Comment Form Analysis Study Results

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How to Use this Document

This document is for the support of both authors and reviewers during the production of NEPA/SEPA documents. The document is for use of authors and reviewers in its parts or the full content depending upon the stage of document work. Use the hyper-linked subjects in the Contents below to quickly move to specific recommendations to improve documents.

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Purpose

The NEPA/SEPA Compliance Program ensures environmental document quality for WSDOT by providing guidance and reviewing draft documents. Recent agency-wide adoption of the Comment Review and Rating Form offers an opportunity to improve this process. This study, implemented in April 2010, conducted a systematic analysis of comments made on the content of WSDOT documents. Identifying and providing guidance on recurring quality issues of NEPA/SEPA documents reduces potential delays in project time lines and increase the quality of documents. This report provides author and project team recommendations for review priorities. The recommendations are intended to identify and avoid common errors and streamline the review process. Recommendations will also be used to prioritize work and improve sections of the Environmental Manual (EM).

Methods

Comment forms were requested from WSDOT regions, divisions, modes, and the Federal Highway Administration (FHWA). For comment forms to be included in the analysis they could be no more than 10 years old and correctly entered into a Comment Review and Rating Form. Most forms

included a comment priority rating. Priority rating is a three tier system used to indicate the importance of the comment with 1 being the highest priority and 3 being the lowest priority (See appendix).

Comment forms were collected for all types of environmental document; from discipline report to environmental impact statement. Comment forms for drafts, preliminary drafts, preliminary finals, finals, and supplemental documents were included in the analysis.

Approximately 150 comment forms were submitted. Forms that could not be electronically transferred into the database and incomplete forms were not included in the analysis. The remaining forms resulted in 5333 comments from 20 different projects.

Comment Processing

All 5333 comments were imported into an Excel spread sheet. Each comment came with some level of background information. At a minimum, project title, document type, reviewer, and comment priority rank information accompanied the comment. Some comments contained information on the commenting agency, the date of review and the discipline. The section of the document was also identified where possible.

Comment categories were developed in a preliminary assessment and further refined during the detailed review. Each comment was read and placed into a category based on a literal interpretation. Staff carefully read each comment, breaking it down into major elements, deducing the reviewer's intent and assigning the comment to the most appropriate category based on the category definition.

Two sets of categories were developed and used for the analysis. These include a General Comment category and a Detail Comment category. These comment categories are described in the Appendix.

Analysis

The comments were sorted using combinations of all possible categories. Discipline specific data was unevenly distributed (i.e. we received comments from several reviewers on the SR 520 Visual Discipline Report, but no comments of Visual Discipline Reports for other projects.) The imbalance was corrected by normalizing the data and converting the counts to percentages for comparison. The EA/EIS data was consistently distributed and did not require conversion.

Categories that showed a consistently high count or percentage of responses were considered to represent significant trends. Additional analysis was conducted on this data to answer the questions:

- What does this tell us?
- What other questions result from the analysis?
- What does it mean for report authors and reviewers?

Categories that showed up as outliers – single data points that appear to oppose general trends – were also investigated. Additional analysis was conducted on this data to answer the questions:

- Is this a valid result, or a reflection of an inconsistency in the data?
- If this is valid, does it change our conclusions?
- If this is valid, what does it mean for report authors and reviewers?

Limitations

There are some limitations to the data and therefore, the data analysis. The most notable issue was how the comment priority rating was used by reviewers. Some forms defined how the rating should be applied, others did not and individual reviewers applied the ratings differently.

Another confounding issue was the range of projects that comment forms came from. The majority of comments came from five large scale projects: SR 520 Bridge Replacement and HOV project, Alaska Way Viaduct Replacement, I-5 Columbia River Crossing, SR 502 Corridor Widening, US 12 phase 7 & 8, and the I-90 Snoqualmie Pass East project (see appendix for complete list of projects and total comment numbers). Individual projects may have issues that are not universal to all projects or disciplines.

Results

The results of the analysis are presented in three sections:

- General Document Comments – comments that apply to all environmental documents and highlights areas that need to be addressed by all writers.
- EA/EIS Related Comments – comments that apply to EA/EIS documents.
- Discipline Specific Comments – comments that apply to discipline reports and discipline specific subject matter.

The most comment categories are organized into bulleted lists by theme with a brief description. Each section then concludes with a summary of recommendations for writers and reviewers.

General Document Comments

During the analysis we discovered several general comment types that apply to document writing/reviewing as a whole. The comments fell into four comment categories: document inconsistencies, editorial, writing style and graphics (Figure 1).

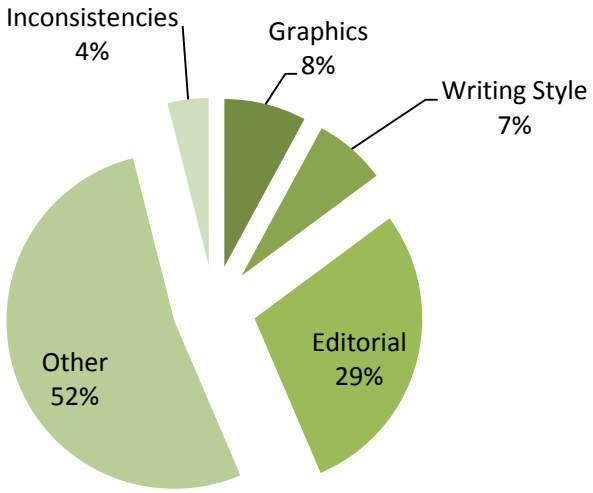

Figure 1: Proportion of Comment Categories

Authors can help focus reviewer's efforts on content related issues by eliminating as many of these types of errors as possible prior to review. These four comment categories are discussed below.

DOCUMENT INCONSISTENCIES

Our analysis revealed following types of contradictory content:

- Use of terminology.
- Naming convention of the project, document phase (draft, prelim draft etc.), place names, street names, and property names.
- Layout, document organization and titles of sections.
- Conflicting conclusions.
- Information in one section differs from other sections or technical documents.
- Mismatch of information (description of impacts don't match the project description).
- Description of project elements such as quantities, sizes, location, mile posts, materials, function of site, and proposed vs. required.
- Varying level of detail for individual sections, resource or analysis.

Recommendations for Writers: Establish a naming convention for your document and track name changes. Keep your discipline and EIS report writers up to date as name changes occur. Run a "find and replace" word search on your final document, prior to submitting it for review, to eliminate these types of errors. Consider providing an author's packet which includes required formats, graphic templates and standard project information or include these as requirements in the contract. Determine the level of design information that will be available to writers and include this information in the author's packet. Providing a copy of the same packet to reviewers will help standardize information across disciplines and EIS's. Ensure document content supports the conclusions. Check that the information in each section is consistent with other sections in the document and supporting technical documents. Validate project elements are correct and consistent throughout the document. Provide the appropriate level of detail (right size) for sections and for analysis.

Recommendations for Reviewers: Be sure to ask authors if they have established naming conventions so that you know the most current terminology. Request a copy of the author's packet if available. Inconsistent information and mismatched information that may lead the reader to misinterpret findings should be given a 1 or 2 priority rating. Conflicting conclusions should always be rated as a priority 1 concern.

EDITORIAL

Editorial comments include all of the basic writing and presentation elements of the text. They range from simple spelling errors and word use issues to layout and writing style. Taken individually, these things are minor. But they do detract from the document and, if done in excess can give the impression that the document is inaccurate. It also distracts subject matter experts from focusing on content matter and increase review time. Over 29% of all comments fell into the editorial category. Project teams can make more effective use of the reviewer's expertise by addressing these types of problems before the draft is submitted for review.

The common types of comments in this category are:

- Add, change or remove text to clarify what is being stated.

- Spelling errors and typos, need to spell out number/acronyms, missing or incorrect punctuation, bad grammar.
- Inconsistent format throughout the document including things like layout, font, overall appearance and writing style.
- Missing document essentials such as page numbers, headings or references.
- Section heading and section content do not match.
- Organization of document or section is hard to follow.
- Missing federal signatory and/or document author information.
- Need to reference WSDOT manual, document, or website as appropriate.
- Missing, incorrect, or inconsistent references.

Recommendations for Writers: Make sure that documents have received a thorough editing for format, grammar, spelling, and organization before sending them on for higher level review. Consider making this a requirement in the consultant contract. If you are doing the editorial review in-house, keep an eye out for simple cut and paste errors and ensure that section headings and content match up. Also, be sure that references are included and are correct.

Recommendations for Reviewers: Most editorial comments should be given a low priority rating. Ask the project manager if the document has been edited for these types of errors before you begin your review. We recommend that you focus your review on content and not on stylistic or editorial issues. That being said, FHWA had quite a few editorial type comments. Discuss this issue with the project lead and establish the required level of review.

WRITING STYLE

Comments on writing style tended to focus on the clarity of the text and consistency within the document. Writing styles issues include:

- Writing is not in plain talk and is awkward, unclear or too technical.
- Need to use standard language from WSDOT guidance documents or from legal sources.
- Terms or language is not defined or used inconsistently throughout the document.
- Information is irrelevant or does not relate to the resource being discussed.
- Give appropriate amount of detail – in some cases this means to generalize (provide ranges rather than specifics) in other cases this means to be specific.

Recommendations for Writers: Non-technical documents should be written in the plain talk/reader friendly format. We recommend that writing in plain talk be made a requirement in the contract. It is important to use discipline specific standard language and define technical terms that the reader may not be familiar with and use terms consistently throughout the document. The content of a section needs to be relevant to the resource and the level of detail appropriate for project and discipline (right sized).

Recommendations for Reviewers: Focus reviews on content related topics such as the need for standard language and appropriate use of correct terminology. We recommend avoiding stylistic comments unless the project manager has specifically requested your input.

GRAPHICS

The graphics (maps, photos, charts and tables) in environmental documents were found to have problems with readability and content. Comments on graphics included:

- Simplify the graphic. It is too busy, confusing, hard to read, or too technical.
- Colors in graphic need more contrast and do not translate well to black and white printing.
- Line weights need to be bolder.
- Resize the graphic and display in a higher resolution.
- Inconsistent labeling of graphic (does not match labeling conventions used by other graphics in the document) and orientation.
- Graphic is missing important information on project elements and impacts such as project area boundaries, study area boundaries, zone of impacts, property ownership, zoning, type and location of mitigation sites considered, haul routes, detour and identifying landscape features. Include street names especially when included in text.
- Standard graphic elements area missing such as project labels, north arrow, legend, scale, exhibit numbers and titles.
- Elements in graphic not discussed in text and vice versa.

Recommendations for Writers: Ensure that graphics clearly convey the right information, at the right scale and are not confusing to the reader. Guarantee that graphics detail all important project information such as project limits and landscape features, and the location of impacts and improvements. Include standard graphic elements (north arrow, scale, legend, etc.) and verify that graphic labeling is correct. Use graphics to strengthen information conveyed in the text. Consider including standard graphic layout formats in the author's packet and include the need for graphics that reproduce well in black and white as a requirement in the consultant contract.

Recommendations for Reviewers: FHWA is particularly concerned with the readability, consistency and completeness of graphics. Reviewers should focus efforts to ensure that graphics are clear. Ask the project manager if they have established a standard graphic layout. Be as specific as possible when commenting on graphics, attaching an annotated copy of the drawing to the comment form if needed.

EA/EIS Related Comments

This section examined comment forms that were submitted for formal environmental documents such as Environmental Assessments and Environmental Impact Statements. It does not include comment forms submitted for discipline reports. Sixty percent of the comments evaluated in this section were from FHWA. For ease of comparison the comments are broken into the eight subcategories listed below.

Project description

- Level of detail – Determine the appropriate level of detail for the document and section.
- Project timeline needs more detail – Provide sufficient detail for project timeline.
- Construction activities – Include adequate description of project structures (i.e. staging areas, location of structures (noise walls), etc.).
- Construction activities – Include how, when, what, sequence of events, timing in relation to other elements of the project.
- Project Area – Fully describe and justify the project foot-print (i.e. project termini, easements, and right or ways).

- Missing information – Project limits and other project details.
- Definitions – Define terms used in document (especially when a term is specific to a project).

Impacts

- Organization of Impacts – Ensure that all types of impacts are described. Each type of impact (i.e. cumulative, construction, secondary, temporary) should be described clearly.
- Not enough detail – Provide sufficient detail to show difference among alternatives.
- Not enough information – Provide sufficient detail to effectively describe project impacts.
- Missing Impact – Ensure that all impacts are discussed (i.e. avoid missing an impact and include all impacts addressed in earlier documents).
- Wrong place – Check that impact discussion is properly located in the document (i.e. don't talk about impacts were it is not needed).
- Avoidance – Include a discussion on project avoidance (where appropriate).
- Impact type – Ensure that impact discussion focuses on the type of impact being addressed (i.e. temporary, construction, etc.).
- Terminology – Use definitive terms to describe impacts especially quantitative impacts (don't use vague impact descriptors).

Conclusions

- Support – Provide sufficient support for conclusions and don't conclude without support.
- Discipline Content – Include details of technical data to support conclusions (i.e. include the traffic analysis to justify roadway expansion).
- Mitigation – Provide descriptions for mitigation of all alternatives.
- Effects Determination – Provide sufficient details to support all effects determinations.
- Commitments – Commitments should be appropriate for the level of impacts and regulatory requirements (example: do not be too specific about stormwater design, indicate that design will meet regulatory requirements).

Project Alternative/Options

- Missing alternative – Ensure that all alternatives are addressed in the document (Don't skip alternatives, or explain why they are not covered in detail).
- Show differences – Ensure that descriptions are sufficient to show differences among alternatives.
- Level of Detail – Ensure that alternatives description is sufficient and consistent (or explain why not).
- Alternative impacts – Ensure that impacts are described specifically for each alternative (see impact discussion above).
- Method – Include a discussion of the method used for screening and selecting alternatives.

Process

- NEPA/SEPA – Ensure that the text and content is relevant to NEPA/SEPA.
- Lead agency – Regulatory determination should be supported by the lead agency.
- Attribute determinations – Where a determination is made by a regulatory agency, attribute the determination to that agency (i.e. a "de minims" determination should be attributed to FHWA).
- Missing Information – Check that all processes and regulations from federal, state, and local level are addressed.

- Comments – Include all key ideas that that public comments expressed.
- Comments – Address all comments and take care on the tone of response.

Content

- Stage of document – Ensure that writing for a specific document stage is correct (i.e. update text from DEIS to FEIS or don't over write early in early documents).
- Content – Provide meaningful information that is relevant to resource.
- Discipline – Provide sufficient description of discipline information to support project decisions (also see discipline specific section of this document).
- Inconsistent level of detail – Verify consistent level of detail or explain why detail was reduced.
- Incorrect level of detail – Check that level of text detail is sufficient for a Draft, DEIS, or FEIS.
- Summaries – Ensure that summaries are through and at appropriate in detail.
- Heading – Check that text and section heading support one another.
- Independence – Ensure that the independence of project is described and supported.
- Assumptions – Fully describe and support technical and project assumptions (Example: explain assumptions associated with a cost inflation factor).
- Consistent use of terms – Check that terms are consistently used throughout a document.
- Verify project information – Check math, numbers, quantities, time estimates.
- Where is discussion on climate change – Ensure a thorough coverage of climate change.
- References – Reference discipline results from the most resent documentation. (Example: reference DEIS from the FEIS when referencing details of project modeling).

Fact Check

- Update – Verify that content has been updated from DEIS to FEIS- verify that sections are updated between documents.
- Commitments – Verify that commitments are accurate and appropriate.
- Verify reference – Verify that references cited are correct and most recent version.

Other

- Replace vague writing.
- Is this analysis needed?
- Don't lose your audience.

Recommendations for Writers: Write complete and correct project description, making certain that all project elements, locations and impacts are properly and fully described. Write so that text is informative to someone that doesn't know your project. Ensure that the level of detail is correct for the type of document being written (right size). Verify that you are making the correct effect determination (type and level) and that it is clearly stated and well supported. Adequately support all conclusions and verify that proposed mitigation can actually occur. Make clear the differences between alternatives and discuss the process of alternative development and screening. Know the state, federal, local, agency and discipline specific processes that need to be followed and follow them. Confirm with FHWA that suggested mitigation is deemed appropriate. Provide meaningful information. Verify that document has been fully updated to the present version. Verify commitments and other project elements.

Recommendations for Reviewers: Ensure that project descriptions are complete. Check the level of detail and clarity of the text. Remember to consider the type of document, section title, or issue

being discussed while evaluating text for detail and clarity. Verify facts, numbers, and calculation. Ensure that impacts and conclusions are correct and fully supported. Ensure that terms that should be defined are defined. Check alternatives for level of detail and consistence throughout the document. Ensure that the screening process for alternatives is described. Check that the text is appropriate for the NEPA/SEPA document stage or version.

Discipline Related Comments

This section of the report provides information and recommendations for the eight disciplines that received the highest number of comments (Figure 3).

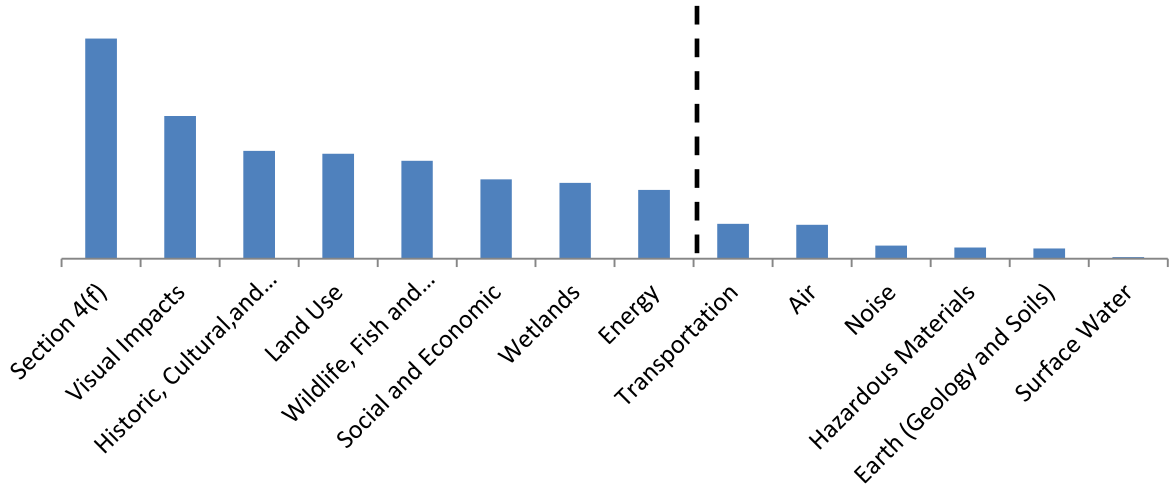

Figure 1. Relative proportion of comments per discipline.

The results of the analysis are organized by discipline and the comments are organized into subcategories to facilitate review. Each section concludes with recommendations for writers and reviewers.

SECTION 4(f)

The majority of Section 4(f) comments pertain to editorial, missing information or incorrect information in the following categories. The 384 comments analyzed for this section were from three large scale projects and five smaller projects.

<u>Project description</u>

- Missing information – Provide a complete project description (i.e. property ownership and location).
- Ensure all resources – Identify all 4(f) resource and clearly state actual use of resource (don't talk about constructive use if actual use exists).

<u>Impacts</u>

- Missing information – Impact analysis, impact locations, ecosystem effects, how resource is impacted.
- Detail – Provide sufficient detail to describe type of impacts, why impact is to occur, and any avoidance measures.
- Mitigation – Relate Impacts and proposed mitigation.

- Avoidance – Describe avoidance measures incorporated into the project.
- Benefits – Include benefits to resources.

Content

- Alternatives – Incomplete alternative discussions
- Alternatives – Need more information on reasonable alternatives
- Conclusion – Need more supporting information, develop case for impacts/alternatives, and need to support conclusions.
- Section 4(f) – What constitutes a 4(f) property, what applies to 4(f) properties, when is temporary occupancy for 4(f)

Process

- Missing information – Include process schedules, coordination, consulting parties, and tribal reference.
- Missing information – Consider De minims determination, feasible and prudent Alternative, and Alternative selection.
- Avoidance alternative – Feasible and prudent is only needed for avoidance alternatives.
- Guidance – Use/follow the Federal Register definitions.

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Recommendations for Writers: Make sure to quantify impacts and adequately describe the effect of the project on the resource. Include a description of how effect determinations were made. Include information about the alternatives and support any conclusions that are made. Include a map or air photo showing the property boundaries, ownerships information and project location. Develop boiler plate language for consistence within and among documents.

Recommendations for Reviewers: FHWA is particularly concerned with the accurate description of impact size and location, the development of well supported conclusions and appropriate process. Pay particular attention to these areas in your review.

VISUAL

All visual impact comments came from four projects that altered the visual landscape. Therefore, the information in this section gives a good idea of what should be addressed when determining the visual impacts from large projects but may not fully apply to assessing the visual impacts for smaller projects.

Project description

- Missing information – Provide project elements that will cause impacts (i.e. construction of structures, tolling equipment, new ATM signage, and duration of construction).
- Missing or incorrect information – Include detail on historic district, on landscape elements, number of bridges (1 not many), phased implementation, towns/cities in the study area.
- Incorrect characterization – Ensure description of baseline activities, unity and intactness, and detour routes are correct.
- Views – Provide good ground level photos. Photos should be accurate and described.
- Incorrect – Statement about deterioration is an exaggeration

Impacts

- Missing information – Need more discussion on mitigation of impacts, impacts due to closures, detour route, size of bridge from a boaters stand point, duration of effects.

- Incorrect – Assessment of impacts is not accurate
- Incorrect – Assumption that project element will improve the view/be beautiful (i.e. stormwater facility) is not correct.
- Mitigation – Noise walls do not mitigate visual impact.
- Mitigation – More discussion on mitigation and opportunities is needed.

Viewer's perspective

- Missing information – No info on groups of viewers (i.e. transit users, pedestrians, students, boaters, land owners adjacent).
- Incorrect – Vividness not accurately depicted for users.
- Incorrect – Elements in project areas incorrectly named and described.
- Missing information – Address Viewer's sensitivity to impacts.

Recommendations for Writers: Include impact causing and background project information. Accurately discuss impact causes and results. Portray complete viewer perspective. Include good example of views of completed project (show where and orientation of views).

Recommendations for Reviewers: Review the project description to ensure it is complete and discusses the elements that cause visual impacts correctly. Make sure the viewer's perspective is accurately portrayed.

HISTORIC, CULTURAL AND ARCHAEOLOGICAL RESOURCES

The 233 comments in this resource area mainly involved missing information and editorial errors, largely in the disciplines process category.

Project description

- Description – Describe location of properties in relation to project, verify locations are actually part of project area. Show the APE on a graphic.
- Determination – Unsupported site classification determination (i.e. landfill deposit vs. homestead).
- Description – Not enough prehistory information.
- Verify – Verify numbers match up check calculations.

Impacts

- More Information – Need more examples of impacts and discuss impacts to businesses in the area.
- Effects – Need to discuss all effects, not just adverse effects (i.e. include beneficial effects).
- Missing information – Missing conclusion of significance.
- Verify – Verify effect determination is correct – seems unsupported

Process

- Missing information – Cultural resources/inadvertent discovery plan and information on other consultations missing (106, DAHP).
- Incorrect – Remember to include discussion of regulations (i. e. GMA and SEPA are required not a choice, law not policy).
- Missing information – Include all factors needed to document and determine traditional cultural properties (TCP) and effects.

- Missing information – Remember to include discussion of eligibility for National Register of Historic Places (NRHP).
- Missing information – Include summaries of meeting and decisions.

Recommendations for Writers: Fully describe the project, including elements such as locations of resource properties and prehistory information. Verify quantities. Support determinations completely. Discuss all level of impacts, not just adverse impacts. Provide information to support effect determinations. Include process related activities.

Recommendations for Reviewers: Confirm project description is complete, all properties are adequately described and prehistory information is included. Review that all level of impacts are discussed. Check that cultural resource processes are sufficiently followed and documented.

LAND USE

The majority of Land Use comments were editorial in nature, concerned missing information, asked for required more detail or revision of detail.

Project description

- Missing information – Include a full project description including major elements of the project such as property acquisition.
- Missing info –Baseline condition must be fully described (including current land use).

Impacts

- Missing information – Include discussion on type of impacts (i.e. direct, indirect, cumulative, temporary, permanent) and relate specific project actions to impacts.
- Missing information – Remember to discuss impacts due to No build option (if applicable).
- Missing information – Include text on compensatory mitigation for construction impacts.
- Quantify impacts – Need to quantify parking, cost, days of limited access to businesses, etc.
- Project benefits – Discuss improvements because of project design and construction.

Content

- Verify – Verify conclusions and statements (i.e. conclusion not supported).
- Regulations and plans – State consistency with state and regional plans.
- Complete description – Need information on all land uses.

Process

- Missing information – Include county policies and project consistency with shoreline master programs local comprehensive plan, zoning, and critical areas ordinances.
- Verify – Verify Co-lead for project.

Recommendations for Writers: Make sure the project description is complete. Discuss specific impact type and cause of impacts. Include a discussion of improvements because of the project (positive impacts). Verify conclusions are supported and content is in line with state and regional plans. Provide complete information on all land uses in the project area. State who is lead/co-lead for the project.

Recommendations for Reviewers: Look for completeness of project description information including baseline data and impacts. Cross-check conclusions to ensure validity. Review procedures with care to ensure that the appropriate study process has been followed.

WILDLIFE, FISH AND VEGETATION

Most comments in the wildlife, fish and vegetation discipline referred to missing information, the need to clarify information, or were editorial in nature.

Project description

- Missing or incorrect – Incorrect project description details (i.e. specific project activities, dates of construction activities and impacts, quantities, configuration of project, type and amounts of materials, tow/haul routes, timelines).
- Missing information – Include discussion for all protected wildlife (don't leave out a species).
- Missing information – description of baseline conditions not included.
- Level of detail – Use ranges to accommodate the variability in options.
- Remember wildlife that is not listed. Don't focus on listed species.

Impacts

- Missing information – Include type of project impacts (i.e. temporary vs. long-term/permanent impacts), activities that cause project impacts (i.e. direct effects of construction and impacts on fish and wildlife resources).
- Incomplete – Include a full discussion of impacts and effects from construction activities (i.e. impacts not fully explained or impact analysis does not support conclusion).
- Avoidance – Missing the plan to avoid impacts (i.e. spill prevention and control plan).
- Benefits – Discuss benefits to the resource from the project (i.e. benefits to fish (resource) from wetland mitigation, areas to be restored).

Process

- Missing information – Missing discussion of biological assessment and ESA consultation (i.e. include BO terms and conditions and how we comply with them).
- Commitments – Need to be careful what you are committing to (don't over commit).

Recommendations for Writers: Include resource specific project description and details relevant to the resource. Ensure that all protected species area addressed. Discuss impacts and discern between long and short term impacts. Address none listed species. Discuss benefit to resource. Address ESA consultation and compliance with BO terms and conditions. Don't over commit.

Recommendations for Reviewers: Focus efforts on completeness of project description details and impacts. Verify that ESA consultation and compliance with BO terms and conditions are address appropriately in the report.

SOCIAL AND ECONOMIC and Environmental Justice (EJ)

The social and economic discipline had 360 comments from three large and four smaller projects. Most comments related to missing information, the need to clarify information or editorial issues.

Project description

- Missing information – Include appropriate level of detail for project (i.e. location of project features, location of study area, transit connections, access routes, location info, land use, facility construction, details on noise walls, and amount of land in WSDOT ownership).
- Verify – Verify construction techniques.
- Detail – Discuss existing conditions versus future conditions.

Impacts

- Missing information – Include level, type, timing, quality, quantity, of impacts; access impacts from construction, effects of trail closures, common effect vs. alternative specific effect, noise related impacts, impacts from the relocation of community service.
- Effect determination – Impact is direct not indirect, impact is operations not construction, making something disproportionate appropriate (i.e. ensure correct type of effects).
- Missing information – include discussion of cumulative effects of social, and EJ.
- Verify – what is the zone of effect.
- Benefit – Discuss benefit from transit, improved access, natural resource mitigation, and expand to include other EJ populations.

Content

- Alternative – Provide sufficient description on the difference in options, the advantage/disadvantage of options including no build option.
- Address – address the whole community (residents and employers) not just EJ.
- Incorrect – Source data is inaccurate.
- Remember – Supplement Census Data for EJ populations with other data.
- Commitment – Commitments need to be stronger.
- Conclusion – Need to quantify, incorrect reasoning for conclusion, inappropriate conclusion, incorrect interpretation of data.

Process

- Regulation – Failure to follow NEPA requirement federal guidelines or policy.
- Missing information – Missing tribal fish/fishing effects, Tribal fishing discussion, Treaty Rights. Remember to include all relevant tribes especially based on U&A areas.
- Missing information – Translated documents and information provided to the community wrong or without sufficient detail.
- Missing information – Discuss effort to relocate business.
- Regulation – Missing reference to federal regulation.
- Detail – Check when to address aspects of earlier documents (tolling, legislation, SDEIS/FD).

Recommendations for Writers: Describe pertinent discipline related project information and impact information. Cover direct impact to the resource as well as the cumulative effects. Address impact for the project area not a larger regional or city area. Highlight the benefits to the resource from the project. Discuss the alternatives and differences. Discuss efforts made to address the community.

Recommendations for Reviewers: FHWA is particularly concerned with the accurate identification of EJ communities, the scope of the impact and the level and effectiveness of public involvement. Process related comments were more common for EJ issues than for any other discipline. Pay particular attention to these areas in your review. Our guidance could be improved by providing more specific and descriptive information in these areas.

WETLANDS
All wetland comments came from six projects. Most wetland comments were on editorial issues. Next were comments referring the need to clarify information and add missing information.

Project Description

- Project description – Missing pertinent information, project boundaries, duration of work, project limits, construction detail (i.e. how wetlands are marked to avoid impacting).
- Detail – Explain baseline conditions.
- Verity – Verify Statement of wetland functions.

Impacts

- Detail – Discuss how impacts were determined? What are they due to? What project element creates which effect and where?
- Incorrect – Check characterization of impacts (i.e. writing suggests minimal impact when impact is really significant).
- Verify – Check impact details (i.e. hydrology/fill, type, location).
- Incorrect – Measurements do not minimize the impact as stated.

Alternative

- Detail – Include more comparison between the options or alternatives.
- Alternatives – Include a discuss option and alternatives specific durations.

Process

- Identify potential Mitigation measures and sites (show specific sites if available).
- Verify – Check that WSDOT has agreed to specific project mitigation.
- Ensure that mitigation is appropriate and equal with project impact.

Recommendations for Writers: Include complete project description, including baseline conditions. Accurately describe the wetland function. Provide a complete discussion impacts to the resource and include where, what, how etc. Correctly portray impacts and verify impact details. Ensure minimization measures really minimize the impact. Discuss differences between the alternatives and options specific details. Know what the project is agreeing to.

Recommendations for Reviewers: Check for completeness and correctness of project description and impacts discussion.

ENERGY
The comments for the Energy section came from three large scale projects. The majority of comments indicated the document needed editorial work, was missing information or the information provided needed clarification.

Project Description

- Incorrect – Project description is incorrect and not clearly stated.
- Missing information – Relevant background information is missing or requires more detail.

Impacts

- Missing information – Where is energy used/consumed? How much and what stage/element.
- Missing information – There is no discussion about improved efficiency.
- Detail – Focus on lower level (emissions not global warming).

Conclusions

- Support – Conclusions are not supported.
- Incorrect – Data says something different than what is intended (i.e. presentation of data).

Alternative

- Alternatives – Discuss differs between the options descriptions (i.e. benefits and trade-offs, in efficiency).

Content

- Methodology – Describe methods (i.e. what calculations were used and why, how, what methods, describe methods).
- Verify – Use most current information.
- Detail – Level of detail should be consistent (i.e. level of precision, round percentages).
- Writing style – Present information in a way that is useful to the reader (i.e. that the reader will understand) also display units.

Fact checking

- Verify – Need to verify calculations and project details.

Recommendations for Writers: Include a complete project description containing the appropriate level of background information. Discuss cause of impacts. Focus impact discussion at the appropriate level for the project (i.e. discuss emissions and energy use, not global warming). Make sure all conclusions are supported and data conveys the correct message. Articulate the differences between the alternatives. Include methodology used and use the most current information available. Be aware of the level of precision your information suggests. Always present information in a way that is useful to the reader/public. Verify information and calculations are correct.

Recommendations for Reviewers: Focus efforts on completeness of project description details and background information. Source of and level of energy consumption should be included and discussed at the appropriate scale. Check that conclusions are supported and clearly written. The alternative discussion should include the benefits/trade-offs of each. Ensure methodology is clear and complete and sources are current. Check accuracy of numbers and calculations.

Conclusion

This analysis revealed several areas where environmental documents can be improved by identifying common errors that can easily be avoided or remedied.

Document writers can improve the overall quality of documents by doing simple things like establishing naming conventions, creating standards for graphics, and cross-checking for consistency and accuracy. When presenting data, make sure to include methodology and use the most current information available while being aware of the level of precision your information suggests. The text should support

conclusions. Writers can reduce document review time by thoroughly editing documents for format, grammar, spelling, and organization. Graphics should be checked for readability, consistency and completeness.

Document reviewers should focus efforts on substantive content and not editorial or stylistic content unless specifically requested to do so by the project team. Comments need to be specific, concise and clearly describe what is required. Reviewers should follow the comment form instructions on comment priority ranking. Generally, things like inconsistent information and mismatched information that may lead the reader to misinterpret findings should be given a 1 or 2 priority rating. Conflicting conclusions should always be rated as a priority 1 concern. Most editorial comments should be given a low priority rating. The reviewer should also ensure that the impacts are completely described (size, location, etc.), that all level of impacts are discussed, that conclusions are supported and that the appropriate processes have been followed and documented.

A little effort in these areas can improve the quality of our environmental documents, streamline the review process and provide the public and decision makers with more useful information.

APPENDIX

Comment priority rating Definitions

Level of severity

- 1 – fatal flaw, deal breaker, incorrect statement/information, gross error
- 2 – change will improve clarity of doc/section, change needs to be made but not a major, conceptual error, need change in technical terminology
- 3 – editorial comment, stylistic change, (remove interim, and other modifiers)

General Comment Category Definitions

Change/Clarifying – comment requests more discussion, the addition of facts, or that text be rewritten.

- General project information is unclear/incomplete or needs to be modified.
- Word or concept needs defining.
- Conclusion needs more support.
- Impacts are misrepresented or unclear.

Comment – comment that ask a question, inquire, or make a statement that was not definable from the comment form or did not require an action.

Editorial – comment suggest adding or deleting words, changing grammar or spelling of the text.

- Area needs something to improve navigation of document.
- Document needs reorganization to improve clarity / flow.
- Missing reference.
- Suggests an improved layout/design or formatting.
- Add comma, plural, spelling, add/change language, typo.

Graphic – comment suggest adding a graphic, checking a graphic against text, or noting a graphic size issue.

- Need graphic, improve or redo, incorrect labeling, needs a change, inconsistent.
- Term, graphic or other is used incorrectly.

Inconsistent – comment identifies simple differences in the text where the reviewer wants to ensure that two parts of the text have the same meaning.

Incorrect – comment identifies a statement that is wrong and must be corrected.

Missing Information – comment indicates there is missing data or information that should be added.

Writing Style – comment suggests that the text can be improved structurally or grammatically.

- Need to change organization.
- Plain talk the text.

Process – comment references issues related to NEPA/SEPA, WSDOT, FHWA, or other statutory or legal process covered in the text.

- Refers to the NEPA environmental documentation process (review, coordination, public comment, alternatives discussion/evaluation, logical termini, tribal, cultural resources, 4f).
- Insufficient/missing information on the NEPA environmental documentation process (review, coordination, public comment, alternatives discussion/evaluation, logical termini, tribal, cultural resources).
- Insufficient/missing information of law/legal/statutory/rules.

Suggestion or compliment –comments generally express approval or commendation.

Verify/confirm – comments ask that specific information be verified for accuracy or clarification to the reviewer.

Distribution of comments among general comment categories and priority General Comment Categories	**Category 1**	**Category 2**	**Category 3**	**Total**
change/clarify	331	907	149	1387
comment	42	250	52	344
editorial	194	673	662	1529
graphic	41	288	76	405
inconsistent	44	121	25	190
incorrect	111	142	17	270
missing information	230	334	64	628
naming	24	41	9	74
plain talk	55	148	81	284
process	25	32	3	60
suggestion or compliment	1	12	9	22
verify/confirm	49	81	10	140
Grand Total	**1147**	**3029**	**1157**	**5333**

Detail Comment Category List

Detail Comment Categories	#	Detail Comment Categories	#
Add discussion (conclusion)	11	need to discuss	14
Add discussion (explain why)	43	no comments	4
Add discussion (missing info)	8	Plain talk	20
Add discussion (more detail/clarify)	258	Put "something" on Graphic	80
Add discussion (repeat elsewhere)	12	Question	256
Add discussion (such as this)	27	Response to comment (Additional detail needed)	9
Add discussion (summary)	13	Response to comment (correction made)	1
Add graphic that shows "this"	46	Response to comment (did not answer question)	18
Add information (define this)	153	Response to comment (reorganize rewrite)	12
Add information (missing facts)	185	Response to comment (what was the response)	10
Add label to graphic	36	revise text	47
Add reference	8	This is correct process	29
Add reference	20	Update (before publication)	16
add sidebar	5	Verify Code	3
be more generic	6	Rewrite (confusing)	104
Change/add "word(s)"	174	Rewrite (incorrect)	54
Color problem	18	Rewrite (like this?)	141
compliment	6	Rewrite (missing info)	30
Content will need to be updated	4	Rewrite (more support for conclusion)	119
Correct grammar	58	Rewrite (reorganize/move this)	70
Correct per Regulation	16	Rewrite(incorrect)	33
Correct spelling	40	safety	4
Defer till comments by FHWA legal	5	Should this be added	1
Delete "word(s)"	171	Should this be changed	2
Delete (this)	51	simplify	7
do not change	2	Statement incorrect, remove	14
Do not use "word(s)"	13	Statement of fact	26
Exchange "this" term for "that" term	314	Suggested change to process and text	49
Fix Inconsistency	127	verify conclusion	11
formatting	35	Verify Content	45
Graphic too small	28	Verify info on graphic	21
Include "this" graphic here	5	Verify with experts	15
Is graphic consistent with text	69	What if?	7
Is there an inconsistency	19	Where did the info come from	5
Is this correct? (sounds wrong)	28	Where is the information? Reference	39
Missing information	11	Why? (fact finding)	70
need more info	80		

Comment Form Analysis Project List

Project Name	Number of Comments
Alaska Way Viaduct Project	1060
City of Seattle's Magnolia Bridge Replacement	17
Columbia River Crossing	694
East Lake Sammamish Master Plan Trail	46
East Link Project	23
Heery International Pothole Sampling and Analysis—Winslow Way SW	6
I-405, Bellevue to Lynnwood	8
I-90 Snoqualmie Pass East Project	202
NE Novelty Hill Road Project	175
Northern Columbia Basin Railroad Project	11
Salmon creek interchange project	17
Skagit River Bridge Modification and Interstate Highway Protection Program	8
South Park Bridge Replacement	12
SR 502 Corridor Widening Project	478
SR 520 Bridge Replacement and HOV Program	1972
SR 520 Corridor Project, Pontoon Construction Project	230
SR 520 Corridor Widening Project	53
SR 520 Program, Medina to SR202 Eastside Transit and HOV Project	15
Urban Partnership SR 520 Variable Tolling	10
US 12 Phase 7&8 Draft EA	296