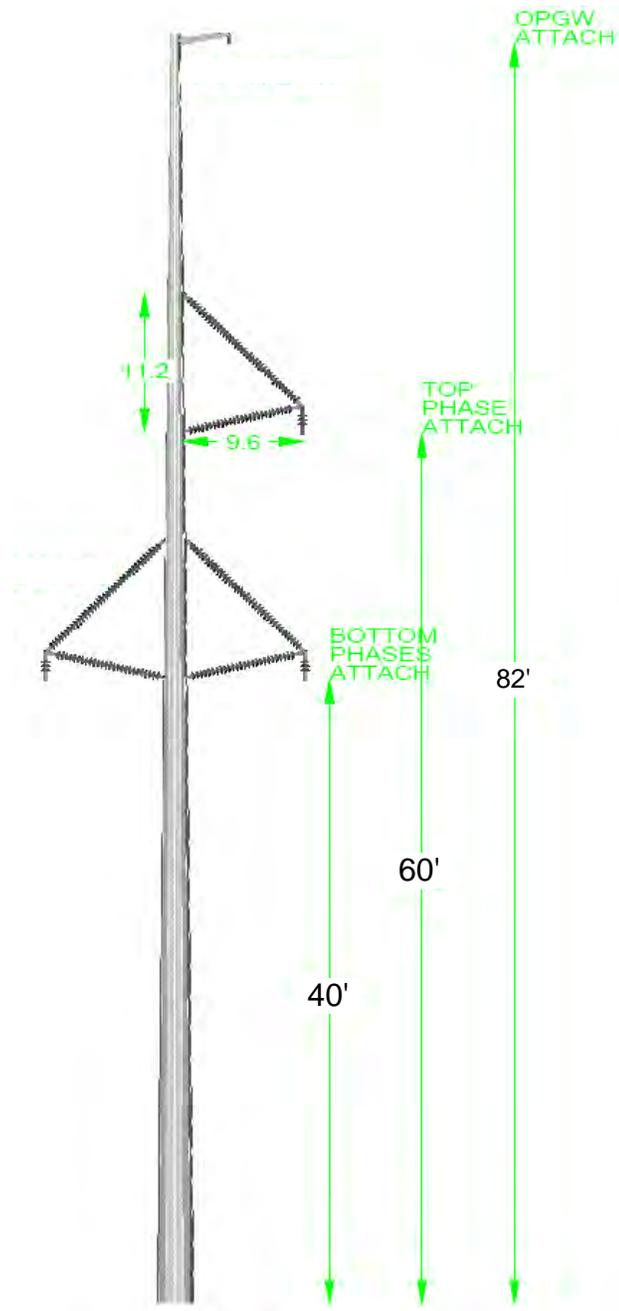


APPENDIX I

Typical 345 kV Overhead Line Design Sheets



Typical 345 kV Pole Configuration

APPENDIX J

Minnesota Gross Road Weight Limits



SEASONAL LOAD LIMITS

SLL Update 2008-2009

Office of Materials & Road Research

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- Subgrade(18") Temperature Maps
- Freezing Index Maps
- Thawing Index Maps
- Frost/Thaw Depths
- SLR Maps - graphical
- SLR Maps - textual
- SLR Exceptions/Chgs
- Zone Boundaries

Winter Load Increases

Spring Load Restrictions

Overweight Permits

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Technical Memorandum

SLL Update 2008-2009

Related Information

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Frost Zone	Starting Date	Ending Date	Visual Status
Winter Load Increases (WLI)			
North	Dec 05, 2008	Mar 18, 2009	
North-Central	Dec 08, 2008	Mar 18, 2009	
Central	Dec 10, 2008	Mar 17, 2009	
Metro	Dec 16, 2008	Mar 08, 2009	
South	Dec 16, 2008	Mar 08, 2009	
Southeast	Dec 16, 2008	Mar 08, 2009	
Spring Load Restrictions (SLR)			
North	Mar 18, 2009	May 13, 2009	
North-Central	Mar 18, 2009	May 13, 2009	
Central	Mar 17, 2009	May 04, 2009	
Metro	Mar 08, 2009	Apr 20, 2009	
South	Mar 08, 2009	Apr 20, 2009	
Southeast	Mar 08, 2009	Apr 20, 2009	
Middle-Range Overweight Permits			
North	May 13, 2009	_____	
North-Central	May 13, 2009	_____	
Central	May 04, 2009	_____	
Metro	Apr 20, 2009	_____	
South	Apr 20, 2009	_____	
Southeast	Apr 20, 2009	_____	
Full-Summer Overweight Permits			
North	May 27, 2009	_____	
North-Central	May 27, 2009	_____	
Central	May 18, 2009	_____	
Metro	May 04, 2009	_____	
South	May 04, 2009	_____	
Southeast	May 04, 2009	_____	

- Normal Legal Loads, Winter Load Increases, Middle-Range and Full-Summer Overweight Permits Available
- Normal Legal Loads, Spring Load Restrictions Imminent
- Spring Load Restrictions Enforced
- Normal Legal Loads, Middle-Range Overweight Permits Available
- Normal Legal Loads, Middle-Range and Full-Summer Overweight Permits Available

All starting and ending dates begin at 12:01 a.m. and are preceded by at least a 3-day advance notice. Notice is available on this website a recording at (651) 366-5400 or toll free at 1-800-723-6543, or automatically by [subscribing](#) to receive e-mail updates.

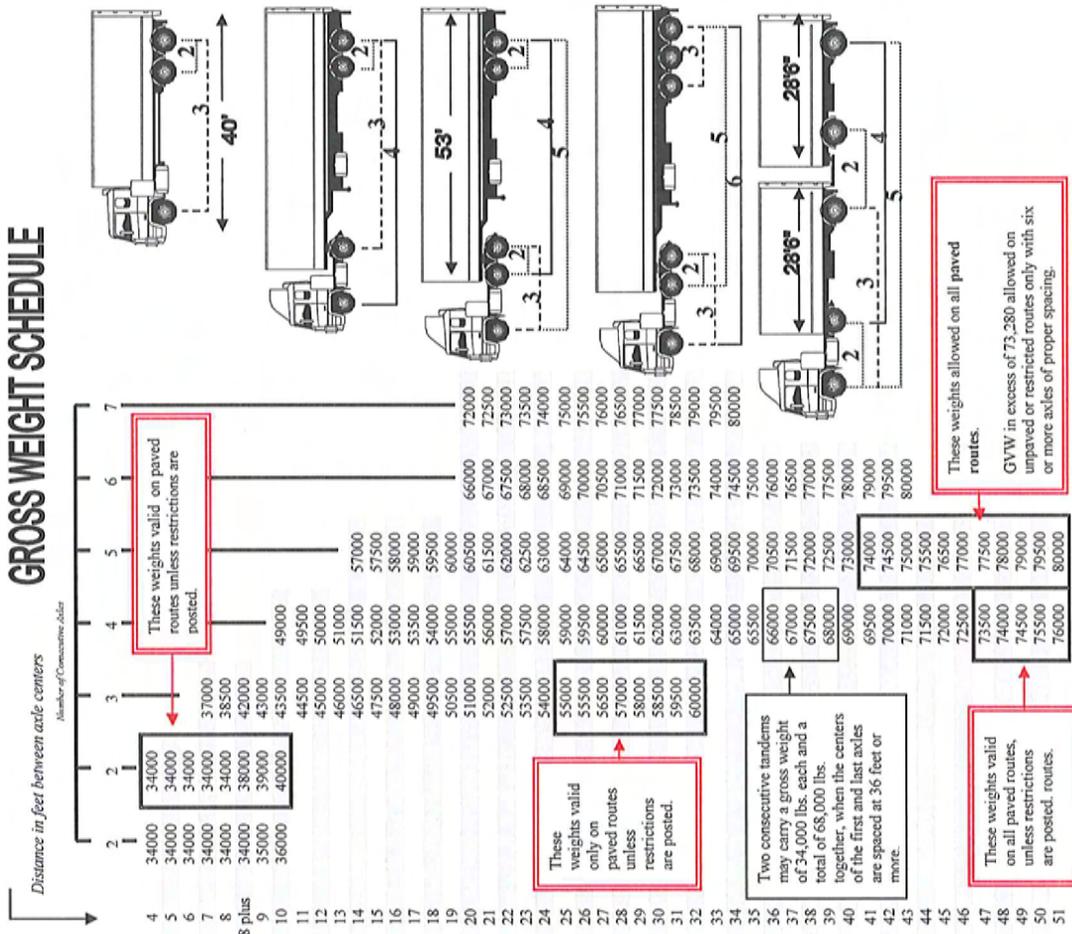
[Mn/DOT Technical Memorandum](#) [SLL Update 2008-2009](#) [Other Related Info](#)

Office of Materials & Road Research • E-mail: MaterialsLab@dot.state.mn.us • 1400 Gervais Avenue • Maplewood, MN 55109-2
 Phone: (651) 366-5592 • FAX: (651) 366-5461

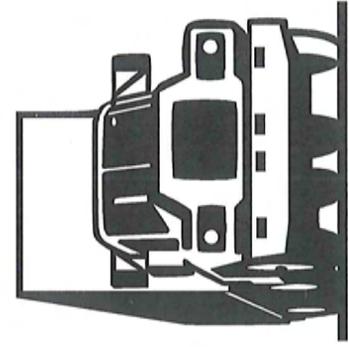
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Last Updated: Monday, May 18, 2009 - 12:57:32 p.m. Central Daylight Time

GROSS WEIGHT SCHEDULE



Minnesota Weight Laws & Limitations



Preserving Minnesota's Roadways

Restricted Weight Limits

# of Axles	9-ton	8-ton	7-ton	6-ton	5-ton
1	18000	16000	14000	12000	10000
2	34000	30222	26444	22667	18889
3	43000	38222	28667	23889	19111
4	51500	45778	40056	34333	28611

MINNESOTA STATE PATROL
COMMERCIAL VEHICLE SECTION
1110 Centre Pointe Curve #410
Mendota Heights, MN 55120

Information Line:
(651) 405-6171
Office Line:
(651) 405-6196



www.dps.state.mn.us/patrol/comveh

A Division of the
Minnesota Department of Public Safety

These weights allowed on all paved routes.
GVW in excess of 73,280 allowed on unpaved or restricted routes only with six or more axles of proper spacing.

These weights valid only on paved routes unless restrictions are posted.

Two consecutive tandems may carry a gross weight of 34,000 lbs. each and a total of 68,000 lbs. together, when the centers of the first and last axles are spaced at 36 feet or more.

These weights valid on all paved routes, unless restrictions are posted, routes.

Size & Weight

HEIGHT: No vehicle, unladen or with load, shall exceed a height of thirteen feet, six inches.

WIDTH: The total outside width of any vehicle or load thereon shall not exceed 102 inches, unless specifically permitted by law.

LENGTH: No single unit motor vehicle, unladen or with load, shall exceed a length of 45 feet extreme overall dimensions which includes front and rear bumpers and overhang, except that single unit truck cranes shall not exceed 48 feet in length. Combinations of vehicles, unladen or with load, including truck-tractor and semi-trailer combinations, must not exceed a total length of 75 feet.



This does not apply to public utility trucks transporting poles which cannot be shortened, or to trucks transporting pole length pulpwood. No single trailer may exceed a length of 45 feet including the tow bar assembly. No single semi-trailer may have an overall length greater than 53 feet, exclusive of non-cargo carrying accessories, such as refrigeration units or air compressors mounted or located on the front end of the semi-trailer. However, semi-trailers greater than 48 feet in length shall not exceed a distance of 43 feet measured from the kingpin to the center of the rear axle group. A trailer or semi-trailer used in a three vehicle combination shall not exceed 28 1/2 feet in length, exclusive of: (1) non-cargo carrying accessories and upper coupler plates necessary for safe and efficient operation, located adjacent to the truck or truck-tractor; (2) the tow bar assembly; and (3) lower coupler equipment that is a fixed part of the rear of the first semi-trailer or trailer. Truck-tractor and semi-trailer combinations exceeding 75 feet in length, a motor vehicle designed exclusively to transport motor vehicles or boats and exceeding 75 feet in length, and twin-trailer combinations may be operated only on divided highways with four or more lanes of travel and on other routes designated by the commissioner of transportation.

WEIGHT: Minnesota roadways are generally categorized into two specific groups. The main group consists of all State Trunk Highways, all paved County and County State-Aid Highways, and certain

other routes designated by the commissioner of transportation. These are commonly referred to as 10-ton routes. Road authorities have the option to restrict the weight on these routes to a lower limit, in which case, signs must be posted indicating the restricted limit. All routes other than the aforementioned are commonly referred to as 9-ton routes. Minnesota Statutes provide for maximum loads which may be carried upon any wheel, any single axle, any group of consecutive axles, and the gross vehicle weight.

Trucks, trailers, and combinations of truck-tractors and semi-trailers must be licensed for the total maximum loaded weight of the vehicle or combination which the owner elects to carry. All vehicles and combinations of vehicles are subject to weighing to determine compliance with applicable weight laws. If a vehicle is overloaded, the driver may be required to unload enough cargo to bring the vehicle into compliance. In such cases, the responsibility for any unloaded material is borne by the vehicle's driver and owner. Minnesota uses a number of different types of weighing equipment including portable wheelload scales, approved privately owned scales, and state-owned scales at official weigh stations.

On all State-Trunk Highways, paved County and County State-Aid Highways and other designated routes, no vehicle or combination of vehicles equipped with pneumatic tires shall exceed:

- 10,000 pounds on any wheel, whether single or dual;
- 20,000 pounds on any single axle;
- 80,000 pounds maximum gross vehicle weight on one vehicle or combination having five or more axles of proper spacing;
- any weight specified in the Gross Weight Table for groups of two or more consecutive axles.

On all routes other than State Trunk Highways, paved County and County State-Aid Highways, and designated routes, no vehicle or combination of vehicles equipped with pneumatic tires shall exceed:

- 9,000 pounds on any wheel, whether single or dual;
- 18,000 pounds on any single axle;
- 73,280 pounds maximum gross vehicle weight when the vehicle or combination has five or fewer axles of proper spacing;
- 80,000 pounds gross vehicle weight when the vehicle or combination is equipped with six or more axles of proper spacing; or with five axles of proper spacing on paved routes.

Weight limits are also increased by 10 percent from the beginning of harvest to November 30, each year, for the movement of sugar beets, carrots, and potatoes from the field of harvest to the first point of unloading.

When the 10 percent increase is in effect, a permit is required to carry the increased weight on Interstate highways. Vehicles must be properly licensed for the maximum weight attained and no vehicle or combination shall exceed 88,000 pounds on all state trunk highways and 9-ton County Roads. On all other roads, the maximum Gross Vehicle Weight is 80,000 pounds. Road authorities may post restrictions on roads or bridges. These restrictions must be observed.

WEIGHT RESTRICTIONS: In the Spring of each year, county and town roads not paved with concrete are restricted to 10,000 pounds on single axles and 519 of the weights indicated in the 9-ton Gross Weight Table for groups of two or more consecutive axles, unless otherwise posted. The starting and ending dates for these restrictions is determined by the Commissioner of Transportation for each of the frost zones depicted in the map at left. Any road may be restricted at any other time by the appropriate jurisdiction when conditions threaten damage or deterioration. Bridges with rated capacities less than the maximums permitted on Minnesota highways will have restricted weights posted and all drivers must observe these restrictions. For the latest updates, go to www.dot.state.mn.us.

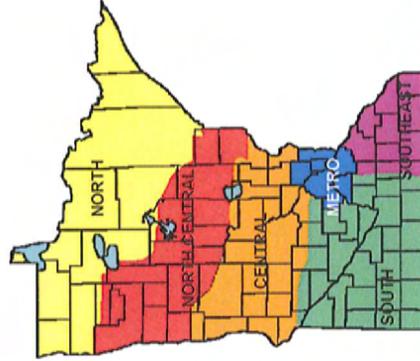
DROPPING OR LEAKING LOADS: No vehicle shall be driven or moved upon any highway unless it is so constructed, loaded, or the load covered to prevent any of its load from sifting, leaking, or otherwise escaping. Drivers of vehicles transporting sand, gravel, rock, or similar materials are required to ensure that the cargo is securely covered if: (1) the vertical distance from the top of an exterior wall of the cargo compartment to the load, when measured downward along the inside of the wall, is less than six inches; or (2) the horizontal distance measured from the top of an exterior wall to the load is less than two feet. In addition, the driver must clean the vehicle of any loose sand, gravel, rock, or similar material before the vehicle is moved on a street or highway following loading or unloading. Firewood less than 36 inches long must be securely covered when transported by vehicles with no rear wall or tailgate.

On all routes, statewide, the maximum wheel load allowed on the foremost and rearmost steering axles is 600 pounds per inch of tire width or the manufacturer's rated load, whichever is less. On all axles other than the foremost and rearmost steering axles, the maximum wheel load is 500 pounds per inch of tire width, or the manufacturer's rated load, whichever is less. All weight limits are reduced by 40 percent for vehicles not equipped with pneumatic tires.

IMPLEMENTS OF HUSBANDRY: An implement of husbandry that is not self-propelled and is equipped with pneumatic tires may not be operated on a public highway with a maximum wheel load that exceeds 500 pounds per inch of tire width. A person operating or towing an implement of husbandry must comply with a sign that limits the maximum weight allowed on a bridge. Beginning January 1, 2010, a person operating or towing an implement of husbandry on a bridge must comply with all weight limits.

SPECIAL PERMITS: Subject to Department of Transportation requirements, special permits may be issued to move loads exceeding maximum specified size and weight limitations upon the public highways.

SEASONAL WEIGHT INCREASE: Minnesota highways are at their strongest during the winter months. During the dates set by the Commissioner of Transportation each winter, the weight limitations are increased by 10 percent in each frost zone as shown below.



RESTRICTED GROSS WEIGHT TABLE (Posted Roads)

POSTED AXLE LIMITS

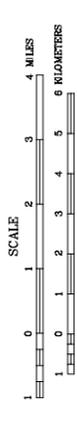
	<u>9 TON</u>	<u>8 TON</u>	<u>7 TON</u>	<u>6 TON</u>	<u>5 TON</u>	<u>4 TON</u>
Single axle	18,000	16,000	14,000	12,000	10,000	8,000
Two axles spaced within 8' or less	34,000	30,222	26,444	22,667	18,889	15,111
Three axles spaced within 9' or less	*	38,222	33,444	28,667	23,889	19,111
Four axles spaced within 14' or less	*	45,778	40,056	34,333	28,611	22,889

NOTES:

- *1. For 9 ton restricted routes see the 9 ton GROSS WEIGHT TABLE for maximum weights allowed on groups of 3 and 4 axles spaced less than 9 and 14 feet respectively.
 2. No combination of axle weights shall exceed those weights specified for non-designated (9 ton) routes.
 3. All axle weights are in pounds (lbs).
-

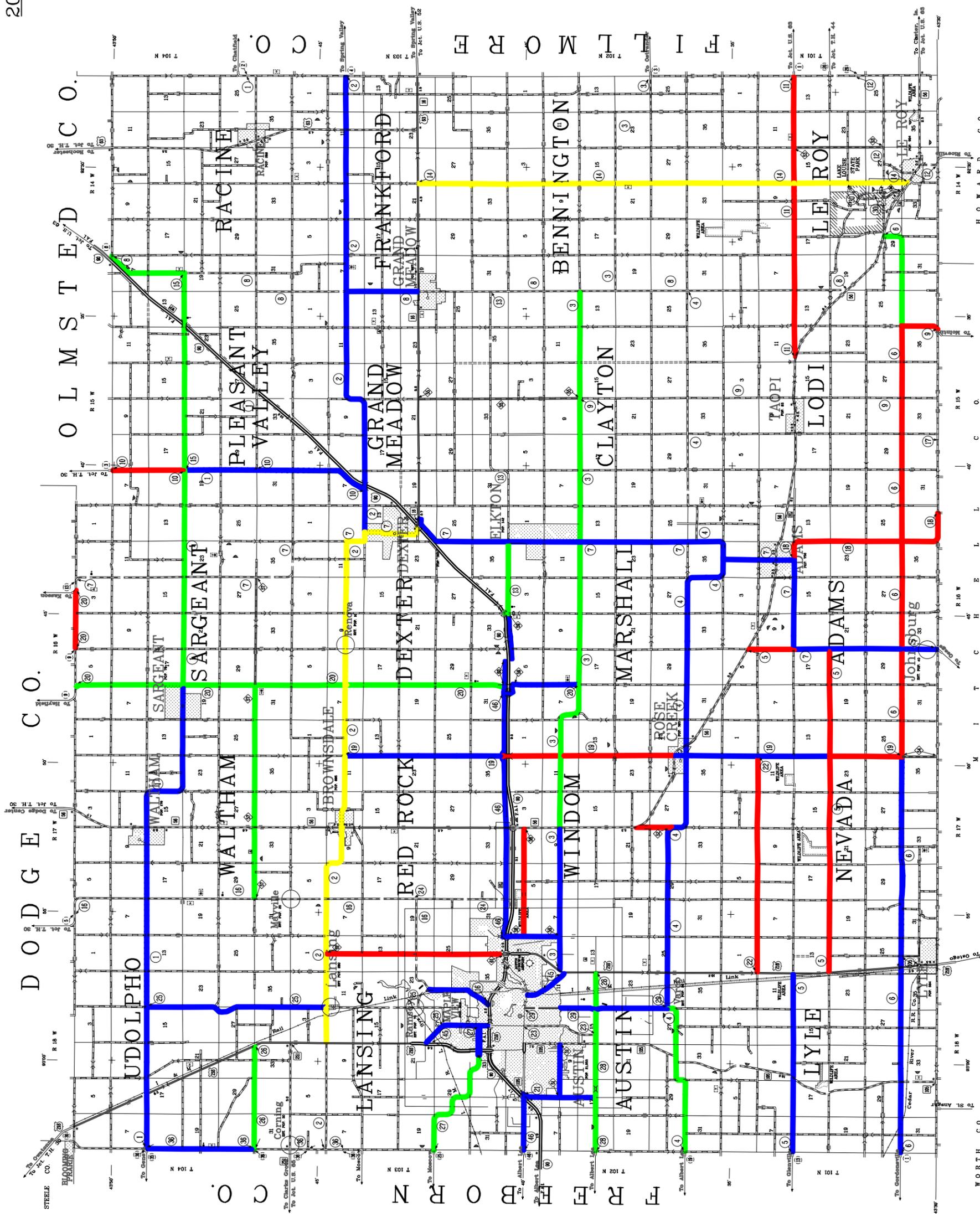
MOWER COUNTY MINNESOTA

JANUARY, 2009



LEGEND

- 6 TON
- 7 TON
- 9 TON
- 10 TON



APPENDIX K

Northern Natural Gas Company GRE Branch Line

MNB-95401

LINE A

- 143+97 12" BALL VALVE
- 143+93 TEC. 12" TOP OF RISER
- 45' 00" LT.
- 143+91 REG. 16" X 12"
- 143+85 BOTTOM OF RISER
- 143+79 GRE. FENCE LN.
- 141+6 DRAIN TILE, 4"
- 133+63 11' 00" LT.
- 133+33 34' 00" LT.
- 132+73 DRAIN TILE, 5"
- 132+47 DRAIN TILE, 4"
- 131+91 CREEK
- 131+24 DRAIN TILE, 5"
- 124+63 DRAIN TILE, 5"
- 123+94 DRAIN TILE, 5"
- 123+80 1/4" SEC. LN.
- 122+83 TELEPHONE CABLE
- 122+77 1/2" LN. E-W, TEST LEAD
- 119+15 DRAIN TILE, 5"
- 118+40 DRAIN TILE, 6"
- 118+08 WATERWAY
- 107+86 PROP. LN. E-W
- 105+64 DRAIN TILE, 4"
- 105+10 DRAIN TILE, 4"
- 104+16 PROP. LN. E-W
- 104+11 DRAIN TILE, 4"
- 103+27 DRAIN TILE, 4"
- 101+80 DRAIN TILE, 4"
- 100+64 DRAIN TILE, 5"
- 99+91 DRAIN TILE, 5"
- 96+54 1/4" SECTION LN.
- 95+78 DRAIN TILE, 5"
- 94+58 DRAIN TILE, 4"
- 86+57 DRAIN TILE, 5"
- 84+66 DRAINAGE DITCH
- 84+64 DRAIN TILE, 4"
- 83+66 DRAIN TILE, 4"
- 83+23 PROPERTY LINE
- 82+68 DRAIN TILE, 5"
- 80+81 DRAIN TILE, 4"
- 69+92 SEC. LN. E-W
- 69+51 45' 00" RT.
- 69+29 45' 00" RT.
- 68+67 DRAIN TILE, 4"
- 66+70 DRAIN TILE, 4"
- 64+86 90' 00" LT.
- 57+43 DRAIN TILE, 4"
- 52+30 O/H POWER (2 WIRES)
- 52+12 PROP. LN. E-W
- 48+73 05' 53" LT.
- 46+60 TELEPHONE CABLE, 10 PR
- 46+30 CO. RD. (GRAVEL)
- 46+12 TEST LEAD
- 45+55 09' 30" LT.
- 45+15 22' 00" RT.
- 43+14 ROOT RIVER
- 41+39 TELEPHONE CABLE, 10 PR
- 39+98 01' 00" RT.
- 39+78 03' 39" LT.
- 38+63 1/4" SEC. LN. & PROP. LN. E-W
- 25+74 GRASS WATERWAY
- 11+97 SEC. LN. & CI. LN. E-W
- 0+25 U-XING MNB-73201
- 0+16 8'-8" CLEAR
- 0+12 ELL. TOP RISER
- 0+09 TEE, BLOW OFF
- 0+07 TEE, 16" 90" RT.
- 0+05 REG. 16" X 12"
- 0+03 BALL VALVE 73202 CX805
- 0+00 REG. 16" MNB-95401 @ 16" X 16" X 12" SPLIT TEE AT STA. 107+59 MNB-73201

SEC. 19

SEC. 18

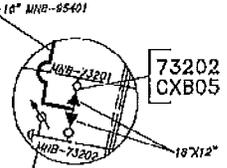
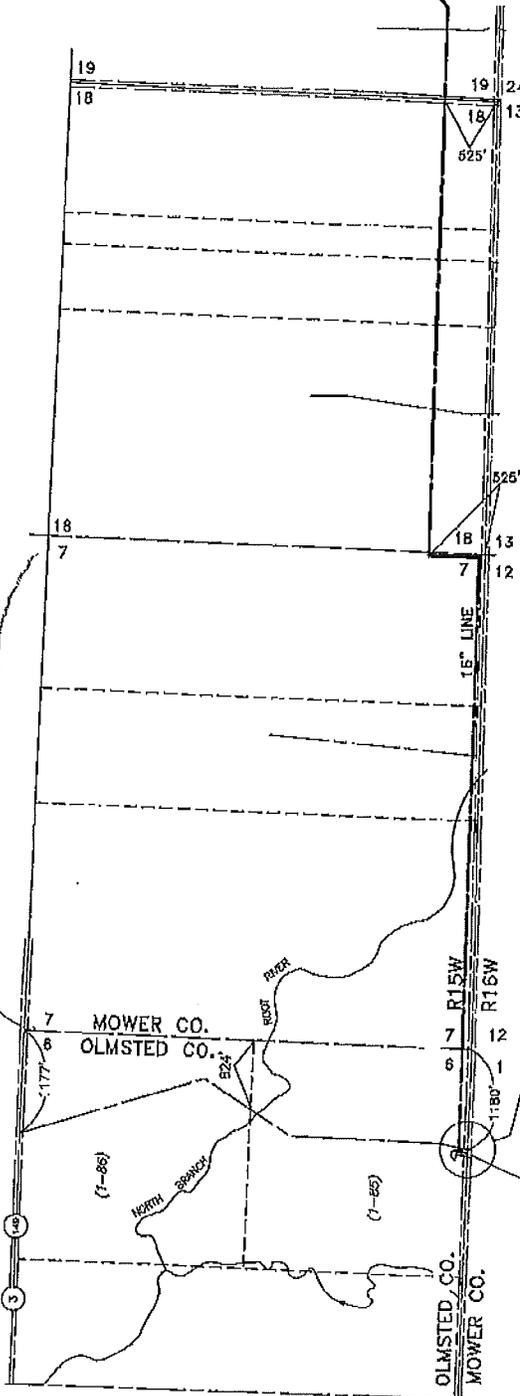
SEC. 7

SEC. 6



FUTURE GRE PLANT

Handwritten note: CORRECTED PIPE LOCATION



REF. M.P. 0.00

LEGEND		REFERENCE DRAWINGS AND/OR REVISIONS			
* SCALED DIMENSION	ITEM	BY	DATE	CHKD	
[P-2] PAYROL LOCATION	16" MNB-95401 PER C.003286.0	NTS	5-25-01	RSS	
[V] VALVE	TBS PER C.006571.D1	NTS	5-25-01	RSS	
[RIP] BRIP	DETAIL ADDED	KGJ	5-20-04	LJA	
[CORRECTED LINE] CORRECTED PIPE LOCATION		SK	8-9-06	LJA	
[ROAD] DAVID ROAD					
[ROAD] ASPHALT ROAD					
[ROAD] GRAVEL ROAD					
[ROAD] OIL ROAD					
[ROAD] DIRT ROAD					

Northern Natural Gas Company
Omaha, Nebraska

**MINNESOTA
MOWER & OLMSTED COUNTIES**
GRE BRANCH LINE
FROM MNM-73202 TO GRE PLANT

TWP. 104N RGE. 16W & 15W

SCALE: 0 50 100 150 DATE: 06-01-01

DRANK BY: DLT CHECKED: JLS APPROVED: _____

**Northern
Natural
Gas
Company**

DWG. NO.
538-19
144

APPENDIX L

Natural Heritage Information System Data



Minnesota Department of Natural Resources

Division of Ecological Resources, Box 25

500 Lafayette Road

St. Paul, Minnesota 55155-4025

Phone: (651) 259-5109 Fax: (651) 296-1811 E-mail: lisa.joyal@dnr.state.mn.us

December 22, 2008

Ms. Nicole Lehman
McGhie and Betts Environmental Services, Inc.
1648 Third Avenue SE
Rochester, MN 55904

Re: Request for Natural Heritage information in the vicinity of the proposed Pleasant Valley Wind Farm,
Dodge & Mower Counties
Correspondence # : ERDB 20090318

Dear Ms. Lehman,

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, several rare features have been documented within the search area (for details, see the enclosed database reports). Please note that the following **rare features may be impacted** by the proposed project:

- The Wild Indigo Prairie Scientific and Natural Area (SNA) is located along the abandoned Chicago-Milwaukee railroad right-of-way in Sections 14-17 of T103N R16W. This SNA contains several rare plants and one of the finest examples of mesic tallgrass prairie remaining in southeastern Minnesota. Scientific and Natural Areas are legally designated public nature preserves established to protect the state's rarest natural features and sensitive resources. These natural areas are given the highest level of protection and the utmost consideration in assessing potential impacts from nearby projects. It should be determined whether the project as proposed, including the installation or upgrading of transmission lines, has the potential to impact the SNA, the rare features the SNA supports, or public use of the SNA. If so, avoidance and protection measures must be proposed.
- The loggerhead shrike (*Lanius ludovicianus*), a state-listed threatened bird, has been documented in the vicinity of the project site. The preferred habitat of this species is dry upland prairie or other open grassland with scattered hedgerows, shrubs, and small trees. Shrikes are also found around shelterbelts, old orchards, pastures, cemeteries, grassy roadsides, and farmsteads. Shrikes use the scattered trees and shrubs in these areas as nesting sites and hunting perches. Prey, however, are caught in the surrounding open grassy areas. As such, forests or dense brushlands do not provide suitable habitat for this bird. Likewise, open grasslands without any trees or shrubs do not provide suitable habitat either. Shrikes frequently shift territories between years so it is not unusual for a particular nesting area to be vacant for several years before it is used again. If suitable habitat remains, then it is possible that loggerhead shrikes will breed in the area. Please refer to the enclosed fact sheet for information regarding habitat use, life history, and reasons for the species' decline, as well as recommendations for protecting and enhancing habitat for this rare bird.

- Blanding's turtles (*Emydoidea blandingii*), a state-listed threatened species, have been reported from the vicinity of the project area. Blanding's turtles use wetlands and may also use the creeks and streams within the project area as travel corridors between wetlands. In addition, Blanding's turtles will travel long distances over land and use upland areas over a mile distant from wetlands. Uplands are used for nesting, basking, periods of dormancy, and traveling between wetlands.

For your information, I have attached a Blanding's turtle fact sheet that 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. **Please refer to the first list of recommendations for your project.** 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.

If Blanding's turtles are encountered on site, please remember that state law and rules prohibit the destruction of threatened or endangered species, except under certain prescribed conditions. If turtles are in imminent danger they should be moved by hand out of harms way, otherwise they should be left undisturbed.

- The streams and rivers in the area provide habitat for the Ozark minnow (*Notropis nubilus*), and the creek heelsplitter (*Lasmigona compressa*), both state-listed species of special concern. As such, sound erosion and sediment control practices should be implemented and maintained near these waterways.
- Several rare plants including wild quinine (*Parthenium integrifolium*), a state-listed endangered species, and valerian (*Valeriana edulis* ssp. *ciliata*), tuberous indian-plantain (*Arnoglossum plantagineum*), and Sullivant's milkweed (*Asclepias sullivantii*), all state-listed threatened species, and have been documented in native prairie remnants in the vicinity of the proposed project. Because these plants are associated with native prairie, the wind turbines and associated infrastructure will need to avoid any native prairie remnants that may remain within the area of interest. If this is not feasible, a botanical survey of any affected prairie remnants will be required. **Please contact me if construction activities are planned within any native prairie remnants.** We will need to discuss potential surveyors, survey protocol, and other requirements before any survey work is initiated.

Please note that the Minnesota County Biological Survey conducted additional botanical surveys in Dodge and Mower counties during the 2008 field season. The survey results, however, have not yet been entered into the Natural Heritage Information System. As such, **please contact me again in the early spring of 2009 for this data.**

Minnesota's endangered species law (MS 84.0895) and associated rules (MR 6212.1800 - 6212.2300 and 6134) prohibit the taking of threatened or endangered species without a permit. If it is determined that the project will impact any species listed as either endangered or threatened, you will need to contact Rich Baker, Minnesota Endangered Species Coordinator, at 651-259-5073 to discuss the endangered species permitting process.

- If applicable, please send me a copy of the native prairie protection and management plan (Section III.C.6. of the Site Permit). The plan should include measures to avoid impacts to native prairie and measures to mitigate for impacts if unavoidable.

- Please send me a copy of the Preconstruction Biological Preservation Survey (Section III.D.1. of the Site Permit) required by the PUC.
- Further guidance on wind farm siting can be found at http://www.fws.gov/midwest/Eco_Serv/wind/index.htm.

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 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.

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.**

Please be aware that this letter focuses only on potential effects to *rare natural features*; there may be other natural resource concerns associated with the proposed project. This letter does not constitute review or approval by the Department of Natural Resources as a whole.

An invoice in the amount of \$245.18 will be mailed to you under separate cover within two weeks of the date of this letter. You are being billed for the database search and printouts, and staff scientist review. Thank you for consulting us on this matter, and for your interest in preserving Minnesota's rare natural resources.

Sincerely,



Lisa Joyal
Endangered Species Environmental Review Coordinator

enc. Rare Features Database: Index Report
Rare Features Database: Detail Report
Rare Features Database Reports: An Explanation of Fields
Fact sheets: Loggerhead Shrike, Blanding's Turtle

cc: John Schladweiler
Matt Langan

Index Report of records within 1 mile radius of:

Pleasant Valley Wind Farm
Multile TRS
Dodge and Mower Counties

Element Name and Occurrence Number	Federal Status	MN Status	State Rank	Global Rank	Last Observed Date	EO ID #
Dodge County, MN						
<u>Acris crepitans</u> (Northern Cricket Frog) #17 Location Description: T105N R16W S10, T105N R16W S14, T105N R16W S13, T105N R16W S15, T [...]		END	S1	G5	1966-06-04	1399
<u>Arnoglossum plantagineum</u> (Tuberous Indian-plantain) #4 Location Description: T105N R17W S27		THR	S2	G4G5	1983-07-26	3866
<u>Asclepias sullivantii</u> (Sullivant's Milkweed) #14 Location Description: T105N R17W S27		THR	S2	G5	1983-07-26	3556
<u>Asclepias sullivantii</u> (Sullivant's Milkweed) #16 Location Description: T106N R17W S28, T106N R17W S21		THR	S2	G5	1983-08-10	3558
<u>Asclepias sullivantii</u> (Sullivant's Milkweed) #79 Location Description: T106N R18W S11, T106N R18W S12		THR	S2	G5	2002-08-20	30029
<u>Asclepias sullivantii</u> (Sullivant's Milkweed) #80 Location Description: T106N R18W S24		THR	S2	G5	2002-08-20	30026
<u>Carex annectens</u> (Yellow-fruited Sedge) #4 Location Description: T105N R17W S27		SPC	S3	G5	1986-07-08	10684
<u>Cypripedium candidum</u> (Small White Lady's-slipper) #26 Location Description: T105N R17W S27		SPC	S3	G4	2002-06-03	4308
<u>Emydoidea blandingii</u> (Blanding's Turtle) #843 Location Description: T105N R16W S10, T105N R16W S16, T105N R16W S15, T105N R16W S9		THR	S2	G4	1998-07-24	23787
<u>Eryngium yuccifolium</u> (Rattlesnake-master) #11 Location Description: T105N R17W S27		SPC	S3	G5	1983-07-26	4625
<u>Freshwater Mussel Concentration Area</u> (Mussel Sampling Site) #26 Location Description: T106N R18W S29		N/A	SNR	G3	1988-07-11	13421
<u>Lampetra appendix</u> (American Brook Lamprey) #26 Location Description: T105N R16W S11, T105N R16W S15, T105N R16W S10		NON	S4	G4	1986-10-09	16161
<u>Lanius ludovicianus</u> (Loggerhead Shrike) #191 Location Description: T105N R16W S19, T105N R16W S20	No Status	THR	S2B	G4	2003-08-01	31124
<u>Lasmigona compressa</u> (Creek Heelsplitter) #47 Location Description: T106N R18W S19, T106N R18W S17, T106N R18W S20, T106N R18W S18		SPC	S3	G5	1988-07-11	24965

Index Report of records within 1 mile radius of:

Pleasant Valley Wind Farm
Multile TRS
Dodge and Mower Counties

Element Name and Occurrence Number	Federal Status	MN Status	State Rank	Global Rank	Last Observed Date	EO ID #
Dodge County, MN						
<u>Mesic Prairie (Southern) Type</u> #401 Location Description: T105N R17W S28, T105N R17W S34, T105N R17W S27		N/A	S2	GNR	1983-07	18697
<u>Notropis nubilus</u> (Ozark Minnow) #28 Location Description: T105N R16W S11, T105N R16W S15, T105N R16W S10		SPC	S3	G5	1986-10-09	6294
<u>Notropis nubilus</u> (Ozark Minnow) #33 Location Description: T105N R16W S10, T105N R16W S16, T105N R16W S15, T105N R16W S9		SPC	S3	G5	1967-04-25	6292
<u>Oarisma powesheik</u> (Powesheik Skipper) #1 Location Description: T105N R17W S27		SPC	S3	G2G3	1982-07-10	2671
<u>Parthenium integrifolium</u> (Wild Quinine) #6 Location Description: T105N R17W S27		END	S1	G5	1983-07-26	5222
<u>Parthenium integrifolium</u> (Wild Quinine) #10 Location Description: T105N R17W S17, T105N R17W S16		END	S1	G5	2002-08-20	30034
<u>Platanthera praeclara</u> (Western Prairie Fringed Orchid) #18 Location Description: T105N R17W S27	LT	END	S1	G3	1982-07-29	5310
<u>Valeriana edulis ssp. ciliata</u> (Valerian) #6 Location Description: T105N R17W S33		THR	S2	G5T3	1981-05-20	5831
<u>Valeriana edulis ssp. ciliata</u> (Valerian) #35 Location Description: T105N R17W S27		THR	S2	G5T3	1985-05-22	5860
<u>Valeriana edulis ssp. ciliata</u> (Valerian) #60 Location Description: T105N R16W S16		THR	S2	G5T3	1993-06-26	19541
Dodge, Fillmore, Goodhue, Houston, [...] County, MN						
<u>Crotalus horridus</u> (Timber Rattlesnake) #188 Location Description: T102N R09W S5, T103N R13W S29, T106N R14W S24, T102N R10W S2, T [...]		THR	S2	G4		34865
Dodge, Mower County, MN						
<u>Eryngium yuccifolium</u> (Rattlesnake-master) #45 Location Description: T105N R17W S33, T105N R17W S34, T104N R17W S3		SPC	S3	G5	1980-07-17	4658
<u>Oxypolis rigidior</u> (Cowbane) #14 Location Description: T105N R17W S33, T105N R17W S34, T104N R17W S3		NON	SNR	G5	1981-09-02	5159

Printed December 2008
Data valid for one year

Minnesota Natural Heritage Information System: Rare Features Database

Index Report of records within 1 mile radius of:

Pleasant Valley Wind Farm

Multile TRS

Dodge and Mower Counties

Element Name and Occurrence Number	Federal Status	MN Status	State Rank	Global Rank	Last Observed Date	EO ID #
Mower County, MN						
<u>Arnoglossum plantagineum</u> (Tuberous Indian-plantain) #2 Location Description: T103N R17W S12		THR	S2	G4G5	1981-06-24	3864
<u>Baptisia bracteata var. leucophaea</u> (Plains Wild Indigo) #18 Location Description: T103N R16W S16		SPC	S3	G4G5T4T5	1981-07-21	3729
<u>Baptisia bracteata var. leucophaea</u> (Plains Wild Indigo) #24 Location Description: T103N R17W S14, T103N R17W S10, T103N R17W S11		SPC	S3	G4G5T4T5	1979-08-08	3734
<u>Cypripedium candidum</u> (Small White Lady's-slipper) #61 Location Description: T103N R16W S16		SPC	S3	G4	1982-06-03	4343
<u>Eryngium yuccifolium</u> (Rattlesnake-master) #132 Location Description: T103N R16W S7, T103N R16W S18		SPC	S3	G5	1999-09-01	25329
<u>Oxypolis rigidior</u> (Cowbane) #12 Location Description: T103N R16W S16		NON	SNR	G5	1981-10-21	5146
<u>Parthenium integrifolium</u> (Wild Quinine) #9 Location Description: T103N R16W S16, T103N R16W S17, T103N R16W S18		END	S1	G5	1999-08-31	25328
<u>Valeriana edulis ssp. ciliata</u> (Valerian) #1 Location Description: T103N R16W S16, T103N R16W S17, T103N R16W S15, T103N R17W S11, T [...]		THR	S2	G5T3	1981-05-19	5826

Records Printed = 35



Minnesota Department of Natural Resources

Division of Ecological Resources, Box 25

500 Lafayette Road

St. Paul, Minnesota 55155-4025

Phone: (651) 259-5109 Fax: (651) 296-1811 E-mail: lisa.joyal@dnr.state.mn.us

September 4, 2009

Ms. Nicole Lehman
McGhie and Betts Environmental Services, Inc.
1648 Third Avenue SE
Rochester, MN 55904

Re: Request for Natural Heritage information in the vicinity of the proposed Pleasant Valley Wind Farm,
Dodge & Mower Counties
Correspondence # : ERDB 20090318-0001b

Dear Ms. Lehman,

As requested, the Minnesota Natural Heritage Information System has been queried for an update of rare species or other significant natural features known to occur within an approximate one-mile radius of the proposed project. Based on this query, several new records of rare plants have been documented within the proposed project boundary. Please see the enclosed database reports for details; these reports replace the reports dated December 2008. The following comment **supplements** the previous Natural Heritage letter dated 22 December 2008:

- Several rare plants including wild quinine (*Parthenium integrifolium*), a state-listed endangered species, and valerian (*Valeriana edulis* ssp. *ciliata*), tuberous indian-plantain (*Arnoglossum plantagineum*), and Sullivant's milkweed (*Asclepias sullivantii*), all state-listed threatened species, have been documented in native prairie remnants and road right-of-ways within or in close proximity to the project boundary. The enclosed maps identify the areas where rare plants have been documented. Disturbance to these areas should be completely avoided. **Please contact me if avoidance of the areas identified on the enclosed map is not feasible.** We will need to discuss the possibility of applying for a takings permit. As mentioned previously, the wind turbines and associated infrastructure will also need to avoid any other native prairie remnants that may remain within the area of interest. If this is not feasible, a botanical survey of any affected prairie remnants will be required. **Please contact me if construction activities are planned within any native prairie remnants.** We will need to discuss potential surveyors, survey protocol, and other requirements before any survey work is initiated.

Minnesota's endangered species law (MS 84.0895) and associated rules (MR 6212.1800 - 6212.2300 and 6134) prohibit the taking of threatened or endangered species without a permit. If it is determined that the project will impact any species listed as either endangered or threatened, you will need to contact Rich Baker, Minnesota Endangered Species Coordinator, at 651-259-5073 to discuss the endangered species permitting process.

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 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.

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.**

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

Sincerely,



Lisa Joyal
Endangered Species Environmental Review Coordinator

enc. Rare Features Database: Index Report
Rare Features Database: Detail Report
Rare Features Database Reports: An Explanation of Fields
Maps (3)

cc: Randall Doneen
Kevin Mixon

Minnesota Natural Heritage Information System
Index Report of records within 1 mile radius of:
ERDB #20090318 - Pleasant Valley Wind Farm
Multiple TRS
Dodge and Mower Counties

Rare Features Database:

Element Name and Occurrence Number	Federal Status	MN Status	State Rank	Global Rank	Last Observed Date	EO ID #
Vertebrate Animal						
<u>Acris crepitans</u> (Northern Cricket Frog) #17 T105N R16W S10, T105N R16W S14, T105N R16W S13, T105N R16W S15, T [...] ; Dodge County		END	S1	G5	1966-06-04	1399
<u>Crotalus horridus</u> (Timber Rattlesnake) #188 T102N R09W S5, T103N R13W S29, T106N R14W S24, T102N R10W S2, T [...] ; Dodge, Fillmore, Goodhue, Houston, [...] County		THR	S2	G4	1958-05-16	34865
<u>Emydoidea blandingii</u> (Blanding's Turtle) #843 T105N R16W S10, T105N R16W S16, T105N R16W S15, T105N R16W S9 ; Dodge County		THR	S2	G4	1998-07-24	23787
<u>Lampetra appendix</u> (American Brook Lamprey) #26 T105N R16W S11, T105N R16W S15, T105N R16W S10 ; Dodge County		NON	S4	G4	1986-10-09	16161
<u>Lanius ludovicianus</u> (Loggerhead Shrike) #191 T105N R16W S19, T105N R16W S20 ; Dodge County	No Status	THR	S2B	G4	2003-08-01	31124
<u>Notropis nubilus</u> (Ozark Minnow) #28 T105N R16W S11, T105N R16W S15, T105N R16W S10 ; Dodge County		SPC	S3	G5	1986-10-09	6294
<u>Notropis nubilus</u> (Ozark Minnow) #33 T105N R16W S10, T105N R16W S16, T105N R16W S15, T105N R16W S9 ; Dodge County		SPC	S3	G5	1967-04-25	6292
Invertebrate Animal						
<u>Euphyes bimacula</u> (Two-spotted Skipper) #2 T105N R17W S34, T105N R17W S27 ; Dodge County		NON	S3	G4		35141
<u>Lasmigona compressa</u> (Creek Heelsplitter) #47 T106N R18W S19, T106N R18W S17, T106N R18W S20, T106N R18W S18 ; Dodge County		SPC	S3	G5	1988-07-11	24965
<u>Oarisma powesheik</u> (Powesheik Skipper) #1 T105N R17W S27 ; Dodge County		SPC	S3	G2G3	1982-07-10	2671
Animal Assemblage						
<u>Freshwater Mussel Concentration Area</u> (Mussel Sampling Site) #26 T106N R18W S29 ; Dodge County		N/A	SNR	G3	1988-07-11	13421
Vascular Plant						
<u>Arnoglossum plantagineum</u> (Tuberous Indian-plantain) #2 T103N R17W S12 ; Mower County		THR	S2	G4G5	1981-06-24	3864

Minnesota Natural Heritage Information System
Index Report of records within 1 mile radius of:
ERDB #20090318 - Pleasant Valley Wind Farm
Multiple TRS
Dodge and Mower Counties

Rare Features Database:

Element Name and Occurrence Number	Federal Status	MN Status	State Rank	Global Rank	Last Observed Date	EO ID #
Vascular Plant						
<u>Arnoglossum plantagineum</u> (Tuberous Indian-plantain) #4 T105N R17W S27 ; Dodge County		THR	S2	G4G5	1983-07-26	3866
<u>Arnoglossum plantagineum</u> (Tuberous Indian-plantain) #49 T103N R16W S2 ; Mower County		THR	S2	G4G5	2008-08-05	35102
<u>Asclepias sullivantii</u> (Sullivant's Milkweed) #14 T105N R17W S27 ; Dodge County		THR	S2	G5	1983-07-26	3556
<u>Asclepias sullivantii</u> (Sullivant's Milkweed) #16 T106N R17W S28, T106N R17W S21 ; Dodge County		THR	S2	G5	1983-08-10	3558
<u>Asclepias sullivantii</u> (Sullivant's Milkweed) #79 T106N R18W S11, T106N R18W S12 ; Dodge County		THR	S2	G5	2002-08-20	30029
<u>Asclepias sullivantii</u> (Sullivant's Milkweed) #80 T106N R18W S24 ; Dodge County		THR	S2	G5	2002-08-20	30026
<u>Asclepias sullivantii</u> (Sullivant's Milkweed) #89 T103N R16W S4 ; Mower County		THR	S2	G5	2008-08-04	35089
<u>Asclepias sullivantii</u> (Sullivant's Milkweed) #90 T103N R16W S16 ; Mower County		THR	S2	G5	2008-08-05	35090
<u>Asclepias sullivantii</u> (Sullivant's Milkweed) #91 T103N R16W S21, T103N R16W S20 ; Mower County		THR	S2	G5	2008-08-16	35091
<u>Baptisia bracteata var. leucophaea</u> (Plains Wild Indigo) #18 T103N R16W S16 ; Mower County		SPC	S3	G4G5T4T5	1981-07-21	3729
<u>Baptisia bracteata var. leucophaea</u> (Plains Wild Indigo) #24 T103N R17W S14, T103N R17W S10, T103N R17W S11 ; Mower County		SPC	S3	G4G5T4T5	1979-08-08	3734
<u>Carex annectens</u> (Yellow-fruited Sedge) #4 T105N R17W S27 ; Dodge County		SPC	S3	G5	1986-07-08	10684
<u>Cypripedium candidum</u> (Small White Lady's-slipper) #26 T105N R17W S27 ; Dodge County		SPC	S3	G4	2002-06-03	4308

Minnesota Natural Heritage Information System
Index Report of records within 1 mile radius of:
ERDB #20090318 - Pleasant Valley Wind Farm
Multiple TRS
Dodge and Mower Counties

Rare Features Database:

Element Name and Occurrence Number	Federal Status	MN Status	State Rank	Global Rank	Last Observed Date	EO ID #
Vascular Plant						
<u>Cypripedium candidum</u> (Small White Lady's-slipper) #61 T103N R16W S16 ; Mower County		SPC	S3	G4	1982-06-03	4343
<u>Eryngium yuccifolium</u> (Rattlesnake-master) #11 T105N R17W S27 ; Dodge County		SPC	S3	G5	1983-07-26	4625
<u>Eryngium yuccifolium</u> (Rattlesnake-master) #45 T105N R17W S33, T104N R17W S3 ; Dodge, Mower County		SPC	S3	G5	2008-09-10	4658
<u>Eryngium yuccifolium</u> (Rattlesnake-master) #132 T103N R16W S7, T103N R16W S18 ; Mower County		SPC	S3	G5	1999-09-01	25329
<u>Eryngium yuccifolium</u> (Rattlesnake-master) #159 T103N R16W S2 ; Mower County		SPC	S3	G5	2008-08-04	35075
<u>Eryngium yuccifolium</u> (Rattlesnake-master) #160 T103N R16W S16 ; Mower County		SPC	S3	G5	2008-08-05	35076
<u>Eryngium yuccifolium</u> (Rattlesnake-master) #161 T103N R16W S5 ; Mower County		SPC	S3	G5	2008-08-18	35077
<u>Oxyopolis rigidior</u> (Cowbane) #12 T103N R16W S16 ; Mower County		NON	SNR	G5	2008-08-05	5146
<u>Oxyopolis rigidior</u> (Cowbane) #14 T105N R17W S33, T104N R17W S3 ; Dodge, Mower County		NON	SNR	G5	2008-09-10	5159
<u>Oxyopolis rigidior</u> (Cowbane) #66 T103N R16W S2 ; Mower County		NON	SNR	G5	2008-08-04	35084
<u>Oxyopolis rigidior</u> (Cowbane) #67 T103N R16W S5 ; Mower County		NON	SNR	G5	2008-08-05	35087
<u>Parthenium integrifolium</u> (Wild Quinine) #6 T105N R17W S27 ; Dodge County		END	S1	G5	1983-07-26	5222
<u>Parthenium integrifolium</u> (Wild Quinine) #9 T103N R16W S16, T103N R16W S17, T103N R16W S18 ; Mower County		END	S1	G5	2008-08-05	25328

Minnesota Natural Heritage Information System
Index Report of records within 1 mile radius of:
ERDB #20090318 - Pleasant Valley Wind Farm
Multiple TRS
Dodge and Mower Counties

Rare Features Database:

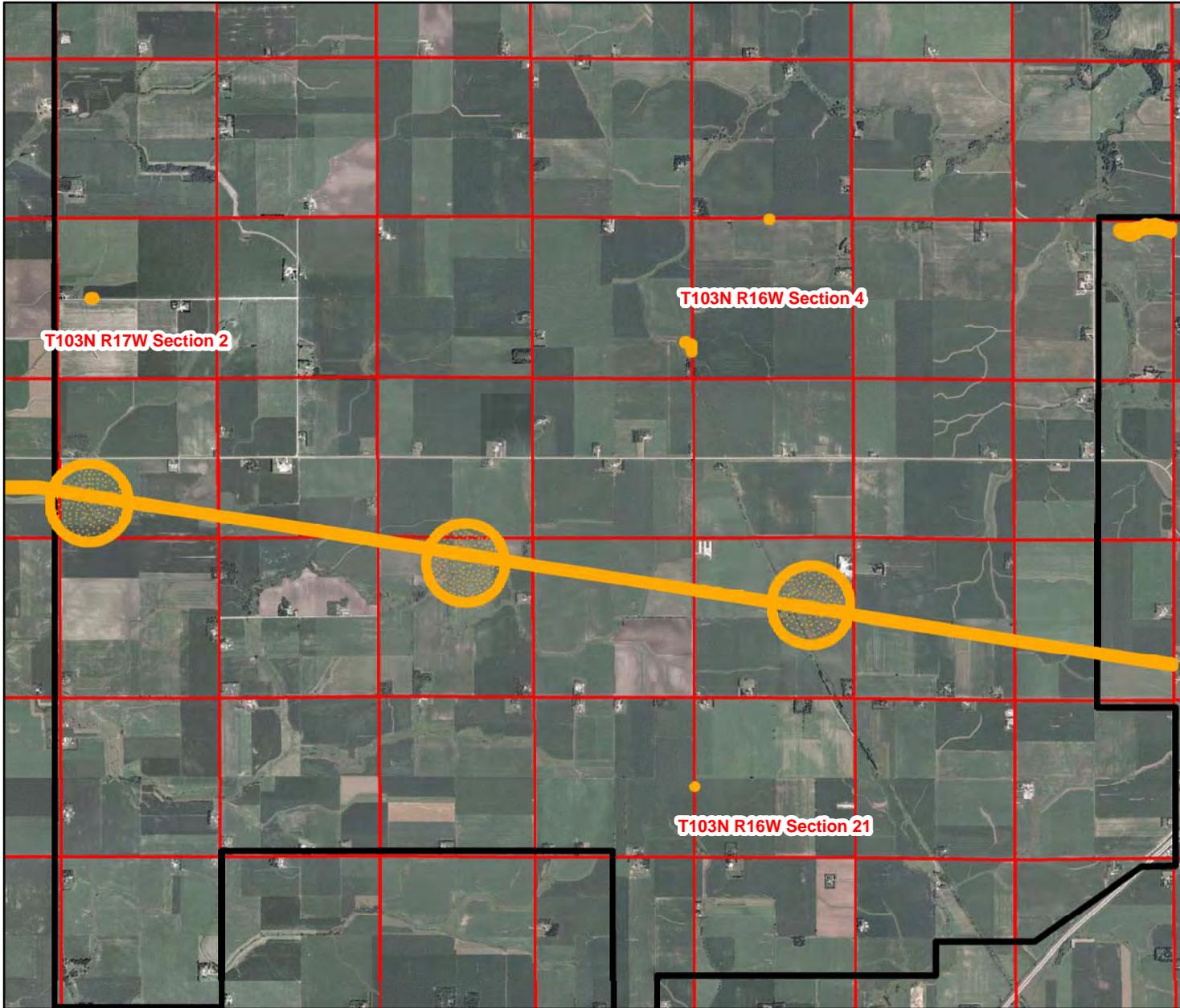
Element Name and Occurrence Number	Federal Status	MN Status	State Rank	Global Rank	Last Observed Date	EO ID #
Vascular Plant						
<u>Parthenium integrifolium</u> (Wild Quinine) #10 T105N R17W S17, T105N R17W S16 ; Dodge County		END	S1	G5	2002-08-20	30034
<u>Parthenium integrifolium</u> (Wild Quinine) #22 T103N R17W S2 ; Mower County		END	S1	G5	2008-08-04	35098
<u>Parthenium integrifolium</u> (Wild Quinine) #23 T103N R16W S5 ; Mower County		END	S1	G5	2008-08-05	35099
<u>Platanthera praeclara</u> (Western Prairie Fringed Orchid) #18 T105N R17W S27 ; Dodge County	LT	END	S1	G3	1982-07-29	5310
<u>Valeriana edulis ssp. ciliata</u> (Valerian) #1 T103N R16W S16, T103N R16W S17, T103N R16W S15, T103N R17W S11, T [...] ; Mower County		THR	S2	G5T3	2008-08-05	5826
<u>Valeriana edulis ssp. ciliata</u> (Valerian) #6 T105N R17W S33 ; Dodge County		THR	S2	G5T3	1981-05-20	5831
<u>Valeriana edulis ssp. ciliata</u> (Valerian) #35 T105N R17W S27 ; Dodge County		THR	S2	G5T3	1985-05-22	5860
<u>Valeriana edulis ssp. ciliata</u> (Valerian) #60 T105N R16W S16 ; Dodge County		THR	S2	G5T3	1993-06-26	19541
<u>Valeriana edulis ssp. ciliata</u> (Valerian) #131 T103N R16W S2 ; Mower County		THR	S2	G5T3	2008-08-04	35117
Terrestrial Community - Other Classification						
<u>Mesic Prairie (Southern) Type</u> #401 T105N R17W S28, T105N R17W S34, T105N R17W S27 ; Dodge County		N/A	S2	GNR	1983-07	18697

Records Printed = 48

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.

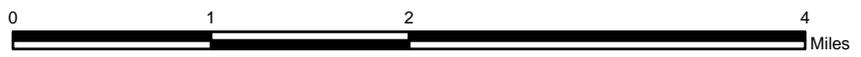
Rare Plants in the vicinity of the Pleasant Valley Wind Farm

Map 3 of 3



Legend

- Rare Plants
- PV_Boundary
- PLS Sections



Copyright 2009, State of Minnesota, DNR.
Rare Feature, Prairie Railroad Survey, Native Plant Community, and Sites of Biodiversity Significance data are from the Natural Heritage Information System. The absence of rare features for a particular location should not be construed to mean that the DNR is confident rare features are absent from that location.