

## **ATTACHMENTS**

Lake Vermilion and Soudan Underground Mine State Park Developments

Environmental Assessment Worksheet

Public Review Period: March 4, 2013 – April 3, 2013

- |            |   |         |
|------------|---|---------|
| Attach. A. | Minnesota Department of Natural Resources, Natural Heritage Review (November 2012, Project No. 20130081). | 8 pages |
| Attach. B. | Minnesota Historical Society State Historic Preservation Office Correspondence (January 2013).            | 5 pages |



# Minnesota Department of Natural Resources

Division of Ecological and Water Resources, Box 25

500 Lafayette Road

St. Paul, Minnesota 55155-4025

Phone: (651) 259-5109 E-mail: lisa.joyal@state.mn.us

November 1, 2012

Correspondence # ERDB 20130081

Ms. Diane Anderson  
MN DNR Parks and Trails Division  
500 Lafayette Road  
St. Paul, MN 55155

RE: Natural Heritage Review of the proposed Lake Vermilion and Soudan Underground Mine Development,  
St. Louis County

Township (N)	Range (W)	Section(s)
62	14	19
62	15	13, 14, 21-29

Dear Ms. Anderson,

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 (for details, see the enclosed database reports; please visit the Rare Species Guide at <http://www.dnr.state.mn.us/rsg/index.html> for more information on the biology, habitat use, and conservation measures of these rare species). Please note that the following **rare features may be adversely affected** by the proposed project:

- There are several forest stands within Soudan Underground Mine State Park that are designated as Old Growth. As you know, 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 5% of Minnesota's old-growth forests remain. For more information on old-growth forests, please visit [http://www.dnr.state.mn.us/forests\\_types/oldgrowth/index.html](http://www.dnr.state.mn.us/forests_types/oldgrowth/index.html). Given the ecological significance of these areas, the old growth stands should be considered avoidance areas to the extent feasible.
- Several rare plants have been documented within the park boundaries.

Common Name	Scientific Name	Current State Status	Proposed State Status
Alpine Woodsia	<i>Woodsia alpina</i>	Special Concern	Threatened
Least Moonwort	<i>Botrychium simplex</i>	Special Concern	Special Concern
Lapland Buttercup	<i>Ranunculus lapponicus</i>	Special Concern	Special Concern
Bur-marigold	<i>Bidens discoidea</i>	Not Listed	Special Concern
Oregon Woodsia	<i>Woodsia oregana</i> ssp. <i>cathcartiana</i>	Not Listed	Special Concern

The known occurrences of these plants should be avoided to the extent feasible. Many of these species are found in inaccessible habitat where there likely will not be any construction activities.

- A bald eagle (*Haliaeetus leucocephalus*) nest (EO ID #32471 on the enclosed report) has been documented along the shoreline in the SW ¼ of T62N R15W Section 22. This nest was active when last checked in 2006. Bald eagles are a state-listed species of special concern, and they are federally protected under the Migratory Bird Treaty Act and under the Bald and Golden Eagle Protection Act. Both acts prohibit killing, selling, or otherwise harming eagles, their nests or eggs. More information regarding bald eagles and their legal protection can be found at the following USFWS website: <http://www.fws.gov/midwest/eagle/index.html>. USFWS Guidelines to Avoid Disturbing Bald Eagles are found at <http://www.fws.gov/midwest/eagle/guidelines/index.html>.

- Two state-listed mammals of special concern, the smoky shrew (*Sorex fumeus*) and the northern myotis (*Myotis septentrionalis*), have also been documented within the park boundaries. Please visit the Rare Species Guide at <http://www.dnr.state.mn.us/rsg/index.html> for more information on the biology, habitat use, and conservation measures of these rare species.
- The Environmental Assessment Worksheet should address whether the proposed project has the potential to adversely affect the above rare features and, if so, any avoidance or mitigation measures that will be implemented.

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 and a Detailed Report of records in the Rare Features Database, the main database of the NHIS. To control the release of specific location information, which might result in the destruction of a rare feature, both reports are copyrighted.

The Index Report provides rare feature locations only to the nearest section, and may be reprinted, unaltered, in an 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. **The Detailed Report is for your personal use only as it may include specific location information that is considered nonpublic data under Minnesota Statutes, section 84.0872, subd. 2. If you wish to reprint or publish the Detailed Report for any purpose, please contact me to request written permission.**

For environmental review purposes, the Natural Heritage letter and database reports are valid for one year; they 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 if an updated review is needed.

Please note that locations of the gray wolf (*Canis lupus*), state-listed as special concern, and the Canada lynx (*Lynx canadensis*), federally-listed as threatened, are not currently tracked in the NHIS. As such, the Natural Heritage Review does not address these species.

Furthermore, the Natural Heritage Review does not constitute review or approval by the Department of Natural Resources as a whole. Instead, it identifies issues regarding known occurrences of rare features and potential effects to these rare features. Additional rare features for which we have no data may be present in the project area, or there may be other natural resource concerns associated with the proposed project. For these concerns, please contact your DNR Regional Environmental Assessment Ecologist (contact information available at [http://www.dnr.state.mn.us/eco/ereview/erp\\_regioncontacts.html](http://www.dnr.state.mn.us/eco/ereview/erp_regioncontacts.html)). Please be aware that additional site assessments or review may be required. 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

enc. Rare Features Database: Index Report, Detailed Report, An Explanation of Fields

cc: Ron Wieland, Rian Reed, Bruce Carlson, Maya Hamady

Minnesota Natural Heritage Information System  
Index Report of records within 1 mile radius of:  
ERDB# 20130081 - Lake Vermilion & Soudan Mine Park  
Multiple TRS  
St. Louis County

**Rare Features Database:**

Element Name and Occurrence Number	Federal Status	MN Status	Draft Status	SGCN Status	State Rank	Global Rank	Last Obs Date	EO ID #
<b>Vertebrate Animal</b>								
<u>Botaurus lentiginosus</u> (American Bittern) #161 T61N R15W S17, T61N R15W S7, T61N R15W S8; St. Louis County		NON		SGCN	S4B	G4	1992-05-22	14832
<u>Haliaeetus leucocephalus</u> (Bald Eagle) #521 T62N R15W S16, T62N R15W S17, T62N R15W S18, T62N R15W S19, T62N R15W S20; St. Louis County		SPC	Watchlist	SGCN	S3B,S3N	G5	2006-05-23	6056
<u>Haliaeetus leucocephalus</u> (Bald Eagle) #1275 T62N R15W S14, T62N R15W S15, T62N R15W S22, T62N R15W S23; St. Louis County		SPC	Watchlist	SGCN	S3B,S3N	G5	1999	17367
<u>Haliaeetus leucocephalus</u> (Bald Eagle) #2369 T62N R15W S15, T62N R15W S22; St. Louis County		SPC	Watchlist	SGCN	S3B,S3N	G5	2006-05-13	32471
<u>Haliaeetus leucocephalus</u> (Bald Eagle) #2370 T62N R15W S11, T62N R15W S14; St. Louis County		SPC	Watchlist	SGCN	S3B,S3N	G5	2005-04-29-PR E	32473
<u>Myotis septentrionalis</u> (Northern Myotis) #2 T62N R15W S27, T62N R15W S28; St. Louis County		SPC		SGCN	S3	G4	1983-09-20	2665
<u>Sorex fumeus</u> (Smoky Shrew) #31 T62N R15W S27; St. Louis County		SPC		SGCN	S3	G5	2011-06-25	36537
<b>Animal Assemblage</b>								
<u>Bat Colony</u> (Bat Concentration) #7 T62N R15W S27, T62N R15W S28; St. Louis County		N/A			SNR	GNR	1985	450
<u>Colonial Waterbird Nesting Area</u> (Colonial Waterbird Nesting Site) #898 T62N R15W S28, T62N R15W S33; St. Louis County		N/A			SNR	GNR	1993	18658
<b>Vascular Plant</b>								
<u>Bidens discoidea</u> (Bur-marigold) #30 T62N R15W S13; St. Louis County		NON	SPC		SNR	G5	2010-07-19	36236
<u>Botrychium simplex</u> (Least Moonwort) #176 T62N R15W S26; St. Louis County		SPC			S3	G5	2011-06-25	36465

Minnesota Natural Heritage Information System  
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Multiple TRS  
St. Louis County

**Rare Features Database:**

Element Name and Occurrence Number	Federal Status	MN Status	Draft Status	SGCN Status	State Rank	Global Rank	Last Obs Date	EO ID #
<b>Vascular Plant</b>								
<u>Caltha natans</u> (Floating Marsh-marigold) #1 T61N R15W S4, T61N R15W S5, T61N R15W S6, T62N R15W S29, T [...]; St. Louis County		END			S1	G5	1905-07-29	3904
<u>Claytonia caroliniana</u> (Carolina Spring-beauty) #11 T61N R15W S4, T61N R15W S5, T61N R15W S6, T62N R15W S29, T [...]; St. Louis County		SPC	Watchlist		S3	G5	1893-06	4226
<u>Ranunculus gmelinii</u> (Small Yellow Water Crowfoot) #44 T62N R15W S23; St. Louis County		NON			SNR	G5	2010-07-14	36422
<u>Ranunculus gmelinii</u> (Small Yellow Water Crowfoot) #47 T62N R14W S19, T62N R15W S24; St. Louis County		NON			SNR	G5	2011-06-26	36466
<u>Ranunculus lapponicus</u> (Lapland Buttercup) #86 T62N R14W S19; St. Louis County		SPC			S3	G5	2011-06-26	36469
<u>Scirpus pedicellatus</u> (Woolgrass) #50 T62N R15W S13; St. Louis County		NON			SNR	G4	2010-07-19	36240
<u>Woodsia alpina</u> (Alpine Woodsia) #32 T62N R15W S26; St. Louis County		SPC	THR		S3	G4	2011-06-25	36434
<u>Woodsia oregana ssp. cathcartiana</u> (Oregon Woodsia) #11 T62N R15W S23; St. Louis County		NON	SPC		SNR	G5T5	2010-08-05	36447
<u>Woodsia oregana ssp. cathcartiana</u> (Oregon Woodsia) #13 T62N R15W S26; St. Louis County		NON	SPC		SNR	G5T5	2011-06-25	36459
<b>Other (Ecological)</b>								
<u>Fold (archean, proterozoic)</u> #1 T62N R15W S27, T62N R15W S28, T62N R15W S34; St. Louis County		N/A			SNR	GNR	1980	19
<u>Ice erosion (quaternary)</u> #4 T62N R15W S26, T62N R15W S27, T62N R15W S34, T62N R15W S35; St. Louis County		N/A			SNR	GNR	1980	50
<u>Ice erosion (quaternary)</u> #5 T62N R15W S27, T62N R15W S28, T62N R15W S34; St. Louis County		N/A			SNR	GNR	1978	51

Minnesota Natural Heritage Information System  
Index Report of records within 1 mile radius of:  
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Multiple TRS  
St. Louis County

**Rare Features Database:**

Element Name and Occurrence Number	Federal Status	MN Status	Draft Status	SGCN Status	State Rank	Global Rank	Last Obs Date	EO ID #
<b>Other (Ecological)</b>								
<u>Igneous unit or sequence (archean) #7</u> T62N R15W S27, T62N R15W S28, T62N R15W S34; St. Louis County		N/A			SNR	GNR	1980	181
<u>Igneous unit or sequence (archean) #8</u> T62N R15W S27, T62N R15W S28, T62N R15W S33, T62N R15W S34; St. Louis County		N/A			SNR	GNR	1980	182
<u>Mineral (archean, proterozoic) #2</u> T62N R15W S26, T62N R15W S27, T62N R15W S34, T62N R15W S35; St. Louis County		N/A			SNR	GNR	1954	117
<u>Mineral (archean, proterozoic) #3</u> T62N R15W S27, T62N R15W S28, T62N R15W S33, T62N R15W S34; St. Louis County		N/A			SNR	GNR	1980-06	113
<u>Mineral (archean, proterozoic) #5</u> T62N R15W S27, T62N R15W S28, T62N R15W S34; St. Louis County		N/A			SNR	GNR	1980	114
<u>Stream erosion (archean, proterozoic, phanerozoic) #5</u> T62N R15W S26, T62N R15W S27, T62N R15W S34, T62N R15W S35; St. Louis County		N/A			SNR	GNR	1980	141

Records Printed = 29

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. For plants, taking includes digging or destroying. For animals, taking includes pursuing, capturing, or killing.

**An Explanation of Fields:**

**Element Name and Occurrence Number:** The Element is the name of the rare feature. For plant and animal species records, this field holds the scientific name followed by the common name in parentheses; for all other elements it is solely the element name. Native plant community names correspond to Minnesota's Native Plant Community Classification (Version 2.0). The Occurrence Number, in combination with the Element Name, uniquely identifies each record.

**Federal Status:** The status of the species under the U.S. Endangered Species Act: LE = endangered; LT = threatened; LE,LT = listed endangered in part of its range, listed threatened in another part of its range; LT,PDL = listed threatened, proposed for delisting; C = candidate for listing. If null or 'No Status,' the species has no federal status.

**MN Status:** The legal status of the plant or animal species under the Minnesota Endangered Species Law: END = endangered; THR = threatened; SPC = special concern; NON = tracked, but no legal status. Native plant communities, geological features, and colonial waterbird nesting sites do not have any legal status under the Endangered Species Law and are represented by a N/A.

**Draft Status:** Proposed change to the legal status of the plant or animal species under the Minnesota Endangered Species Law: END = endangered; THR = threatened; SPC = special concern; Watchlist = tracked, but no legal status.

Minnesota Natural Heritage Information System  
Index Report of records within 1 mile radius of:  
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**SGCN Status:** SGCN = The species is a Species in Greatest Conservation Need as identified in Minnesota's State Wildlife Action Plan (<http://www.dnr.state.mn.us/cwcs/index.html>). This designation applies to animals only.

**State Rank:** Rank that best characterizes the relative rarity or endangerment of the taxon or plant community in Minnesota. The ranks do not represent a legal status. They are used by the Minnesota Department of Natural Resources to set priorities for research, inventory and conservation planning. The state ranks are updated as inventory information becomes available. S1 = Critically imperiled in Minnesota because of extreme rarity or because of some factor(s) making it especially vulnerable to extirpation from the state. S2 = Imperiled in Minnesota because of rarity or because of some factor(s) making it very vulnerable to extirpation from the state. S3 = Vulnerable in Minnesota either because rare or uncommon, or found in a restricted range, or because of other factors making it vulnerable to extirpation. S4 = Apparently secure in Minnesota, usually widespread. S5 = Demonstrably secure in Minnesota, essentially ineradicable under present conditions. SH = Of historical occurrence in the state, perhaps having not been verified in the past 20 years, but suspected to be still extant. An element would become SH without the 20-year delay if the only known occurrences in the state were destroyed or if it had been extensively and unsuccessfully looked for. SNR = Rank not yet assessed. SU = Unable to rank. SX = Presumed extinct in Minnesota. SNA = Rank not applicable. S#S# = Range Rank: a numeric range rank (e.g., S2S3) is used to indicate the range of uncertainty about the exact status of the element. S#B, S#N = Used only for migratory animals, whereby B refers to the breeding population of the element in Minnesota and N refers to the non-breeding population of the element in Minnesota.

**Global Rank:** The global (i.e., range-wide) assessment of the relative rarity or imperilment of the species or community. Ranges from G1 (critically imperiled due to extreme rarity on a world-wide basis) to G5 (demonstrably secure, though perhaps rare in parts of its range). Global ranks are determined by NatureServe, an international network of natural heritage programs and conservation data centers.

**Last Observed Date:** Date that the Element Occurrence was last observed to be extant at the site in format YYYY-MM-DD.

**EO ID #:** Unique identifier for each Element Occurrence record.

**Element Occurrence:** An area of land and/or water in which an Element (i.e., a rare species or community) is, or was, present, and which has practical conservation value for the Element as evidenced by potential continued (or historical) presence and/or regular recurrence at a given location. Specifications for each species determine whether multiple observations should be considered 1 Element Occurrence or 2, based on minimum separation distance and barriers to movement.

# Rare Features Database Reports: An Explanation of Fields

Revised August 2012

The Rare Features Database is part of the Natural Heritage Information System, and is maintained by the Division of Ecological and Water Resources, Minnesota Department of Natural Resources (DNR).

*\*\*Please note that the database reports are copyrighted and may not be reproduced without permission\*\**

**Field Name:** [Full (non-abbreviated) field name, if different]. Further explanation of field.

## **-D-**

**Draft Status:** Proposed change to the legal status of the plant or animal species under the Minnesota Endangered Species Law: END = endangered; THR = threatened; SPC = special concern; Watchlist = tracked, but no legal status.

## **-E-**

**Element Name and Occ #:** [Element Name and Occurrence Number]. The Element is the name of the rare feature. For plant and animal species records, this field holds the scientific name followed by the common name in parentheses; for all other elements (such as native plant communities, which have no scientific name) it is solely the element name. Native plant community names correspond to Minnesota's Native Plant Community Classification (Version 2.0). The Occurrence Number, in combination with the Element Name, uniquely identifies each record.

**EO Data:** [Element Occurrence Data]. For species elements, this field contains data collected on the biology of the Element Occurrence\* (EO), including the number of individuals, vigor, habitat, soils, associated species, peculiar characteristics, etc. For native plant community elements, this field is a summary text description of the vegetation of the EO, including structure (strata) and composition (dominant/characteristic species), heterogeneity, successional stage/dynamics, any unique aspects of the community or additional noteworthy species (including animals). Note that this is a new field and it has not been filled out for many of the records that were collected prior to conversion to the new database system. Some of the information meeting the field definition may be found in the General Description field.

**EO ID#:** [Element Occurrence Identification Number]. Unique identifier for each Element Occurrence record.

**EO Rank:** [Element Occurrence Rank]. An evaluation of the quality and condition of an Element Occurrence (EO) from A (highest) to D (lowest). Represents a comparative evaluation of: 1) quality as determined by representativeness of the occurrence especially as compared to EO specifications and including maturity, size, numbers, etc. 2) condition (how much has the site and the EO itself been damaged or altered from its optimal condition and character). 3) viability (the long-term prospects for continued existence of this occurrence - used in ranking species only). EO Ranks are assigned based on recent fieldwork by knowledgeable individuals.

**Extent Known?:** A value that indicates whether the full extent of the Element is known (i.e., it has been determined through field survey) at that location. If null, the value has not been determined.

## **-F-**

**Federal Status:** Status of species under the U.S. Endangered Species Act: LE = endangered; LT = threatened; LE,LT = listed endangered in part of its range, listed threatened in another part of its range; LT,PDL = listed threatened, proposed for delisting; C = candidate for listing. If null or "No Status" the species has no federal status.

**First Observed Date:** Date that the Element Occurrence was first reported at the site in format YYYY-MM-DD. A year followed by "Pre" indicates that the observed date was sometime prior to the date listed, but the exact date is unknown.

## **-G-**

**General Description:** General description or word picture of the area where the Element Occurrence (EO) is located (i.e., the physical setting/context surrounding the EO), including a list of adjacent communities. When available, information on surrounding land use may be included. Note that the information tracked in this field is now more narrowly defined than it was in the old database system, and some of the information still in this field more accurately meets the definition of the new EO Data field. We are working to clean up the records so that the information in the two fields corresponds to the current field explanations described herein. Also note that the use of uppercase in sentences in this field is not significant but rather an artifact of transferring data from the old database system to the new system.

**Global Rank:** The global (i.e., range-wide) assessment of the relative rarity or imperilment of the species or community. Ranges from G1 (critically imperiled due to extreme rarity on a world-wide basis) to G5 (demonstrably secure, though perhaps rare in parts of its range). Global ranks are determined by NatureServe, an international network of natural heritage programs and conservation data centers.

## **-L-**

**Last Observed Date:** Date that the Element Occurrence was last observed to be extant at the site in format YYYY-MM-DD.

**Last Survey Date:** Date of the most recent field survey for the Element Occurrence, regardless of whether it was found during the visit. If the field is blank, assume the date is the same as the Last Observed Date.



**Location Description:** County or Counties in which the Element Occurrence was documented followed by Township, Range, and Section information (not listed in any particular order). Each unique Township, Range, and Section combination is separated by a comma. In some cases, there are too many Township, Range, and Section combinations to list in the field, in which case, the information will be replaced with, "Legal description is too lengthy to fit in allotted space".

**-M-**

**Managed Area(s):** Name of the managed area (e.g., federal, state, local, or private park, forest, refuge, or preserve) containing the occurrence, if any. If this field is blank, the element probably occurs on private land. If "(Statutory Boundary)" occurs after the name of a managed area, the location may be a private inholding within the statutory boundary of a state forest or park.

**MN Status:** The legal status of plant or animal species under the Minnesota Endangered Species Law: END = endangered; THR = threatened; SPC = special concern; NON = tracked, but no legal status. Native plant communities, geological features, and colonial waterbird nesting sites do not have any legal status under the Endangered Species Law and are represented by a N/A.

**MN Statute Name:** The name of the species as identified under the Minnesota Endangered Species Law. This name may differ from the scientific name due to changes in the scientific nomenclature since 1996, when the Minnesota List of state-listed species was last revised.

**-N-**

**NPC Classification (v1.5):** Native plant community name in Minnesota's Native Vegetation: A Key to Natural Communities (Version 1.5). This earlier classification has been replaced by Minnesota's Native Plant Community Classification (Version 2.0).

**-O-**

**Observed Area:** The total area (acres), measured or estimated during fieldwork, of the Element Occurrence. If null, the value has not been determined.

**-S-**

**SGCN Status:** SGCN = The species is a Species in Greatest Conservation Need as identified in Minnesota's State Wildlife Action Plan (<http://www.dnr.state.mn.us/cwcs/index.html>). This designation applies to animals only.

**Site Name:** The name of the site(s) where the Element Occurrence is located. Sites are natural areas of land with boundaries determined and mapped according to biological and ecological considerations.

**Survey Site #/Name:** The name of the survey site, if applicable, where the Element Occurrence is located. Survey sites are sites that provide a geographic framework for recording and storing data, but their boundaries are not based on biological and ecological considerations. Minnesota County Biological Survey site numbers, if applicable, are also listed in this field.

**Survey Type:** Information on the type of survey used to collect information on the Element Occurrence.

**Surveyor(s):** Name(s) of the person(s) that collected survey information on the Element Occurrence.

**State Rank:** Rank that best characterizes the relative rarity or endangerment of the taxon or plant community in Minnesota. The ranks do not represent a legal status. They are used by the Minnesota Department of Natural Resources to set priorities for research, inventory and conservation planning. The state ranks are updated as inventory information becomes available. S1 = Critically imperiled in Minnesota because of extreme rarity or because of some factor(s) making it especially vulnerable to extirpation from the state. S2 = Imperiled in Minnesota because of rarity or because of some factor(s) making it very vulnerable to extirpation from the state. S3 = Vulnerable in Minnesota either because rare or uncommon, or found in a restricted range, or because of other factors making it vulnerable to extirpation. S4 = Apparently secure in Minnesota, usually widespread. S5 = Demonstrably secure in Minnesota, essentially ineradicable under present conditions. SH = Of historical occurrence in the state, perhaps having not been verified in the past 20 years, but suspected to be still extant. An element would become SH without the 20-year delay if the only known occurrences in the state were destroyed or if it had been extensively and unsuccessfully looked for. SNR = Rank not yet assessed. SU = Unable to rank. SX = Presumed extinct in Minnesota. SNA = Rank not applicable. S#S# = Range Rank: a numeric range rank (e.g., S2S3) is used to indicate the range of uncertainty about the exact status of the element. S#B, S#N = Used only for migratory animals, whereby B refers to the breeding population of the element in Minnesota and N refers to the non-breeding population of the element in Minnesota.

**-V-**

**Vegetation Plot:** Code(s) for any vegetation plot data that have been collected within this Element Occurrence (i.e., either Releve Number or the word "RELEVE" indicates that a releve has been collected).

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\* Element Occurrence – an area of land and/or water in which an Element (i.e., a rare species or community) is, or was, present, and which has practical conservation value for the Element as evidenced by potential continued (or historical) presence and/or regular recurrence at a given location. Specifications for each species determine whether multiple observations should be considered 1 Element Occurrence or 2, based on minimum separation distance and barriers to movement.

## Data Security

Locations of some rare features must be treated as sensitive information because widespread knowledge of these locations could result in harm to the rare features. For example, wildflowers such as orchids and economically valuable plants such as ginseng are vulnerable to exploitation by collectors; other species, such as bald eagles, are sensitive to disturbance by observers. For this reason, we prefer that publications not identify the precise locations of vulnerable species. We suggest describing the location only to the nearest section. If this is not acceptable for your purposes, please call and discuss this issue with the Endangered Species Review Coordinator at 651- 259-5109.

**Anderson, Diane (DNR)**

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**From:** Thomas Cinadr <thomas.cinadr@mnhs.org>  
**Sent:** Tuesday, October 30, 2012 8:00 AM  
**To:** Anderson, Diane (DNR)  
**Subject:** Re: Request: SHPO Database Search  
**Attachments:** Historic.rtf; Archaeology.rtf

**THIS EMAIL IS NOT A PROJECT CLEARANCE.**

**This message simply reports the results of the cultural resources database search you requested. The database search produced results for only previously known archaeological sites and historic properties. Please read the note below carefully.**

Archaeological sites and historic properties were identified in a search of the Minnesota Archaeological Inventory and Historic Structures Inventory for the search area requested. **Reports containing the results of the search are attached.**

The result of this database search provides a listing of recorded archaeological sites and historic architectural properties that are included in the current SHPO databases. Because the majority of archaeological sites in the state and many historic architectural properties have not been recorded, important sites or structures may exist within the search area and may be affected by development projects within that area. Additional research, including field survey, may be necessary to adequately assess the area's potential to contain historic properties.

If you require a comprehensive assessment of a project's potential to impact archaeological sites or historic architectural properties, you may need to hire a qualified archaeologist and/or historian. If you need assistance with a project review, please contact Kelly Gragg-Johnson in Review and Compliance @ 651-259-3455 or by email at [kelly.graggjohnson@mnhs.org](mailto:kelly.graggjohnson@mnhs.org).

The Minnesota SHPO Survey Manuals and Database Metadata and Contractor Lists can be found at <http://www.mnhs.org/shpo/survey/inventories.htm>

**SHPO research hours are 8:00 AM – 4:00 PM Tuesday-Friday.  
The Office is closed on Mondays.**

***Tom Cinadr***  
**Survey and Information Management Coordinator**  
**Minnesota State Historic Preservation Office**  
**Minnesota Historical Society**  
**345 Kellogg Blvd. West**  
**St. Paul, MN 55102**

**651-259-3453**

On Wed, Oct 24, 2012 at 10:24 AM, Anderson, Diane (DNR) <[diane.k.anderson@state.mn.us](mailto:diane.k.anderson@state.mn.us)> wrote:

Dear Mr. Cinadr,

The Minnesota Department of Natural Resources is in the process of preparing an Environmental Assessment Worksheet (EAW) for proposed development of Lake Vermilion State Park and Soudan Underground Mine State Park, located near the city of Soudan, in St. Louis County. Please accept this email and project description as my request for a database search for archaeological, historical and architectural districts or structures within the project area (park boundaries).

The Minnesota Department of Natural Resources proposes development of Lake Vermilion and Soudan Underground Mine State Parks, including 74 campsites, 13 camper cabins, three group camps, four sanitation buildings, and a new public water access in Cable Bay. Future development includes a visitor center and supporting infrastructure for both parks.

The project is located in the following sections of Breitung Township, St. Louis County:

**Gov Lots 1; 2; NE NW; SE NW: TWP 62N RANGE 14W, Sec 19**

**TWP 62N RANGE 15W Sec 13, 14, 21-29**

Attached are project maps (PDFs) for your reference as well as a GIS shapefile for the park boundaries. I understand survey work is ongoing and further study will continue in the site by Dave Radford and his team, which may include additional items not yet included in the database, as well as cultural resources reports that are in progress for the proposed development areas – labeled as phase 1, 2 on the attached map.

If you need additional data or have any issues with the attachments, please contact me.

Thank you,

Diane

Diane K. Anderson  
Principal Planner  
DNR, Division of Parks & Trails

500 Lafayette Road  
St. Paul, MN 55155-4039  
Phone: 651-259-5614

[diane.k.anderson@state.mn.us](mailto:diane.k.anderson@state.mn.us)

# History/Architecture Inventory

PROPERTY NAME	ADDRESS	Twp	Range	Sec	Quarters	USGS	Report	NRHP	CEF	DOE	Inventory Number
<b>COUNTY</b>	<b>Saint Louis</b>										
<b>CITY/TOWNSHIP:</b>											
Stone Chimney	Old State Road 35 / Trunk Highway 35 / Trunk Highway 1	62	15	26	SE-SW						SL-BRE-016
<b>CITY/TOWNSHIP: Breitung Twp.</b>											
house	xxx Center St.	62	15	27		Soudan	SL-88-2H				SL-BRE-001
garage		62	15	27		Soudan	SL-88-2H				SL-BRE-002
house	23 Center St.	62	15	27		Soudan	SL-88-2H				SL-BRE-003
mobile home		62	15	27		Soudan	SL-88-2H				SL-BRE-004
barn		62	15	27		Soudan	SL-88-2H				SL-BRE-005
garage		62	15	27		Soudan	SL-88-2H				SL-BRE-006
woodshed		62	15	27		Soudan	SL-88-2H				SL-BRE-007
Soudan Mine	Mn. Hwy 1 & Mn. Hwy. 169	62	15	27	S	Soudan	SL-88-2H	Y			SL-BRE-008
Compressor Building Foundation Ruins and Smokestack	At northern terminus of Stutz Bay Road (Township Road 4598)	62	15	27	SW-NE-NW	Soudan		Y			SL-BRE-009
Big Rock		62	15	27	NE-NE-NW	Soudan		Y			SL-BRE-010
Fisherman's Dock		62	15	27	NE-NW-NE	Soudan		Y			SL-BRE-011
Stuntz Bay Boathouse Historic District		62	15	27	S-SW-NE	6/20/2007		Y			SL-BRE-012
Stuntz Bay Boathouse Historic District		62	15	27	S-S-NW	Soudan		Y			SL-BRE-012
Pahula Boathouse	Armstrong Bay, Lake Vermilion	62	15	13	NE-SE						SL-BRE-013
Old Tower-Ely Road	Intersects with Old State Road 35	62	15	26	SW-SE						SL-BRE-014
Old State Road 35/Trunk Highway 35/Trunk Highway 1	North of TH1/169	62	14	19							SL-BRE-015
Old State Road 35/Trunk Highway 35/Trunk Highway 1		62	15	24							SL-BRE-015

PROPERTY NAME	ADDRESS	Twp	Range	Sec	Quarters	USGS	Report	NRHP	CEF	DOE	Inventory Number
<b>COUNTY</b>	<b>Saint Louis</b>										
<b>CITY/TOWNSHIP:</b>	<b>Breitung Twp.</b>										
Old State Road 35/Trunk Highway 35/Trunk Highway 1	North of TH1/169	62	15	25							SL-BRE-015
Old State Road 35/Trunk Highway 35/Trunk Highway 1		62	15	26							SL-BRE-015

# Archaeological Site Locations

Site Number	Site Name	Twp.	Range	Sec.	Quarter Sections	Acres	Phase	Site Description	Tradition	Context	Reports	NR	CEF	DOE
<b>County: Saint Louis</b>														
21SL0277	Soudan Mine	62	15	24	N-SW	0	1	SR, AS		IR-1				
21SL0869	Island No. 87	62	15	14	SW-SW-NE-SE	0.3	1	AS	W-1					
21SL0946	St. Louis # 82	62	15	13	NE-SE-NW	0.6	1	AS,SR		TR-2				
21SL1009	Long Island	62	15	21	NE-NE-SE	0.4	1	LS						
21SL1012	Janus Shore	62	15	13	SE-NE-SW	0.1	1	SA						
21SL1107	Armstrong Bay	62	15	13	S-NE-SE	0.6	1	LS	A-2					
21SL1108	Cable Bay Quarry	62	15	14	SW-SE-SE	0.9	1	LS						
	Cable Bay Quarry	62	15	23	NW-NE-NE	0.9	1	LS						
21SL1115	Cable Bay Pits	62	15	13	NW-SE-SW	0.1	1	FEAT						
21SL1130	Stuntz Bay 1	62	15	21	SE-SW-NW-SE	0.8	1	AS		IC-2				
21SL1131	Stuntz Bay 2	62	15	21	NW-NE-SW-SE	0.4	1	LS						
	Stuntz Bay 2	62	15	21	NE-NW-SW-SE	0.4	1	LS						
21SL1132	Stuntz Bay 3	62	15	22	NW-NE-SW	0.5	1	LS						
21SL1133	Lake Vermillion Unnamed Bay	62	15	13	NW-SW-NE-SW	0.5	1	LS						
21SL1134	Armstrong Bay Pit	62	15	13	NE-NW-SE-SE	0.1	8	FEAT						