

**Federally Listed
Threatened and Endangered Species
Biological Assessment**

for the

**Rainy Lake Bike Trail Extension:
Voyageurs National Park**

July 18, 2006

**Voyageurs National Park
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TABLE OF CONTENTS

DESCRIPTION OF PROPOSED ACTION	62
DESCRIPTION OF PROJECT AREA	62
DESCRIPTION OF LISTED SPECIES and EFFECTS	47
Bald eagle.....	47
Gray wolf	48
Canada lynx	49
LITERATURE CITED	65

DESCRIPTION OF PROPOSED ACTION

Voyageurs National Park (VOYA), in cooperation with local and county governments, proposes to expand a scenic bike trail along the Rainy Lake Visitor Center Road, Koochiching County, MN. The bike trail right- of- way, i.e., area of impact, will be less than 30' (~10m). The bike trail will be an asphalt surface approximately 5' wide. At present (July 18, 2006), there are three proposed alternatives for bike trail extension: 1) a trail winding through the woods on the north side of the road, 2) a trail winding through the woods on the south side of the road, and 3) a trail running along an expanded shoulder of the existing road. Some filling of wetlands and blasting of rock will be required under all three alternatives. The effects of all three alternatives on the three federally listed species for VOYA are considered similar and are not treated separately in this biological assessment.

DESCRIPTION OF PROJECT AREA

The project area is a 200ha (500ac) tract of NPS- owned land acquired in the 1980s to allow construction and access to a NPS visitor center and marina on Rainy Lake (Figure 1). This tract lies to the south of MN State Highway 11 and Koochiching County Road 96 (paved) bisects the tract. Two township roads spur off of CR96.

VOYA currently maintains both a hiking/snowshoe trail (Oberholtzer Trail) and cross- country ski trail that connects to a State- operated ski trail (Tilson Ski Trail) to the west. Both of the trails originate near the Rainy Lake Visitor Center.

Vegetation community composition in the project area is quite representative of the vegetation elsewhere in Voyageurs National Park. Spruce- fir- aspen forest types are predominant with pine- dominated systems occurring on some of the drier or rocky sites (Figure 2). As with most of the rest of the forested land in Voyageurs National Park, forests in the project area have been heavily impacted by historic logging. These forests were further altered up until the NPS acquired the land as this land was managed for timber production by the State of Minnesota. Two small wetland complexes are wholly contained within the project area, though only one, a fen complex surrounded by an alder swamp, actually falls within the impact zone along the current road corridor.

DESCRIPTION OF LISTED SPECIES and EFFECTS

Bald eagle

Population status: Abundance and productivity of breeding eagles has been recorded in VOYA waters and some adjacent areas since 1973. Number of breeding pairs in this study area has varied around 50 in recent years (Voyageurs National Park, unpubl. data).

Nesting habitat: The closest active (2005) nests to the project area are located in Black Bay, >2.5km distant (Figure 3). There are 2 other nests that were active in 2005 that are within 3.5km of some portion of the project area. Bald eagles in Voyageurs National Park prefer nesting in supercanopy white pines <100m from shore on isolated islands or points adjacent to islands (Grim and Kallemeyn 1995, Lee Grim, Voyageurs National Park, pers. comm.). No active bald eagle nests have been observed within 2.5km of the project area since monitoring began in 1973 (Grim and Kallemeyn 1995). We therefore consider potential nesting habitat within the project area and adjacent areas as minimal.

Foraging habitat: The project area contains virtually no foraging habitat for eagles within the boundaries of federally- owned land. Though the entire project area is bounded by Black Bay (Rainy Lake) and contains more than 3.5km of shoreline within the defined boundaries of the Park, all of this shoreline is >1.5km from the nearest eagle nests, the commonly accepted maximum foraging distance for breeding eagles in northern climates (Mahaffy and Frenzel 1987, Livingston et al. 1990, Lee Grim, Voyageurs National Park, pers. comm.).

Determination of Effect: Not Likely to Adversely Affect

There were no active bald eagle nests within a 2.5km radius of the proposed project area in 2005, and potential nesting habitat is minimal within the impact area. Because of this, and the fact that no eagle foraging habitat will be directly affected by the proposed project, the immediate and cumulative effects on eagles are expected to be insignificant.

Gray wolf

Population status:

Wolf abundance in recent years within VOYA has stabilized around 46- 55 animals in 6 to 8 packs (Fox 2001; Fox 2006). Tracking surveys and casual observations by VNP staff and visitors during Winter 2005 suggest that at least one pack of 3- 4 wolves contains the project area within their territory (Fox 2006).

Prey habitat:

White- tailed deer (*Odocoileus virginianus*) are the primary prey for gray wolves in VNP. Within the Federally- owned portion of the project area, foraging habitat for white- tailed deer is minimal, as no significant habitat disturbance has occurred in the last 20 years. Thermal cover for overwintering deer, in the form of dense conifer such as balsam fir or spruce, is also limited (Figure 2).

Critical Habitat

The project area is not within the designated critical habitat for wolves (the boundary starts on the east side of Black Bay, just across from the Rainy Lake Visitor Center).

Determination of Effect: Not Likely to Adversely Affect

The relative size of wolf territories to the project area, and more specifically to the impact area, is rather large, i.e., the vast majority of the territory utilized by resident wolves will remain unaffected by the construction and use of the bike trail. Further, wolves in Minnesota readily adapt to human presence, evidenced by the existence of a wolf pack that currently uses this semi- developed area, and therefore the increased human use expected along the bike trail corridor should have a negligible effect on wolves. The immediate effects and cumulative effects on wolves are expected to be insignificant.

Canada lynx

Population status:

Lynx tracking surveys in the project area by VOYA staff during Winters 2004- 2006 have not produced any verified evidence of lynx presence. However, VNP staff did collect DNA evidence of a female lynx in March 2003 near the Rainy Lake Visitor Center and other verified sightings were reported in the area in 2002 and 2003 (Figure 4). Therefore, there is a possibility that at least one Canada lynx may be using the project area as part of their territory.

Lynx Habitat

Based on habitat use patterns observed in an ongoing study of lynx ecology in the Superior National Forest, lynx prefer habitats with dense understory cover as primary foraging habitat (Moen et al. 2004). Active dens of female lynx located in the Superior National Forest in recent years have been in mature stands with some large trees in both upland and lowland areas, and typically in areas that experienced some windthrow (Ron Moen, Natural Resources Research Institute, 2006, pers. comm.). All of the project area has been designated as Critical Lynx Habitat by the USFWS.

Determination of Effect: Not Likely to Adversely Affect

Despite several confirmed sightings of lynx in or near the project area from 2002- 2004, no confirmed or unconfirmed sightings have been reported since. However, this should not be interpreted to mean one or more lynx are not presently using the area but instead that we have not been able to verify their presence since 2004.

Preliminary evidence from radio- collared lynx in northeastern Minnesota suggests that lynx move regularly across roads (even paved, two- lane highways) and trails (snowmobile, hiking, etc; Ron Moen, Natural Resources Research Institute, pers. comm.). Therefore, the impact of a narrow, paved bike trail along an existing road corridor to lynx movements is considered discountable.

Suitable denning habitat for lynx in the project area, defined as mature stands of trees with recent evidence of windthrow, does not exist within the project area. The proposed project will not adversely modify lynx critical habitat because of the location of the bike trail along an existing disturbance corridor (i.e., paved road) and the extremely small acreage of habitat affected by the bike trail and its construction. No other construction is currently planned within the project area. Continued expansion

of homes and seasonal cabins adjacent to the project area (i.e., outside of NPS boundaries) is expected to increase over the next 10- 20 years. Cumulative impacts are considered discountable.

LITERATURE CITED

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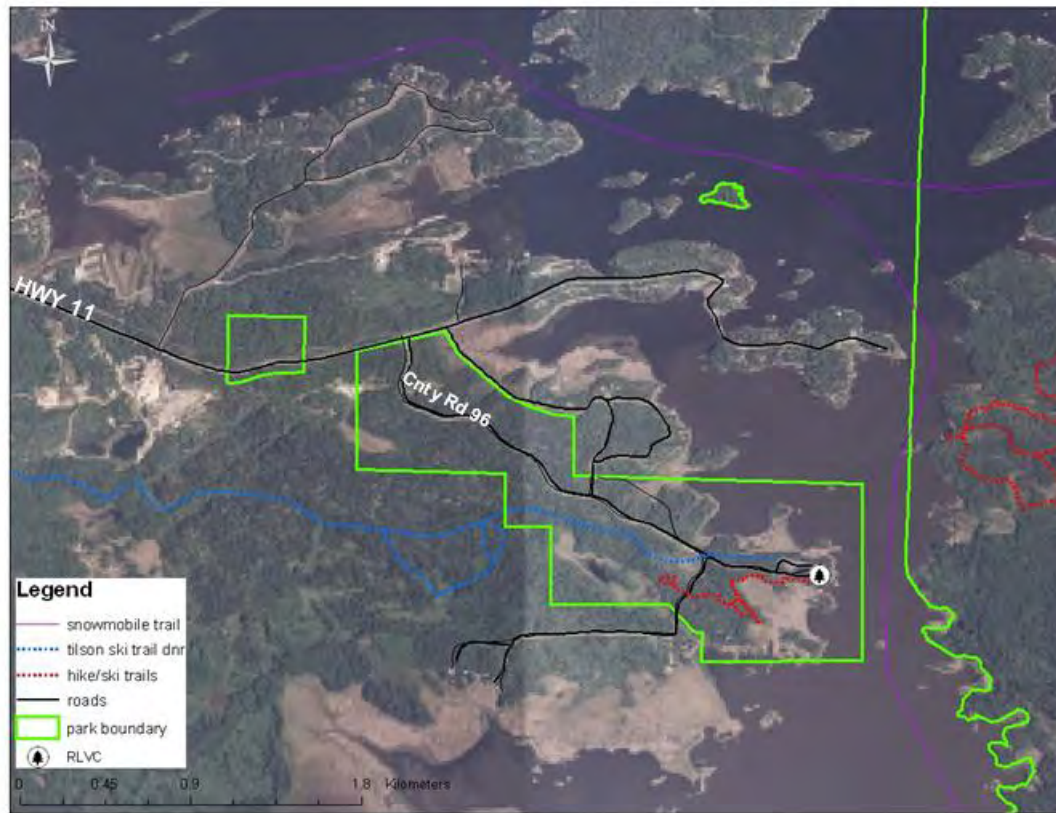


Figure 1. Aerial photo of project area for Rainy Lake Visitor Center Bike Trail extension showing location of visitor center, county and township roads, and trails.

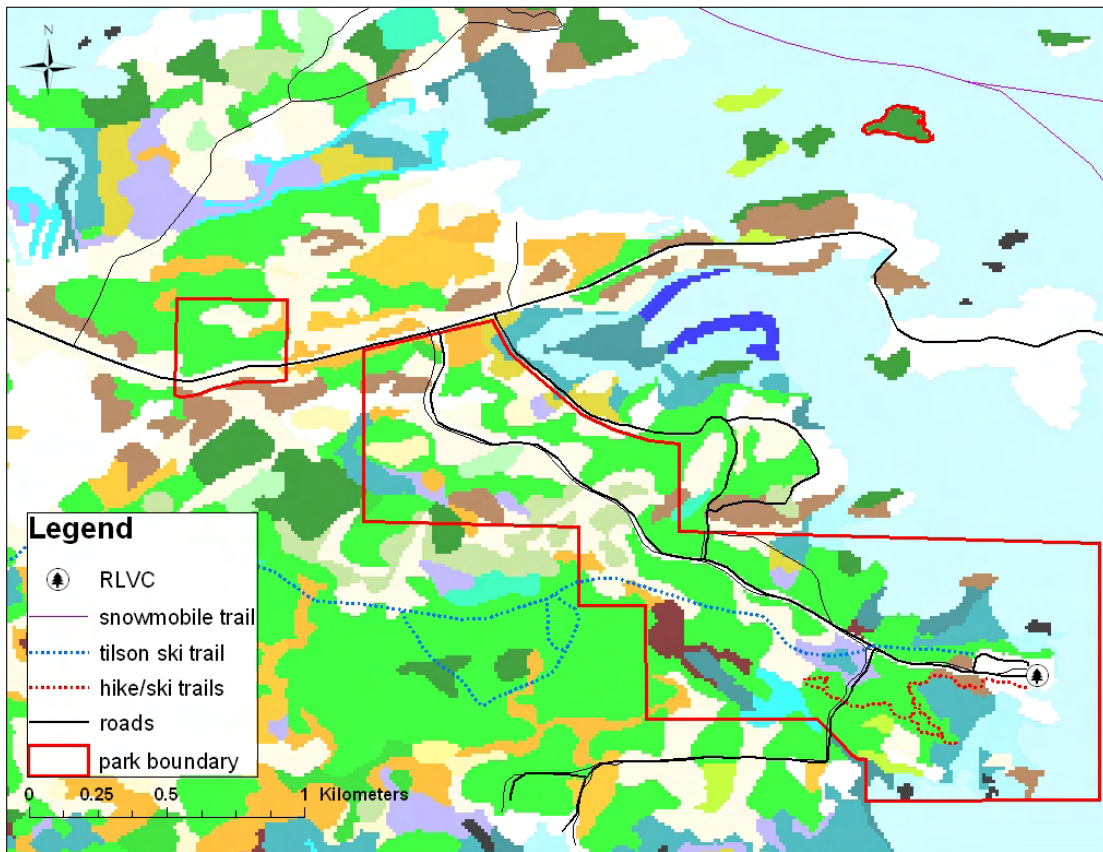


Figure 2. Forest vegetation associations in project area for Rainy Lake Visitor Center Bike Trail extension. See attached legend.

Legend for Figure 2

	Leatherleaf - Sweet Gale Shore Fen
	Leatherleaf Bog
	Black Spruce Bog
	Northern Sedge Poor Fen
	Tamarack Scrub Poor Fen
	Lakes, Ponds, and Streams (non-NVCS)
	Midwest Cattail Deep Marsh
	Midwest Pondweed Submerged Aquatic Wetland Association
	Mosaic (3 saturated Dwarf-shrubland Associations AND 3 wetland Herbaceous Associations)
	Mosaic/Complex (5 wetland Herbaceous Associations)
	Mosaic/Complex (7 wetland Herbaceous Associations)
	Wild Rice Marsh
	Northern Water Lily Aquatic Wetland
	Eastern Reed Marsh
	Freshwater Bulrush Marsh
	Speckled Alder Swamp
	Aspen - Birch / Boreal Conifer Forest AND/OR Aspen - Birch - Red Maple Forest
	Trembling Aspen - Balsam Poplar Lowland Forest
	Mixed Aspen Rocky Woodland
	Paper Birch / Fir Forest
	Bog Birch - Willow Shore Fen
	Dogwood - Pussy Willow Swamp
	Boreal Hazelnut - Serviceberry Rocky Shrubland
	Black Ash - Mixed Hardwood Swamp
	Northern Bur Oak Mesic Forest
	Northern Pin Oak - Bur Oak - (Jack Pine) Rocky Woodland
	Black Spruce / Alder Rich Swamp
	Black Spruce / Feathermoss Forest
	Black Spruce / Labrador Tea Poor Swamp
	Black Spruce / Leatherleaf Semi-treed Bog
	Boreal Pine Rocky Woodland
	Jack Pine / Balsam Fir Forest
	Jack Pine / Lichen Rocky Barrens
	Mosaic (Jack Pine / Balsam Fir Forest Association AND Quaking Aspen - Paper Birch Forest Alliance)
	Northern Tamarack Rich Swamp
	Red Pine / Blueberry Dry Forest
	Spruce - Fir - Aspen Forest AND/OR Black Spruce - Aspen Forest
	Spruce - Fir / Mountain Maple Forest
	White Cedar - (Mixed Conifer) / Alder Swamp
	White Cedar - Black Ash Swamp
	White Cedar - Boreal Conifer Mesic Forest
	White Cedar - Yellow Birch Forest
	White Pine - Aspen - Birch Forest AND/OR Red Pine - Aspen - Birch Forest
	White Pine / Mountain Maple Mesic Forest
	Canada Bluejoint Eastern Meadow
	Small Island with Vegetation

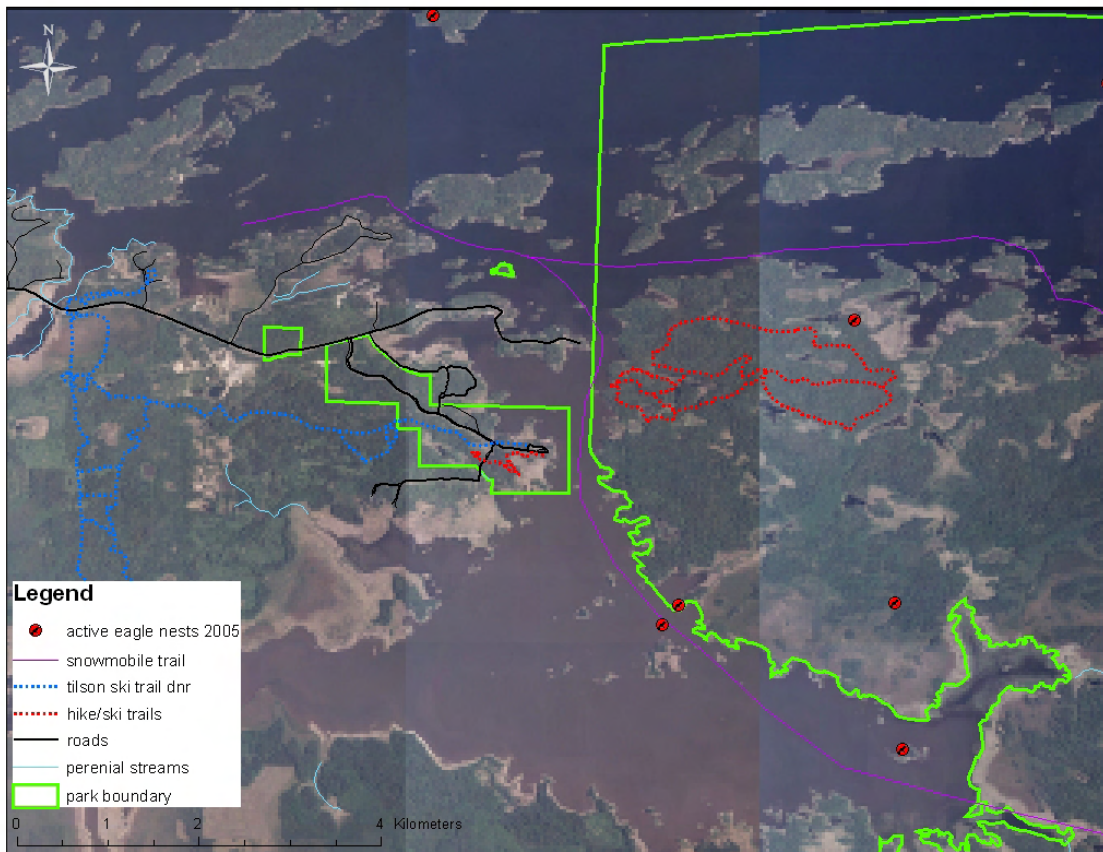


Figure 3. Active bald eagle nests in 2005 in immediate vicinity of project area for Rainy Lake Visitor Center Bike Trail extension. The closest active nests to any portion of the project area is >2.5km.

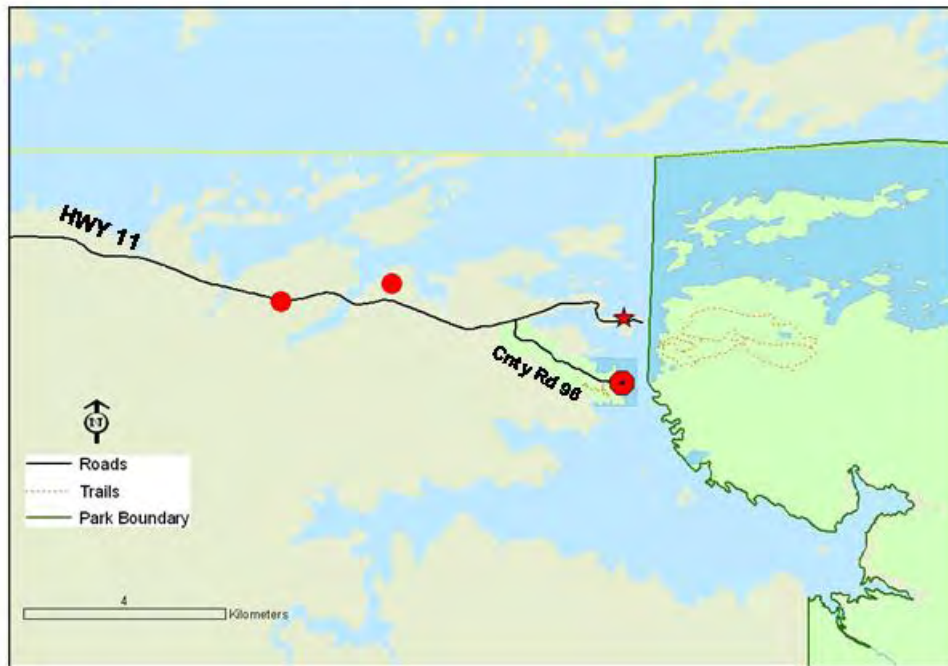


Figure 4. Verified (circles) and unverified (star) sightings of Canada lynx near the project area in 2002- 2003.