

Wildlife

Migratory Birds

Introduction

Neotropical migratory birds (NTMB) are defined as those birds that regularly winter south of the Tropic of Cancer and summer in North America. In 1988, an amendment to the Fish and Wildlife Conservation Act mandated the USFWS to “identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973.” The report, “Birds of Conservation Concern 2002,” identified the migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that represent the highest conservation priority. In the report, the United States is broken down into Bird Conservation Regions (BCRs), with bird species of conservation concern identified for each region. The Swan Valley is located in BCR 10. The bird species of conservation concern for the Mid Swan Blowdown Salvage Project Area are listed in Table 3-60. Table 3-61 lists other neotropical migratory birds with declining population trends. The bird species listed in Table 3-60 are associated with forest habitats.

TABLE 3-60.
NORTHERN ROCKIES “BIRDS OF CONSERVATION CONCERN”

Bird Name	General Habitat Summary	Relative Abundance on FNF
Swainson’s Hawk	Plains, prairies; open pine-oak woodlands; cultivated lands.	Rare
Ferruginous Hawk	Semi-arid plains and arid intermountain regions; tall trees along creek bottoms.	Rare
Golden Eagle	Open country; open coniferous forests.	Uncommon
Peregrine Falcon+	Open country with rocky cliffs and ledges near water.	Rare
Prairie Falcon	Open country with canyons, cliffs; foothills.	Rare
Yellow Rail	Marshes, wet meadows; highly secretive.	Rare
Lesser (American) Golden-Plover	Dry, grassy tundra above treeline.	Rare
Snowy Plover	Sandy, coastal beaches; alkali ponds.	N/A
Mountain Plover	Short grass prairie/sagebrush; high plains and arid areas.	N/A
Solitary Sandpiper	Muskegs in coniferous forest belt of boreal and subarctic.	Rare
Upland Sandpiper	Open grasslands.	Rare
Whimbrel	Marshes, mudflats, shores, and prairies.	N/A
Long-billed Curlew	Moist to dry grasslands and meadows.	Uncommon
Marbled Godwit	Prairies, meadows, and pastures.	Rare
Sanderling	High arctic tundra.	N/A
Wilson’s Phalarope	Sloughs and ponds; prairies with small glacial potholes.	Uncommon
Yellow-billed Cuckoo	Woods and brush.	N/A
Flammulated Owl	Open ponderosa pine; mixed forest.	Occasional
Black Swift	Crevices or ledges on rocky cliffs; near waterfalls.	Rare
Lewis’s Woodpecker	Open or park-like ponderosa pine; areas w/ scattered trees.	Occasional
Williamson’s Sapsucker	Pine forests; higher elevations.	Uncommon
Red-naped (Yellow-bellied) Sapsucker	Coniferous forests; usually where aspen is present.	Common
White-headed Woodpecker	Pines and firs; open ponderosa pine forest; large trees with 40-70% canopy.	Rare
Loggerhead Shrike	Open country with scattered shrubs or small trees.	Occasional

TABLE 3-60.
NORTHERN ROCKIES “BIRDS OF CONSERVATION CONCERN”

Bird Name	General Habitat Summary	Relative Abundance on FNF
Pygmy Nuthatch	Pine forests; open park-like conditions; ponderosa pine.	Common
Virginia’s Warbler	Arid, montane, woodlands; 6,000-9,000 feet;	N/A
Brewer’s Sparrow	Open, shrub-dominated habitats.	Uncommon
McCown’s Longspur	Dry, short grass prairie.	N/A

† Flathead NF Sensitive Species

TABLE 3-61.
NEOTROPICAL MIGRATORY BIRDS WITH DECLINING POPULATION TRENDS
ASSOCIATED WITH FOREST HABITATS

Bird Name	General Habitat Summary	Old-Growth Associate	Snag Nester	Riparian Associate
Mourning Dove	Cottonwoods, edges, farmland			
Sharp-shinned Hawk	Dense forests			
Cooper’s Hawk	Mature conifers/deciduous			
American Kestrel	Open ponderosa pine/cottonwood		X	
Flammulated Owl†	Open ponderosa pine/mixed forest	X	X	
Common Nighthawk	Open forests, grasslands			
Vaux’s Swift	Forests of large trees with openings	X	X	
Eastern Kingbird	Farmland, riparian bottomlands			X
Olive-sided Flycatcher	Logged or burned forests		X	
Western Wood-pewee	Open conifer forests			
Hammond’s Flycatcher	Tall trees with closed canopies	X		
Cordilleran Flycatcher	Conifers/deciduous			
Northern Oriole	Tall shrubs and trees near streams			X
Cassin’s Finch	Conifer forests/early post-fire forest			
Chipping Sparrow	Open dry forests, edges			
Black-headed Grosbeak	Cut-over forests, riparian thickets/forests			X
Western Tanager	Dry, open mature conifers		X	
Red-eyed Vireo	Aspen, cottonwood, riparian habitat			X
Solitary Vireo	Young conifer forests, logged areas			
MacGillivray’s Warbler	Moist conifer forests, dense shrubs			X
American Redstart	Riparian shrubs, aspen, cottonwood			X
Yellow-rumped Warbler	Young to mature open forest, edges			
Wilson’s Warbler	Riparian thickets, willow			X
Gray Catbird	Dense riparian shrubs			X
Ruby-crowned Kinglet	Tall conifers with dense canopy			
Veery	Deciduous riparian forest			X
Swainson’s Thrush	Conifer forests with dense shrubs	X		X
Western Bluebird	Open forests, edges, roadsides		X	

† Flathead NF Sensitive Species

Two habitats are especially important to bird species:

1. Riparian habitat, because of the availability of water and the variety of plant communities, and
2. Old growth habitat, which has the highest density and diversity of birds nesting in tree cavities (McClelland and Schmidt 1995).

In addition, snags, broken-topped live trees, downed logs, and other woody material are required by a wide variety of these bird species for nesting, roosting, perching, feeding, and cover.

Analysis Area

Spatial Bounds

The Mid Swan Blowdown Salvage Project Area was considered for the evaluation of direct and indirect effects on migratory bird species. This approximately 4,480 acre area is large enough to include the home ranges of several individuals or pairs of a species, and is representative of the effects of fire, natural tree mortality, timber harvest, and road management across the landscape. The actions proposed in the alternatives that could directly or indirectly affect migratory bird species are contained within this area. The Upper Swan Valley was considered in the cumulative effects analysis.

Temporal Bounds

The length of time for effects from the proposed salvage treatment is approximately 3 to 5 years. This is based on the probable contract length for the proposed salvage project, and the time frames for related activities.

Data Sources, Methods, & Assumptions Used

Data used included aerial photography, Vector Map (VMAP) Data, field surveys of snags, old growth surveys, project area field visits, research literature, and GIS and dataset information

Measurement Indicators

The effects analysis will focus on: 1) effects to bird habitat, concentrating on riparian, old growth, and snag and down woody habitats, and 2) potential effects to bird populations.

Affected Environment

Historic Conditions

Forest ecosystems in the western United States have adapted in response to disturbances such as wildfire, insects, disease, and windstorms. A wide diversity of habitats existed across the landscape, providing habitat for a diverse suite of NTMB.

Historically, some habitats may have occurred in greater abundance on the landscape than now (e.g., snag and down woody habitat and old growth habitat). Population trends for different bird species have generally followed the distribution and amounts of the different preferred habitats. For example, the olive-sided flycatcher and Cassin's finch are associated with post-fire habitats and would have been abundant in areas where there was a large, stand replacing fire event. Species associated with

open forests, such as the western tanager, Vaux's swift, chipping sparrow, yellow-rumped warbler and western wood pewee, would have been found more in areas that experienced frequent, low-intensity fires that re-initiated the understory, but did not consume all of the large trees. Birds associated with dense forests, such as the sharp-shinned hawk, Cooper's hawk, or ruby-crowned kinglet, would have preferred older, closed canopy forest habitats.

Existing Conditions

Generally, bird populations that breed in the western United States appear to be suffering from forest fragmentation in breeding habitat (Hejl et al. 1995). Timber harvest and excessive tree mortality may contribute to short-term fragmentation (Rotenberry et al. 1995, Hejl et al. 2002). Problems associated with forest fragmentation include overall habitat loss, an increase in edge habitat and edge effects, isolation effects, and increased vulnerability to predators (Finch 1991).

The Swan Valley provides a considerable diversity of habitats for NTMB, including riparian areas, old growth habitat, and snag habitat. For more information on the existing condition of old growth habitats and snag habitat in the project area, refer to those separate sections.

Environmental Consequences

The Mid Swan Project consists of three action alternatives and a No Action Alternative. The alternatives are described in detail in Chapter 2 of this EA. The Cumulative Effects Worksheet, located in the Wildlife Project File (Project File Exhibit F-7) considers and describes proposed activities in addition to the past, current, and reasonably foreseeable activities listed at the beginning of this chapter in Tables 3-1 and 3-2. Those activities that cumulatively contribute indiscernible effects to Migratory Bird Species are not included in this section. Those activities that cumulatively affect these species are listed below

Alternative A - No Action Direct, Indirect, and Cumulative Effects

Under this alternative, there would be no blowdown salvage. This alternative would leave habitats across the analysis area to continue with natural vegetative processes. Riparian areas and older forest stands would continue to provide important habitat for migratory birds, and there would be no direct reduction in the amount of down woody habitat or snags as a result of management activities. A wide variety of habitats would be available across the Upper Swan Valley to support multiple species of NTMB.

Indirectly, if a wildfire were to occur within areas where there are large accumulations of down woody material as a result of the recent wind event, fire intensity in those areas could increase the chance for a stand replacement fire. This would depend on the age and condition of the down woody material at the time, as well as temperature, winds, geography, and other factors. An increase in wildfire potential would benefit bird species that are associated with open conditions or snag habitat. On the other hand, an increase in the potential for large, stand replacement fires would be negative for bird species that are associated with mature forest or closed canopy conditions.

Fragmentation of forested habitats on private lands in the area would probably continue. Many of these lands are being acquired by the Forest Service or sold under conservation easements, which would help to decrease further fragmentation in the area.

No significant cumulative effects to NTMB are anticipated with implementation of Alternative A.

Alternatives B Direct and Indirect Effects

Canopy Cover

The proposed salvage of blowdown trees would not directly affect the condition of the forest canopy in the proposed units. The characteristics of closed canopy versus open canopy were affected by the wind event itself. As an example, there would be negative effects from the wind event to the ruby-crowned kinglet, which prefers closed canopy conditions. Conversely, a wind event that opens up the overstory would produce positive effects for the yellow-rumped warbler, the western tanager, and the flammulated owl. Habitats shift over time with dynamics in age class, composition, and structure changing naturally. Bird populations in the Swan Valley have adapted to this change with numbers of different species increasing or decreasing, depending on the availability of open forest, dense cover, old growth, snags, riparian habitats, or brush. If a variety of habitat conditions are maintained across the landscape, including old growth forest, riparian habitats, sufficient downed wood, understory trees, and windfirm live trees and snags, adequate habitat can be maintained. Alternative B would not significantly change the amount or juxtaposition of open forest/dense forest across the Upper Swan Valley.

Snag/Down Woody Habitat

Reducing the amount of snags or down woody material can remove habitat features that are essential or very important to many bird species (Bull et al. 2005). Research suggests that retaining the bulk of the largest material may decrease these effects (Bull and Blumton 1999, Porter et al. 2005). Although a proportion of snags and downed wood would be retained under Alternative B, there would still be a decrease in the amount of snags and down woody material from the existing condition. However, Design Criteria for down woody debris and snag retention should maintain these habitat components at levels which meet or exceed minimum Forest Plan standards in this regard. For more information, see the Snag and Down Woody Associated Species Section.

Old Growth and Riparian Habitat

Under Alternative B, salvage of blowdown is proposed in both riparian and old growth habitats. There would be a decrease in the amount of down woody material and snags in these habitats. In the salvage units proposed in old growth habitat, no snags would be marked for removal. There may be incidental loss of snag habitat due to salvage activities, but most of the snags in the old growth units would be retained.

Habitat Displacement/Mortality

It is possible, under Alternative B, that project implementation would directly affect neotropical migratory birds through disturbance and/or occasional mortality associated with project activities. There is the potential that salvage activities may disrupt nesting activity and foraging activity, or that proposed activities would directly contribute to nest failure. Displacement of bird species would be short-term, probably one year (season) or less. Potential negative affects to nesting would be decreased by logging restrictions in grizzly bear spring habitats from April 1 to June 15. This timing restriction would apply to all salvage units in Alternative B (See Design Criteria, Table 2-14).

Temporary Roads

There is 0.3 miles of temporary road and 1.0 mile of use of historic templates proposed in Alternative B. Temporary road construction may remove site specific bird habitat (e.g., trees, brush), or displace birds from the area during the actual construction of the temporary road.

Alternative C
Direct and Indirect Effects

Canopy Cover

The proposed salvage of blowdown trees would not directly affect the condition of the forest canopy in the proposed units. Alternative C would not significantly change the amount or juxtaposition of open forest/dense forest across the Upper Swan Valley.

Snag/Down Woody Habitat

Reducing the amount of snags or down woody material can remove habitat features that are essential or very important to many bird species (Bull et al. 2005). Research suggests that retaining the bulk of the largest material may decrease these effects (Bull and Blumton 1999, Porter et al. 2005). Although a proportion of snags and downed wood would be retained under Alternative C, there would still be a decrease in the amount of snags and down woody material from the existing condition. However, Design Criteria for down woody debris and snag retention should maintain these habitat components at levels which meet or exceed minimum Forest Plan standards in this regard. For more information, see the Snag and Down Woody Associated Species Section.

Old Growth Habitat

Under Alternative C, there is no proposed salvage of blowdown in important old growth habitats. There would be no decrease in the amount of down woody material or snags in these habitats.

Riparian Habitat

Under Alternative C, salvage of blowdown is proposed in RHCA's. There would be a decrease in the amount of down woody material and snags in these habitats.

Habitat Displacement/Mortality

It is possible, under Alternative C, that project implementation would directly affect migratory birds through disturbance and/or occasional mortality associated with project activities. There is the potential that salvage activities may disrupt nesting activity and foraging activity, or that proposed activities would directly contribute to nest failure. Displacement of bird species would be short-term, probably 1 year (season) or less. Potential negative effects to nesting would be decreased by logging restrictions in grizzly bear spring habitats from April 1 to June 15. This timing restriction would apply to all salvage units in Alternative C.

Temporary Roads

There are 0.5 miles of use of historic templates proposed in Alternative C. Temporary road construction may remove site specific bird habitat (e.g. trees, brush), or displace birds from the area during the actual construction of the temporary road.

Alternative D Direct and Indirect Effects

Canopy Cover

The proposed salvage of blowdown trees would not directly affect the condition of the forest canopy in the proposed units. Alternative D would not significantly change the amount or juxtaposition of open forest/dense forest across the Upper Swan Valley.

Snag/Down Woody Habitat

Reducing the amount of snags or down woody material can remove habitat features that are essential or very important to many bird species (Bull et al. 2005). Research suggests that retaining the bulk of the largest material may decrease these effects (Bull and Blumton 1999, Porter et al. 2005). Although a proportion of snags and downed wood would be retained under Alternative D, there would still be a decrease in the amount of snags and down woody material from the existing condition. However, Design Criteria for down woody debris and snag retention should maintain these habitat components at levels which meet or exceed minimum Forest Plan standards in this regard. For more information, see the Snag and Down Woody Associated Species Section.

Old Growth Habitat

Under Alternative D, salvage of blowdown is proposed in old growth habitats. There would be a decrease in the amount of down woody material and snags. In the salvage units proposed in old growth habitat, no snags would be marked for removal. There may be incidental loss of snag habitat due to salvage activities, but most of the snags in the old growth units would be retained.

Riparian Habitat

Under Alternative D, there would be no salvage of blowdown proposed in RHCA's. This would help to minimize disturbance of migratory birds in important riparian habitats.

Habitat Displacement/Mortality

It is possible, under Alternative D, that project implementation would directly affect migratory birds through disturbance and/or occasional mortality associated with project activities. There is the potential that salvage activities could disrupt nesting activity and foraging activity, or that proposed activities would directly contribute to nest failure. Displacement of bird species would be short-term, probably one year (season) or less. Potential negative affects to nesting would be decreased by logging restrictions in grizzly bear spring habitats from April 1 to June 15. This timing restriction would apply to all salvage units in Alternative D.

Temporary Roads

Approximately 0.1 miles of temporary road construction and 1.0 mile of use of historic road templates would be needed to access treatment units in Alternative D. Temporary road construction could remove site specific bird habitat (e.g. trees, brush), or displace birds from the area during the actual construction of the temporary road.

Alternatives B, C, and D Cumulative Effects

There is part-year and yearlong residences in the area, as well as other established human activities. Timber harvest activities on PCTC lands and on NFS lands in the Mid Swan Blowdown Salvage Project Area peaked during the mid to late 1980s, although timber harvest has continued up to the present on all ownership lands. There are other ongoing and planned timber harvest projects on NFS lands in the in the Upper Swan Valley, including the Cooney McKay and the Meadow Smith Projects. Cumulative effects in the Mid Swan Blowdown Salvage Analysis Area would include the effects of these other projects on NFS lands, as well as on-going and proposed timber harvest on PCTC lands.

Recently, PCTC has offered up tracts of land in the southern portion of the Swan Valley for sale to the Forest Service, conservation buyers, or other private individuals. For more detail on this, reference the Lands Section of this EA. There is a concern that an increase in private parcels of land in the Swan Valley could further fragment wildlife habitat. Many of the land sales by PCTC have been to conservation buyers, which should help mitigate the risks associated with private land development. The acquisition of lands by the Forest Service has helped to maintain natural landscape linkages and to reduce the risk of private land development. Past land management activities in the area, including timber management, road construction, residential development, and agricultural conversion, have decreased and/or fragmented forested habitats.

While factors outside of the Forest Service's control (e.g., deforestation of tropical wintering grounds, drought, exotic species, parasitic species) may have negative effects on neotropical migrants, the actions taken in the Mid Swan Blowdown Salvage Project are not expected to contribute significantly to negative effects on migratory birds because sufficient habitat for a broad suite of NTMB's would be maintained. For more information about wildlife habitat conditions across the Flathead National Forest, relevant to migratory birds, reference the FEIS for the Flathead's Forest Plan Amendment 21 (USFS 1999), and the Flathead National Forest Evaluation and Compliance With NFMA Requirements/Diversity Document (Project File Exhibit F-4).

Regulatory Framework and Consistency

The 1988 amendment to the Fish and Wildlife Conservation Act mandates the USFWS to "identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973."

The Migratory Bird Treaty Act (MBTA) implements various treaties and conventions between the United States, Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Under the Act, taking, killing, or possessing migratory birds, including nests and eggs, is unlawful. A list of NTMB protected by the MBTA is provided in 50 CFR 10.13.

In January 2001, an executive order (EO) was signed outlining responsibilities of Federal agencies to protect migratory birds under the MBTA (EO 13186). The report, "Birds of Conservation Concern 2002," is the USFWS's most recent effort to carry out this mandate and to meet their responsibilities under the 1988 amendment. The overall goal of this report is to accurately identify the migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that represent the highest conservation priority. In the report, the United States is broken down into Bird Conservation Regions (BCR's), with bird species of conservation concern identified for each region. The Flathead National Forest is located in BCR 10. It is recommended that the Bird Conservation Regional lists, with bird species of conservation concern, be consulted in accordance with EO 13186, "Responsibilities of Federal Agencies to Protect Migratory Birds."

As a complimentary measure to EO 13186, the Forest Service and the USFWS entered into a Memorandum of Understanding (MOU). The purpose of this MOU is to strengthen migratory bird conservation through enhanced collaboration between the agencies, in coordination with State, Tribal, and local governments.

Some migratory birds are covered by state hunting regulations; others are protected by non-game status with the MDFWP. There are currently no Flathead Forest Plan Standards specific to migratory birds. The flammulated owl and the peregrine falcon are Forest sensitive species, and are discussed in the Biological Evaluation for the Mid Swan Blowdown Salvage Project (Project File Exhibit F-1).

No substantial loss of migratory bird habitat is expected by implementing this project. The intent of the MBTA, the 2001 EO, and the MOU to conserve and protect NTMB, would be met under the action alternatives. Alternatives A, C, and D would be less impactful to migratory bird species than Alternative B; they do not propose salvage activities in important old growth or riparian habitats.

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