

Wildlife Program Book



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Colorado Department of Transportation



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1. Introduction

The stated mission of the Colorado Department of Transportation's (CDOT) Wildlife Program is to "provide the best information to engineers and planners early in the transportation development process so that wildlife, native plants, and ecological communities are considered." The CDOT Wildlife Program examines the impacts that highways may have on species covered by the Federal Endangered Species Act. It also considers species that are a concern for other State and Federal resource agencies. These species could be of concern for a variety of reasons ranging from their economic value, like deer and elk, to the intrinsic value of the less common species which contribute to the local biodiversity. The objective is to protect wildlife within the state and minimize impacts of transportation projects.

The purpose of this book is to provide general guidance to CDOT staff, consultants and other agencies on CDOT's Wildlife Program and the major laws and policies that drive it. This book is NOT assuming to be all-inclusive or to provide a step-by-step procedure on how to implement the various wildlife subprograms.

The CDOT Wildlife Program works with engineers and planners in the state as well as agencies such as Colorado Parks and Wildlife, U.S. Fish and Wildlife Service, USDA Forest Service, and the Bureau of Land Management.

Basic information about the Wildlife program is posted on CDOT's Wildlife website, which is located under Programs/Environmental (www.state.co.us). The website is maintained and administered by the CDOT Wildlife Program. It provides useful information on actions taken by CDOT as part of the transportation development planning process to limit highway impacts to Colorado's diverse wildlife, plant life, and ecosystems.

CDOT will issue updates and changes to this Program Book periodically on an as-needed basis, based on changes in the regulatory environments at the state and federal levels, as well as in response to user comments. Comments regarding the content of this document are welcome and should be addressed to:

Colorado Department of Transportation
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4201 East Arkansas Avenue
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1.1 Wildlife Program Book Organization

This Wildlife Program Book is divided into ten sections. **Section 1 - Introduction** provides a broad overview of the intent of the Wildlife Program Book, how the book is organized, and why wildlife mitigation is important. It also discusses how updates to the book are handled.

Section 2 - Regulatory Setting and Programs for Wildlife provides an overview of state and federal laws that lay the foundation for decisions that protect wildlife and wildlife habitat.

Section 3 - Migratory Bird Treaty Act, Section 4 - Shortgrass Prairie Initiative, Section 5 – USFWS Section 7 Consultation, and Section 6 - Senate Bill 40 (SB40) all are CDOT Wildlife subprograms, and they each address specific legislation that CDOT is required to address. For each of these, we look at each type of legislation, its regulatory setting, the potential state and

federal organizations and agencies that are involved, the roles and responsibilities of those involved, and the tools that are used for enforcement and implementation.

Section 7 - Collection and Evaluation of Baseline Information looks at the data being used by CDOT to help build a strong foundation of knowledge for use in implementing goals and objectives of the Wildlife Program. **Section 8 - Training** presents the opportunities available for CDOT Wildlife staff to expand their base of knowledge. **Section 9 - Resources & References** presents the materials used to develop the Wildlife Program Book. **Section 10** is a list of abbreviations.

An **Appendix** of supporting materials is also included in this Program Book.

1.2 The Need for Wildlife Mitigation

More than one million vertebrates, amphibians, reptiles, birds, and mammals are killed on roads each day in this country. For motorists, this is a safety hazard. For animals, it means disrupted migration and feeding patterns, destroyed degraded or fragmented habitat. Instead of accepting this as the cost of doing business, CDOT is making an effort to develop roads that reduce vehicle-wildlife collisions, preserve habitat, and maintain safe wildlife movement corridors.

Preservation starts with minimizing the extent of impact and protecting existing habitat areas before, during, and after construction. The many effects of roadways that can be detrimental to wildlife include habitat loss, habitat fragmentation, altered habitat quality, population fragmentation, and disruption of environmental processes.

Fragmentation is the subdivision of once large and continuous tracts of habitat into smaller patches. Adverse effects of habitat fragmentation to both wildlife populations and species include:

- Increased isolation of populations or species, which leads to the following:
 - Adverse genetic effects; i.e. inbreeding depression (depressed fertility and fecundity, increased natal mortality) and decreased genetic diversity from genetic drift and bottlenecks;
 - Increased potential for extirpation of localized populations or extinction of narrowly distributed species from catastrophic events such as floods, wildfires or disease outbreaks;
- Changes habitat vegetative composition, often to weedy and invasive species;
- Changes the type and quality of the food base;
- Changes microclimates by altering temperature and moisture regimes;
- Changes flows of energy and nutrients;
- Changes availability of cover and increases edge effect, bringing together species that might otherwise not interact, potentially increasing rates of predation, competition and nest parasitism;
- Increases opportunities for exploitation by humans, such as poaching or illegal collection for the pet trade;
- Direct mortality.

Fragmentation can lead to several ecological processes that may impact wildlife populations, including edge effects. Edge effects include a range of detrimental ecological consequences that are associated with a decline in habitat quality, including invasive species, predators, and parasites. Edge effects are not always detrimental to wildlife. A lot of species need edges in order to exist. Edges are not always associated with a decline in habitat quality either and can actually represent an improvement in some cases.

Roads can significantly degrade stream ecosystems by introducing high volumes of sediment into streams, increasing pollutants including hydrocarbons and heavy metals, changing natural stream flow patterns, and altering stream channel morphology. Changes in stream habitat can affect the health of many aquatic organisms and can have a large area of impact.

2. Regulatory Setting and Programs for Wildlife

The CDOT Wildlife Program responds to regulatory requirements. The wildlife evaluation process is geared to address all species that may be impacted by CDOT activities.

The development of federal wildlife protection in the United States has been based on a consistent and growing public concern for wildlife and wildlife habitat. Federal law commonly protects wildlife in one of three fundamental ways:

- Controlling or restricting the taking, transport, or sale of wildlife resources.
- Establishing federal acquisition, protection, and/or management of wildlife habitat.
- Requiring federal agencies to consider the impact of activities on the environment, including wildlife.

2.1 State and Federal Laws

CDOT is required to respond to all State and Federal laws. Despite congressional power under the Constitution to regulate wildlife in limited instances, states have the primary responsibility to conserve, manage and protect wildlife resources within state borders. The following is a list of some of the State and Federal laws and statutes that have an impact on how CDOT addresses wildlife and wildlife habitat.

Table 2.1 - Laws and Regulations

Law or Regulation	Description
The Lacey Act	<p>The Lacey Act is a conservation law that was passed in 1900. It was the first federal law protecting wildlife, although it also supported enforcement of state wildlife laws. The Lacey Act protects both plants and wildlife by prohibiting the trade of wildlife, fish, and plants that have been illegally taken, transported, or sold. In particular, the act protects Bald Eagles by making it a Federal offense to take, possess, transport, sell, import, or export their nests, eggs, or any parts. It also makes it illegal to falsify records, labels, or any other form of identification in an attempt to mislead authorities. The Lacey Act has been amended several times over the years, and a number of other acts have enhanced the intent of the Lacey Act. The Tariff Act of 1930, for example, took the Lacey Act a step further and prohibited importation of any bird or mammal illegally taken in or exported from a foreign nation. In 1981, the Lacey Act Amendments combined the provisions of the 1900 Lacey Act and the Black Bass Act of 1926. In 2008, the Lacey Act was expanded to include a wider variety of plants and plant products.</p> <p>http://www.fws.gov/international/laws-treaties-agreements/us-conservation-laws/lacey-act.html</p>
Migratory Bird Treaty Act	<p>The Migratory Bird Treaty Act (MBTA) is an Act of Congress established in 1918. The MBTA covers four migratory bird treaties and is administered by the U.S. Fish & Wildlife Service. See <i>Section 4 - Migratory Bird Treaty Act</i> for additional information of the MBTA and how it is being addressed in Colorado.</p>

	http://www.fws.gov/laws/lawsdigest/migtrea.html
The Fish and Wildlife Coordination Act	The Fish and Wildlife Coordination Act (FWCA) of 1934 provides the basic authority for the Fish and Wildlife Service's involvement in evaluating impacts to fish and wildlife from proposed water resource development projects. It requires that fish and wildlife resources receive equal consideration to other project features. It also requires Federal agencies that construct, license, or permit water resource development projects to first consult with the Service (and the National Marine Fisheries Service in some instances) and State fish and wildlife agency regarding the impacts on fish and wildlife resources and measures to mitigate these impacts. A more complete discussion of the Fish and Wildlife Coordination Act and the Service's role in conservation partnerships is found in USFWS's document, Water Resources Development Under the Fish and Wildlife Coordination Act (http://www.fws.gov/habitatconservation/fwca.pdf).
The Federal Aid in Wildlife Restoration Act (Pittman-Robertson Act)	This 1937 act imposed a tax on fire arms used for hunting, and then used those funds to support state wildlife management efforts. It also strengthened the state's role in conserving, protecting, and managing wildlife resources. http://www.fws.gov/laws/lawsdigest/fawild.html
The Bald and Golden Eagle Protection Act	The Bald and Golden Eagle Protection Act provides for the protection of the Bald and Golden Eagle. The law was originally passed in 1940 and has gone through several amendments since then. The Act prohibits the take, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export, or import of any Bald or Golden eagle-alive or dead-including any part, nest, or egg, unless allowed by permit. Even though the Bald Eagle is no longer an Endangered Species, it is still protected by the Bald and Golden Eagle Protection Act. The Migratory Bird Treaty Act and the Lacey Act both also protect Bald and Golden Eagles. http://www.fws.gov/midwest/midwestbird/eaglepermits/bagepa.html
Endangered Species Act of 1973	One of the primary acts guiding wildlife management is the Endangered Species Act (ESA) of 1973. The Endangered Species Act defines a threatened species as "Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range [(ESA § 3(20))." It also defines an endangered species as "Any species which is in danger of extinction throughout all or a significant portion of its range [(ESA § 3(6))." CDOT is required to consider both threatened and endangered species on all transportation projects. Within CDOT, the Wildlife Program is responsible for ensuring that these species are sufficiently considered. The Endangered Species Act has been amended several times over the years. The ESA requires federal consultation before any major federal action impacting threatened or endangered species is undertaken, and also

	<p>prohibits the taking of such species and provides for acquisition of habitat to protect threatened and endangered species. Federal support also is provided to states that enter into cooperative agreements for conservation of listed species.</p> <p>http://www.fws.gov/laws/lawsdigest/esact.html</p>
Colorado Senate Bill 40	<p>Senate Bill 40 (SB 40) guidelines outline various best management practices (BMPs) designed to minimize impacts to State waterways during and after construction or maintenance activities. The guidelines are applicable to any projects on or adjacent to streams that fall under the jurisdiction of SB 40, which includes the stream bed proper, its immediate banks, and associated riparian areas that contribute to stream food chain support. See Section 7 - Senate Bill 40 (SB40) for additional information.</p> <p>http://www.leg.state.co.us/clics/clics2011a/csl.nsf/fsbillcont2/A9CE9CEE12645CAA8725780800800D80/\$FILE/040_01.pdf</p>
Application of the Migratory Bird Treaty Act to Highway Projects	<p>This letter from Senior Agency Counsel in San Francisco, CA to Mary Gray (HPT-WA), FHWA Environment Coordinator, Olympia, Washington (June 14, 2006) provides a legal opinion regarding the application and scope of the Migratory Bird Treaty Act (MBTA) to Federal Highway Administration (FHWA) projects.</p> <p>The letter states that the most relevant section of the MBTA to FHWA projects is Section 703. The letter includes this portion of Section 703:</p> <p>"... [I]t shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export, any migratory bird, any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof..."</p> <p>http://www.coloradodot.info/programs/environmental/wildlife/guidelines/mbtafhwadoc.pdf/view</p>

2.2 Other Regulatory Impacts

There are a number of other laws and acts that have an impact on wildlife and wildlife habitat. At the Federal level, the National Environmental Policy Act (NEPA), which was signed into law on January 1, 1970, is still the broadest and most far-reaching piece of environmental legislation for protecting natural resources. In the last two decades, over 40 federal laws have been enacted. They deal with a wide variety of environmental, fisheries, wildlife, and federal land management issues. Some of the new laws address specific issues, but many focus more on the idea of integrated natural resources management, protection, and planning.

2.3 Wildlife Evaluation Process

The CDOT Wildlife Program is responsible for evaluating the impacts that all transportation projects may have upon wildlife within the state. Each of the five regions within the state is responsible for projects within their given areas, and each coordinates activities with the CDOT headquarters.

Consistency

The evaluation process for wildlife seems to work well in large part because of the open communication between the regions and headquarters. Each region is given the flexibility to make decisions about how best to meet state and federal regulatory requirements. Many CDOT Wildlife staff members have worked in the program for years, so they have a good understanding of what needs to be done, even if the process is not documented precisely.

There are occasionally gaps in the process due to a lack of written directions, but general policies are well defined. Consistent policies that help ensure wildlife regulations are being met, even if each region's process is a little different. Existing regulatory requirements provide sufficient detail for a consistent wildlife evaluation process within the state; a more defined process is not necessary. The basic process of conducting a kick-off meeting, defining goals and objectives, determining a schedule of tasks, etc. seems to be consistent across the regions.

Some of the tools that help provide a level of consistency across the five regions include the following:

- **Biological Assessment Contents** is an 8-page document that provides suggested content for a Biological Evaluation (BE) or Biological Assessment (BA). It outlines some things to consider and include in a BE or BA.
- **Information, Planning, and Conservation System (IPaC)** is a website maintained by the USFWS which produces a list of federally listed species for any project throughout the state and can be used as a substitute for the Colorado County List.
- **Wildlife Crossing Structures Handbook - Design and Evaluation in North America** (Publication No. FHWA-CFL/TD-11-003, March 2011), prepared by FHWA, provides background information on defining the overall wildlife-vehicle interaction problem, the needs to be addressed, and offers a multitude of tangible solutions to plan, design, construction, monitor, and maintain effective wildlife crossings. This handbook provides numerous solutions to wildlife-vehicle interactions by offering effective and safe wildlife crossing examples. It initially describes the wildlife crossing problem and justifies the need to solve it. Project and program level considerations are identified for planning, placement, and design of wildlife crossing structures. Key design and ecological criteria, construction and maintenance guidelines, and effective monitoring techniques are shown and described in this handbook's practical application examples called Hot Sheets.
- **The National Memorandum of Understanding for Environmental Streamlining** was written and signed to implement Section 1309 of TEA-21. Under the memorandum of understanding, federal resource agencies such as the U.S. Fish and Wildlife Service, U.S. Department of Agriculture, U.S. Department of Commerce, US Environmental Protection Agency, U.S. Army Corps of Engineers, and the Advisory Council on Historic Preservation all agreed to work together to conduct concurrent project reviews under NEPA and other legal authorities' approvals.

Variations

Due to variations in the planning and evaluation process, there is some variation when it comes to addressing wildlife issues. For example, there are some variations with how migratory birds

are addressed across the regions. Some requirements, such as maintaining 50' buffers, is not always obtainable, so CDOT Wildlife staff have to make decisions on a project-by-project basis. Biologists on staff need to have the flexibility and knowledge to determine the best way to meet requirements for migratory birds.

Variations can also occur as a result of scheduling conflicts, bad weather, or survey windows. In these situations, it is not possible to be clear on potential impacts because there is not sufficient information. There may also be variations when projects are led by local agencies or municipalities that don't always understand the NEPA process. They also may not know when to include CDOT, USFWS, and other agencies to ensure that wildlife issues are being addressed.

There is some confusion as to how internal and external coordination should be handled at times. It would be helpful for CDOT to establish a standard communication protocol that defines individual responsibilities, when a paper trail is necessary,

There should be better coordination within other CDOT Programs, such as Water Quality and Wetlands. There is some confusion as to who does early screening in the early planning stages before a budget is allocated to a project. Better coordination within the different programs would be expected to improve multiuse solutions that address wildlife while also reducing impacts to other resources and could reduce instances where different programs' requirements conflict. Wildlife specialists can be involved with any project at any time. One gap in the current process is that there may not be sufficient construction oversight to ensure that commitments made during the planning and evaluation process are completed. Typically, the assumption is that agreements made during this evaluation process are implemented, but that may not always be the case. Staff doesn't stay involved with a project from start to finish. Inconsistencies across the regions, and with different contractors, may lead to projects being implemented differently than anticipated. Having someone from CDOT Wildlife on site during construction would provide an added value and help ensure consistency throughout the design, planning, and construction process although this could be difficult given current staffing levels.

Figure 2.1 CDOT Wildlife Planning Process

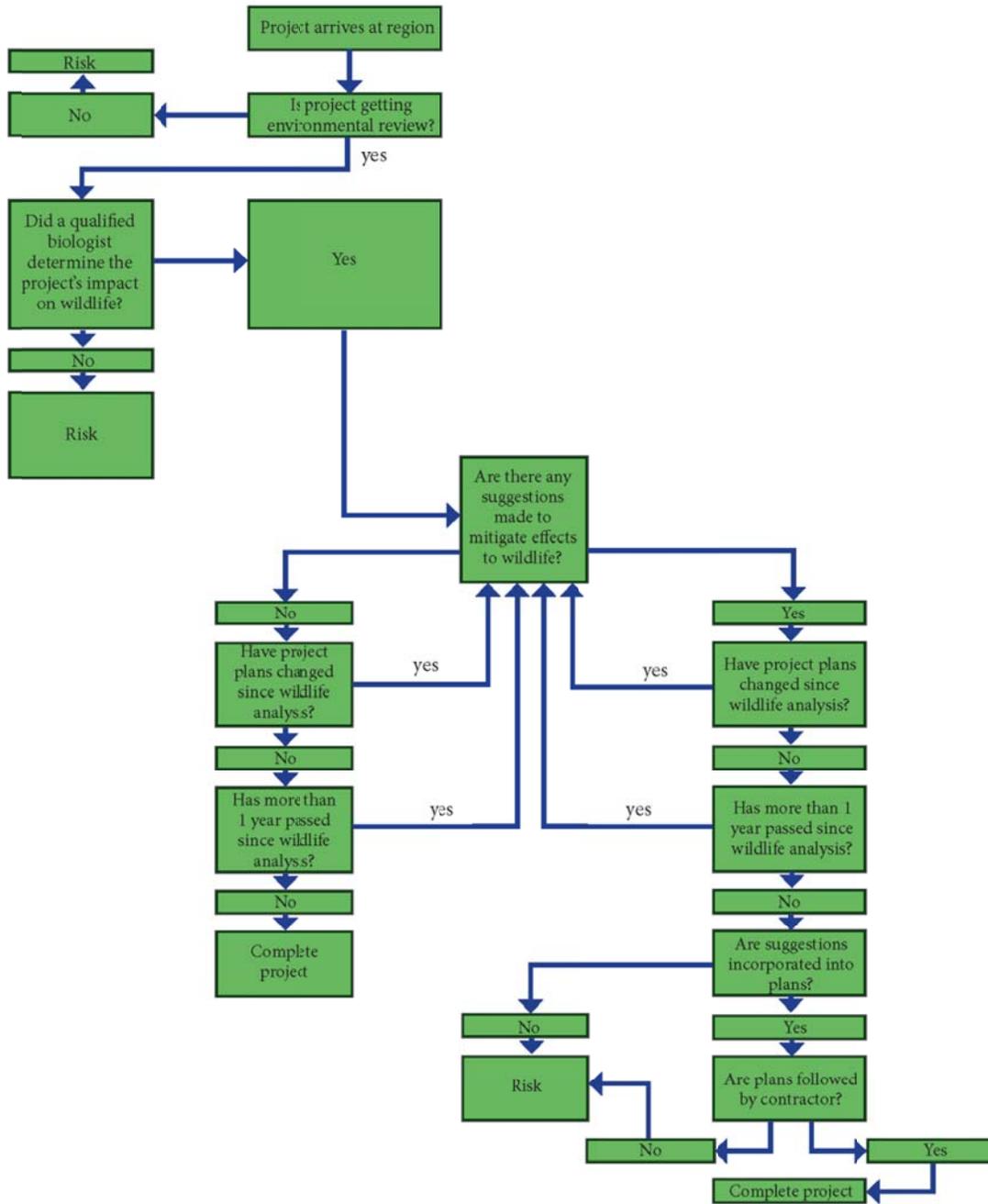
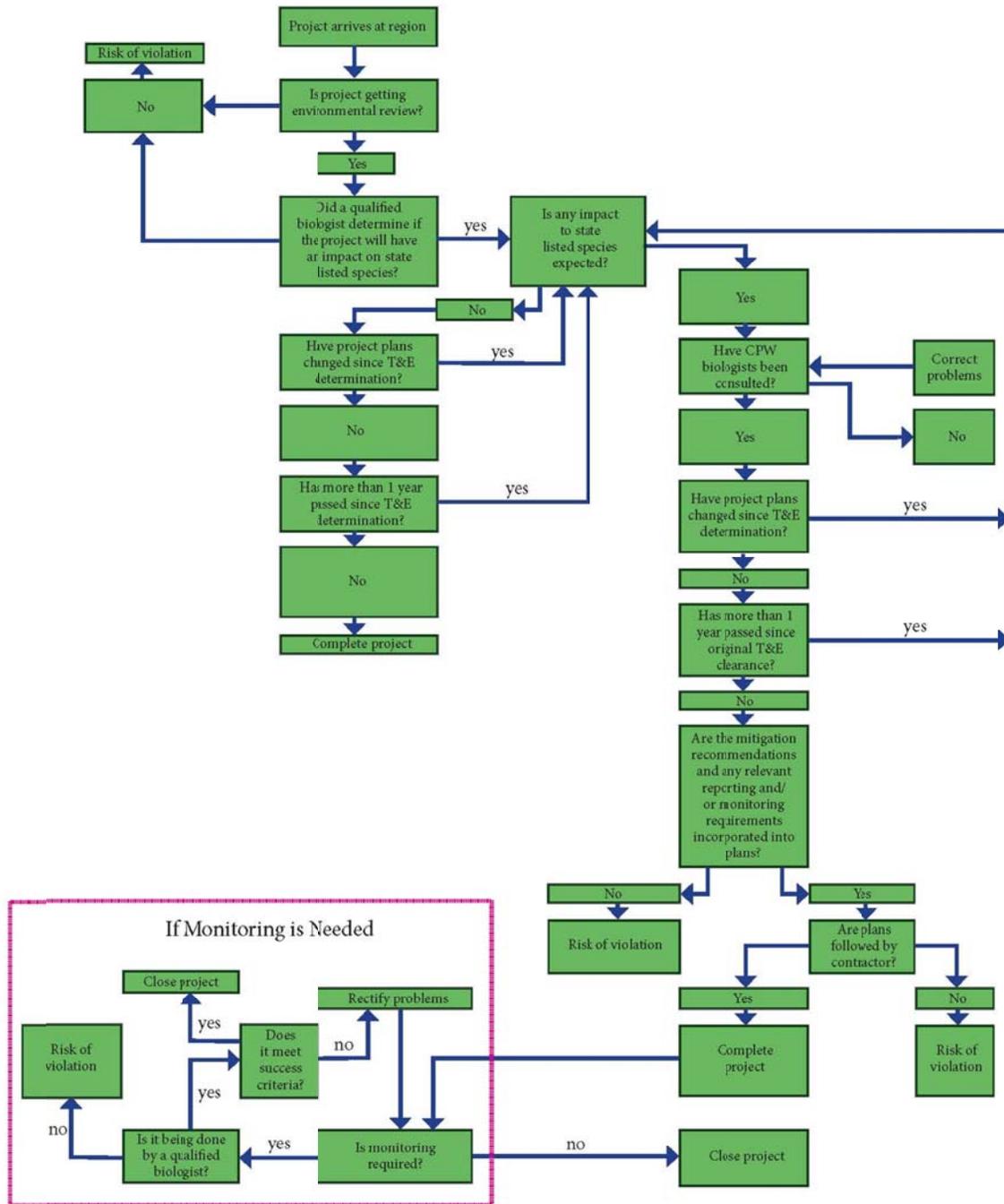


Figure 2.2 State Listed Species Evaluation Process



3. Migratory Bird Treaty Act

3.1 Purpose

The Migratory Bird Treaty Act (MBTA) is an Act of Congress established in 1918. The MBTA covers four migratory bird treaties and is administered by the U.S. Fish & Wildlife Service (USFWS). The original 1918 statute implemented a 1916 Convention between the U.S. and Great Britain (for Canada) for the protection of migratory birds. The MBTA is the primary legislation protecting native birds in the United States, and is also one of the earliest environmental laws. The MBTA makes it unlawful to hunt, take, capture, kill, or possess any bird protected by the Act. The only exception is if such an action is permitted by regulation as established by the Secretary of Agriculture.

There have been a number of statutes amended to the MBTA over the years. The 1936 statute implemented the Convention between the U.S. and Mexico. The 1960 statute altered earlier penalty provisions. The 1969 amendments repealed the prohibition of shipping wild game animals to and from the U.S. to Mexico. The 1974 statute amended the MBTA to include the provisions of the 1972 Convention between the U.S. and Japan for the Protection of Migratory Birds and Birds in Danger of Extinction. Section 3(h) of the Fish and Wildlife Improvement Act of 1978 authorized forfeiture of U.S. of birds and their parts that were illegally taken. The 1976 amendment included Soviet Union, and the 1986 added the term "knowingly" as part of the discussion of felony violations. The Migratory Bird Treaty Reform Act of 1998 makes it unlawful to take migratory game birds by the aid of bait. In 2003, the department of the Interior issues a memorandum clarifying the application of the MBTA to migratory bird nest destruction. In that memorandum, it was stated that, "While destruction of a bird nest itself is not prohibited under the MBTA, nest destruction that results in the unpermitted take of migratory birds, or their eggs, is illegal..." If a person is found in possession of a protected species or its parts or products (including eggs and nests), or if you remove an active nest, you are in strict liability of the law. Nests are determined to be active when an egg is laid or young are present.

In 2005 the FHWA requested an opinion from the USFWS in regards to the taking of habitat as it pertains to the MBTA. In response the USFWS concluded that, "The prohibitions under the MBTA are narrower than the prohibitions of the Endangered Species Act (ESA)." "The ESA not only prohibits the taking of a protected animal or plant, but also prohibits an "act [that] may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering." See the ESA definition of "harm" at 50 CFR § 17.3 and *Babbitt v. Sweet Home Chap. of Communities for a Great Oregon*, 515 U.S. 687 (1995). Also, under the ESA, critical habitat can be designated that will afford certain protections. However, the MBTA only prohibits the actual taking or killing of the protected bird and not the bird's habitat.

It should be noted that while non-migratory game birds are not protected under the MBTA, they are still protected/regulated by the CPW.

3.2 Program Regulatory Setting

The MBTA is the primary legislation in the U.S. to conserve migratory birds. The MBTA is important because migratory birds provide a variety of beneficial functions, including bird-watching, hunting, and photography. These activities contribute nearly \$40 billion annually to local economies throughout the United States.

The MBTA is regulated by USFWS, which has the legal responsibility to maintain healthy migratory bird populations. USFWS is authorized by more than two dozen conventions, treaties, and laws that relate to migratory birds.

Migratory Birds generally refer to bird species that are native to the United States which migrate over international boundaries. Over 1000 species are included on the list, including many common species.

Under the MBTA, almost all birds in the state are protected, including common species such as swallows, crows, and geese. In Colorado, all species except the House (English) Sparrow, feral pigeon (Rock Dove), European Starling, and non-migratory game birds like pheasants and gray partridge, are protected. The USFWS maintains the List of Migratory Birds, both adding and removing species on a regular basis, and is also responsible for enforcement of the MBTA.

Based upon the MBTA, the 2003 clarification memorandum, and the 2005 opinion, in 2006, the Senior Agency Council of FHWA issued a memorandum which concluded that "..., the purpose of the MBTA is to protect listed birds, eggs and active nests. Generally it does not apply to the habitat that might be used by the listed birds. However, to the extent that there are birds, nests and eggs in our project area that might be harmed and, given that the MBTA has both criminal and civil aspects to it, FHWA needs to be careful in its actions and environmental analysis."

The full memo is included in Appendix f.

3.3 Interrelationships

The MBTA is administered by the USFWS. Every organization and agency that works on a project that may involve migratory birds has to meet the requirements of MBTA.

For CDOT transportation projects, CDOT construction managers are required to take measures to avoid causing take of migratory birds. CDOT implements increased restrictions on project activities (through the 240 Project Special Provision) during periods when migratory bird nesting activity is most likely, between April 1 and August 31 of any given year. Migratory bird take can potentially occur during clearing and grubbing of vegetation or during construction activities on bridges or culverts (i.e. overlays, bridge demolition).

3.4 Roles and Responsibilities

Within CDOT, the Resident Engineer is responsible for making sure that Section 240 is being followed, a Resource specialist is involved, and that biological work related to migratory birds is conducted by a qualified biologist.

An Environmental Resource Specialist determines if migratory birds or their nests are likely to occur on a project site, and if construction activities may occur when birds are nesting. They also sometimes remove inactive nests, install nest exclusion devices that prevent the use of old nests, and conduct nest surveys as needed. Unless stated elsewhere, migratory bird nest prevention, removal, and monitoring is only required during the migratory bird nesting season (April 1-August 31). Clearances are obtained during the environmental review process. Migratory bird clearances are conditional on the timing and location of the individual project, and specifics are addressed through the inclusion of the Section 240 Specification and appropriate general notes, as recommended by the Resource Specialist.

Surveys are expected to be completed by a trained biologist.

There are three components of Section 240 that outline roles and responsibilities for the protection of migratory birds. They include the following:

1. **Bird Spec Contract or Biologist - Section 240 - Protection of Migratory Birds;** ***Biological Work Performed by a Contractor's Biologist*** involves protecting migratory birds during construction when the biological work is being completed by a non-CDOT Biologist and defines materials and construction requirements, method of measurement, basis of payment, and instructions to designers.

2. **Bird Spec Structure Work - Section 240 - Protection of Migratory During Structure Work** consists of protecting migratory birds during construction work on structures such as concrete box culverts and bridges. It defines materials and construction requirements, method of measurement, basis of payment, and instructions to designers
3. **Bird Spec CDOT Biologist - Section 240 - Protection of Migratory Birds; Biological Work Performed by a CDOT Biologist** involves protecting migratory birds during construction when the biological work is being completed by a CDOT Biologist.. It defines materials and construction requirements, method of measurement, basis of payment, and instructions to designers.

3.5 Tools and Techniques

Figures 3.1, 3.2, and 3.3 outline the process for ensuring migratory birds are adequately addressed in every design and construction process. This process lays out a combination of field work, reviews, and permits that collectively are used to meet the requirements of MBTA.

The presence of migratory birds has the potential to delay projects since active nests must be monitored until they can be determined to be inactive. Under some situations, construction work may also have to be stopped if nests are found active during construction, and may only resume when the nests are determined to be inactive.

Projects that involve clearing and grubbing of vegetation or construction activity on bridge or culverts have the potential to cause a migratory bird take. Some bridge structures are too large for any practical implementation of nest removal or nest exclusion activities or have extensive nesting habitat in places difficult to monitor. Other projects could impact grassland or woodland migratory bird species depending on the extent of clearing and grubbing. Sometimes these problems require phasing a project to avoid activity during the April 1 - August 31 breeding season.

For work on bridges or culverts, projects that start after April 1 and before August 31 require survey and monitoring for bird nesting activity using a qualified Wildlife Biologist. If nests are found they must be removed once every three days until construction begins in the impacted area to ensure that no nests become active prior to construction. The project can avoid the monitoring if nest-building prevention methods are implemented such as netting, or if the areas can be cleared (or trees cut down) prior to April 1. Hiring a Wildlife Biologist could result in additional costs to a project.

Depredation permits for migratory birds are usually only given out in situations where immediate action is needed to avoid imminent loss of human life or property.

CDOT Construction Bulletin

CDOT has produced construction bulletins that outline specific issues involving MBTA. The following migratory bird conservation principles are expected to be included:

SURVEY: Survey areas and vegetation scheduled for clearing and grubbing activities within project limits and within 50 feet of project construction limits for active nests. The survey will be done by either a CDOT biologist or a Contractor biologist.

REVISED PERMISSION TO ENTER PROPERTY: When the property owner changes, the Engineer shall request Region Right of Way to obtain a new signed Form 730, Permission to Enter Property.

CLEARING AND GRUBBING: Do not clear live or dead vegetation containing active nests of migratory birds.

STRUCTURE DEMOLITION OR REPAIR: Do not destroy active nests or injure birds protected by the MBTA during bridge or culvert demolition or repair.

BUFFER: Establish appropriately sized buffers around active nests. Do not pursue construction within the buffers until the nests are no longer active.

PRESERVATION OF VEGETATION: Within the work limits, avoid disturbing vegetation designated to remain following project completion. Preservation of this vegetation includes keeping equipment and materials off the critical root zone.

ADDITIONAL ACTIVITIES: Possible additional activities to incorporate into Construction to meet these requirements are as follows:

- Prevent migratory birds from nesting on structures that will be repaired or demolished prior to when young birds will fledge.
- Clear trees without active nests within limits of disturbance prior to start of nesting season. Only trees within the limits of disturbance may be removed. Do not fell trees containing active nests of migratory birds.

Figure 3.1. MBTA Flow Chart (1 of 3) Migratory Birds

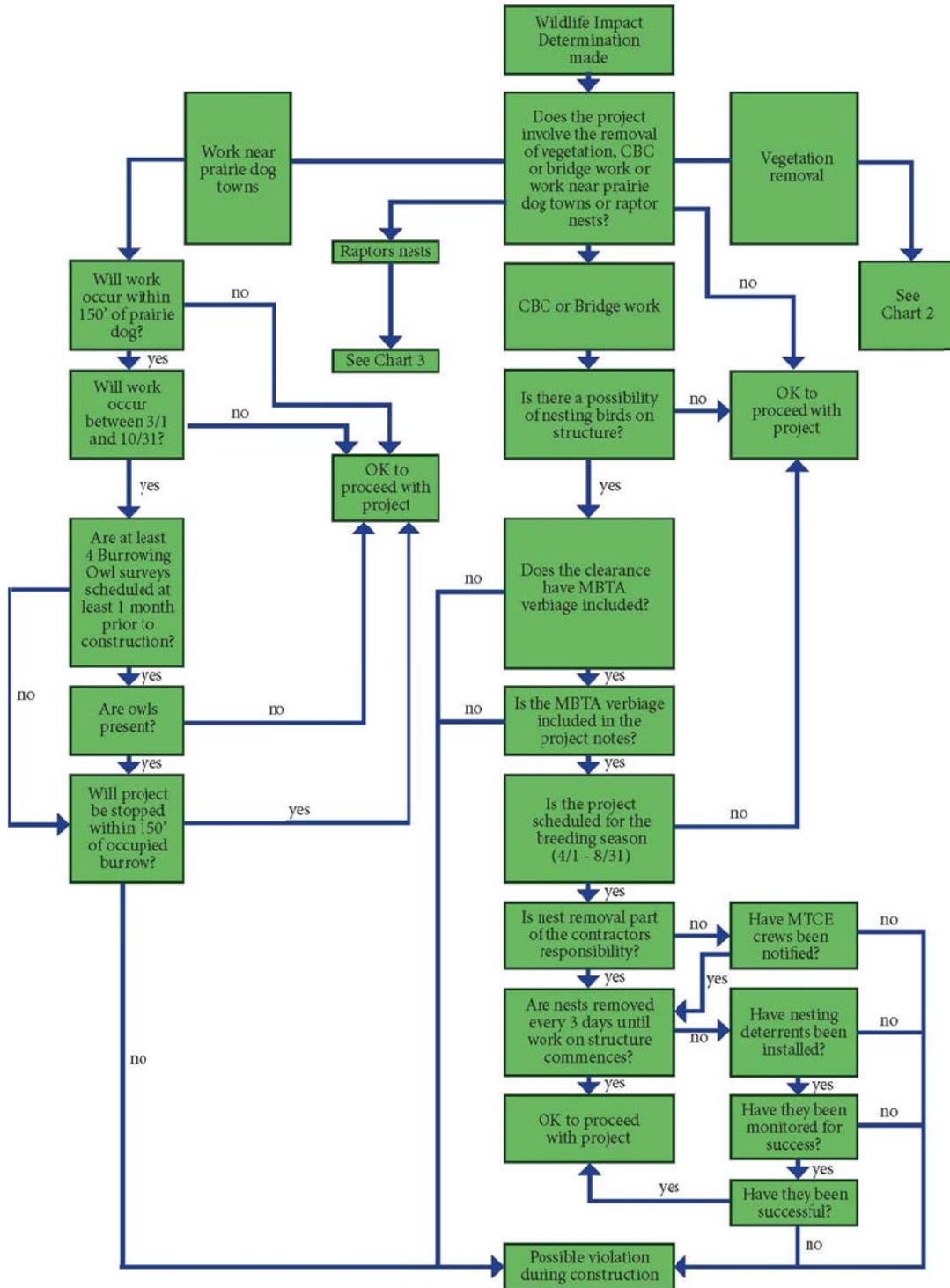


Figure 3.2. MBTA Flow Chart (2 of 3) Vegetation Removal

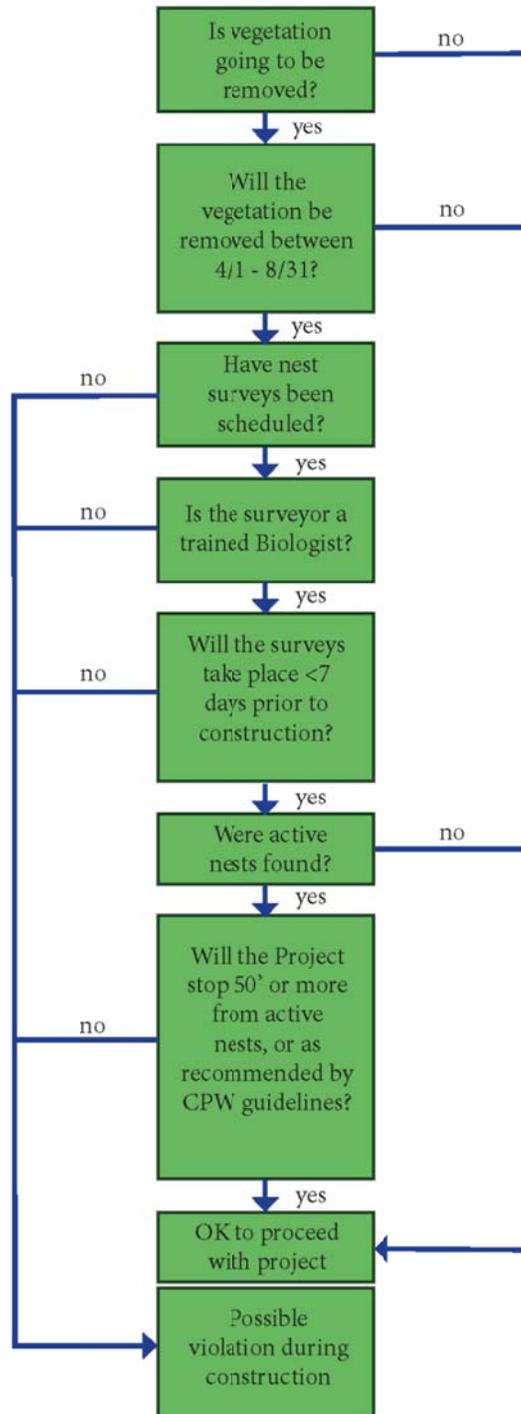
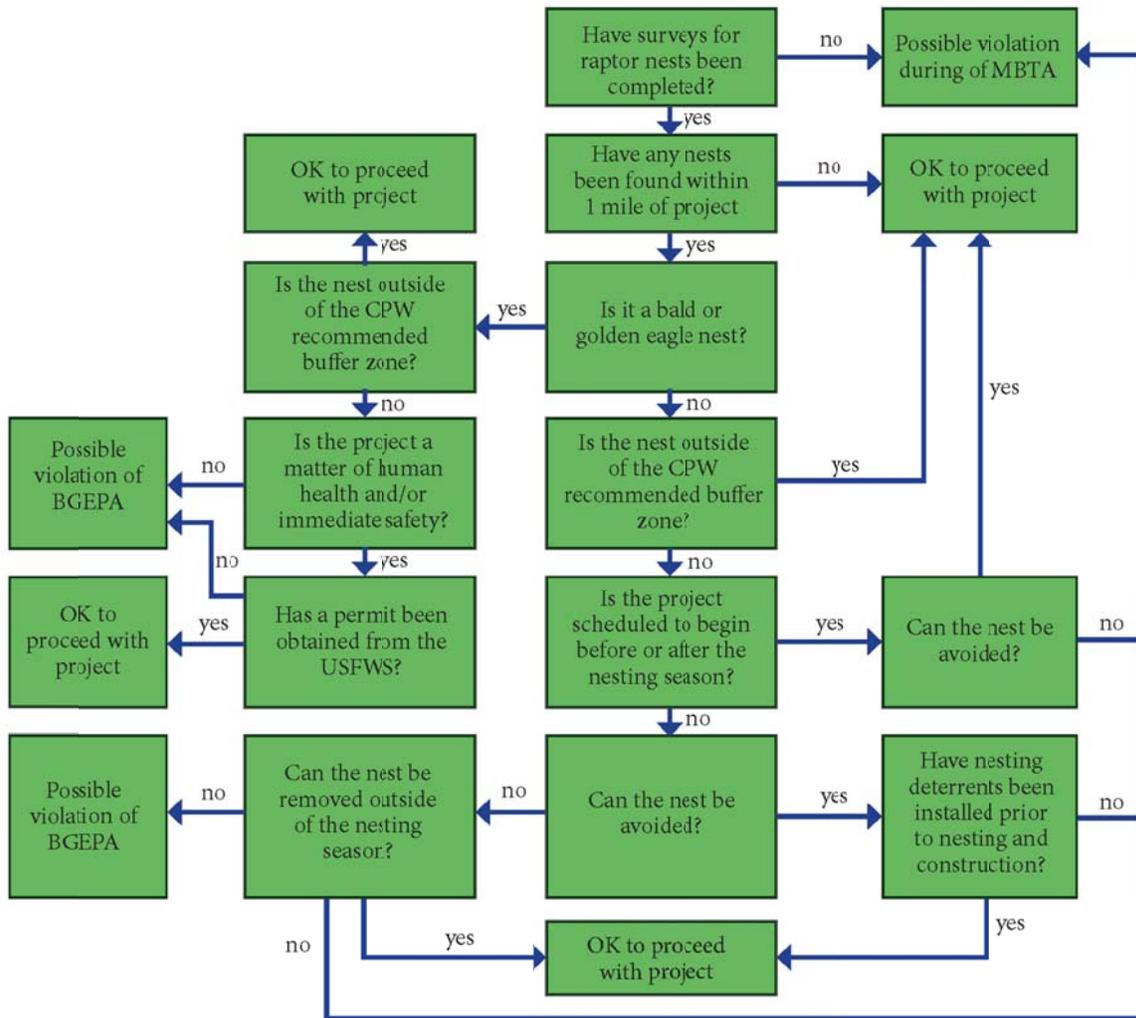


Figure 3.3. MBTA Flow Chart (3 of 3) Raptor Nests



4. Shortgrass Prairie Initiative

4.1 Purpose

Colorado's shortgrass prairie covers more than 27 million acres in Eastern Colorado, which is almost a third of the entire state. Approximately 90,000 of those acres are within CDOT right-of-ways. It is considered to be one of the most imperiled ecosystems in North America, with more than 100 declining species being associated with the prairie. Ten of these species are listed under the Endangered Species Act (ESA); one is proposed and six are candidate species.

The Colorado Shortgrass Prairie Initiative was implemented in an effort to help protect the state's shortgrass prairie as a result of CDOT's maintenance activities, basically east of I-25.

The Initiative sets up a long-term institutional collaboration among state and federal transportation and resource agencies and a national non-profit organization.

4.2 Program Regulatory Setting

In April 2001, a formalized Memorandum of Agreement (MOA) was signed, and it resulted in the creation of the Colorado Shortgrass Prairie Initiative. The signatories to the MOA were CDOT, FHWA, USFWS, the Colorado Department of Natural Resources, the Colorado Parks and Wildlife (CPW), and The Nature Conservancy. The MOA committed the parties to working together to effect regional conservation of declining species on Colorado's Eastern Plains. In 2012, all signatories agreed that all obligation outlined in the MOA had been successfully completed and was subsequently terminated.

4.3 Interrelationships

The Colorado Shortgrass Prairie Initiative was a joint effort by a number of state and federal organizations and agencies. The collaboration was initiated as a result of discussions with the Colorado Division of the Federal Highway Administration (FHWA) and CDOT because of their shared concerns. Subsequent discussions included The Nature Conservancy and the U.S. Fish and Wildlife Service (FWS). Also included in the process were the Colorado National Heritage Program, the Rocky Mountain Bird Observatory, Farm Bureau, Colorado Cattleman's Association, local governments, and environmental organizations such as the National Wildlife Federation, Audubon, and the Sierra Club.

The Initiative will also help CDOT and FHWA meet ESA obligations for identified listed species and declining species, should the latter become federally listed as threatened or endangered.

4.4 Roles and Responsibilities

Under the MOA, a panel headed by technical experts from The Nature Conservancy and the Colorado Division of Wildlife identified priority habitat conservation sites totaling over 27,000 acres that serve as large-scale conservation/mitigation areas for the 36 species identified in the preliminary survey. The Nature Conservancy entered into a contract with CDOT stating that they will manage the conservation acreage in accordance with the purpose for which they are acquired under the ESA. The Shortgrass Prairie Initiative is valid until January 12, 2024, or until 15,160 acres of impact have been incurred at which time consultation with the USFWS will be reopened.

Annually, CDOT reports to the USFWS each project which took advantage of the SGPI, the numbers of temporary and permanent impact to the prairie and remaining number of acres available for impact in the following years.

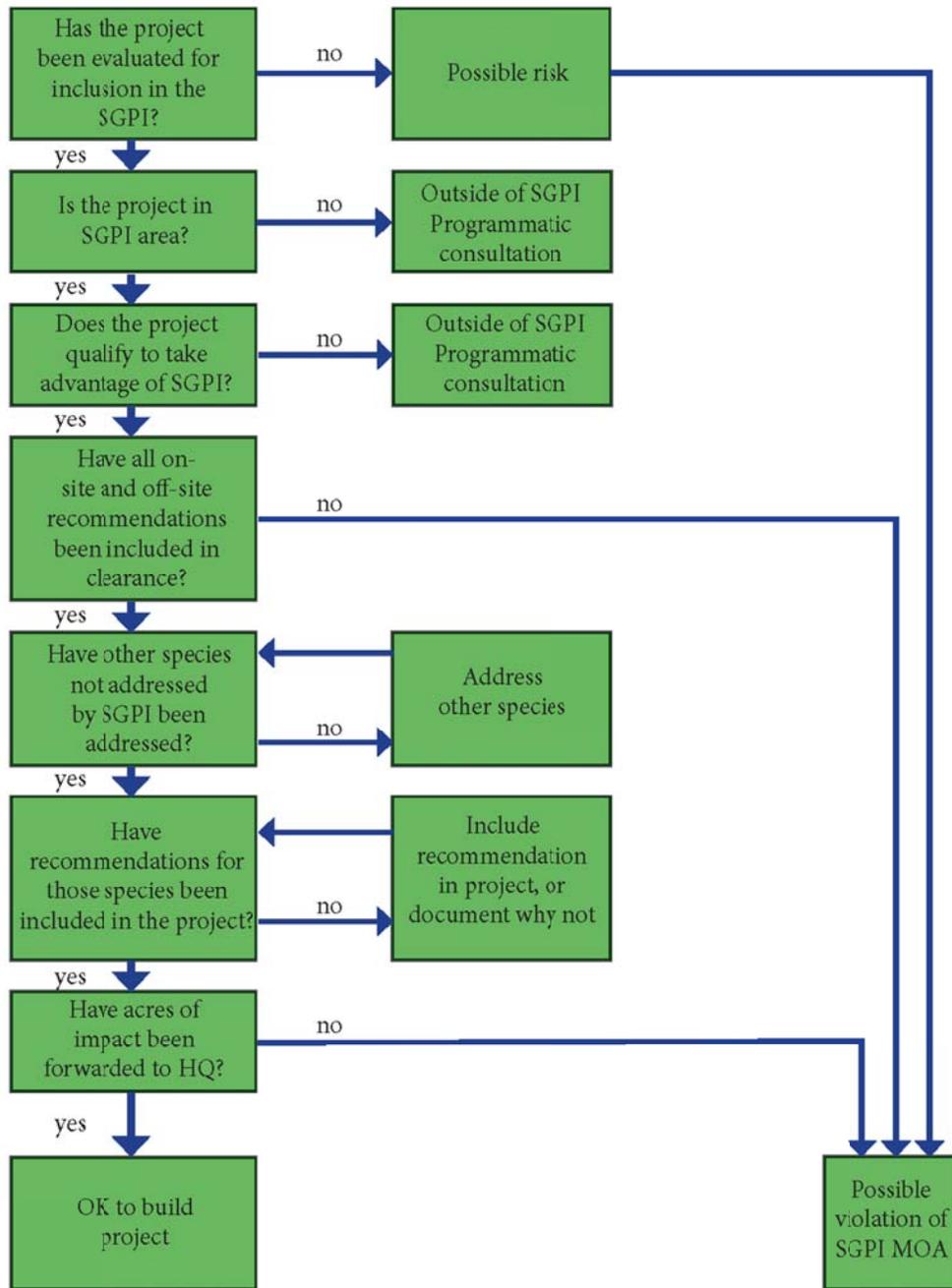
An Implementation Plan for the SGPI is available on the CPW website under *Site Selection Documents* (<http://wildlife.state.co.us/SiteCollectionDocuments/DOW/WildlifeSpecies/Grasslands/appendixJ.pdf>)

4.5 Tools and Techniques

The Shortgrass Prairie B.O. is a 129-page document that serves as the U.S. Fish and Wildlife Service's (FWS) programmatic biological opinion on impacts to federally-listed species associated with FHWA funding of CDOT's routine maintenance and upgrade activities on existing transportation corridors of eastern Colorado until 2024. The document consists of a letter to William C. Jones, Division Administrator, Colorado Federal Aid Division of FHWA, from Susan C. Linner, Colorado Field Supervisor, USFWS, and an Appendix that includes **Conservation Strategy for Non-listed Species**. The project identified in the letter from Susan Linner focuses on the Colorado portion of the central shortgrass prairie ecoregion as defined by Bailey et al. (1994), and modified by The Nature Conservancy to include all areas east of and including Interstate 25 (I-25) with some additional areas west of I-25, all within Colorado. The final Biological Opinion was signed on January 12, 2004.

For every CDOT project which is able to take advantage of the SGPI based upon location and activity, the region will document what the project entails, when it will be accomplished, the number of impacted acres (both permanent and temporary) and any on-site mitigation measures outlined in the BA/BO that are required. This information will be forwarded to the Project Specialist at EPB who will compile the information for inclusion in the annual report to the USFWS.

Figure 4.1. Shortgrass Prairie Initiative.



5. Section 7 Consultation

5.1 Purpose

The Endangered Species Act (ESA) was passed by Congress in 1973. The purpose of the ESA is to protect and recover imperiled species and their environment. Species may be listed as either endangered or threatened. **Endangered** means a species is in danger of extinction throughout all or a significant portion of its range. **Threatened** means a species is likely to become endangered within the foreseeable future. All species of plants and animals, except pest insects, are eligible for listing as endangered or threatened.

In addition to rare and endangered species, ESA also considers **proposed species** and **candidate species**. A proposed species is an animal or plant species proposed in the Federal Register for listing under Section 4 of the ESA. A candidate species is an animal or plant species defined by the USFWS as “Plants and animals for which the Fish and Wildlife Service has sufficient information on their biological status and threats to propose them as endangered or threatened under the ESA, but for which development or a proposed listing regulation is precluded by other higher priority listing activities. Conservation of these species is important because they are by definition species that may warrant future protection under the ESA.”

Critical habitat, based on the physical or biological features essential to the conservation of the species, may be designated with the listing of a wildlife or fish species; such as the Colorado River Basin for razorback sucker, Colorado pikeminnow, humpback chub, and bonytail chub.

The ESA is divided into 18 sections that cover a range of subjects, including definitions, land acquisition, exceptions, endangered plants, and an annual cost analysis. Section 7 of the ESA focuses on interagency cooperation, and it outlines the procedures for Federal interagency cooperation to conserve federally listed species and designated critical habitats. As section 7(a)(1) outlines, any action that may affect a listed species and receives Federal money or has a Federal nexus requires section 7 consultation.

5.2 Program Regulatory Setting

The ESA provides the regulatory setting for Section 7 consultation. The ESA requires federal agencies to ensure that actions they authorize or fund will not jeopardize the continued existence of any listed species, or result in the destruction of designated critical habitat for listed species.

Additional information about the regulatory setting for Section 7 is outlined in the United States Fish and Wildlife Service's (FWS) Consultation Handbook. The ***Endangered Species Consultation Handbook - Procedures for Conducting Consultation and Conference Activities under Section 7 of the Endangered Species Act***, is a joint U.S. Fish and Wildlife Service and National Marine Fisheries Service handbook. This handbook was primarily developed to aid USFWS and NMFS biologists implementing the Section 7 consultation process. The purpose of the handbook is to provide information and guidance on the various consultation processes outlined in the regulations. Additionally, the handbook will ensure consistent implementation of consultation procedures by those biologists responsible for carrying out Section 7 activities. Chapters of the handbook deal with major consultation processes, including Informal, Formal, Emergency, and Special Consultations and Conferences.

5.3 Interrelationships

Section 7 consultation with the USFWS is required when a project has potential impacts to species with a federal designation under the ESA. There is a written process that defines how to include USFWS. One reason this process seems to work so well for CDOT is that there is a full-

time liaison that helps coordinate projects between USFWS and CDOT. A similar liaison for other agencies such as the Bureau of Land Management (BLM), Colorado Parks & Wildlife, and U.S. Forest Service (USFS) would undoubtedly improve coordination as well, but those positions don't currently exist. For projects requiring consultation with the USFWS a 135-day review is allowed, but this time is reduced by working through the liaison.

Each CDOT project is evaluated for impacts to wildlife, including species listed as threatened, endangered, or is proposed to be listed, or is a candidate to be listed or Designated Critical Habitat by the USFWS. Impacts from projects are assessed through the development of Biological Evaluations (BE) or Biological Assessments (BA). These documents help determine the effects a project will have on listed species and/or critical habitat, and also determine if consultation with the USFWS is necessary.

A BA is a document prepared by, or under the direction of, a Federal agency to determine whether a proposed project is likely to: (1) adversely affect listed species ; (2) jeopardize the continued existence of species that are proposed for listing; or (3) adversely modify proposed critical habitat. The result of a BA is the determination of whether formal Section 7 consultation or conference of proposed species is necessary. A Biological Opinion (BO) is a document prepared by the USFWS that identifies whether or not a Federal action is likely to jeopardize the continued existence of listed species or result in the destruction of or adverse modification of designated critical habitat. The BO contains a summary of the BA on which the opinion is based and a detailed discussion of the effects of the action on listed species or designated critical habitat [50 CFR §402.02, 50 CFR §402.14(h)]. The BO could also permit incidental take of the species.

A BE is a document prepared by, or under the direction of, a Federal agency when it has been determined that a proposed project is not likely to adversely affect listed species or adversely modify designated critical habitat; the result of a BE is informal consultation resulting in a letter of concurrence from the USFWS which allows the project to continue without the need for formal USFWS consultation.

5.4 Roles and Responsibilities

The ESA is administered by the USFWS and the National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS). The USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine wildlife such as whales and anadromous fish such as salmon.

The USFWS's Endangered Species program, located in each Regional office, issues permits for native endangered and threatened species, except for import or export permits, which are issued by the Division of Management Authority. With some exceptions, the ESA prohibits activities affecting these protected species and their habitats unless authorized by a permit from the Service or the NOAA - Fisheries. The NMFS also issues permits involving certain aquatic species.

5.5 Tools and Techniques

Up-to-date lists of species protected by the ESA specific to a project's location can be found at the USFWS Information, Planning and Conservation System, or IPaC: <http://ecos.fws.gov/ipac/>

Permits provide a means to balance use and conservation of protected species.

U.S. Fish & Wildlife Service's Endangered Species Permits

Permits issued by the USFWS's Endangered Species program are of three basic types:

- **Incidental take permits** are required when non-Federal activities will result in take of threatened or endangered species. A habitat conservation plan (HCP) must accompany an application for an incidental take permit and is part of the Section 10 consultation process. The habitat conservation plan associated with the permit ensures that the effects of the authorized incidental take are adequately minimized and mitigated. This should not be confused with Incidental Take Statements which are part of the Section 7 consultation for projects carrying a federal nexus.
- **Enhancement of survival permits** are issued to non-Federal landowners participating in Safe Harbor Agreements or Candidate Conservation Agreements with Assurances. These agreements encourage landowners to take actions to benefit species while also providing assurances that they will not be subject to additional regulatory restrictions as a result of their conservation actions.
- **Recovery and interstate commerce permits** are issued to allow for take as part of activities intended to foster the recovery of listed species. A typical use of a recovery permit is to allow for scientific research on a listed species in order to understand better the species' long-term survival needs. Interstate commerce permits also allow transport and sale of listed species across State lines (e.g., for purposes such as a breeding program).

Applications and instructions for native endangered and threatened species permits can be found on the USFWS Permits website (<http://www.fws.gov/endangered/permits/index.html>).

USFWS also issues permits to qualified applicants for the following types of activities related to migratory birds: import/export, scientific collecting, taxidermy, waterfowl sale and disposal, management and control of resident Canada geese, special purpose (educational use, salvage, captive-bred migratory game bird propagation, etc.), falconry, raptor propagation, rehabilitation, and control of depredating migratory birds.

It should be noted that the vast majority of CDOT projects have a federal nexus associated with them, making Section 7 consultations (and the resulting Incident Take Statement) the more appropriate avenue.

SwIFT Project

While not implemented at the time of this writing, once it is up and running the Statewide Impact Findings Tables (SwIFT) will address over 100 of CDOT's most common construction activities as well as the potential impact these activities may have on federally listed species. For each species, a designation of **No Effect (NE)**, **May Affect and is Likely to Adversely Affect (LAA)**, or **May Affect but is Not Likely to Adversely Affect (NLAA)** is given for each activity.

- **No Effect (NE)** - These determinations need no additional consultation with the USFWS.
- **May Affect but is Not Likely to Adversely Affect (NLAA)** - An NLAA determination needs to have the USFWS concur with that determination in an informal consultation.
- **May Affect and is Likely to Adversely Affect (LAA)** - An LAA requires formal consultation resulting in a *Take Statement* from the USFWS in a *Biological Opinion* allowing for the take of a federally listed species.

Under SwIFT, any project that is determined to be NLAA will have already been informally consulted on eliminating the need to contact the USFWS for each project. This approach is intended to improve consistency, minimize unexpected requirements, increase project delivery speed, and ensure compliance with Section 7 of the Endangered Species Act.

South Platte River Depletions

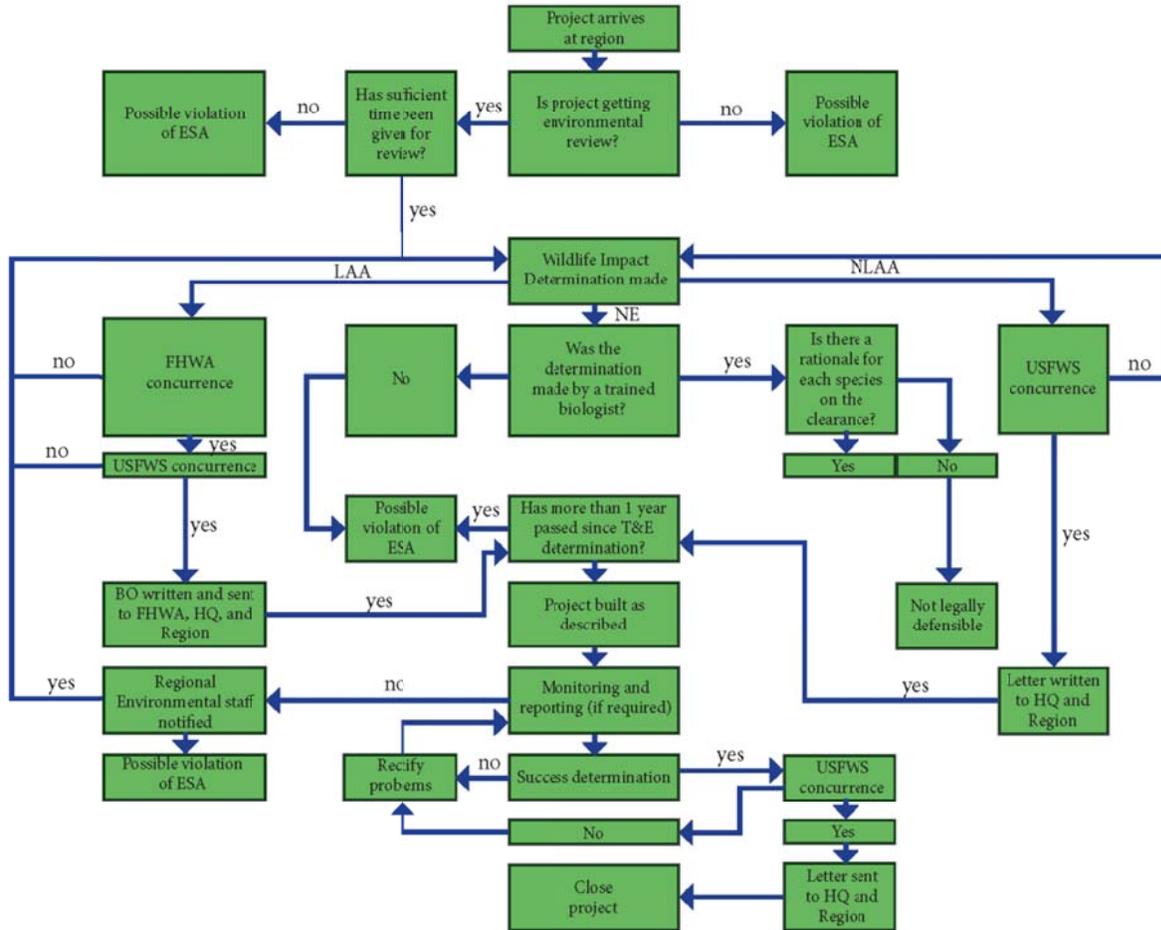
If a project has elements that will cause a depletion to the South Platte River basin, it will have adverse effect to several species located downstream that depend upon that water for their survival. In order to address the effects these depletions will have on federally listed species, CDOT, as a state agency, is participating in the South Platte Water Related Activities Program (SPWRAP). CDOT is cooperating with the Federal Highway Administration (FHWA) which provides a federal nexus for the project. In response to the need for formal consultation for the water used from the South Platte basin, FHWA has prepared a Programmatic Biological Assessment (PBA) dated 02/22/2012 that estimates total water usage until 2019. The PBA addresses the following species: Least Tern (interior population) (*Sternula antillarum*), pallid sturgeon (*Scaphirhynchus albus*), Piping Plover (*Charadrius melodus*), western prairie fringed orchid (*Platanthera praeclara*), and the Whooping Crane (*Grus americana*). On 04/04/2012, the USFWS signed a Biological Opinion which concurs with this approach and requires a yearly reporting of water usage. The water used for these projects will be reported to the USFWS by the EPB Wildlife Special at the year's end after the completion of the project as per the aforementioned consultation. Regional personnel do not have to keep track of the amount of water used or where the water originated from. Those numbers are derived from the quantities of materials used for the project and can be found in the SAP system. Effects to species not addressed in the PBA or affected by causes other than water depletions to the South Platte, will be analyzed separately.

Red Flags

On their website, the CDOT Wildlife Program identifies several red flags that need to be considering during the evaluation process. These include the following:

- Avoidance of impacts to listed species may require design modifications or timing restrictions.
- Any project that will be "likely to adversely affect" a species or critical habitat will require further coordination with the USFWS. This additional coordination may lengthen the clearance process by 12 weeks.
- Not all surveys can be conducted all year round. Some species can only be surveyed at specific times of year. Surveying for plants is especially problematic as they are only blooming for a short time.

Figure 5.1. Section 7 Process.



6. Senate Bill 40 (SB40)

6.1 Purpose

Senate Bill (SB) 40(33-5-101-107, CRS 1973 as amended), which was adopted by the state in 1969, requires any and all state agencies to obtain wildlife certification from the Colorado Parks and Wildlife (CPW) if the agency plans any project where construction would impact any stream, its banks, or its tributaries. SB40 emphasizes the protection of fishing waters, but it also includes all fish and wildlife associated with streams. The bill applies to the entire state.

6.2 Program Regulatory Setting

According to the Guidelines for Senate Bill 40 (updated July 2013), an application for SB40 Wildlife Certification is required if a project meets any of the following criteria:

- If stream-associated wetland acreage to be permanently filled at a single location is greater than 0.25 acre, or if more than 0.5 acre of riparian area is permanently impacted.
- If wetland acreage to be temporarily filled at a single location is greater than 0.5 acre, or if more than 1.0 acre of riparian area is temporarily impacted.
- If a project, such as highway corridor widening, results in any combination of temporary and permanent fill in stream-associated wetlands that is greater than 1.0 acre, or if the project results in more than 2.0 acres of combined temporary and permanent impacts to riparian areas.
- If state or federally listed threatened, endangered, proposed, or candidate species may be impacted by a project, if Colorado state-listed species or state species of special concern may be impacted, or if the habitat of such species may be impacted (see www.dnr.state.co.us).
- If Gold Medal fisheries or designated native fish and wild trout management waters may be impacted by a project. Information and updates on these special waters can be obtained from CPW.
- If a project on a fishing water would adversely affect a fish spawning area by obstructing fish movement or by substantially increasing siltation during the incubation period.
- Any permanent stream re-alignment associated with a project.
- Projects involving new stream crossings.
- Projects involving replacement of existing structures over streams if the impacts extend 100 feet or more upstream and downstream of the project as measured along the length of the stream.
- For any project or series of related projects resulting in bank stabilization or stream encroachment greater than 500 feet of stream length.

It should be noted that SB40 needs to be completed for state funded projects as well, not just projects with federal funding.

Guidelines

To clarify when SB40 certification is required and to describe the procedures to be followed, Guidelines for Senate Bill 40 Wildlife Certification was developed by the CPW and the Colorado Department of Transportation. The guidelines are divided into seven sections: 1) Introduction; 2) Jurisdiction of SB40; 3) Procedures for Requesting SB40 Certification; 4) Programmatic SB40 Certification; 5) General Conditions; 6) Special Conditions; 7) SB 40 Field Review, and 8) Conclusion.

6.3 Interrelationships

The agencies primarily involved with SB40 include the Department of Natural Resources (DNR), the CPW, and the CDOT. The requirements under SB 40 are defined in a Memorandum of Agreement (MOA) between the agencies. Once a CDOT project is under construction, appropriate CDOT staff notifies CPW staff and advises them that a Region Erosion Control Advisory Team (RECAT) inspection is needed for the project. These inspections provide an avenue for any needed changes encountered during the construction process.

6.4 Roles and Responsibilities

All state agencies are required to obtain wildlife certification for any project that meets any of the criteria identified in Section 6.2. In order to get certification, each agency is required to complete and submit an SB40 Application form (<http://www.coloradodot.info/programs/environmental/wildlife/guidelines/sb40application.pdf/view>) to the Colorado Parks and Wildlife (CPW) at least 60 days prior to planned construction or maintenance activities. CPW must complete its review of the application within 30 days and either issue SB40 Certification or request additional information or mitigation commitments. A copy of the SB40 Application is included in the appendix.

The CPW is the agency responsible for reviewing the SB40 application forms, granting certification, and managing the program.

Each agency has its own processes and procedures for SB40 certification. Within CDOT, for example, application for SB40 Wildlife Certification is made by the CDOT Region Planning and Environmental Manager (RPEM) that is in charge of the CDOT region in which the project occurs. Contact information for CDOT RPEMs can be obtained from the CDOT web site (<http://www.coloradodot.info/programs/environmental/contacts-region.html>).

Figure 6.1. SB 40 Planning Process (1 of 2)

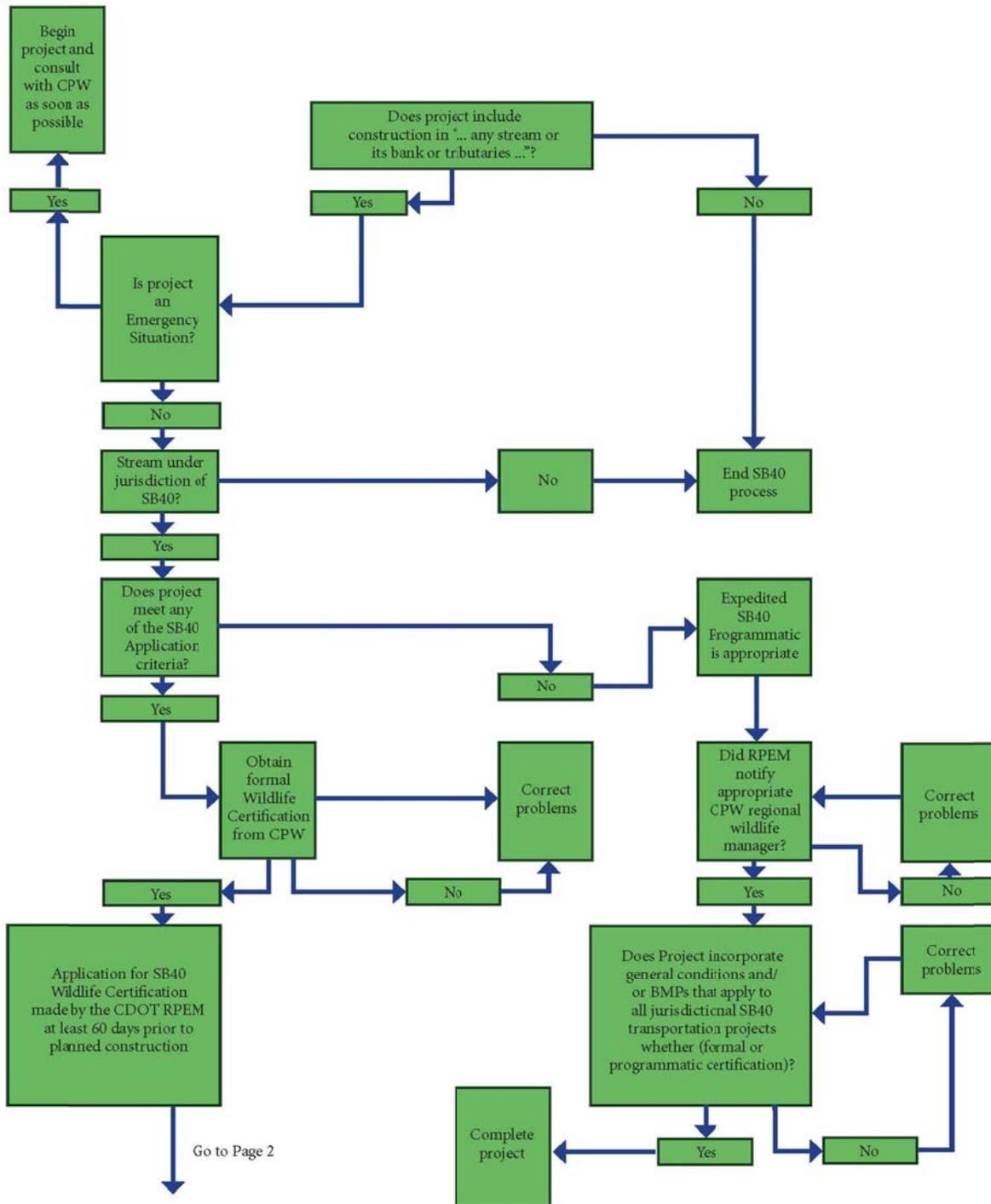
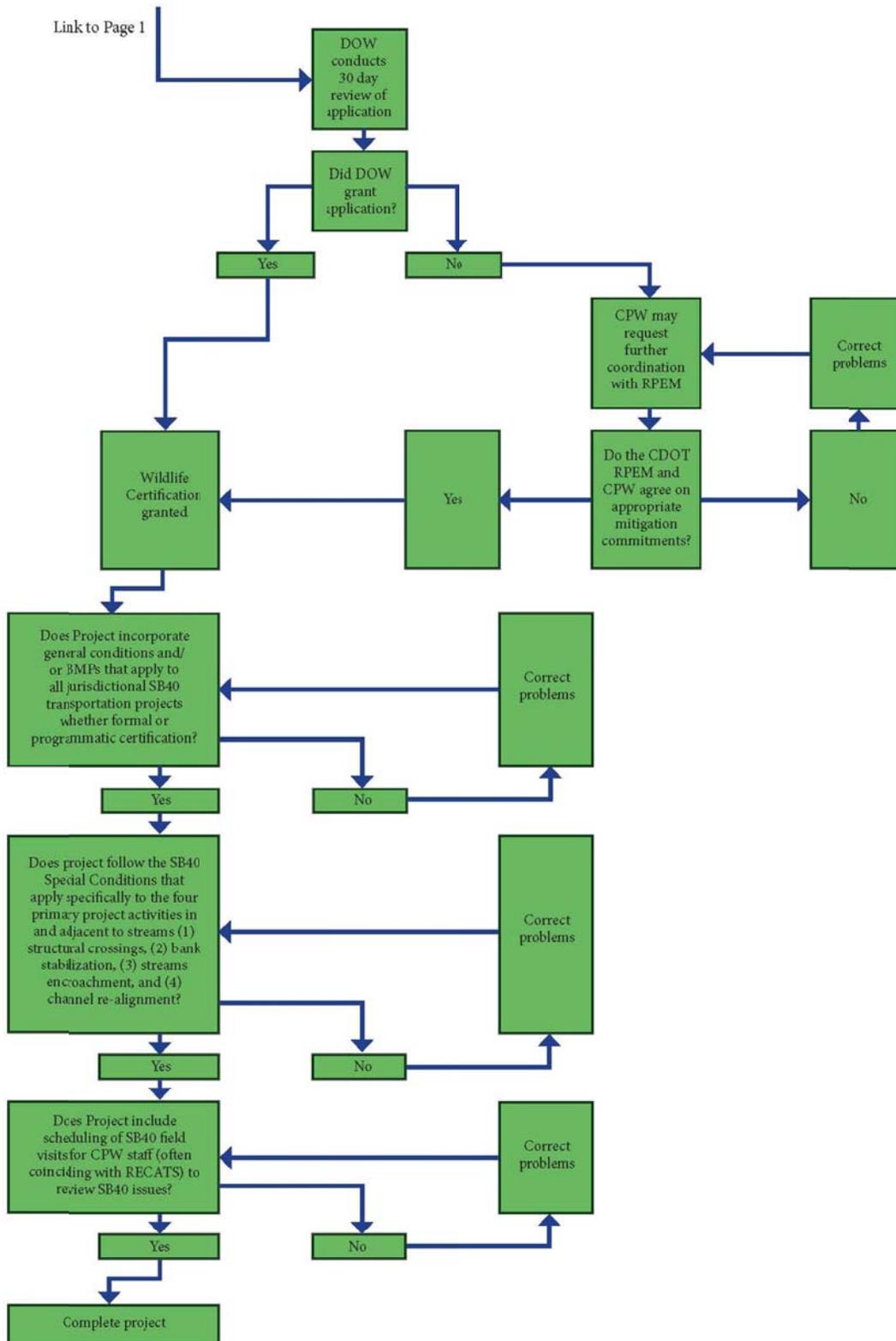


Figure 6.2. SB 40 Planning Process (1 of 2)



7. Collection and Evaluation of Baseline Information

7.1 Purpose

The purpose of data collection is to obtain accurate, viable information that can be used as the basis for making future decisions. The more accurate the data, the better the decisions can be that are geared toward protecting wildlife and wildlife habitat.

7.2 Program Regulatory Setting

There are basic state and federal guidelines that establish a foundation of how data is collected by CDOT for evaluating potential impacts on wildlife.

7.3 Interrelationships

There is a wide variety of data available via CDOT. Every department generates its own data at one level or another. This includes data on road kill, safety, cost, construction materials, maintenance, engineering, fatalities, traffic, and litter removal.

7.4 Roles and Responsibilities

For the most part, each CDOT program is responsible for collecting its own data. Much of this information is available for use by other programs. Data is also available from state and federal organizations and agencies.

7.5 Tools and Techniques

Baseline information for wildlife studies is collected based on specific federal and state requirements. There are a number of different tools and techniques that can be used to collect baseline information and data for CDOT projects.

The evaluation of impacts upon wildlife is dictated by federal and state law.

Roadkill Data

The CDOT Wildlife website includes end-of-year summaries of roadkill data. This data is collected by CDOT maintenance personnel as they perform their daily responsibilities. There is not a clearly defined written process that articulates when, where, and how roadkill data should be recorded. There is also not a clear understanding of how much roadkill data is recorded, and how much data is not. This data is also not located in any detail using GIS or GPS technology. CDOT uses Colorado State Patrol data to determine official roadkill numbers and locations which is available upon request. CDOT has not conducted a study of the two databases to get an understanding of how they compare. Attached documents on the CDOT Wildlife website include the following:

- 2012 Roadkill Data
- Wildlife Crossing Zones
- Annual Roadkill Reports
- CDOT Region Map

CDOT states that the data should NOT be compared to another set because of different sampling techniques and variations in sampling zones. Officially CDOT uses Colorado State Patrol data to determine roadkill numbers and locations, and this information is available from CDOT's Safety and Traffic Engineering Unit.

Each quarter, CDOT compiles data on animal-vehicle collisions throughout the state using primarily information from CDOT maintenance crews. The data is stored in an Excel spreadsheet, and it includes the reported number of animals killed per month, per year, and per

species and by highway and mile marker. Data is available throughout the state from 2006 to the present and is updated quarterly. The data is usually reported to the 1/10 of a mile.

Data from Colorado Natural Heritage Program

The Colorado Natural Heritage Program (CNHP) tracks and ranks Colorado's rare and imperiled species and habitats, and provides information and expertise on these topics to promote the conservation of Colorado's valuable biological resources. CNHP also supports conservation efforts by maintaining and providing data on rare and endangered species and their habitats.

Data available from CNHP includes the following:

- The CNHP Conservation Status Handbook
- CNHP Data Dictionaries
- CNHP Online and Interactive Maps
- CNHP Maps for Download

The CNHP Conservation Status Handbook provides statewide species and natural community tracking lists. The list of species or natural communities that CNHP tracks include the following: amphibians and reptiles, arthropods and insects, birds, fish, mammals, mussels and clams, nonvascular plants, plant communities, and vascular plants. Tracking lists are in Microsoft Excel (xlsx) or text (txt) formats, with metadata files that explain the ranking criteria.

CNHP Data Dictionaries define terms used in reports exported by CNHP from their Biodiversity Tracking and Conservation System (BIOTICS) database. These dictionaries include the following:

- Element Occurrence Report Dictionary
- Potential Conservation Areas (PCA) Report Dictionary
- Network of Conservation Areas (NCA) Report Dictionary
- Observation Data Report Dictionary
- Field Form Data Dictionaries

All of the data dictionaries are in pdf format.

CNHP Online and Interactive Maps Page - This site provides access to two maps. **Interactive Map of 2011 CNHP Field Surveys and Activities in Colorado** shows some of the places around the state where the Colorado Natural Heritage Program is currently working. **Counties Inventoried by the Colorado Natural Heritage Program** shows the counties that have been inventoried by CNHP, the type of inventory, and the year it was performed.

CNHP Maps for Download - This site, managed by the Colorado Natural Heritage Program, includes Statewide GIS data layers that can be downloaded for free, with the stipulation that they are only for noncommercial purposes. The resulting maps depict elements by 7.5 Minute USGS Quadrangle, Potential Conservation Areas, Networks of Conservation Areas and Terrestrial Ecological System Patches. Data can be downloaded in the following formats: ESRI Shapefile (zip), metadata (txt), printable maps (pdf), assorted reports (zip), and ESRI Geodatabase (zip). More up-to-date, detailed, specific, and/or commercial information is available from the CNHP Data Distribution Coordinator. Contact information for the coordinator is on the CNHP website.

GIS Data

There is limited amount of Geographic Information Systems (GIS) data on the CDOT website. There are links to two research reports that address how GIS can be used to evaluate Cumulative Effects. These are the following:

Areawide Coordinated Cumulative Effects Analysis - Research Report 2008-6, Authors: Brian Muller, Lynn Johnson, Wohn Wyckoff, Fred Nuszdorfer

GIS-Based Cumulative Effects Assessment - Research Report 2004-6, Authors: Brian Blaser, Hong Liu, Dennis McDermott, Fred Nuszdorfer, Nguyet Thai Phan, Ulziisaikhan Vahchindorj, Lynn Johnson, John Wyckoff

There is a general consensus that GIS could be better utilized for assessing wildlife impacts.

Website Information

The CDOT Wildlife website includes a wide range of information relating to issues about wildlife. This includes documents that are not intended to be comprehensive or to focus on specific issues, but do provide useful information for CDOT Wildlife staff. These documents include the following:

Deer-vehicle collisions - This memo from State Farm Insurance is entitled "Deer-vehicle collision frequency jumps 18% in five years."

House Bill 10-1238 - House Bill 10-1238 Concerning Wildlife Crossing Zones was prepared by Representatives Curry, Fisher, Frangas, Levy, and Primavera, and Senator Schwartz.

Jumping Mouse - Preble's mouse captured on film in culvert under US36. This photograph was taken by Carron Meaney of Meaney & Company.

Boreal Toad De-list - Boreal toad de-listed by USFWS, September 29, 2005. This notice was listed in the Federal Register.

Preble's Bulletin No. 1 - This document provides basic information about the Preble's meadow jumping mouse.

Federal Register 2006 - Gunnison Sage Grouse de-listed by USFWS, April 18, 2006.

Skyrocket Listing - *Ipomopsis polyantha* (Pagosa skyrocket) designated as a candidate for federal listing.

Black-tailed prairie dog - Black-tailed prairie dog de-listed by USFWS, Aug 12, 2004.

Wildlife on the Move - This is an article about wildlife-vehicle collisions, and it discusses the economic impacts of such collisions and talks about ways to reduce the problem by changing driving habits.

The CDOT Wildlife website also includes the following videos:

Video 1- Elk Jumping - Cow elk easily navigating one-way ramp

Video 2 - Elk Using Ramp - A herd of elk using ramp the exit the highway right-of-way

Video 4 - Elk Exploring Ramp - A herd of elk exploring the newly installed ramp

There are several photographs on the CDOT Wildlife website that show various examples of wildlife, and site elements that are intended to help reduce impacts to wildlife. These include the following:

- I-70 Wildlife Escape Ramp Gypsum-Dowd
- I-70 Wildlife Fence Gypsum-Dowd
- US 24 Buena Vista
- US 6 Dynamic Wildlife Signs
- US 6 Dynamic Wildlife Sign
- US 6 Wildlife Signs
- US 6 Wildlife Crossing Area
- US 6 Solar Overhead Light
- US 6 Wildlife Escape Ramp
- Wildlife Photos

- Wildlife Zones Sign
- Wildlife Speed limit sign
- Wildlife Fines Double Sign

Press Releases

- News Releases - 2010 to Current CDOT Generated News Releases
- New Phase of I-70 West Wildlife Fence Installation Begins - June 10, 2009
- SH 82 Wildlife Fence Construction Begins - September 2, 2009

Pagosa skyrocket Guidelines

The Pagosa skyrocket is a rare native plant found only in Archuleta County, Colorado, in and around the Town of Pagosa Springs. The skyrocket grows in the CDOT right-of-way, so the plants are susceptible to damage from transportation related projects. In order to be responsive to the need to protect these plants, and in keeping with CDOT's Environmental Stewardship Guide, CDOT prepared a set of guidelines to be implemented when activities in the right-of-way have the potential to adversely affect the plant or its habitat.

7.6 Prairie Dogs

The CDOT Wildlife Program website includes a couple of documents that specifically address prairie dogs. These documents include the following:

- **Prairie Dog Memo** - This two-page memorandum (January 8, 2002) from the CDOT Executive Management Team presents guidelines for addressing black-tailed prairie dogs on CDOT projects, and defines how they should be applied to those activities that are funded either in part or in total with state and/or federal transportation dollars. The state of Colorado has designated the black-tailed prairie dog as a species of concern.
- **Prairie Dog Policy** - This three-page memorandum (January 15, 2009) presents a policy for addressing black-tailed prairie dogs that will be impacted by CDOT projects. The memorandum includes a matrix that outlines the steps and the order they are to be taken based on the preconstruction area of an affected prairie dog town. This policy is included in the NEPA Guidance Manual.
- **Prairie Dog Statement** - This one-page letter clarifies CDOT's position on eradicating prairie dogs within the CDOT right-of-way. The letter states that without justification directly related to CDOT or its activities, prairie dog eradication will not be carried out on any CDOT ROW at the sole request of an adjacent landowner or their representative. CDOT's current policy involving black-tailed prairie dog can be found at <http://www.dot.state.co.us/enviornmental/wildlife/pdpolicy0605.pdf>.

8. Training

Training opportunities are posted on the CDOT website. These opportunities typically focus on in-house training opportunities, new brochures, videos, upcoming lectures/discussions, and documents. An **updated NEPA Manual**, Planning and Environmental Linkages (PEL) handbook, and other manuals are also available.

On a monthly basis CDOT hosts an informational coffee with changing discussion topics. The schedule for upcoming discussions is listed on the CDOT web site.

9. Resources & References

CDOT Construction Bulletin - Migratory Birds. 2011 Number 2, February 3, 2011.

Colorado Department of Transportation. Frequently Asked Questions. Web.
<http://www.coloradodot.info/programs/environmental/wildlife/faq.html>

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<http://www.coloradodot.info/programs/environmental/wildlife/guidelines/pagosa-skyrocket-guidelines/view>

Colorado Department of Transportation. 2012 Roadkill Data Completed. Web.
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Useful Websites

Various web sites that may be beneficial for addressing wildlife issues are categorized as follows: Conservation Organizations and Heritage Programs, State and Federal Wildlife and Land Management Agencies, Species Specific Sites, and Transportation Related Sites.

Conservation Organizations and Heritage Programs

- Colorado Natural Heritage Program: <http://www.cnhp.colostate.edu>
- Ducks Unlimited: <http://www.ducks.org/>
- NatureServe: <http://www.natureserve.org/aboutUs/network.jsp>
- Natural Diversity Information Source: <http://ndis.nrel.colostate.edu/>
- The Biodiversity Partnership: <http://www.biodiversitypartners.org/>
- The Nature Conservancy: <http://nature.org/>
- The Rocky Mountain Elk Foundation: <http://www.rmef.org/>
- The Wildlife Society: <http://www.wildlife.org>

State and Federal Wildlife and Land Management Agencies

- Colorado State Parks: <http://parks.state.co.us/>
- National Park Service: <http://www.nps.gov/>
- U.S. Fish and Wildlife Service Mountain-Prairie Region Endangered Species Program: <http://mountain-prairie.fws.gov/endspp/>
- USDA Natural Resources Conservation Service Wildlife Habitat Incentives Program: <http://www.nrcs.usda.gov/programs/whip/>
- USDA Natural Resources Conservation Service Wildlife Habitat Management: <http://www.whmi.nrcs.usda.gov>
- USDA Forest Service: <http://www.fs.fed.us>
- USDOl Bureau of Indian Affairs: <http://www.bia.gov/WhoWeAre/BIA/OTS/NaturalResources/FishWildlifeRec/index.htm>
- USDOl Bureau of Land Management: <http://www.blm.gov/nhp/index.htm>
- State and federal species can be found at: <http://ndis.nrel.colostate.edu/conservationcnty.asp?cnty=013>.

Species Specific Sites

- Preble's meadow jumping mouse (*Zapus hudsonius preblei*): <http://www.fws.gov/mountain-prairie/species/mammals/preble/>
- Greater sage-grouse (*Centrocercus urophasianus*): <http://mountain-prairie.fws.gov/species/birds/sagegrouse/>
- Canada lynx (*Lynx canadensis*): <http://www.fws.gov/mountain%2Dprairie/species/mammals/lynx/>
- Black-footed ferret (*Mustela nigripes*): <http://mountain-prairie.fws.gov/ferret/>
- Bald eagle (*Haliaeetus leucocephalus*): https://ecos.fws.gov/species_profile/SpeciesProfile?spcode=B008
- Southwestern willow flycatcher (*Empidonax traillii extimus*): <http://ecos.fws.gov/speciesProfile/SpeciesReport.do?spcode=B094>
- Mexican spotted owl (*Strix occidentalis lucida*): https://ecos.fws.gov/species_profile/SpeciesProfile?spcode=B074
- Black-tailed prairie dog (*Cynomys ludovicianus*): <http://www.fws.gov/mountain%2Dprairie/species/mammals/btprairiedog/>
- CDOT's current policy involving black-tailed prairie dog can be found at <http://www.dot.state.co.us/enviornmental/wildlife/pdpolicy0605.pdf>.

Transportation Related Sites

- Defenders of Wildlife Habitat and Highways: <http://www.defenders.org/habitat/highways>

- Federal Highway Administration, Critter Crossings: Linking habitats and reducing roadkill: <http://www.fhwa.dot.gov/environment/wildlifecrossings/>
- Federal Highway Administration Natural and Human Environment Office - Keeping it Simple: Easy ways to help wildlife along roads: <http://www.fhwa.dot.gov/environment/wildlifeprotection>
- Federal Highway Administration, Wildlife habitat connectivity across European highways: http://www.international.fhwa.dot.gov/wildlife_web.htm
- National Transportation Enhancements Clearinghouse: <http://www.enhancements.org>
- Surface Transportation Policy Project: <http://www.transact.org>

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Regional PR Manager, Western Slope

10. Abbreviations

BA	Biological Assessment
BE	Biological Evaluation
BIOTICS	Biodiversity Tracking and Conservation System
BO	Biological Opinion
CDOT	Colorado Department of Transportation
CNHP	Colorado Natural Heritage Program
CPW	Colorado Parks and Wildlife
DNR	Department of Natural Resources
EA	Environmental Assessment
e-CFR	Electronic Code of Federal Regulations
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
EPB	CDOT Environmental Programs Branch
ESA	Endangered Species Act
FACWet	Functional Assessment of Colorado Wetlands
FC	Federal Candidate
FE	Federally Endangered
FHWA	Federal Highway Administration
FT	Federally Threatened
FWCA	Fish and Wildlife Coordination Act
FWS	U.S. Fish & Wildlife Service
GIS	Geographic Information Systems
HCP	Habitat Conservation Plan
IPaC	Information, Planning and Conservation System
LAA	May Affect but is Not Likely to Adversely Affect
MBTA	Migratory Bird Treaty Act
MOA	Memorandum of Agreement
NCA	Network of Conservation Areas
NE	No Effect
NEPA	National Environmental Policy Act
NLAA	May Affect but is Not Likely to Adversely Affect
NMFS	National Marine Fisheries Service
PCA	Potential Conservation Areas

RECAT	Region Erosion Control Advisory Team
RPEM	Region Planning and Environmental Manager
SB40	Senate Bill 40
SC	State Special Concern
SE	State Endangered
SGPI	Short Grass Prairie Initiative
ST	State Threatened
SwIFT	Statewide Impact Findings Tables
USFS	U.S. Forest Service
USFWA	U.S. Fish & Wildlife Service

11. Appendices

Appendix A. General Forms

Work Sheet: 240pmbcdsw
02-03-11

1
SECTION 240
PROTECTION OF MIGRATORY BIRDS
DURING STRUCTURE WORK

Section 240 is hereby added to the Standard Specifications for this project as follows:

DESCRIPTION

240.01 This work consists of protecting migratory birds during construction work on structures.

MATERIALS AND CONSTRUCTION REQUIREMENTS

240.02 Work On Structures. The Contractor shall prosecute work on structures in a manner that does not result in a taking (pursue, hunt, take, capture or kill; attempt to take, capture, kill or possess) of migratory birds protected by the Migratory Bird Treaty Act (MBTA). The Contractor shall not prosecute the work on structures during the primary breeding season, April 1 through August 31, unless he takes the following actions:

- (1) The Contractor shall remove existing nests prior to April 1. If the Contract is not awarded prior to April 1 and CDOT has removed existing nests, then the monitoring of nest building shall become the Contractor's responsibility upon Notice to Proceed.
- (2) During the time that the birds are trying to build or occupy their nests, between April 1 and August 31, the Contractor shall monitor the structures at least once every three days for any nesting activity.
- (3) If the birds have started to build any nests, the nests shall be removed before they are completed. Water shall not be used to remove the nests if nests are located within 50 feet of any surface waters.
- (4) Installation of netting may be used to prevent nest building. The netting shall be monitored and repaired or replaced as needed. Netting shall consist of a mesh with openings that are $\frac{3}{4}$ inch by $\frac{3}{4}$ inch or less.

If an active nest becomes established, i.e., there are eggs or young in the nest, all work that could result in abandonment or destruction of the nest shall be avoided until the young have fledged or the nest is unoccupied as determined by the CDOT biologist and approved by the Engineer. The Contractor shall prevent construction activity from displacing birds after they have laid their eggs and before the young have fledged.

If the project continues into the following spring, this cycle shall be repeated. When work on the structure is complete, the Contractor shall remove and properly dispose of netting used on the structure.

The taking of a migratory bird shall be reported to the Engineer. The Contractor shall be responsible for all penalties levied by the U. S. Fish and Wildlife Service (USFWS) for the taking of a migratory bird.

METHOD OF MEASUREMENT

240.03 Removal of nests will be measured by the actual number of man-hours spent removing inactive nests just prior to and during the breeding season, April 1 through August 31. During this period, the Contractor shall submit to the Engineer each week for approval a list of the workers who removed nests and the number of hours each one spent removing nests

Netting will be measured by the square yard of material placed to keep birds from nesting on the structure. Square yards will be calculated using the length of netting measured where it is attached to the ground and the average height of the netting where it is attached to the structure.

BASIS OF PAYMENT

240.04 The accepted quantities measured as provided above will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule.

Pay Item	Pay Unit
Removal of Nests	Hour
Netting	Square Yard

1
SECTION 240
PROTECTION OF MIGRATORY BIRDS
BIOLOGICAL WORK PERFORMED BY A CDOT BIOLOGIST

Section 240 is hereby added to the Standard Specifications for this project as follows:

DESCRIPTION

240.01 This work consists of protecting migratory birds during construction.

MATERIALS AND CONSTRUCTION REQUIREMENTS

240.02 The Contractor shall schedule clearing and grubbing operations and work on structures to avoid taking (pursue, hunt, take, capture or kill; attempt to take, capture, kill or possess) migratory birds protected by the Migratory Bird Treaty Act (MBTA).

(a) *Vegetation Removal.* When possible, vegetation shall be cleared prior to the time active nests are present. Vegetation removal activities shall be timed to avoid the migratory bird breeding season which begins on April 1 and runs to August 31. All areas scheduled for clearing and grubbing between April 1 and August 31 shall first be surveyed within the work limits by a CDOT biologist for active migratory bird nests. The CDOT biologist will also survey for active migratory bird nests within 50 feet outside of the work limits. Project personnel shall enter areas outside CDOT right of way only if a Form 730, *Permission to Enter Property*, has been signed by the property owner. The Contractor shall avoid all active migratory bird nests. The Contractor shall avoid the area within 50 feet of the active nests or the area within the distance recommended by the biologist until all nests within that area have become inactive. Inactive nest removal and other necessary measures shall be incorporated into the work as follows:

1. *Tree and Shrub Removal or Trimming.* Tree and shrub removal or trimming shall occur before April 1 or after August 31 if possible. If tree and shrub removal or trimming will occur between April 1 and August 31, a survey for active nests will be conducted by the CDOT biologist within the seven days immediately prior to the beginning of work in each area or phase of tree and shrub removal or trimming. The Contractor shall notify the Engineer at least ten working days in advance of the need for the CDOT biologist to perform the survey.

If an active nest containing eggs or young birds is found, the tree or shrub containing the active nest shall remain undisturbed and protected until the nest becomes inactive. The nest shall be protected by placing fence (plastic) a minimum distance of 50 feet from each nest to be undisturbed. This buffer dimension may be changed if determined appropriate by the CDOT biologist and approved by the Engineer. Work shall not proceed within the fenced buffer area until the young have fledged or the nests have become inactive.

If the fence is knocked down or destroyed by the Contractor, the Engineer will suspend the work, wholly or in part, until the fence is satisfactorily repaired at the Contractor's expense. Time lost due to such suspension will not be considered a basis for adjustment of time charges, but will be charged as contract time.

2. *Grasses and Other Vegetation Management.* Due to the potential for encountering ground nesting birds' habitat, if work occurs between April 1 and August 31, the area shall be surveyed by the CDOT biologist within the seven days immediately prior to ground disturbing activities. The Contractor shall notify the Engineer at least ten working days in advance of the need for the CDOT biologist to perform the survey.

The undisturbed ground cover to 50 feet beyond the planned disturbance, or to the right of way line, whichever is less, shall be maintained at a height of 6 inches or less beginning April 1 and continuing until August 31 or until the end of ground disturbance work, whichever comes first.

Appendix B. Application of Migratory Bird Treaty



Office of Chief Counsel

Subject: Application of the Migratory Bird Treaty Act to Highway Projects

From: Senior Agency Counsel
San Francisco, CA

To: Mary Gray (HPT-WA)
FHWA Environment Coordinator
Olympia, Washington

You have requested a legal opinion regarding the application and scope of the Migratory Bird Treaty Act (hereinafter MBTA) 16 U.S.C. § 701 et seq., to FHWA projects. Implicit in this request is a consideration of how the MBTA interacts with other environmental laws and is incorporated into FHWA's National Environmental Policy Act (NEPA) documents.

BACKGROUND

The most relevant section of the MBTA to our projects is Section 703 of the MBTA that states:

"... [I]t shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export, any migratory bird, any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof..."

Furthermore, the regulations that implement the MBTA, define the term *take* as "to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect." 50 CFR § 10.12.

The MBTA was enacted in 1918 and covers four migratory bird treaties. The MBTA prohibits the taking of certain listed birds without a permit. The types of migratory birds that are covered are found in 50 CFR § 10.13 and the Secretary of Interior, in accordance with the MBTA, implements these treaties and permits.

The *take* prohibitions of the MBTA apply to both intentional and unintentional acts. In other words, the MBTA is a strict liability crime – all that is required is that you knowingly did that act that caused the harm, not that you intended the harm. For example, in United States v. FMC Corp., 572 F.2d 902 (2nd Cir. 1978), the Court held that the Migratory Bird Treaty Act applied to direct, though unintended, bird poisoning by toxic substances from dumping waste water. Also, United States v. Corbin Farm Service, 444 F.Supp 510 (E.D. Cal.) (*affirmed on other grounds*, 578 F.2d 259 (9th Cir. 1978)), involved the deaths of birds resulting from the accidental misapplication of pesticides.

In FMC Corp., the Second Circuit Court of Appeals imposed strict criminal liability for poisoning birds by analogizing it to the principles of strict liability in tort when one uses dangerous conditions or substances. *Id.* at 906-908. Furthermore, in Corbin Farm Service, the United States District Court simply held that the MBTA can “constitutionally be applied to impose criminal penalties on those who did not intend to kill migratory birds.” *Id.* at 536.

While the MBTA is a criminal statute, most Federal Circuits have allowed plaintiffs to file lawsuits against the Federal Government for violations of the MBTA through the Administrative Procedure Act. Seattle Audubon Soc'y v. Evans, 952 F.2d 297, 302 (9th Cir. 1991); Newton County Wildlife Ass'n v. U.S. Forest Service, 113 F.3d 110 (8th Cir. 1997); Hill v. Norton, 275 F.3d 98 (D.C. Cir. 2001). The Act even applies to Federal Government actions that are direct, yet unintentional, for example the killing of migratory birds during a weapons firing exercise. Center for Biological Diversity v. Pirie, 191 F.Supp 2d 161 (D.D.C. 2002)¹. *See also Humane Society v. Glickman*, 217 F.3d 882 (D.C. Cir. 2000).

MBTA DOES NOT APPLY TO HABITAT

The prohibitions under the MBTA are narrower than the prohibitions of the Endangered Species Act (ESA). The ESA not only prohibits the *taking* of a protected animal or plant, but also prohibits an "act [that] may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering." *See* the ESA definition of "harm" at 50 CFR § 17.3 and Babbitt v. Sweet Home Chap. of Communities for a Great Oregon, 515 U.S. 687 (1995). Also, under the ESA, critical habitat can be designated that will afford certain protections. However, the MBTA only prohibits the actual *taking* or killing of the protected bird and not the bird's habitat.

¹ MBTA was subsequently amended to allow certain incidental takings of migratory birds during military exercises.

The distinction between these statutes and the fact that only the ESA addressed the issue of habitat was explicitly stated in the case of Seattle Audubon Society v. Evans, 952 F.2d 297 (9th Cir. 1991). In that case, the issue of whether logging would violate the MBTA was addressed. The Court said:

[T]he SAS and PAS contend that timber sales which destroy owl habitat are tantamount to a proscribed “taking” under the [MBTA] Act. Under the regulations promulgated pursuant to the MBTA, “take” is defined as to “pursue, hunt, shoot, wound, kill, trap, capture, or collect,” or to attempt any such act. *Id.* at § 10.12. The definition describes physical conduct of the sort engaged in by hunters and poachers conduct, which was undoubtedly a concern at the time of the statute's enactment in 1918. The statute and regulations promulgated under it make no mention of habitat modification or destruction ... We agree with the Seattle district court that the differences in the proscribed conduct under ESA and the MBTA are “distinct and purposeful.” The ESA was enacted in 1973. Congress amended the Migratory Bird Treaty Act the following year, but did not modify its prohibitions to include “harm.” Habitat destruction causes “harm” to the owls under the ESA but does not “take” them within the meaning of the MBTA.

Seattle Audubon Society v. Evans, 952 F.2d at 303.

This same conclusion was also reached in a more recent case. In City of Sausalito v. O'Neill, 386 F.3d 1186 (9th Cir. 2004), the United States Park Service was undertaking a major renovation of the Army's historic Fort Baker site that included certain changes that cut mature trees on the grounds. The plaintiffs asserted that implementation of the Fort Baker Plan would violate the MBTA because migratory birds' nesting trees would be cut down, thereby disturbing both birds and their nests. However, the Court held that “[b]ecause Sausalito alleges only that migratory birds and their nests will be disturbed through habitat modification,” there was no violation of the MBTA and no requirement to get a permit from the Secretary. *Id.* at 1225. Other United States District Courts and Federal Circuits have also followed this analysis that habitat modification that adversely impacts covered birds later in time is not covered. Newton County Wildlife Ass'n v. U.S. Forest Service, 113 F.3d 110 (8th Cir. 1997); Curry v. U.S. Forest Service, 988 F.Supp 541 (W.D. Pa. 1997); Mahler v. U.S. Forest Service, 927 F.Supp 1559 (S.D. Ind. 1996); Citizens Interested in Bull Run, Inc. v. Edrington, 781 F.Supp 1502 (D. Or. 1991).

Applying the MBTA to CDOT Projects

While it is true that the MBTA does not protect habitat like the ESA does, it is important to remember that caselaw has found that the MBTA is a strict liability crime that applies to both direct and indirect actions that harm the protected birds. Accordingly, it has been held that if you cut down a tree that had a nest with eggs in it one could be held civilly and/or criminally liable. Sierra Club v. Martin, 933 F.Supp 1559 (N.D. Ga. 1996) (*reversed on other grounds* Sierra Club v. Martin, 110 F.3d 1551 (11th Cir. 1997)). In short, impacting habitat that MBTA birds may use is not enough to violate the MBTA, but impacting habitat that indirectly, but proximately leads to the taking of covered birds, nests or eggs is arguably covered.

Irrespective of the subtleties of what is a take under the MBTA, it is important to be aware that birds covered under the MBTA are also important resources under a more general environmental resource sense. Therefore, if these MBTA birds are negatively impacted by our project, this information must be disclosed in any National Environmental Policy Act (NEPA) document and appropriate mitigation considered.

Conclusion

In short, the purpose of the MBTA is to protect listed birds, eggs and nests. Generally it does not apply to the habitat that might be used by the listed birds. However, to the extent that there are birds, nests and eggs in our project area that might be harmed and, given that the MBTA has both criminal and civil aspects to it, FHWA needs to be careful in its actions and environmental analysis.

Signature on file

Lawrence (Lance) P. Hanf

Appendix C. Procedures for Requesting SB40 Certification

This section identifies the criteria to be used to determine when impacts from CDOT construction projects or maintenance activities will require application for SB40 Wildlife Certification, and describes the procedures to be followed in filing the application and issuing the certification.

A. Application Criteria

An application for SB40 Wildlife Certification shall be submitted for projects that meet any one or more of the following criteria:

1. If stream-associated wetland acreage to be permanently filled at a single location is greater than 0.25 acre, or if more than 0.5 acre of riparian area is permanently impacted.
2. If wetland acreage to be temporarily filled at a single location is greater than 0.5 acre, or if more than 1.0 acre of riparian area is temporarily impacted.
3. If a project, such as highway corridor widening, results in any combination of temporary and permanent fill in stream-associated wetlands that is greater than 1.0 acre, or if the project results in more than 2.0 acres of combined temporary and permanent impacts to riparian areas.
4. If state or federally listed threatened, endangered, proposed, or candidate species may be impacted by a project, if Colorado state-listed species or state species of special concern may be impacted, or if the habitat of such species may be impacted (see www.dnr.state.co.us).
5. If Gold Medal fisheries or designated native fish and wild trout management waters may be impacted by a project. Information and updates on these special waters can be obtained from CPW.
6. If a project on a fishing water would adversely affect a fish spawning area by obstructing fish movement or by substantially increasing siltation during the incubation period.
7. Any permanent stream re-alignment associated with a project.
8. Projects involving new stream crossings.
9. Projects involving replacement of existing structures over streams if the impacts extend 100 feet or more upstream and downstream of the project as measured along the length of the stream.
10. For any project or series of related projects resulting in bank stabilization or stream encroachment greater than 500 feet of stream length.

B. Application Procedures

Application for SB40 Wildlife Certification shall be made by the CDOT Region Planning and Environmental Manager (RPEM) using the appropriate CPW application form (see Attachment A to these guidelines). Application must be made at least 60 days prior to planned construction or maintenance activities to allow for CPW review of the submitted documents and for follow up coordination, if required. CPW shall complete its review of the application within 30 days and issue SB40 Certification or request additional information or mitigation commitments.

Application for SB 40 Wildlife Certification

APPLICATION FOR SB 40 WILDLIFE CERTIFICATION

Name of Agency _____ Address _____

Contact Person _____
Project Name and Number _____
Location of Project: County _____ T. _____ R. _____ ¼ Sec. _____
Distance and Direction from Nearest Town _____
Name of Stream(s) Affected _____

INSTRUCTIONS TO APPLICANT: This form must be completed and submitted to the Division of Wildlife Regional Office at least 60 days prior to planned construction or maintenance activities. To expedite processing, please provide the information requested by typing or printing clearly. Within 30 days of receipt of a completed application, the Division will notify you of its decision. Your cooperation is appreciated.

PLEASE ATTACH THE FOLLOWING INFORMATION:

- A. One copy of the plan view and cross sections
- B. Applicable correspondence related to the project and the 404 permit application, if any.
- C. A brief description of the proposed project, alternatives considered, mitigation measures and reclamation/revegetation plan.

PROJECT SCHEDULE – Provide approximate dates for the following:

Start of Construction: _____
Construction Period(s) in live water: _____
Completion of construction: _____
Bid advertised: _____

ADDITIONAL REMARKS: _____

Mail to: Regional Wildlife Manager
Colorado Division of Wildlife Regional Office

Date received by DOW: _____

October 1990

Appendix D. FHWS BA Template

FHWA National BA Template

Project Name: *Insert Starting Here -->*

Date: *Insert Starting Here -->*

Primary Agency and Contact: *Insert Starting Here -->*

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