

Chapter 37

TERRESTRIAL WILDLIFE IMPACTS

MDT ENVIRONMENTAL MANUAL

October 2010

Table of Contents

<u>Section</u>	<u>Page</u>
37.1 OVERVIEW.....	37-1
37.2 LAWS, REGULATIONS AND GUIDANCE.....	37-2
37.2.1 16 USC 703-712 “Migratory Bird Treaty”.....	37-2
37.2.2 16 USC 661-667d “Protection and Conservation of Wildlife”.....	37-2
37.2.3 16 USC 668-668c “Protection of Bald and Golden Eagles”.....	37-2
37.2.4 23 USC 139 “Efficient Environmental Reviews for Project Decision-Making”.....	37-3
37.2.5 MCA 87-5-501 through 509 “Stream Protection”.....	37-3
37.2.6 MDT Policy Number 06-01 “MDT Fencing Policy and Procedure (Non-Interstate)”.....	37-3
37.2.7 MDT <i>Small Mammal Ramp Guidelines</i>	37-3
37.2.8 USFWS <i>National Bald Eagle Management Guidelines</i>	37-4
37.2.9 <i>Montana Bald Eagle Management Plan</i>	37-4
37.2.10 USFWS “Migratory Bird Program” Website.....	37-4
37.2.11 “Montana Natural Heritage Program” Website.....	37-4
37.2.12 “Natural Resource Information System” (NRIS) Website.....	37-5
37.2.13 Western Governors’ Association Policy Resolution 07-01.....	37-5
37.2.14 <i>Western Governors’ Association Wildlife Corridors Initiative Report</i>	37-5
37.2.15 <i>Habitat Connectivity and Rural Context Sensitive Design: A Synthesis of Practice</i>	37-5
37.2.16 FWP <i>Comprehensive Fish and Wildlife Conservation Strategy</i>	37-5
37.2.17 Montana Audubon, “Montana Bird Records Committee” Website.....	37-5
37.2.18 FHWA “Wildlife Protection and Habitat Connectivity” Website.....	37-6
37.2.19 FHWA <i>Guidelines for the Consideration of Highway Project Impacts on Fish and Wildlife Resources</i>	37-6
37.2.20 FHWA Technical Advisory T 6640.8A.....	37-6
37.2.21 USFWS <i>Habitat Evaluation Procedures Handbook</i> Website.....	37-6
37.2.22 FHWA “Planning and Environment Linkages” Website.....	37-6
37.3 PROCEDURES.....	37-7
37.3.1 Information Gathering.....	37-7
37.3.2 Analysis and Findings.....	37-8
37.3.3 Mitigation and Commitments.....	37-10

Chapter 37

TERRESTRIAL WILDLIFE IMPACTS

37.1 OVERVIEW

Terrestrial wildlife resources include the various species of mammals, birds, reptiles, amphibians and invertebrates, plus their respective habitats. Project impacts to wildlife resources must be considered as a part of the analyses for compliance with the *National Environmental Policy Act* (NEPA) (42 USC 4321, et seq.) and the *Montana Environmental Policy Act* (MEPA) (MCA 75-1-101, et seq.). In addition, various directives, including the *Endangered Species Act*, the *Migratory Bird Treaty Act*, the *Fish and Wildlife Coordination Act*, the *Bald and Golden Eagle Protection Act* and the *Montana Stream Protection Act*, impose additional requirements applicable to certain species and certain types of actions that are to be addressed as a part of the impact analysis process. Noxious weeds/invasive species are another component of wildlife resources that must be considered from the standpoint of how a project can be designed and implemented to minimize the potential for adversely affecting wildlife and their habitat.

For purposes of compliance with NEPA, MEPA and the other directives, it is necessary to give special consideration to the effects of actions on species that are at-risk or potentially at-risk due to rarity, restricted distribution, habitat loss and/or other factors. Under the Montana Natural Heritage Program, these species are included under the term “Species of Concern.” This term also encompasses species that have a special designation by organizations or land management agencies in Montana, including:

- Bureau of Land Management (BLM) Special Status Species;
- US Forest Service (USFS) Sensitive Species;
- US Fish and Wildlife Service (USFWS) Threatened, Endangered and Candidate Species; and
- Montana Department of Fish, Wildlife and Parks (FWP) “Comprehensive Fish and Wildlife Conservation Strategy” (CFWCS) Tier species.

This Chapter provides guidance and procedures for addressing the potential impacts proposed projects may have on wildlife, including Species of Concern. Also, see [Chapters 36 “Plant Communities/Vegetation,”](#) [38 “Threatened and Endangered Species”](#) and [39 “Water Resource Impacts”](#) for guidance and procedures on these topics.

37.2 LAWS, REGULATIONS AND GUIDANCE

37.2.1 16 USC 703-712 “Migratory Bird Treaty”

These *United States Code* (USC) Sections codify the provisions of the *Migratory Bird Treaty Act*. This *Act* prohibits the “taking” of any migratory bird or any part, nest or egg, except as permitted by regulation. Implementing regulations define “take” under the *Act* as “to pursue, hunt, shoot, wound, kill, trap, capture, possess or collect, or attempt to carry out any of these activities.” A take does not include habitat destruction or alteration, as long as there is not a direct taking of birds, active nests, eggs or parts thereof.

Birds protected under the *Act* include all common migratory songbirds, waterfowl, shorebirds, raptors, owls, eagles, ravens, crows, native doves and pigeons, swifts, martins, swallows and others. A complete list of protected species is contained in Title 50 of the *Code of Federal Regulations* (CFR), Section 10.13.

Projects that are likely to result in taking of birds protected under the *Act* require Take Permits from the local USFWS jurisdiction. Applicable permit regulations are provided in 50 CFR 10 “General Provisions,” 50 CFR 13 “General Permit Procedures” and 50 CFR 21 “Migratory Bird Permits.”

37.2.2 16 USC 661-667d “Protection and Conservation of Wildlife”

These USC Sections codify the provisions of the *Fish and Wildlife Coordination Act*. 16 USC 662 requires that, “...whenever the waters of any stream or other body of water are proposed or authorized to be impounded, diverted, the channel deepened, or the stream or other body of water otherwise controlled or modified for any purpose whatever,...”, the entity must first consult with the USFWS and the fish and wildlife agencies of the States in which the action occurs. The purpose of the consultation is to promote conservation of wildlife resources by preventing loss of and damage to such resources and to provide for the development and improvement of those resources in connection with the proposed action affecting the water resource.

37.2.3 16 USC 668-668c “Protection of Bald and Golden Eagles”

These USC Sections codify the provision of the *Bald and Golden Eagle Protection Act*. This *Act* prohibits anyone without a permit issued by the Secretary of the Interior from “taking” bald or golden eagles, including their parts, nests or eggs. The *Act* provides that “take” includes “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.”

Implementing regulations for the *Act* indicate that “disturb” means to agitate or bother a bald or golden eagle to a degree that causes or is likely to cause, based on the best scientific information available:

- injury to an eagle;
- a decrease in its productivity, by substantially interfering with normal breeding, feeding or sheltering behavior; or

- nest abandonment, by substantially interfering with normal breeding, feeding or sheltering behavior.

In addition to direct impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, when the eagles' return, the alterations agitate or bother an eagle to a degree that injures an eagle or substantially interferes with normal breeding, feeding or sheltering habits and causes, or is likely to cause, a loss of productivity or nest abandonment.

Applicable permit regulations are listed in 50 CFR 10 "General Provisions," 50 CFR 13 "General Permit Procedures" and 50 CFR 22 "Eagle Permits."

37.2.4 23 USC 139 "Efficient Environmental Reviews for Project Decision-Making"

For projects involving preparation of an environmental impact statement and for environmental assessments being prepared in accordance with the FHWA "SAFETEA-LU Environmental Review Process Final Guidance," this part of the USC requires that, at appropriate times during the study process, the lead agency or agencies for the project collaborate with agencies serving as participating agencies to determine the methodologies to be used and the level of detail required for assessing impacts, including terrestrial wildlife impacts. See [Chapters 11 "Preparing Environmental Documentation," 13 "Environmental Assessment/FONSI" and 14 "Environmental Impact Statement/ROD"](#) for further guidance on this requirement.

37.2.5 MCA 87-5-501 through 509 "Stream Protection"

These Parts of the *Montana Code Annotated* (MCA) establish the authority for FWP to administer the requirement for submitting SPA 124 Notifications for projects that may affect any streams or tributaries in Montana. The purpose of these parts is to protect and preserve fish and wildlife resources and maintain streams and rivers in their natural or existing state.

37.2.6 MDT Policy Number 06-01 "MDT Fencing Policy and Procedure (Non-Interstate)"

This document, dated April 10, 2006, establishes policy and procedures for right-of-way fencing to be built or rebuilt in connection with roadway projects on the National Highway System, Primary and Secondary State highways and Interstate frontage roads. It provides that, in environmentally sensitive areas, the District Biologist (DB) makes recommendations for the appropriate type of fence, which may include wildlife barrier or wildlife friendly fence, and coordinates with the Design Team (DT) and right-of-way agent. Upon request, the DB also coordinates with the right-of-way agent to encourage the landowner to use the appropriate type of fence.

37.2.7 MDT Small Mammal Ramp Guidelines

This document, dated March 14, 2005, provides information on the use of small mammal ramps to provide safe passage for these animals through pipes or culverts under highways. The guidelines provide background on the reasons for using the ramps, identify situations where

they would be most suitable and list a number of important considerations to be evaluated before recommending the use of small mammal ramps.

37.2.8 USFWS National Bald Eagle Management Guidelines

These May 2007 *Guidelines*, on the USFWS website, are intended to:

- publicize the provisions of the *Bald and Golden Eagle Protection Act* that protect bald eagles to reduce the possibility that people will violate the law;
- advise landowners, land managers and the general public of the potential for various human activities to disturb bald eagles; and
- encourage additional nonbinding land management practices that benefit bald eagles.

The *Guidelines* provide information on the following topics:

- legal protections for the bald eagle,
- natural history of the bald eagle,
- recommendations for avoiding disturbance at nest sites,
- activity-specific guidelines,
- recommendations for avoiding disturbance at foraging areas and communal roost sites,
- additional recommendations to benefit bald eagles,
- contacts,
- glossary, and
- related literature.

37.2.9 Montana Bald Eagle Management Plan

This July 1994 plan includes various provisions for promoting recovery of the bald eagle in Montana. These include measures for preventing bald eagle mortality and protecting nest sites and nesting habitat, breeding areas, wintering and migration habitat, etc. MDT must ensure that proposed projects do not conflict with the management objectives described in the Management Plan.

37.2.10 USFWS “Migratory Bird Program” Website

This website contains current information on a broad range of migratory bird topics and provides links to other websites with information on issues, reports, conservation, management, laws and treaties, regulations, etc.

37.2.11 “Montana Natural Heritage Program” Website

This website provides information on Montana’s species and habitats, emphasizing those of conservation concern. The website includes links to information that can be useful in evaluating wildlife aspects for proposed projects (e.g., distribution of Montana’s animal and plant species;

Montana Species of Concern, which are plants and animals potentially at risk; habitat, ecology, reproduction, range and distribution of Montana's animals; natural communities in Montana and the Montana Noxious Weed Program).

37.2.12 “Natural Resource Information System” (NRIS) Website

The Montana State Library administers this website. It includes links to water information, geographic information and the Natural Heritage Program.

37.2.13 Western Governors' Association Policy Resolution 07-01

This February 27, 2007, Policy Resolution addresses the topic “Protecting Wildlife Migration Corridors and Crucial Wildlife Habitat in the West.” It adopts policy statements and management directives for initiating actions to preserve and protect wildlife migration corridors in the nineteen western States that are members of the Western Governors' Association. The Policy Resolution is available on the Western Governors' Association website.

37.2.14 Western Governors' Association Wildlife Corridors Initiative Report

This Report contains research results and recommendations for actions to preserve wildlife corridors and crucial habitat in the western States that are members of the Western Governors' Association. The research results and recommendations address a range of subject areas, including science, energy, transportation, land use, climate, and oil and gas. The Report is available on the Western Governors' Association website.

37.2.15 Habitat Connectivity and Rural Context Sensitive Design: A Synthesis of Practice

This February 2007 Report, available on the MDT website, looks at context sensitive design/context sensitive solutions (CSD/CSS) in a rural setting relating to habitat connectivity, roadside aesthetics and land use planning. It investigates programmatic procedures used by selected States in implementing and guiding CSD/CSS.

37.2.16 FWP Comprehensive Fish and Wildlife Conservation Strategy

In 2005, FWP completed Montana's Comprehensive Fish and Wildlife Conservation Strategy. Under this conservation strategy, individual animal species were assigned levels of conservation need from greatest (Tier I) to least (Tier IV).

37.2.17 Montana Audubon, “Montana Bird Records Committee” Website

This website includes links to useful information on birds in Montana, including the following:

- about birds,
- important bird areas, and
- bird distribution.

37.2.18 FHWA “Wildlife Protection and Habitat Connectivity” Website

This website, which is accessible via the FHWA website, provides links to additional websites with useful information including:

- Critter Crossings: Linking Habitats and Reducing Road Kill,
- Keeping It Simple: Easy Ways to Help Wildlife Along Roads,
- Synthesis of Noise Effects on Wildlife Populations,
- Wildlife Crossings Toolkit, and
- Wildlife-Vehicle Collision Reduction Study.

37.2.19 FHWA Guidelines for the Consideration of Highway Project Impacts on Fish and Wildlife Resources

This October 1989 guidance, provided on the FHWA website, includes information on the *Fish and Wildlife Coordination Act*, USFWS Mitigation Policy, FHWA guidance on mitigation of impacts to privately owned wildlife habitat (non-wetland) and the USFWS Habitat Evaluation Procedures.

37.2.20 FHWA Technical Advisory T 6640.8A

The Technical Advisory, dated October 30, 1987, includes the following guidance for addressing wildlife impacts in environmental documents:

- For each alternative under detailed study, discuss the impacts to fish and wildlife resulting from loss, degradation or modification of aquatic or terrestrial habitat.
- Document the results of coordination with the appropriate Federal, State and local agencies (e.g., coordination with USFWS under the *Fish and Wildlife Coordination Act*).

37.2.21 USFWS Habitat Evaluation Procedures Handbook Website

This website, accessible via the USFWS home page, contains links to the contents of the *Habitat Evaluation Procedures Handbook*. The *Handbook* is a habitat-based evaluation methodology for impact assessment developed by the USFWS.

37.2.22 FHWA “Planning and Environment Linkages” Website

This website contains information on the *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users* (SAFETEA-LU) Section 6001, “Environmental considerations in planning,” including a link to Title 23 of the *Code of Federal Regulations* (CFR), Appendix A to Part 450, “Linking the Transportation Planning and NEPA Processes.” This Appendix to 23 CFR 450, “Planning assistance and standards,” provides details on how information, analysis and products from transportation planning can be incorporated into and relied upon in NEPA documents.

37.3 PROCEDURES

37.3.1 Information Gathering

The Preliminary Field Review (PFR) is the initial step in evaluating wildlife impacts for a proposed project. The Design Team (DT) notifies and invites appropriate MDT personnel, including the District Biologist (DB) within the MDT Environmental Services Bureau (ESB), to the field review. The ESB Project Development Engineer (PDE) reviews the list of ESB attendees and includes others as necessary to ensure appropriate ESB personnel are in attendance. The DB participates in the PFR to make a preliminary evaluation of available information on the project scope and the potential for impacts to all terrestrial wildlife, including threatened and endangered species, Species of Concern and wildlife habitat. Species of Concern include those designated through the Montana Natural Heritage Program, those designated as threatened or endangered by the USFWS, those designated as sensitive by the USFS, those designated as sensitive/special status by the BLM and the CFWCS Tier species. The DB also participates to evaluate the baseline condition of suitable wildlife habitat, including upland, wetland and riparian habitats. Following the field review, the DT prepares a PFR Report summarizing the issues discussed during the PFR, including wildlife issues. The DT distributes the final PFR 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 a PFR review memorandum for signature by the Environmental Services Bureau Chief.

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 projects prepared by MDT, 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 fieldwork for preparing the BRR. The DB uses the Term Contract procedures developed by the Consultant Design Bureau to select, negotiate and administer environmental consultant projects. For guidance, the DB reviews the *MDT Consultant Services Manual*.

For projects subject to the requirements of 23 USC 139 "Efficient Environmental Reviews 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 wildlife impacts of project alternatives.

Based on the project scope and field observations during the PFR, the DB or consultant performs a field and literature review to gather information on all general wildlife, threatened and endangered species, rare and/or sensitive animal species, wetlands and critical habitats at the project site and/or along the project corridor. The DB, or consultant through the DB, also requests information from biologists with the FWP, Department of Natural Resources and Conservation (DNRC), USFS, BLM, USFWS and any other pertinent agencies and stakeholders (e.g., informed citizenry or non-governmental organizations) that have a management or regulatory interest in the wildlife, critical habitats, rare and/or sensitive species, wetlands and riparian habitats the project may affect. The objective of the information gathering is to address the following topics:

1. General Wildlife Species. Provide a species description and note their distribution, life history and habitat requirements, and potential to occur in project area. Also, include analysis of wildlife crossing patterns and road-kill/collision data within the project limits.
2. Sensitive Terrestrial Species of Special Concern. Provide a species description and their distribution, life history and habitat requirements and potential to occur in project area.

The DB or consultant documents the information obtained regarding each of the above topics in the BRR for the project.

37.3.2 Analysis and Findings

Throughout the design process, the DB coordinates with the Design Team (DT) on an ongoing basis to evaluate project impacts to wildlife resources and recommends measures for avoiding and/or minimizing those impacts. The DB coordinates with the MDT Botanist as necessary. The DB or consultant documents the results of the evaluations in the BRR in accordance with the following:

1. General Wildlife Species. Include discussions on the following:
 - species description and distribution;
 - habitat requirements;
 - potential to occur in project area; and
 - potential impacts. Examples include:
 - + temporary and permanent loss and/or degradation of upland, wetland or riparian habitat;
 - + temporary displacement of wildlife from suitable habitat due to increased noise and construction activity (increase in average daily traffic, increase in pavement width or right-of-way);
 - + permanent displacement of wildlife from suitable habitat due to loss or alteration of habitat;
 - + wildlife mortality for species of limited mobility (e.g., nestlings, reptiles, amphibians) or that could be in burrows or nests (e.g., mice, voles, young birds/eggs, frogs, salamanders, snakes, badgers); and/or
 - + increased risk of wildlife/vehicle collisions, impediments to wildlife connectivity, including inappropriate types of fencing that would not allow wildlife to cross the roadway.
2. Avoidance and Minimization. Describe the proposed impact avoidance and minimization measures. Examples include incorporating design modifications to avoid or minimize impacts to important habitat areas, such as:

- steepening of fill slopes or incorporation of minor alignment shifts at key features to reduce the footprint of the roadway (rolling grade lines, steeper fill slopes, etc.);
 - restricting clearing and grubbing to the minimum area necessary to accommodate the project and limiting the total area that may be disturbed at any one time;
 - requiring reseeding and/or replanting of disturbed areas with desirable species as soon as practical after disturbance;
 - installing preservation fencing to protect important habitat during construction;
 - timing construction to occur outside nesting season or removing nests from structures prior to or after nesting season and implementing nesting deterrent measures (e.g., plastic netting or wire mesh), timing tree and shrub removal to occur outside of nesting season;
 - providing wildlife crossing opportunities, as appropriate, with associated fencing to direct wildlife to the crossings; and/or
 - reviewing proposed materials source sites to coordinate the avoidance of adverse wildlife impacts.
3. Recommended Conservation Measures. Provide a discussion of proposed conservation measures. Examples include:
- minimizing removal of trees and large shrubs to the greatest extent practical and replanting with native species;
 - providing habitat restoration through design or special provisions for re-vegetation, including on-site wetland or stream bank mitigation/restoration;
 - raptor-proofing any power lines requiring relocation as a result of the project;
 - installing wildlife friendly fencing to allow for unimpeded wildlife movement to adjacent habitats;
 - installing appropriate wildlife crossing structures to facilitate wildlife movement across the roadway;
 - installing signing and/or wildlife detection systems to alert drivers to wildlife crossings; and/or
 - exploring various guardrail options (e.g., W-beam, T-101, box beam) and addressing potential habitat fragmentation related to concrete barrier, as it relates to wildlife movement through the landscape and across the roadway.

4. Sensitive Species Of Special Concern. Include a brief narrative discussion regarding any additional coordination with agency biologists or others regarding Species of Concern analysis any special recommendations, etc. Otherwise, just include them in the “General Wildlife Species” category. This Section should address the following:
- species description and distribution;
 - habitat requirements;
 - potential to occur in project area;
 - potential impacts, see above examples for General Wildlife Species;
 - avoidance and minimization, see above examples for General Wildlife Species; and
 - recommended conservation measure, see above examples for General Wildlife Species.

See [Chapter 38 “Threatened and Endangered Species”](#) for guidance and procedures regarding documentation and further processing for potential impacts to Federally listed threatened or endangered species or candidate species.

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

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

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 a consultant-prepared BRR. The DB distributes the final BRR to the DT and any interested agencies or other entities as requested.

The DB coordinates with the DT and District PDE to incorporate the information and recommendations from the BRR (e.g., regarding wildlife resources in the project area, project effects on those resources, measures to avoid, minimize adverse effects, conservation measures, results of coordination with regulatory and resource agencies) into the environmental documentation for the project. See [Chapters 11 “Preparing Environmental Documentation,” 12 “Categorical Exclusions,” 13 “Environmental Assessment/FONSI”](#) and [14 “Environmental Impact Statement/ROD”](#) for guidance on environmental documentation.

The DB coordinates directly with the DT to incorporate the information and recommendations from the BRR into the project design and development. The DB coordinates with the DT to verify the nature and extent of any unavoidable adverse wildlife impacts.

37.3.3 Mitigation and Commitments

The DB conducts the following to ensure mitigation and commitments are included in the design documents:

1. Design. The DB coordinates with the DT to incorporate measures in the project plans for avoiding and minimizing adverse wildlife impacts. The DB participates in the Alignment-and-Grade and Plan-in-Hand Reviews for the project to address wildlife issues and associated impact avoidance and minimization measures.
2. Special Provisions. To the extent possible, the DB should prepare the contract documents using the *MDT Standard Specifications* to minimize the need for special provisions. The DB prepares any special provisions necessary to implement avoidance, minimization and/or conservation measures for the project's wildlife impacts and transmits them to the DT and the MDT Contract Plans Bureau. The DB coordinates with the DT and the MDT Contract Plans Bureau to ensure the special provisions associated with biological resources are reflected in the final engineering plan documents.
3. Final Plan Review. The DB coordinates with the DT to review the final engineering plan documents to ensure that measures for avoidance and minimization of wildlife impacts have been incorporated. The DB ensures that conservation measures and special provisions associated with the wildlife impacts are reflected in the plans. The DB coordinates with the DT and the MDT Contract Plans Bureau to implement any needed changes.
4. Construction. The DB coordinates with Construction personnel and the District Environmental Engineering Specialist to ensure the special provisions and design elements and associated conservation measures concerning wildlife are implemented during project construction.
5. Monitoring. As required by permit conditions, agreements or other regulations, the DB coordinates post-construction monitoring of project features or conservation measures concerning wildlife and reports regarding their status or completion.

