

Minnesota Department of Natural Resources  
Division of Ecological & Water Resources  
500 Lafayette Road, Box 25  
St. Paul, MN 55155-4025

August 25, 2017

**Correspondence # ERDB 20180094-0001**

Mr. Charlie Tucker  
DNR Division of Fish and Wildlife  
PO Box 100  
Roosevelt, MN 56673

RE: Natural Heritage Review of the Star of the North Walking Trail, Lake of the Woods and Roseau counties

Dear Mr. Tucker,

As requested, the Minnesota Natural Heritage Information System has been queried to determine if any rare species or other significant natural features are known to occur within an approximate one-mile radius of the proposed project. Based on this query, rare features have been documented within the search area. Please note that the proposed project has the potential to negatively affect the following rare features:

*Ecologically Significant Areas*

- The proposed trail crosses several areas that the Minnesota Biological Survey (MBS) has identified (or preliminarily identified) as Sites of Biodiversity Significance. Sites of Biodiversity Significance have varying levels of native biodiversity and are ranked based on the relative significance of this biodiversity at a statewide level. Factors taken into account during the ranking process include the number of rare species documented within the site, the quality of the native plant communities in the site, the size of the site, and the context of the site within the landscape. Most of the MBS Sites crossed by the trail are ranked Moderate indicating that they contain occurrences of rare species and/or moderately disturbed native plant communities, and/or landscapes that have a strong potential for recovery.

GIS shapefiles of MBS Sites of Biodiversity Significance and DNR Native Plant Communities can be downloaded from the MN Geospatial Commons at <https://gisdata.mn.gov/>. Actions to minimize disturbance may include, but are not limited to, the following recommendations:

- Minimize width of trail;
- As much as possible, site trail within already-disturbed areas;
- Do not route trails through wet swales or depressions, or sensitive rock outcrop areas;
- Bridge all stream and wetland crossings;
- Inspect and clean all equipment prior to bringing it to the site to prevent the introduction and spread of invasive species;
- Minimize construction of new trail within Sites of Outstanding or High Biodiversity Significance (e.g., T159N R36W Sections 22-24, T160N R37W Sections 9, 10, & 18); and
- Minimize construction of new trail within rare native plant communities (those with a Conservation Status Rank of S1, S2, or S3).

- In T159N R37W Section 17, the proposed trail crosses through designated old growth. Old-growth forests are natural forests that have developed over a long period of time, generally at least 120 years, without experiencing severe, stand-replacing disturbances such as fires, windstorms, or logging. Old-growth forests are a unique, nearly vanished piece of Minnesota's history and ecology; less than 4% of Minnesota's old-growth forests remain. Given the ecological significance of this area, disturbance should be avoided or minimized to the extent feasible.

#### *State-listed Species*

- Several state-listed plants of special concern (*Antennaria parvifolia* and *Botrychium spp.*) have been documented in the vicinity of the proposed trail. Please work with the DNR Regional Plant Specialist, Becky Marty, to minimize potential impacts to these species.
- Ram's head lady-slipper (*Cypripedium arietinum*), a state-listed threatened plant, has been documented within a ¼ mile of the proposed trail. This species occurs in a variety of coniferous forest habitats. Please work with the DNR Regional Plant Specialist, Becky Marty, to minimize impacts to potential habitat for this species.
- The small white waterlily (*Nymphaea leibergii*), a state-listed threatened plant, has been documented in Hansen Creek in the vicinity of the proposed crossing. Minnesota's endangered species law (*Minnesota Statutes*, section 84.0895) and associated rules (*Minnesota Rules*, part 6212.1800 to 6212.2300 and 6134) prohibit the taking of threatened or endangered species without a permit. **Please contact me if there will be any disturbance to Hansen Creek as a botanical survey will likely be required.** Project planning should take into account that the best time to search for this species is from July to August, when it is in flower.
- A state-listed endangered caddisfly (*Hydroptila waskesia*) has also been documented from Hansen Creek. Again, please contact me if there will be any disturbance to Hansen Creek so we can discuss avoidance measures or survey needs.

#### *Federally Protected Species*

- The northern long-eared bat (*Myotis septentrionalis*), federally listed as threatened and state-listed as special concern, has been captured in mist nets in the immediate vicinity of the proposed trail. During the winter this species hibernates in caves and mines, and during the active season (approximately April-October) it roosts underneath bark, in cavities, or in crevices of both live and dead trees. Pup rearing is during June and July. Activities that may impact this species include, but are not limited to, wind farm operation, any disturbance to hibernacula, and destruction/degradation of habitat (including tree removal).

The U.S. Fish and Wildlife Service (USFWS) has published a final 4(d) rule that identifies prohibited take. To determine whether you need to contact the USFWS, please refer to the USFWS Key to the Northern Long-Eared Bat 4(d) Rule (see links below). Please note that the NHIS does not contain any known maternity roost trees within 150 feet of the proposed trail nor any known hibernaculum within ¼ mile of the proposed trail.

*Environmental Review and Permitting*

- The Environmental Assessment Worksheet should address whether the proposed project has the potential to adversely affect the above rare features and, if so, it should identify specific measures that will be taken to avoid or minimize disturbance. Sufficient information should be provided so the DNR can determine whether a takings permit will be needed for any of the above protected species.

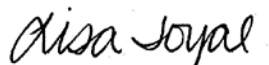
The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. However, the NHIS is not an exhaustive inventory and thus does not represent all of the occurrences of rare features within the state. Therefore, ecologically significant features for which we have no records may exist within the project area. **If additional information becomes available regarding rare features in the vicinity of the project, further review may be necessary.**

The enclosed results include an Index Report of records in the Rare Features Database, the main database of the NHIS. To control the release of specific location data, the report is copyrighted and only provides rare features locations to the nearest section. The Index Report may be reprinted, unaltered, in any environmental review document (e.g., EAW or EIS), municipal natural resource plan, or report compiled by your company for the project listed above. If you wish to reproduce the Index Report for any other purpose, please contact me to request written permission.

For environmental review purposes, the results of this Natural Heritage Review are valid for one year; the results are only valid for the project location (noted above) and the project description provided on the NHIS Data Request Form. Please contact me if project details change or for an updated review if construction has not occurred within one year.

Thank you for consulting us on this matter, and for your interest in preserving Minnesota's rare natural resources.

Sincerely,



Lisa Joyal  
Endangered Species Review Coordinator  
[lisa.joyal@state.mn.us](mailto:lisa.joyal@state.mn.us)

enc. Rare Features Database: Index Report

cc: Bill Johnson  
Becky Marty

Links: MBS Sites of Biodiversity Significance  
[http://www.dnr.state.mn.us/eco/mcbs/biodiversity\\_guidelines.html](http://www.dnr.state.mn.us/eco/mcbs/biodiversity_guidelines.html)  
DNR Native Plant Communities  
<http://www.dnr.state.mn.us/npc/index.html>

DNR Rare Species Guide  
[www.dnr.state.mn.us/rsg/index.html](http://www.dnr.state.mn.us/rsg/index.html)  
Provides information on the biology, habitat use, and conservation measures of rare species

USFWS Key to the Northern Long-Eared Bat 4(d) Rule for Non-Federal Activities  
<http://www.fws.gov/midwest/endangered/mammals/nleb/KeyFinal4dNLEB.html>  
USFWS Key to the Northern Long-Eared Bat 4(d) Rule for Federal Actions  
<http://www.fws.gov/midwest/endangered/mammals/nleb/KeyFinal4dNLEBFedProjects.html>  
USFWS Northern Long-eared Bat Website  
<http://www.fws.gov/midwest/endangered/mammals/nleb/index.html>  
USFWS Northern Long-eared Bat Fact Sheet  
<http://www.fws.gov/midwest/endangered/mammals/nleb/nlebFactSheet.html>

MINNESOTA HISTORIC PRESERVATION OFFICE

March 23, 2017

Mike Magner  
DNR Forestry/ Fish & Wildlife Archaeologist  
DNR Forestry Resource Assessment Office  
483 Peterson Road  
Grand Rapids, MN 55744

RE: Proposed Star of the North Walking Trail  
Red Lake WMA  
Lake of the Woods and Rouseau Counties  
MnHPO Number: 2017-1227

Dear Mr. Magner:

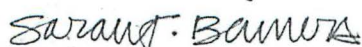
Thank you for consulting with our office during the preparation of an Environmental Assessment Worksheet (EAW) for the above referenced project.

As you are aware, there are several cultural resources located within close proximity to the proposed trail corridor, including Norris Camp, which is listed in the National Register of Historic Places. Based on our review of the project information, we agree with the proposed methodology that each trail segment be assessed and surveyed for cultural resources, once the trail corridor is finalized. We look forward to reviewing the results of the cultural resource investigations as they become available.

Please note that this comment letter does not address the requirements of Section 106 of the National Historic Preservation Act of 1966 and 36CFR800, procedures of the Advisory Council on Historic Preservation for the protection of historic properties. If this project is considered for federal assistance, or requires a federal license or permit, it should be submitted to our office by the responsible federal agency.

Please contact our Compliance Unit at (651) 259-3455 if you have any questions regarding our comments on this project.

Sincerely,



Sarah J. Beimers, Manager  
Government Programs and Compliance

## ATTACHMENT 3

### SITES OF OUTSTANDING & MODERATE BIODIVERSITY SIGNIFICANCE

| No. | Name             | Rank | Description  | Miles of Trail |
|-----|------------------|------|--|----------------|
| 1   | Bemis Ridge Main | Mod  | Crescent shaped beach ridge that extends for over 11 miles. Very well-drained sand that is dominated almost exclusively by jack pine. Features include large area of open marsh and open water.  | 4.8            |
| 2   | Elkwood 11       | Mod  | Upland wetland complex in Beltrami-Pine Island Beach Ridge landscape bordering the north side of Hansen Creek. Vegetation dominated by jack pine with stands of aspen. Wetlands are dominated by we meadow with inclusion of aspen.  | 1.8            |
| 3   | Elkwood 14       | Mod  | Large upland in Beltrami-Pine Island Beach Ridge landscape that borders south side of Hansen Creek. Vegetation dominated by aspen. Significant stands of jack pine forest. Complex includes black ash and wet meadow.  | 1.1            |
| 4   | Elkwood 17       | Mod  | Small conifer wetland site embedded in large aspen-jack pine Beltrami-Pine Island landscape. Dominated by white cedar, much over 100 years old, along with rich black spruce and tamarack swamp. Fringes include upland black spruce.  | 4.9            |
| 5   | Elkwood 18       | Mod  | Predominately flat sandy to loamy sand upland gently sloping to the north. Includes the Roseau River corridor. Mostly deciduous upland forests dominated by upland aspen. Some land clearing in the past and present. Site is part of large contiguous landscape in the Beltrami-Pine Island Beach Ridges land type association. This site extends into the Williams-Skime Lake Plain. | 3.2            |
| 6   | Elkwood 28       | Mod  | Large complex of wet meadow and shrub swamp with rich swamp forests in Beltrami-Pine Island Beach Ridge Complex. Vegetation dominated by sedges and/or willow-alder with tamarack, white cedar, black spruce, and aspen swamps. Scattered mineral islands dominated by dry and mesic aspen occur throughout.   | 2.2            |
| 7   | Elkwood 36       | Mod  | Uppermost 3.5 miles of the Roseau River in Roseau County upstream of a small dam. This portion of the river flows through a poorly drained flat landscape creating a wide channel. Vegetation is dominated by wet meadow and some shrub swamp and marsh.   | 0.1            |
| 8   | Elkwood 7        | Mod  | Sandy upland along western slope of the Bemis Ridge. Uplands dominated by aspen with one stand of jack pine. Small pockets of wet meadow and a few black spruce and tamarack swamp inclusion.  | 3.4            |
| 9   | Hansen Creek     | Mod  | An 8 miles stretch of the riparian corridor of the Hansen Creek. Primarily wet meadow with some marsh and shrub swamp. One small dam is present that backs up water for one-half mile.   | 1.1            |

| No. | Name                      | Rank | Description   | Miles of Trail |
|-----|---------------------------|------|---|----------------|
| 10  | Luxemberg East            | Mod  | Complex of mostly open but also forested wetlands with interspersed dry sandy uplands, all within the Beltrami-Pine Island Beach Ridges landscape. The wetlands are dominated by wet meadow and rich fen with some shrub swamp. Uplands primarily aspen with some large stands of jack pine.  | 1.9            |
| 11  | Luxemberg Peatland Main   | Out  | This peatland complex is one of 18 ecologically significant patterned peatlands identified in Minnesota. It contains a good example of an extensive water track dominated by northern rich fen (Upn91) with extensive areas of well-defined ribbed fen pattern. Some tamarack swamp occurs along the upland border. Rare plants include English sundew ( <i>Drosera anglica</i> ) in the well-developed pools of the ribbed fen and small white waterlily ( <i>Nymphaea leibergii</i> ) in Luxemberg Lake. Rare animals include short-eared owls and yellow rail. This site is part of the Beltrami-Pine Island Beach Ridges landscape.   | 0.6            |
| 12  | Luxemberg Peatland North  | Mod  | Complex of dry sandy uplands and wetlands dispersed throughout a peatland landscape, all with the Beltrami-Pine Island Beach Ridges landscape. The uplands are primarily aspen but there are some large stands of jack pine on the higher ridges. The wetlands are dominated by wet meadow and rich fen with some shrub swamp. Wet aspen forests occur on shallow muck or on mineral soil with the water table near the surface. Disturbance includes timber harvest and conversion to plantations.   | 3.9            |
| 13  | Luxemberg Southeast       | Mod  | This is a complex of dry sandy uplands interspersed with pockets of wetlands, all within the Beltrami-Pine Island Beach Ridges landscape. The uplands are dominated by jack pine, with some aspen forests present but representing a minor component of the uplands. The wetland forests are primarily tamarack swamp forest with small stands of rich and poor black spruce. The open wetlands include wet meadow and rich fen and some shrub swamp. More uplands than wetlands with the upland dominated by jack pine and aspen and the wetlands having more forested than open. This site is on the east side of the Outstanding ranked Luxemberg Peatland. Very few roads, with disturbance primarily cutting of the jack pine. | 2.7            |
| 14  | Luxemberg West            | Mod  | This is an upland wetland complex occurring between the Bemis Ridge and the Luxemberg Peatland in the Beltrami-Pine Island Beach Ridges landscape. It is dominated by a mixture of aspen and jack pine. More mesic than the adjacent beach ridge with sandy ridges close to the water table. Interspersed are pockets of wet meadow, marsh, and shrub swamp.  | 2.8            |
| 15  | Norris Camp Peatland West | Mod  | Peatland complex behind Bemis Ridge dominated by rich tamarack swamp forests separated by rich fen. Includes mineral islands of jack pine and aspen. Part of vast Beltrami-Pine Island Beach Ridge Complex land type association.   | 0.7            |