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August 2, 2006

VIA HAND DELIVERY

Ms. Victoria J. Rutson
Chief, Section of Environmental Analysis
Surface Transportation Board
1925 K Street, N.W., Room 504
Washington, D.C. 20423

Re: Finance Docket No. 34658, The Alaska Railroad Corp. -- Petition For Exemption From 49 U.S.C. §10901 To Construct and Operate a Rail Line Between North Pole, Alaska and Delta Junction

Dear Ms. Rutson:

In response to your request dated August 1, 2006, and on behalf of the Alaska Railroad Corporation, enclosed please find two copies of a report "Aerial Surveys To Identify Raptor Nests Near Potential ARRC Routes, Eielson AFB To Fort Greely, Alaska, 2006", dated June 22, 2006, prepared by ABR, Inc. for the above-captioned proceeding. Please note that because portions of the attached report provides confidential information about the location of raptor nests, Appendix 1 and its accompanying map have been marked "Sensitive Information Limit Distribution."

Please let me know if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Kathryn Floyd".

Kathryn Kusske Floyd

Enclosure

cc: David C. Navecky, SEA
Alan Summerville, ICF

NOTE: Because of the sensitive nature of the information, select information from this document's attachment, which details the locations of nest sites, has been omitted from this posting.

Final Report

**AERIAL SURVEYS TO IDENTIFY RAPTOR NESTS NEAR POTENTIAL
ARRC ROUTES, EIELSON AFB TO FORT GREELY, ALASKA, 2006**

for
HDR Alaska
2525 C Street, Suite 305
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by
Robert J. Ritchie
and
Alex K. Prichard

ABR, Inc.—Environmental Research & Services
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22 June 2006

INTRODUCTION

ABR conducted aerial surveys for tree- and cliff-nesting raptors along potential Alaska Railroad Corporation (ARRC) routes between Eielson AFB and Ft. Greely, Alaska. The main objectives of these surveys were to identify and determine the location and status of raptor nests, particularly those of large species such as Bald Eagles (*Haliaeetus leucocephalus*) and Golden Eagles (*Aquila chrysaetos*), Northern Goshawks (*Accipiter gentilis*), and Peregrine Falcons (*Falco peregrinus*), in the study area. We also tried to locate the nests of other tree-nesting raptor species (e.g., Red-tailed Hawk [*Buteo jamaicensis*], forest-nesting owls) and those of Common Ravens (*Corvus corax*), which build stick nests that often are used by other raptors.

STUDY AREA

In 2005, we conducted surveys in a broad corridor generally between the Tanana River and the southern- and westernmost alignment routes (Ritchie 2005). The survey area extended somewhat east of the Tanana River and Richardson Highway in the lowlands between Eielson

AFB and the Salcha River. Because leafout of deciduous trees was advanced in most of the study area, our search for tree nests focused on locating more conspicuous nests in riparian and lacustrine areas (e.g., Bald Eagles). We also searched all suitable cliffs (where leafout is not an issue) for nesting Peregrine Falcons and other cliff-nesting raptors.

In 2006, we surveyed proposed railroad alignments and an 800-m buffer on each side of the alignment centerlines, the floodplains of the Tanana River between Delta Junction and the Chena Floodplain Control Area, and all cliffs along the Tanana River and its tributaries within the general study area (Figure 1).

METHODS

In 2005, we searched all suitable woodland habitats within a broad area of potential railroad alignments, particularly riparian areas and lake shorelines, and all areas with cliffs. In 2006, a smaller number of proposed railroad alignments were identified, so we sampled the area along these alignments intensively prior to leafout. We created survey lines 200 m and 600 m from all proposed alignment centerlines in ArcMap GIS v.9.1. In late April, we flew each of these survey lines in a Robinson 44 (R-44) helicopter with observers on each side looking out 200m to survey the entire area within 800 m of all proposed alignment centerlines. In early May 2006, we flew along the Tanana River, adjacent sloughs, large creeks, and nearby large lakes to search for Bald Eagle nests. In mid-May, we surveyed suitable cliffs within the study area for Peregrine Falcon nests. In 2006, we also relocated nests identified in 2005 to determine their current status.

We used a helicopter for all aerial surveys but checked a few Peregrine Falcon nests by automobile in 2005 (3 nests) and/or by boat during 2006 (2 nests). (These latter sites were near houses and we were trying to limit our disturbance of their occupants.) The helicopter was flown at approximately 150–250 ft above tree tops during searches of wooded areas. Aircraft altitude varied at cliff sites, depending on the height of outcrops and cliff faces. When a nest or adult birds were observed, the aircraft slowed and approached the site so we could determine nest status. A nest was considered occupied if an incubating bird or adult was present at the nest or a pair was seen near the nest. A nest was determined to be unoccupied (= inactive) if no adults were present at the nest. During our close approach in the helicopter, we took GPS readings directly over or within 50 ft of all inactive tree nests. To reduce our disturbance to nesting birds,

however, we took GPS readings at greater lateral distances (>100 ft) from cliffs and occupied tree nests. For Peregrine Falcon nests, which all were on cliffs, these readings were adjusted later with a GIS base map to portray physical location on the cliff more accurately. We classified nests to species of occupants by the presence of nearby adults and/or by the size and characteristics of the nest. If species use could not be determined, the nest was characterized as that of an "unknown raptor."

In 2005, observers were seated on the same side of the aircraft. In 2006, however, observers were seated on opposite sides of the helicopter during the pre-leafout survey (April) but were on the same side for the Bald Eagle (early May) and cliff-nesting raptor surveys (mid May). This modification in survey technique for the pre-leafout surveys was employed to reduce the amount of helicopter time while maintaining an acceptable level of survey coverage. Both observers searched for nests but, during all surveys, the observer in the front seat also was responsible for directing the pilot, monitoring the route, and making species identifications, while the observer in the back seat recorded GPS locations of all nests.

RESULTS AND DISCUSSION

We detected a total of 120 raptor and raven nests in the study area in 2006; this total includes cliff ledges used by Peregrine Falcons (Fig. 1, Table 1, Appendix 1; location information should be kept confidential). Seventy-three of these nests were first found in 2005, and an additional 47 were nests found in 2006. Two Common Raven nests found in 2005 were not checked in 2006, and six nests found in 2005 could not be relocated in 2006 and were determined to have collapsed between years. Bald Eagles nests were the most abundant nest type in 2006 (33%); however, Common Raven nests were nearly as abundant (32%). Sixty-six percent of all nests were active, and several of the nests were occupied by a different species in the two years (Appendix 1).

Fifty-four percent of Bald Eagle nests were occupied in 2006, and most nests were attended by an incubating adult. All but two of these nests were located on the Tanana River floodplains; one nest was located near Blair Lake, and a second nest was located on the lower Salcha River near its junction with the Tanana River. The Bald Eagle is a common large nesting raptor along the Tanana River and adjacent lakes (Ritchie and Ambrose 1996).

Table 1. Numbers and status of raptor and Common Raven nests in the ARRC study area, Eielson AFB to Ft. Greely, Alaska, May 2005 and April–May 2006.

Species	2005			2006		
	Status		Total Nests	Status		Total nests
	Unoccupied	Occupied		Unoccupied	Occupied	
Northern Goshawk	0	0	0	3	1	4
Red-tailed Hawk	0	4	4	1	9	10
Bald Eagle	15	22	37	18	21	39
Peregrine Falcon	1	13	14	5	10	15
Great Gray Owl	0	4	4	1	2	3
Great Horned Owl	0	0	0	0	6	6
Common Raven	2	16	18	8	30	38
Unidentified raptor	4	0	4	5	0	5
Total nests	22	59	81	41	79	120

We only found one active or occupied Northern Goshawk nest and three unoccupied nests that we classified as being Northern Goshawk nests based on nest characteristics and habitat. All four Northern Goshawk nests were in aspen trees within 800 m of the proposed alignment corridors. Northern Goshawk habitat along the proposed ARRC corridors was largely limited to several large birch–aspen stands, usually on south-facing hillsides (McGowan 1975). The 2005 surveys were conducted after leaf-out had begun, making detection of nests in deciduous trees more difficult; not surprisingly, we found no Northern Goshawk nests in 2005, probably because of this sampling bias.

Large forest-nesting raptor species nesting in the study area include Red-tailed Hawk, Northern Goshawk, Osprey (*Pandion haliaetus*), Great Gray Owl (*Strix nebulosa*), and Great Horned Owl (*Bubo virginianus*). Only nests of the Red-tailed Hawk and Great Gray Owl were recorded in 2005. Ospreys have been recorded nesting on the perimeter of the study area (e.g., along that part of the GVEA Northern Intertie on the Tanana Flats and near Shaw Creek; R. Ritchie, unpubl. data), but we recorded no Ospreys or nests in the ARRC study area in either year.

Peregrine Falcons have a long history of nesting on cliffs along the Tanana River and its tributaries between Delta Junction and Fairbanks (Cade 1960); however, those nests located during this survey on the Little Delta River and Delta Creek have not been recorded previously. There also was a cliff that appeared suitable for Peregrine Falcon nesting near Blair Lakes (64.41328°N, 147.221167°W), but we saw no Peregrines there in either year. In addition, no

Golden Eagle nests were located during this survey; The Golden Eagle is a common nesting species in the Alaska Range and occurs at cliffs along the upper Tanana River, outside of the study area (R. Ritchie, unpubl. data).

We located a total of 39 nests within 800 m of the proposed alignment centerlines (the area of high-intensity surveys) in 2006 (Table 2); 12 of these nests were unoccupied, and 27 were occupied. Common Raven nests made up 38% of the nests in this area. There were also 6 Bald Eagle nests and 4 Peregrine Falcon nests.

Table 2. Number and status of raptor and Common Raven nests within 800 m of proposed railroad alignments, Chena Floodplain Control Area to Ft. Greely, Alaska, April–May 2006.

Species	Status		Total nests
	Unoccupied	Occupied	
Northern Goshawk	2	1	3
Red-tailed Hawk	0	3	3
Bald Eagle	3	3	6
Peregrine Falcon	0	4	4
Great Gray Owl	1	2	3
Great Horned Owl	0	2	2
Common Raven	3	12	15
Unidentified raptor	3	0	3
Total nests	12	27	39

LITERATURE CITED

- Cade, T. 1960. Ecology of Peregrine and Gyrfalcon populations in Alaska. University of California Publications in Zoology 63: 151–290.
- McGowan, J. D. 1975. Nesting habits and reproductive success of Goshawks in Interior Alaska. Pages 147-152 in J. R. Murphy, C. M. White, and B. E. Harrell (eds.). Population status of raptors. Raptor Research Foundation, Inc. Raptor Research Report No. 3. 232 pp.
- Ritchie, R. J. 2005. Aerial surveys to identify raptor nests near potential ARRC routes, Eielson AFB to Fort Greely, Alaska, 2005. Unpublished report prepared for HDR Alaska, Anchorage, AK, by ABR, Inc.—Environmental Research & Services, Fairbanks, AK. 9 pp.
- Ritchie, R. J., and R. E. Ambrose. 1996. Distribution and population status of Bald Eagles in Interior Alaska. *Arctic* 49: 120–128.