

3.6 WILDLIFE

3.6.1 Introduction

This section discusses wildlife resources in the proposed Project area. The description of wildlife resources is based on information provided in the 2011 Final Environmental Impact Statement (Final EIS) as well as new circumstances or information relevant to environmental concerns that have become available since the publication of the Final EIS, including the proposed reroute in Nebraska. The information that is provided here builds on the information provided in the Final EIS and in many instances replicates that information with relatively minor changes and updates. Other information is entirely new or substantially altered from that presented in the Final EIS. Specifically, the following information, data, methods, and/or analyses have been substantially updated in this section from the 2011 document:

- All mammals, birds, reptiles, and amphibians with known habitats in the proposed Project route have been listed as compared to the Final EIS which provided a representative list of species; and
- Habitat types crossed by the pipeline have changed, with the majority of the changes taking place in Nebraska due to the reroute.

This section addresses common big game animals; small game animals and furbearers; waterfowl and game birds; and other nongame animals in the proposed Project area, with specific emphasis on the species and their habitats. Threatened, endangered, and otherwise protected species are discussed in Section 3.8, Threatened and Endangered Species and Species of Conservation Concern. Aquatic species are discussed in Section 3.7, Fisheries.

3.6.2 Environmental Setting

The proposed Project would cross several habitats, which are listed in Table 3.6-1. Approximately 32 percent of habitat (4,014.9 acres) along the proposed Project right-of-way (ROW) has been converted to agricultural land with crops such as soybean, corn, and hay in various phases of production, although in Nebraska, 65 percent of the area that would be impacted by the Project is cropland. These areas are not considered optimal habitat for native wildlife that prefer natural habitats with various vegetation types native to the region (Avery 2006). Additionally, many of the native grassland habitats are actively grazed by domestic livestock; therefore, wildlife use within these areas may be diminished if not actively managed (Vavra 2005).

Table 3.6-1 Habitat Types Located within the Proposed Project ROW

Vegetation Community Classification	Length of Community Crossed (Miles)	Acreage of Construction Disturbance			Acreage of Operation Disturbance		
		South			South		
		Montana	Dakota	Nebraska	Montana	Dakota	Nebraska
Cultivated Crops	291.0	904.8	707.7	2,402.4	372.6	298.3	1,093.0
Grassland/Pasture	523.7	2,833.7	3,786.8	1,123.9	1,138.7	1,557.6	483.8
Upland Forest	3.1	8.0	3.3	28.5	3.4	3.0	12.1
Open Water	1.3	1.8	1.7	4.5	1.8	1.5	4.5
Forested Wetlands	4.9	19.3	21.3	17.2	8.9	9.0	11.3

Vegetation Community Classification	Length of Community Crossed (Miles)	Acreage of Construction Disturbance			Acreage of Operation Disturbance		
		South			South		
		Montana	Dakota	Nebraska	Montana	Dakota	Nebraska
Shrub-Scrub	34.1	495.1	43.2	0.0	189.8	18.3	0.0
Emergent Herbaceous Wetlands	2.3	7.1	16.2	8.8	2.6	7.6	3.7
Developed Land	15.8	63.5	60.9	136.4	22.4	22.4	52.3
Total	876.2	4,333.3	4,641.1	3,721.7	1,740.2	1,917.7	1,660.7

Source: National Land Cover Database (Fry et al. 2011).

The proposed Project would cross diverse vegetative habitats used by a myriad of wildlife species. The vegetation characteristics of each habitat (i.e., height, type, and extent of coverage) are important factors in determining likelihood for presence of a species. Some larger wildlife species use many habitat types within their ranges, foraging areas, and territories while smaller species may only use one or two habitat types. Migratory birds and mammals use multiple habitats and may use a habitat seasonally. For example, white-tailed deer (*Odocoileus virginianus*) tend to move to low-lying valleys during winter months and waterfowl may nest in grasslands and wetlands during the spring and summer (Ducks Unlimited 2012).

3.6.2.1 Big Game Animals

The primary big game species that may occur in the proposed Project area due to habitat presence are listed in Table 3.6-2. All of the big game species occur in Montana, South Dakota, and Nebraska with the exception of the gray wolf (*Canis lupus*), which does not occur in South Dakota or Nebraska, and the mountain lion (*Puma concolor*), which does not occur in Nebraska. Bighorn sheep (*Ovis canadensis*) can be found in steep-sloped areas along the pipeline ROW from Montana to Nebraska. Pronghorn antelope (*Antilocapra americana*) are generally more abundant west of the proposed Project area. Translocation has been used to re-establish elk (*Cervus canadensis*) in Montana and South Dakota and elk have been re-established in some areas near the proposed Project in Nebraska; however, most of their preferred habitat and known range would be avoided by the current route (Nebraska Game and Parks Commission [NGPC] 2012a). American bison (*Bos bison*) is a species of conservation concern in Montana and once occurred in large numbers throughout the Great Plains. Free-ranging bison no longer occur within the area that would be crossed by the proposed Project route (Montana Field Guides 2012).

Table 3.6-2 Big Game with Habitat within the Proposed Project Area

Species	Occurrence by State			Habitat Type
	MT	SD	NE	
Bighorn sheep (<i>Ovis canadensis</i>)	x	x	x	Semi-open, rough, rocky steep buttes and canyons of mountains; forage in mixed grass prairies, forests, and forest edges
Elk (<i>Cervus canadensis</i>)	x	x	x	Coniferous forests, mixed grass prairies, meadows, and along forest edges
Gray wolf (<i>Canis lupus</i>)	x			Habitat generalists
Mountain lion (<i>Puma concolor</i>)	x	x		Require cover and large prey availability

Species	Occurrence by State			Habitat Type
	MT	SD	NE	
Mule deer (<i>Odocoileus hemionus</i>)	x	x	x	Often characterized by drainages with deciduous trees and shrubs and north slopes dominated by coniferous or evergreen trees
Pronghorn antelope (<i>Antilocapra americana</i>)	x	x	x	Open plains, fields, grasslands, brush, deserts, and basins
White-tailed deer (<i>Odocoileus virginianus</i>)	x	x	x	Wooded areas

Source: American Society of Mammalogists 2012. IUCNNR 2012. Montana Field Guides 2012. Smithsonian Institute 2012. University of Michigan Museum of Zoology 2012.

In the northern portions of their range, white-tailed deer, mule deer (*Odocoileus hemionus*), and elk may aggregate or yard during winter in stream bottoms, on south-facing slopes, or in other areas where snow accumulations are reduced. In Nebraska, where the proposed pipeline ROW has been modified to avoid the Nebraska Department of Environmental Quality-identified Sand Hills Region, white-tailed deer, mule deer, elk, and pronghorn are the principal big game animals that occur along the proposed Project route. White-tailed deer and mule deer are highly adaptable and inhabit a variety of habitats, including grasslands, shrublands, woodlands, and to a limited degree, croplands. White-tailed deer and mule deer may also be found in close association with humans (Mackie et al. 1998). Some habitat ranges for these species are considered crucial for maintenance of game populations. State agencies and the Bureau of Land Management have established several habitat categories based on species' seasonal use of the habitat. For example, crucial winter range areas are considered essential in determining a game population's ability to maintain itself at a certain level over the long term. Other regions may not usually be a part of a herd's range, but are used as survival areas during extremely harsh winters.

The proposed Project has been designed to avoid impacts to many state and federally managed areas within the vicinity of the Project area. In Nebraska, all state-managed Wildlife Management Areas that provide protected habitats for wildlife have been avoided. These areas are all more than 500 feet from the proposed Project centerline (NGPC 2012b).

3.6.2.2 *Small Game and Furbearers*

The small game animals and furbearers most often hunted or trapped in the proposed Project area include cottontail (*Sylvilagus floridanus*), mountain cottontail (*Sylvilagus nuttallii*), coyote (*Canis latrans*), Virginia opossum (*Didelphis virginiana*), raccoon (*Procyon lotor*), red fox (*Vulpes vulpes*), and squirrel (*Sciurus* spp.). Cottontail, coyote, opossum, red fox, and raccoon use a wide variety of habitats, including croplands, forests, shelterbelts, living snow fences, and rangelands. Many furbearers expected to be present in the proposed Project area, such as American beaver, American mink, raccoon, and weasel, are associated with riparian and wetland areas. A complete list of small game species and furbearers that have known habitats within the proposed Project area is presented in Table 3.6-3.

Table 3.6-3 Small Game and Furbearers with Habitat within the Proposed Project Area

Species	Occurrence by State			Habitat Type
	MT	SD	NE	
American badger (<i>Taxidea taxus</i>)	x	x	x	Open areas and forest edges
American beaver (<i>Castor canadensis</i>)	x	x	x	Ponds, marshes, rivers, and wetlands
American mink (<i>Neovison vison</i>)	x	x	x	Forested areas that are near rivers, streams, lakes, ponds, and marshes
Black-tailed jackrabbit (<i>Lepus californicus</i>)		x	x	Meadows, prairies, desert scrublands, and farmlands
Bobcat (<i>Lynx rufus</i>)	x	x	x	Found in a wide variety of habitat including woodlands, brush, forests, upland prairies, grasslands with mixed forests, badlands, and mountainous areas
Common muskrat (<i>Ondatra zibethicus</i>)	x	x	x	Swamps, marshes, rivers, ponds, lakes, drainage ditches, and canals preferable with 4-6 feet of still or slow moving water
Coyote (<i>Canis latrans</i>)	x	x	x	Found in a wide variety of habitats including fields, plains, and bushy areas
Desert cottontail (<i>Sylvilagus audubonii</i>)		x		Woodlands, grasslands, creosote brush, and desert areas
Eastern cottontail (<i>Sylvilagus floridanus</i>)	x	x	x	Fields, woodlands, swamps, and thickets
Eastern fox squirrel (<i>Sciurus niger</i>)	x	x	x	Open forests, woodlands, and wooded strips along streams and rivers
Eastern gray squirrel (<i>Sciurus carolinensis</i>)		x	x	Mature hardwood forests >40 hectares that have dense understory and ample den sites
Eastern spotted skunk (<i>Spilogale putorius</i>)			x	Forest edges
Franklin's ground squirrel (<i>Spermophilus franklinii</i>)			x	Tallgrass and mixed grass prairies
Gray fox (<i>Urocyon vinereoargenteus</i>)			x	Prefers areas with lots of brush or woods
Least weasel (<i>Mustela nivalis</i>)	x	x	x	Open areas such as meadows, farmlands, marshes, and brushy areas
Long-tailed weasel (<i>Mustela frenata</i>)	x	x	x	Woodlands, thickets, farmland, and are found near water sources
Mink (<i>Mustela vison</i>)		x	x	Forested areas that are near rivers, ponds, streams, lakes, and marshes
Mountain cottontail (<i>Sylvilagus nuttallii</i>)	x	x		Sagebrush, western juniper, and grassland areas near cover
Nutria (<i>Myocaster coypus</i>)			x	Wetlands or riverbanks
North American porcupine (<i>Erethizon dorsatum</i>)	x	x		Coniferous, deciduous, and mixed forests in addition to scrubland
Raccoon (<i>Procyon lotor</i>)	x	x	x	Usually lives in wooded areas near water, but it is very adaptable
Red fox (<i>Vulpes vulpes</i>)	x	x	x	Wooded areas, prairies, and farmland
River otter (<i>Lontra canadensis</i>)		x	x	Near rivers, lakes, swamps
Southern flying squirrel (<i>Glaucomys volans</i>)			x	Deciduous forests
Spotted ground squirrel (<i>Spermophilus spilisoma</i>)		x		Semiarid grasslands
Striped skunk (<i>Mephitis mephitis</i>)	x	x	x	Open areas with a mix of habitats
Thirteen-lined ground squirrel (<i>Spermophilus tridecemlineatus</i>)		x	x	Grasslands and prairies

Species	Occurrence by State			Habitat Type
	MT	SD	NE	
Virginia opossum (<i>Didelphis virginiana</i>)		x	x	Ideal habitat is an area interspersed with woods, wetlands, and farmlands
White-tailed jackrabbit (<i>Lepus townsendii</i>)		x	x	Open prairies and plains

Source: American Society of Mammalogists 2012. IUCNRR 2012. Montana Field Guides 2012. Smithsonian Institute 2012. University of Michigan Museum of Zoology 2012.

3.6.2.3 Waterfowl and Game Birds

Waterfowl follow distinct, traditional migration corridors or flyways in their annual travels between breeding and wintering areas. The Central Flyway is composed of some or all of each of the states of Montana, Wyoming, Colorado, New Mexico, Texas, Oklahoma, Kansas, Nebraska, South Dakota, and North Dakota, and the Canadian provinces of Alberta, Saskatchewan, and the Northwest Territories (U.S. Fish and Wildlife Service [USFWS] 2012). The proposed Project route is located entirely within the Central Flyway (USFWS 2012); a list of all bird orders and the number of species that may use the areas near the Project route is provided in Table 3.6-4.

Table 3.6-4 Birds Identified within the Counties of the Proposed Project Area

Order	Family	Description	No. of Species
Accipitriformes	Accipitridae	Hawks and Eagles	11
	Cathartidae	Turkey Vulture (<i>Cathartes aura</i>)	1
	Pandionidae	Osprey (<i>Pandion haliaetus</i>)	1
Anseriformes	Anatidae	Ducks and Geese	31
Apodiformes	Apodidae	Chimney Swift (<i>Chaetura pelagica</i>)	1
	Trochilidae	Hummingbirds	2
Caprimulgiformes	Caprimulgidae	Nighthawks	4
Charadriiformes	Charadriidae	Plovers and Killdeer	7
	Laridae	Gulls and Terns	9
	Recurvirostridae	Stilts and Avocet	2
	Scolopacidae	Sandpipers, Snipe, and Woodcock	31
Columbiformes	Columbidae	Doves	5
Coraciiformes	Alcedinidae	Belted Kingfisher (<i>Megaceryle alcyon</i>)	1
Cuculiformes	Cuculidae	Cuckoos	2
Falconiformes	Falconidae	Kestrels, Merlin, Falcons	5
Galliformes	Gaviidae	Common Loon (<i>Gavia immer</i>)	1
	Odontophoridae	Northern Bobwhite (<i>Colinus virginianus</i>)	1
	Phasianidae	Upland Game Birds (Pheasant, Grouse, Turkey)	7
Gruiformes	Gruidae	Cranes	2
	Rallidae	Coots and Rails	5
Passeriformes	Alaudidae	Horned Lark (<i>Eremophila alpestris</i>)	1
	Bombycillidae	Waxwings	2
	Calcariidae	Longspurs and Buntings	5

Order	Family	Description	No. of Species
	Cardinalidae	Tanagers, Buntings, and Grosbeaks	10
	Certhiidae	Brown Creeper (<i>Certhia americana</i>)	1
	Corvidae	Jays, Crows, and Magpies	3
	Emberizidae	Towhees and Sparrows	25
	Fringillidae	Finches and Grosbeaks	11
	Hirundinidae	Martins and Swallows	7
	Icteridae	Blackbirds, Meadowlarks, Orioles, and Grackles	13
	Laniidae	Shrikes	2
	Mimidae	Catbirds, Mockingbirds, and Thrashers	4
	Motacillidae	Pipits	2
	Paridae	Chickadees and Titmouse	2
	Parulidae	Warblers	29
	Passeridae	House Sparrow (<i>Passer domesticus</i>)	1
	Poliopitilidae	Blue-gray Gnatcatcher (<i>Poliopitila caerulea</i>)	1
	Regulidae	Kinglets	2
	Sittidae	Nuthatches	2
	Sturnidae	European Starling (<i>Sturnus vulgaris</i>)	1
	Troglodytidae	Wrens	7
	Turdidae	Bluebirds, Robins, and Thrush	9
	Tyrannidae	Flycatchers, Phoebes, Pewees, and Kingbirds	15
	Vireonidae	Vireos	7
Pelecaniformes	Ardeidae	Wading birds (Bittern, Herons, Egrets)	11
	Pelecanidae	American White Pelican (<i>Pelecanus erythrorhynchos</i>)	1
	Threskiornithidae	White-faced Ibis (<i>Plegadis chihi</i>)	1
Piciformes	Picidae	Woodpeckers	8
Podicipediformes	Podicipedidae	Grebes	5
Strigiformes	Strigidae	Owls	8
	Tytonidae	Barn Owl (<i>Tyto alba</i>)	1
Suliformes	Phalacrocoracidae	Cormorants	2

Source: South Dakota Ornithologists Union 2012. USGS 2012. Nebraska Ornithologists Union 2012. Montana Field Guides 2012.

All ducks, geese, swans, waterbirds, shorebirds, and sandhill cranes present within the proposed Project area are considered migratory. Most of the region’s waterfowl and waterbirds nest within the proposed Project area or to the north, and migrate through the Project area during spring and fall. All migratory birds (identified in Title 50 of the Code of Federal Regulations Part 10.13) are protected by the Migratory Bird Treaty Act (MBTA) (Title 16 of the United States Code 703–712; 40 Stat. 755 as amended), which prohibits the take of any migratory bird without authorization from the USFWS. The MBTA states that “unless and except as permitted by regulations. . . it shall be unlawful at any time, by any means or in any manner, to. . . take, capture, kill, possess. . . any migratory bird, any part, nest, or eggs of any such bird. . .” Non-

migratory birds such as upland game birds and non-native birds such as European starling (*Sturnus vulgaris*), rock pigeon (*Columba livia*), and house sparrow (*Passer domesticus*) are not protected by the MBTA, although harvest of upland game birds is regulated under state wildlife laws and regulations.

Hunting seasons for migratory birds are set and regulated by the USFWS and state wildlife management agencies. Waterfowl are harvested primarily in fall; however, spring light goose seasons (snow goose [*Chen caerulescens*] and Ross's goose [*Chen rossii*]) are open in some areas in response to expanding populations of these birds, which nest in arctic Canada. Many waterfowl breed in habitats that would be crossed by the proposed Project route, and additional migrants pass through the Project area to and from northern breeding grounds during spring and fall. Sandhill cranes (*Grus canadensis*) are hunted in Montana and South Dakota. Nebraska is closed to hunting for sandhill cranes (Sharp et al. 2006).

Wild turkey (*Meleagris gallopavo*), sharp-tailed grouse (*Tympanuchus phasianellus*), and northern bobwhite (*Colinus virginianus*) are a few of the upland non-migratory game birds that are not protected by the MBTA. Some native game birds are considered conservation concerns and are discussed in Section 3.8, Threatened and Endangered Species and Species of Conservation Concern. Seasons and bag limits for native and introduced game birds, such as ring-necked pheasant (*Phasianus colchicus*), greater sage-grouse (*Centrocercus urophasianus*), and gray partridge (*Perdix perdix*), are set by state wildlife management agencies. Wild turkey is hunted primarily during spring (bearded birds, males only), when most harvest occurs; but they also may be taken during fall hunts, which are usually open for any turkey. Most other resident game birds are hunted during the fall. Mourning dove (*Zenaida macroura*), Wilson's snipe (*Gallinago delicata*), and American woodcock (*Scolopax minor*) are migratory game birds that are protected by the MBTA. Hunting seasons and limits are set and regulated by the USFWS and state wildlife management agencies.

3.6.2.4 Non-Game Animals

The proposed Project route would cross many different habitats that are home to a wide variety of non-game animals. These diverse species function and provide value as prey for game animals and pest and disease control. In addition, presence, diversity, and abundance of particular species can be indicators of overall health and productivity of particular habitats. Non-game animals present in the proposed Project area include species of mammals, birds, reptiles, amphibians, and invertebrates. Below are brief descriptions and discussions of the non-game animals expected to be found within the proposed Project area.

Non-Game Mammals

Small mammals such as bats (*Vespertilionidae*, *Molissidae*), northern pocket gophers (*Geomysidae*), mice (*Muridae*), shrews (*Soricidae*), ground squirrels (*Sciuridae*), and voles (*Muridae*) are important prey for larger mammals, raptors, and snakes. Several non-game mammals expected to be present in the proposed Project area are listed as state or federally endangered, threatened, candidate species, or as species of special concern. These species are discussed in Section 3.8, Threatened and Endangered Species and Species of Conservation Concern. A list of non-game mammals potentially present along the proposed Project route is found below in Table 3.6-5.

Table 3.6-5 Non-Game Mammals Potentially Present in Proposed Project Area

Species	Occurrence by State			Habitat Type
	MT	SD	NE	
Big brown bat (<i>Eptesicus fuscus</i>)	x	x	x	Habitat generalist
Black-tailed prairie dog (<i>Cynomys ludovicianus</i>) ^a		x		Open, level shortgrass plains
Bushy-tailed woodrat (<i>Neotoma cinerea</i>)	x	x		Crevices where there is a large amount of debris to build a nest; occasionally nests in tree forks
Cinereus shrew (<i>Sorex cinereus</i>)	x	x	x	Damp or moist habitats in coniferous or deciduous forests, grassy bogs, marshes, and other riparian areas with dense overhead plant cover
Deer mouse (<i>Peromyscus maniculatus</i>)	x	x	x	Mixed forests and grasslands
Dwarf shrew (<i>Sorex nanus</i>)	x			Rocky areas and meadows in alpine tundra; In sub-alpine areas, spruce-fir bogs, coniferous forests, sedge marshes, and open woodlands
Eastern mole (<i>Scalopus aquaticus</i>)		x	x	Fields, meadows, pastures, and open woodlands
Eastern pipistrelle (<i>Pipistrellus subflavus</i>)			x	Forested areas
Eastern red bat (<i>Lasiurus borealis</i>)	x	x	x	Forested or shrub areas
Evening bat (<i>Nycticeius humeralis</i>)			x	Forested areas
Fringed myotis (<i>Myotis thysanodes</i>) ^a	x			High elevation forests
Hayden's shrew (<i>Sorex haydeni</i>) ^a	x		x	Grasslands
Hispid cotton rat (<i>Sigmodon hispidus</i>)			x	Dense, grassy areas
Hispid pocket mouse (<i>Chaetodipus hispidus</i>)		x	x	Shortgrass prairies and grasslands
Hoary bat (<i>Lasiurus cinereus</i>) ^a	x	x	x	Edge of coniferous and deciduous forests
Least chipmunk (<i>Tarrius minimus</i>)		x	x	Boreal and temperate forests
Least shrew (<i>Cryptotis parva</i>)			x	Open areas with tallgrass or areas with fallen trees and brush to provide protection
Little brown myotis (<i>Myotis lucifugus</i>)	x		x	Variety of forested habitat near riparian areas; roosts include caves and mines with stable, cool temperatures, slow air currents, and high humidity
Long-eared myotis (<i>Myotis evotis</i>)	x	x		Rock outcroppings and dead trees
Long-legged myotis (<i>Myotis volans</i>)	x	x		Mountainous or relatively rugged areas with a preference for coniferous forests
Long-tailed vole (<i>Microtus longicaudus</i>)	x			Forests, woodlands, grasslands, and prairies
Meadow jumping mouse (<i>Zapus hudsonius</i>) ^a		x	x	Moist grasslands
Meadow vole (<i>Microtus pennsylvanicus</i>)	x	x	x	Grasslands, woodlands, marshes, and along streams and lakes
Merriam's shrew (<i>Sorex merriami</i>)	x			Sagebrush steppe, grassland, brushlands, and woodlands at higher elevations
Nine banded armadillo (<i>Dasyopus novemcinctus</i>)	x	x	x	Bottomland hardwood forests, scrub, and brushlands near water sources
Northern grasshopper mouse (<i>Onychomys leucogaster</i>)	x	x		Shortgrass prairies, sand dunes, and sage brush flats

Species	Occurrence by State			Habitat Type
	MT	SD	NE	
Northern pocket gopher (<i>Thomomys talpoides</i>)		x	x	Fossorial
Northern short-tailed shrew (<i>Blarina brevicauda</i>)			x	Damp bushy woodlands, marshes, and bushy borders of fields
Olive backed pocket mouse (<i>Perognathus fasciatus</i>)		x		Arid and semi-arid upland habitats that include thinly covered grasslands
Plains harvest mouse (<i>Reithrodontomys montanus</i>)			x	Climax and nearly climax, well-drained grasslands
Plains pocket gopher (<i>Geomys bursarius</i>)		x		Open to sparsely wooded areas
Plains pocket mouse (<i>Perognathus flavescens</i>)		x	x	Open habitats of loose, sandy soil with little to moderate vegetation
Prairie vole (<i>Microtus ochrogaster</i>)	x	x	x	Prairies and grasslands
Preble's shrew (<i>Sorex prelei</i>)	x			Sagebrush-grassland habitats
Sagebrush vole (<i>Lemmyscus curtatus</i>)	x	x		Sagebrush flats
Silver-haired bat (<i>Lasionycteris noctivagans</i>)	x	x	x	Grasslands and forests, preferably old-growth
Southern bog lemming (<i>Synaptomys cooperi</i>)			x	Sphagnum bogs and occasionally grasslands
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>) ^a	x	x		Douglas fir and lodgepole pine forests, ponderosa pine woodlands, Utah-juniper sagebrush scrub, and cottonwood bottomlands
Western harvest mouse (<i>Reithrodontomys megalotis</i>)	x	x		Grasslands, prairies, meadows, and marshes
Western small-footed myotis (<i>Myotis ciliolabrum</i>)	x	x	x	Moist areas in rock crevices, caves, mines, or abandoned swallow nests
White-footed mouse (<i>Peromyscus leucopus</i>)	x	x	x	Wooded or brushy areas
Woodchuck (<i>Marmota monax</i>)		x		Low elevation forests, small woodlots, fields, and pastures
Woodland vole (<i>Microtus pinetrum</i>)			x	Deciduous forests
Yellow-bellied marmot (<i>Marmota flaviventris</i>)		x		Moderately warm, dry habitats at low to mid-level elevations

Source: American Society of Mammalogists 2012. IUCNNR 2012. Montana Field Guides 2012. Smithsonian Institute 2012. University of Michigan Museum of Zoology 2012.

^a Species of special concern and potential species of special concern to be addressed in Section 3.8, Threatened and Endangered Species and Species of Conservation Concern.

Raptors and Other Migratory Birds

The proposed Project route falls entirely within the Prairie Avifaunal Biome (Rich et al. 2004). Breeding landbirds in grassland habitats in the Prairie Avifaunal Biome are primarily short-distance migrants, with several species wintering in the southern portions of the proposed Project area, and others overwintering in the southeastern United States and southwestern United States (Rich et al. 2004). Many migratory birds use habitats crossed by the proposed Project route for nesting, migration, and overwintering, with large numbers of species nesting in the northern portion of the Project area. Bald eagles and golden eagles (*Aquila chrysaetos*) and their nests are further protected by the Bald and Golden Eagle Protection Act (16 United States Code 688–688d [a and b]). Bald and golden eagles are discussed in Section 3.8, Threatened and Endangered

Species and Species of Conservation Concern, as are other migratory birds that have been identified for conservation concern. Destruction or disturbance of a migratory bird nest that results in the loss of eggs or young is a violation of the MBTA.

The proposed Project route would cross through two important bird areas (IBAs) as defined by the National Audubon Society (National Audubon 2012). The first (from north to south) is the North Valley Grasslands IBA in Montana, which is considered a globally important site because it supports 15 species of grassland birds, 5 of which are considered globally threatened (Montana Audubon 2012). The site contains one of the largest blocks of intact grasslands in Montana, including rare mixed-grass prairie with porcupinegrass (*Hesperostipa spartea*) and thickspike wheatgrass (*Elymus lanceolatus*). This site supports 73 species of birds including 7 endemic breeding birds: ferruginous hawk (*Buteo regalis*), long-billed curlew (*Numenius americanus*), Sprague's pipit (*Anthus spragueii*), lark bunting (*Calamospiza melanocorys*), Baird's sparrow (*Ammodramus bairdii*), McCown's longspur (*Rhynchophanes mccownii*), and chestnut-collared longspur (*Calcarius ornatus*). Long-billed curlews, Sprague's pipits, and chestnut-collared longspurs occur in this IBA in numbers that exceed the threshold for global significance, and McCown's longspurs and Baird's sparrow numbers occur in this IBA in numbers that exceed the threshold for continental significance (Montana Audubon 2012). Horned larks (*Eremophila alpestris*) and western meadowlarks are especially abundant in this IBA (Montana Audubon 2012).

The second IBA crossed by the proposed Project route is the Rainwater Basin IBA in Nebraska. The area is located in the narrowest portion of the Central Flyway. From mid-February to mid-March, millions of waterfowl use the wetlands and uplands for resting, feeding, and pair bond formation. Typical species abundance includes three to six million snow geese, four million mallards (*Anas platyrhynchos*; 50 percent of the mid-continent population), 900,000 white-fronted geese (*Anser albifrons*; 90 percent of the mid-continent population), 900,000 pintails (*Anas acuta*; 30 percent of the mid-continent population), and millions of other migrating birds (Audubon Nebraska 2012). More than 40 percent of Nebraska's whooping crane (*Grus americana*) sightings have been recorded in this IBA, and, in the fall, more use-days for the species have been recorded than in any other area in the United States. Other notable species recorded in this IBA include greater prairie-chicken (*Tympanuchus cupido*), bobolink (*Dolichonyx oryzivorus*), short-eared owl (*Asio flammeus*), and sandhill cranes (Audubon Nebraska 2012).

The proposed Project route would also cross three bird conservation regions that are ecologically distinct regions in North America with similar bird communities, habitats, and resource management issues, as defined by the U.S. North American Bird Conservation Initiative (USNABCI) (USNABCI 2000). These regions are Prairie Potholes (Region 11), which provides breeding and migratory habitat to over 200 species of birds; Badlands and Prairies (Region 17), which is habitat for some of the healthiest populations of high-priority dry-grassland birds; and Central Mixed Grass Prairie (Region 19), which acts as an important spring migration area (USNABCI 2000).

Aerial surveys of large bird species stick nests were conducted along the proposed Project ROW during spring 2008, 2009, and 2010 and will be continued into 2013 along the route modifications in Montana, South Dakota, and Nebraska. The scope of these surveys is to identify large stick nest sites of raptors and herons in deciduous trees within a 0.25- to 1-mile band from the proposed Project pipeline centerline, and to document locations of all nests (active and

inactive) that could potentially be removed prior to construction (and the nesting season) to avoid direct impacts to nesting birds.

Reptiles

Reptiles are known to exist within all habitat types along the proposed Project route. Species found in the Project area are listed below in Table 3.6-6. Reptiles are important prey for many raptors, small mammals, and other reptiles. Some of these reptiles are considered state-listed species of special concern. These species are discussed in Section 3.8, Threatened and Endangered Species and Species of Conservation Concern.

Table 3.6-6 Reptiles Potentially Present within the Proposed Project Area

Order	Family	Species	MT	SD	NE		
Squamata	Anguillidae	Slender Glass Lizard (<i>Ophisaurus attenuates</i>)			X		
		Coachwhip (<i>Mastiophis flagellum</i>)			X		
	Colubridae	Common Kingsnake (<i>Lampropeltis getula</i>)				X	
		Eastern Glossy Snake (<i>Arizona elegans</i>)				X	
		Eastern Racer (<i>Coluber constrictor</i>)	X	X		X	
		Gopher Snake (<i>Pituophis catenifer</i>)	X	X		X	
		Great Plains Rat Snake (<i>Pantherophis emoryi</i>)				X	
		Milk Snake (<i>Lampropeltis triangulum</i>) ^a	X	X		X	
		Plains Blackhead Snake (<i>Tantilla nigriceps</i>)				X	
		Prairie Kingsnake (<i>Lampropeltis calligaster</i>)				X	
		Smooth Green Snake (<i>Liochlorophis vernalis</i>)	X	X		X	
		Western Fox Snake (<i>Mintonius ramspotti</i>)			X	X	
		Western Rat Snake (<i>Scotophis obsoletus</i>)				X	
		Croalidae	Northern Copperhead (<i>Agkistrodon contortrix</i>)				X
			Prairie Rattlesnake (<i>Crotalus viridis</i>)	X	X		X
			Timber Rattlesnake (<i>Crotalus horridus</i>)				X
			Western Massasauga (<i>Sistrurus catenatus</i>)				X
		Dipsadidae	Eastern Hognose Snake (<i>Heterodon platirhinos</i>)			X	X
			Ringneck Snake (<i>Diadophis punctatus</i>)			X	X
Western Hognose Snake (<i>Heterodon nasicus</i>) ^a	X		X		X		
Western Worm Snake (<i>Carphophis vermis</i>)					X		
Natricidae	Brown Snake (<i>Storeria dekayi</i>)			X	X		
	Common Garter Snake (<i>Thamnophis sirtalis</i>)	X	X		X		
	Graham's Crayfish Snake (<i>Regina grahamii</i>)				X		
	Lined Snake (<i>Tropidoclonion lineatum</i>)			X	X		
	Northern Water Snake (<i>Natrix sipedon</i>)			X	X		
	Plains Garter Snake (<i>Thamnophis radix</i>)	X	X		X		
	Redbelly Snake (<i>Storeria occipitomaculata</i>)			X			
	Western Ribbon Snake (<i>Thamnophis proximus</i>)				X		
Phrynosomatidae	Western Terrestrial Garter Snake (<i>Thamnophis elegans</i>)	X	X		X		
	Lesser Earless Lizard (<i>Holbrookia maculata</i>)			X	X		
	Mountain Short-horned Lizard (<i>Phrynosoma hernandesi</i>) ^a	X	X		X		
	Prairie Lizard (<i>Sceloporus consobrinus</i>)			X	X		
Scincidae	Sagebrush Lizard (<i>Sceloporus graciosus</i>)	X	X		X		
	Five-lined Skink (<i>Plestiodon fasciatus</i>)			X	X		
	Great Plains Skink (<i>Plestiodon obsoletus</i>)				X		
	Many-lined Skink (<i>Plestiodon multivirgatus</i>) ^a			X	X		
	Northern Prairie Skink (<i>Plestiodon septendrialis</i>)			X	X		
Teiidae	Six-lined Racerunner (<i>Aspidoscelis sexlineata</i>)			X	X		

Order	Family	Species	MT	SD	NE
Chelonia	Chelydridae	Common Snapping Turtle (<i>Chelydra serpentina</i>) ^a	x	x	x
	Emydidae	Blanding's Turtle (<i>Emys blandingii</i>)		x	x
		False Map Turtle (<i>Graptemys pseudogeographica</i>)		x	x
		Northern Painted Turtle (<i>Chrysemys picta</i>)	x	x	x
		Ornate Box Turtle (<i>Terrapene ornata</i>) ^a		x	x
		Slider (<i>Trachemys scripta</i>)			x
	Kinosternidae	Yellow Mud Turtle (<i>Kinosternum flavescens</i>)			x
Trionychidae	Smooth Softshell (<i>Apalone mutica</i>)			x	x
	Spiny Softshell (<i>Apalone spinifera</i>) ^a	x	x	x	

Source: Center for North American Herpetology 2012 and the Montana Field Guides 2012.

^a Species of special concern and potential species of special concern to be addressed in Section 3.8, Threatened and Endangered Species and Species of Conservation Concern.

Amphibians

Potential habitat for amphibians in the proposed Project area includes perennial and intermittent stream reaches, wetlands, and ephemeral ponds. Some amphibians expected to be present within the proposed Project area are considered state-listed species of special concern. These species are discussed in Section 3.8, Threatened and Endangered Species and Species of Conservation Concern. A complete list of amphibian species expected to be present in the proposed Project area is found in Table 3.6-7.

Table 3.6-7 Amphibians Potentially Present within the Proposed Project Area

Order	Family	Species	MT	SD	NE	
Caudata	Ambystomidae	Barred Tiger Salamander (<i>Ambystoma mavortium</i>)	x	x	x	
		Eastern Tiger Salamander (<i>Ambystoma tigrinum</i>)			x	
		Smallmouth Salamander (<i>Ambystoma texanum</i>)			x	
	Proteidae	Common Mudpuppy (<i>Necturus maculosus</i>)		x		
Salientia	Bufonidae	American Toad (<i>Anaxyrus americanus</i>)		x	x	
		Canadian Toad (<i>Anaxyrus hemiophrys</i>)		x		
		Great Plains Toad (<i>Anaxyrus cognatus</i>) ^a	x	x	x	
		Woodhouse Toad (<i>Anaxyrus woodhousii</i>)	x	x	x	
	Hylidae	Blanchard's Cricket Frog (<i>Acris blanchardii</i>)			x	x
		Cope's Gray Tree Frog (<i>Hyla chrysoscelis</i>)			x	x
		Eastern Gray Tree Frog (<i>Hyla vesicularis</i>)			x	x
		Northern Cricket Frog (<i>Acris crepitans</i>)				x
			Ornate Chorus Frog (<i>Pseudacris maculata</i>)	x	x	x
	Microhylidae	Great Plains Narrowmouth Toad (<i>Gastrophryne olivacea</i>)				x
Ranidae	Bullfrog (<i>Lithobates catesbeianus</i>)	x	x	x		
	Northern Leopard Frog (<i>Lithobates pipiens</i>) ^a	x	x	x		
	Plains Leopard Frog (<i>Lithobates blairi</i>)		x	x		
	Wood Frog (<i>Lithobates sylvaticus</i>)		x			
Scaphiopodidae	Central Plains Spadefoot Toad (<i>Scaphiopus bombifrons</i>)		x	x		
	Plains Spadefoot (<i>Spea bombifrons</i>)	x				

Source: Center for North American Herpetology 2012 and the Montana Field Guides 2012.

^a Species of special concern and potential species of special concern to be addressed in Section 3.8, Threatened and Endangered Species.

Invertebrates

Montana, South Dakota, and Nebraska are home to tens of thousands of invertebrate species. Many different types of invertebrates occur within the proposed Project area including bees, beetles, butterflies, cicadas, crustaceans, earthworms, grasshoppers, hornets, moths, and spiders; these species are food for birds, amphibians, reptiles, and small mammals. Among these species are 24 insects on Nebraska's Natural Heritage Elements list, including the American burying beetle (Nebraska's only federally endangered insect), 4 species of tiger beetles, and 18 species of butterflies (Hoback 2005); 83 species on Montana's Wildlife Action Plan (Montana Natural Heritage Program and Montana Fish Wildlife and Parks 2009); and 29 species on South Dakota's Wildlife Action Plan (South Dakota Game, Fish, and Parks 2012). Species of concern are addressed in Section 3.8, Threatened and Endangered Species and Species of Conservation Concern.

3.6.3 Connected Actions

There are three connected actions in the vicinity of the proposed Pipeline route:

- Bakken Marketlink Project;
- Big Bend to Witten 230-kilovolt (kV) Transmission Line; and
- Electrical Distribution Lines and Substations.

The wildlife resources found along and in the proposed connected action project areas are similar to the wildlife resources of the proposed pipeline corridor itself. Connected actions are more fully addressed in Section 4.6.5, Connected Actions, but described briefly here. The Bakken Marketlink Project would involve the construction and operation of metering systems, three new storage tanks near Baker, Montana, and two new storage tanks within the boundaries of the proposed Cushing tank farm. The Big Bend to Witten 230-kV Transmission Line would provide upgrades to the power grid in South Dakota to support power requirements for pump stations in South Dakota. The third connected action is associated with the electrical distribution lines and substations that would be required throughout the length of the proposed Project corridor to support pump stations and other integral Project-related ancillary facilities. All three of the connected actions have the potential to affect wildlife described in Section 3.6.2, Environmental Setting, above.

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