

Hoffmann 2004



Minnesota Department of Natural Resources

Natural Heritage and Nongame Research Program, Box 25
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July 28, 2004

Yvonne Abernethy
Constellation Energy
6120 Woodside Executive Court
Aiken. SC 29803

Re: Request for Natural Heritage information for vicinity of Monticello Nuclear Generating Plant and Transmission Line Corridors, Anoka, Hennepin, Sherburne, and Wright Counties
NHNRP Contact #: ERDB 20040847-0002

Dear Ms. Abernethy,

The Minnesota Natural Heritage database has been reviewed to determine if any rare plant or animal species or other significant natural features are known to occur within the sections indicated on the topographic maps enclosed with your information request. Based on this review, there are 52 known occurrences of rare species or natural communities in the area searched. Please see the enclosed database printouts for details. As the Monticello Nuclear Plant and the identified transmission line corridors are existing facilities, we do not anticipate any impacts to these rare features as a result of the relicensing process alone. However, there are several areas along the transmission line corridors where rare features are known to occur in close proximity to the lines. I have identified these areas below and enclosed maps for your reference. Should any major construction activities or line upgrades be planned for these areas in the future, we request that we be given an opportunity to review and comment on the potential for such activities to impact these rare features.

- A Maple-Basswood Forest is located immediately west of the transmission line in T118N R22W Section 15. This forest type is a remnant of the Big Woods - a large expanse of forest that once stretched across 1.3 million acres of Minnesota. Maple-basswood forests have become rare throughout their former range, particularly within the metropolitan area. Only small isolated patches constituting 2% of the forests' former acreage remain, and many of these are likely to be degraded or destroyed by suburban development within the next few years. A fact sheet on maple-basswood forests of Hennepin County is enclosed for a more thorough discussion of their importance and the threats to their continued existence and viability.
- Peregrine Falcons (*Falco peregrinus*), a threatened species, are known to nest at the NSP plant in Becker in Hennepin County, and Loggerhead Shrikes (*Lanius ludovicianus*), a threatened species, have been documented at and in the vicinity of the plant site. Shrikes prefer open country and dry upland prairie with hedgerows, shrubs, and small trees, but are also found around shelterbelts, old orchards, pastures, cemeteries, grassy roadsides, and farmsteads. The scattered trees, shrubs, and fencerows in these areas provide places shrikes need to hunt and nest. 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.

DNR Information: 651-296-6157 • 1-888-646-6367 • TTY: 651-296-5484 • 1-800-657-3929

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- The transmission line in T33N R28W Section 14 appears to run along the southern edge of an area that has been identified by the Minnesota County Biological Survey as a "Site of Moderate Biodiversity Significance". "Sites of Biodiversity Significance" are areas with varying levels of native biodiversity that may contain high quality native plant communities, rare plants, rare animals, and/or animal aggregations (see the enclosed ranking guidelines for details). This particular site contains Oak Forest, Alder Swamp, Rich Fen, and Dry Oak Savanna native plant communities, and Blanding's Turtles (*Emydoidea blandingii*), a threatened species, have been reported from the site.
- The transmission lines near Bunker Hills Regional Park run through an area that has been identified by the Minnesota County Biological Survey as a "Site of Outstanding Biodiversity Significance". This site contains Oak Forest and Dry Oak Savanna native plant communities and supports several rare plant species including Tall Nut-Rush (*Scleria triglomerata*), an endangered species, and Sea-Beach Needlegrass (*Aristida tuberculosa*), Purple Sand-Grass (*Triplasis purpurea*), and Rhombic-Petaled Evening Primrose (*Oenothera rhombipetala*), all special concern species. Three special concern animal species, the Leonard Skipper (*Hesperia leonardus*), the Western Hognose Snake (*Heterodon nasicus*), and the Plains Pocket Mouse (*Perognathus flavescens*) have also been documented within the site. In addition, a native prairie remnant has been identified in the right-of-way of the Burlington Northern & Santa Fe Railroad in this area.
- The transmission line along County Highway 78 in T32N R24W Section 23 runs adjacent to an area that has been identified by the Minnesota County Biological Survey as a "Site of High Biodiversity Significance". This site contains Dry Oak Savanna and Dry Prairie native plant communities and supports two special concern plant species, Sea-Beach Needlegrass (*Aristida tuberculosa*) and Rhombic-Petaled Evening Primrose (*Oenothera rhombipetala*).
- An Oak Forest native plant community is located just south of the transmission line corridor in T33N R26W Sections 22, 26, & 27.
- The transmission line in T33N R26W Section 7 runs just south of an area that has been identified by the Minnesota County Biological Survey as a "Site of High Biodiversity Significance". This site contains Oak Forest, Mixed Hardwood Swamp, Alder Swamp, Tamarack Swamp, and Willow Swamp native plant communities.
- The transmission line in T121N R25W Section 3 runs through a Dry Prairie native plant community that is located along the old railroad grade that has been converted to a bicycle trail.
- Several native plant communities including Floodplain Forest, Bur Oak Woodland, Oak Woodland-Brushland, Willow Swamp, Dry Oak Savanna, and Dry Prairie are located within the Monticello plant property boundary. Bald Eagles and Peregrine Falcons have also been documented nesting on the property.
- Blanding's Turtles (*Emydoidea blandingii*), a threatened species, have been documented in the vicinity of all of the transmission line corridors, and the lines within T33N R27W Sections 7 & 8 and T33N R26W Sections 8, 16, & 17 are within "known concentration" areas of Blanding's Turtles. There are 15 such areas in the state. These areas have been determined by the DNR to be locations of highest priority for research and management activities, and are relied upon to maintain the species' security in the state. For your information, I have attached a fact sheet and a flyer about the Blanding's Turtle. The fact sheet is intended to provide you with background information regarding habitat use, life history, and reasons for the species' decline, as well as recommendations for avoiding and minimizing impacts to this rare turtle. As you will note, there are two lists of recommendations. The first list contains recommendations to prevent harm to turtles during construction work, and is relative to all areas inhabited by Blanding's Turtles. The

second column expands on the first column, and contains greater protective measures to be considered for areas known to be of state-wide importance to Blanding's Turtles (such as the areas mentioned above). The flyer contains an illustration and description of the Blanding's Turtle, as well as a summary of the recommendations provided in the fact sheet.

The Natural Heritage database is maintained by the Natural Heritage and Nongame Research Program, a unit within the Division of Ecological Services, Department of Natural Resources. It is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, natural communities, and other natural features. Its purpose is to foster better understanding and protection of these features.

Because our information is not based on a comprehensive inventory, there may be rare or otherwise significant natural features in the state that are not represented in the database. A county-by-county survey of rare natural features is now underway, and has been completed for Anoka, Hennepin, Sherburne, and Wright Counties. Our information about natural communities is, therefore, quite thorough for that county. However, because survey work for rare plants and animals is less exhaustive, and because there has not been an on-site survey of all areas of the county, ecologically significant features for which we have no records may exist on the project area.

The enclosed results of the database search are provided in two formats: index and full record. To control the release of locational information which might result in the damage or destruction of a rare element, both printout formats are copyrighted.

The index provides rare feature locations only to the nearest section, and may be reprinted, unaltered, in an Environmental Assessment Worksheet, municipal natural resource plan, or report compiled by your company for the project listed above. If you wish to reproduce the index for any other purpose, please contact me to request written permission. The full-record printout includes more detailed locational information, and is for your personal use only. If you wish to reprint the full-record printouts for any purpose, please contact me to request written permission.

Please be aware that review by the Natural Heritage and Nongame Research Program focuses only on *rare natural features*. It does not constitute review or approval by the Department of Natural Resources as a whole. If you require further information on the environmental review process for other wildlife-related issues, you may contact your Regional Environmental Assessment Ecologists, Mike North, at (218) 828-2433 or Wayne Barstad, at (651)772-7940.

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

Sincerely,



Sarah D. Hoffmann
Endangered Species Environmental Review Coordinator

encl: Database search results
Rare Feature Database Print-Outs: An Explanation of Fields
Fact sheets: Blanding's Turtles, Loggerhead Shrikes, Maple-Basswood Forests
Natural Communities and Rare Species Maps: Anoka, Hennepin, and Wright Counties
Sites of Biodiversity Significance Ranking Guidelines

cc: Wayne Barstad
Mike North

Rare Features Database Print-outs: An Explanation of Fields

The Rare Features database is part of the Natural Heritage Information System, and is maintained by the Natural Heritage and Nongame Research Program, a unit within the Division of Ecological Services, Minnesota Department of Natural Resources (DNR).

Please note that the print-outs are copyrighted and may not be reproduced without permission

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

-C-

CBS Site: [County Biological Survey site number]. In each county, the numbering system begins with 1.

CLASS: A code which classifies features by broad taxonomic group: NC = natural community; SA = special animal; SP = special plant; GP = geologic process; GT = geologic time; OT = other (e.g. colonial waterbird colonies, bat hibernacula).

Cty: [County]. Minnesota counties (ordered alphabetically) are numbered from 1 (Aitkin) to 87 (Yellow Medicine).

CURRENT STATUS: Present protection status, from 0 (owner is not aware of record) to 9 (dedicated as a Scientific and Natural Area).

-D-

DNR Region: 1=NW, 2=NE, 3=E Central, 4=SW, 5=SE, 6= Minneapolis/St. Paul Metro.

DNR Quad: [DNR Quadrangle code]. DNR-assigned code of the U.S. Geologic Survey topographic map on which the rare feature occurs:

-E-

ELEMENT or Element: See "Element Name (Common Name)"

Element Name (Common Name): 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 plant communities, which have no scientific name) it is solely the element name:

EO RANK: [Element Occurrence Rank]. An evaluation of the quality and condition of natural communities from A (highest) to D (lowest).

EO Size: [Element Occurrence Size]. The size in acres (often estimated) of natural communities.

-F-

FED STATUS: [Federal Status]. Status of species under the Federal Endangered Species Law: LE=endangered, LT=threatened, C=species which have been proposed for federal listing.

Federal Status: See "FED STATUS"

Forestry District: The Minnesota DNR's Division of Forestry district number.

-G-

GLOBAL RANK: The abundance of an element globally, 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 the Conservation Science Division of The Nature Conservancy.

-I-

INTENDED STATUS: Desired protection status. See also "CURRENT STATUS." If a complete list of protection status codes is needed, please contact the Natural Heritage Program.

-L-

LAST OBSERVED or Last Observed Date or Last Observation: Date of the most recent record of the element at the location.

Latitude: The location at which the occurrence is mapped on Natural Heritage Program maps. NOTE: There are various levels of precision in the original information, but this is not reflected in the latitude/longitude data. For some of the data, particularly historical records, it was not possible to determine exactly where the original observation was made (e.g. "Fort Snelling", or "the south shore of Lake Owasso"). Thus the latitude/longitude reflect the mapped location, and not necessarily the observation location.

Legal: Township, range and section numbers.

Long: [Longitude]. See NOTE under "Latitude"

-M-

MANAGED AREA or Managed Area(s): Name of the federally, state, locally, or privately managed park, forest, preserve, etc., 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.

Map Sym: [Map Symbol].

MN STATUS: [Minnesota Status]. Legal status of plant and animal species under the Minnesota endangered species law:

END=endangered, THR=threatened, SPC=special concern, NON=no legal status, but tracked. This field is blank for natural communities and colonial waterbird nesting sites, which have no legal status in Minnesota, but are tracked by the database.

-N-

NC Rank: [Natural Community Rank].

-O-

Occ #: [Occurrence Number]. The occurrence number, in combination with the element name, uniquely identifies each record.

OCCURRENCE NUMBER: See "Occ #"

OF OCCURS: The number of records existent in the database for each element within the area searched.

Ownership: Indicates whether the site is publicly or privately owned; for publicly owned land, the agency with management responsibility is listed.

-P-

Precision: Precision of locational information of occurrence: C (confirmed) = known within 1/4 mile radius, U (unconfirmed) = known within 1/2 mile, N (non-specific) = known within 1 mile, G (general) = occurs within the general region, X (unmappable)=location is unmappable on USGS topographic quadrangles (often known only to the nearest county), O (obscure/gone)=element no longer exists at the location.

PS: [Primary Section]. The section containing all or the greatest part of the occurrence.

-Q-

Quad Map: See "DNR Quad"

-R-

Rec #: [Record number].

RNG or Rng: [Range number].

-S-

SECTION or Section: [Section number(s)]. Some records are given only to the nearest section (s), but most are given to the nearest quarter-section or quarter-quarter-section (e.g., SWNW32 denotes the SW1/4 of the NW1/4 of section 32). A "0" is used as a place holder when a half-section is specified (e.g., 0N03 refers to the north 1/2 of section 3). When an occurrence crosses section boundaries, both sections are listed, without punctuation (e.g., the NE1/4 of section 19 and NW1/4 of section 20 is displayed as "NE19NW20").

Site: A name which refers to the geographic area within which the occurrence lies. If no name for the area exists (a locally used name, for example), one is assigned by the County Biological Survey or the Natural Heritage Program.

Source: The collector or observer of the rare feature occurrence.

S RANK: [State Rank]. A rank assigned to the natural community type which reflects the known extent and condition of that community in Minnesota. Ranks range from 1 (in greatest need of conservation action in the state) to 5 (secure under present conditions). A "7" following a rank indicates little information is available to rank the community. Communities for which information is especially scarce are given a "U", for "rank undetermined". 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.

State Status: See "MN STATUS"

-T-

TWP or Twp: [Township number].

-V-

Verification: A reflection of the reliability of the information on which the record is based. The highest level of reliability is "verified," which usually indicates a collection was made or, in the case of bird records, nesting was observed. Plant records based on collections made before 1970 are unverified.

Voucher: The museum or herbarium where specimens are maintained, and the accession number assigned by the repository. In the case of bald eagles, this is the breeding area number.

-W-

Wildlife Area: The Minnesota DNR's Division of Wildlife administrative number.

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 Environmental Review Specialist for the Natural Heritage and Nongame Research Program at 651/296-7863.

Minnesota Natural Heritage Database
Element Occurrence Records

MONTICELLO NUCLEAR GENERATING PLANT & TRANSMISSION LINE CORRIDORS
ANOKA, HENNEPIN, SHERBURNE, & WRIGHT COUNTIES
MnDNR, Natural Heritage and Nongame Research Program

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TWP	RNG	PRIMARY SECTION	FED STATUS	MN STATUS	S RANK	ELEMENT and OCCURRENCE NUMBER	MANAGED AREA
T031N	R24W	02		SPC		ARISTIDA TUBERCULOSA (SEA-BEACH NEEDLEGRASS) #17	BUNKER HILLS REGIONAL PARK
T031N	R24W	02		SPC		HETERODON NASICUS (WESTERN HOGNOSE SNAKE) #32	BUNKER HILLS REGIONAL PARK
T031N	R24W	02		SPC		TRIPLASIS PURPUREA (PURPLE SAND-GRASS) #8	BUNKER HILLS REGIONAL PARK
T031N	R24W	11		THR		EMYDOIDEA BLANDINGII (BLANDING'S TURTLE) #295	
T031N	R24W	11		SPC		HESPERIA LEONARDUS LEONARDUS (LEONARD'S SKIPPER) #13	
T032N	R24W	10		THR		EMYDOIDEA BLANDINGII (BLANDING'S TURTLE) #764	
T032N	R24W	10		SPC		PEROGNATHUS FLAVESCENS (PLAINS POCKET MOUSE) #17	
T032N	R24W	14		SPC		PITUOPHIS CATENIFER (GOPHER SNAKE) #31	
T032N	R24W	15		SPC		HETERODON NASICUS (WESTERN HOGNOSE SNAKE) #17	
T032N	R24W	23		SPC		ARISTIDA TUBERCULOSA (SEA-BEACH NEEDLEGRASS) #18	
T032N	R24W	23			S2	DRY OAK SAVANNA (CENTRAL) BARRENS SUBTYPE #25	
T032N	R24W	23			S2	DRY PRAIRIE (CENTRAL) SAND-GRAVEL SUBTYPE #78	
T032N	R24W	23		SPC		OENOTHERA RHOMBIPETALA (RHOMBIC-PETALED EVENING PRIMROSE) #13	
T032N	R24W	26		SPC		PITUOPHIS CATENIFER (GOPHER SNAKE) #32	
T032N	R24W	27		THR		EMYDOIDEA BLANDINGII (BLANDING'S TURTLE) #614	
T032N	R24W	34		THR		LANIUS LUDOVICIANUS (LOGGERHEAD SHRIKE) #10	
T032N	R24W	35		SPC		ARISTIDA TUBERCULOSA (SEA-BEACH NEEDLEGRASS) #15	BUNKER HILLS REGIONAL PARK
T032N	R24W	35		SPC		ARISTIDA TUBERCULOSA (SEA-BEACH NEEDLEGRASS) #16	BUNKER HILLS REGIONAL PARK
T032N	R24W	35			S2	DRY OAK SAVANNA (CENTRAL) BARRENS SUBTYPE #17	BUNKER HILLS REGIONAL PARK
T032N	R24W	35			S2	DRY PRAIRIE (CENTRAL) SAND-GRAVEL SUBTYPE #75	BUNKER HILLS REGIONAL PARK
T032N	R24W	35		THR		EMYDOIDEA BLANDINGII (BLANDING'S TURTLE) #863	
T032N	R24W	35		SPC		HESPERIA LEONARDUS LEONARDUS (LEONARD'S SKIPPER) #4	BUNKER HILLS REGIONAL PARK
T032N	R24W	35		SPC		OENOTHERA RHOMBIPETALA (RHOMBIC-PETALED EVENING PRIMROSE) #9	BUNKER HILLS REGIONAL PARK
T032N	R24W	35		SPC		OENOTHERA RHOMBIPETALA (RHOMBIC-PETALED EVENING PRIMROSE) #11	BUNKER HILLS REGIONAL PARK
T032N	R24W	35		SPC		PEROGNATHUS FLAVESCENS (PLAINS POCKET MOUSE) #1	BUNKER HILLS REGIONAL PARK
T032N	R24W	35		END		SCLERIA TRIGLOMERATA (TALL NUT-RUSH) #8	BUNKER HILLS REGIONAL PARK
T033N	R26W	08			S4	TAMARACK SWAMP MINEROTROPHIC SUBTYPE #19	
T033N	R26W	17		SPC		ARISTIDA TUBERCULOSA (SEA-BEACH NEEDLEGRASS) #9	
T033N	R26W	17		END		HESPERIA UNCAS (UNCAS SKIPPER) #2	
T033N	R26W	17		SPC		JUNIPERUS HORIZONTALIS (CREEPING JUNIPER) #26	
T033N	R26W	17			S3	OAK FOREST (CENTRAL) DRY SUBTYPE #38	
T033N	R26W	21			S3	OAK FOREST (CENTRAL) DRY SUBTYPE #57	
T033N	R26W	22		SPC		BUTEO LINEATUS (RED-SHOULDERED HAWK) #199	
T033N	R26W	27			S3	OAK FOREST (CENTRAL) DRY SUBTYPE #37	
T033N	R27W	07		THR		EMYDOIDEA BLANDINGII (BLANDING'S TURTLE) #232	
T033N	R27W	10		THR		EMYDOIDEA BLANDINGII (BLANDING'S TURTLE) #152	
T033N	R28W	06		THR		LANIUS LUDOVICIANUS (LOGGERHEAD SHRIKE) #33	
T033N	R28W	12		THR		EMYDOIDEA BLANDINGII (BLANDING'S TURTLE) #551	
T033N	R28W	12		SPC		NOTROPIS ANOGENUS (PUGNOSE SHINER) #23	
T033N	R28W	13		THR		EMYDOIDEA BLANDINGII (BLANDING'S TURTLE) #417	
T033N	R28W	13		THR		EMYDOIDEA BLANDINGII (BLANDING'S TURTLE) #495	
T033N	R28W	14			S2	DRY OAK SAVANNA (CENTRAL) SAND-GRAVEL SUBTYPE #8	
T033N	R29W	01		THR		FALCO PEREGRINUS (PEREGRINE FALCON) #55	
T033N	R29W	01		THR		LANIUS LUDOVICIANUS (LOGGERHEAD SHRIKE) #7	
T033N	R29W	01		SPC		MINUARTIA DAWSONENSIS (ROCK SANDWORT) #24	
T118N	R22W	15			S2	MAPLE-BASSWOOD FOREST (BIG WOODS) #3	
T119N	R22W	03		SPC		EMPIDONAX VIRESCENS (ACADIAN FLYCATCHER) #46	ELM CREEK PARK RESERVE
T119N	R22W	03		SPC		EMPIDONAX VIRESCENS (ACADIAN FLYCATCHER) #47	ELM CREEK PARK RESERVE

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MnDNR, Natural Heritage and Nongame Research Program

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TWP	RNG	PRIMARY SECTION	FED STATUS	MN STATUS	S RANK	ELEMENT and OCCURRENCE NUMBER	MANAGED AREA
T121N	R25W	03			S2	DRY PRAIRIE (CENTRAL) SAND-GRAVEL SUBTYPE #114	
T122N	R25W	32			S2	DRY OAK SAVANNA (CENTRAL) SAND-GRAVEL SUBTYPE #9	
T122N	R25W	32	LT	SPC		HALIAEETUS LEUCOCEPHALUS (BALD EAGLE) #1477	
T122N	R25W	33		THR		FALCO PEREGRINUS (PEREGRINE FALCON) #62	

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