

1.0 Introduction

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1.0 Introduction

This manual provides guidance to biologists who prepare biological assessment (BA) reports for transportation projects in the State of Washington with a federal nexus (i.e., receiving federal funds, occurring on federal lands, or requiring federal permits or approval). The manual defines and clarifies the essential components of BAs and the basic Endangered Species Act (ESA) Section 7 consultation process, and it also addresses special topics that require careful analysis when producing a BA. Where applicable, examples excerpted from published BAs are provided in this manual to illustrate how to address various topics in BAs.

The introduction section of this manual provides a summary of common flaws in BAs, the essential attributes of a successful BA, a brief discussion of the types of writing samples provided in this manual. PART 1 of this manual provides an introduction to the process of producing a BA report and the coordination of the various players in document production and review at the state, local, and federal levels. In addition, part one provides a brief overview of the required components or sections of a written BA.

PART 2 consists of topic-specific chapters that provide detailed information, discussion, examples, and guidance materials pertaining to each topic. The topics include specific BA sections that often pose problems for authors (e.g., the action area), as well as complex topics requiring further guidance (e.g., construction noise impact assessment and developing effect determinations).

PART 2 provides guidance on BA sections that are often problematic, including the following:

- Construction activities, impact minimization measures, and best management practices
- Action area
- Existing conditions: indicators and pathways analysis
- Indirect effects
- Cumulative effects
- Effect determinations

Other chapters in PART 2 provide further guidance on complex topics:

- In-water work
- Stormwater impact assessment
- Essential fish habitat

- Batched biological assessments and programmatic biological assessments and biological evaluations
- Standards for making effect determinations by species

PART 3 includes standard information that may prove useful to authors in the preparation of BAs, commonly used reference citations, templates, and BA checklists. References to the guidance and documents provided in PARTS 2 and 3 are made frequently throughout this manual.

A reference compact disc accompanies this training manual that provides the following source materials for use in preparing BAs and in other phases of Endangered Species Act compliance:

- Bull Trout Interim Conservation Guidance
- Essential Fish Habitat (EFH) Consultation Guidance
- Essential Fish Habitat (EFH) Excerpt from Amendment 11 to the Magnuson-Stevens Act (Federal Fishery Management Plans)
- Endangered Species Act Sections 2 – 18
- Endangered Species Act Section 7 Consultation Handbook
- National Marine Fisheries Service (NMFS) Matrix of Pathways and Indicators
- NMFS Critical Habitat Guidance
- Peregrine Document (U.S. Fish and Wildlife Service 1999)
- Programmatic Consultation Guidance
- The Habitat Approach to Implementation of Endangered Species Act Section 7 for Pacific Anadromous Salmonid Habitat
- U.S. Fish and Wildlife Service (USFWS) Matrix of Diagnostics/Pathways and Indicators (Bull Trout)
- USFWS National Bald Eagle Management Guidelines

1.1 Common Flaws in Biological Assessments

Washington State Department of Transportation (WSDOT) reviewers for the Local Highways and Programs department, as well as reviewers from the National Oceanic and Atmospheric

Administration, Fisheries Service (NOAA Fisheries) and the U.S. Fish and Wildlife Service (USFWS), have determined the two most common BA flaws:

- Careless, unedited documents including awkward or inappropriate cutting and pasting of text
- Unsupported conclusions

BAs often require the use of virtually uniform language or similar information between sections or between reports, tempting the author to cut language from one report and paste it into another. At a practical level, this activity may be unavoidable; however, great care must be taken when doing this to ensure that pasted text is appropriate for the new section or report. Reviewers frequently encounter text that has been inappropriately inserted into reports, rendering the report ineffective, if not unacceptable.

In addition, authors frequently state their conclusions without having provided the reviewer with enough information to understand how these conclusions were reached. These are often called leap-of-faith arguments, which again render the report unacceptable. If adequate support for conclusions is not provided, reviewers may not be able to concur with the analysis or the final effect determinations.

Other common flaws include the following, some of which are discussed in more detail in subsequent sections of this manual:

- Project activities are not described in enough detail to understand the potential impacts on listed species.
- A listed fish species is not addressed even though the project occurs within the boundaries of the evolutionarily significant unit (ESU) or distinct population segment (DPS).
- Species occurrence information is inconsistent or contradictory.
- Species are assumed to be absent because they are not documented in the Priority Habitats and Species Program (PHS) database (the “*not known to occur here*” flaw; see PART 2 chapters addressing effect determinations).
- Existing conditions are insufficiently documented, particularly fish habitat.
- Critical habitat is not addressed or is incorrectly addressed.
- The action area is not defined or it is defined incorrectly.
- Specific best management practices (BMPs) to be implemented are not identified.

- Indirect and cumulative effects analyses are incorrectly addressed.
- Interrelated and interdependent activities are incorrectly addressed or incorrect terminology is used.
- Incorrect effect determination language is used for listed, proposed, and critical habitat.
- Proposed actions that would occur away from the project site (e.g., dump sites, staging areas, and wetland mitigation sites) are not addressed.
- Impacts on habitat (e.g., alterations to vegetation or stream substrate, extraction or fill activities) are not quantified.
- Photographs do not document sensitive habitats (e.g., streams and wetlands) in the project area.
- Maps do not show waterways or vegetation removal (or planting) sites.
- The extent of in-water work is not clearly described.

1.2 Essential Attributes of a Successful Biological Assessment

The successful BA has three essential attributes:

- It provides adequate justification for an effect determination.
- It leads the reviewer through a discussion of project effects to a logical, well-supported conclusion.
- It contains adequate written description, figures, and graphics to portray the action and its effects on listed or proposed species.

The level of detail and impact analysis provided in a BA should be commensurate with the level of anticipated impacts. Significant impacts should elicit more detailed review and analysis. In addition, analysis of impacts should be related to the species being addressed in the BA.

1.3 Examples and Guidance for Biological Assessments

WSDOT's goal is to minimize these common errors in future BAs by providing guidance accompanied by select writing samples to assist authors in identifying and correcting these mistakes in their own writing. The writing examples provided are excerpts from actual reports or

generic examples providing example BA sections. In addition to the writing samples, PART 2 includes several guidance documents and forms generated by agencies and the Services.

The examples of BA sections appear throughout this manual as indented text in Arial font, followed by comments or guidance from NOAA Fisheries and USFWS (referred to here as *the Services*), indented in Arial italic underlined font.

