



ENGINEERS & SCIENTISTS
Knowledge. Commitment. Service.

August 24, 2010

Ms. Naomi Jensen
Merjent
615 First Avenue NE
Suite 425
Minneapolis, MN 55413

**Re: Habitat Assessment
Bakken Pipeline Expansion Project, Enbridge Energy**

Dear Ms. Jensen,

McCain and Associates, Inc. (McCain) performed a habitat assessment for threatened and endangered species (TES) and raptors along the proposed Enbridge Energy (Enbridge) Bakken Pipeline Expansion Project (BPEP) route. Habitat for TES and raptors was evaluated within ½ mile (either sides or a 1-mile corridor) of the proposed route. The habitat assessment was conducted on July 27-29, 2010, by Ryan Krapp and Greg Meyer, Biologists of McCain.

Below is a habitat assessment, a TES effects determination, and migratory bird effects assessment made by our qualified biologists. McCain did not consult the North Dakota Parks and Recreation Department (NDPR), which houses the North Dakota Natural Heritage biological conservation database prior to or after the on-site assessment.

The BPEP is located in portions of Section 34, T163N, R92W, Sections 1-3, T162N, R92W, and Sections 6-8, 15-17, 22-25, T162N, R91W, and Sections 30 and 31, T162N, R90W, in Burke County, North Dakota. The BPEP is oriented northwest to southeast and much of it follows an existing railroad right-of-way.

The BPEP is located in the Glaciated Plains Region. The Glaciated Plains region is characterized by a flat to rolling landscape of glacial drift with a high density of shallow pothole wetlands. Fertile soils are present and the majority of the area is tilled for agricultural production. Small grains, peas, canola, and alfalfa are common agricultural crops of the area.

Habitat Assessment

Scattered depression wetlands are common along the BPEP. Many of the wetlands have been cultivated in 2010. Barnyard grass (*Echinochloa crus-galli*), foxtail barley (*Hordeum jubatum*), quackgrass (*Agropyron repens*), and curled dock (*Rumex crispus*) are prevalent in the shallow depression wetlands with a temporary water regime. Cattails (*Typha* spp.), reed canary grass (*Phalaris arundinacea*), and water smartweed (*Polygonum amphibium*) are prevalent in wetlands with seasonal water regimes. A few large, shallow seasonal wetlands are hayed during years of below normal precipitation.

There are a few grassland areas along the BPEP, primarily adjacent to wetlands that are not able to be cultivated each year. Most of these areas are small in nature, contain tame grasses, and are primarily located along the railroad right-of-way. A lone, native grassland area is located in the BPEP in portions of Sec 23, T162N, R91W. The area is utilized as a livestock

pasture. Kentucky bluegrass (*Poa pratensis*), smooth brome (*Bromus inermis*), and crested wheatgrass (*Agropyron cristatum*) have heavily encroached upon the grassland. Fringed sage (*Artemisia frigida*) is the primary native herb in the grassland area.

Large shelter belt tree plantings are found around farmsteads near the BPEP. Single row tree plantings are scattered in crop fields along the BPEP. Occasional scattered patches of trees are found along the BPEP. Many of the stands are comprised of aspen (*Populus tremula*). The planted tree belts may provide nesting habitat for raptors.

The on-site survey did not reveal habitat areas of concern. The proposed project is not located across or near any significant ecological community and is not likely to adversely affect critical wildlife habitats. Potential impacts to wildlife include temporary displacement due to construction activities and temporary loss of ground cover in native and planted grassland areas. These effects are not likely to cause long-term declines in populations in the area. Ground clearing may temporarily unavoidably impact habitat for unlisted species, including small migratory birds, ground dwelling mammals, and other wildlife species.

Threatened and Endangered Species

Assessments for federally listed threatened, endangered and candidate species were conducted by evaluating historic and present occurrences, and by determining if potential habitat exists within the project area. Determinations were made concerning direct and cumulative effects of the proposed activities on each species and their habitat. Currently, three federally listed species have been documented in Burke County. In addition, critical habitat for the piping plover is listed as present in the county.

The Dakota Skipper has been determined to be a candidate species under the Endangered Species Act. No legal requirement exists to protect candidate species; however, the U.S. Fish and Wildlife Service (USFWS) considers this species to have significant value and worth protecting.

Table 1. Burke County status of Endangered, Threatened, and Candidate species and Designated Critical Habitat

Species	Status	County
		Burke
Whooping Crane	Endangered	X
Gray Wolf	Endangered	X
Piping Plover	Threatened	X
Dakota Skipper	Candidate	X
Designated Critical Habitat - Piping Plover		X

¹ USFWS (updated March 17, 2010)

Species Assessments

Assessments for Federally listed threatened, endangered species were conducted by evaluating historic and present occurrences and by determining if potential habitat exists within the project area. A determination was made concerning direct and cumulative effects of the proposed activities on each species. Determinations made for federally listed species are:

- No effect
- May affect, but is not likely to adversely affect
- May affect, and is likely to adversely affect
- Is likely to jeopardize a proposed species or adversely modify critical habitat
- Is not likely to jeopardize a proposed species or adversely modify critical habitat

Whooping Crane

The primary nesting area for the whooping crane is in Canada's Wood Buffalo National Park. Arkansas National Wildlife Refuge in Texas is the primary wintering area for whooping cranes. In the spring and fall, the cranes migrate primarily along the Central Flyway. During the migration, cranes make numerous stops, roosting in large shallow marshes, and feeding and loafing in harvested grain fields. The primary threats to whooping cranes are power lines, illegal hunting, and habitat loss (Texas Park and Wildlife 2008).

The proposed project is located within the Central Flyway. Approximately 75% of the whooping state sightings in North Dakota occur within a 90-mile corridor that includes the BPEP. Historic sightings have occurred within two miles of the proposed BPEP, adjacent to large wetlands that may be possible roost areas. No roost areas are located within ½ mile of the BPEP. The large wetland areas within evaluated corridor have deep water and tall emergent vegetation in them.

Construction activities may cause migratory cranes to divert from the area but is not likely to result in any fatalities. Construction should be stopped if whooping cranes are sighted within one mile of the construction activities and not resume until the birds have left the area. Any sightings should be immediately reported to the US Fish and Wildlife Service (USFWS) and North Dakota Game and Fish Department (NDGFD). Following these guidelines, it is reasonable to expect that the proposed activities are **may affect, but is not likely to adversely affect** whooping cranes.

Gray Wolf

Gray wolves were historically found throughout much of North America including the Upper Great Plains. Human activities have restricted their present range to the northern forests of Minnesota, Wisconsin, and Michigan and the Northern Rocky Mountains of Idaho, Montana, and Wyoming. They now only occur as occasional visitors in North Dakota. The most suitable habitat for the gray wolf is found around the Turtle Mountains region where documented and unconfirmed reports of gray wolves in North Dakota have occurred (Grondahl and Martin, no date). The proposed project **may affect, but is not likely to adversely affect** this species.

Piping Plover

Piping plovers are found along the Missouri and Yellowstone River systems and on large alkaline wetlands. Nesting sites and critical habitat have been documented on the shorelines of Lake Sakakawea and on large alkaline wetlands. Suitable nesting habitat is not located within the evaluated route. Uncultivated wetlands within the evaluated route have extensive emergent vegetation growing in them.

No piping plovers were observed during the on-site assessment and the project will not disrupt any designated Critical Habitat. The proposed project **may affect, but is not likely to adversely affect** this species at this time and will have **no effect** on critical habitat.

Dakota Skipper

Dakota skippers are currently listed as a candidate species in North Dakota and have been documented in Burke County. Larvae of the Dakota skipper feed on grasses, favoring little bluestem. Adults emerge in mid-June, feeding on the nectar of flowering native forbs. Harebell (*Campanula rotundifolia*), wood lily (*Lilium philadelphicum*), and purple coneflower (*Echinacea angustifolia*) are common components of their diet (Canadian Wildlife Service, 2004). Dakota skippers are most likely to be found along river valleys or in mesic segments of mixed grass prairie. Although no individuals were seen during the on-site review, small patches of preferred plant species were present along the BPEP in the lone native prairie area or in the adjacent railroad right-of-way.

Activities from pipeline installation may temporarily disturb some forage species of the Dakota skipper but is not likely to cause to a decline in the Dakota skipper population. The proposed project **may affect, but is not likely to adversely affect** this species.

Raptors and Migratory Birds

The proposed project may affect raptor and migratory bird species through direct mortality, habitat degradation, and/or displacement of individual birds. These impacts are regulated in part through the *Migratory Bird Treaty Act* (916 USC 703-711) and the Bald and Golden Eagle Protection Act (BGEPA).

A ground survey for tree and ground raptor nests was conducted within the survey corridor during the on-site evaluation. No raptor nests were observed during the on-site evaluation but buteos and northern harriers were sighted along the route.

Suitable nesting habitat for migratory birds exists within the proposed route. The majority of the suitable habitat is located adjacent to wetlands and road crossings. The on-site evaluation was performed outside of the nesting season for migratory birds; therefore, nesting sites were not observed.

Conclusion

No TES species or critical habitats were observed during the on-site evaluation. Suitable nesting habitat for raptors and migratory birds is located within the survey corridor. Please call me at 701-255-1475 if you have questions or need additional information.

Sincerely,

Ryan Krapp
Biologist/GIS Specialist