

Appendix B. EA Preparation

B.1. Content and Instructions

Use the following outline in preparing your EA. Each category provides a description of the content that you should provide, if applicable.

B.1.1 Proposed Action

This section should explain to the reader what is proposed, where it is proposed, and when it would be constructed.

- Describe in as much detail as appropriate the project as proposed.
- Identify the design parameters or standards (i.e. number of lanes, lane width, design speed); stream crossing structures; and any design features that could affect protected resources.

B.1.2 Purpose and Need

In the “Purpose and Need” section, you establish why the Department proposes the improvement (i.e. the rationale for the project). This section serves as the foundation for the proposed action and is the principal information upon which you will base the subsequent discussion of the “No-Build” alternative. You should clearly establish your rationale for pursuing the action and show that the proposed action is consistent with local transportation, comprehensive, and land use planning.

Don’t neglect the amount and quality of documentation justifying the reason for the proposed project. It should be the strongest section of the document. If you fail to establish a sound “Purpose and Need,” you severely weaken the EA as a decision-making document, and you reduce the credibility of the alternatives proposed.

- Describe the locations, length, termini, proposed improvements, etc.
- Identify the need that the proposed action is intended to satisfy (e.g., provide system continuity, alleviate traffic congestion, and correct safety or roadway deficiencies).
- In many cases, you can explain the “need” in one or two paragraphs. However, you may have to use several pages when the need requires detailed information to show that you can readily dismiss avoidance alternatives not meeting the need.

B.1.3 Alternatives

An EA need not evaluate a “full” range of alternatives as required for an EIS. It can just discuss the “proposed action” and the “no-build” alternative. You need not evaluate avoidance/minimization alternatives unless 1) the project could affect a resource protected by a law, executive order or regulation [e.g. E.O. 11990, E.O. 11988, Section 4(f) or Section 404(b)(1)], or 2) additional right-of-way is required. Then you must evaluate avoidance and minimization alignment of design alternatives.

- Provide sufficient information in the evaluation and discussion to determine if the alternatives considered are practicable.
- Alternatives to the proposed action can be site specific and should include consideration of exception to standards. You must consider avoidance when the proposed action would affect wetlands, floodplains, and Section 4(f) resources.
- Make the discussion brief, with supporting engineering documentation appended to the document.

B.1.4 Environmental Consequences

This section must give the reader a clear understanding of the positive and negative effects of the proposed action. An EA doesn’t have an “affected environment” section as required for an EIS. But a very brief description of the “affected environment” (i.e. the project area) could be helpful for some impact categories. Include a brief and succinct description of the existing area.

Provide an analysis that adequately identifies the impacts and appropriate mitigation measures.

- Address known and foreseeable public and agency concerns.
- Discuss only those impact categories applicable to the proposed actions.
- For all other impact categories, state that they are not involved with the project (e.g. “The proposed action does not require relocations.” or “The project is not located within the ACMP boundary.”).
- Document consultation with applicable resource agencies, local government, special interest groups and the public.

- Document any environmental commitments and mitigative measures included in the proposed action.

Discuss each of the following impact categories. If the proposed action would not affect a particular impact category, list that topic and state that the action would not affect that category. The *FHWA Environmental Guidebook*, October 1999, provides policy guidance with regard to each of the impact categories. It is a useful tool that you should use to assure that the assessment of impacts meets at least the minimum required by FHWA. You may find it at the following Internet address:

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

The 17 main impact categories are:

1. Right-of-Way Impacts

Coordinate with the engineering manager and Right-of-Way Section to determine if additional right-of-way (ROW) is necessary for the proposed improvements. If so, coordinate with the appropriate interested individuals or interest groups. If you notify the property owner, you must make it clear that DOT&PF will not make a decision on the selection of a “Preferred Alternative” until after the public and agencies have reviewed the document. Additional ROW includes temporary and permanent easements and inter-agency land transfers.

Provide the following:

- An estimate of the number of households to be displaced, including the family characteristics (e.g., minority, ethnic, handicapped, elderly, large family, income level, and owner/tenant status).
- A comparison of available (decent, safe, and sanitary) housing in the area with the housing needs of those displaced.
- A discussion of affected neighborhoods, public facilities, nonprofit organizations, and families having special composition (e.g., ethnic, minority, elderly, handicapped, or other factors) that may require special relocation considerations, and the measures proposed to resolve these relocation concerns.

- The measures the Department will take where the existing housing inventory is insufficient, does not meet relocation standards, or is not within the financial capability of the displaced persons.
- An estimate of the numbers, descriptions, types of occupancy (owner/tenant), and sizes (number of employees) of businesses to be displaced.
- A statement that (1) the acquisition and relocation program will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and (2) relocation resources are available to all residential and business relocatees without discrimination.

2. Social Impacts

Discuss the following for each alternative (if applicable), commensurate with the level of impacts:

- Changes in the neighborhoods or community cohesion for the various social groups as a result of the proposed action. These changes may be beneficial or adverse, and may include splitting neighborhoods, isolating a portion of a neighborhood or an ethnic group, generating new development, changing property values, or separating residents from community facilities, etc.
- Changes in travel patterns and accessibility (e.g., vehicular, commuter, bicycle, or pedestrian).
- Impacts on school districts, recreation areas, churches, businesses, police and fire protection, etc. Include the direct impacts and the indirect impacts that may result from the displacement of households and businesses.
- Impacts on traffic safety and on overall public safety.
- General social groups specially benefited or harmed by the proposed project. The effects of the project on the elderly, handicapped, nondrivers, transit-dependent, minority and ethnic groups, and economically disadvantaged are of

particular concern. Describe the information you gave these groups about these effects, to the extent they can be reasonably predicted.

- If any social group is disproportionately impacted, note this fact and give possible mitigation measures to avoid or minimize any identified adverse impacts.

You must provide public notification and consultation for any project that requires ROW from low-income populations, minority communities, or is located in a community with a federally recognized tribal government (Executive Order 12898, Environmental Justice).

- Determine if there is a disproportionate effect on minorities or disadvantaged.
- Described the results of any adverse effects and document the results of the consultation process.

You should consider the information regarding households and businesses for each alternative under consideration.

- Present it in the environmental document only if there is a potential for a significant impact resulting from the action.
- If you present it in the document, make the discussion commensurate with the level of impacts and present it in either a narrative or a table format.

3. Economic Impacts

- Evaluate the economic impacts of the action on the regional and/or local economy, such as the effects of the project on development, tax revenues, and public expenditures, employment opportunities, accessibility, and retail sales.
- Discuss impacts that have the potential for significant effects on the economic viability of affected minorities. Rely, as much as possible, upon results of coordination with and views of affected state, borough, and local officials.
- Discuss the impacts on the economic vitality of existing highway-related

businesses (e.g., gasoline stations, motels, etc.) and the resultant impact, if any, on the local economy; for example, the loss of business or employment resulting from building an alternative on a new location that bypasses a local community.

- Discuss potential impacts of the proposed action on established businesses or business districts, along with any opportunities to minimize or reduce such impacts by the public and/or private sectors.

4. Local Land Use and Transportation Plan

- Review applicable local land use and transportation plans.
- Coordinate as necessary with the local planning authority. For example, would there be community changes in land use as a result of the proposed action, or would the local government have to revise their local land use plans to accommodate the proposed action?
- Describe any mitigative measures proposed. If the proposed action is not consistent with local land use plans, an EIS will usually be required.

5. Cultural Resources

All projects must consider the potential impacts to cultural resources. You must meet the appropriate level of coordination as required by the 1999 ACHP regulations. Any project could have an adverse effect on historic properties depending on the project scope. But archaeological resources are usually only affected by projects that require construction off the existing slopes.

- Conduct a windshield survey for historic properties as soon as practicable and before you begin coordination with the SHPO.
- If you identify properties that appear to be 50 years old or older, you must evaluate them for eligibility to the National Register of Historic Places. This requires coordination with the state historic preservation officer (SHPO) and, as appropriate, a certified local government

(CLG).

- Archaeological resources generally require coordination with the SHPO, CLG, traditional council, and interested parties.
- In areas where there is a high probability of finding archaeological resources, you must consult with the native community (e.g. traditional council, village and regional corporation) prior to any site investigation.
- You and the appropriate native community should reach a clear understanding of how to deal with human remains prior to any ground-disturbing survey.

6. Wetlands

- If a project affects wetlands as defined by the U.S. Army Corps of Engineers (USACE), you must coordinate with state and federal resource agencies (including local coastal districts, if applicable).

Wetlands are, by definition, a “Water of the United States” and are protected under Section 404 of the Clean Water Act and Executive Order 11990, Protection of Wetlands. In accordance with the 1992 Permit Accord between DOT&PF and the Corps of Engineers, Alaska District, the Department will delineate wetlands affected by a project. Assess the functions and values using “Best Professional Judgement,” unless DOT&PF and resource agencies reach an agreement on an assessment methodology for that project.

- Once you have delineated the wetlands and provided the information to the design manager, the design staff must evaluate alternatives that avoid and minimize the wetland involvement. The regional environmental coordinator must provide this evaluation to resource agencies for their review.
- The design manager, in conjunction with the regional environmental coordinator, will recommend a “practicable alternative” and document the recommendation in a “Wetlands Finding,” as defined in Executive Order 11990. You

must append the finding to the EA.

- The wetlands finding must document any mitigative measures taken to avoid, minimize, or compensate for unavoidable wetland effect.
- The regional environmental coordinator should advise agencies of the “practicable alternative” recommendation prior to their formal review of the EA.

7. Fish & Wildlife

There are four categories under this section: Anadromous or Resident Fish Stream, Essential Fish Habitat, Wildlife Resources, and Bald Eagles. You can initially assess whether or not fish or wildlife resources would be affected by the project by 1) contacting the appropriate resource agency, or 2) reviewing available fish and wildlife resource information. Some agencies have resource inventories cataloged on GIS that you can use for the initial analysis.

a. Anadromous or Resident Fish

Present:

- Review the *DNR Anadromous Fish Stream Atlas* to determine if the proposed action affects a cataloged anadromous fish stream. This catalog will provide a reference number, species present, and type of use (i.e. spawning and rearing).
- If an anadromous fish stream is affected, coordinate with state and federal resource agencies (remember that a fish stream is a “Water of the U.S.” subject to protection under Section 404 of the Clean Water Act).
- Document the type of stream habitat affected by the project. This is essential in determining the magnitude of the impact, the appropriate structure, and any necessary mitigation.
- You may have to determine if fish species are present in noncataloged streams by “minnow trapping” for juvenile fish.
- If juvenile fish are found in noncataloged streams, fish passage through in-stream structures is required (A.S. 41.14.840).
- Obtain the required permit from ADF&G (A.S. 41.14.870).
- Document the type of stream habitat affected by the project. This is essential in determining the magnitude of the impact, the appropriate structure and any necessary mitigation.
- An on-site meeting with agencies is helpful, but not required, to evaluate the potential impact and identify alternatives.
- If you don’t hold an on-site meeting, it is helpful to provide resource agencies with video or photographs of the site. A video, if available, is a good tool because not only does it provide a visual of the site, but it can

provide an audio as well.

- b. Essential Fish Habitat (EFH): EFH is a provision of the Magnuson-Stevens Fisheries Conservation Act (50 CFR 900.20) and is defined as “*those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity.*”

If the project affects intertidal, subtidal, or anadromous fish streams, it “may affect” EFH.

- In this case, you must consult with NMFS and prepare an *EFH Assessment*.
- The assessment must document the resource, potential adverse effect, and any measures taken to minimize harm.
- The regional environmental coordinator must inform NMFS on how their EFH recommendations have been incorporated into the project.
- NMFS has 30 days to determine if an expanded consultation is necessary.

- c. Wildlife Resources: These are generally of lesser concern.

- However, you should evaluate the project area to identify any wildlife resources of particular concern, especially any species of concern identified by ADF&G (e.g. Queen Charlotte gouse hawk in S.E.).
- You should consider other wildlife species such as brown bears, bald and golden eagles, moose, caribou, and peregrine falcons (peregrine falcons are also a listed T&E species).
- You should analyze the effect of habitat fragmentation, bisecting migration corridors, and the potential for wildlife/vehicle accidents.

d. Bald Eagles:

- In coastal areas and river and stream corridors, check with USF&WS to determine if any bald eagle nesting trees are located within the project area.
- If so, you will need to determine if the project slope limits are within 100 meters of the nesting tree.
- You must maintain close coordination with USF&WS to determine if the project will adversely affect the nesting tree.
- Document the results of the coordination and any mitigative measures taken.

8. Threatened and Endangered Species (T&E)

- Check species with USF&WS and NMFS listing of T&E species to determine if the project would affect listed species.
- If a T&E species is present and would be affected either directly or indirectly, you must consult with the USF&WS (terrestrial species), or NMFS (marine mammals).
- Follow the procedure outlined in the T&E species flow chart contained in the *FHWA Environmental Guidebook*. If required, attach the biological assessment.
- *Note:* If a T&E species is affected either directly or indirectly by the project, FHWA cannot approve the EA without completion of the T&E process.

9. Water Body Involvement

- Determine if the project will affect a water body (i.e. pond, lake, river, or stream). If so, you must evaluate practicable avoidance alternatives.
- Depending on the type of project involvement, various regulatory requirements may be applicable (Corps Section 404/10 or USCG Section 9).
- Determine if the water body is navigable as defined by the USCG.
- For projects that involve bridge construction or reconstruction over navigable waters, you must coordinate

with the USCG per the agreement between FHWA/USCG.

- Check the *Alaska Anadromous Fish Atlas* to determine if the water body is a cataloged anadromous fish stream. If so, you must coordinate with DNR.
- If the water body is not anadromous, it may support important resident species (i.e. rainbow trout, char, grayling, and white fish).
- Check and document the type of involvement (i.e. bridge, culvert, embankment fill, or diversion) and type of habitat (i.e. spawning, rearing, pool riffle, undercut bank, or vegetated shallows).
- Describe any substantive adverse impacts. You may need to consult with DNR, USF&WS, or locals to make this determination.

10. Alaska Coastal Management Program

A project located in the coastal zone must be consistent with the ACMP to receive federal-aid approval.

- Determine if the project is located within the ACMP boundaries.
- If the boundary maps are not available, contact the Division of Governmental Coordination (DGC).
- If the project is located within the state ACMP, determine if the project is located within an approved Local Coastal District (contact DGC if necessary).
- Review the ABC List (Classification of State Agency Approvals) to determine if a project is “categorically” approved without conditions (A List), listed as general concurrence (B List), or requires individual consistency (C List).
- Review the local district management plan and evaluate preliminary consistency.
- Determine project consistency after review of comments from state and federal resource agencies, local coastal district, and the public.

11. Hazardous Waste

- You must perform an Initial Site Assessment (ISA) for all projects where ROW acquisition and/or extensive excavation are proposed.

- If the ISA identifies site contamination or a “high” potential for contamination (e.g. businesses such as service stations and dry cleaners, or buildings or residences with asbestos), you need to coordinate with ADEC to determine the need for a preliminary site investigation (PSI). If you conduct a PSI, it should include an estimated cleanup cost (if applicable), which is appended to the EA. *A PSI is a detailed site investigation to determine if a property is contaminated and characterize the extent of the contamination.*
- In the EA, you must provide sufficient documentation to conclude that hazardous wastes do not have a bearing on the alternative selection (including the “no-build” alternative).
- Depending on the results of the PSI and other engineering and environmental considerations, it may be necessary for the design manager to develop a preliminary corrective action plan with estimated cleanup costs to provide for a true alternatives comparison.

12. Air Quality Conformity

Determine if the project is in a nonattainment area.

- If yes, determine if the project is exempt per 40 CFR 51.460 (Table 2).
- If no, attach a conformity determination and describe the results of the conformity determination.

13. Floodplains Impacts

A project encroaching on a designated or proposed regulatory floodway must be consistent with the regulatory floodway.

- The Department must perform adequate engineering and environmental analyses to determine the effect of any floodplain encroachment.
- Coordinate with the Federal Emergency Management Agency (FEMA) and with appropriate state and local government agencies for floodway encroachments as soon as practicable.
- Proposed floodway encroachments must be consistent with all applicable regulatory floodway requirements

(federal, state, and local). If a floodway revision is necessary, document coordination from FEMA and local or state agencies, indicating the revision would be acceptable.

- Document consistency with Executive Order 11988 and 23 CFR 650, Subpart A; this includes:
 - a. The reasons why the proposed action must be located in the floodplain
 - b. The alternatives considered and why they were not practicable
 - c. A statement indicating whether the action conforms to applicable state or local floodplain protection standards

14. Noise Impacts

- You must evaluate projects with adjacent sensitive receivers or land uses for potential noise impacts.
- If you find noise impacts, evaluate potential noise abatement in accordance with the DOT&PF Noise Policy.

15. Water Quality

- Projects must meet state and federal water quality standards.
- You should evaluate projects for potential effects on public or private potable drinking water sources, particularly projects that involve blasting in the vicinity of a potable drinking water well.
- You must identify any designated impaired water body and take appropriate measures to mitigate any impact on these waters.
- The project must comply with the EPA and NPDES Phase I and Phase II regulations, as applicable.
- You must estimate the amount of ground-disturbing activities proposed and identify sensitive receiving waters.
- You should discuss the potential impacts to water quality and mitigative measures.
- Determine if the project is located within, or would affect, a Municipal Storm Sewer System (MS4), NPDES permit, or if runoff from the project will be mixed with discharges from an NPDES permitted industrial facility.

16. Permits and Authorizations

- Identify any state, federal, or local environmental permits and authorizations necessary for the proposed action.
- Document all applicable coordination with state and federal regulatory agencies.

17. Construction Impacts

- Identify impacts anticipated during construction.
- Describe adverse construction impacts. Often construction impacts are temporary in nature, but even short-term impacts can have substantial economic and natural environmental impacts.
- You should identify all reasonably foreseeable impacts.

B.1.5 Comments and Coordination

- Describe public and agency coordination efforts for the project.
- Summarize the issues raised by the public and government agencies.
- Identify efforts taken to resolve issues.
- Identify any unresolved issues.
- Correspondence received from agencies or the public need not be appended to the EA, but you must provide a list of agencies and the public that provided comments on the project.

B.1.6 Section 4(f) Evaluation (if applicable)

If the EA includes a Section 4(f) evaluation, you must circulate the EA/Section 4(f) evaluation or, if prepared separately, the Section 4(f) evaluation by itself, to the appropriate agencies for Section 4(f) coordination (23 CFR 771.135(i)). Chapter 6 provides specific guidance for the development of Section 4(f) Evaluations.

B.1.7 Appendices (if any)

- The appendices should include only analytical information that substantiates an analysis that is important to the document (e.g., a biological assessment for threatened or endangered species).
- You should merely reference other information (i.e., identify the material and briefly describe its contents).