

BIOLOGICAL RESOURCE REPORT/BIOLOGICAL ASSESSMENT PROCESS

1. Purpose

This work instruction describes the process for ensuring that MDT highway projects identify and address project effects on biological resources and comply with all Federal and State requirements applicable to those resources. Examples include effects on threatened and endangered species and their critical habitat; migratory birds, their nests and eggs; Bald and Golden Eagles; Montana Species of Concern and Montana Sensitive Species; general wildlife; streams, rivers and riparian corridors; aquatic species; wetlands; habitat connectivity; natural plant communities; invasive species and noxious weeds.

2. Scope

The District Biologists (DB) within the MDT Environmental Services Bureau (ESB), administer the biological resource analysis process for MDT highway projects, in cooperation with the Design Team (DT). The process begins with the Preliminary Field Review and is completed with the implementation of any Special Provisions prepared by the DB for inclusion in the construction contract plan documents and subsequent coordination with construction personnel to address biological resource issues.

3. Process

[Figure 1](#) presents a flowchart that illustrates the biological resource analysis process for MDT highway projects. Following the Figure is a description of each process task included within the flowchart.

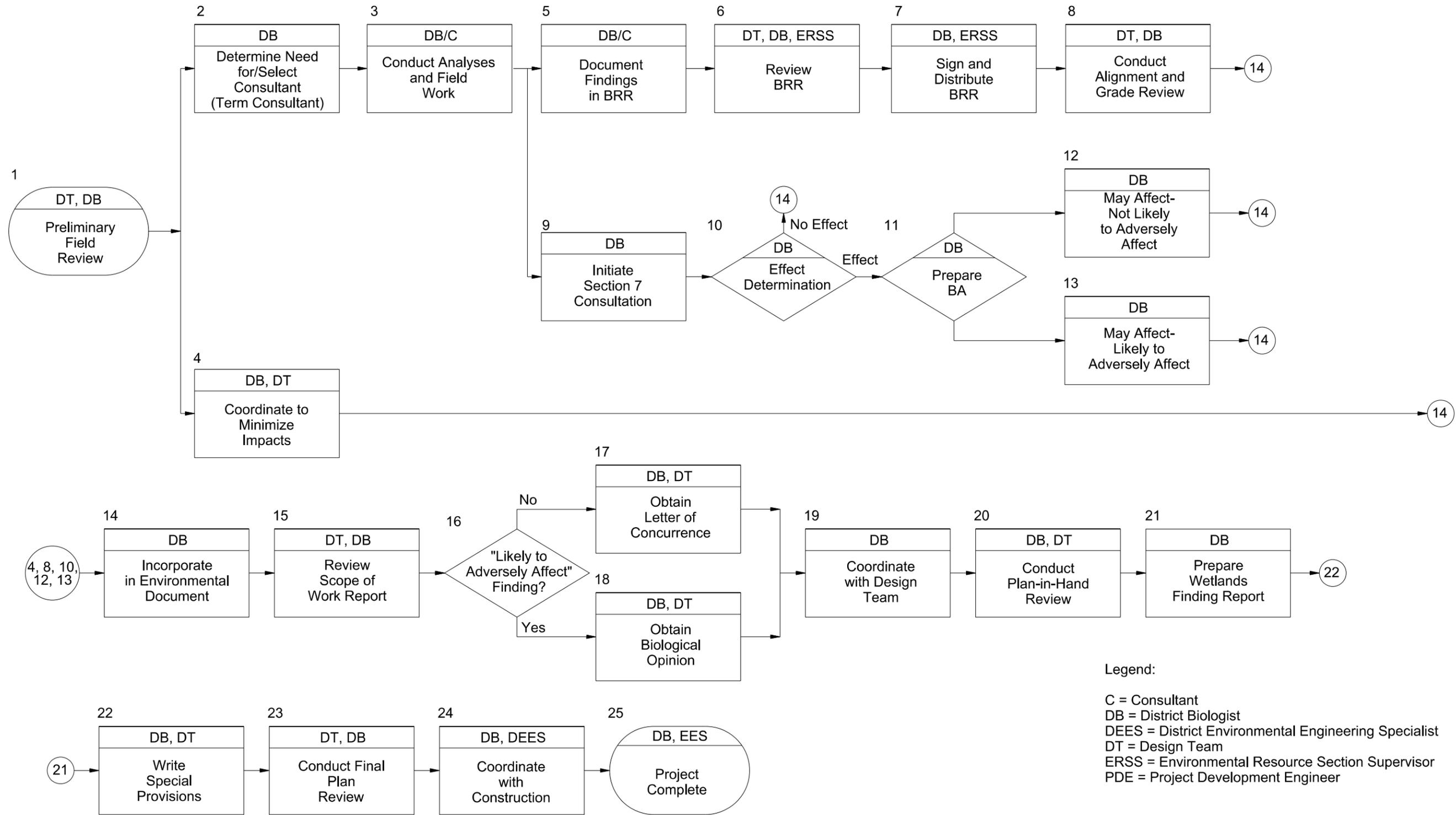


Figure 1 — BIOLOGICAL RESOURCE REPORT/BIOLOGICAL ASSESSMENT PROCESS

PROCESS TASK

Task Title: Preliminary Field Review

Task No.: 1

Task Description

The Preliminary Field Review (PFR) is the initial step that begins the biological resource analysis process for a proposed project. The PFR includes preliminary evaluation of the scope of work and the potential for social, economic and environmental impacts. The Design Team (DT) ensures that appropriate MDT personnel are notified and invited to participate in the field review.

The DB participates in the PFR to make a preliminary evaluation of available information on the project scope and the potential for impacts on the full range of biological resource issues associated with the project location.

Following the field review, the DT prepares a PFR Report summarizing the issues discussed during the PFR, including potential impacts to biological resources, and distributes the final PFR Report for review and comment. Within ESB, the Project Development Engineer (PDE) serves as the document champion to collect and coordinate comments from the other sections. The PDE compiles the comments into a PFR review memorandum for signature by the Environmental Services Bureau Chief (ESBC).

Regulations and Guidance

MDT Road Design Manual, Chapter One, "Road Design Process"

PROCESS TASK

Task Title: Determine Need for/Select Consultant (Term Consultant)

Task No.: 2

Task Description

For projects where a Consultant is preparing the environmental document, the Consultant is generally responsible for addressing biological resource issues and preparing the Biological Resource Report (BRR). For MDT projects, the DB evaluates the project scope, biological resource issues identified during the PFR and staff availability to determine whether to assign a consultant (term consultant) to perform the analyses and field work for preparing the BRR. The "Term Contract" procedures developed by the Consultant Design Bureau are used to select, negotiate and administer environmental consultant projects.

Regulations and Guidance

MDT Consultant Services Manual

PROCESS TASK

Task Title: Conduct Analyses and Field Work

Task No.: 3

Task Description

Based on the project scope and field observations during the PFR, the DB or Consultant begins the biological resource analysis process. The DB or Consultant accomplishes the following tasks:

- Perform a field and literature review to identify all general wildlife, fish, vegetative communities, noxious weeds, threatened and endangered species, rare and/or sensitive plant and animal species and critical habitats located at the project site and/or along the project corridor.
- Perform a field and literature review to identify all wetlands, rivers, streams and other water resources located at a specific project site or throughout a project corridor for survey and illustration on project plans. For wetlands, this includes delineation, classification and functional assessment.
- Request information from biologists with Department of Fish, Wildlife and Parks (FWP), Department of Environmental Quality (DEQ), Department of Natural Resources and Conservation (DNRC), US Forest Service (USFS), Bureau of Land Management (BLM), US Fish and Wildlife Service (USFWS) and any other pertinent agencies that have a management or regulatory interest in the wildlife, fish, critical habitats, rare and/or sensitive plants, wetlands, rivers, streams and other water resources the project may affect. Consultants coordinate these types of requests through the DB.

For projects subject to the requirements of 23 USC 139, "Efficient Environmental Review for Project Decision-making," the DB, in cooperation with FHWA, collaborates with participating agencies in determining the appropriate methodologies to be used and the level of detail required in the analysis of biological resource impacts of project alternatives.

Regulations and Guidance

FHWA – *SAFETEA-LU Environmental Review Process Final Guidance*
Corps of Engineers Wetlands Delineation Manual, 1987
Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West
Region (Version 2.0), September 2008
Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great
Plains Region, March 2008

PROCESS TASK

Task Title: Conduct Analyses and Field Work
(Continued)

Task No.: 3

Regulations and Guidance (Continued)

Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual:

Western Mountains, Valleys, and Coast Region, April 2008

MDT Montana Wetland Assessment Method, March 2008

33 USC 1251, et seq. Clean Water Act

16 USC 703-712 Migratory Bird Treaty Act

16 USC 1536 (a)-(d) Endangered Species Act

7 USC 2814 Noxious Weeds

7 CFR 360 "Noxious weed regulations"

MCA 7-22-2101 – 2153 Montana County Weed Control Act

PROCESS TASK

Task Title: Coordinate to Minimize Impacts

Task No.: 4

Task Description

Throughout the design process, the DB coordinates with the DT on an ongoing basis to avoid and minimize project impacts to biological resources.

PROCESS TASK

Task Title: Document Findings in BRR

Task No.: 5

Task Description

The DB or Consultant prepares a BRR to provide a written assessment of the biological resources analyzed within the project corridor. For each resource category, the BRR includes a comprehensive analysis and discussion of baseline conditions, anticipated project impacts and recommendations for avoiding and minimizing impacts. The BRR includes the following sections, as applicable:

- Executive Summary
- Introduction
- General Study Methods
- Terrestrial Resources
 - + General Vegetation
 - + Noxious Weeds/Invasive Species
 - + General Wildlife Species
- Aquatic Resources
 - + Aquatic Sites
 - + General Aquatic Species
- Sensitive Species of Special Concern
 - + Plant Species
 - + Terrestrial Species
 - + Aquatic Species
- Threatened and Endangered Species
- Wetlands
- References
- List of Tables and Figures
- List of Appendices

Concurrent with [Task 5](#), initiate Section 7 Consultation ([Task 9](#)).

Regulations and Guidance

Table of Contents for Consultant Biological Resource Reports/Biological Assessments

PROCESS TASK

Task Title: Review BRR

Task No.: 6

Task Description

Upon completion of the BRR prepared by the DB, the Environmental Resources Section Supervisor (ERSS) reviews it. The DB may also coordinate with the DT and outside regulatory and resource agencies for review and comment. The DB makes changes in the BRR to respond to comments.

Upon completion of the BRR prepared by a Consultant, the DB reviews it. The DB may also coordinate with the DT and outside regulatory and resource agencies for review and comment. The Consultant makes changes in the BRR to respond to comments.

PROCESS TASK

Task Title: Sign and Distribute BRR

Task No.: 7

Task Description

For a BRR prepared by the DB, both the DB and ERSS sign the Report when they are satisfied with its contents. The Consultant signs consultant-prepared BRRs.

The DB distributes the final BRR to the DT. The DB/Consultant provides the delineated wetland boundaries (MicroStation File) to the DT for inclusion within the plans.

PROCESS TASK

Task Title: Conduct Alignment and Grade Review

Task No.: 8

Task Description

When the DT completes the preparation of preliminary plans for the proposed project, the DT coordinates with the appropriate MDT personnel to schedule an Alignment and Grade Review (AGR).

The AGR involves establishing the horizontal and vertical alignments. The AGR should address key design issues, including impacts to biological resources. The AGR entails extensive coordination among the DT, including the DB.

After incorporating changes from the AGR in the design, the DT prepares the AGR Report documenting the issues discussed during the field review, including potential impact to biological resources and incorporates any necessary changes into the design. The DT distributes the final AGR Report for review and comment. Within ESB, the PDE serves as the document champion to collect and coordinate comments from the other sections. The PDE compiles the comments into an AGR review memorandum for signature by the ESBC.

Regulations and Guidance

MDT Road Design Manual, Chapter One, "Road Design Process"

PROCESS TASK

Task Title: Initiate Section 7 Consultation

Task No.: 9

Task Description

When the analyses and field work conducted in [Task 3](#) result in the determination that the project may affect listed or proposed threatened or endangered species or designated or proposed critical habitat for threatened or endangered species, the DB, in cooperation with the FHWA Division Office, contacts the USFWS to initiate consultation in accordance with Section 7 of the Federal *Endangered Species Act* and associated regulations.

The purposes of the initial consultation with USFWS are to:

- clarify whether and, if so, what listed or proposed species or designated or proposed critical habitats are in the project area;
- determine what effect the action will have on these species or critical habitats; and
- explore ways to modify the project to avoid or minimize adverse effects on the species or critical habitats.

Regulations and Guidance

50 CFR Part 402.11 "Early consultation"
50 CFR Part 402.13 "Informal consultation"
16 USC 1531 *Endangered Species Act*

PROCESS TASK

Task Title: Effect Determination

Task No.: 10

Task Description

Based on preliminary analyses and consultation with USFWS, the DB determines if the project may affect threatened or endangered species or their critical habitat.

If the DB determines the project will not affect threatened or endangered species or critical habitat, the DB documents the “No Effect” determination in project files and proceeds to [Task 14](#).

If the DB determines the project may affect threatened or endangered species or critical habitat, the DB proceeds to [Task 11](#).

PROCESS TASK

Task Title: Prepare BA

Task No.: 11

Task Description

The DB prepares a Biological Assessment (BA) documenting the basis for the determination of effect to threatened or endangered species or their critical habitat. The BA includes the following:

- results of on-site field work and data-gathering to determine the presence of listed or proposed species or designated or proposed critical habitat;
- results of literature review for threatened or endangered species and critical habitat;
- analysis of potential direct, indirect and cumulative effects and the results of any related studies;
- analysis of alternative actions considered for the proposed action;
- recommended conservation measures; and
- effect determination for each species.

The DB provides the BA to the ERSS for review and comment.

Based on the information in the BA, the DB determines if the project is likely to adversely affect threatened or endangered species or critical habitat. If the project is not likely to adversely affect threatened or endangered species and/or critical habitat, the DB proceeds to [Task 12](#).

If the project is likely to adversely affect threatened or endangered species and/or critical habitat, the DB proceeds to [Task 13](#).

Regulations and Guidance

Section 7 Consultation Handbook
50 CFR 402.12 "Biological assessments"
50 CFR 402.13 "Informal consultation"
50 CFR 402.14 "Formal consultation"

PROCESS TASK

Task Title: May Affect-Not Likely to Adversely Affect

Task No.: 12

Task Description

If the BA results in a finding of “May Affect, Not Likely to Adversely Affect” threatened or endangered species or their critical habitat, the DB initiates informal consultation with USFWS. The DB forwards the BA directly to the USFWS requesting a Letter of Concurrence with the effect determination.

Regulations and Guidance

50 CFR 402.11 “Early consultation”
50 CFR 402.12 “Biological assessments”

PROCESS TASK

Task Title: May Affect-Likely to Adversely Affect

Task No.: 13

Task Description

If the BA results in a finding of “May Affect, Likely to Adversely Affect” threatened or endangered species or their critical habitat, the DB prepares a letter to transmit the BA and other relevant project reports and information (e.g., the environmental document prepared for NEPA) to FHWA with a request to initiate formal consultation with USFWS.

Regulations and Guidance

- 50 CFR 402.11 “Early consultation”
- 50 CFR 402.12 “Biological assessments”
- 50 CFR 402.14 “Formal consultation”

PROCESS TASK

Task Title: Incorporate in Environmental Document

Task No.: 14

Task Description

The DB coordinates with the PDE for the project to incorporate the information and recommendations from the BRR and BA (regarding biological resources in the project area, project effects on those resources, measures to avoid and minimize adverse effects and compensatory mitigation, as needed) in the environmental documentation prepared for compliance with the *National Environmental Policy Act* and the *Montana Environmental Policy Act*.

Regulations and Guidance

40 CFR 1500 – 1508 *CEQ Regulations*
FHWA Technical Advisory T 6640.8A
ARM 18.2.235 – 18.2.261 *MDT MEPA Rules*

PROCESS TASK

Task Title: Review Scope of Work Report

Task No.: 15

Task Description

As soon as appropriate data is available, the DT prepares the Scope of Work (SOW) Report, which identifies the major design features of the project and provides an overview of the project improvements. In addition to information on various engineering aspects of the proposed project, the SOW Report includes discussion of environmental considerations, including biological resource issues and associated impact avoidance and minimization measures. The SOW Report cannot be finalized until the environmental document is approved.

The DT distributes the SOW Report for review and comment by affected MDT bureaus. Within ESB, the PDE serves as the document champion to collect and coordinate comments from the other sections. The DB reviews the SOW Report, provides written comments to the PDE and coordinates with the DT to determine the nature and extent of any unavoidable adverse biological resource impacts. The PDE compiles the comments into an SOW review memorandum for signature by the ESBC.

Regulations and Guidance

MDT Road Design Manual, Chapter One, "Road Design Process"

PROCESS TASK

Task Title: "Likely to Adversely Affect" Finding?

Task No.: 16

Task Description

If the BA resulted in a finding that the proposed project is not likely to adversely affect threatened or endangered species or their critical habitat and informal consultation was initiated with the USFWS, proceed to [Task 17](#).

If the BA resulted in a finding that the proposed project is likely to adversely affect threatened or endangered species or their critical habitat and formal consultation was initiated with USFWS, proceed to [Task 18](#).

PROCESS TASK

Task Title: Obtain Letter of Concurrence

Task No.: 17

Task Description

The USFWS reviews the BA and may coordinate with the DB to address questions or suggest modifications to the project to ensure it will not adversely affect threatened or endangered species or critical habitat. When satisfied with the basis for the determination that the project will not adversely affect threatened or endangered species or critical habitat, the USFWS provides a letter of concurrence that confirms no further action is necessary for compliance with Section 7 requirements and concludes the informal consultation process.

Upon receipt of the letter of concurrence from USFWS, the DB distributes the BA and the Letter of Concurrence to the DT and proceeds to [Task 19](#).

Regulations and Guidance

50 CFR 402.12 "Biological assessments"
50 CFR 402.13 "Informal consultation"

PROCESS TASK

Task Title: Obtain Biological Opinion

Task No.: 18

Task Description

The USFWS reviews the BA and may coordinate with the DB to address questions or suggest modifications to the project to ensure it will not jeopardize the continued existence of any threatened or endangered species or critical habitat.

As described in 50 CFR 402.14, USFWS provides its biological opinion to FHWA and FHWA forwards the biological opinion to MDT.

Formal consultation is concluded with the issuance of the biological opinion.

Following the issuance of a biological opinion, MDT, in consultation with FHWA, determines how to incorporate the recommended conservation measures contained in the USFWS biological opinion.

If a "jeopardy" opinion is issued, MDT, through FHWA must notify USFWS of the final decision on the action. If MDT, in consultation with FHWA, determines it cannot comply with the Section 7 requirement for avoiding actions that jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat, it may apply for an exemption, in accordance with procedures in 50 CFR 451.

Upon receipt of the biological opinion from USFWS, the DB distributes the BA and the biological opinion to the DT and proceeds to [Task 19](#).

Regulations and Guidance

50 CFR 402.14 "Formal consultation"

PROCESS TASK

Task Title: Coordinate with Design Team

Task No.: 19

Task Description

The DB coordinates with the DT to incorporate measures for avoiding and minimizing adverse biological resource impacts into the project plans. This includes any recommended conservation measures provided in the BA and/or biological opinion for threatened or endangered species and their critical habitat.

PROCESS TASK

Task Title: Conduct Plan-in-Hand Review

Task No.: 20

Task Description

After all design changes are incorporated to the extent practicable, the DT prepares the preliminary detailed design plans for the project. The DT distributes the preliminary detailed design plan package and invites participation in a Plan-in-Hand (PIH) review of the project. The DB participates to address biological resource issues and associated impact avoidance and minimization measures.

The DT documents all comments received during the PIH review in the PIH Report and distributes the Report to participants for review and comment. The DT uses the recommendations contained in the PIH Report to revise the plans, special provisions and cost estimate.

Regulations and Guidance

MDT Road Design Manual, Chapter One, "Road Design Process"

PROCESS TASK

Task Title: Prepare Wetland Findings Report

Task No.: 21

Task Description

Based on the project plans with final construction limits, the DB prepares a Wetland Findings Report for the project. The Report includes the following:

- description of the project and project area;
- discussion of methodology used for wetland delineation, classification and functional assessment;
- descriptions of wetlands and wetland hydrology in the project area;
- discussion of the project's wetland impacts, including wetland acreage impacted by Category;
- discussion of alternatives or measures for avoiding and minimizing the project's wetland impacts;
- description of compensatory mitigation for unavoidable adverse wetland impacts; and
- appendices containing Wetland Determination Data Forms for the appropriate region(s), MDT Montana Wetland Assessment Data Forms, representative wetland photographs and project plans indicating wetland impacts.

PROCESS TASK

Task Title: Write Special Provisions

Task No.: 22

Task Description

The DB prepares any special provisions necessary to implement avoidance, minimization and/or mitigation measures for the project's biological resource impacts.

The DB coordinates with the DT and the MDT Contract Plans Bureau to ensure the special provisions associated with biological resource impacts are accurately reflected in the final engineering plan documents.

PROCESS TASK

Task Title: Conduct Final Plan Review

Task No.: 23

Task Description

The DB coordinates with the DT to review the final project plans to ensure that measures for impact avoidance and minimization to all biological resources, including wetlands, have been incorporated. The DB ensures that biological resource mitigation design and special provisions are accurately reflected in the plans. The DB coordinates with the DT and the MDT Contract Plans Bureau to implement any needed changes.

PROCESS TASK

Task Title: Coordinate with Construction

Task No.: 24

Task Description

The DB coordinates with Construction personnel and the District Environmental Engineering Specialist (DEES) to ensure the special provisions and design elements concerning biological resources and mitigation measures are implemented during project construction.

PROCESS TASK

Task Title: Project Complete

Task No.: 25

Task Description

The biological resource/biological assessment process is complete when the DB and DEES have confirmed that all provisions associated with the project's biological resource impacts have been successfully implemented.