Minnesota Department of Natural Resources
500 Lafayette Road • St. Paul, MN • 55155-40

February 11, 2010

David Birkholz, Project Manager
Energy Facility Permitting
Minnesota Department of Commerce
85 7th Place East, Suite 500
St. Paul, MN 55101-2198

Re: Application for a Route Permit for the Fargo to St. Cloud 345 kV Transmission Line Project and Scope of the Environmental Impact Statement [PUC Docket Number: E002, ET2/TL-09-1056]

Dear Mr. Birkholz:

The Minnesota Department of Natural Resources (DNR) has reviewed the application by Xcel Energy and Great River Energy for a route permit for the Fargo to St. Cloud 345 kV Transmission Line Project and considered this application in relation to scoping for the Environmental Impact Statement (EIS). The following comments are offered covering natural resource topics related to state lands and easements, routing, construction and engineering, resource effects and mitigation, and other topics specific to the application.

**State Lands and Easements**

As indicated in the route permit application, some route alternatives have the potential to cross State Wildlife Management Areas (WMAs) or other publicly managed lands and easements. The expenditure of state, federal, and private dollars to purchase property or establish conservation easements is a clear indication of the areas' importance to wildlife and recreation. It is the responsibility of the DNR to seek avoidance, minimization, and mitigation for potential impacts to public lands from transmission lines, substations, or road networks associated with the project. The EIS should specifically and quantitatively state the potential impacts, avoidance considerations, and mitigations measures for each WMA. This information should also be provided for other areas with important natural resources such as MCBS Sites of Biodiversity Significance, USFWS easements, bird concentration areas and public water bodies.

Please be aware of the following excerpts from statute relative to the placement of towers in public waters. Placement of tower structures in public waters should be avoided per the following citations:

> 6135.1200 STANDARDS FOR STRUCTURE DESIGN.
> Subpart 1.Location of utility. With regard to locating the utility overhead or under the ground or water:
>
> *A.* Primary consideration shall be given to underground and underwater placement in order to minimize visual impact. If the proposal is for overhead placement, the applicant shall explain the economic, technological, or land characteristic factors, which make underground placement infeasible. Economic considerations alone shall not be the major determinant. Statutory Authority: *MS s 84.415* Posted: *June 11, 2008*

6135.1100 STANDARDS FOR ROUTE DESIGN
Subp. 4. Crossing public waters. With regard to crossing of public waters:
B. avoid lakes, but where there is no feasible and prudent alternative route, minimize the extent of encroachment by crossing under the water.

If DNR lands or public waters will be crossed, DNR land and water crossing licenses will need to be obtained. The review and issuance of DNR land and water crossing licenses is coordinated by the DNR Division of Lands & Minerals. This project crosses two DNR regions (NW and Central). The Lands & Minerals Regional Supervisor for Stearns & Todd County is Trina Zieman (651/259-5792) and the Lands & Minerals Regional Supervisor for all the counties to the west is Cindy Buttleman (218/308-2627). Please contact Trina and Cindy to schedule a pre-application meeting to discuss administrative procedures for submitting the land and water crossing applications after the completion of environmental review.

The applicant should allow adequate time for review and modification of the license applications after the completion of environmental review. The timeframe provided from permitting to construction may not be reasonable.

Several licenses may be required depending on the timing and scope of the project.
DNR monitoring may be required in the DNR licenses. Independent environmental monitors may also be required during construction.

If state lands will be crossed, please be aware that these lands may have been purchased with the assistance of various federal grant programs. There may be mandatory federal aid reviews where all transactions and projects that impact these lands have federal approval.

Additional work areas on state lands that are adjacent to the right of way (ROW) may be considered under the land crossing license application.

Temporary uses across state lands should be identified and impacts assessed. Temporary access to the ROW across state land is not part of the license application process and is considered a separate transaction. Such temporary access could be granted through a lease. Requests for temporary access requires review and approval. Please allow adequate time for processing these requests.

**Routing**

It would be helpful for the EIS to include discussion and description of other existing utility lines within or near the proposed ROW, as well as the transmission line proximity to transportation ROWs such as rail, highway, and pipeline. This discussion will help with an assessment of whether it is possible for newly proposed alignments to overlap with existing lines to reduce natural resource impacts.
The route that avoids waterfowl concentration areas along the I-94 corridor would add increased miles of transmission line in North Dakota. The materials presented for review do not currently provide information on the possible extent of impacts in North Dakota. Please consider providing information in the EIS regarding the impacts in both states to help the reader better assess the overall environmental impacts of various routes.

Another alternative alignment segment to be evaluated that would allow the alignment to be mostly in Minnesota and avoid the I-94 corridor could follow I-94 from Fargo/Moorhead to Rothsay, then follow a route generally along the Wilkin-Ottertail County line to Nashua, where it would intercept the alternative route.

Public meetings in Stearns County generated several comments concerning the possibility of constructing underground lines in key locations, particularly along the I-94 corridor from Freeport to St. Joseph. To better assess possible alignments, the environmental effect of underground lines along these segments should be evaluated.

The DNR understands that as part of this project, only one circuit of a double-circuit 345 kV line will be strung. The EIS should discuss the possibility of installation of a second circuit in the future and any associated environmental effects.

**Construction and Engineering**

The EIS should discuss permanent and temporary access roads and access points to the proposed ROW routes, whether they are asphalt, concrete, or gravel. The season and duration of use should also be discussed.

The EIS should identify and discuss the impacts associated with additional work areas on or adjacent to the ROW that may be needed for construction, storage, or staging of materials.

The EIS should discuss disposal or wasting of the back dirt resulting from the excavation of the tower footings. Please include a description of a "modified foundation type", what that would consist of, and under what conditions it may be used.

The EIS should also evaluate the location of storage piles and sources of materials used in construction.

Please discuss future maintenance requirements and plans in the EIS.

Best management practices and the environmental effect of construction practices should be discussed in the EIS. For example, differences between winter and summer construction methods and clearing practices should be discussed and assessed.

The EIS should identify all hazardous materials that will be used at project sites, the amount used and stored, and how these materials are transported. Please include the likelihood or frequency of hazardous material spills and please discuss response plans.

The EIS should evaluate storm water management. Specific practices should be implemented for the protection of water quality from storm water runoff including contaminated runoff from construction, operation, and maintenance activities.

Possible preventative measures and management techniques for invasive species should be discussed in the EIS. DNR invasive species standards will apply to state-administered lands and water and will include precautions such as cleaning of equipment.

Use of native species mix for re-vegetation and use of clean weed free straw for mulch should be discussed in the EIS. Both will likely be required on state land and public waters crossings.

The PUC should consider requiring in the route permit that the applicant complete an overall Construction Environmental Control Plan (CECP) to ensure that appropriate systems are in place for compliance with various permit and project plans. CEPCs typically contain additional environmental documents (e.g. Agricultural Impact Mitigation Plans, Environmental Management Plans, Re-vegetation and Restoration Plans, Pollution Prevention Plan etc.), policies, permits, plans and protocols which, when implemented, will minimize or mitigate the potential impacts associated with transmission line construction.

As a component of the CECP, the applicant should include an Environmental Mitigation Plan (EMP), which provides an outline of construction related environmental policies, procedures, and mitigations measures developed by the applicant for the transmission line project. Avoidance, minimization and mitigation measures should also be included in the plan. Appropriate mitigation measures should be discussed and agreed upon prior to finalization of the EIS.

**Resource Effects and Mitigation**

An analysis of waterfowl and water bird use of various route alternatives and risk estimates of annual bird mortality for each alternative, or combination of alternatives, should be included in the EIS. A cost analysis using DNR restitution values as a surrogate for costs should also be provided.

The Route Permit Application (7.1.4.4) describes landscape levels and ecological settings using the Ecological Classification System (ECS). The ECS was developed by the MDNR and the U.S. Forest Service. ECS mapping enables resource managers to consider ecological patterns for areas as large as North America or as small as a single timber stand and identify areas with similar management opportunities or constraints relative to that scale. Every state recently completed a "state wildlife action plan (SWAP)" which identifies conservation needs for species of concern, including threatened and endangered wildlife and other important wildlife species. Minnesota's SWAP titled, "Tomorrow's Habitat for the Wild and Rare" describes conservation concerns for species of greatest conservation need (SGCN) within various landscape settings, which are also characterized using the ECS. In the interests of consistency and accuracy, both Minnesota's SWAP and the ECS should be used to inform the content of the EIS.
A description of potential impacts, specific avoidance, minimization and mitigation measures for the following bird flyway and concentration areas should specifically be included in the EIS: Lake Christina; Pelican and Pomme De Terre Lakes; Swan, Mineral and Ten Mile Lakes; Alexandria area lakes including Lobster, Mine, and Latoka Lakes; Red River; and Mustinka River.

Clifford Lake, also known as Swim or Swims Lake, at the Highway 127/Country Road 3 exit off of I-94 near Osakis, is a high waterbird concentration area. It is frequented by ducks, geese, pelicans, terns, gulls, and other waterbirds in substantial numbers. It is also within the boundary of the Lake Osakis

Important Bird Area. Lake Osakis contains the eastern-most significant western grebe colony in North America, as well as the most significant red-necked grebe colony in Minnesota (Pam Perry, DNR Nongame Specialist, pers. comm.). The EIS for the project needs to assess the habitat value of Clifford Lake as well as the habitat value of the alternative segment south of this area from Alexandria to Sauk Centre.

The entire I-94 corridor from Monticello to Fergus Falls is a travel corridor for trumpeter swans, especially during winter, spring and fall (Larry Gillette, Trumpeter Swan Society, pers. comm.). There are also locations where significant populations of canvasback ducks and sandhill cranes migrate across the corridor. As such, there are significant stretches where it would be appropriate to include swan diverters on lines. The DNR recommends that a draft plan for marking lines with swan diverters be developed and included in the Draft EIS for review and comment.

A list and analysis of mitigation measures for reducing avian mortality associated with power line collisions should be included in the EIS. Avian avoidance of power lines and mitigation effectiveness should also be discussed. The analysis should include the review and summary of existing peer review literature about transmission line effects on individual birds and bird populations, types of mitigation, and variability of mitigation measures, such as placement and spacing of bird diverters.

The PUC has formerly required applicants to hire third-party agency monitors to work with and supplement agency field presence on other large projects. These monitors also satisfy reporting expectations, help to ensure that impacts to protected resources are avoided and/or minimized. It is our understanding that under the current proposal, only agricultural monitors will be funded by the Utilities and will report directly to the Minnesota Department of Agriculture. Either additional monitors or a monitor that reports to multiple agencies would be beneficial. This model has worked well on other projects.

**Specific Comments**

The Permit Application (7.4.1.5) indicates that an avian protection plan is being prepared. The plan, including specific monitoring and mitigation measures, should be included in the EIS.

Page 6-5, Figure 6-1, Rare and Unique natural Resources. The text under Preferred Route and Alternate Route reflect a mis-interpretation of the data. The data do not include winter sightings or migration sightings of any listed migratory bird species, such as trumpeter swans, bald eagles, marbled godwits, etc. We recommend that the EIS examine known breeding ranges and winter ranges of state and federally listed threatened and endangered species, and then make inferences about whether they are likely to encounter the transmission line.

Page 6-5, Figure 6-1, Fauna. The text stating that species would only be displaced a short-distance is inaccurate and minimizes impacts. The statement is based on a premise that plentiful vacant habitat exists. This may occur in some instances or certain years as populations fluctuate, but the long term impact of habitat alteration is a permanent decrease in suitable habitat for some wildlife species, and a gain in suitable habitat for other species. Forest fragmentation has the greatest potential for irreversible long-term impacts that can extend beyond the footprint of the actual vegetation alteration, as resulting smaller blocks of forest may not support species that require larger blocks of intact habitat.

Page 7-40 to 7-41, Figure 7-22. The EIS should give the location of the lakes, as well as their public water inventory numbers, and examine alternative alignments for avoiding crossing the lakes wherever possible. For example, it may be possible to avoid Shepard's Lake in Stearns County with a slight alignment shift.

Page 7-60, Mitigative Measures. The text provides a general description of the mitigation that may be offered for impacts to sensitive management areas such as WMA, USFWS easements, areas of biological diversity, etc. This may be a reasonable approach if many sites were to be impacted. However, Figure 7-25 shows that there is a relatively small amount of acreage affected. Therefore, it seems that detailed mitigation plans could be developed and presented in the EIS, rather than the offered generic approach.

Page 7-63, Figure 7-27. Please see comments regarding page 6-5 above. In addition, the 150-foot right-of-way is not the appropriate scale to be examining when considering impacts to listed species. The EIS should examine potential impacts to listed species based on suitable species-specific scales. For example, while a 150-feet may be appropriate for mussels, management guidelines and recommendations for eagles may extend out to one-half mile and impacts related to prairie chickens may be measured in miles. The DNR can provide additional information to the proposers to identify suitable scales for analysis.

Thank-you for the opportunity to review the application for a route permit for the Fargo to St. Cloud Transmission Line Project and provide input for the upcoming EIS. Please contact me with any questions concerning the above comments.

Sincerely,

Jamie Schrenzel
Planner Principal
Environmental Review Unit
(651) 259-5115

Environmental Review Fact Sheet Series

## Endangered, Threatened, and Special Concern Species of Minnesota

# Blanding's Turtle

## (*Emydoidea blandingii*)

| | | | |
|---|---|---|---|
| Minnesota Status: | Threatened | State Rank[1]: | S2 |
| Federal Status: | none | Global Rank[1]: | G4 |

## HABITAT USE

Blanding's turtles need both wetland and upland habitats to complete their life cycle. The types of wetlands used include ponds, marshes, shrub swamps, bogs, and ditches and streams with slow-moving water. In Minnesota, Blanding's turtles are primarily marsh and pond inhabitants. Calm, shallow water bodies (Type 1-3 wetlands) with mud bottoms and abundant aquatic vegetation (e.g., cattails, water lilies) are preferred, and extensive marshes bordering rivers provide excellent habitat. Small temporary wetlands (those that dry up in the late summer or fall) are frequently used in spring and summer -- these fishless pools are amphibian and invertebrate breeding habitat, which provides an important food source for Blanding's turtles. Also, the warmer water of these shallower areas probably aids in the development of eggs within the female turtle. Nesting occurs in open (grassy or brushy) sandy uplands, often some distance from water bodies. Frequently, nesting occurs in traditional nesting grounds on undeveloped land. Blanding's turtles have also been known to nest successfully on residential property (especially in low density housing situations), and to utilize disturbed areas such as farm fields, gardens, under power lines, and road shoulders (especially of dirt roads). Although Blanding's turtles may travel through woodlots during their seasonal movements, shady areas (including forests and lawns with shade trees) are not used for nesting. Wetlands with deeper water are needed in times of drought, and during the winter. Blanding's turtles overwinter in the muddy bottoms of deeper marshes and ponds, or other water bodies where they are protected from freezing.

## LIFE HISTORY

Individuals emerge from overwintering and begin basking in late March or early April on warm, sunny days. The increase in body temperature which occurs during basking is necessary for egg development within the female turtle. Nesting in Minnesota typically occurs during June, and females are most active in late afternoon and at dusk. Nesting can occur as much as a mile from wetlands. The nest is dug by the female in an open sandy area and 6-15 eggs are laid. The female turtle returns to the marsh within 24 hours of laying eggs. After a development period of approximately two months, hatchlings leave the nest from mid-August through early-October. Nesting females and hatchlings are often at risk of being killed while crossing roads between wetlands and nesting areas. In addition to movements associated with nesting, all ages and both sexes move between wetlands from April through November. These movements peak in June and July and again in September and October as turtles move to and from overwintering sites. In late autumn (typically November), Blanding′s turtles bury themselves in the substrate (the mud at the bottom) of deeper wetlands to overwinter.

## IMPACTS / THREATS / CAUSES OF DECLINE

- loss of wetland habitat through drainage or flooding (converting wetlands into ponds or lakes)
- loss of upland habitat through development or conversion to agriculture
- human disturbance, including collection for the pet trade* and road kills during seasonal movements
- increase in predator populations (skunks, racoons, etc.) which prey on nests and young

*It is illegal to possess this threatened species.

## RECOMMENDATIONS FOR AVOIDING AND MINIMIZING IMPACTS

These recommendations apply to typical construction projects and general land use within Blanding's turtle habitat, and are provided to help local governments, developers, contractors, and homeowners minimize or avoid detrimental impacts to Blanding's turtle populations. **List 1** describes minimum measures which we recommend to prevent harm to Blanding's turtles during construction or other work within Blanding's turtle habitat. **List 2** contains recommendations which offer even greater protection for Blanding's turtles populations; this list should be used *in addition to the first list* in areas which are known to be of state-wide importance to Blanding's turtles (contact the DNR's Natural Heritage and Nongame Research Program if you wish to determine if your project or home is in one of these areas), or in any other area where greater protection for Blanding's turtles is desired.

| **List 1. Recommendations for all areas inhabited by Blanding's turtles.** | **List 2. *Additional* recommendations for areas known to be of state-wide importance to Blanding's turtles.** |
|---|---|
| GENERAL | |
| A flyer with an illustration of a Blanding's turtle should be given to all contractors working in the area. Homeowners should also be informed of the presence of Blanding's turtles in the area. | Turtle crossing signs can be installed adjacent to road-crossing areas used by Blanding's turtles to increase public awareness and reduce road kills. |
| Turtles which are in imminent danger should be moved, by hand, out of harms way. Turtles which are not in imminent danger should be left undisturbed. | Workers in the area should be aware that Blanding's turtles nest in June, generally after 4pm, and should be advised to minimize disturbance if turtles are seen. |
| If a Blanding's turtle nests in your yard, do not disturb the nest. | If you would like to provide more protection for a Blanding's turtle nest on your property, see "Protecting Blanding's Turtle Nests" on page 3 of this fact sheet. |
| Silt fencing should be set up to keep turtles out of construction areas. It is critical that silt fencing be removed after the area has been revegetated. | Construction in potential nesting areas should be limited to the period between September 15 and June 1 (this is the time when activity of adults and hatchlings in upland areas is at a minimum). |
| WETLANDS | |
| Small, vegetated temporary wetlands (Types 2 & 3) should not be dredged, deepened, filled, or converted to storm water retention basins (these wetlands provide important habitat during spring and summer). | Shallow portions of wetlands should not be disturbed during prime basking time (mid morning to mid- afternoon in May and June). A wide buffer should be left along the shore to minimize human activity near wetlands (basking Blanding's turtles are more easily disturbed than other turtle species). |
| Wetlands should be protected from pollution; use of fertilizers and pesticides should be avoided, and run-off from lawns and streets should be controlled. Erosion should be prevented to keep sediment from reaching wetlands and lakes. | Wetlands should be protected from road, lawn, and other chemical run-off by a vegetated buffer strip at least 50' wide. This area should be left unmowed and in a natural condition. |
| ROADS | |
| Roads should be kept to minimum standards on widths and lanes (this reduces road kills by slowing traffic and reducing the distance turtles need to cross). | Tunnels should be considered in areas with concentrations of turtle crossings (more than 10 turtles per year per 100 meters of road), and in areas of lower density if the level of road use would make a safe crossing impossible for turtles. Contact your DNR Regional Nongame Specialist for further information on wildlife tunnels. |
| Roads should be ditched, not curbed or below grade. If curbs must be used, 4 inch high curbs at a 3:1 slope are preferred (Blanding's turtles have great difficulty climbing traditional curbs; curbs and below grade roads trap turtles on the road and can cause road kills). | Roads should be ditched, not curbed or below grade. |

| ROADS cont. | |
|---|---|
| Culverts between wetland areas, or between wetland areas and nesting areas, should be 36 inches or greater in diameter, and elliptical or flat-bottomed. | Road placement should avoid separating wetlands from adjacent upland nesting sites, or these roads should be fenced to prevent turtles from attempting to cross them (contact your DNR Nongame Specialist for details). |
| Wetland crossings should be bridged, or include raised roadways with culverts which are 36 in or greater in diameter and flat-bottomed or elliptical (raised roadways discourage turtles from leaving the wetland to bask on roads). | Road placement should avoid bisecting wetlands, or these roads should be fenced to prevent turtles from attempting to cross them (contact your DNR Nongame Specialist for details). This is especially important for roads with more than 2 lanes. |
| Culverts under roads crossing streams should be oversized (at least twice as wide as the normal width of open water) and flat-bottomed or elliptical. | Roads crossing streams should be bridged. |
| UTILITIES | |
| Utility access and maintenance roads should be kept to a minimum (this reduces road-kill potential). | |
| Because trenches can trap turtles, trenches should be checked for turtles prior to being backfilled and the sites should be returned to original grade. | |
| LANDSCAPING AND VEGETATION MANAGEMENT | |
| Terrain should be left with as much natural contour as possible. | As much natural landscape as possible should be preserved (installation of sod or wood chips, paving, and planting of trees within nesting habitat can make that habitat unusable to nesting Blanding's turtles). |
| Graded areas should be revegetated with native grasses and forbs (some non-natives form dense patches through which it is difficult for turtles to travel). | Open space should include some areas at higher elevations for nesting. These areas should be retained in native vegetation, and should be connected to wetlands by a wide corridor of native vegetation. |
| Vegetation management in infrequently mowed areas -- such as in ditches, along utility access roads, and under power lines -- should be done mechanically (chemicals should not be used). Work should occur fall through spring (after October 1st and before June 1st ). | Ditches and utility access roads should not be mowed or managed through use of chemicals. If vegetation management is required, it should be done mechanically, as infrequently as possible, and fall through spring (mowing can kill turtles present during mowing, and makes it easier for predators to locate turtles crossing roads). |

**Protecting Blanding's Turtle Nests:** Most predation on turtle nests occurs within 48 hours after the eggs are laid. After this time, the scent is gone from the nest and it is more difficult for predators to locate the nest. Nests more than a week old probably do not need additional protection, unless they are in a particularly vulnerable spot, such as a yard where pets may disturb the nest. Turtle nests can be protected from predators and other disturbance by covering them with a piece of wire fencing (such as chicken wire), secured to the ground with stakes or rocks. The piece of fencing should measure at least 2 ft. x 2 ft., and should be of medium sized mesh (openings should be about 2 in. x 2 in.). It is ***very important*** that the fencing be **removed <u>before August 1st</u>** so the young turtles can escape from the nest when they hatch!

## REFERENCES

[1]Association for Biodiversity Information. "Heritage Status: Global, National, and Subnational Conservation Status Ranks." NatureServe. Version 1.3 (9 April 2001). http://www.natureserve.org/ranking.htm (15 April 2001).

Coffin, B., and L. Pfannmuller. 1988. Minnesota's Endangered Flora and Fauna. University of Minnesota Press, Minneapolis, 473 pp.

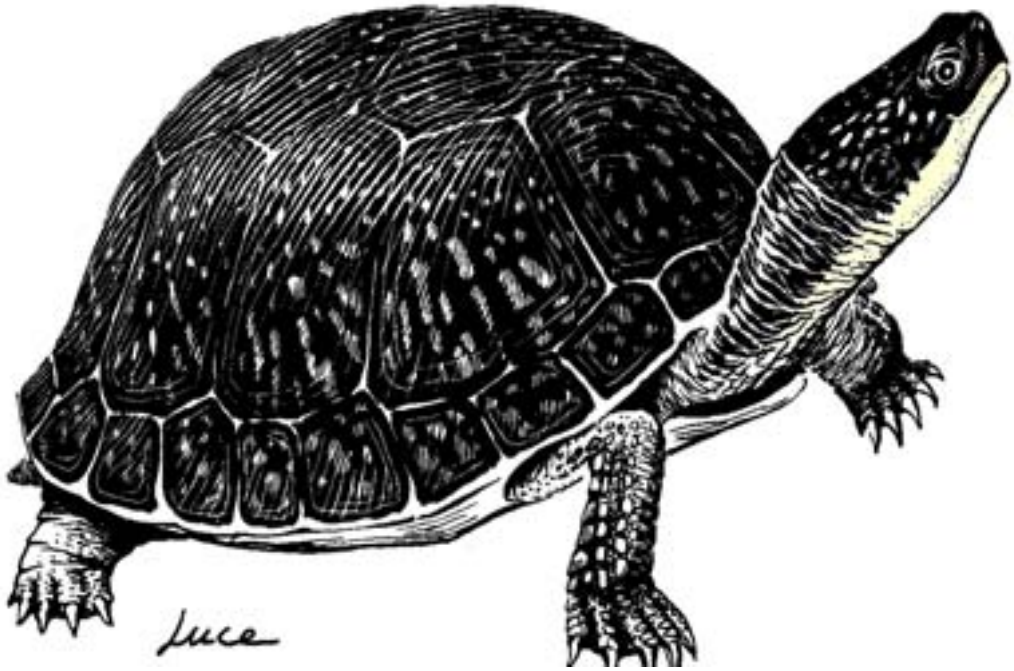
## REFERENCES (cont.)

Moriarty, J. J., and M. Linck. 1994. Suggested guidelines for projects occurring in Blanding's turtle habitat. Unpublished report to the Minnesota DNR. 8 pp.

Oldfield, B., and J. J. Moriarty. 1994. Amphibians and Reptiles Native to Minnesota. University of Minnesota Press, Minneapolis, 237 pp.

Sajwaj, T. D., and J. W. Lang. 2000. Thermal ecology of Blanding′s turtle in central Minnesota. Chelonian Conservation and Biology 3(4):626-636.

# CAUTION




# BLANDING'S TURTLES

## MAY BE ENCOUNTERED IN THIS AREA

The unique and rare Blanding's turtle has been found in this area. Blanding's turtles are a State Threatened species and are protected under Minnesota Statute 84.095, Protection of Threatened and Endangered Species. Please be careful of turtles on roads and in construction sites. For additional information on turtles, or to report a Blanding's turtle sighting, contact the DNR Nongame Specialist nearest you: Bemidji (218-308-2641); Grand Rapids (218-327-4518); New Ulm (507-359-6033); Rochester (507-280-5070); or St. Paul (651-259-5764).

**DESCRIPTION**: The Blanding's turtle is a medium to large turtle (5 to 10 inches) with a black or dark blue, dome-shaped shell with muted yellow spots and bars. The bottom of the shell is hinged across the front third, enabling the turtle to pull the front edge of the lower shell firmly against the top shell to provide additional protection when threatened. The head, legs, and tail are dark brown or blue-gray with small dots of light brown or yellow. A distinctive field mark is the bright yellow chin and neck.

Illustration by Don Luce, from Turtles in Minnesota, Natural History Leaflet No. 9, June 1989, James Ford Bell Museum of Natural History

# SUMMARY OF RECOMMENDATIONS FOR AVOIDING AND MINIMIZING IMPACTS TO BLANDING'S TURTLE POPULATIONS

*(see Environmental Review Fact Sheet Series for full recommendations)*

- A flyer with an illustration of an adult Blanding's turtle should be given to all contractors working in the area. Homeowners should also be informed of the presence of Blanding's turtles in the area.
- Turtles which are in imminent danger should be moved, by hand, out of harms way. Turtles which are not in imminent danger should be left undisturbed to continue their travel among wetlands and/or nest sites.
- If a Blanding's turtle nests in your yard, do not disturb the nest, and do not allow pets near the nest.
- Blanding's turtles do not make good pets. It is illegal to keep this threatened species in captivity.
- Silt fencing should be set up to keep turtles out of construction areas. It is critical that silt fencing be removed after the area has been revegetated.
- Small, vegetated temporary wetlands should not be dredged, deepened, or filled.
- All wetlands should be protected from pollution; use of fertilizers and pesticides should be avoided, and run-off from lawns and streets should be controlled. Erosion should be prevented to keep sediment from reaching wetlands and lakes.
- Roads should be kept to minimum standards on widths and lanes.
- Roads should be ditched, not curbed or below grade. If curbs must be used, 4" high curbs at a 3:1 slope are preferred.
- Culverts under roads crossing wetland areas, between wetland areas, or between wetland and nesting areas should be at least 36 in. diameter and flat-bottomed or elliptical.
- Culverts under roads crossing streams should be oversized (at least twice as wide as the normal width of open water) and flat-bottomed or elliptical.
- Utility access and maintenance roads should be kept to a minimum.
- Because trenches can trap turtles, trenches should be checked for turtles prior to being backfilled and the sites should be returned to original grade.
- Terrain should be left with as much natural contour as possible.
- Graded areas should be revegetated with native grasses and forbs.
- Vegetation management in infrequently mowed areas -- such as in ditches, along utility access roads, and under power lines -- should be done mechanically (chemicals should not be used). Work should occur fall through spring (after October 1st and before June 1st).

**DEPARTMENT OF NATURAL RESOURCES**
Division of Ecological Resources

STATE OF MINNESOTA
Memorandum

**DATE:** February 16, 2010 **PHONE:** (651) 259-5115

**TO:** David Birkholz
Department of Commerce, Office of Energy Security

**FROM:** Jamie Schrenzel
DNR, Division of Ecological Resources

**SUBJECT:** Supplemental information regarding the application for a route permit and EIS scoping for the Fargo to St. Cloud 345 kV Transmission Line Project [PUC Docket Number: E002, ET2/TL-09-1056]

The Minnesota Department of Natural Resources (DNR) submitted comments regarding the application for a route permit and Environmental Impact Statement (EIS) scope for the Fargo to St. Cloud 345 kV Transmission Line Project on February 11, 2010. Along with other topics, this letter discussed the assessment of rare species near the proposed project and offered to provide additional detail. This memo includes additional detail regarding the assessment of rare species.

Figure 7-27 in the application for a route permit documents the number of known occurrences of rare species within the Preferred Route. Searching for rare species only within the route limits the scope of the review. The standard for Natural Heritage reviews is to search for occurrences within a one-mile radius of the proposed project. Rare species that occur within the vicinity of the project area may also occur within the project area if habitat is suitable or as they travel between suitable habitats. By including this larger list of species, Figure 7-27 would be more representative of the rare animals that have the potential to be impacted by the proposed project. Figure 7-27 also seems to be incomplete even without adding the one-mile radius. Using the standard one-mile radius, the following rare animals have the potential to be impacted by the proposed project:

| Common Name | Scientific Name | State Status | Number of Occurrences within a one-mile radius | | |
|---|---|---|---|---|---|
| | | | Preferred Route | Preferred Route Segment Alternatives | Alternate Route A |
| Prairie Vole | *Microtus ochrogaster* | SPC | 2 | | 1 |
| | | | | | |
| Henslow's Sparrow | *Ammodramus henslowii* | END | 4 | | |
| Red-shouldered Hawk | *Buteo lineatus* | SPC | 3 | 1 | 5 |
| Cerulean Warbler | *Dendroica cerulean* | SPC | | 1 | |
| Bald Eagle | *Haliaeetus leucocephalus* | SPC | 9 | 1 | |
| Marbled Godwit | *Limosa fedoa* | SPC | 3 | 1 | 1 |

| | | | | | |
|---|---|---|---|---|---|
| Wilson's Phalarope | *Phalaropus tricolor* | THR | 1 | | |
| Burrowing Owl | *Speotyto cunicularia* | END | 1 | | |
| Forster's Tern | *Sterna forsteri* | SPC | | | 1 |
| Greater Prairie-chicken | *Tympanuchus cupido* | SPC | 10 | | |
| | | | | | |
| Colonial Waterbird Nesting Area | | | 3 | | 2 |
| | | | | | |
| Blanding's Turtle | *Emydoidea blandingii* | THR | 2 | | 1 |
| Plains Hog-nosed Snake | *Heterodon nasicus* | SPC | 1 | | |
| | | | | | |
| Least Darter | *Etheostoma microperca* | SPC | 4 | 1 | 1 |
| Pugnose Shiner | *Notropis anogenus* | SPC | 4 | | 1 |
| | | | | | |
| Creek Heelsplitter | *Lasmigona compressa* | SPC | 3 | 1 | 1 |
| Fluted-shell | *Lasmigona costata* | SPC | 2 | | |
| Black Sandshell | *Ligumia recta* | SPC | 3 | 1 | 1 |
| Powesheik Skipper | *Oarisma powesheik* | SPC | | | 1 |
| Regal Fritillary | *Speyeria idalia* | SPC | 1 | | |
| | | | | | |
| Hill's Thistle | *Cirsium hillii* | SPC | | 1 | |
| Small white lady's-slipper | *Cypripedium candidum* | SPC | 2 | 2 | 2 |
| Sea Naiad | *Najas marina* | SPC | 2 | | 1 |
| American Ginseng | *Panax quinquefolius* | SPC | | | 1 |
| Widgeon-grass | *Ruppia maritima* | SPC | 2 | | |

*Please note that the source of information for the above table is the Rare Features Database of the Natural Heritage Information System. This additional information should be considered together with other sources of data included in the February 11th DNR comment letter, specifically included in comments regarding trumpeter swans, bald eagles, marbled godwits.*

It should also be noted that hundreds of trumpeter swans (*Cygnus buccinator*), state-listed as threatened, overwinter in Monticello and Fergus Falls, and often move between the two locations (overwintering sites are not included in the Rare Features Database).

The Blanding's turtle, state-listed as threatened, may be encountered in Stearns County. The attached Blanding's turtle fact sheet describes the habitat use and life history of this species. The fact sheet also provides two lists of recommendations for avoiding and minimizing impacts to this rare turtle. For this project, please refer to the first list of recommendations. If greater protection for turtles is desired, the second list of additional recommendations can also be implemented. The attached flyer should be given to all contractors working in the area.

The EIS should explicitly identify each native plant community that may be impacted by the proposed project. The area of impact should also be inventoried for any additional native plant communities beyond what has been identified by the Minnesota County Biological Survey. As mentioned in the Route Permit Application, rare species surveys may be needed if avoidance of native plant communities is not feasible.

The EIS should include an analysis of the potential for state-listed species, especially those identified above, to be impacted by the proposed project. Also, given the presence of state-listed threatened and endangered birds, the EIS should include a discussion of the likelihood of incidental takings due to mortality from collisions.

Thank-you for your consideration of this additional detail. Please contact me with any questions.