-friendly and identifies key reader-friendly concepts.
- Chapter 3 Identifies tools and tips that will help you develop reader-friendly environmental documents.
- Chapter 4 Discusses tips and tools for developing reader-friendly EISs and EAs.
- Chapter 5 Identifies tools for developing reader-friendly discipline reports.
- Chapter 6 Supplies tools for the review processes.
- Appendices Provides tools and examples to help you create reader-friendly documents.

# Chapter 2 Key Reader-Friendly Concepts

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## 1 Why does WSDOT want to create environmental documents that are reader-friendly?

WSDOT delivers a wide variety of useful and critical facilities and services. To deliver these products and services, we often must prepare documents such as public notices, environmental documents, permits, and web pages. People at all levels of decision-making rely on our documents for information and insight. A clear and cohesive document is a powerful tool that can help move projects and issues forward productively. For example, clear and cohesive documents help:

- Regulatory officials (such as resource agency reviewers) complete their reviews of our environmental documents more quickly.
- Local officials and legislators make informed decisions more easily.
- Taxpayers understand our projects and services and the value of the work we do.

Presenting information clearly and coherently takes time and effort. However, readers reward this extra effort when they use our information and consider our reasoning and data. This ultimately saves time and effort by reducing confusion, garnering attention for our projects and issues, minimizing last-minute changes in direction, preventing lawsuits and fines, and building credibility. With practice, writing clearly and

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### Tool Alert!

The environmental documents we've been producing are written for professional EIS readers and attorneys and not for decision makers and the public. We need to change this and create documents that can successfully meet the needs of all of these important audiences. For more information on this topic, review the folio called *Reader-Friendly* in Appendix A.

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coherently becomes easier and faster than more bureaucratic forms of writing.

Over the past 20 years, environmental documents have become lengthy, cumbersome, and difficult for people to understand—especially decision makers and the public. When we first began writing EISs in the early 1970s, the National Environmental Policy Act (NEPA) was a new regulation and the public and regulatory agencies weren't quite sure what to expect. In 1973, a Final EIS for the Federal Highway Administration (FHWA) was 22 pages long, including public comments and responses. By 2001, WSDOT and FHWA were publishing EISs approaching 1,000 pages.

A variety of circumstances have contributed to the growing size and complexity of our 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.

Over the past several years, WSDOT has been working to improve the way we communicate with our customers, the citizens of Washington State. Transportation issues are important to our citizens, and it's important that we communicate effectively about the work that we do.

Our new, reader-friendly EAs and EISs have helped build public trust and have reduced frustration with over-sized and overly complex documents. It has also benefited the project teams in time savings with faster reviews, and by generating more constructive and concise public comments because the public has a better grasp of our proposals.

## **2 What's happening nationally?**

There has been a lot of frustration at local and national level that environmental documents are too cumbersome. A 2004

Joint Survey conducted by the American Association of State Highway and Transportation Officials (AASHTO) and the American Council of Engineering Companies (ACEC) stated that “documents are much too cumbersome for either the public or decision-makers to identify relevant issues”.

An AASHTO/ACEC report dated July 2006, called *Improving the Quality of Environmental Documents*, advises on the use of different formats or alternative approaches to preparing NEPA documents, such as the "reader-friendly" document approach. The FHWA and WSDOT worked with the AASHTO and ACEC to prepare the report. The report built on the successes and lessons learned from WSDOT’s reader-friendly document effort.

The report offers three core principles for quality NEPA documents

1. Tell the story of the project so that the reader can easily understand what the purpose and need of the project is and describe the strengths and weaknesses of alternatives
2. Keep the document as brief as possible by using clear, concise writing, an easy-to-use format, effective graphics and visual elements, and discussion of issues and impacts in proportion to their relative importance.
3. Ensure that the document meets all legal requirements in a way that is easy to follow for regulators and technical reviewers.

The FHWA fully supports the findings and recommendations included in the report, which represents not only FHWA's, but also the transportation industry's, current thinking regarding the use of different formats and alternative approaches to NEPA documentation.

### **3 What’s happening locally?**

Governor Gregoire signed Executive Order 05-03 on Plain Talk. Plain Talk uses the same principles discussed in this tool kit to help make documents more reader-friendly. Since the

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#### ***Improving the Quality of NEPA Documents***

Is located on the web at:

[http://environment.transportation.org/pdf/IQED-1\\_for\\_CEE.pdf](http://environment.transportation.org/pdf/IQED-1_for_CEE.pdf)

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*Reader-Friendly Document Tool Kit* was created to help improve environmental documents, it promotes a specific format. The goal of Plain Talk is to create “user-friendly” governmental documents. Clear, concise writing is its main focus. Format (i.e. document layout) is also recognized for its importance in creating written communication that is understandable to public audiences.

This tool kit was created to provide you with tips and tools to help you create environmental documents that are easier for people to understand and that will continue to meet the needs of regulatory and legal reviewers.

#### 4 **What key concepts can be used to create documents that are more reader-friendly?**

Four key concepts can be used to create documents that are more reader-friendly: tell a story, engage the reader, make it visual, and make it brief. These concepts aren’t anything new—they are just a compilation of techniques you can use to communicate better with the different people and audiences interested in WSDOT projects.

The resources we used to develop the reader-friendly approach are summarized below. To learn more, we suggest you review some of these materials on your own to gain a better understanding of how you can use them to create documents that are more reader-friendly.

#### **Tell A Story: Joseph Williams – Author of *Style: 10 Lessons in Clarity and Grace (7th Edition)***

Williams’ book teaches people how to tell a story and write clearly. Clear thinking and writing isn’t something that comes quickly and easily, and it’s not something that the authors of environmental documents are particularly famous for. The subjects discussed in environmental documents are often complex, and the specialists writing about these difficult topics are typically trained to write for technical audiences and not for the public. The lessons in Williams’ book will help you prepare your writing, reduce the distance between you and your audience, and organize your document.

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#### **The Governor’s Executive Order and Plain Talk**

The website below provides additional information about the Governor’s Executive Order and Plain Talk.

<http://www.accountability.wa.gov/plain-talk/default.asp>

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#### **Tell a story**

Environmental documents are stories about projects in communities where people live, work, and play. Williams’ book will help you prepare your writing and organize your document.

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### **Engage the Reader: Vancouver Rail EIS**

WSDOT's Draft Vancouver Rail EIS was published in 2002 and the Final EIS was published in 2003. The Vancouver Rail EIS used question-and-answer headings that helped engage the reader. Question-and-answer headings are a technique you can use to create documents that are more reader-friendly. Question-and-answer headings help readers process the information they are reading. It also guides readers to information instead of requiring them to search for it.

The Vancouver Rail EIS engaged readers in other ways too. Important technical information was contained in the appendices of the EIS. This allowed the main text of the EIS to be much shorter than most WSDOT EIS documents. Also, the EIS was written by one author, so the entire document had a consistent tone. Finally, whenever possible, text and graphics were placed on the same page to make the document more understandable.

### **Make it Visual: Edward Tufte**

Edward Tufte's books and training course provide guidance on how to create meaningful graphics representing complex data sets. In addition, Tufte stresses the importance of integrating visual images and text. For example, most environmental documents describe the project area on one page and readers must flip to the next page to see the area located on a map. Tufte's work demonstrates how much more understandable documents can be if the text and graphics are placed on the same page.

Tufte leads annual seminars in the Seattle area. Information about his work and books can be found at <http://www.edwardtufte.com/tufte/index>. The text below provides an overview of some of his books:

- *Visual Display of Quantitative Information* focuses on the theory and design of statistical graphics, charts, and tables. It includes illustrations of statistical graphics, with detailed

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#### **Engage the reader**

Engage readers by using questions as headings.

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#### **Make it visual**

Text and graphics belong together. Text and graphics placed on the same page make for a document that is much more interesting and understandable to readers.

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analysis of how to display data for precise, effective, quick analysis.<sup>1</sup>

- *Envisioning Information* provides practical advice on how to explain complex information visually.<sup>1</sup>
- *Visual Explanations: Images and Quantities, Evidence and Narrative* describes how to create pictures of verbs. It provides visual examples of mechanism and motion, process and dynamics, causes and effects, explanation and narrative.<sup>1</sup>

### **Make it Brief: NEPA/SEPA Regulations**

Our project teams can not develop sound environmental documents without an in-depth understanding of the NEPA and SEPA regulations they must satisfy. You may be surprised to know that NEPA and SEPA regulations offer a great deal of flexibility. These regulations not only support but actually require environmental documents to be clear, concise, and yes—even brief. Supporting citations include:

- NEPA 40 CFR 1502.8 – Environmental impact statements shall be written in plain language and may use appropriate graphics so that decision makers and the public can readily understand them. Agencies should employ writers of clear prose or editors to write, review, or edit statements, which will be based upon the analysis and supporting data from the natural and social sciences and the environmental design arts.
- NEPA 40 CFR 1500–1508 – Most important, NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail. Emphasize the portions of the environmental impact statement that are useful to decision makers and the public.
- SEPA WAC 197-11-400(3) – Environmental impact statements shall be concise, clear, and to the point, and

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#### **Make it brief**

This key reader-friendly concept came directly from NEPA/SEPA regulations. These regulations encourage people to create brief environments (such as EISs and EAs) that summarize and reference supporting technical details.

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#### **Did you know?**

NEPA states in 40 CFR 1502.7 that EISs should normally be less than 150 pages in length. EISs for complex projects should be less than 300 pages. SEPA is even more restrictive. WAC 197-11-730(4) states that a SEPA EIS should not exceed 75 pages. EISs for complex projects should be less than 150 pages.

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<sup>1</sup> <http://www.edwardtufte.com>

shall be supported by the necessary environmental analysis. The purpose of an EIS is best served by short documents containing summaries of, or reference to, technical data and by avoiding excessively detailed and overly technical information. The volume of an EIS does not bear on its adequacy. Larger documents may even hinder the decision making process.

## 5 How do you tell a story?

We usually don't think about environmental documents as stories, but they are stories about proposed projects in the communities where we live, work, and play. There are many ways to tell a project's story.

The following tips will help you create environmental documents that tell a story:

- Organize your document and develop an outline.
- Explain the problem and why people should care.
- Write clearly and use simple language.
- Highlight benefits associated with your project.

### **Organize your document and develop an outline.**

Writing is a process, not a one-time event. Before you begin writing, you must spend time thinking about your audience and the best way to tell your project's story. Determine who your audience is, what they want to know, and how they will use the information contained in your document.

Once you've identified your audience, you can launch into the next step in the writing process and develop an outline to organize the document to tell your story.

There are many different ways to organize environmental documents. The goal is to organize the document to meet the needs of your audience. If you are writing an EIS, EA, or technical reports, there are several required components to your document, but you have flexibility in how you organize the document. Don't take this task lightly. Think hard, brainstorm, and be creative and pragmatic. The example below shows a

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#### **Helpful Tip**

Chapter 4 describes additional tips to help you organize EISs and EAs. Appendix G contains outlines WSDOT developed for the Alaska Way Viaduct EIS and the I-405 Kirkland Nickel Project EA.

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traditional transportation EIS outline and a reader-friendly transportation EIS outline.

**Exhibit 2-1  
EIS Outline**

Traditional EIS	Reader-Friendly EIS
1. Alternative Description	1. What is the alternative?
a. Structures	2. How would it be built?
b. Design Standards	3. How would it change access?
c. Illumination	4. How would it affect travel times and traffic flow?
d. Pedestrian and Bicycle Facilities	5. How would pedestrians and bicycles be affected?
e. Construction	6. What would it look like?
2. Impacts and Mitigation	7. How would noise levels change?
a. Land Use	8. How would it change the character and land use in the project area?
b. Visual Quality	
c. Traffic	
d. Noise	

Notice how the reader-friendly outline is organized. The order is logical and it tells a story by first describing the alternative, then explaining how the alternative would be built, and finally describing the effects. The effects discussion begins with transportation and then flows into other related topics such as visual quality and noise.

The traditional EIS example has a structure and organization, but it isn't organized to tell a story. Notice that transportation effects are not discussed until the third item under Impacts and Mitigation. For WSDOT documents, transportation *is* the reason for the project and the focus of the story, so it should nearly always be discussed at the beginning of the effects discussion.

**Explain the problem and why people should care.**

The story of your project will be more interesting to the reader if they can immediately understand its purpose and why they should care about it. This is also an engaging way to present the purpose and need of your project. Every WSDOT project is striving to fix some problem such as a safety issue, congestion,

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**Tool Alert!**

Appendix C, Writing Tips, provides you with tips to help you write more clearly. It also contains a writing worksheet so you can practice writing clearly.

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etc. Identify the problem your project will fix, and explain to people how fixing the problem will directly affect them.

### **Write clearly and use simple language.**

Writing clearly takes practice and training, and it is much more difficult to do than it sounds. Writing clearly and using simple language doesn't mean "dumbing information down"—it requires much more than that. For years we have written environmental documents that are impersonal and vague because we've been taught to write that way. Now we need to train ourselves to communicate more directly.

Writing clearly is a process, and it takes time to do it well. It may sound obvious, but you must think clearly before you can write clearly. 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. In addition, it is difficult to write clearly without a framework or clear direction. That's where a well-thought-out outline will benefit writers, especially if it's written in a question-and-answer format. The questions help the writer get to the point and present the information that the reader needs to know instead of providing unnecessary information that distracts the reader.

In many cases, environmental writers present a lot of information, analysis, and data, but they don't draw conclusions. So, it stands to reason that writing the first draft of a document is often the first step that helps the author draw conclusions from their work. Clear writing is an iterative process, not a one-time event. Do not expect to get it right on the first try! Nobody does. The process of writing is outlined below; don't skip steps or change the order—all of these steps are needed to create reader-friendly documents.

- **Know your audience** – Identify your readers. Think about how they will use your document, why they are reading it, and the information they need to know. Once you identify your audience or audiences, think about the best way to communicate with them and take that into consideration as

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### **What other resources can help me improve my writing?**

It takes practice to write clearly. Some helpful resources include:

1. Joseph Williams' book, *Style: 10 Lessons in Clarity and Grace*.
2. WSDOT's communications tool kit, available on WSDOT's internal website at <http://www.wsdot.wa.gov/NR/rdonlyres/E544FF5F-EB61-4AB2-895D-D33CCE90C83B/0/WSDOTCommunicationsManualWeb.pdf>.
3. The Plain Language Action Network's website at <http://www.plainlanguage.gov>.
4. Natalie Macris' book *Planning in Plain English*. This book is available through the American Planning Association at <http://www.planning.org/APAStore/Search/Default.aspx?p=1867>.
5. Writing Documents in Plain Talk classes through Washington State Department of Personnel are consistent with Reader-Friendly. <http://www.dop.wa.gov/CourseDetail>.

you develop your document's organization, layout, illustrations, style, tone, and content. Balance what is best for your audience with constraints such as schedule and budget.

- **Get organized** – Determine how the document will be organized and develop an outline. Your outline should include an outline for graphics.
- **Draft, review, and revise** – Writing is an iterative process that continues until both the thinking and the writing become clear.

### **Highlight benefits associated with your project.**

Typically, environmental documents do a great job documenting adverse effects associated with a project, but they rarely mention the benefits associated with a project. Most environmental documents also don't do a good job documenting WSDOT's efforts to avoid or minimize negative environmental effects as part of project development. It's important to document both negative and positive effects that may be caused by a project – this is a very important part of your story! Why would WSDOT undertake projects that only resulted in negative effects? It just doesn't make sense. If benefits are not discussed in your document, readers don't get a full and accurate picture of the project's net effects.

What is a benefit and how do I know if my project has any? There are many possible benefits that may result from a proposed project. Perhaps the proposed project will decrease congestion. Decreased congestion may improve travel times and air quality. Maybe your project improves water quality by upgrading the existing stormwater system or providing treatment where it is currently not provided. As you and your team are developing the EIS/EA and technical reports, make sure to document the benefits associated with the project.

How should environmental benefits be tracked throughout project development?

WSDOT puts a lot of effort into avoiding or minimizing project effects long before an EIS or EA is published.

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### **The process of writing and revising**

The first step in the writing process is to develop a game plan to guide your work—that's the outline. Then you need to get your thoughts written down on paper. The rest of your time should be spent revising your work. Get feedback from others as you revise your work. Edit in phases—this will help you focus on one issue at a time. Typical phases include: (1) make sure the document is organized in a way that makes sense to the reader, (2) look for and revise poorly written sentences, (3) check for grammar, spelling, etc., (4) verify references, exhibit numbers, etc.

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### **Helpful Tip**

In your environmental documents, make sure to document benefits associated with the project.

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Engineers often avoid or minimize effects to a historic building or wetland in preliminary design by shifting a roadway alignment. These efforts to avoid adverse effects are often not discussed in environmental documents, but they should be. If possible, engineers or the environmental lead should keep a list of effects that were avoided or minimized as part of project development. This will help build credibility with readers by demonstrating that the project team has been working in good faith to limit adverse project effects.

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**Helpful Tip**

An engineer or the environmental lead should document environmental effects that were avoided or minimized as part of project development.

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**6 How do you engage the reader?**

The following concepts will help you create documents that engage your readers.

- Use question-and-answer headings.
- Make the reader a character in the story.
- Define terms and spell out acronyms often.
- Use easy-to-read layouts to keep the reader from being overwhelmed.

**Use question-and-answer headings.**

We use question-and-answer headings to make these our documents more engaging to readers. Question-and-answer headings help direct readers to the information they are most interested in, and they help readers process the information they are reading. Question-and-answer headings also give writers an opportunity to cover NEPA/SEPA 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.

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**Reader Alert!**

Question-and-answer headings should be used for all reader-friendly documents, including EISs and EAs.

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**Exhibit 2-2  
EIS Headings**

<b>Traditional EIS</b>	<b>Reader-Friendly EIS</b>
Purpose and need	Why do we need the project?
Project termini and why they are logical	Where is the project located?
Social and community impacts	How would the alternative affect neighborhoods and the people who live there?

**Make the reader a character in the story.**

Another way to engage readers is to make them a character in your story. If your readers are characters in your document, it will also help them understand how the project will affect them. An example of a traffic section describing congested intersections is shown below using traditional EIS language and reader-friendly text that includes the reader as part of the story.

**Exhibit 2-3**

**Engaging Your Readers**

Traditional EIS	Reader-Friendly EIS
<p>Intersections that are projected to operate with especially long delays or overcapacity during the PM peak hour are identified as “congested intersections.” These intersections are those that operate under LOS F conditions (average vehicle delay of greater than 80 seconds) or ICU greater than 100 percent. Congested intersections are further identified as “highly congested” if they exceed 110 seconds of average vehicle delay and have an ICU greater than 110 percent.</p>	<p><b>What are congested and highly congested intersections?</b></p> <p>Congested intersections are intersections that cause drivers considerable delay. A driver might wait between one and two minutes to get through a traffic signal at a congested intersection. At a highly congested intersection, a driver might wait two minutes or more to get through the traffic signal.</p>
<p><b>Notice how this paragraph talks about LOS, PM Peak, and ICU—meaningless terms to most readers.</b></p>	<p><b>This paragraph explains the same information as the traditional EIS paragraph only the reader can clearly understand how they will be affected.</b></p>

**Define terms and spell out acronyms often.**

Every industry has its own terms of art. For example, transportation professionals know what LOS and BMPs are; however, these terms are unfamiliar to most people. To communicate effectively, it is important to define terms that are specific to the profession. Use sidebars like the ones on this page to define unfamiliar terms. Be sure to define the terms using words and phrases that people can relate to.

Spell out acronyms often and/or limit their use. Don’t isolate readers and make them guess what the acronyms mean.

Consider limiting the use of acronyms. Use them only when they are necessary or when spelling out the acronym takes away from the flow of the document. If the Washington State Department of Transportation were spelled out every time it was used in this document, it would become distracting and cumbersome to you, the reader. However, terms used less frequently should be spelled out within the text when they are

**Define terms**

Use sidebars like this one to define industry terms using language people can easily understand. For a list of definitions we’ve used in other documents, see the examples located under the tab marked Appendix F, Definitions. The WSDOT *Environmental Procedures Manual*, Appendix B contains a glossary of commonly used terms.

used. A list of acronyms should also be provided as part of the document to help guide readers.

**Use easy-to-read layouts to keep the reader from being overwhelmed.**

The document you are reading has lots of white space, which makes it easy for people to read. White space is not wasted space—it is an intentional part of a document’s layout. The white space helps to provide boundaries and not overwhelm the reader.

The fonts used in this layout were carefully selected so they would be easy to read. Also, the layout is consistent so the reader knows what to expect. Notice that sidebars are always located on the right-hand margin. The layout of your document is an important aspect of making documents easier to read and use.

WSDOT wants to create environmental documents that have a similar look and feel. To accomplish this goal, we are providing font and document styles for people to use when creating environmental documents using Microsoft Word. Appendix B contains tools you can use to create documents in Microsoft Word that look just like this *Reader-Friendly Document Tool Kit*. Appendix B provides a font style sheet you can use to create environmental documents that look like the tool kit.

The font style sheet gives you the information you need to set up your Microsoft Word document so it looks like the *Reader-Friendly Document Tool Kit*. You can set up your own template in Microsoft Word using the style specifications provided in Appendix B.

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**What are terms of art and what is jargon?**

A term of art is a word having a particular meaning in a certain field.

Jargon is a negative term describing specialized vocabulary.

Both are the language of the specialist. When writing for readers who share the same expertise, a term of art can be a useful shortcut that saves time and explanation. However, readers who don’t share this expertise may consider the word or phrase jargon, perceiving it as needlessly obscure and pretentious. If you must use terms of art, you can avoid irritating readers by defining them in sidebars.

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## 7 How do you make it visual?

There are four main ideas discussed in this section:

- Text and graphics belong together.
- Include graphs, charts, and illustrations rich with information.
- Be thoughtful when using tables.
- Think about graphic design early.

### **Text and graphics belong together.**

All too often, document authors separate pictures and figures from text by inserting them on the next page—or worse, at the very end of a document. Authors produce documents this way because it is easier for them to do and it tends to be cheaper. However, documents become instantly easier to use when graphics and text are presented together.

The best way to integrate text and graphics is to lay out your document using a document layout program. Unfortunately, this can cost more money and take more time. For complex and/or controversial projects, the payoff can be worth the extra effort.

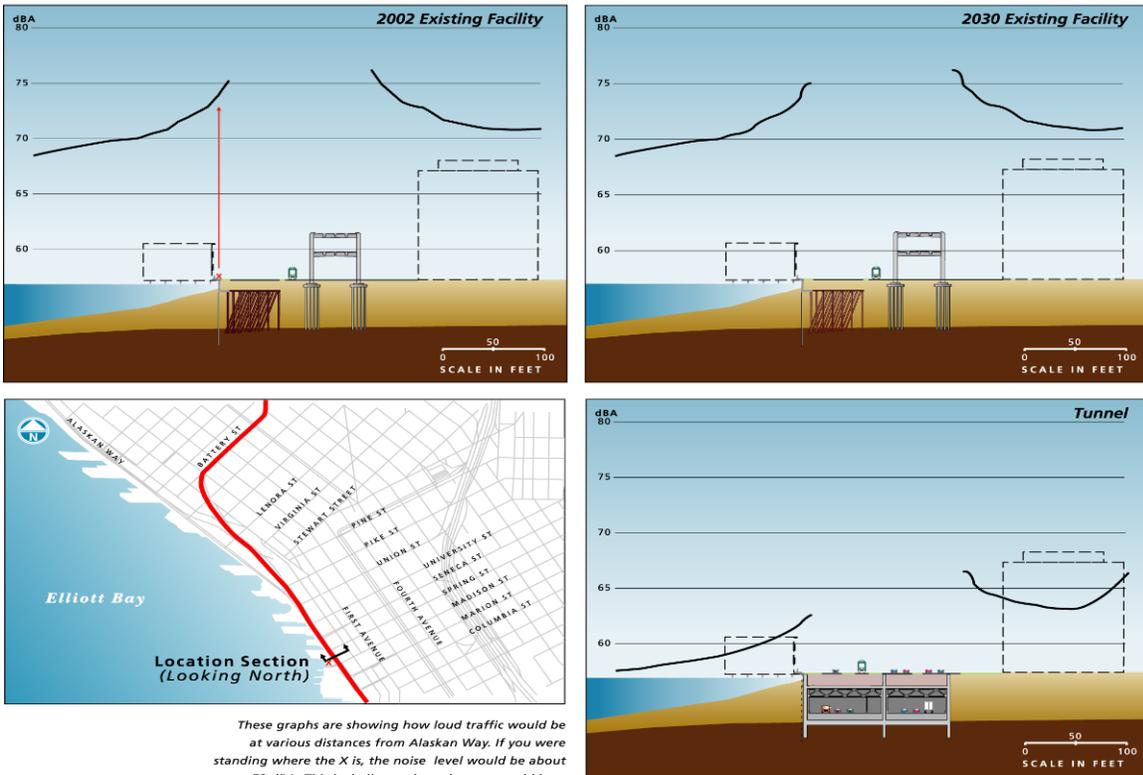
For smaller projects, a document layout program is too expensive to use, but there is a solution. Word processing programs (such as Microsoft Word) have the ability to create documents that merge both text and graphics.

### **Include graphs, charts, and illustrations rich with information.**

As you begin to examine the data collected from the technical reports, consider using visual displays to present the information. The illustrated graphs below provide a new way to display and compare a complicated and detailed set of noise data for the alternatives examined.

Exhibit 2-4

### **Noise Levels for Each Alternative**



These graphs are showing how loud traffic would be at various distances from Alaskan Way. If you were standing where the X is, the noise level would be about 72 dBA. This is similar to the noise you would hear standing 3 feet from a blender.

The noise illustrations above show the reader more than a table ever could. Instead of showing just one noise level expected at a particular location along a corridor, they show readers how noise levels will change as a person moves closer or further from the noise source (in this case the roadway and the Alaskan Way Viaduct). In addition, readers can compare noise levels quickly between the alternatives.

**Be thoughtful when using tables.**

Tables can be extremely useful tools. Think about the amount of information conveyed by newspaper stock tables reporting daily trading for the New York Stock Exchange. However, in environmental documents, tables are often overused and they may not be the best tools for comparing data or drawing conclusions from data. Be thoughtful when you use tables, sometimes a graphic may be a better way to display information.

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**Make it visual**

The illustrations above show noise levels for different alternatives in a way the reader can understand and easily compare. In addition, readers can see how noise levels change as they move closer to or further from the roadway.

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Table Example 1

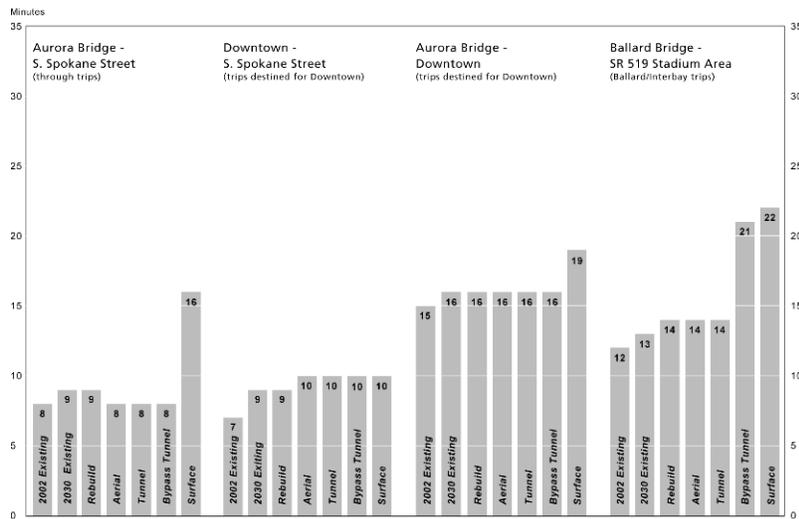
The tables below display information about travel times for the alternatives examined. The tables aren't bad, but they really don't help the reader make comparisons between alternatives.

**Exhibit 2-5  
2030 Corridor Travel Times**

Southbound	2002 Existing	2030 Existing	2030 Rebuild	2030 Aerial	2030 Tunnel	2030 Bypass Tunnel	2030 Surface
Aurora Bridge – S. Spokane Street	8	9	9	8	8	8	16
Downtown Seattle– S. Spokane Street	7	9	9	10	10	10	10
Aurora Bridge – Downtown	15	16	16	16	16	16	19
Ballard Bridge – SR 519 (Stadium Area)	12	13	14	14	14	21	22

The bar charts below contain the same information as the table, but they do a much better job displaying the data in a way that is easy for readers to compare the results.

**Exhibit 2-6  
Southbound Travel Times**



**Tool Alert!**

Appendix E, Create a Bar Chart, contains a step-by-step guide that teaches you how to create a bar chart that looks similar to these charts using Microsoft Excel.

Table Example 2

The table and map below provide another example of how information from tables can be turned into meaningful visual displays. The table below reports the number of congested and

highly congested intersections for two alternatives. The problem with the table is that it only provides the reader with half of what they need to know. To fully understand the data, the reader needs to know both the number of congested intersections and their locations.

**Exhibit 2-7  
Congested Intersections by Sub-Area**

	Street	2030 Existing	
		Facility	Surface
South	Moderately Congested	0	2
	Highly Congested	2	0
	<b>Total</b>	<b>2</b>	<b>2</b>
Central	Moderately Congested	5	7
	Highly Congested	3	7
	<b>Total</b>	<b>8</b>	<b>14</b>
North Waterfront	Moderately Congested	0	0
	Highly Congested	0	0
	<b>Total</b>	<b>0</b>	<b>0</b>
North	Moderately Congested	5	6
	Highly Congested	0	1
	<b>Total</b>	<b>5</b>	<b>7</b>
<b>Totals</b>	Moderately Congested	10	15
	Highly Congested	5	8
	<b>Total</b>	<b>15</b>	<b>23</b>

**Problems with the table**

This table allows readers to compare the number of congested intersections between the two alternatives, but it only gives readers a vague idea about where the changes will take place.

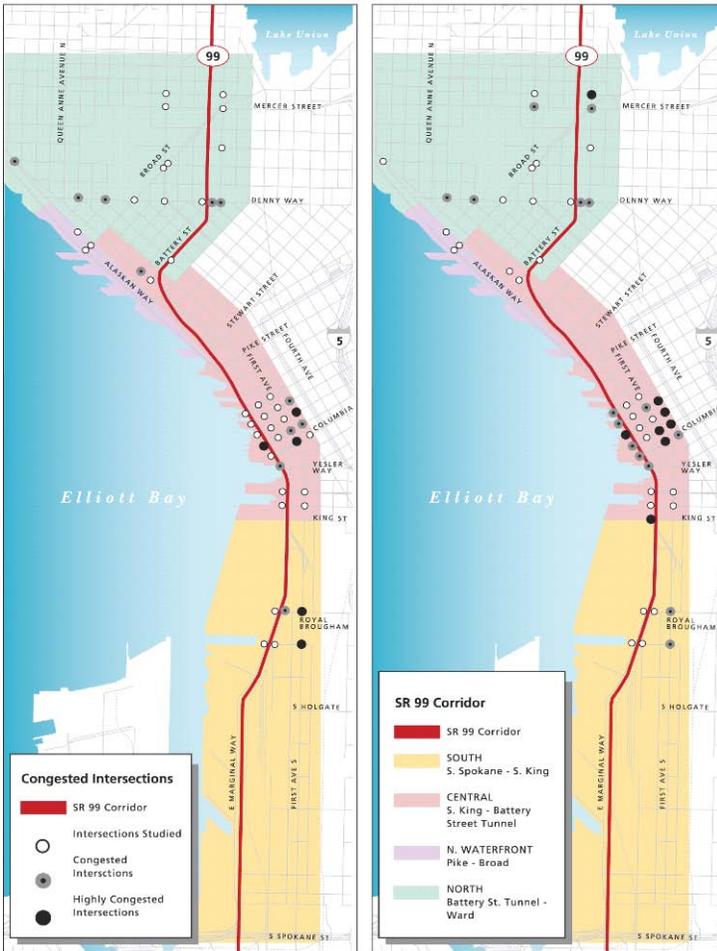
The maps on the next page allow people to compare both the number of congested intersections and their specific (not general) locations, allowing people to understand how each alternative will directly affect them.

### Exhibit 2-8 Surface Alternative Congested Intersections

During the PM Peak 4:00-5:00

2030 Existing Facility

Surface



#### Using maps to explain data

These maps are more effective than the table shown on the previous page. They help people to compare both the number of congested intersections and their specific locations, which allows people to understand how each alternative will directly affect them.

#### Table Example 3

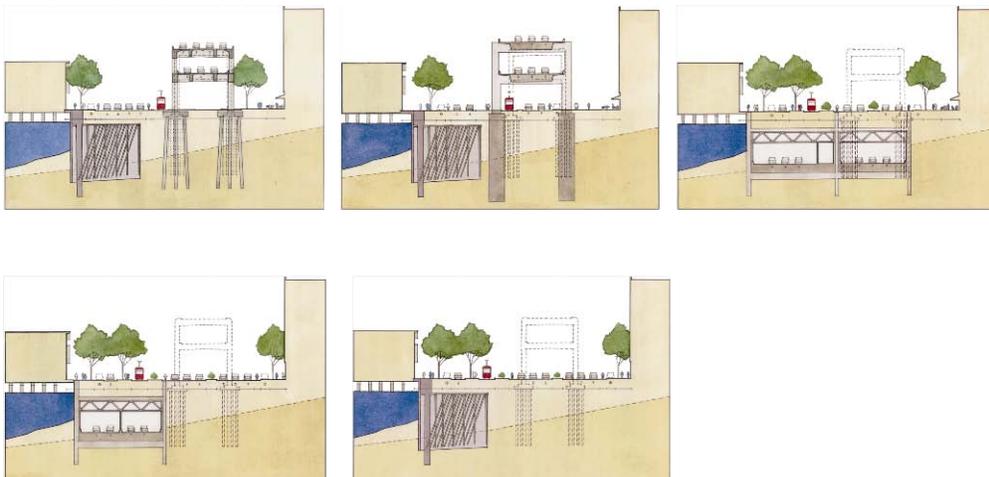
Let's talk about the monster table seen in every EIS—the dreaded summary table of impacts and mitigation. It's not uncommon for the summary table to consume 20 to 30 pages of an EIS. These tables can be impossible to wade through and they rarely help readers make meaningful comparisons between the alternatives. Please consider replacing the monster table found in many environmental documents with comparative graphics, text, and tables.

**Exhibit 2-9  
Typical EIS Summary Table**

South A Alignment (Selected Alternative) Impacts		Measures to Minimize Harm (Project Features, Mitigation Measures, and Enhancements)	Mitigation Considered but Not Carried Forward
TOPOGRAPHY, GEOLOGY, AND SOILS Operations	Low risk of slope instability and low potential for continued erosion.	<b>Project Features:</b> <ul style="list-style-type: none"> <li>Limit cut and fill slopes. Where slopes steeper than 2 horizontal to 1 vertical are required, install retaining walls.</li> </ul>	None.
Construction	Existing drainages could be blocked or altered during clearing and grading. Soils would be exposed. Grading would be required.	<ul style="list-style-type: none"> <li>Apply appropriate construction pollution prevention best management practices (BMPs) to control erosion and sedimentation impacts.</li> </ul>	None.
WATERWAYS AND HYDROLOGY Operations	Increased runoff volumes and rates due to more impervious surface. Increased flooding potential from increased runoff, downstream construction, and concentrated stormwater flows. Encroachment into Thorne Lane Wetland would reduce flood storage and/or increase flooding.	<b>Project Features:</b> <ul style="list-style-type: none"> <li>Use stormwater facilities sized to accommodate peak flow events and located away from sensitive receiving surface water bodies.</li> <li>Comply with state and local requirements regarding erosion and sediment control plans, biofiltration swales, groundwater protection, pretreatment basins, pollutant control, and stormwater treatment.</li> <li>Construct permanent stormwater management facilities in compliance with the 2001 Ecology Manual or Ecology approved WSDOT Highway Runoff Manual.</li> <li>Place culverts through the roadway embankment at location to provide conveyance opportunity for overland stormwater flow.</li> <li>Relocate or pipe the portion of the existing open drainage through the Thorne Lane interchange that would be filled by the project.</li> <li>If infiltration is selected during detailed design, locate the infiltration facilities in such a manner to minimize the risk of increases in local groundwater elevations that could contribute to flooding in adjacent areas.</li> <li>Provide compensatory floodplain storage for encroachment into the Thorne Lane Wetland and Coffee Creek/Audubon Springs. For example, remove fill previously placed in the Thorne Lane Wetland for Murray Road SW; thus increasing net storage volume and reducing the potential for localized flooding.</li> <li>Comply with federal requirements for the protection of the Central Pierce County Sole-Source Aquifer. For example, during construction and operation, use BMPs approved in the 2003 MOU between FHWA Region 10, EPA Region 10, and WSDOT.</li> </ul>	None.

The table above is a typical, multi-page EIS summary table. These cumbersome tables are rarely helpful to readers. Instead, use combinations of text, tables, charts, and graphics to highlight important differences between alternatives.

**Exhibit 2-10  
The Alternatives**



**Think about graphic design early.**

Good graphic design and layout requires time and planning. The author must think about the graphics as the text is being developed. Again, this is a common-sense tip; however, it is very common for authors to wait until their text is written before they spend time thinking about the graphics they will need. Graphics, maps, and tables are not an afterthought to make the document look pretty; they are a very important part of the story. Well-done graphics help the words come to life. When you create an outline for your document, make sure to include a simple outline of the graphics you think you will need so you can plan adequate time and budget to create them.

**8 How do you make it brief?**

The following concepts can be used to help make your documents brief:

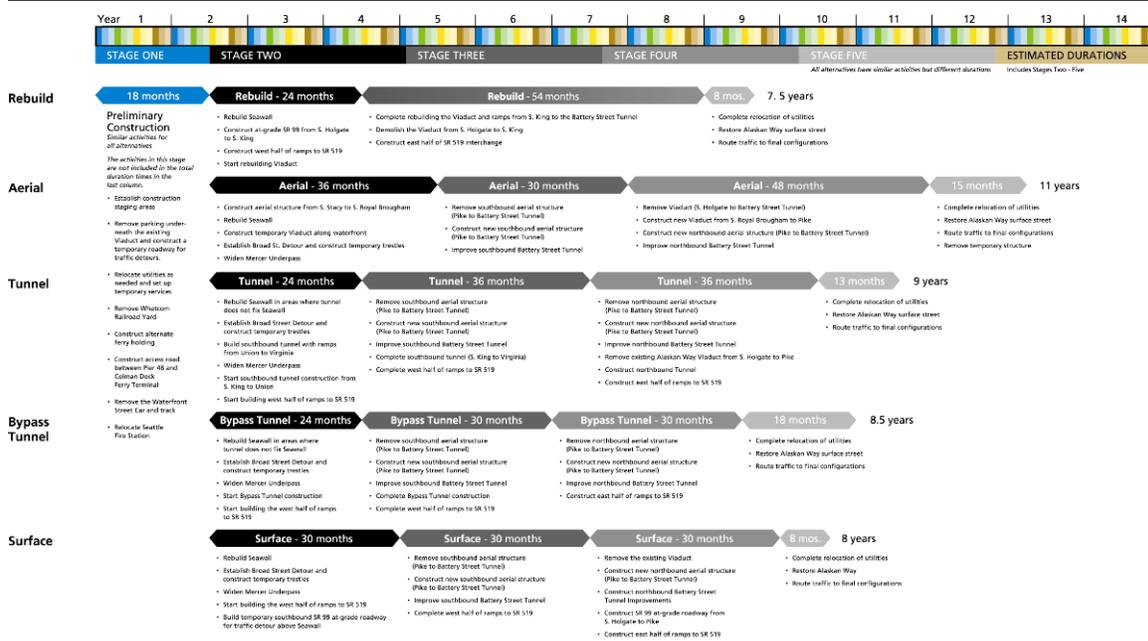
- Summarize information.
- Provide supporting technical information for technical and legal reviewers.
- Provide information that is relevant.

**Summarize information.**

It's pretty obvious that summarizing information helps make documents brief. What's not so obvious is that sometimes the best way to summarize information is to make the information visual.

## Exhibit 2-11 Alternatives Construction Chart

Timeline Assumes Full Project Funding



With some creative thinking, clear writing, and help from a graphic designer, 16 pages of text were summarized into the one-page graphic shown above. The graphic compares the construction durations and sequences for five alternatives on a single page! Not all information can be summarized to this degree, but try to condense text whenever possible.

### Provide supporting technical information for technical and legal reviewers.

When developing your documents, it's important not to forget technical and legal review audiences. Work to keep the body of the EIS and EA brief, but don't cut corners and leave out important technical information needed for agency review and legal review. NEPA and SEPA regulations support the development of concise environmental documents that summarize key findings of technical reports or other technical studies, but they must be referenced throughout the main body of the EIS or EA and contained in an appendix. Consider providing all supporting technical documents as a CD attached

### Using graphics to make it brief

The graphic above shows how you can use a visual display to help make things brief. The graphic above effectively condenses 16 pages of text into a comparative chart. This graphic had to be reduced to fit on the page—the full (readable) version is located in Appendix D, Graphics Tips.

to your EIS or EA. This can be a cost-effective way to ensure that the information is accessible to a broad audience.

Develop a good roadmap to lead technical reviewers to supporting technical information. Sidebars can be used extensively throughout your document to direct technical reviewers to additional supporting technical information contained in appendices. In addition, consider developing other tools for reviewers, such as a special index and annotated outline. Chapter 4 contains additional information and examples of helpful tools you can create to help guide technical reviewers.

**Provide information that is relevant.**

You can cut down on the size of your EIS or EA by including only relevant information. If the effects are not important, they should be mentioned only briefly. NEPA and SEPA regulations support this idea.

- **NEPA 40 CFR 1502.2** – Impacts shall be discussed in proportion to their significance. There shall be only brief discussion of other than significant issues.
- **SEPA WAC 197-111-402(2)** – The level of detail shall be commensurate with the importance of the impacts, with less important materials summarized, consolidated, or referenced.
- **SEPA WAC 197-111-402(3)** – Discussion of insignificant impacts is not required; if included, such discussion shall be brief and limited to summarizing impacts or noting why more study is not warranted.

For example, energy is often a topic that needs to be covered in environmental documents; however, in many cases effects are negligible and they don't differ between the alternatives. If this is the case, then simply state the facts—the project will have a negligible effect on energy within the project area and the effects do not differ between the alternatives. Refer interested readers to the technical report that supports your conclusion. Don't include a lot of discussion about effects that don't matter,

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**Helpful Tip**

Use sidebars to guide technical reviewers to supporting technical information contained in the appendices. Additional tools you can create for technical reviewers are discussed in Chapter 4.

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**Make it brief**

Don't include a lot of discussion about effects that don't matter. Only discuss project effects if and where they are relevant and important.

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have a negligible effect on the natural and human environment, and don't help decision makers compare alternatives.

In addition, only discuss project effects if and where they apply. For example, most transportation projects don't affect or create hazardous materials after they are built. However, hazardous materials cleanup, disposal, and effects can be issues of concern during construction. If effects may only occur during one time period for your project (construction or after the project is built), only discuss them once—further discussion simply isn't necessary.

# Chapter 3 Tips for Creating Reader-Friendly Environmental Documents

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## 1 What special skills are needed to create reader-friendly documents?

The size of your team depends on your project's technical issues and its size, schedule, and budget. Aside from the project manager, two primary groups are needed to create your environmental document:

- **Technical team** – Made up of technical experts responsible for developing supporting technical reports (this includes discipline reports and technical memoranda).
- **EIS or EA development team** – Made up one or more EIS/EA writers. Also, it is helpful to include a graphic designer or help from WSDOT's graphic design and GIS staff if you have the budget.

### **Technical experts – writers and reviewers**

Your team will still need technical experts to develop, write, and review the technical reports that form the foundation of the EIS/EA. The list of experts needed varies based on project needs.

### **Technical editor**

A technical editor is essential and needs to edit the draft and final versions of all technical reports and the EIS/EA.

Technical editing helps ensure quality products are delivered, and it also helps to make efficient use of the reader's time.

### **EIS/EA writers**

You will also need one or more EIS/EA writers for your team. It's important the writers have direct experience developing NEPA and SEPA documents. The writing team should consist of different individuals than the technical team so they can focus solely on writing clearly.

### **Graphic designer**

It's helpful to have a good graphic designer on your team. It's important that the designer you work with has direct experience designing visual displays of information, creating document layouts, and managing document production. Production experience is a must-have if you will be producing a document that uses a sophisticated printing process.

Don't forget to talk to internal WSDOT graphics staff. WSDOT has a graphic design department and a GIS mapping department. Talk with them to see what kind of support they can provide. They can help you with the graphic standards for WSDOT documents. WSDOT employees should review the graphics guidelines in the Communication Manual Appendix on WSDOT's intranet. For help with graphics, contact Connie Rus at (360) 705-7423. For help with GIS, call Elizabeth Lanzer at (360) 705-7476. Also, if you have a small budget, learn to be creative with the programs you have available on your desktop, such as Microsoft Excel and PowerPoint.

## **2 What are the tradeoffs between having one document author versus a few authors?**

There are two ways to structure the writing team for your environmental document (EIS, EA, or other documents): have one author or a small team of authors. The advantage of having one author is simple—with one author it is much easier to achieve a common voice and writing style throughout the entire document. The disadvantage is time—it takes more time for one author to complete the writing task compared with multiple authors. It is possible to get a good product with a small team of authors; however, once the document is drafted, one person should edit the document so it conveys a common voice.

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#### **Tool Alert!**

Appendix C contains tools for writers including writing tips and a writing worksheet you can use to practice applying clear writing techniques.

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#### **Tool Alert!**

Appendix D contains graphic design tips. You can learn to create a bar chart by following the instructions in Appendix E, Create a Bar Chart.

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#### **Use WSDOT's internal graphics resources**

Don't forget to talk with WSDOT staff to see what skills they can add to your team. For information about WSDOT's graphic design expertise, contact Connie Rus at (360) 705-7423 or visit WSDOT's internal website at <http://www.wsdot.wa.gov/NR/rdonly/res/34B8DDC8-C7B5-48D2-9ACD-FF8AEBF099DA/0/WSDOTCommunicationsManualappendix.pdf>

For GIS help, contact Elizabeth Lanzer at (360) 705-7476.

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### 3 How can you apply reader-friendly concepts to projects of all shapes and sizes?

Reader-friendly concepts can be used to develop documents for small, medium, and large WSDOT projects. This tool kit is a good example of a reader-friendly document developed on a small budget and tight timeline. Notice the techniques used throughout this document to engage the reader:

- This document makes limited use of graphics, though they are provided where needed.
- Graphics are integrated with the text.
- The document is written using question-and-answer headings.
- Sidebars are used to highlight key concepts.
- Footnotes are used where they are helpful.
- Examples are provided in an appendix, and other technical resources are referenced.
- The writing is clear and easy to read.

For large and complex projects, there are additional opportunities to apply reader-friendly concepts, especially as they relate to graphic design and document layout. If you plan to create your document using Microsoft Word, WSDOT has developed specific font and document styles that you should use so WSDOT environmental documents have a similar look and feel. Tools provided in Appendix B will help you create WSDOT environmental documents that look just like this *Reader-Friendly Document Tool Kit*. We provide you a number of tools in the appendices to help you create environmental documents that look like the tool kit, including a font style sheet for WSDOT environmental documents.

The font style sheet in Appendix B provides you the information you need to set up your document so it looks like the *Reader-Friendly Document Tool Kit*. You can either set up

your own template using the style specifications provided in Appendix B.

If you have the time, budget, and expertise you may want to consider using a graphic design program such as InDesign for your main EIS or EA. If you use a graphic design program to create your document, remember it's still important to achieve a consistent look for WSDOT environmental documents so contact the Environmental Services office if you plan on varying the format.

#### **4 When should technical reviewers (such as other regulatory agencies) be involved in reader-friendly document development?**

As early as possible! It's very important to work with technical reviewers (including co-lead agencies and regulatory agencies) as the EIS/EA and technical reports are developed. That way they know what to expect when they see the product they are going to review. Make it a priority to work closely with resource agencies to keep them involved both in the EIS/EA process and project development. Provide opportunities for review agencies to provide feedback early in the project as the approach is developed. If there are many agencies that need to be involved with review (such as EIS projects with cooperating and participating agencies), make sure to identify review agencies early and keep them involved as the project takes shape.

#### **5 What can be done to avoid inconsistencies between the EIS/EA and technical reports?**

One challenge of having multiple document authors on your team is maintaining consistency between the technical reports and the body of your EIS or EA. There are many ways you can avoid inconsistencies between reports.

- Require one technical editor and one technical reviewer to review all documents.
- Require the technical report authors to summarize the information in their report that they think should be

included in the EIS/EA. This section of the report can appear at either the beginning or end of the technical report.

- In addition to the bullet above, the EIS/EA author should work with each technical report author to make sure they have a clear sense of the information that should be covered in the EIS/EA.
- Technical report authors must review the EIS/EA in draft form to make sure information is technically accurate and consistent with their report.
- Encourage authors to communicate and work together. This sounds like common sense, but many disciplines are interrelated and communication is key.

## **6 Should reader-friendly concepts be applied differently between the EIS/EA and supporting technical reports?**

Technical reports contain details and information tailored toward technical reviewers and smaller audiences. EISs and EAs have broader public audiences. For that reason, it makes sense to apply reader-friendly concepts a bit differently for the two document types and is why we are not requiring technical reports to be prepared using reader-friendly elements, such as question-and-answer headings and sidebars.

Whether you incorporate reader-friendly elements into your technical reports or not, at a minimum the author must analyze the data, draw conclusions, and write clearly.

There are many reader-friendly concepts that you can incorporate into technical reports easily and in a cost-effective manner. Many of these ideas have been mentioned already—they include:

- Drawing conclusions from your data and analysis
- Writing clearly
- Knowing your audience

- Thinking about how your document will be organized and developing an outline for both text and graphics
- Creating clear graphics

## 7 **Are there other ideas you should try to incorporate in your environmental document?**

This section describes other ideas that you should try to incorporate in your environmental document:

- Use the words *effect* or *affect* instead of the word *impact*.
- Call figures and tables *exhibits* in your document.
- Use sidebars.
- Use headings wisely.
- Consider using footnotes instead of parenthetical references.
- Begin discussions with document printers early

### **Use the words *effect* or *affect* instead of the word *impact*.**

People often choose to use *impact* when they write about project effects because they don't know when and how to properly use the words *affect* and *effect*. We'd like you to use *affect* and *effect* instead of the word *impact*. That doesn't mean the word *impact* should never be used (we will still call EISs "environmental impact statements")—it just means that we'd like writers to use it less.

Generally, *affect* is used as a verb and *effect* is used as a noun. Of course, there are some exceptions—the English language is never that straightforward. Definitions are provided below to help clarify what these words actually mean so you can use them properly in your writing.

- **Affect** – The word *affect* can be either a noun or a verb; however, it is most commonly used in environmental documents as a verb. As a verb, *affect* means to have an influence on:<sup>2</sup> *Would any of the alternatives affect traffic volumes on I-5?*
- **Effect** – The word *effect* can also be used as a noun or a verb, but in environmental documents it is usually used as a noun. As a noun, the most common definition of the word *effect* is something brought about by a cause or agent, a result.<sup>3</sup> *How do effects to intersections compare between alternatives?*

### **Call figures and tables *exhibits* in your document.**

Figures and tables are typically labeled as such in environmental documents. It's not uncommon to have a lengthy list of both in the table of contents. Rather than number and label them separately (Table 3.4, Figure 3.4), we would like you to call all tables and figures *exhibits*.

### **Use sidebars.**

Sidebars are used extensively throughout this document. They are helpful tools for readers because they highlight important information in your document. There really isn't any limit to how sidebars are used. Sidebars can be used to:

- Define unfamiliar terms or concepts.
- Refer readers to additional information sources (for example, Appendix C contains writing tips).
- Identify where text with legal significance can be found (for example, purpose and need).
- Highlight tradeoffs or compare important pieces of information.
- Alert your readers.

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#### **This is an example of a sidebar.**

Sidebars can be used throughout your document in a variety of ways. Notice how they are used throughout this document to refer readers to additional information sources, contained in the appendices.

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<sup>2</sup> Definition provided by the American Heritage Dictionary on Yahoo! Reference

<sup>3</sup> Definition and example provided by the American Heritage Dictionary on Yahoo!! Reference

- Provide useful tips.
- Highlight or reinforce important points described in the document text (for example, there are no wetlands in the project area).
- Provide a helpful or interesting quotation.
- Identify project benefits and adverse effects.

### **Use headings wisely.**

Headings are structural cues used in complex documents to organize information. Most environmental documents use too many headings and subheadings with complicated numbering schemes that are difficult for readers to follow. Headings are important, but they must be used carefully to be effective.

We've all seen documents that excessively rely on headings as shown below:

## Environmental Effects

### 1.1 Noise

#### 1.1.1 No Action Alternative

#### 1.1.2 Alternative 1

##### 1.1.2.1 Operational Effects

##### 1.1.2.2 Construction Effects

Notice how the numbering beyond the third level becomes distracting. The headings and numbering system used in this tool kit are intentionally very simple. Only the chapters and questions are numbered. If additional headings are needed, they are not numbered. When you create your environmental documents, don't have more than 3 or 4 heading styles and don't number your headings past the 1.1, 1.2, etc. level.

### **Consider using footnotes instead of parenthetical references.**

A footnote is a note placed at the bottom of a page that comments on or cites a reference for a designated part of the

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#### **What are parenthetical references?**

Parenthetical references are reference citations captured in parentheses at the end of a sentence, as shown here (Author's name, year of publication).

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text.<sup>4</sup> A parenthetical reference is a citation captured in parentheses as shown here (Author’s name followed by a space and the year of publication).

Either approach is acceptable and technically correct. As you begin creating your EIS, EA, or other reports determine early on how you will cite your references. It can be helpful to use footnotes in your main EIS or EA document because they don’t disrupt the flow of text like parenthetical references. However, in technical reports, it is more common to use parenthetical references. Regardless of the approach you use, determine it early and alert your authors.

### **Begin discussions with document printers early.**

The printing process must be planned out in advance. This is very important advice that you and your team must follow if you plan to deliver a high quality document on time and within the limits of your budget. Begin discussions with your document printer once the project team identifies the basic document layout (page size and orientation; color, black and white, or both). Discuss any special requirements, such as attaching technical appendices on a CD in the back of the EIS/EA or including a simple tear-out comment form.

If WSDOT is producing the document, contact WSDOT’s printing service department. If you are working with a consultant, they may work with a different printer. Either way, determine up front how much lead time your printer will need for production.

## **8 What additional tips can help me create good graphics for my document?**

### **How do you know when you should create a graphic?**

There is no prescribed method to determine when it’s appropriate to turn data into a graphic. The key is to develop text and graphics that get the message across to the reader in a way that is interesting, factual, and engaging. You also must

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<sup>4</sup> Definition provided by the American Heritage Dictionary on Yahoo! Reference.

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### **Where can I learn more about WSDOT’s printing service department?**

Contact Deb Register at (360) 705-7842 or [regestd@wsdot.wa.gov](mailto:regestd@wsdot.wa.gov) for more information about WSDOT’s printing services.

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### **Tool Alert!**

Appendix D contains graphics tips you can use to help create effective graphics. Also, consider reading Edward Tufte’s books to learn how to create well-designed graphics.

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keep your project budget in mind and develop graphics when they can be most effective. To do this, you must know the data well and have a clear picture of the message you are trying to convey to your readers. If you are having a hard time understanding or explaining the data, it might be helpful to try to develop a graphic. As you look at the data, ask yourself the following questions:

- What message am I trying to convey?
- What feature of the data stands out?
- How can I use a graphic to convey this information?

### **How do you determine when to use color or black and white?**

There is no simple answer to this question, but there are a couple of factors that can help guide your decision. First of all, think about your graphic and the information you are trying to display. Could color be used to help convey an important message, or is it simply decorative? Using color for the sake of decoration doesn't make a lot of sense. It is costly and it distracts the reader. Don't underestimate the ability of black, white, and shades of gray to convey differences in data and highlight important messages.

Obviously cost will factor into your decision. Not every project will have the ability to produce an entire EIS in color. If budget is a factor, limit the use of color graphics throughout the document. Use color graphics when it helps to convey your message.

When you choose colors for a graphic, choose them wisely. The colors you select should be based on other colors used in your document and the reason why you want to use color. In general, it's best to stick with colors found in nature, such as blue, yellow, green, etc., unless you are trying to make a particular point with a strong color such as red. Also, if you have more than one color in a graphic, make sure the colors you select are not too strong—excessive use of bold color can overwhelm your viewers. Check to see how the colors look in

black and white to be sure they are still understandable if your document is copied or not printed in color by someone.

### **Is there anything you should know about photos and photo resolution?**

High-quality photos are difficult to come by, and most people don't realize that *not all photos will work* for final document production—particularly if you plan to use a high-quality printing process, such as offset printing. The quality you will need really depends on the type of printing you will be doing and the software you are using for your document. A good rule of thumb is to make sure photos have resolution of *at least 300 dpi*. Most digital photos don't meet this criterion unless they are taken with a high-resolution camera. Still photos work, as long as the photos themselves are good. A photo library should be started early in the project. Whenever an event such as a public meeting or resource agency event occurs, someone should be designated to photograph the event. One member of your team should maintain the photo library and keep team members up-to-date on its inventory.

One important point—you should have access to photos with a resolution of at least 300 dpi. However, if you are using Microsoft Word to produce your document, you will want to lower the resolution before you insert them into the document. The resolution you will need will depend on the printer you are using. Lowering the photo resolution will also lower the file size. This will help you manage your document in Microsoft Word, because it can become unstable if the complete file becomes too large.

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#### **Helpful Tip**

Think about photos needed for your environmental documents early (when you develop your document outline). Acquire high quality photos early in the project and assign a team member to keep the photos organized and manage quality control. WSDOT's graphic design department has produced some information about printing processes and photo quality needs that can help you set up your photo library. For more information, visit WSDOT's internal Web site at <http://wwwi.wsdot.wa.gov/Communications/Graphics/>

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## 9 Are there any other tips for developing reader-friendly environmental documents?

### **Be creative!**

Please don't limit your team to using only the ideas proposed in this tool kit. There are many opportunities for you and your team to develop other tools and ideas. Work with appropriate WSDOT staff to explore and share ideas. Also, contact appropriate WSDOT staff to suggest additions to this tool kit. This tool kit is not a static document—new ideas can be added at any time.

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### **Submit your ideas!**

Contact Carol Lee Roalkvam at (360) 705-7126 or by email at [roalkvc@wsdot.wa.gov](mailto:roalkvc@wsdot.wa.gov) to suggest additions or other helpful tips for creating reader-friendly documents.

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# Chapter 4 Tools for Developing the EIS/EA

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## 1 Is an outline of the EIS/EA needed?

Absolutely! The EIS/EA outline is a critical tool for the project team and it is a very important step in the writing process.

Your outline should be organized to tell a story—the story of your project. It should also include ideas of the graphics and other exhibits that will likely be developed. Many writers focus only on the text when they outline, and graphics end up being an afterthought. Graphics are a very important part of your document and they take planning, time, and money to create. You may not know all of the graphics you will want or need, but you can get a good head start on it by identifying the graphics you think you will need and updating the list as your project progresses.

## 2 How should reader-friendly EISs/EAs be organized?

One of the first things the EIS/EA team must determine is how your EIS or EA will be organized and how the project’s story will be told. There are several different ways to organize an effective EIS or EA. The first thing you must consider is your audience.

If you don’t consider the needs of your audience before you begin writing, it will be impossible for you to create a document that clearly communicates your message. Consider the following questions as you set out to create your document:

- Who will be reading your document?

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### Tool Alert!

Appendix G contains examples of reader-friendly outlines that have been created for WSDOT projects.

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### NEPA/SEPA document requirements

Document requirements for NEPA EISs are contained in 40 CFR 1502.10. SEPA EIS requirements are found in WAC 197-11-430. NEPA EA requirements are found in 40 CFR 1508.9.

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- What do they need or want to know?
- How will they use your document?

Once you have identified your audience, look closely at NEPA and SEPA regulations and determine how you will organize your document to satisfy NEPA and SEPA regulations and meet the needs of your expected audience.

NEPA/SEPA EIS requirements<sup>5</sup> are described below:

Required for EIS	Cover sheet (NEPA)/Fact Sheet (SEPA)
	Summary
	Table of contents
Required for EIS and EA, with flexible organization	Purpose and need for the action
	Alternatives
	Affected environment
	Environmental consequences (impacts and mitigation)
Required for EIS	List of preparers
	List of agencies, organizations, and persons to whom the document was sent
	Index
	Appendices

According to the regulations, the format above should be followed unless the agency determines that there is a compelling reason to do otherwise. NEPA and SEPA regulations clearly allow authors flexibility in how they present information as it pertains to purpose and need, alternatives descriptions, affected environment, operational impacts and mitigation, and construction impacts and mitigation. Your team will need to determine how best to organize these discussions

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<sup>5</sup> 40 CFR 1052.10 and WAC 197-11-430

in your EIS or EA to tell your project’s story. Don’t take this task lightly! Think hard, brainstorm, and be both creative and pragmatic. Creating the right structure and organization is fundamental to creating a good document.

In addition, consider the following questions as you develop your outline:

- What information can be left out of the main document or text?
- What technical information needs to be in the main document and what can be included in an appendix?
- How will the document guide readers to information?

### 3 **What are some examples of how EISs/EAs can be organized?**

There are many different ways to organize your EIS and EA—the organization should be focused around the story you are trying to tell. One thing to keep in mind is the way you decide to order your topics when you describe the affected environment and project effects.

For the majority of WSDOT projects, transportation and traffic is the story. For that reason, the first topic in your effects discussion should be transportation.

After discussing the transportation effects, think about what topic is the next logical topic to discuss. It’s okay for the order of topics to vary between different EISs and EAs—in this case, one size does *not* fit all because each project is different. Environmental effects vary from project to project and the level of community concern varies. The table below shows how the effects discussion was organized for the Alaskan Way Viaduct EIS and the I-405 Kirkland Nickel Project EA. Notice differences between them. The alternatives evaluated for the Alaskan Way Viaduct EIS affected the visual environment and character of the area in many ways. The I-405 Kirkland Nickel Project EA had a different focus—noise was a critical issue,

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#### **Tool Alert!**

Appendix G contains examples of reader-friendly outlines that have been created for WSDOT projects.

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but changes to visual quality were minimal and didn't vary much between the alternatives.

**Exhibit 4-1  
Effects Discussion**

<b>Alaskan Way Viaduct EIS Effects Organization</b>	<b>I-405 Kirkland Nickel Project EA Effects Organization</b>
Transportation	Transportation
Visual Quality	Noise
Noise and Vibration	Land Use
Land Use	Relocations
Parks and Recreation	Neighborhoods and the Community
Neighborhoods and the Community	Environmental Justice
Environmental Justice	Economics and Businesses
Relocations	Parks and Recreation
Historic, Cultural, and Archeological Resources	Historic, Cultural, and Archeological Resources
Public Services and Utilities	Public Services and Utilities
Economics and Businesses	Visual Quality
Air Quality	Air Quality
Fish and Wildlife	Stormwater and Water Quality
Water Quality	Floodplains and Wetlands
Stormwater	Wildlife and Vegetation
Geology and Soils	Fish and Aquatic Habitat
Groundwater	Groundwater, Geology, and Soils
Hazardous Materials	Hazardous Materials

**Organizing your document**

Notice how the topics were organized differently for these two projects. The topics are organized differently because the story, important issues, tradeoffs, level of effects, and community concerns vary between the two projects. NEPA and SEPA allow flexibility in how environmental documents are organized because each project is different. As part of your work, you must determine the most effective way to organize your document to meet the needs and concerns of your readers.

**4 What chapters can help make EISs/EAs more reader-friendly?**

Aside from the chapters we typically seen in an EIS or EA, the text below highlights some chapters that can be adapted for any EIS or EA regardless of how it is organized. Additional discussion on this subject can be found the May 2006 AASHTO/ACEC joint report titled, *Improving the Quality of Environmental Documents*.

**Introduction**

Use this chapter to introduce the project and engage the reader. Engage the reader by making it relevant—let them know why

**Additional information**

In May 2006, AASHTO and ACEC published a joint report titled *Improving the Quality of Environmental Documents*. The report includes a discussion of possible EIS/EA chapters. The report can be found online at:

[http://environment.transportation.org/pdf/IQED-1\\_for\\_CEE.pdf](http://environment.transportation.org/pdf/IQED-1_for_CEE.pdf)

they should care about the project. Describe the project purpose and need in the introduction.

### **Summary: Comparison of the Alternatives**

This is the most important chapter in the entire document! It can go either in the front of the document or in the back. When developing this chapter, pay close attention to NEPA and/or SEPA regulations. This chapter should have meaningful graphics and text that highlight key differences and similarities between the alternatives. Don't make these comparisons in one giant table. Large tables become difficult to work with, and there are better ways to compare information.

### **The Project Area Then and Now**

This chapter is typically called "affected environment" in most EISs and EAs. The title "affected environment" is not something the public can relate to, so we suggest changing it. The information contained in this chapter is the same as a typical affected environment chapter, though it should focus on aspects of the surrounding project area that make the area unique and interesting.

### **Developing the Alternatives**

This chapter can be used to describe the alternatives, explain how they were developed (including project scoping and alternatives screening), and discuss how the preferred alternative was or will be selected. The detail provided describing the alternatives evaluated in the EIS will depend on the organization of your document (if your document is organized by alternative, then only a brief description would be provided in this chapter, because other chapters would provide a more detailed description of each alternative). Describe the No Build Alternative in this chapter.

### **Other Things to Consider**

This chapter can be a great place to cover NEPA/SEPA required topics that may not fit in as well with other sections of the document. This chapter can be used to cover:

- Cumulative and indirect effects.
- Irreversible decisions or irretrievable resources.

- Tradeoffs between short-term uses of the environment and long-term environmental gains.

### **Additional sections to add**

- **Acronyms** – Be sure to include a listing of acronyms somewhere in the EIS/EA and in the technical reports.

## **5 What tools should be developed to guide technical reviewers through the EIS/EA?**

Other technical reviewers (such as the Environmental Protection Agency, city or county staff, or attorneys) always review EISs and EAs. It's important to develop a good roadmap to lead these reviewers to supporting technical information. Use sidebars extensively throughout the EIS/EA to direct technical reviewers to additional supporting information contained in the appendices.

In addition, we suggest creating a special index and annotated outline for technical reviewers. Examples of these tools are provided in Appendix H. A traditional NEPA/SEPA EIS outline provides a good outline for an index that may be helpful to technical reviewers. A typical joint NEPA/SEPA document must cover topics like purpose and need, logical project termini, irreversible decisions and irretrievable resources, affected environment, etc. These topics form the outline of the index and page numbers guide technical reviewers to the NEPA/SEPA required information.

We also suggest developing an annotated outline that contains direct links to the information provided in the EIS/EA and the federal, state, and local regulations requiring the information. Appendix G contains an example of an annotated outline that can help technical reviewers review your document.

## **6 What should be considered when developing the EIS/EA document layout?**

There are many factors to consider when developing the layout of your EIS or EA. The first thing to determine is whether you are going to use Microsoft Word or a document layout program such as InDesign. If your budget is small or medium-sized, you

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### **Tool Alert!**

Appendix H contains examples of tools you can create to help guide technical reviewers through your document.

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### **Tool Alert!**

Appendix B contains information about font styles.

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will most likely create your document using Microsoft Word. Appendix B contains the tools you will need to create a WSDOT environmental document that looks like this tool kit – a typical 8.5 X 11 document. You may choose to use the document format styles provided in Appendix B.

If you choose to layout your document using Microsoft Word, you must recognize that it is not designed to be a graphic layout and design program. Microsoft Word has a fairly limited ability to merge both graphics and text.

If you need to incorporate a lot of graphics (particularly graphics that are complicated and have large file sizes), then it is best to use graphic design software for your work rather than a word processing program. Graphic design programs have more capability to integrate graphics and text than a word processing program. Several of our larger projects such as SR 520, the Alaskan Way Viaduct and US 12 were created using graphic design software.

If you use graphic design software for document layout instead of a word processing program for your project, there is one important challenge to consider early in the project. If you use graphic design software for your document, most of the document layout cannot be done until the document text is final. Text changes must be made before the document layout work can begin because the document layout shifts every time the text changes. This is a difficult issue for both reviewers and the document development team. There are many ways to approach this issue—the important point is to make sure the project team and reviewers determine how they will handle reviews if a document layout program is used.

# Chapter 5 Tools for Developing Discipline Reports

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## 1 What tools can help the technical team?

Tools should be developed to help guide technical report (this includes discipline reports and technical memoranda) authors and ensure that the format and approach for reports supporting NEPA documents are similar. The following tools are helpful for the technical team:

- **Project terms list/writing style guide.** This should include key project-specific terms and basic writing guidance for authors so that everyone is using the same terminology and style. The style guide should also define how to use dashes, abbreviations, street names, and numbers. For example, should the team use sub-basin or subbasin, First Avenue South or 1st Ave. S.? Develop a guide before authors begin writing and share it with the team. One person should be responsible for updating the style guide as the project progresses. Update the style guide often and make sure authors know where to find the latest version.
- **Format.** You may use the styles shown in Appendix B to create technical reports – but it is not required. Unless specifically directed by WSDOT staff, you may format technical reports as you choose. Keep in mind that if your technical reports use the same format, it will be much easier to incorporate information from them into the EIS or EA.

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### Tool Alert!

Appendix I contains an example writing style guide you can use and/or modify for your projects. Also check the Glossary in the WSDOT Environmental Procedures Manual.

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### Important! Making Discipline Reports Easier to Read.

At this time, WSDOT is not requiring all discipline report authors to use the format described in Appendix B. However, it is still essential to analyze data and draw conclusions, write clearly and develop good graphics.

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- **Map templates.** Develop a series of maps that authors can use as templates for their work. Work with authors before they begin developing their reports to provide a series of maps that have different scales and orientation (landscape, portrait) that meets their needs.
- **Graphics guide.** It can be helpful to create graphics guidelines for your team so graphics have a consistent look across discipline reports.
- **List of appendices.** Develop an expected list of technical reports and other appendices, name them, and stick to the list and names. The list of appendices should be developed as early as possible (before the technical reports and EIS/EA are written). This will help the technical and EIS/EA authors reference other reports appropriately and will minimize the number of changes needed as part of technical editing.

## 2 **How can you link the discipline report outline to the WSDOT *Environmental Procedures Manual*?**

We want to make it clear that making documents more reader-friendly does not mean that you should simplify your technical analysis. We must continue to collect necessary data, analyze it, and properly document it as required by federal, state, and local regulations. Our goal is to present required technical information in a way that is clearly understood by our readers. So, it is important that you continue to follow technical guidance provided by WSDOT's *Environmental Procedures Manual*. In addition, authors should be required to prepare an annotated outline for their report before they begin writing it. An annotated outline is an expanded outline. Similar to a typical outline, it includes main headings and subject areas for the document. In an annotated outline, a brief description of the type of information that will be included under each main heading is included.

An annotated outline helps form the foundation of the technical author's report and analysis. The outline should be reviewed and approved by WSDOT's environmental lead for the project.

The outline should include the plan for both the text and accompanying graphics.

### **3 How can the technical report authors help make sure important points are included in the EIS/EA?**

Regular communication between the technical report authors and the EIS/EA authors is essential. However, technical report authors can also help the EIS/EA authors by creating a summary or conclusions section in the beginning or the end of the discipline report. This section is not a full summary of the document; instead, it tells the EIS/EA author key points to include. If the discipline report is not done using the reader friendly style, doing the summary in reader friendly will make it easier to use as is in the EIS/EA. EIS/EA authors should also consider scheduling a question-and-answer session with technical report authors to make sure they understand the findings of the report. Finally, technical report authors should review their EIS/EA sections to make sure they are consistent with their reports.

### **4 Does the project description need to be repeated in every technical report?**

The answer to this question really depends on your project. If your project has complicated alternatives and a lengthy project description, consider developing one report that describes the project alternatives rather than repeat the description in each report. If you choose this approach, all the supporting technical reports should reference the project description report. This approach cuts down on repetition between technical reports, but it means that your technical reports will not be stand-alone documents. Instead, reviewers will need a copy of both the project description report and the technical report.

Another approach is to include the project description in each of your technical reports. This is the approach used by most of our projects. This approach works well if your alternatives are relatively straightforward. With this approach, each technical report is a stand-alone document. If you use this approach, make sure and use the same description for each technical

report. This will save time and ensure that a consistent message is communicated.

Regardless of the approach you choose, it's important to develop your project description early, so your technical report authors are all working from a common base of information.

## 5 What tools can help facilitate the flow of information between engineers and the environmental team?

It is helpful to develop a process to facilitate the flow of information requests between the engineers and the environmental team. This will help ensure that your team is working with the same information base. It works best to have one environmental and engineering point of contact who coordinates and tracks all requests and responses. Responses to environmental questions should be prepared in a common format. One way to facilitate the flow of information is by creating a simple tracking form (examples are provided in Appendix J). Once the environmental point of contact receives the requested information from the engineers, he/she then forwards it to the entire team. The environmental point of contact should also keep a record of all information requests received.

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### **Tool Alert!**

Appendix J contains tools you can use to track the flow of information between engineers and the environmental team.

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# Chapter 6 Tools for the Review Process

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## 1 What is the review process?

Three different review processes are discussed in this chapter: (1) WSDOT's internal review, (2) additional agency review, and (3) the public comment/review process.

WSDOT's internal review is the time when WSDOT and any co-lead agencies (such as the Federal Highway Administration) review draft environmental documents, including technical reports and the EIS/EA. Additional agency review includes any review required by other agencies prior to releasing the environmental document to the public. The public comment process is the time when the public reviews WSDOT's EIS or EA and provides comments.

## 2 What tools and tips are available to help guide the internal review process?

The tools and tips provided in this section come from lessons learned during internal reviews for other reader-friendly documents. The following tips are discussed:

- Set internal review schedules early.
- Develop a single spreadsheet and set of instructions for internal reviewers.
- Identify a small group of people to attend internal review meetings.
- Have a strong facilitator attend internal review meetings.

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### Tool Alert!

Appendix K provides examples of project review schedules. Appendix L contains tools you can use to manage comments during the internal review process. These tools include a comment review spreadsheet and instructions to reviewers. Appendix M contains discussions of the lessons learned as part of the Alaskan Way Viaduct EIS and the I-405 EA for the Kirkland Nickel Project.

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- Consider creating a list of do's and don'ts for internal review meetings.

### **Set internal review schedules early.**

The best way to make sure the internal review process stays on schedule is to set review dates early and don't change them. As soon as possible, the project team should create a realistic schedule, get buy-in and solid commitments from all parties involved, and stick to it. This ensures that people are available and scheduled to provide timely reviews. The review schedule should include dates that comments are due for documents (such as discipline reports) and dates for review meetings. The purpose of the review meetings is to gather the internal review agencies and the document author together to discuss and resolve all critical issues so the project can move forward. Try to anticipate hot-button subjects (such as the transportation report) and schedule more than one review meeting for these sensitive topics.

### **Develop a simple comment sheet and set of instructions for internal document reviewers.**

A simple comment sheet and set of instructions should be provided to all internal reviewers. It is helpful to provide line numbers in all draft documents so reviewers can easily track their comments by page and line numbers (not all people count paragraphs the same!). Require reviewers to prioritize comments using a simple ranking system. For example, a simple priority 1 through 3 ranking system might work this way:

- Priority 1. Critical issue requiring interagency discussion.
- Priority 2. Factual or substantive error or issues that should be corrected prior to publication.
- Priority 3. Editorial suggestion

Regardless of the ranking system used, provide an example of a comment from each category to give internal reviewers a clear idea of how comments should be ranked. This is very important. People must know that they cannot rank all of their comments a Priority 1 unless they are truly deal-breaker issues.

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#### **Helpful Tip**

Require reviewers to prioritize their comments. Provide an example of a comment from each category so reviewers have a clear idea of how they should rank their comments.

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Likewise, under-ranked issues can get lost. If multiple agencies are involved with the project, then each agency should be responsible for consolidating their own comments to help make the review and revision process efficient.

**Identify a small group of people to attend internal review meetings.**

Your review meetings will be more effective if your review team is small—consider having one representative attend for each reviewing agency. This person must come to the meetings prepared to represent their agency’s review comments. This person also needs to have the authority to determine how issues will be resolved. If more than one representative is needed for a particular topic, consider having these additional reviewers be available by phone so the meeting representative can call them during the meeting to obtain their input.

**Have a strong facilitator attend internal review meetings.**

A strong facilitator will ensure that the review meetings are productive and that all the main issues get addressed. This person’s role is to keep the meetings on track. The facilitator should make sure that once a decision is made, it doesn’t get revisited.

**Prepare a list of do’s and don’ts for internal review meetings.**

This tool will help set meeting ground rules to keep review meetings on track. The list of do’s and don’ts will vary for each project, but it can be helpful to have ground rules established to make sure that issues get resolved. An example of potential meeting do’s and don’ts is provided below:

- Do prepare for the meeting – Participants should know their agency’s key issues and they should be able to articulate issues from their agency’s reviewers. Review meeting participants should explain why/how the agency’s comments should be included/changed in the documents.
- Don’t have more than one representative from each reviewing agency – Make plans to have a phone available so participants can call additional agency representatives if they need clarification on an issue.

### 3 **What tools and tips can you use to help manage agency reviews?**

Tools that may be helpful for the internal review process may also help manage document reviews by other agencies. These tools were discussed in the previous section and they include:

- Set your schedule early and establish clear expectations related to deadlines.
- Develop a simple comment sheet that reviewers can use to provide their comments.
- Provide line numbers throughout the document to make it easier for people to provide comments.
- Require reviewers to prioritize comments using a simple ranking system.

In addition, it is a good idea to create special tools in your EIS or EA that direct agency reviewers to the information they are looking for. Tools such as sidebars, a special index, and an outline annotated with NEPA/SEPA requirements can help agency staff review your document.

### 4 **What resources are available to help you manage public comments?**

A public comment period of at least 45 days is required for EISs. WSDOT also provides public comment periods for EAs.

For large projects, WSDOT receives hundreds and sometimes thousands of individual public comments. Managing and responding to a large volume of public comments can be a time-consuming and labor-intensive task. If your project is controversial and you expect a large number of public comments, it may be worthwhile to invest in a computer software system that can help you manage, track, and respond to public comments. There are software products available on the market or through local consulting firms that can be used to help manage comments from the public review process. If you are working with a consultant on your project, you may want to discuss this idea with them to see if they have any suggestions

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#### **Tool Alert!**

Appendix H contains examples of tools you can create to help guide technical reviewers through your document.

or available resources. If you are not working with a consultant and have questions about available solutions, talk with other environmental managers to learn what resources they use.

# List of Appendices

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## Reader-Friendly Writing, Graphics, and Document Tools

Appendix A	Folio and Additional Resources
Appendix B	Format and Document Creator Instructions
Appendix C	Writing Tips
Appendix D	Graphics Tips
Appendix E	Create a Bar Chart
Appendix F	Definitions
Appendix G	Document Outlines

The Document Creator tool is no longer available due to compatability issues and budget constraints. Please use the Font Style Sheet in Appendix B to create your own templates.

## Project Management Tools

Appendix H	Agency Review Tools
Appendix I	Writing Style Guide
Appendix J	Info Tracking
Appendix K	Schedules
Appendix L	Internal Comment Tools
Appendix M	Lessons Learned



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