# Appendix A Agency Coordination

Minnesota Department of Natural Resources (MNDNR)

- Correspondence to MNDNR
- Responses from MNDNR

Minnesota Department of Natural Resources (MNDNR)-National Heritage Information System (NHIS)

- Correspondence to MNDNR-NHIS
- Responses from MNDNR-NHIS

Minnesota Pollution Control Agency (MPCA)

- Correspondence to MPCA

State Historic Preservation Office (SHPO)

- Correspondence to SHPO
- Responses from SHPO

US Army Corps of Engineers (USACE)

- Correspondence to USACE

US Fish and Wildlife Service (USFWS)

- Correspondence to USFWS
- Responses from USFWS

Federal Aviation Administration (FAA)

Other Stakeholders

Maps Sent to Agencies

## Minnesota Department of Natural Resources (MNDNR)

### Correspondence to MNDNR

June 26, 2015 Transmitted by Electronic Mail

Ms. Brooke Haworth
Environmental Assessment Ecologist, Central Region
MnDNR Division of Ecological and Water Resources
1200 Warner Road, St. Paul, MN 55106

**RE: Aurora Distributed Solar Project– Montrose & Pine Island Facilities**
**Request for Review**

Dear Ms. Haworth,

Your review was requested in January/February 2014, then again in May 2014 by Aurora Distributed Solar, LLC (Geronimo Energy) via WSB & Associates (WSB) for the proposed Aurora Distributed Solar Project. However, during the development process Geronimo Energy encountered construction limitations and has since altered locations of two of the 24 previously reviewed solar facilities (Montrose and Pine Island). As you recall, the Aurora Solar Project includes up to 24 distributed solar facilities totaling 100 megawatts and is located across 16 Minnesota Counties (see attached fact sheet). Geronimo Energy is requesting that the altered locations of the Montrose and Pine Island solar facilities be reviewed.

At this stage in project development, Geronimo is assessing the existing environmental conditions of each of the altered facility locations. Enclosed are the altered facility location maps. The Aurora Solar Project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence as well as an access road within the "Preliminary Development Area Boundary" of each facility. The locations for each of the altered areas addressed in this letter are:

| Facility | County | PLSS |
|---|---|---|
| Montrose | Wright | NW ¼ & SW ¼ Sec 2 T118, R26 |
| Pine Island | Goodhue | E ½ & NW ¼ Sec 31 T109N, R15W |

Similar to the requests made by WSB earlier this year, please review and provide recommendations within 30 days related to the presence of wildlife resources. If you have questions, feel free to call me at (952) 988-9000 or ingrid@geronimoenergy.com

Sincerely,

Geronimo Energy, LLC

Ingrid Schwingler
Permitting Specialist

Attachments
cc: Tena Rytel, Geronimo Energy

WSB & Associates, Inc.
engineering • planning • environmental • construction

701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

May 9th, 2014

Ms. Brooke Haworth
Environmental Assessment Ecologist, Central Region
MnDNR Division of Ecological and Water Resources
1200 Warner Road
St. Paul, MN 55106

Re: **Aurora Solar Power Project Sites – Brooten & Pine Island**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Ms. Haworth:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed Aurora Solar Project. Initially, correspondence was requested in January for most project areas; however, two areas were mistakenly omitted: Brooten and Pine Island. As you recall, the Aurora Solar Project includes up to 25 distributed solar projects totaling 100 megawatts and is located across 16 Minnesota Counties (see attached fact sheet). On behalf of Geronimo Energy, we request that the Brooten and Pine Island project areas be analyzed for their potential environmental impacts, similar to the analysis that occurred for the project areas identified in January.

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | PLSS |
|---|---|
| Goodhue | NE ¼ of Sec 31, T109N, R15W |
| Stearns | NW ¼ of Sec 31, T124N, R35W |

We would appreciate any comments you may have about wildlife resources or other concerns regarding this project. Please review the project areas and provide recommendations related to the presence of wildlife resources that may be affected within 30 days.

If you have questions, feel free to call me at (763) 541-4800 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

cc: Ingrid Schwingler, Geronimo Energy
Tena Rytel, Geronimo Energy

WSB & Associates, Inc.
engineering • planning • environmental • construction

701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

January 17th, 2014

Mr. Beau Liddell
Area Wildlife Manager
Division of Fish and Wildlife
Minnesota Department of Natural Resources
16543 Haven Road
Little Falls, MN 56345

**RE: Aurora Solar Power Project Sites – Mayhew Lake**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Mr. Liddell:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | PLSS |
|---|---|
| Benton | SW ¼ of Sec 12, T36N, R31W |

We would appreciate any comments you may have about wildlife resources or other concerns regarding this project. Please review the project areas and provide recommendations related to the presence of wildlife resources that may be affected within 15 business days.

If you have questions, feel free to call me at (763)231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

WSB & Associates, Inc.
engineering • planning • environmental • construction

701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

January 17th, 2014

Ms. Diana Regenscheid
Area Wildlife Manager
Division of Fish and Wildlife
Minnesota Department of Natural Resources
7050 East Highway 101, Suite 100
Shakopee, MN 55379

**RE: Aurora Solar Power Project Sites –West Waconia Solar**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Ms. Regenscheid:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | PLSS |
|---|---|
| Carver | SW ¼ of Sec 1, T115N, R26W |

We would appreciate any comments you may have about wildlife resources or other concerns regarding this project. Please review the project areas and provide recommendations related to the presence of wildlife resources that may be affected within 15 business days.

If you have questions, feel free to call me at (763)231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

WSB & Associates, Inc.
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701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

January 17th, 2014

Mr. Don Nelson
Area Wildlife Manager
Division of Fish and Wildlife
Minnesota Department of Natural Resources
3555 9th Street NW
Rochester, MN 55901

**RE: Aurora Solar Power Project Sites – Zumbrota Solar**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Mr. Nelson:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | PLSS |
|---|---|
| Goodhue | SW ¼ of Sec 25, T110N, R16W |

We would appreciate any comments you may have about wildlife resources or other concerns regarding this project. Please review the project areas and provide recommendations related to the presence of wildlife resources that may be affected within 15 business days.

If you have questions, feel free to call me at (763)231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

WSB & Associates, Inc.
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701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

January 17th, 2014

Mr. Fred Bengtson
Area Wildlife Manager
Division of Fish and Wildlife
Minnesota Department of Natural Resources
940 Industrial Drive South, #103
Sauk Rapids, MN 56379

**RE: Aurora Solar Power Project Sites – Lake Pulaski, Montrose, Albany, Paynesville & Annandale Solar**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Mr. Bengtson:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | PLSS |
|---|---|
| Wright | SE ¼ of Sec 15, T120N, R25W |
| Wright | NW ¼ of Sec 32, T121N, R27W |
| Wright | NE ¼ of Sec 2, T118N, R26W |
| Stearns | NE ½ of Sec 17 & SE ½ of Sec 8, T125N, R31W |
| Stearns | NW ¼ of Sec 9, NE ¼ of Sec 8, SW ¼ of Sec 4, T122N, R32W |

We would appreciate any comments you may have about wildlife resources or other concerns regarding this project. Please review the project areas and provide recommendations related to the presence of wildlife resources that may be affected within 15 business days.

If you have questions, feel free to call me at (763)231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

WSB & Associates, Inc.
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701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

January 17th, 2014

Mr. Ted Dick
Area Wildlife Manager
Division of Fish and Wildlife
Minnesota Department of Natural Resources
800 Oak Savannah Lane SW
Cambridge, MN 55008

Re: **Aurora Solar Power Project Sites – Chisago, Scandia, Wyoming & Lawrence Creek Solar**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Mr. Dick:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | PLSS |
|---|---|
| Chisago | NE ½ of Sec 12, T34N, R21W |
| Chisago | E ½ of Sec 27, T34N, R19W |
| Chisago | NE ¼ of Sec 32, T33N, R21W |
| Chisago | SE ¼ if Sec 35, T33N, R20W |

We would appreciate any comments you may have about wildlife resources or other concerns regarding this project. Please review the project areas and provide recommendations related to the presence of wildlife resources that may be affected within 15 business days.

If you have questions, feel free to call me at (763)231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

WSB & Associates, Inc.
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701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

January 17th, 2014

Mr. Tim Marion
Area Wildlife Manager
Division of Fish and Wildlife
Minnesota Department of Natural Resources
5463-C W Broadway
Forest Lake, MN 55025

**RE: Aurora Solar Power Project Sites – Hastings Solar**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Mr. Marion:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | PLSS |
|---|---|
| Washington | NE ¼ of Sec 8, T26N, R20W |

We would appreciate any comments you may have about wildlife resources or other concerns regarding this project. Please review the project areas and provide recommendations related to the presence of wildlife resources that may be affected within 15 business days.

If you have questions, feel free to call me at (763)231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

WSB & Associates, Inc.
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701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

January 17th, 2014

Mr. Bill Schuna
Area Wildlife Manager
Division of Fish and Wildlife
Minnesota Department of Natural Resources
2611 Broadway Avenue
Slayton, MN 56172

**RE: Aurora Solar Power Project Sites – Pipestone Solar**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Mr. Schuna:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | PLSS |
|---|---|
| Pipestone | NE ¼ of Sec 11, T106N, R46W |

We would appreciate any comments you may have about wildlife resources or other concerns regarding this project. Please review the project areas and provide recommendations related to the presence of wildlife resources that may be affected within 15 business days.

If you have questions, feel free to call me at (763)231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

WSB & Associates, Inc.
engineering • planning • environmental • construction

701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

January 17th, 2014

Mr. Cory Netland
Area Wildlife Manager
Division of Fish and Wildlife
Minnesota Department of Natural Resources
398 Sibley Park Road NE
New London, MN 56273

**RE: Aurora Solar Power Project Sites – Atwater & Fiesta City Solar**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Mr. Netland:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | PLSS |
|---|---|
| Kandiyohi | SW ¼ of Sec 1, T119N, R33W |
| Chippewa | SW ¼ of Sec 9, T117N, R40W |

We would appreciate any comments you may have about wildlife resources or other concerns regarding this project. Please review the project areas and provide

recommendations related to the presence of wildlife resources that may be affected within 15 business days.

If you have questions, feel free to call me at (763)231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

WSB & Associates, Inc.
engineering • planning • environmental • construction

701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

January 17th, 2014

Ms. Jeanine Vorland
Area Wildlife Manager
Division of Fish and Wildlife
Minnesota Department of Natural Resources
8485 Rose Street
Owatonna, MN 55060

**RE: Aurora Solar Power Project Sites – Waseca, West Faribault & Dodge Center Solar Request for Comments**
**WSB Project No. 02045-020**

Dear Ms. Vorland:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | PLSS |
|---|---|
| Waseca | NE ¼ of Sec 12, T107N, R23W |
| Rice | SE ¼ of Sec 2, T109N, R21W |
| Dodge | SE ¼ of Sec 32, T107N, R17W |

We would appreciate any comments you may have about wildlife resources or other concerns regarding this project. Please review the project areas and provide recommendations related to the presence of wildlife resources that may be affected within 15 business days.

If you have questions, feel free to call me at (763)231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

WSB & Associates, Inc.
engineering • planning • environmental • construction

701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

January 17th, 2014

Mr. Joe Stangel
Area Wildlife Manager
Division of Fish and Wildlife
Minnesota Department of Natural Resources
501 9th Street
Nicollet, MN 56074

**RE: Aurora Solar Power Project Sites – Lester Prairie, Eastwood & Lake Emily Solar Request for Comments**
**WSB Project No. 02045-020**

Dear Mr. Stangel:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | PLSS |
|---|---|
| McLeod | SW ¼ of Sec 25, T117N, R27W |
| Blue Earth | SE ¼ of Sec 14, T108N, R26W |
| Le Sueur | NW ¼ of Sec 24, T110N, R26W |

We would appreciate any comments you may have about wildlife resources or other concerns regarding this project. Please review the project areas and provide recommendations related to the presence of wildlife resources that may be affected within 15 business days.

If you have questions, feel free to call me at (763)231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

## Minnesota Department of Natural Resources (MNDNR)

### Responses from MNDNR

Minnesota Department of Natural Resources
Division of Ecological and Water Resources
1200 Warner Road
Saint Paul, MN 55106-6793

June 3, 2014 Transmitted by Electronic Mail

Ms. Alison Harwood
Environmental Planning &Natural Resources Scientist
WSB &Associates, Inc.
701 Xena Avenue South, Suite 300
Minneapolis, MN 55416

Dear Ms. Harwood,

I have reviewed the additional sites for Geronimo Energy's proposed Aurora Solar project in the DNR Central Region and offer the following comments.

Goodhue County-Pine Island

This site is bordered on three sides by the North Branch Middle Fork of the Zumbro River, which is a Minnesota Water Trail. This riparian corridor is classified as a Minnesota Biological Survey (MBS) native plant community (NPC) "Elm-Ash-Basswood Terrace Forest" that has a state conservation status rank of S2-imperiled. The corridor is also identified as a Site of Biodiversity Significance of high rank, containing very good quality occurrences of the rarest species, high-quality examples of rare NPCs, and/or important functional landscapes.

There are rare mussel and plant species within one mile of the project site, but they occur either in the riverbed or the alluvial terrace and are unlikely to be impacted. Because of proximity to these areas, wildlife biodiversity and activity may be more abundant. The DNR would appreciate construction BMPs that minimize adverse impacts to wildlife.

The site is partially within a 100 year floodplain, with highly erodible soils. Any facility construction must meet shoreland structure setbacks from public waters, and must comply with floodplain regulations. These provisions are found in local ordinances.

Stearns County-Brooten

This site is bordered on the north and east by a Regionally Significant Ecological Area (RSEA) of outstanding rank, meaning that the area has significant terrestrial and wetland resources that support a variety of plant and animal species, and provides habitat connectivity to other ecologically intact areas. The purpose of the data is to inform regional scale land use decisions, especially as it relates to balancing development and natural resource protection. Because of proximity to these areas, wildlife biodiversity and activity may be more abundant. The DNR would appreciate construction BMPs that minimize adverse impacts to wildlife.

Thank you for the opportunity to review these sites. If you have any questions regarding these comments, please feel free to contact me.

Sincerely,

*Brooke Haworth*

Brooke Haworth
Environmental Assessment Ecologist, Central Region
MnDNR Division of Ecological and Water Resources
1200 Warner Road, St. Paul, MN 55106
Phone: 651-259-5755
Email: Brooke.haworth@state.mn.us

Minnesota Department of Natural Resources
Division of Ecological and Water Resources
1200 Warner Road
Saint Paul, MN 55106-6793

April 8, 2014 Transmitted by Electronic Mail

Ms. Alison Harwood
Environmental Planning & Natural Resources Scientist
WSB & Associates, Inc.
701 Xena Avenue South, Suite 300
Minneapolis, MN 55416

Dear Ms. Harwood,

DNR Central Region staff have reviewed the sites for Geronimo Energy's proposed Aurora Solar project that you presented to us in February. We offer the following comments about this project for your consideration.

1) The Aurora Solar project presents an opportunity for the Geronimo Energy to develop designs and protocols that effectively protect the natural resources across the Minnesota landscape. We recommend that Geronimo continue coordination with the DNR during construction and maintenance phases to address situations as they occur.

2) Because so little is known about the impacts of larger scale PV solar projects in the Midwest, we encourage the incorporation of wildlife survey and monitoring in maintenance activities. These activities could provide important information on the potential effects of these installations, and could be used to develop mitigations for adverse effects on future projects.

3) The construction phases of the PV solar installations will have the most impact upon the natural resources of each site. For those that include wetter soils, we recommend winter construction to reduce adverse impacts to soils and vegetation.

**From Waters staff:**

1) These facilities must meet shoreland structure setbacks from public waters, and must comply with floodplain regulations. These provisions are found in local ordinances.

2) The Goodhue County-Zumbrota site has a public watercourse on the south line of the property. Structure setback is 100 feet from the top of the bank of the waterway. The site is not in a designated floodplain.

**From Nongame Wildlife staff:**

1) If possible, open areas should be planted with a native grassland seed mix and rarely mowed to create grassland wildlife habitat (for pollinators, grassland bird, small mammals).
2) Is it possible to place the panels at a height that does not require mowing underneath them? Due to shading effects, plants will not be as tall as in open areas. With these combined factors, a lot of grassland habitat could remain within the project footprint.
3) Waterbirds may mistake the arrays for water and try to land. Those that are not directly killed by the impact are often trapped below the panels and unable to get back into the air. If a site is located in close proximity to a flyway or large wetland with nesting wildlife, fencing should be set back far enough so that waterbirds have enough room to take flight, in order to avoid trapping them within the fenced perimeter.
4) Bird flight diverters and raptor shields on transmission wires and utility poles are recommended at sites near flyways and wetland complexes.
5) The use of white borders and dividing strips on PV panels are known to reduce attraction of aquatic insects.
6) Because of site locations in rural areas with abundant wildlife, all development activities should use wildlife-friendly (non-plastic, non-welded) erosion control materials.

**Central Region Site Comments:**

<u>Benton County-Mayhew Lake</u>
This site is located adjacent to a DNR public water wetland, and across the road from a Minnesota Biological Survey (MBS) native plant community "prairie rich fen" that is identified as a Site of Biodiversity Significance (SBS) of moderate rank. Sites of Biodiversity Significance have varying levels of native biodiversity and are ranked on a state level by the presence of rare species, native plant communities and large, intact functional landscapes. This area is also considered a Central Region Regionally Significant Ecological Area (CRRSEA) of moderate value, meaning that the area has significant terrestrial and wetland resources that support a variety of plant and animal species, and provides habitat connectivity to other ecologically intact areas. The purpose of the data is to inform regional scale land use decisions, especially as it relates to balancing development and natural resource protection. Because of proximity to these areas, wildlife biodiversity and activity may be more abundant.

Carver County-West Waconia
Because of the proximity to area lakes, exposed transmission lines and poles should use bird flight diverters and raptor shields.

Goodhue County-Zumbrota
See setback comment above, under comments from Waters staff.

Wright County-Lake Pulaski
Because of the proximity to area lakes, exposed transmission lines and poles should use bird flight diverters and raptor shields.

Wright County-Annandale
No comment

Wright County-Montrose
This site is within one mile of the Woodland Wildlife Management Area (WMA), which has trumpeter swan records, a state-listed species of special concern. Because of the proximity to area lakes, exposed transmission lines and poles should use bird flight diverters and raptor shields.

Stearns County-Albany
No comment

Stearns County-Paynesville
This site borders Spirit Prairie WMA, which contains MBS native plant communities and rare plant and animal species. The site itself is partially within an SBS of high rank and a CRRSEA of outstanding rank. A large wetland is in the middle of the site. This entire area is part of a habitat complex imbedded in the agricultural landscape. Wildlife diversity will be high in this area.

Chisago County-Chisago County
This site borders a small riparian corridor along a public water ditch that links much larger habitat complexes. It is nearly adjacent to Carlos Avery WMA, a large habitat complex with high biodiversity. This site lies within a Blanding's turtle (a state-listed threatened species) Priority Area, and numerous Blanding's records are within close proximity. During all construction and maintenance activities, this species must be protected from harm. The site is also close to the Audubon Carlos Avery Important Bird Area (IBA); consequently, exposed transmission lines and poles should use bird flight diverters and raptor shields.

Chisago County-Lawrence Creek
This site is located within one mile of Interstate Park, an area containing of high biodiversity and numerous rare species records. This is also the Audubon St. Croix River

Bluffs IBA, an important migratory flyway. Consequently, exposed transmission lines and poles should use bird flight diverters and raptor shields.

Chisago County-Wyoming

This site lies two miles east of Carlos Avery WMA, a large habitat complex with high biodiversity, and also a Audubon IBA. This site lies within a Blanding's turtle (a state-listed threatened species) Priority Area, and numerous Blanding's records are in the area. During all construction and maintenance activities, this species must be protected from harm. The site is just west of a public water wetland, and the Sunrise River. Due to proximity to area lakes, exposed transmission lines and poles should use bird flight diverters and raptor shields.

Chisago County-Scandia

Blanding's turtle records are located with two miles of this project site.

Washington County-Hastings

This site is located on a point of land where the Mississippi and St. Croix Rivers meet, and where two Audubon IBAs intersect – the flyways of the St. Croix Lake IBA and the Vermillion Bottoms IBA. **It is very important that exposed transmission lines and poles use bird flight diverters and raptor shields at this site.** There are many rare species records in this area, but most are associated with the waters of the rivers. Due to the proximity to large riparian corridors, wildlife will be varied and active.

We thank you for the opportunity to review these sites and the Aurora Solar project, and look forward to continued coordination during the project. If you have any questions regarding these comments, please feel free to contact me.

Sincerely,

Brooke Haworth

Environmental Assessment Ecologist, Central Region
MnDNR Division of Ecological and Water Resources
1200 Warner Road, St. Paul, MN 55106
Phone: 651-259-5755
Email: Brooke.haworth@state.mn.us

## Ingrid M. Schwingler

**From:** Mixon, Kevin (DNR) <kevin.mixon@state.mn.us>
**Sent:** Tuesday, February 18, 2014 2:12 PM
**To:** Alison Harwood
**Cc:** Schrenzel, Jamie (DNR); Tena Rytel; Ingrid M. Schwingler; Joyal, Lisa (DNR)
**Subject:** RE: Aurora Solar Project - Geronimo Energy

Alison:

Region 4 (Southern) of the DNR has already reviewed the projects that were sent to our Area Wildlife Managers. The projects reviewed included: Pipestone, Atwater, Fiesta City, Waseca, West Faribault, Dodge Center, Lester Prairie, Eastwood, and Lake Emily. Most of the proposed sites have limited to no concerns to resources under our jurisdiction.

Several of the proposed sites show wetland signatures or wetlands identified by the National Wetland Inventory that will need to be addressed according to the Wetland Conservation Act. The Atwater site in particular appears to have a larger wetland in the middle of the site with additional potential wetlands in the project area. If the wetland delineation confirms a greater amount of wetland then it might be wise to choose a less impacting site that will require less wetland mitigation that will result in reduced project costs.

If possible the avoidance of the forested portions of the Dodge Center Site would help maintain the larger block of forested habitat in the area.

Lisa Joyal, DNR Endangered Species Review Coordinator, will be reviewing the projects for potential impacts to rare features.

Please coordinate with us again as the projects get further refined.

Kevin

---

**From:** Alison Harwood [mailto:aharwood@wsbeng.com]
**Sent:** Tuesday, February 18, 2014 11:38 AM
**To:** Mixon, Kevin (DNR)
**Cc:** Schrenzel, Jamie (DNR); Tena Rytel (Tena@geronimoenergy.com); Ingrid Schwingler (Vick) (Ingrid@geronimoenergy.com)
**Subject:** Aurora Solar Project - Geronimo Energy

Kevin,

In January 2014, WSB & Associates (WSB) sent letters to DNR's Area Wildlife Managers, requesting input on Geronimo Energy's proposed Aurora Solar project. Coordination with DNR thereafter indicated that requests for early coordination should be made through the Regional Environmental Assessment Ecologists (REAEs). Therefore, WSB is re-distributing the letters to the appropriate REAE contacts. These letters can be accessed via the Sharefile Link below.

Link to documents (expires after 30 days): https://wsbeng.securevdr.com/d/s230bcde3f024e209

Please let me know if you have any trouble accessing the documents. As discussed at the meeting with Geronimo Energy on February 12, please respond by April 8, 2014.

Thank you,

**Alison Harwood**
Environmental Planning & Natural Resources Scientist
d: 763-231-4847 | c: 612-360-1320
WSB & Associates, Inc. | 701 Xenia Avenue South, Suite 300 | Minneapolis, MN 55416

*WSB and McGhie & Betts, Inc. have joined forces! McGhie & Betts is now a Division of WSB, providing a presence in Rochester and Northfield, MN.*

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## Minnesota Department of Natural Resources (MNDNR)-National Heritage Information System (NHIS)

### Correspondence to MNDNR-NHIS

NO STAPLES PLEASE

| 2012 | For Agency Use Only: | | | | #Sec _____ | Contact Rqsted? _____ |
|---|---|---|---|---|---|---|
| | Received _____ | Due _____ | | Inv _____ | #EOs _____ | Survey Rqsted? _____ |
| | Search Radius _____mi. | L / I / D | EM | Map'd _____ | #Com _____ | |
| | NoR / NoF / NoE / Std / Sub | | Let _____ | Log out _____ | Related ERDB# _____ | |

Minnesota DEPARTMENT OF NATURAL RESOURCES

# NATURAL HERITAGE INFORMATION SYSTEM (NHIS) DATA REQUEST FORM

Please read the instructions on page 3 before filling out the form. Thank you!

## WHO IS REQUESTING THE INFORMATION?

■ Mr.
Ms.

Name and Title: Alison Harwood, Environmental Scientist

Agency/Company: Geronimo Energy on behalf of Aurora Distributed Solar, LLC

Mailing Address: 7650 Edinborough Way Suite 725 (Street) Edina (City) MN (State) 55435 (Zip Code)

Phone: (763) 231-4847 e-mail: ingrid@geronimoenergy.com

Responses will be sent via email. If you prefer US Mail check here: ☐

## THIS INFORMATION IS BEING REQUESTED FOR A:

☐ Federal EA ☐ State EAW ☑ PUC Site or Route Application ☐ Watershed Plan ☐ BER

☐ Federal EIS ☐ State EIS ☐ Local Government Permit ☐ Research Project

☐ NEPA Checklist ☐ Other (describe) project due diligence

☐ Check here if this project is funded through any of the following grant programs: Lessard-Sams Outdoor Heritage Council (L-SOHC), Conservation Partners Legacy (CPL), or Legislative-Citizen Commission on Minnesota Resources (LCCMR).

## INFORMATION WE NEED FROM YOU:

1) **Enclose a map** of the project boundary/area of interest (topographic maps or aerial photos are preferred).
2) Please **provide a GIS shapefile*** (NAD 83, UTM Zone 15N) of the project boundary/area of interest.
3) List the following locational information* (attach additional sheets if necessary):

For Agency Use: TRS Confirmed ☐

| For Agency Use: Region / MCBS Status | County | Township # | Range # | Section(s) (please list **all** sections) |
|---|---|---|---|---|
| | Wright | 118 | 26 | 2 |
| | Goodhue | 109 | 15 | 31 |
| | Stearns | 124 | 35 | 31 |
| | | | | |

4) Please provide the following information (attach additional sheets if necessary):

Project Name: Aurora Solar Power

Project Proposer: Geronimo Energy, LLC.

Description of Project (including types of disturbance anticipated from the project):

Each facility will include construction/installation of linear arrays of photovoltaic panels, and adjoining equipment enclosed by a chain link fence, as well as an access road to the facility. These components will be within the area depicted on the maps called the 'Preliminary Development Area'. Grading may occur.

* Please see the instructions on page 3.

Describe the existing land use of the project site. What types of land cover / habitat will be impacted by the proposed project?

The areas within the facility boundaries have been, and are currently, used for agricultural purposes

List any waterbodies (e.g., rivers, intermittent streams, lakes, wetlands) that may be affected by the proposed project, and discuss how they may be impacted (e.g., dewatering, discharge, riverbed disturbance).

Wetland delineations are underway. It is possible that waterbodies may be impacted. Where wetland impacts cannot be avoided, the impacts will be limited to fill for access roads and installation of the small piers for the structural framework on which the solar arrays will be placed.

Does the project have the potential to affect any groundwater resources (e.g., groundwater appropriation, change in recharge, or contamination)?

There is no potential for this project to affect the ground water.

To your knowledge, has the project undergone a previous Natural Heritage review? If so, please list the correspondence #: ERDB # 20140201. How does this request differ from the previous request (e.g., change in scope, change in boundary, project being revived, project expansion, different phase)?

Yes -this request differs due to a change in two facility locations.

To your knowledge, have any native plant community or rare species surveys been conducted within the site? If so, please list:

Yes, parallel wetland delineations and natural community surveys are underway.

List any DNR Permits or Licenses that you will be applying for or have already applied for as part of this project:

None are anticipated at this time.

## INFORMATION WE PROVIDE TO YOU:

1) The response will include a Natural Heritage letter. If applicable, the letter will discuss potential effects to rare features.

☐ Check here if you are interested in a list of rare features in the vicinity of the area of interest but you do **not** need a review of potential effects to rare features. Please list the reason a review is not needed:

_____

2) Depending on the results of the query or review, the response may include an Index Report of known aggregation sites and known occurrences of federally and state-listed plants and animals* within an approximate one-mile radius of the project boundary/area of interest. The Index Report and Natural Heritage letter can be included in any public environmental review document.

3) A Detailed Report that contains more information on each occurrence may also be requested. Please note that the Detailed Report may contain specific location information that is protected under *Minnesota Statutes*, section 84.0872, subd. 2, and, as such, the Detailed Report may not be included in any public document (e.g., an EAW).

☑ Check here if you would like to request a Detailed Report. Please note that if the results of the review are 'No Effects' or a standard comment, a Detailed Report may not be available.

## FEES / TURNAROUND TIME

There is a fee* for this service. Requests generally take **3-4 weeks** from date of receipt to process, and are processed in the order received.

I have read the entire form and instructions, and the information supplied above is complete and accurate. I understand that material supplied to me from the Natural Heritage Information System is copyrighted and that I am not permitted to reproduce or publish any of this copyrighted material without prior written permission from the DNR. Further, if permission to publish is given, I understand that I must credit the Minnesota Division of Ecological and Water Resources, Minnesota Department of Natural Resources, as the source of the material.

| Signature (**required**) | Note: Digital signatures representing the name of a person shall be sufficient to show that such person has signed this document. |
|---|---|

Mail or email completed form to:
Lisa Joyal, Endangered Species Review Coordinator
Division of Ecological and Water Resources
Minnesota Department of Natural Resources
500 Lafayette Road, Box 25
St. Paul, Minnesota 55155
Review.NHIS@state.mn.us

Form is available at
http://files.dnr.state.mn.us/eco/nhnrp/nhis_data_request.pdf

Revised March 2, 2012

* Please see the instructions on page 3.

# Instructions for the
# Natural Heritage Information System (NHIS) Data Request Form

The Division of Ecological and Water Resources maintains the Natural Heritage Information System (NHIS), a collection of databases that provides information on Minnesota's rare plants and animals, native plant communities, and other rare features. The NHIS is continually updated as new information becomes available, and the Minnesota County Biological Survey (MCBS) is a major source of this information.

- Use this form to request information on rare features within an approximate one-mile radius of an area of interest. You may reproduce this form for your own use or to distribute. An **electronic copy** of the form is available at the DNR's web site at http://files.dnr.state.mn.us/eco/nhnrp/nhis_data_request.pdf

- If you are interested in obtaining the Rare Features Database electronically as a GIS shapefile, do not fill out this form. Please see http://files.dnr.state.mn.us/eco/nhnrp/natural_heritage_data.pdf for more information on this option.

WHO IS REQUESTING THE INFORMATION?

- The person whose name is entered on the form under the "Who is Requesting the Information" section must sign the form as an acknowledgment of the State of Minnesota's copyright on all generated reports. All correspondence and invoices will be sent to this person. Please do not ask us to send this information to a different party.
- Please include a complete mailing address. Responses will be sent via email unless you specify differently.

INFORMATION WE NEED FROM YOU:

- Include a legible map (topographic maps or aerial photographs are preferred) clearly showing:

  1) location and boundaries of the project,
  2) associated infrastructure, and
  3) any waterbodies that may be affected by the proposed project.

- If the project boundary is large **or** complex, please provide a **GIS shapefile** (NAD 83, UTM Zone 15) of the project boundary/area of interest. Do not include any buffers. An additional "digitizing fee" may be charged for projects that require a substantial amount of time to digitize.
- Provide a complete list of sections that the proposed project or area of interest falls within. Do not include any buffer area. Please double-check this information. Incorrect sections can delay the processing of your request, and may result in an invalid review.
- Please provide a detailed **project description**, attaching separate pages to the form if necessary. Identify the type of development (e.g., housing, commercial, utility, ethanol facility, wind farm) being proposed, the size and # of units (if applicable), construction methods, and **any associated infrastructure** such as access roads, utility connections, and water supply and/or discharge pipelines.
- We cannot begin processing data requests until we receive all parts of the request, including a map and a completed, signed form.

INFORMATION WE PROVIDE TO YOU:

- The Natural Heritage review and database reports are valid for environmental review purposes for one year, and they are only valid for the project location and description provided on the form. Please contact Lisa Joyal at lisa.joyal@state.mn.us if project details change or if a data update is needed.
- Please note that the Natural Heritage review and database reports do not address/contain locations of the gray wolf (*Canis lupus*), state-listed as special concern, or Canada lynx (*Lynx canadensis*), federally-listed as threatened, as these species are not currently tracked in the Natural Heritage Information System. See page 4.

FEES / TURNAROUND TIME:

- There is a fee for this service. All fees are subject to change. The current fee schedule is available at http://files.dnr.state.mn.us/eco/nhnrp/natural_heritage_data.pdf. The minimum charge is $90.00, and increases based on the time it takes us to process the request (dependent upon project size and the results of the query). Please do not include payment with your request; an invoice will be sent to you.
- There is generally a **3-4 week turn-around time** to process requests.

PLEASE SEE NEXT PAGE FOR ADDITIONAL SOURCES OF INFORMATION

ADDITIONAL SOURCES OF INFORMATION:

- The DNR Rare Species Guide (http://www.dnr.state.mn.us/rsg/index.html) is the state's authoritative reference for Minnesota's endangered, threatened, and special concern species. It is a dynamic, interactive source that can be queried by county, ECS subsection, watershed, or habitat.

- Information on the gray wolf (*Canis lupus*):
  DNR website: http://www.dnr.state.mn.us/mammals/graywolf.html
  USFWS website: http://www.fws.gov/midwest/wolf/

- Information on the Canada lynx (*Lynx Canadensis*):
  DNR website: http://www.dnr.state.mn.us/mammals/canadalynx.html
  USFWS website: http://www.fws.gov/midwest/endangered/mammals/lynx/index.html

- Minnesota's Comprehensive Wildlife Conservation Strategy (http://www.dnr.state.mn.us/cwcs/index.html) is an action plan focused on managing Minnesota's native animals whose populations are rare, declining, or vulnerable to decline. It identifies Species in Greatest Conservation Need and the Key Habitats that support them.

- The DNR Data Deli (http://deli.dnr.state.mn.us/) allows users to download GIS shapefiles of MCBS Sites of Biodiversity Significance, MCBS Native Plant Communities, MCBS Railroad Rights-of-Way Prairies, and Scientific and Natural Area Boundaries.

- Information on MCBS Sites of Biodiversity Significance can be found at http://www.dnr.state.mn.us/eco/mcbs/biodiversity_guidelines.html.

- Information on MCBS Native Plant Communities can be found at http://www.dnr.state.mn.us/npc/index.html.

- Questions? Please contact Lisa Joyal at 651-259-5109 or lisa.joyal@state.mn.us.

WSB & Associates, Inc.
engineering • planning • environmental • construction

701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

# *Memorandum*

***To:*** ***Lisa Joyal, MN Department of Natural Resources***

***CC:*** ***Ingrid Schwingler, Geronimo Energy***
***Tena Rytel, Geronimo Energy***

***From:*** ***Alison Harwood, WSB & Associates, Inc.***

***Date:*** ***March 26, 2014***

***Re:*** ***Aurora Solar Project – Rare Features Review***
***WSB Project No. 2045-020***

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On behalf of Geronimo Energy, please find below a summary of the Natural Heritage Information System (NHIS) database search for several project sites associated with the Aurora Solar Project.

The project includes construction/installation of linear arrays of photovoltaic panels, and adjoining equipment enclosed by a chain link fence. Grading of the sites is expected and there is potential that wetlands may be filled.

Each project site, including a 1-mile radius surrounding the site, located within a county covered by WSB's license agreement (LA-685, received September 2013) was reviewed for occurrences of endangered, threatened, or special concern species. **Table 1** below summarizes each investigated site. Review for additional sites in Blue Earth, Chippewa, Kandiyohi, and Waseca counties were requested under a separate cover. **Figure 1** shows the locations of each of the Aurora Solar Project sites within the state.

**Table 1: Results of NHIS Database Review**

| Site Name | County | PLSS Location | NHIS Results |
|---|---|---|---|
| Albany | Stearns | S8 & 17, T125N, R31W | None |
| Annandale | Wright | S32, T121N, R27W | None |
| Chisago | Chisago | S12, T34N, R21W | Multiple – Refer to Summary |
| Dodge Center | Dodge | S32, T107N, R17W | Creek Heelsplitter |
| Hastings | Washington | S8, T26N, R20W | Multiple – Refer to Summary |
| Lake Emily | Le Sueur | S24, T110N, R26W | Multiple – Refer to Summary |
| Lake Pulaski | Wright | S15, T120N, R25W | None |

| | | | |
|---|---|---|---|
| Lawrence Creek | Chisago | S27, T34N, R19W | Multiple – Refer to Summary |
| Lester Prairie | McLeod | S25, T117N, R27W | None |
| Mayhew Lake | Benton | S12, T36N, R31W | Multiple – Refer to Summary |
| Montrose | Wright | S2, T118N, R26W | Trumpeter Swan |
| Paynesville | Stearns | S4, 8, 9, T122N, R32W | Multiple – Refer to Summary |
| Pipestone | Pipestone | S11, T106N, R46W | Multiple – Refer to Summary |
| Scandia | Chisago | S35, T33N, R20W | None |
| West Faribault | Rice | S2, T109N, R21W | Rattlesnake-master |
| West Waconia | Carver | S1, T115N, R26W | None |
| Wyoming | Chisago | S32, T33N, R21W | Multiple – Refer to Summary |
| Zumbrota | Goodhue | S25, T110N, R16W | Multiple – Refer to Summary |

Sites for which the NHIS database revealed one or more rare species are discussed below:

<u>Chisago</u>
The following rare species were located within a 1-mile radius of the project site boundary:

- Spike (*Elliptio dilatata*): Special Concern
- Black Sandshell (*Ligumia recta*): Special Concern
- Tooth-cup (*Rotala ramosior*)*: Threatened
- Blanding's Turtle (*Emydoidea blandingii*): Threatened
- Creek Heelsplitter (*Lasmigona compressa*): Special Concern
- Round Pigtoe (*Pleurobema coccineum*): Threatened
- Mucket (*Actinonaias ligamentina*): Threatened
- Fluted-shell (*Lasmigona costata*): Special Concern

*Historic Occurrence (>20 years old)

Six of the eight rare species located within one mile of the project site are mussels, which would be located within the streams north and east of the project site. Because the project will not result in filling within or discharge to the streams, impacts to these mussels are not anticipated. The tooth-cup is also not anticipated to be onsite given the lack of appropriate habitat and its historic record (last known occurrence in 1892). The project site primarily consists of regularly cultivated cropland and lesser amounts of woodland and grassland. The specialized habitat (sandy shoreline) needed for the tooth-cup does not exist onsite. The blanding's turtle could potentially use the lesser disturbed portions of the site for nesting habitat, but no wetland habitats exist onsite that would provide over-wintering habitat.

Dodge Center
The following rare species were located within a 1-mile radius of the project site boundary:

- Creek Heelsplitter (*Lasmigona compressa*)*: Special Concern

*Historic Occurrence (>20 years old)

This mussel was observed more than 20 years ago, and therefore is a historical record. Given the date of the occurrence and the location of the project site (east of Dodge Center Creek), no impacts are anticipated.

Hastings
The following rare species were located within a 1-mile radius of the project site boundary:

- American Ginseng (*Panax quinquefolius*)*: Special Concern
- Bald Eagle (*Haliaeetus leucocephalus*): Special Concern
- Black Sandshell (*Ligumia recta*): Special Concern
- Blue Sucker (*Cycleptus elongatus*): Special Concern
- Butterfly (*Ellipsaria lineolata*): Threatened
- Creeping Juniper (*Juniperus horizontalis*): Special Concern
- Ebonyshell (*Fusconaia ebena*): Endangered
- Elephant-ear (*Ellitio crassidens*): Endangered
- Hickorynut (*Obovaria olivaria*): Special Concern
- Higgins Eye (*Lampsilis higginsi*): Endangered
- Kitten-tails (*Besseya bullii*)*: Threatened
- Lake Sturgeon (*Acipenser fulvescens*): Special Concern
- Monkeyface (*Quadrula metanevra*): Threatened
- Paddlefish (*Polyodon spathula*): Threatened
- Pallid Shiner (*Notropis amnis*)*: Special Concern
- Peregrine Falcon (*Falco peregrinus*): Threatened
- Pistolgrip (*Tritogonia verrucosa*): Threatened
- Purple Wartyback (*Cyclonaias tuberculata*)*: Threatened
- Red-shouldered Hawk (*Buteo lineatus*)*: Special Concern
- Rock Pocketbook (*Arcidens confragosus*): Endangered
- Round Pigtoe (*Pleurobema coccineum*): Threatened
- Spike (*Elliptio dilatata*): Special Concern
- Washboard (*Megalonaias nervosa*): Threatened
- Dry Sand – Gravel Prairie
- Silver Maple Floodplain Forest

*Historic Occurrence (>20 years old)

Sixteen of the 25 rare species located within one mile of the project site are aquatic species, which would be within the St. Croix and Mississippi rivers located east and south of the project site, respectively. Because the project will not result in filling within or discharge to the rivers, impacts to these aquatic species are not anticipated. Two bald eagle nesting sites are located within approximately 1 mile southeast and southwest of the project site, near the Mississippi

River. Given the distance between the nest sites and project site, construction of the project is not anticipated to disturb the eagles. The remainder of the species and plant communities recently documented near the project site are not anticipated to be impacted, given that the project site is a regularly cultivated agricultural field and does not provide habitat.

Lake Emily

The following rare species were located within a 1-mile radius of the project site boundary:

- Blanding's Turtle (*Emydoidea blandingii*)*: Threatened
- Calcareous Fen

*Historic Occurrence (>20 years old)

The majority of the project site is a regularly cultivated agricultural field, with smaller amounts of wooded and developed areas. The blanding's turtle was a historic occurrence and is not anticipated to be present on the site at this time. Also, given the land use of the area, the presence of a calcareous fen within the project site is unlikely.

Lawrence Creek

The following rare species were located within a 1-mile radius of the project site boundary:

- American Water-Pennywort (*Hydrocotyle americana*)*: Special Concern
- Black Sandshell (*Ligumia recta*)*: Special Concern
- Elktoe (*Alasmidonta marginata*): Threatened
- Fluted-shell (*Lasmigona costata*)*: Special Concern
- Hickorynut (*Obovaria olivaria*): Special Concern
- Louisiana Waterthrush (*Seiurus motacilla*)*: Special Concern
- Monkeyface (*Quadrula metanevra*): Threatened
- Pistolgrip (*Tritogonia verrucosa*): Threatened
- Purple Wartyback (*Cyclonaias tuberculata*): Threatened
- Round Pigtoe (*Pleurobema coccineum*): Threatened
- Spike (*Elliptio dilatata*): Special Concern
- Stemless Tick-trefoil (*Desmodium nudiflorum*): Special Concern
- Red Oak –Basswood Forest

*Historic Occurrence (>20 years old)

Nine of the 12 rare species located within one mile of the project site are aquatic species, which would be located within the St. Croix River east of the project site. Because the project will not result in filling within or discharge to the river, impacts to these aquatic species are not anticipated. Two of the remaining rare species are historic occurrences and not likely to be present at the project site. The stemless tick-trefoil is also not anticipated to be located onsite given the landuse of the project site. The project site is primarily a regularly cultivated agricultural field, with lesser amounts of wetland (forested and wet meadow) located near the northern portion of the site. The drier, forested, habitat required by the stemless tick-trefoil is not present on site.

Mayhew Lake
The following rare species were located within a 1-mile radius of the project site boundary:

- Prairie Rich Fen
- Red Oak – White Oak Forest
- Wet Prairie

The project site consists of a regularly cultivated agricultural field and farmstead. None of the plant communities listed above are likely to be located within the project site. Cowbane was also listed as being located within 1-mile of the project site. This species is does not have a state status, but is tracked by the DNR. Given the land use on the site, it is not anticipated that this species would be present within the project site.

Montrose
The following rare species were located within a 1-mile radius of the project site boundary:

- Trumpeter Swan (*Cygnus buccinator*): Threatened

The project site does not have any habitat required by trumpeter swans. Therefore, it is not expected that the project would impact this species.

Paynesville
The following rare species were located within a 1-mile radius of the project site boundary:

- Marbled godwit (*Limosa fedoa*): Special Concern
- Regal Fritillary (*Speyeria idalia*): Special Concern
- Small White Lady's-slipper (*Cypripedium candidu*): Special Concern
- Wilson's Phalarope (*Phalaropus tricolor*): Threatened
- Mesic Prairie
- Wet Prairie

The project site primarily consists of a regularly cultivated agricultural field and lesser amounts of wetland and developed areas. A Wildlife Management Area (WMA) borders the project site to the east. There is potential that species listed above may be present within the wetlands and habitat provided by the WMA.

Pipestone
The following rare species were located within a 1-mile radius of the project site boundary:

- A species of Lichen (*Buellia nigra*): Endangered
- Blackfoot Quillwort (*Isoetes melanopoda*): Endangered
- Buffalo Grass (*Buchloe dactyloides*): Special Concern
- Dakota Skipper (*Hesperia dacotae*)*: Threatened
- Hairy Water Clover (*Marsilea vestita*): Endangered
- Henslow's Sparrow (*Ammodramus henslo*)*: Endangered
- Least Weasel (*Mustela nivalis*)*: Special Concern
- Mud Plantain (*Heteranthera limosa*)*: Threatened
- Plains Prickly Pear (*Opuntia macrorhiza):* Special Concern
- Powesheik Skipper (*Oarisma powesheik*)*: Special Concern
- Regal Fritillary (*Speyeria idalia*)*: Special Concern

- Short-pointed Umbrella-sedge (*Cyperus acuminatus*)*: Threatened
- Slender Plantain (*Plantago elongata*): Threatened
- Topeka Shiner (*Notropis topeka*): Special Concern
- Tumblegrass (*Schedonnardus paniculatus*)*: Special Concern
- Water-hyssop (*Bacopa rotundifolia*)*: Special Concern
- Western Prairie Fringed Orchid (*Platanthera praeclara*): Endangered

*Historic Occurrence (>20 years old)

The project site is located entirely within a regularly cultivated agricultural field. The species listed above that have been recently observed within 1 mile of the project site are not likely to occur within the project site given the specialized habitats required by these species. It is likely that these species occur in the area surrounding Pipestone National Monument, located northeast of the project site, which will not be impacted by the project.

<u>West Faribault</u>
The following rare species were located within a 1-mile radius of the project site boundary:

- Rattlesnake-master (*Eryngium yuccifolium*)*: Special Concern

*Historic Occurrence (>20 years old)

The project site is located primarily within a regularly cultivated agricultural field that contains lesser amounts of upland deciduous forest. Rattlesnake-master was documented within 1-mile of the site more than 20 years ago, and given the land use is not likely to exist within the project site at present time.

<u>Wyoming</u>
The following rare species were located within a 1-mile radius of the project site boundary:

- Blanding's Turtle (*Emydoidea blandingii*): Threatened
- Colonial Waterbird Nesting Site

The project site is located within a regularly cultivated agricultural field. Some of the surrounding areas contain wetland and grassland areas. Given the highly disturbed nature of the project site, it is not anticipated that the Blanding's turtle or waterbirds would utilize the site for nesting habitat.

<u>Zumbrota</u>
The following rare species were located within a 1-mile radius of the project site boundary:

- Tubercled Rein-orchid (*Platanthera flava var. herbiola*)*: Endangered
- Valerian (*Valeriana edulis var. ciliate):* Threatened
- White Wild Indigo (*Baptisia alba*)*: Special Concern

* Historic Occurrence (>20 year old)

The project site is located primarily within a regularly cultivated agricultural field that contains lesser amounts of upland deciduous trees along the fence lines. Two of the three species listed by

the NHIS are historical occurrences that date back to the 1800s. It is not expected that these species occur within the project site at the present time. Valerian is also not expected to exist within the project site given the lack of suitable habitat (calcareous fens, wet meadows, and moist prairies).

We are requesting your review of the above information and concurrence that the results of the review are accurate. If you have any questions or need additional information, please contact me at aharwood@wsbeng.com or 763-231-4847.

Attachments

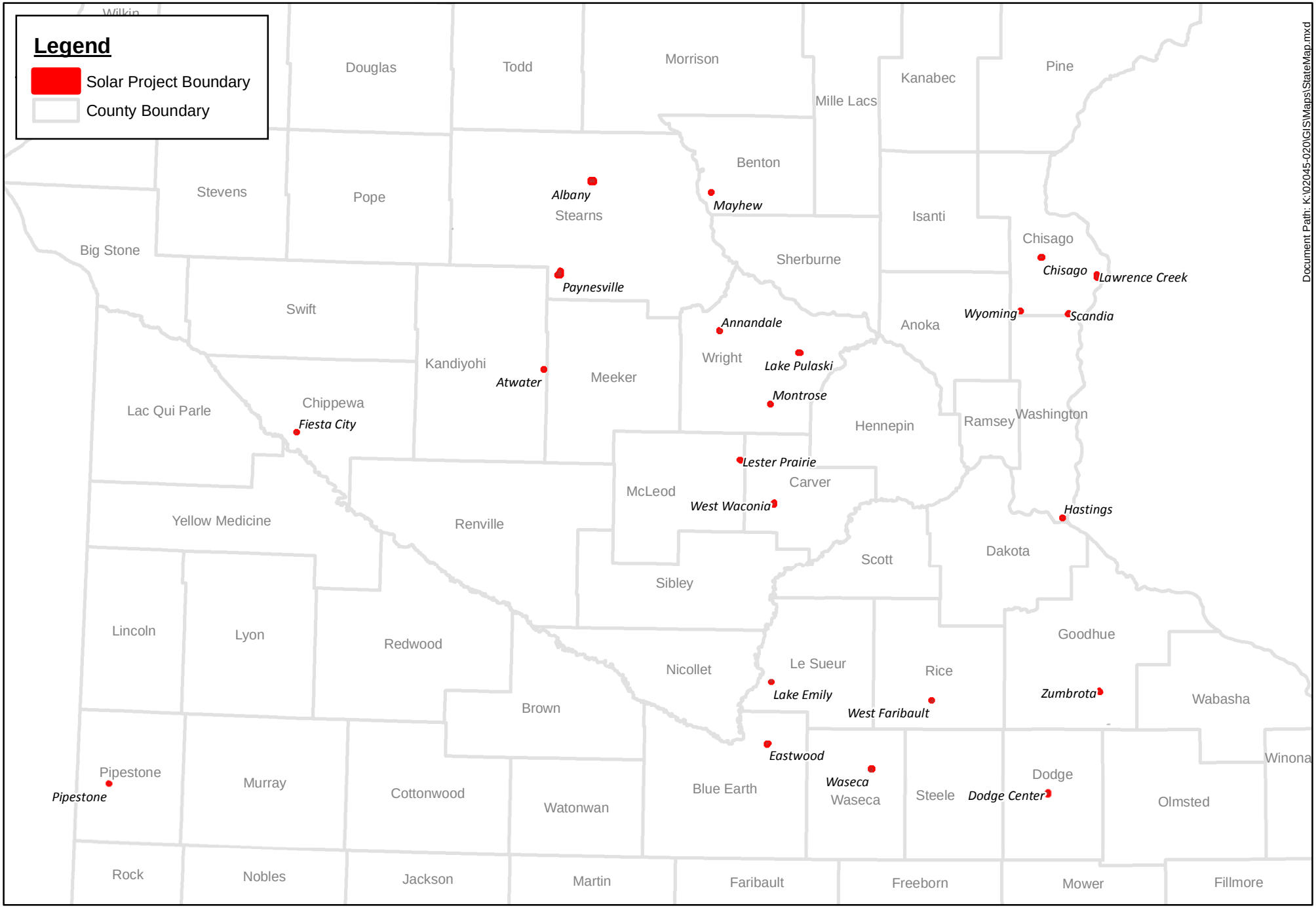


***Figure 1: Site Locations***
***Aurora Solar Project***
***Geronimo Energy***

0 40 Miles

N

WSB & Associates, Inc.
engineering • planning • environmental • construction

701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

January 17th, 2014

Ms. Lisa Joyal
Endangered Species Review Coordinator
Division of Ecological and Water Resources
Minnesota Department of Natural Resources
500 Lafayette Road, Box 25
St. Paul, MN 55155

**RE: Aurora Solar Power Project Sites – Atwater, Eastwood, Fiesta City & Waseca Solar**
**NHIS Data Request**
**WSB Project No. 02045-020**

Dear Ms. Joyal:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | PLSS |
|---|---|
| Kandiyohi | SE ¼ of the SW ¼ of Sec 1, T119N, R33W |
| Blue Earth | SE ¼ of Sec 14, T108N, R26W |
| Chippewa | NE ¼ of the SW ¼ of Sec 9, T117N, R40W |
| Waseca | NE ¼ of Sec 1, T107N, R23W |

The remaining sites were located in counties covered under NHIS Agreement LA-685. These sites were reviewed for rare features by WSB.

Please review the project areas and provide recommendations related to the presence of state threatened or endangered species or critical habitats that may be affected. The Minnesota Natural Heritage Information System Data Request Form is attached.

If you have questions, feel free to call me at (763)231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

NO STAPLES
PLEASE

**For Agency Use Only**:
Received _____ Due _____ RUSH
Related ERDB# _____
Search Radius _____mi. ER/All Map'd _____ EOs _____
NoR/ NoC/ NoE/ Std/ Sub Let ____ Inv _____ Log out ____

# MINNESOTA NATURAL HERITAGE INFORMATION SYSTEM (NHIS) DATA REQUEST FORM

DATE OF REQUEST 1/1/2014

WHO IS REQUESTING THE INFORMATION?

Name and Title Ingrid Schwingler, Permitting Specialist

Agency/Company WSB & Associates, Inc.

Mailing Address 701 Xenia Avenue South (Street) Minneapolis (City) MN (State) 55416 (Zip Code)

Phone 952-988-9000 FAX (763) 541-1700 e-mail aharwood@wsbeng.com

WHAT INFORMATION DO YOU NEED? Preferred Reply Method: Email ☑ US Mail ☐

☑ Printouts of known occurrences of federally and state listed plants and animals; native plant communities; and aggregation sites such as bat hibernacula, colonial waterbird nesting sites, and prairie chicken booming grounds.
☑ With Environmental Review ☐ Printouts Only; No Review Needed

☐ Printouts of information listed above, plus geological features and state rare species with no legal status.
☐ With Environmental Review ☐ Printouts Only; No Review Needed

☑ Other (describe) _____

INFORMATION WE NEED FROM YOU:

1) **Enclose a map** of the project boundary (topographic maps or aerial photos are preferred).
2) If possible, please **provide a GIS shapefile** (NAD 83, UTM Zone 15N) of the project area.
3) List the following locational information (attach additional sheets if necessary):

For Agency Use Only:

| County | Township # | Range # | Section(s) (please list **all** sections) |
|---|---|---|---|
| Kandiyohi | 119N | 33W | Section 1 |
| Blue Earth | 108N | 26W | Section 14 |
| Chippewa | 117N | 40W | Section 9 |
| Waseca | 107N | 23W | Section 1 |

4) Please provide the following information (attach additional sheets if necessary):

Project Name Aurora Solar Project (Brooten, Montrose, & Pine Island Facilities)

Project Proposer Aurora Distributed Solar, LLC

Detailed Project Description (see instructions, please)

The proposed projects involve grading and installation of linear arrays of photovoltaic panels, and associated equipment enclosed within a chain link fence. An access road and utility connections may be required

Current/Past Land-Use of Project Site

The areas within the project boundaries have been, and are currently, used for agricultural purposes

5) You will be provided with a response letter, an index database printout, and a detailed database printout. **Describe how you plan to use this information**, including in what form and detail, if any, you wish to publish this information. (Please note that we do not generally give permission to publish the detailed database printout.) _____

This information will be used for review to determine if the proposed sites will be suitable for its intended purpose with minimal environmental impacts

## TURN-AROUND TIME

Requests generally take **3 weeks** from date of receipt to process, and are processed in the order received. Rush requests are processed in 2 weeks or less, and include an extra fee.

## FEES

For-profit organizations, including consultants working for governmental agencies, are charged a fee for this service. In addition, **a fee may be charged for large requests from any source. A surcharge of $50 is applied for ALL rush orders;** if this is a rush order, please check the blank below. All fees are subject to change. Please do not include payment with your request; an invoice will be sent to you.

☐ **Rush - ($50 fee for ALL rush orders)**

"The information supplied above is complete and accurate. I understand that material supplied to me from the Minnesota Natural Heritage Information System is copyrighted and that I am not permitted to reproduce or publish any of this copyrighted material without prior written permission from the Minnesota DNR. Further, if permission to publish is given, I understand that I must credit the Minnesota Natural Heritage and Nongame Research Program, Minnesota Department of Natural Resources as the source of the material."

Signature _____
(**required**)

Mail or email completed forms to:

For further information call:

Lisa Joyal *(for environmental reviews; e.g., EAWs)* (651) 259-5109
Endangered Species Environmental Review Coordinator
lisa.joyal@dnr.state.mn.us

**or**

Sharron Nelson *(for general requests)* (651) 259-5123
Assistant Database Manager
sharron.nelson@dnr.state.mn.us

**at**

Natural Heritage and Nongame Research Program
Minnesota Department of Natural Resources
500 Lafayette Road, Box 25
St. Paul, Minnesota 55155

Or FAX completed forms to: (651) 296-1811

Additional information about the Natural Heritage & Nongame Research Program is available at
http://www.dnr.state.mn.us/ecological_services/nhnrp/index.html

**For Agency Use Only:**

EO's requiring comment _____

| Sources contacted | Topic | Response |
|---|---|---|
| | | |
| | | |
| | | |

Response Summary _____

_____

_____ Responder _____

Revised May 2007

# Instructions for the Minnesota Natural Heritage Information System Data Request Form

**Please read the following!**

- There is generally a **3-week turn-around time** to process requests. Rush requests (2 week turn-around) are charged an additional $50 (Please note that the rush fee applies to all rush requests regardless of non-profit or government status).

- Legible **maps** clearly showing the location and boundaries of the project (**including associated infrastructure**) are required for processing all data requests. Topographic maps or aerial photographs are preferred.

- If the project boundary is large **or** complex, please provide a **GIS shapefile** (NAD 83, UTM Zone 15) of the project boundary. An additional "digitizing fee" (regardless of non-profit or government status) will be charged for projects that require a substantial amount of time to digitize.

- Please provide a detailed **project description**, attaching separate pages to the form if necessary. Identify the type of development (e.g., housing, commercial, utility, ethanol facility) being proposed, the size and # of units (if applicable), construction methods, and **any associated infrastructure** such as access roads, utility connections, and water supply and/or discharge pipelines.

- **Signatures** are required. The person whose name is entered on the form under the "Who is Requesting the Information" section must sign the form as an acknowledgment of the State of Minnesota's copyright on all generated printouts.

- We cannot begin processing data requests until we receive all parts of the request, including a map and a completed, signed information request form. Our reply due date will be 3 weeks (2 weeks for a rush job) from when we receive a complete request.

- **Responses** are returned to the person whose name is entered on the form under the "Who is Requesting the Information?" section.

- On the form, note the first sentence under the subheading "**FEES"**. As a courtesy, we currently provide database searches to other governmental agencies and non-profit entities free of charge. For-profit entities, *including* consultants working for governmental agencies, are charged a fee. Please do *not* include payment with your request; an invoice will be sent to you.

- An **electronic copy** of the form is available at the DNR's web site – http://files.dnr.state.mn.us/ecological_services/nhnrp/nhis_data_request.pdf

- You may reproduce this form for your own use or to distribute.

## Ingrid M. Schwingler

**From:** Alison Harwood <aharwood@wsbeng.com>
**Sent:** Monday, May 12, 2014 9:33 AM
**To:** Lisa Joyal (lisa.joyal@dnr.state.mn.us)
**Cc:** Ingrid M. Schwingler; Tena Rytel; Carli Ewert; Andi Moffatt
**Subject:** RE: Aurora Solar Project - Rare Species Review

**Follow Up Flag:** Follow up
**Flag Status:** Flagged

Good morning Lisa,

As you recall, back in March WSB performed a review of several project areas associated with the Aurora Solar Project on behalf of Geronimo Energy. Two project areas, Brooten and Pine Island, we mistakenly omitted from that review. Below is a link where you can view and download the NHIS review for these additional sites. The shapefile that I sent you previously includes the Pine Island Facility project area. The shapefile for the Brooten Facility project area is available for download via the link.

Please let me know if you have any questions or need additional information to complete your review. We appreciate your review and comment within 30 days. Also, I will be out of the office on maternity leave in the coming weeks, so please copy everyone on this email with your response.

Link to documents (expires after 30 days): https://wsbeng.securevdr.com/d/s74d543366fc42a0a

Thank you,

**Alison Harwood**
Environmental Planning & Natural Resources Scientist
d: 763-231-4847 | c: 612-360-1320
WSB & Associates, Inc. | 701 Xenia Avenue South, Suite 300 | Minneapolis, MN 55416

*WSB and McGhie & Betts, Inc. have joined forces! McGhie & Betts is now a Division of WSB, providing a presence in Rochester and Northfield, MN.*

WSB & Associates, Inc. | engineering planning environmental construction

We're proud to be a Top 100 Workplace.

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**From:** Alison Harwood
**Sent:** Wednesday, March 26, 2014 2:12 PM
**To:** Lisa Joyal (lisa.joyal@dnr.state.mn.us)
**Cc:** Ingrid Schwingler (Vick) (Ingrid@geronimoenergy.com); Tena Rytel (Tena@geronimoenergy.com)
**Subject:** Aurora Solar Project - Rare Species Review

Lisa,

On behalf of Geronimo Energy, WSB completed a review of the NHIS database for the sites associated with the Aurora Solar Project that we have data for through on our license agreement with the DNR. We are requesting review of our findings and concurrence that they are accurate.

If you have any questions or need additional information, please contact me.

Thank you,

# Minnesota Department of Natural Resources (MNDNR)-National Heritage Information System (NHIS)

## Responses from MNDNR-NHIS

## Alison Harwood

**From:** Joyal, Lisa (DNR) <Lisa.Joyal@state.mn.us>
**Sent:** Thursday, May 01, 2014 4:08 PM
**To:** Alison Harwood
**Cc:** Schrenzel, Jamie (DNR); Mixon, Kevin (DNR); Haworth, Brooke (DNR)
**Subject:** Aurora Solar Project - Rare Resources Review
**Attachments:** MEMO - LJoyal - NHIS Summary - 032614.pdf; Ebfactsheet2008.pdf; Ebflyer 2012.pdf; Wildlife Friendly Erosion Control(acc).pdf; WOODTURTLE CAUTION for Construction_Final.pdf

I have reviewed your assessment of the potential for the above project to impact rare features, and believe that your assessment is incomplete. It should be noted that the proposed project has the potential to negatively impact the following rare resources:

Chisago Site, Scandia Site, and Wyoming Site

The Chisago Site and Wyoming Site are within areas of statewide importance to the Blanding's Turtle (*Emydoidea blandingii*), a state-listed threatened species. These areas are relied upon to maintain the species' security within Minnesota, and the DNR considers them of the highest priority for Blanding's turtle research and management activities. Although the Scandia Site is not within an identified area of statewide importance, Blanding's turtles have been reported from the vicinity and may be encountered on site.

Given that Blanding's turtles use upland areas (including agricultural lands) for nesting and traveling, it is inaccurate to state that impacts will be avoided due to siting within agricultural lands. 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. The first list is relevant for all areas inhabited by Blanding's turtles while the second list contains additional protective measures for areas known to be of statewide importance to this species. **As such, please refer to both lists of recommendations for the Chisago Site and the Wyoming Site.** In addition, if erosion control mesh will be used, I recommend that the mesh be limited to wildlife-friendly materials (see enclosed fact sheet).

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 harm's way, otherwise they should be left undisturbed. Once security fencing is complete, measures should be taken to ensure that no turtles are trapped within the fence. Any sightings of this rare species should be reported to the DNR.

Dodge Center Site

Wood turtles (*Clemmys insculpta*), a state-listed threatened species, have been documented in the vicinity of this site. Wood turtles are a semi-aquatic species, spending time both on land (including agricultural lands) and in water. If wood turtles are encountered on site, they should be moved by hand to the nearest stream edge. Please remember that state law and rules prohibit the destruction of threatened or endangered species, except under certain prescribed conditions. Please see the attached fact sheet for further recommendations on avoiding and minimizing impacts to this rare turtle. To minimize destruction of wood turtle habitat, the DNR recommends that the wooded areas within this site be considered avoidance areas. Also, all contractors working in the area should be made aware of the potential to encounter these rare turtles, and encounters should be reported to the DNR.

A wooded portion of the Dodge Center Site is within an area that the Minnesota Biological Survey (MBS) has identified as a Site of Moderate Biodiversity Significance. Sites of Biodiversity Significance have varying levels of native biodiversity and are ranked based on the relative significance of this biodiversity at a statewide level. Sites ranked as Moderate contain occurrences of rare species and/or moderately disturbed native plant communities, and/or landscapes that have a strong potential for recovery. This particular Site of Biodiversity Significance contains two rare native plant communities including the Southern Wet-Mesic Hardwood Forest that extends into the Dodge Center Site. This native plant community is considered vulnerable to extirpation within Minnesota. Given the ecological significance of this MBS Site, the DNR recommends that it be considered an avoidance area. Indirect impacts from surface runoff or the spread of invasive species should also be considered during project design and implementation.

Paynesville Site

A portion of the Paynesville Site is within an area that the Minnesota Biological Survey (MBS) has identified as a Site of High Biodiversity Significance. Sites of Biodiversity Significance have varying levels of native biodiversity and are ranked based on the relative significance of this biodiversity at a statewide level. Sites ranked as High contain very good quality occurrences of the rarest species, high quality examples of the rare native plant communities, and/or important functional landscapes. While there are no known occurrences of rare species or native plant communities within the portion of the MBS Site in the Paynesville project area, several rare resources have been documented within the remaining portion of the MBS Site. The MBS Site contains Willow-Dogwood Shrub Swamp interspersed with Mesic Prairie and Wet Prairie. Both types of prairie have a conservation status rank of 2, indicating that these native plant communities are considered imperiled in Minnesota. The MBS Site also contains known occurrences of the regal fritillary (*Speyeria idalia*) and small white lady's-slipper (*Cypripedium candidum*), both state-listed as special concern. Given the ecological significance of this MBS Site, we recommend that it be considered an avoidance area.

Any environmental review document should address whether the proposed project has the potential to adversely affect the above rare resources and, if so, it should identify specific avoidance or mitigation measures that will be implemented.

The reference number for this correspondence is ERDB #20140201.

Thank you for notifying us of this project, and for the opportunity to provide comments.

Sincerely,

*Lisa Joyal*

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Lisa Joyal
Endangered Species Review Coordinator
NHIS Data Distribution Coordinator
Division of Ecological and Water Resources
Minnesota Department of Natural Resources
500 Lafayette Road, Box 25
St. Paul, MN 55155

phone: 651-259-5109
lisa.joyal@state.mn.us
www.mndnr.gov/eco
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Environmental Review Fact Sheet Series

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

# Blanding's Turtle

## (*Emydoidea blandingii*)

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

## HABITAT USE

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

## LIFE HISTORY

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

## IMPACTS / THREATS / CAUSES OF DECLINE

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

*It is illegal to possess this threatened species.

## RECOMMENDATIONS FOR AVOIDING AND MINIMIZING IMPACTS

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

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

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

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

## REFERENCES

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

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

## REFERENCES (cont.)

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

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

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

# CAUTION

# BLANDING'S TURTLES

## MAY BE ENCOUNTERED IN THIS AREA

The unique and rare Blanding's turtle has been found in this area. Blanding's turtles are state-listed as Threatened and are protected under Minnesota Statute 84.095, Protection of Threatened and Endangered Species. Please be careful of turtles on roads and in construction sites. For additional information on turtles, or to report a Blanding's turtle sighting, contact the DNR Nongame Specialist nearest you: Bemidji (218-308-2653); Grand Rapids (218-327-4518); New Ulm (507-359-6033); Rochester (507-206-2820); or St. Paul (651-259-5772).

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

**BLANDING'S TURTLES DO NOT MAKE GOOD PETS**
**IT IS ILLEGAL TO KEEP THIS THREATENED SPECIES IN CAPTIVITY**

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

*(see Blanding's Turtle Fact Sheet for full recommendations)*

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

# CAUTION

## Wood Turtles

MAY BE ENCOUNTERED
IN THIS AREA

The unique and rare wood turtle has been found in this area. Wood turtles are a State Threatened species and are protected under Minnesota Statute 84.095, Protection of Threatened and Endangered Species. Please be careful of turtles on roads and in construction sites. Turtles should be moved offsite to the nearest stream edge. Information and recommendations on wood turtles can be found on the back of this notice. Additional information on turtles can be obtained from Ecological Services, Nongame Wildlife Program, Box 25, DNR Building, 500 Lafayette Rd., St. Paul, MN 55155 (651) 259-5122.

# Wood Turtle Life History Information

**Description:** The wood turtle is a medium-sized turtle with a dark green to brown, sculpted shell. The bottom of the shell is yellow with black blotches on the edges. The skin on the soft body parts near the shell is yellow; otherwise the legs, head and tail are brown. A distinctive field mark is the generally highly "carved" look to the top of the shell. However, an older turtle's shell may be worn smooth. Adult wood turtles have an average shell length of 5 ½ to 8 inches. They are normally terrestrial from April through October

**Habitat:** Wood turtles are found in and along mid-sized rivers and their tributaries flowing through open to wooded areas. During the spring, female wood turtles are often found on land, basking and preparing for nesting. Male wood turtles are also found on land, but they are usually closer to the water than the females. Once the females have laid their eggs, they often remain on land for the rest of the summer, foraging on plants, insects and worms. They will forage in crop fields and disturbed areas along the rivers, making them susceptible to harm from farm machinery. Wood turtles seem to prefer a habitat that includes grass fields and wooded areas. They will also use seasonal woodland pools.

**Life History:** After 5-6 months underwater in semi-hibernation, individuals emerge in late March or early April, depending on the season. They can be found along the water's edge and up to 400 yards away from the river. To regulate body temperature, turtles will bask for a period of time, and then seek shade. They may bury themselves in vegetation such as reed canary grass, or hide under log piles along the river. Nesting occurs in early to mid-June, and the females generally lay their eggs in the evening, nesting in an open sandy area along the river or on a south to southwest facing sandy bank along the river. They will also nest along the sides of roads if the soil is sandy. After a development period of 58-71 days, hatchlings leave the nest and travel to water. Wood turtles are mild mannered and do not attempt to bite. Adults are particularly vulnerable to being struck by automobiles while crossing roads, or hit by farm machinery in crop fields adjacent to rivers.

**Recommendations:** The DNR offers the following land use guidelines so that as little harm as possible comes to these rare turtles.

- Workers should be informed of the presence of wood turtles in the area.
- When working near a river, silt fencing should be put in place by mid-March, to keep turtles out of construction area. These fences need to be maintained throughout the project. **It is critical that silt fences are removed after the area has been re-vegetated.**
- **Do not leave sand piles along river, as they may be used for nesting.**
- Terrain should be left with as much natural contour as possible. Graded areas should be re-vegetated with native grasses and forbs. Use of fertilizers and pesticides should be avoided.
- Erosion should be prevented from reaching wetlands and river.
- Landscaping should be left as natural as possible; trees should not be planted in known or potential nesting sites.
- Roads should be kept to minimal standards on widths and lanes.
- Roads should be ditched, not curbed or below grade. If curbs must be used, 4" curbs at a 3:1 slope are preferred. Curbs and below grade roads trap turtles on the road, increasing road kills.
- Ditches should not be mowed until after October 1$^{st}$.
- Report sightings of wood turtles to the DNR Regional Nongame Specialist.

# Wildlife Friendly Erosion Control

Wildlife entanglement in, and death from, plastic netting and other man-made plastic materials has been documented in birds (Johnson, 1990; Fuller-Perrine and Tobin, 1993), fish (Johnson, 1990), mammals (Derraik, 2002), and reptiles (Barton and Kinkead, 2005; Kapfer and Paloski, 2011). Yet the use of these materials continues in many cases, without consideration for wildlife impacts. Plastic netting is frequently used for erosion control during construction and landscape projects and can negatively impact terrestrial and aquatic wildlife populations as well as snag in maintenance machinery resulting in costly repairs and delays. However, wildlife friendly erosion control materials do exist, and are sold by several large erosion control material companies. Below are a few key considerations before starting a project.

## Know Your Options

- Remember to consult with local natural resource authorities (DNR, USFWS, etc.) before starting a project. They can help you identify sensitive areas and rare species.
- When erosion control is necessary, select products with biodegradable netting (natural fiber, biodegradable polyesters, etc.).
- DO NOT use products that require UV-light to biodegrade (also called, "photodegradable"). These do not biodegrade properly when shaded by vegetation.
- Use netting with rectangular shaped mesh (not square mesh).
- Use netting with flexible (non-welded) mesh.

Woven 100% natural fiber erosion control materials being utilized along a central Minnesota stream. ©MN DNR, Nick Proulx

## Know the Landscape

- It is especially important to use wildlife friendly erosion control around:
  - Areas with threatened or endangered species.
  - Wetlands, rivers, lakes, and other watercourses.
  - Habitat transition zones (prairie – woodland edges, rocky outcrop – woodland edges, steep rocky slopes, etc.).
  - Areas with threatened or endangered species.
- Use erosion mesh wisely, not all areas with disturbed ground necessitate its use. Do not use plastic mesh unless it is specifically required. Other erosion control options exist (open weave textile (OWT), rolled erosion control products (RECPs) with woven natural fiber netting).

Fish trapped and killed by welded-plastic square erosion control mesh improperly placed along a small central Minnesota stream. Photo courtesy of Ben Lowe.

## Protect Wildlife

- Avoid photodegradable erosion control materials where possible.
- Use only biodegradable materials (typically made from natural fibers), preferably those that will biodegrade under a variety of conditions.
- Wildlife friendly erosion control material costs are often similar to conventional plastic netting.

Plains Gartersnake trapped and killed by welded-plastic square erosion control mesh placed along a newly installed cement culvert in southern Minnesota. ©MN DNR, Carol Hall

A small vole that was strangled and killed by plastic erosion control material with welded and square mesh. Photo taken in southern Minnesota and provided courtesy of Tom Jessen.

## Literature Referenced


Barton, C. and K. Kinkead. 2005. Do erosion control and snakes mesh? Soil and Water Conservation Society 60:33A-35A.

Derraik, J.G.B. 2002. The pollution of the marine environment by plastic debris: a aeview. Marine Pollution Bulletin 44:842-852.

Fuller-Perrine, L.D., and M.E. Tobin. 1993. A method for applying and removing bird-exclusion netting in commercial vineyards. Wildlife Society Bulletin 21:47-51.

Johnson, S.W. 1990. Distribution, abundance, and source of entanglement debris and other plastics on Alaskan beaches, 1982-1988. Proceedings of the Second International Conference on Marine Debris 331-348.

Kapfer, J. M., and R. A. Paloski. 2011. On the threat to snakes of mesh deployed for erosion control and wildlife exclusion. Herpetological Conservation and Biology 6:1-9.

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

February 19, 2014 **Correspondence # ERDB 20140201**

Ms. Alison Harwood
WSB & Associates, Inc.
701 Xenia Avenue South, Suite 300
Minneapolis, MN 55416

RE: Natural Heritage Review of the proposed Aurora Solar Power;
Kandiyohi, Blue Earth, Chippewa, & Waseca Counties

Dear Ms. Harwood,

As requested, the above project has been reviewed for potential effects to known occurrences of rare features. A search of the Minnesota Natural Heritage Information System did identify rare features within an approximate one-mile radius of the proposed project, but these records did not include any federally listed species and were either historical or not of concern given the project details that were provided with the data request form. As such, I do not believe the proposed project will adversely affect any known occurrences of rare features.

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.

For environmental review purposes, the results of this Natural Heritage Review are valid for one year; the results are only valid for the project location (noted above) and 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 location of the Canada lynx (*Lynx canadensis*), federally-listed as threatened, is not currently tracked in the NHIS. As such, the Natural Heritage Review does not address this 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). 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. An invoice will be mailed to you under separate cover.

Sincerely,

Samantha Bump
NHIS Review Specialist

## Minnesota Pollution Control Agency (MPCA)

### Correspondence to MPCA

June 30, 2014

Mr. Noel Kepler
Minnesota Pollution Control Agency
520 Lafayette Road N
St. Paul, MN 55155

**RE: Aurora Distributed Solar Project– Pine Island Facility**
**Request for Comments**

Dear Mr. Kepler,

Your review was requested in May 2014 by Aurora Distributed Solar, LLC (Geronimo Energy) via WSB & Associates (WSB) for the proposed Aurora Distributed Solar Project. However, during the development process Geronimo Energy encountered construction limitations and has since altered the Pine Island Facility. As you recall, the Aurora Solar Project includes up to 24 distributed solar projects totaling 100 megawatts and is located across 16 Minnesota Counties (see attached fact sheet). At this stage in project development, Geronimo Energy is assessing the existing environmental conditions of the altered facility location. Enclosed are the altered facility location maps.

The Aurora Solar Project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence as well as an access road within the "Development Area Boundary" of each facility. The location for the altered facility area addressed in this letter is:

| Facility | County | PLSS |
|---|---|---|
| Pine Island | Goodhue | E ½ & NW ¼ Sec 31 T109N, R15W |

Similar to the request made by WSB earlier this year, Geronimo Energy would appreciate any comments you may have pertaining to construction stormwater compliance regarding this facility. Please review the facility and provide recommendations you may have within 30 days. If you have any questions, please reach me at (952-988-9000) or ingrid@geronimoenergy.com.

Sincerely,

Geronimo Energy, LLC
Ingrid Schwingler
Permitting Specialist

Attachments

cc: Tena Rytel, Geronimo Energy

June 30, 2014

Ms. Sarah Thomson
Minnesota Pollution Control Agency
520 Lafayette Road N
St. Paul, MN 55155

**RE: Aurora Distributed Solar Project – Montrose Facility**
**Request for Comments**

Dear Ms. Thomson,

Your review was requested in January 2014 by Aurora Distributed Solar, LLC (Geronimo Energy) via WSB & Associates (WSB) for the proposed Aurora Distributed Solar Project. However, during the development process Geronimo Energy encountered construction limitations and has since altered the location of the previously reviewed Montrose Facility. As you recall, the Aurora Solar Project includes up to 24 distributed solar facilities totaling 100 megawatts and is located across 16 Minnesota Counties (see attached fact sheet). At this stage in project development, Geronimo is assessing the existing environmental conditions of the altered facility location. Enclosed are the altered facility location maps.

The Aurora Solar Project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence as well as an access road within the "Development Area Boundary" of each facility. The location for the altered facility area addressed in this letter is:

| Facility | County | PLSS |
|---|---|---|
| Montrose | Wright | NW ¼ & SW ¼ Sec 2 T118, R26 |

Similar to the request made by WSB earlier this year, Geronimo Energy would appreciate any comments you may have pertaining to construction stormwater compliance regarding this facility. Please review the facility and provide recommendations you may have within 30 days. If you have questions, please reach me at (952) 988-9000 or ingrid@geronimoenergy.com

Sincerely,

Geronimo Energy, LLC
Ingrid Schwingler
Permitting Specialist

Attachments

cc: Tena Rytel, Geronimo Energy

WSB & Associates, Inc.
engineering • planning • environmental • construction

701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

May 9th, 2014

Mr. Noel Kepler
Minnesota Pollution Control Agency
520 Lafayette Road N
St. Paul, MN 55155

**RE: Aurora Solar Power Project Sites- Pine Island**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Mr. Kepler:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed Aurora Solar Project. Initially, correspondence was requested in January for most project areas; however, the Pine Island area was mistakenly omitted. As you recall, the Aurora Solar Project includes up to 25 distributed solar projects totaling 100 megawatts and is located across 16 Minnesota Counties (see attached fact sheet). On behalf of Geronimo Energy, we request that the Pine Island project area be analyzed for its potential environmental impacts, similar to the analysis that occurred for the project areas identified in January.

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | PLSS |
|---|---|
| Goodhue | NE ¼ of Sec 31, T109N, R15W |

We would appreciate any comments you may have pertaining to construction stormwater compliance or other concerns regarding this project. Please review the project areas and provide recommendations you may have within 30 days.

If you have questions, feel free to call me at (763) 541-4800 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

cc: Ingrid Schwingler, Geronimo Energy
Tena Rytel, Geronimo Energy

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May 9th, 2014

Mr. Jeremy Sanoski
Minnesota Pollution Control Agency
7678 College Road, Suite 105
Baxter, MN 56425

**RE: Aurora Solar Power Project Sites – Brooten**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Mr. Sanoski:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed Aurora Solar Project. Initially, correspondence was requested in January for most project areas; however, the Brooten area was mistakenly omitted. As you recall, the Aurora Solar Project includes up to 25 distributed solar projects totaling 100 megawatts and is located across 16 Minnesota Counties (see attached fact sheet). On behalf of Geronimo Energy, we request that the Brooten project area be analyzed for its potential environmental impacts, similar to the analysis that occurred for the project areas identified in January.

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | PLSS |
|---|---|
| Stearns | NW ¼ of Sec 31, T124N, R35W |

We would appreciate any comments you may have pertaining to construction stormwater compliance or other concerns regarding this project. Please review the project areas and provide recommendations you may have within 30 days.

If you have questions, feel free to call me at (763) 541-4800 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

cc: Ingrid Schwingler, Geronimo Energy
Tena Rytel, Geronimo Energy

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Tel: 763-541-4800
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January 17th, 2014

Mr. Tyler Hastings
Minnesota Pollution Control Agency
520 Lafayette Road N
St. Paul, MN 55155

**RE: Aurora Solar Power Project Sites – Lester Prairie & West Waconia**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Mr. Hastings:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 23 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | PLSS |
|---|---|
| Carver | SW ¼ of Sec 1, T115N, R26W |
| McLeod | SW ¼ of Sec 25, T117N, R27W |

We would appreciate any comments you may have pertaining to construction stormwater compliance or other concerns regarding this project. Please review the project areas and provide recommendations you may have within 15 business days.

If you have questions, feel free to call me at (763)231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

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January 17th, 2014

Ms. Sarah Thomson
Minnesota Pollution Control Agency
520 Lafayette Road N
St. Paul, MN 55155

**RE: Aurora Solar Power Project Sites – Annandale, Atwater, Hastings, Lake Pulaski & Montrose Solar**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Ms. Thomson:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | PLSS |
|---|---|
| Wright | SE ¼ of Sec 15, T120N, R25W |
| Wright | NW ¼ of Sec 32, T121N, R27W |
| Wright | NE ¼ of Sec 2, T118N, R26W |
| Washington | NE ¼ of Sec 8, T26N, R20W |
| Kandiyohi | SW ¼ of Sec 1, T119N, R33W |

We would appreciate any comments you may have pertaining to construction stormwater compliance or other concerns regarding this project. Please review the project areas and provide recommendations you may have within 15 business days.

If you have questions, feel free to call me at (763)231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

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January 17th, 2014

Mr. Noel Kepler
Minnesota Pollution Control Agency
520 Lafayette Road N
St. Paul, MN 55155

**RE: Aurora Solar Power Project Sites – Eastwood, Lake Emily, Pipestone, West Faribault & Zumbrota Solar**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Mr. Kepler:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | PLSS |
|---|---|
| Blue Earth | SE ¼ of Sec 14, T108N, R26W |
| Le Sueur | NW ¼ of Sec 24, T110N, R26W |
| Rice | SE ¼ of Sec 2, T109N, R21W |
| Goodhue | SW ¼ of Sec 25, T110N, R16W |
| Pipestone | NE ¼ of Sec 11, T106N, R46W |

We would appreciate any comments you may have pertaining to construction stormwater compliance or other concerns regarding this project. Please review the project areas and provide recommendations you may have within 15 business days.

If you have questions, feel free to call me at (763)231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

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January 17th, 2014

Mr. Jeremy Sanoski
Minnesota Pollution Control Agency
7678 College Road, Suite 105
Baxter, MN 56425

**RE: Aurora Solar Power Project Sites – Albany, Mayhew Lake & Paynesville Solar Request for Comments**
**WSB Project No. 02045-020**

Dear Mr. Sanoski:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | PLSS |
|---|---|
| Benton | SW ¼ of Sec 12, T36N, R31W |
| Stearns | NE ½ of Sec 17 & SE ½ of Sec 8, T125N, R31W |
| Stearns | NW ¼ of Sec 9, NE ¼ of Sec 8, SW ¼ of Sec 4, T122N, R32W |

We would appreciate any comments you may have pertaining to construction stormwater compliance or other concerns regarding this project. Please review the project areas and provide recommendations you may have within 15 business days.

If you have questions, feel free to call me at (763)231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

WSB & Associates, Inc.
engineering • planning • environmental • construction

701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

January 17th, 2014

Mr. Jim Dexter
Minnesota Pollution Control Agency
525 Lake Avenue South, Suite 400
Duluth, MN 55802

**RE: Aurora Solar Power Project Sites – Chisago, Wyoming, Lawrence Creek & Scandia Solar**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Mr. Dexter:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | PLSS |
|---|---|
| Chisago | NE ½ of Sec 12, T34N, R21W |
| Chisago | E ½ of Sec 27, T34N, R19W |
| Chisago | NE ¼ of Sec 32, T33N, R21W |
| Chisago | SE ¼ if Sec 35, T33N, R20W |

We would appreciate any comments you may have pertaining to construction stormwater compliance or other concerns regarding this project. Please review the project areas and provide recommendations you may have within 15 business days.

If you have questions, feel free to call me at (763)231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

WSB & Associates, Inc.
engineering • planning • environmental • construction

701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

January 17th, 2014

Ms. Joyce Cieluch
Minnesota Pollution Control Agency
18 Wood Lake Drive SE
Rochester, MN 55904

**RE: Aurora Solar Power Project Sites – Fiesta City Solar**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Ms. Cieluch:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | PLSS |
|---|---|
| Chippewa | SW ¼ of Sec 9, T117N, R40W |

We would appreciate any comments you may have pertaining to construction stormwater compliance or other concerns regarding this project. Please review the project areas and provide recommendations you may have within 15 business days.

If you have questions, feel free to call me at (763)231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

WSB & Associates, Inc.
engineering • planning • environmental • construction

701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

January 17th, 2014

Mr. David Bodovinitz
Minnesota Pollution Control Agency
18 Wood Lake Drive SE
Rochester, MN 55904

**RE: Aurora Solar Power Project Sites – Dodge Center & Waseca Solar**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Mr. Bodovinitz:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | PLSS |
|---|---|
| Dodge | SE ¼ of Sec 32, T107N, R17W |
| Waseca | NE ¼ of Sec 12, T107N, R23W |

We would appreciate any comments you may have pertaining to construction stormwater compliance or other concerns regarding this project. Please review the project areas and provide recommendations you may have within 15 business days.

If you have questions, feel free to call me at (763)231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

## State Historic Preservation Office (SHPO)

### Correspondence to SHPO

June 30, 2014 Transmitted by Electronic Mail

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

**RE: Aurora Distributed Solar Project – Montrose & Pine Island Facilities**
**Request for Review**

Dear Mr. Cinadr,

Your review was requested in January 2014 (for Montrose) then again in May 2014 (for Pine Island) by Aurora Distributed Solar, LLC (Geronimo Energy) via WSB & Associates (WSB) for the proposed Aurora Solar Project. However, during the development process Geronimo Energy encountered construction limitations and has since altered locations of two of the 24 previously reviewed potential solar facilities (Montrose and Pine Island). As you recall, the Aurora Solar Project includes up to 24 distributed solar projects totaling 100 megawatts and is located across 16 Minnesota Counties (see attached fact sheet).

At this stage in project development, Geronimo is assessing the existing environmental conditions of each of the altered facility locations. Enclosed are the altered facility location maps. The Aurora Solar Project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence as well as an access road within the "Preliminary Development Area Boundary" of each facility. The locations for each of the altered areas addressed in this letter are:

| Facility | County | PLSS |
|---|---|---|
| Montrose | Wright | NW ¼ & SW ¼ Sec 2 T118, R26 |
| Pine Island | Goodhue | E ½ & NW ¼ Sec 31 T109N, R15W |

Similar to the requests made by WSB earlier this year, Geronimo requests an inventory of any historical, cultural, archaeological, and architectural resources that may be present in the projects areas shown on the maps. Additionally, I have attached any previously received information pertaining to the sites of concern. Please review the project areas and provide recommendations you may have within 30 business days. If you have questions, feel free to call me at (952) 988-9000 or ingrid@geronimoenergy.com.

Sincerely,

Ingrid Schwingler
Permitting Specialist

Attachments
cc: Tena Rytel, Geronimo Energy

# 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 Fri, May 9, 2014 at 3:06 PM, Carli Ewert <CEwert@wsbeng.com> wrote:

Tom,

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed Aurora Solar Project. Initially, correspondence was requested in January for most project areas; however, two areas were mistakenly omitted: Brooten and Pine Island. As you recall, the Aurora Solar Project includes up to 25 distributed solar projects totaling 100 megawatts and is located across 16 Minnesota Counties (see attached fact sheet). On behalf of Geronimo Energy, we request that the Brooten and Pine Island project areas be analyzed for their potential environmental impacts, similar to the analysis that occurred for the project areas identified in January.

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Attached are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the “Solar Project Boundary” of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this message are:

| County | PLSS |
|---|---|

| | |
|---|---|
| Stearns | NW ¼ of Sec 31, T124N, R35W |
| Goodhue | NE ¼ of Sec 31, T109N, R15W |

I would like to request an inventory of any historical, cultural, archaeological, and architectural resources that may be present in the projects areas shown on the maps. Please review the project areas and provide recommendations you may have within 30 business days.

Please let me know if you have any questions.

Thanks,

**Carli Ewert**
Intern
d: 763-270-3474
WSB & Associates, Inc. | 701 Xenia Avenue South, Suite 300 | Minneapolis, MN 55416

*WSB and McGhie & Betts, Inc. have joined forces! McGhie & Betts is now a Division of WSB, providing a presence in Rochester and Northfield, MN.*

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**Carli Ewert**
Intern
d: 763-270-3474
WSB & Associates, Inc. | 701 Xenia Avenue South, Suite 300 | Minneapolis, MN 55416

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701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

January 17th, 2014

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

**RE: Aurora Solar Power Project Sites - Dodge Center, Waseca, Fiesta City, Chisago, Lawrence Creek, Scandia, Wyoming, Albany, Mayhew, Paynesville, Eastwood, Lake Emily, Pipestone, West Faribault, Zumbrota, Annandale, Atwater, Hastings, Lake Pulaski, Montrose, Lester Prairie & West Waconia Solar**
**Cultural Resources Request**
**WSB Project No. 02045-020**

Dear Mr. Cinadr:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | Township | Range | Section |
|---|---|---|---|
| Benton | 36 | 31 | 12 |
| Pipestone | 106 | 46 | 11 |
| Kandiyohi | 119 | 33 | 1 |
| Chippewa | 117 | 40 | 9 |

| | | | |
|---|---|---|---|
| Carver | 115 | 26 | 1 |
| Goodhue | 110 | 16 | 25 |
| Wright | 120 | 25 | 15 |
| Wright | 121 | 27 | 32 |
| Wright | 118 | 26 | 2 |
| Stearns | 125 | 31 | 8 |
| Stearns | 122 | 32 | 4, 8, 9 |
| Waseca | 107 | 23 | 12 |
| Rice | 109 | 21 | 2 |
| Dodge | 107 | 17 | 32 |
| McLeod | 117 | 27 | 25 |
| Blue Earth | 108 | 26 | 14 |
| Le Sueur | 110 | 26 | 24 |
| Chisago | 34 | 21 | 12 |
| Chisago | 34 | 19 | 27 |
| Chisago | 33 | 21 | 32 |
| Chisago | 33 | 20 | 35 |
| Washington | 26 | 20 | 8 |

I would like to request an inventory of any historical, cultural, archaeological, and architectural resources that may be present in the projects areas shown on the maps.

If you have questions, feel free to call me at (763) 231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

## State Historic Preservation Office (SHPO)

### Responses from SHPO

**Ingrid M. Schwingler**

| | |
|---|---|
| **From:** | Thomas Cinadr <thomas.cinadr@mnhs.org> |
| **Sent:** | Tuesday, July 01, 2014 7:42 AM |
| **To:** | Ingrid M. Schwingler |
| **Subject:** | Re: Aurora Solar Project - SHPO Review - Montrose and Pine Island Locations Altered |
| **Attachments:** | Archaeology.rtf; Historic.rtf |
| **Follow Up Flag:** | Flag for follow up |
| **Flag Status:** | Completed |

## 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.

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

# Archaeological Site Locations

| Site Number | Site Name | Twp. | Range | Sec. | Quarter Sections | Acres | Phase | Site Description | Tradition | Context | Reports | NR | CEF | DOE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **County:** | **Goodhue** | | | | | | | | | | | | | |
| 21GDs | Pine Island Mill | 109 | 15 | 31 | NE-NE-NE-SE | 0 | | HD | | | | | | |

# History/Architecture Inventory

| PROPERTY NAME | ADDRESS | Twp | Range | Sec | Quarters | USGS | Report | NRHP | CEF | DOE | Inventory Number |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **COUNTY: Goodhue** | | | | | | | | | | | |
| **CITY/TOWNSHIP: Pine Island** | | | | | | | | | | | |
| Pine Island | off Co. Hwy. 11 | 109 | 15 | 31 | NW-SE | Pine Island | xx-89-2H | | | | GD-PIC-054 |
| Bridge No. L2510 | MUN 41 over N Br Zumbro River | 109 | 15 | 31 | | | | | | | GD-PIC-058 |
| house | 400 SW 2nd Ave. | 109 | 15 | 31 | NE-SE | Pine Island | | | | | GD-PIC-116 |
| house | 712 SW 3rd Ave. | 109 | 15 | 31 | SE-SE | Pine Island | | | | | GD-PIC-117 |
| house | 321 SW 5th Ave. | 109 | 15 | 31 | SE-SE | Pine Island | | | | | GD-PIC-120 |
| **CITY/TOWNSHIP: Pine Island Twp.** | | | | | | | | | | | |
| farmhouse | off Co. Hwy. 11 | 109 | 15 | 31 | NE-NW-NW | Pine Island | GD-78-1H | | | | GD-PIT-021 |
| **COUNTY: Wright** | | | | | | | | | | | |
| **CITY/TOWNSHIP: Montrose** | | | | | | | | | | | |
| Montrose Creamery and Barn | xxx Buffalo St. | 118 | 26 | 2 | NE-NE-NE | Waverly | WR-94-1H | | | | WR-MTC-004 |

## Ingrid M. Schwingler

**From:** Carli Ewert <CEwert@wsbeng.com>
**Sent:** Monday, June 30, 2014 9:14 AM
**To:** Ingrid M. Schwingler; Tena Rytel
**Subject:** FW: SHPO request
**Attachments:** Historic.rtf

**Follow Up Flag:** Follow up
**Flag Status:** Completed

**From:** Thomas Cinadr [mailto:thomas.cinadr@mnhs.org]
**Sent:** Tuesday, May 13, 2014 7:42 AM
**To:** Carli Ewert
**Subject:** Re: SHPO request

# 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.

No archaeological sites were identified in a search of the Minnesota Archaeological Inventory and Historic Structures Inventory for the search area requested. **A report containing the historic properties identified is 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.

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 Fri, May 9, 2014 at 3:06 PM, Carli Ewert <CEwert@wsbeng.com> wrote:

Tom,

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed Aurora Solar Project. Initially, correspondence was requested in January for most project areas; however, two areas were mistakenly omitted: Brooten and Pine Island. As you recall, the Aurora Solar Project includes up to 25 distributed solar projects totaling 100 megawatts and is located across 16 Minnesota Counties (see attached fact sheet). On behalf of Geronimo Energy, we request that the Brooten and Pine Island project areas be analyzed for their potential environmental impacts, similar to the analysis that occurred for the project areas identified in January.

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Attached are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the “Solar Project Boundary” of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this message are:

| County | PLSS |
|---|---|

| | |
|---|---|
| Stearns | NW ¼ of Sec 31, T124N, R35W |
| Goodhue | NE ¼ of Sec 31, T109N, R15W |

I would like to request an inventory of any historical, cultural, archaeological, and architectural resources that may be present in the projects areas shown on the maps. Please review the project areas and provide recommendations you may have within 30 business days.

Please let me know if you have any questions.

Thanks,

**Carli Ewert**
Intern
d: 763-270-3474
WSB & Associates, Inc. | 701 Xenia Avenue South, Suite 300 | Minneapolis, MN 55416

*WSB and McGhie & Betts, Inc. have joined forces! McGhie & Betts is now a Division of WSB, providing a presence in Rochester and Northfield, MN.*

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**Carli Ewert**
Intern
d: 763-270-3474
WSB & Associates, Inc. | 701 Xenia Avenue South, Suite 300 | Minneapolis, MN 55416

*WSB and McGhie & Betts, Inc. have joined forces! McGhie & Betts is now a Division of WSB, providing a presence in Rochester and Northfield, MN.*

# History/Architecture Inventory

| PROPERTY NAME | ADDRESS | Twp | Range | Sec | Quarters | USGS | Report | NRHP | CEF | DOE | Inventory Number |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **COUNTY: Stearns** | | | | | | | | | | | |
| **CITY/TOWNSHIP: Brooten** | | | | | | | | | | | |
| commercial building | SW corner Central Ave. & 2nd St. | 124 | 35 | 31 | NW-SE-SW | Padua | SN-80-1H | | | | SN-BRC-001 |
| service station (former barn) | xxx 2nd St. E. | 124 | 35 | 31 | NE-SE-SW | Padua | SN-80-1H | | | | SN-BRC-002 |
| Soo Line Depot | xxx Central Ave. | 124 | 35 | 31 | SE-NE-SW | Padua | SN-80-1H | | | | SN-BRC-003 |
| commercial building | xxx Main St. | 124 | 35 | 31 | SW-NE-SW | Padua | SN-80-1H | | | | SN-BRC-004 |
| hotel | NW corner Central Ave. & Hatton St. | 124 | 35 | 31 | SW-SE-SW | Padua | SN-80-1H | | | | SN-BRC-005 |
| creamery | NW corner Pleasant Ave. & 1st St. | 124 | 35 | 31 | NE-SE-SW | Padua | SN-80-1H | | | | SN-BRC-006 |
| house | xxx Hatton St. | 124 | 35 | 31 | SW-SE-SW | Sedan | SN-80-1H | | | | SN-BRC-007 |
| Brooten Public School | NE corner Roe St. & Central Ave. | 124 | 35 | 31 | SE-SE-SW | Belgrade | SN-80-1H | | | | SN-BRC-009 |
| Trinity Lutheran Church | NW corner Pleasant Ave. & Hatton St. | 124 | 35 | 31 | SE-SE-SW | Padua | SN-80-1H | | | | SN-BRC-010 |
| Our Saviors Lutheran Church | NW corner Roe St. & Central Ave. | 124 | 35 | 31 | SW-SE-SW | Belgrade | SN-80-1H | | | | SN-BRC-011 |

## Ingrid M. Schwingler

**From:** Alison Harwood <aharwood@wsbeng.com>
**Sent:** Thursday, February 20, 2014 1:31 PM
**To:** Ingrid M. Schwingler; Tena Rytel
**Subject:** FW: Cultural/Historical Resources Request - Aurora Solar Project
**Attachments:** Historic.rtf; Archaeology.rtf

Ingrid &Tena,

Below is a response from SHPO and attached are documents that indicate the general location of historic and archaeological resources. For the site summaries, we will place these locations in GIS and determine their location relative to the project sites.

Please let me know if you have any questions.

Thanks,

**From:** Thomas Cinadr [mailto:thomas.cinadr@mnhs.org]
**Sent:** Wednesday, February 19, 2014 8:23 AM
**To:** Alison Harwood
**Subject:** Re: Cultural/Historical Resources Request - Aurora Solar Project

# 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.

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 Tue, Feb 18, 2014 at 11:55 AM, Alison Harwood <aharwood@wsbeng.com> wrote:

Tom,

I just wanted to follow up with you regarding this project. Have you been able to perform an inventory search for these areas yet? Again, the link to the documents that include all of the project figures is here: https://wsbeng.securevdr.com/d/sd5a01d1d7d6408b8

The specific sections we are interested in are listed below:

| County | Township | Range | Section |
|---|---|---|---|
| Benton | 36 | 31 | 12 |
| Pipestone | 106 | 46 | 11 |
| Kandiyohi | 119 | 33 | 1 |
| Chippewa | 117 | 40 | 9 |
| Carver | 115 | 26 | 1 |
| Goodhue | 110 | 16 | 25 |
| Wright | 120 | 25 | 15 |
| Wright | 121 | 27 | 32 |
| Wright | 118 | 26 | 2 |
| Stearns | 125 | 31 | 8 |
| Stearns | 122 | 32 | 4, 8, 9 |
| Waseca | 107 | 23 | 12 |
| Rice | 109 | 21 | 2 |
| Dodge | 107 | 17 | 32 |
| McLeod | 117 | 27 | 25 |
| Blue Earth | 108 | 26 | 14 |
| Le Sueur | 110 | 26 | 24 |
| Chisago | 34 | 21 | 12 |

| | | | |
|---|---|---|---|
| Chisago | 34 | 19 | 27 |
| Chisago | 33 | 21 | 32 |
| Chisago | 33 | 20 | 35 |
| Washington | 26 | 20 | 8 |

Please let me know if you need any additional information to complete this review.

Thank you,

**Alison Harwood**
Environmental Planning & Natural Resources Scientist
d: 763-231-4847 | c: 612-360-1320
WSB & Associates, Inc. | 701 Xenia Avenue South, Suite 300 | Minneapolis, MN 55416

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**Alison Harwood**
Environmental Planning & Natural Resources Scientist
d: 763-231-4847 | c: 612-360-1320
WSB & Associates, Inc. | 701 Xenia Avenue South, Suite 300 | Minneapolis, MN 55416

*WSB and McGhie & Betts, Inc. have joined forces! McGhie & Betts is now a Division of WSB, providing a presence in Rochester and Northfield, MN.*

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**From:** Alison Harwood
**Sent:** Monday, January 20, 2014 3:24 PM

# Archaeological Site Locations

| Site Number | Site Name | Twp. | Range | Sec. | Quarter Sections | Acres | Phase | Site Description | Tradition | Context | Reports | NR | CEF | DOE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **County:** | **Dodge** | | | | | | | | | | | | | |
| 21DO0004 | Dodge Center Creek East | 107 | 17 | 32 | SW-SW-SE | 2 | 1 | AS | W-1 | | | | Yes | |
| 21DO0005 | Dodge Center Creek West | 107 | 17 | 32 | C-N-S | 4 | 1 | AS | W-1 | | | | | |
| 21DOn | Hallowell | 107 | 17 | 32 | | 0 | 7 | HD | | EA-1 | | | | |
| **County:** | **Goodhue** | | | | | | | | | | | | | |
| 21GD0185 | Zumbro River | 110 | 16 | 25 | NW-NE-NW-SE, NE-NW-NW-SE | 1 | 1 | AS | W-1 | | | | Yes | |
| 21GD0186 | Zumbrota Covered Bridge Park | 110 | 16 | 25 | C-E-NW-SE-SE, C-W-NE-SE-SE | 1 | 1 | LS | | | | | | |
| 21GDab | Halbert Mill | 110 | 16 | 25 | SE-SE | 1 | | HD | | | | | | |
| **County:** | **Rice** | | | | | | | | | | | | | |
| 21RC0049 | | 109 | 21 | 2 | SW-NW-SW | 0.5 | 1 | LS | | | MULT-97-09 | | | |
| **County:** | **Stearns** | | | | | | | | | | | | | |
| 21SN0153 | Crow Spring | 122 | 32 | 9 | S-N-NE-SE | 1.5 | 1 | LS | | | | | | |
| 21SN0154 | Kennedy North | 122 | 32 | 9 | N-SE-NW-SE | 0.1 | 1 | LS | | | | | | |
| 21SN0155 | Kennedy South | 122 | 32 | 9 | NW-SE-NW-SE | 0.1 | 1 | AS | | | | | | |
| 21SN0159 | Spring View I. F. | 122 | 32 | 9 | NE-NW-NE-SE | 0.1 | 1 | SA | | | | | | |
| **County:** | **Washington** | | | | | | | | | | | | | |
| 21WA0006 | | 26 | 20 | 8 | NW-SW-NW | 5 | 1 | EW | W-2 | | WA-85-01 | | | |
| 21WA0007 | | 26 | 20 | 8 | N-N-SE, SE-SE-NE | 25 | 2 | EW, CEM | W-1 | | WA-85-01 | | | |
| 21WA0054 | Point Douglas Townsite | 26 | 20 | 8 | S-S-NE-SE,NE-NE-SE,SE-NW-SE | 35 | 8 | AS | W-1, O- | EA-1,RA-1 | WA-85-01 | | | |

| Site Number | Site Name | Twp. | Range | Sec. | Quarter Sections | Acres | Phase | Site Description | Tradition | Context | Reports | NR | CEF | DOE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **County:** | **Washington** | | | | | | | | | | | | | |
| 21WA0054 | Point Douglas Townsite | 26 | 20 | 8 | S-S-NE-SE,NE-NE-SE,SE-NW-SE | 35 | 8 | AS | W-1, O- | EA-1,RA-1 | THY-73-01 | | | |
| | Point Douglas Townsite | 26 | 20 | 8 | NE-SE | 35 | 8 | AS | W-1, O- | EA-1,RA-1 | WA-98-02 | | | |
| | Point Douglas Townsite | 26 | 20 | 8 | NE-SE | 35 | 8 | AS | W-1, O- | EA-1,RA-1 | WA-85-01 | | | |
| | Point Douglas Townsite | 26 | 20 | 8 | NE-SE | 35 | 8 | AS | W-1, O- | EA-1,RA-1 | THY-73-01 | | | |
| | Point Douglas Townsite | 26 | 20 | 8 | S-S-NE-SE,NE-NE-SE,SE-NW-SE | 35 | 8 | AS | W-1, O- | EA-1,RA-1 | WA-98-02 | | | |

# History/Architecture Inventory

| PROPERTY NAME | ADDRESS | Twp | Range | Sec | Quarters | USGS | Report | NRHP | CEF | DOE | Inventory Number |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **COUNTY: Benton** | | | | | | | | | | | |
| **CITY/TOWNSHIP: Sauk Rapids Twp.** | | | | | | | | | | | |
| barn | NE corner Co. Hwy. 29 & Co. Hwy. 57 | 36 | 31 | 12 | NE-SW-SW | St. Cloud | BN-81-1H | | | | BN-SRT-003 |
| **COUNTY: Chisago** | | | | | | | | | | | |
| **CITY/TOWNSHIP: Franconia Twp.** | | | | | | | | | | | |
| farmhouse | off Co. Rd. 86 | 33 | 20 | 25 | SW-SW-SE | Scandia | CH-80-1H | | | | CH-FRN-004 |
| farmhouse | xxx Quinlan Ave. | 33 | 20 | 25 | SE-NE-NE | Scandia | CH-80-1H | | | | CH-FRN-005 |
| **CITY/TOWNSHIP: Lent Twp.** | | | | | | | | | | | |
| farmstead | 9187 Lent Trail | 34 | 21 | 12 | NW-NW- | Stacy | CH-2007-2H | | | | CH-LEN-004 |
| **CITY/TOWNSHIP: Wyoming Twp.** | | | | | | | | | | | |
| Northern Pacific Railroad: Lower St. Croix Segment | off U.S. Hwy. 61 & I-35 | 33 | 21 | 32 | | Forest Lake | | | Y | | CH-WYT-003 |
| **COUNTY: Dodge** | | | | | | | | | | | |
| **CITY/TOWNSHIP: Wasioja Twp.** | | | | | | | | | | | |
| Taylor Farmstead | off Co. Rd. H | 107 | 17 | 32 | W-NW-SW | Claremont | DO-80-1H | | | | DO-WAS-012 |
| Bridge No. 1842 | CNTY OH over Dodge Center Creek | 107 | 17 | 32 | | | | | | | DO-WAS-020 |
| Jensen Farmstead | 17310 635th St. | 107 | 17 | 32 | SE-NW | Claremont | XX-2007-9H | | | | DO-WAS-042 |

| PROPERTY NAME | ADDRESS | Twp | Range | Sec | Quarters | USGS | Report | NRHP | CEF | DOE | Inventory Number |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **COUNTY: Dodge** | | | | | | | | | | | |
| **COUNTY: Goodhue** | | | | | | | | | | | |
| **CITY/TOWNSHIP: Minneola Twp.** | | | | | | | | | | | |
| Barton House | off U.S. Hwy. 52 | 110 | 16 | 25 | SW-NE-SW | Zumbrota | GD-78-1H | | | | GD-MNO-016 |
| Zumbrota Watertower | | 110 | 16 | 25 | SE-NE-SW | Zumbrota | GD-78-1H | | | | GD-MNO-017 |
| fair grounds | off Co. Rd. 6 | 110 | 16 | 25 | N-SE-NE | Zumbrota | GD-78-1H | | | | GD-MNO-018 |
| **CITY/TOWNSHIP: Wanamingo** | | | | | | | | | | | |
| Wanamingo Lutheran Church | xxx High Ave. | 110 | 16 | 25 | SE-NE-SE | Wanamingo | GD-78-1H | | | | GD-WMC-009 |
| **CITY/TOWNSHIP: Zumbrota** | | | | | | | | | | | |
| mill dam ruins | xxx Mill St. | 110 | 16 | 25 | SE-SE-SE | Zumbrota | GD-78-1H | | | | GD-ZBC-023 |
| Bevers House and Carriage House | | 110 | 16 | 25 | SE-SE-SE | Zumbrota | GD-78-1H | | | | GD-ZBC-024 |
| windmill and pump house | off Mn. Hwy. 52 | 110 | 16 | 25 | NW-SW-SE | Zumbrota | GD-78-1H | | | | GD-ZBC-032 |
| gas station | xxx Jefferson Dr. | 110 | 16 | 25 | SE-SW-SE | Zumbrota | GD-78-1H | | | | GD-ZBC-033 |
| Sidney B. Barteau House | | 110 | 16 | 25 | NE-SW | Zumbrota | | | | | GD-ZBC-063 |
| Bridge No. L5901 | unpaved municipal road over the North Fork of the Zumbro River | 110 | 16 | 25 | NE-SW-SE | Zumbrota | | | | | GD-ZBC-065 |
| **COUNTY: Kandiyohi** | | | | | | | | | | | |
| **CITY/TOWNSHIP: Atwater** | | | | | | | | | | | |
| house | 301 Main St. N. | 119 | 33 | 1 | SW-SW-SW | Atwater | KH-87-1H | | | | KH-AWC-019 |
| house | 411 Main St. N. | 119 | 33 | 1 | NW-SW-SW | Atwater | KH-87-1H | | | | KH-AWC-021 |

| PROPERTY NAME | ADDRESS | Twp | Range | Sec | Quarters | USGS | Report | NRHP | CEF | DOE | Inventory Number |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **COUNTY: Kandiyohi** | | | | | | | | | | | |
| **COUNTY: Pipestone** | | | | | | | | | | | |
| **CITY/TOWNSHIP: Pipestone** | | | | | | | | | | | |
| G.E. Sellers | 818 5th St. SW | 106 | 46 | 11 | SE-SE-SE | Pipestone South | PP-88-1H | | | | PP-PPC-102 |
| **COUNTY: Stearns** | | | | | | | | | | | |
| **CITY/TOWNSHIP: Paynesville Twp.** | | | | | | | | | | | |
| Great Northern Depot | off Co. Hwy. 130 | 122 | 32 | 8 | | Paynesville | SN-80-1H | | | | SN-PVT-003 |
| Great Northern Hotel | | 122 | 32 | 8 | | Paynesville | SN-80-1H | | | | SN-PVT-004 |
| St. Cloud, Makato, and Austin Railroad; Great Northern Railroad | | 122 | 32 | 4 | | Paynesville | | | Y | | SN-PVT-008 |
| St. Cloud, Makato, and Austin Railroad; Great Northern Railroad | | 122 | 32 | 8 | | Paynesville | | | Y | | SN-PVT-008 |
| St. Cloud, Makato, and Austin Railroad; Great Northern Railroad | | 122 | 32 | 9 | | Paynesville | | | Y | | SN-PVT-008 |
| farmstead | 18572 CR 130 | 122 | 32 | 8 | SE-SW-NW | Paynesville | | | | | SN-PVT-010 |
| farmstead | xxxxx 185th St. | 122 | 32 | 9 | E-SW-NW | Paynesville | | | | | SN-PVT-011 |
| barn | 18102 Lake Ave. N | 122 | 32 | 9 | NE-SW-SE | Paynesville | | | | | SN-PVT-012 |
| **COUNTY: Washington** | | | | | | | | | | | |
| **CITY/TOWNSHIP: Denmark Twp.** | | | | | | | | | | | |
| Point Douglas Historic District | U.S. Hwy. 10 | 26 | 20 | 8 | NE-SE | Prescott | | | Y | | WA-DMK-014 |

| PROPERTY NAME | ADDRESS | Twp | Range | Sec | Quarters | USGS | Report | NRHP | CEF | DOE | Inventory Number |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **COUNTY: Wright** | | | | | | | | | | | |
| **CITY/TOWNSHIP: Montrose** | | | | | | | | | | | |
| Montrose Creamery and Barn | xxx Buffalo St. | 118 | 26 | 2 | NE-NE-NE | Waverly | WR-94-1H | | | | WR-MTC-004 |

## US Army Corps of Engineers (USACE)

### Correspondence to USACE

June 30, 2014 Transmitted by Electronic Mail

Mr. Chad Konickson
U.S. Army Corps of Engineers
Attn: Regulatory Branch
180 5th Street East, Suite 700
Saint Paul, MN 55101

**RE: Aurora Distributed Solar Project – Montrose & Pine Island Facilities**
**Request for Comments**

Dear Mr. Konickson:

Your review was requested in January 2014 (for Montrose) then again in May 2014 (for Pine Island) by Aurora Distributed Solar, LLC (Geronimo Energy) via WSB & Associates (WSB) for the proposed Aurora Distributed Solar Project. However, during the development process Geronimo Energy encountered construction limitations and has since altered of two of the 24 Aurora facilities (Montrose and Pine Island). As you recall, the Aurora Solar Project includes up to 24 distributed solar facilities totaling 100 megawatts and is located across 16 Minnesota Counties (see attached fact sheet).

At this stage in project development, Geronimo Energy is assessing the existing environmental conditions of each of the altered facilities. Enclosed are the altered facility location maps. The Aurora Solar Project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence as well as an access road within the "Preliminary Development Area Boundary" of each facility. The locations for each of the altered areas addressed in this letter are:

| Facility | County | PLSS |
|---|---|---|
| Montrose | Wright | NW ¼ & SW ¼ Sec 2 T118, R26 |
| Pine Island | Goodhue | E ½ & NW ¼ Sec 31 T109N, R15W |

Similar to the requests made by WSB earlier this year, Geronimo Energy would appreciate any comments you may have regarding the scope of these altered projects pertaining to the U.S. Army Corps of Engineers (USACE) jurisdiction within 30 days. If you have questions, you may reach me at (952) 988-9000 or ingrid@geronimoenergy.com.

Sincerely,

Geronimo Energy, LLC
Ingrid Schwingler
Permitting Specialist

Attachments

cc: Tena Rytel, Geronimo Energy

WSB & Associates, Inc.
engineering • planning • environmental • construction

701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

May 9th, 2014

Mr. Chad Konickson
U.S. Army Corps of Engineers
Attn: Regulatory Branch
180 5th Street East, Suite 700
Saint Paul, MN 55101

**RE: Aurora Solar Power Project Sites – Pine Island & Brooten**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Mr. Konickson:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed Aurora Solar Project. Initially, correspondence was requested in January for most project areas; however, two areas were mistakenly omitted: Brooten and Pine Island. As you recall, the Aurora Solar Project includes up to 25 distributed solar projects totaling 100 megawatts and is located across 16 Minnesota Counties (see attached fact sheet). On behalf of Geronimo Energy, we request that the Brooten and Pine Island project areas be analyzed for their potential environmental impacts, similar to the analysis that occurred for the project areas identified in January.

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | PLSS |
|---|---|
| Stearns | NW ¼ of Sec 31, T124N, R35W |
| Goodhue | NE ¼ of Sec 31, T109N, R15W |

We would appreciate any comments you may have regarding the scope of the proposed project pertaining to the U.S. Army Corps of Engineers (USACE) jurisdictions within 30 days.

If you have questions, feel free to call me at (763) 541-4800 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

cc: Ingrid Schwingler, Geronimo Energy
Tena Rytel, Geronimo Energy
Marissa Vine, USACE

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January 22, 2014

Mr. Chad Konickson
U.S. Army Corps of Engineers
Attn: Regulatory Branch
180 5th Street East, Suite 700
Saint Paul, MN 55101

**RE: Aurora Solar Power Project Sites – Dodge Center, Waseca, Fiesta City, Chisago, Lawrence Creek, Scandia, Wyoming, Albany, Mayhew, Paynesville, Eastwood, Lake Emily, Pipestone, West Faribault, Zumbrota, Annandale, Atwater, Hastings, Lake Pulaski, Montrose, Lester Prairie & West Waconia Solar**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Mr. Konickson:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | Township | Range | Section |
|---|---|---|---|
| Benton | 36 | 31 | 12 |
| Pipestone | 106 | 46 | 11 |
| Kandiyohi | 119 | 33 | 1 |
| Chippewa | 117 | 40 | 9 |
| Carver | 115 | 26 | 1 |

| | | | |
|---|---|---|---|
| Goodhue | 110 | 16 | 25 |
| Wright | 120 | 25 | 15 |
| Wright | 121 | 27 | 32 |
| Wright | 118 | 26 | 2 |
| Stearns | 125 | 31 | 8 |
| Stearns | 122 | 32 | 4, 8, 9 |
| Waseca | 107 | 23 | 12 |
| Rice | 109 | 21 | 2 |
| Dodge | 107 | 17 | 32 |
| McLeod | 117 | 27 | 25 |
| Blue Earth | 108 | 26 | 14 |
| Le Sueur | 110 | 26 | 24 |
| Chisago | 34 | 21 | 12 |
| Chisago | 34 | 19 | 27 |
| Chisago | 33 | 21 | 32 |
| Chisago | 33 | 20 | 35 |
| Washington | 26 | 20 | 8 |

Early coordination letters have also been distributed to the Project Managers identified for each of the counties listed above, including:

- Ben Orne
- Eric Hanson
- Jessie Diaz
- Marissa Vine
- Melissa Jenny
- Ryan Malterud
- Tom Hingsberger

We would appreciate any comments you may have regarding the scope of the proposed project pertaining to the U.S. Army Corps of Engineers (USACE) jurisdictions.

If you have questions, feel free to call me at (763) 231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

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January 17th, 2014

Mr. Thomas Hingsberger
U.S. Army Corps of Engineers
Attn: Regulatory Branch
180 5th Street East, Suite 700
Saint Paul, MN 55101

**RE: Aurora Solar Power Project Sites – Chisago, Lawrence Creek, Wyoming, Scandia & Hastings Solar**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Mr. Hingsberger:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | Township | Range | Section |
|---|---|---|---|
| Chisago | 34 | 21 | 12 |
| Chisago | 34 | 19 | 27 |
| Chisago | 33 | 21 | 32 |
| Chisago | 33 | 20 | 35 |
| Washington | 26 | 20 | 8 |

We would appreciate any comments you may have regarding the scope of the proposed project pertaining to the U.S. Army Corps of Engineers (USACE) jurisdictions. Please review the project areas and provide recommendations pertaining to USACE jurisdictions within 15 business days upon receipt of this information.

If you have questions, feel free to call me at (763) 231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

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January 17th, 2014

Mr. Ryan Malterud
U.S. Army Corps of Engineers
Attn: Regulatory Branch
180 5th Street East, Suite 700
Saint Paul, MN 55101

**RE: Aurora Solar Power Project Sites – Mayhew Lake, Albany & Paynesville Solar Request for Comments**
**WSB Project No. 02045-020**

Dear Mr. Malterud:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | Township | Range | Section |
|---|---|---|---|
| Benton | 36 | 31 | 12 |
| Stearns | 125 | 31 | 8 |
| Stearns | 122 | 32 | 4,8,9 |

We would appreciate any comments you may have regarding the scope of the proposed project pertaining to the U.S. Army Corps of Engineers (USACE) jurisdictions. Please review the project areas and provide recommendations pertaining to USACE jurisdictions within 15 business days upon receipt of this information.

If you have questions, feel free to call me at (763) 231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

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January 17th, 2014

Ms. Marissa Vine
U.S. Army Corps of Engineers
Attn: Regulatory Branch
180 5th Street East, Suite 700
Saint Paul, MN 55101

**RE: Aurora Solar Power Project Sites – Fiesta City, Zumbrota, Waseca, West Faribault, Dodge Center & Lake Emily Solar**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Ms. Vine:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | Township | Range | Section |
|---|---|---|---|
| Chippewa | 117 | 40 | 9 |
| Goodhue | 110 | 16 | 25 |
| Waseca | 107 | 23 | 12 |
| Rice | 109 | 21 | 2 |
| Dodge | 107 | 17 | 32 |
| Le Sueur | 110 | 26 | 24 |

We would appreciate any comments you may have regarding the scope of the proposed project pertaining to the U.S. Army Corps of Engineers (USACE) jurisdictions. Please review the project areas and provide recommendations pertaining to USACE jurisdictions within 15 business days upon receipt of this information.

If you have questions, feel free to call me at (763) 231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

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January 17th, 2014

Ms. Melissa Jenny
U.S. Army Corps of Engineers
Attn: Regulatory Branch
180 5th Street East, Suite 700
Saint Paul, MN 55101

**RE: Aurora Solar Power Project Sites – West Waconia Solar**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Ms. Jenny:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | Township | Range | Section |
|---|---|---|---|
| Carver | 115 | 26 | 1 |

We would appreciate any comments you may have regarding the scope of the proposed project pertaining to the U.S. Army Corps of Engineers (USACE) jurisdictions. Please review the project areas and provide recommendations pertaining to USACE jurisdictions within 15 business days upon receipt of this information.

If you have questions, feel free to call me at (763) 231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

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Fax: 763-541-1700

January 17th, 2014

Ms. Jessie Diaz
U.S. Army Corps of Engineers
Attn: Regulatory Branch
180 5th Street East, Suite 700
Saint Paul, MN 55101

**RE: Aurora Solar Power Project Sites – Atwater, Lake Pulaski, Annandale & Montrose Solar**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Ms. Diaz:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | Township | Range | Section |
|---|---|---|---|
| Kandiyohi | 119 | 33 | 1 |
| Wright | 120 | 25 | 15 |
| Wright | 121 | 27 | 32 |
| Wright | 118 | 26 | 2 |

We would appreciate any comments you may have regarding the scope of the proposed project pertaining to the U.S. Army Corps of Engineers (USACE) jurisdictions. Please review the project areas and provide recommendations pertaining to USACE jurisdictions within 15 business days upon receipt of this information.

If you have questions, feel free to call me at (763) 231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

WSB & Associates, Inc.
engineering • planning • environmental • construction

701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

January 17th, 2014

Mr. Eric Hanson
U.S. Army Corps of Engineers
Attn: Regulatory Branch
180 5th Street East, Suite 700
Saint Paul, MN 55101

**RE: Aurora Solar Power Project Sites – Eastwood & Lester Prairie Solar**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Mr. Hanson:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | Township | Range | Section |
|---|---|---|---|
| McLeod | 117 | 27 | 25 |
| Blue Earth | 108 | 26 | 14 |

We would appreciate any comments you may have regarding the scope of the proposed project pertaining to the U.S. Army Corps of Engineers (USACE) jurisdictions. Please review the project areas and provide recommendations pertaining to USACE jurisdictions within 15 business days upon receipt of this information.

If you have questions, feel free to call me at (763) 231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

WSB & Associates, Inc.
engineering • planning • environmental • construction

701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

January 17th, 2014

Mr. Benjamin Orne
U.S. Army Corps of Engineers
Attn: Regulatory Branch
180 5th Street East, Suite 700
Saint Paul, MN 55101

**RE: Aurora Solar Power Project Sites – Pipestone Solar**
**Request for Comments**
**WSB Project No. 02045-020**

Dear Mr. Orne:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | Township | Range | Section |
|---|---|---|---|
| Pipestone | 106 | 46 | 11 |

We would appreciate any comments you may have regarding the scope of the proposed project pertaining to the U.S. Army Corps of Engineers (USACE) jurisdictions. Please review the project areas and provide recommendations pertaining to USACE jurisdictions within 15 business days upon receipt of this information.

If you have questions, feel free to call me at (763) 231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

## US Fish and Wildlife Service (USFWS)

### Correspondence to USFWS

June 30, 2014 Transmitted by Electronic Mail

Andrew Horton, Fish and Wildlife Biologist
U.S. Fish and Wildlife Service, Twin Cities ES Field Office
4101 American Blvd East
Bloomington, MN 55425-1665

**RE: Aurora Distributed Solar Project – Montrose & Pine Island Facilities**
**Request for Comments**

Dear Mr. Horton,

Your review was requested in January 2014 (Montrose) then again in May 2014 (Pine Island) by Aurora Distributed Solar, LLC (Geronimo Energy) via WSB & Associates (WSB) for the proposed Aurora Distributed Solar Project. However, during the development process Geronimo Energy encountered construction limitations and has since altered locations of the previously reviewed facilities, Montrose and Pine Island. As you recall, the Aurora Solar Project includes up to 24 distributed solar projects totaling 100 megawatts and is located across 16 Minnesota Counties (see attached fact sheet).

At this stage in development, Geronimo Energy is assessing the existing environmental conditions of each of the altered facilities. Enclosed are the altered facility location maps. The Aurora Solar Project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence as well as an access road within the "Preliminary Development Area Boundary" of each facility. The locations for each of the altered facility areas addressed in this letter are:

| Facility | County | PLSS |
|---|---|---|
| Montrose | Wright | NW ¼ & SW ¼ Sec 2 T118, R26 |
| Pine Island | Goodhue | E ½ & NW ¼ Sec 31 T109N, R15W |

Similar to the requests made by WSB earlier this year, Geronimo Energy would appreciate any additional comments you may have about federal threatened or endangered species potentially affected by these facilities. Please review the altered facility areas and provide recommendations within 30 days. If you have questions, please reach me at (952) 988-9000 or ingrid@geronimoenergy.com.

Sincerely,

Geronimo Energy, LLC
Ingrid Schwingler
Permitting Specialist

Attachments
cc: Tena Rytel, Geronimo Energy

WSB & Associates, Inc.
engineering • planning • environmental • construction

701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

May 9th, 2014

Andrew Horton
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Twin Cities ES Field Office
4101 American Blvd East
Bloomington, MN 55425-1665

**RE: Aurora Solar Power Project Sites – Pine Island & Brooten**
**Endangered Species Review**
**WSB Project No. 02045-020**

Dear Mr. Horton:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed Aurora Solar Project. Initially, correspondence was requested in January for most project areas; however, two areas were mistakenly omitted: Brooten and Pine Island. As you recall, the Aurora Solar Project includes up to 25 distributed solar projects totaling 100 megawatts and is located across 16 Minnesota Counties (see attached fact sheet). On behalf of Geronimo Energy, we request that the Brooten and Pine Island project areas be analyzed for their potential environmental impacts, similar to the analysis that occurred for the project areas identified in January.

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | PLSS |
|---|---|
| Goodhue | NE ¼ of Sec 31, T109N, R15W |
| Stearns | NW ¼ of Sec 31, T124N, R35W |

We would appreciate any comments you may have about federal threatened or endangered species potentially affected by the project. Please review the project areas and provide recommendations related to the presence of federal threatened or endangered species that may be affected within 30 days.

If you have questions, feel free to call me at (763) 541-4800 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

cc: Ingrid Schwingler, Geronimo Energy
Tena Rytel, Geronimo Energy

WSB & Associates, Inc.
engineering • planning • environmental • construction

701 Xenia Avenue South
Suite 300
Minneapolis, MN 55416
Tel: 763-541-4800
Fax: 763-541-1700

January 17th, 2014

Mr. Phil Delphey
Endangered Species Biologist
U.S. Fish & Wildlife Service
Twin Cities Ecological Field Office
4101 East 80th Street
Bloomington, MN 55425

**RE: Aurora Solar Power Project Sites – Dodge Center, Waseca, Fiesta City, Chisago, Lawrence Creek, Scandia, Wyoming, Albany, Mayhew, Paynesville, Eastwood, Lake Emily, Pipestone, West Faribault, Zumbrota, Annandale, Atwater, Hastings, Lake Pulaski, Montrose, Lester Prairie & West Waconia Solar**
**Endangered Species Review**
**WSB Project No. 02045-020**

Dear Mr. Delphey:

WSB & Associates (WSB) was retained by Geronimo Energy, LLC (Geronimo) to provide environmental services for the proposed installation of multiple photovoltaic solar facilities throughout Minnesota. The project is collectively called the Aurora Solar Project and includes up to 25 distributed solar projects totaling 100 megawatts (see attached fact sheet).

At this stage in project development, WSB and Geronimo are assessing the existing environmental conditions for each potential site. Enclosed are project location maps and detailed site maps for each of the potential sites.

The proposed project will include grading and the installation of linear arrays of photovoltaic power panels and associated equipment enclosed within a chain link fence within the "Solar Project Boundary" of each site. An access road will also be provided to each site. Maps showing the location of each of the project sites are attached. The locations for each of the potential project areas addressed in this letter are:

| County | Township | Range | Section |
|---|---|---|---|
| Benton | 36 | 31 | 12 |
| Pipestone | 106 | 46 | 11 |
| Kandiyohi | 119 | 33 | 1 |
| Chippewa | 117 | 40 | 9 |

| | | | |
|---|---|---|---|
| Carver | 115 | 26 | 1 |
| Goodhue | 110 | 16 | 25 |
| Wright | 120 | 25 | 15 |
| Wright | 121 | 27 | 32 |
| Wright | 118 | 26 | 2 |
| Stearns | 125 | 31 | 8 |
| Stearns | 122 | 32 | 4, 8, 9 |
| Waseca | 107 | 23 | 12 |
| Rice | 109 | 21 | 2 |
| Dodge | 107 | 17 | 32 |
| McLeod | 117 | 27 | 25 |
| Blue Earth | 108 | 26 | 14 |
| Le Sueur | 110 | 26 | 24 |
| Chisago | 34 | 21 | 12 |
| Chisago | 34 | 19 | 27 |
| Chisago | 33 | 21 | 32 |
| Chisago | 33 | 20 | 35 |
| Washington | 26 | 20 | 8 |

We would appreciate any comments you may have about federal threatened or endangered species potentially affected by the project. Please review the project areas and provide recommendations related to the presence of federal threatened or endangered species that may be affected within 15 business days.

If you have questions, feel free to call me at (763) 231-4847 or aharwood@wsbeng.com

Sincerely,

***WSB & Associates, Inc.***

Alison Harwood
Environmental Scientist

Attachments

## US Fish and Wildlife Service (USFWS)

### Responses from USFWS

## Ingrid M. Schwingler

**From:** Alison Harwood <aharwood@wsbeng.com>
**Sent:** Thursday, February 27, 2014 7:35 AM
**To:** Ingrid M. Schwingler; Tena Rytel
**Subject:** FW: Aurora Solar Power Project Sites

**Follow Up Flag:** Follow up
**Flag Status:** Flagged

For your records, see below for comments from Fish & Wildlife Service regarding the Aurora Solar project.

**From:** Horton, Andrew [mailto:andrew_horton@fws.gov]
**Sent:** Wednesday, February 26, 2014 2:55 PM
**To:** Alison Harwood
**Cc:** Lisa Mandell
**Subject:** Aurora Solar Power Project Sites

Ms. Harwood,

I have reviewed the proposed Aurora Solar Power Project Sites (03E19000-2014-SL-0043) located in Benton, Blue Earth, Carver, Chippewa, Chisago, Dodge, Goodhue, Kandiyohi, Le Sueur, Mcleod, Pipestone, Rice, Stearns, Waseca, Washington and Wright Counties.

The northern long-eared bat (*Myotis septentrionalis*) is Proposed as Endangered and located in all 16 Minnesota Counties listed. We anticipate final listing of the species in November 2014. In regard to these projects, we recommend that any tree removal that must be done, be completed outside of the summer maternity roosting season for the species (April 1 - Sept 30). If this cannot be accomplished, please contact our office.

All other federally listed species for these counties can be identified on our website http://www.fws.gov/midwest/endangered/lists/minnesot-cty.html, however,our records indicate there are no federally listed or proposed species and/or designated or proposed critical habitat within the action area of these proposed projects.

Many of these project sites are in close proximity to USFWS easement property and may warrant further discussion as project details become available. Pipestone and Annandale Solar Sites are within one mile of Wildlife Production Areas. Atwater, Albany, Paynesville and Eastwood Solar Sites are within two miles of Wildlife Production Areas. Albany and Paynesville Solar Sites also stand out as having a much larger footprint, 230 and 294 acres respectively. It would be useful for our office to see information on density and actual acreage taken up by solar panels to determine it there would be any indirect effects to migratory birds from collision or confusion related to the reflective surfaces of photovoltaic panels.

If project plans change, additional information on listed or proposed species becomes available, or new species are listed that may be affected by the project, consultation should be reinitiated. If you have any further endangered species questions or as new information becomes available, please contact me at (612) 725-3548 x2208. Thank you.

- Andrew

Andrew Horton

Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Twin Cities ES Field Office
4101 American Blvd East
Bloomington, MN 55425-1665
(612) 725-3548 ext. 2208

**Alison Harwood**
Environmental Planning & Natural Resources Scientist
d: 763-231-4847 | c: 612-360-1320
WSB & Associates, Inc. | 701 Xenia Avenue South, Suite 300 | Minneapolis, MN 55416

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## Ingrid M. Schwingler

**From:** Horton, Andrew <andrew_horton@fws.gov>
**Sent:** Thursday, May 29, 2014 2:09 PM
**To:** Ingrid M. Schwingler; Tena Rytel; Carli Ewert
**Subject:** Fwd: Aurora Solar Project

**Follow Up Flag:** Follow up
**Flag Status:** Flagged

Please see our response for the two additional Aurora Solar Project sites in case my response back to Alison did not get bounced to you in her absence. Thank you.

Andrew Horton
Twin Cities Ecological Services Field Office
U.S. Fish and Wildlife Service
4101 American Blvd East
Bloomington, MN 55425-1665
(612) 725-3548 ext. 2208

---------- Forwarded message ----------
From: **Horton, Andrew** <andrew_horton@fws.gov>
Date: Thu, May 29, 2014 at 2:04 PM
Subject: Re: Aurora Solar Project
To: Alison Harwood <aharwood@wsbeng.com>

Thank you for the updated information. I have reviewed the two project areas and did not see any listed species records or federal properties of concern. Both proposed project areas appeared to be mainly agricultural fields, but I will refer you back to our February 26, 2014 response regarding northern long-eared bat and our recommendation of clearing trees outside of the summer roost season, if tree clearing is necessary. Let me know if you need any additional assistance.

- Andrew Horton

Andrew Horton
Twin Cities Ecological Services Field Office
U.S. Fish and Wildlife Service
4101 American Blvd East
Bloomington, MN 55425-1665
(612) 725-3548 ext. 2208

On Fri, May 9, 2014 at 4:40 PM, Alison Harwood <aharwood@wsbeng.com> wrote:

Andrew,

As you recall, we requested comments from you back in January for the Aurora Solar Project. While letters were sent out for most project areas, two areas were mistakenly omitted: Brooten and Pine Island.

Below is a link where you can view and download the location information for these two sites. We appreciate your review of and comments for these additional project areas within 30 days. If you have any questions or need additional information to complete your review, please let me know.

Link to documents (expires after 30 days): https://wsbeng.securevdr.com/d/sbff5003f200446ba

Thank you,

**Alison Harwood**
Environmental Planning & Natural Resources Scientist
d: 763-231-4847 | c: 612-360-1320
WSB & Associates, Inc. | 701 Xenia Avenue South, Suite 300 | Minneapolis, MN 55416

*WSB and McGhie & Betts, Inc. have joined forces! McGhie & Betts is now a Division of WSB, providing a presence in Rochester and Northfield, MN.*

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## Federal Aviation Administration (FAA)

Federal Aviation Administration

Brooten

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# Notice Criteria Tool

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The requirements for filing with the Federal Aviation Administration for proposed structures vary based on a number of factors: height, proximity to an airport, location, and frequencies emitted from the structure, etc. For more details, please reference CFR Title 14 Part 77.9.

You must file with the FAA at least 45 days prior to construction if:

- your structure will exceed 200ft above ground level
- your structure will be in proximity to an airport and will exceed the slope ratio
- your structure involves construction of a traverseway (i.e. highway, railroad, waterway etc...) and once adjusted upward with the appropriate vertical distance would exceed a standard of 77.9(a) or (b)
- your structure will emit frequencies, and does not meet the conditions of the FAA Co-location Policy
- your structure will be in an instrument approach area and might exceed part 77 Subpart C
- your proposed structure will be in proximity to a navigation facility and may impact the assurance of navigation signal reception
- your structure will be on an airport or heliport
- filing has been requested by the FAA

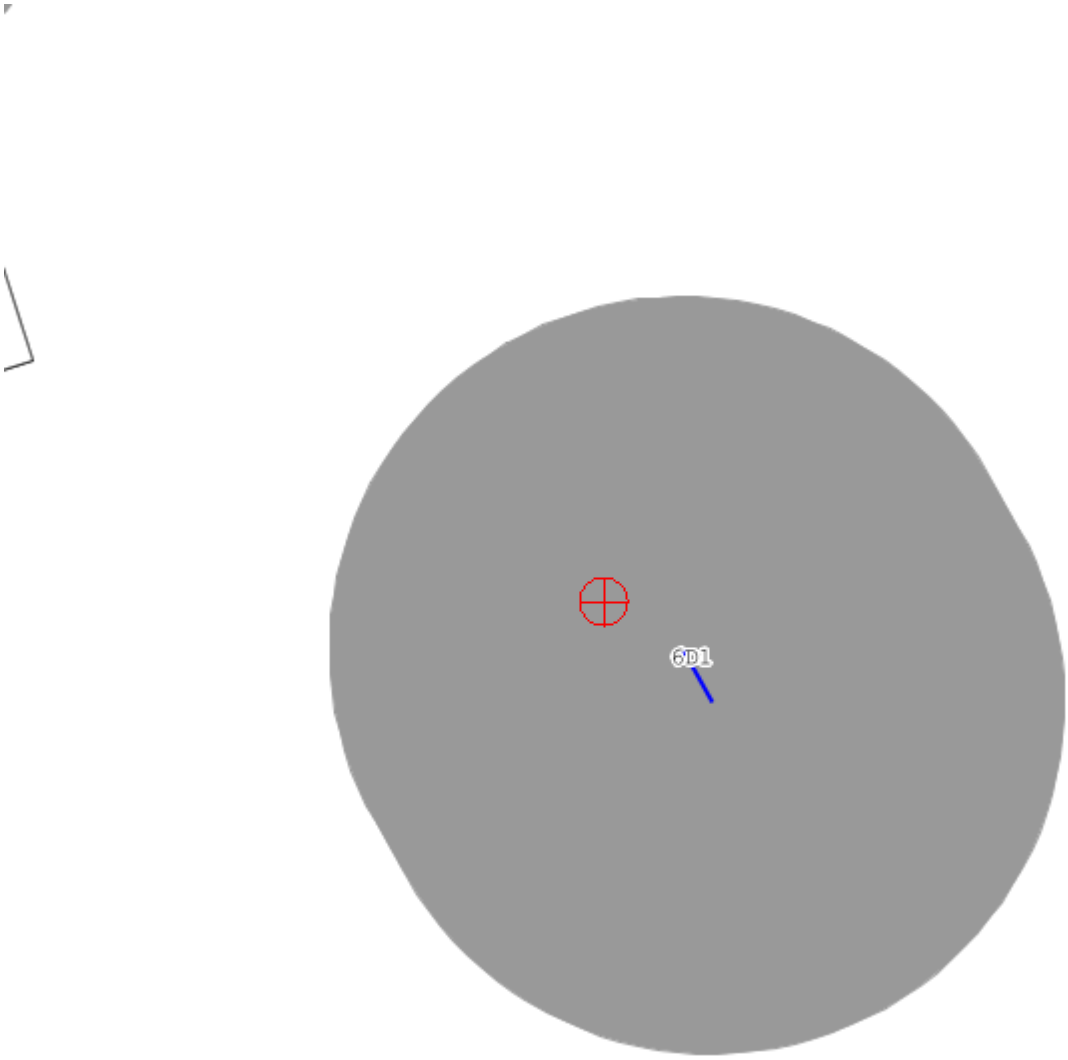
If you require additional information regarding the filing requirements for your structure, please identify and contact the appropriate FAA representative using the Air Traffic Areas of Responsibility map for Off Airport construction, or contact the FAA Airports Region / District Office for On Airport construction.

The tool below will assist in applying Part 77 Notice Criteria.

| | |
|---|---|
| **Latitude:** | 45 Deg 30 M 30 S N |
| **Longitude:** | 95 Deg 07 M 30 S W |
| **Horizontal Datum:** | NAD83 |
| **Site Elevation (SE):** | 1305 (nearest foot) |
| **Structure Height (AGL):** | 10 (nearest foot) |
| **Traverseway:** | No Traversew ay<br>(Additional height is added to certain structures under 77.9(c)) |
| **Is structure on airport:** | ◉ No<br>○ Yes |
| | Submit |

## Results

You do not exceed Notice Criteria.

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# Notice Criteria Tool

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The requirements for filing with the Federal Aviation Administration for proposed structures vary based on a number of factors: height, proximity to an airport, location, and frequencies emitted from the structure, etc. For more details, please reference CFR Title 14 Part 77.9.

You must file with the FAA at least 45 days prior to construction if:

- your structure will exceed 200ft above ground level
- your structure will be in proximity to an airport and will exceed the slope ratio
- your structure involves construction of a traverseway (i.e. highway, railroad, waterway etc...) and once adjusted upward with the appropriate vertical distance would exceed a standard of 77.9(a) or (b)
- your structure will emit frequencies, and does not meet the conditions of the FAA Co-location Policy
- your structure will be in an instrument approach area and might exceed part 77 Subpart C
- your proposed structure will be in proximity to a navigation facility and may impact the assurance of navigation signal reception
- your structure will be on an airport or heliport
- filing has been requested by the FAA

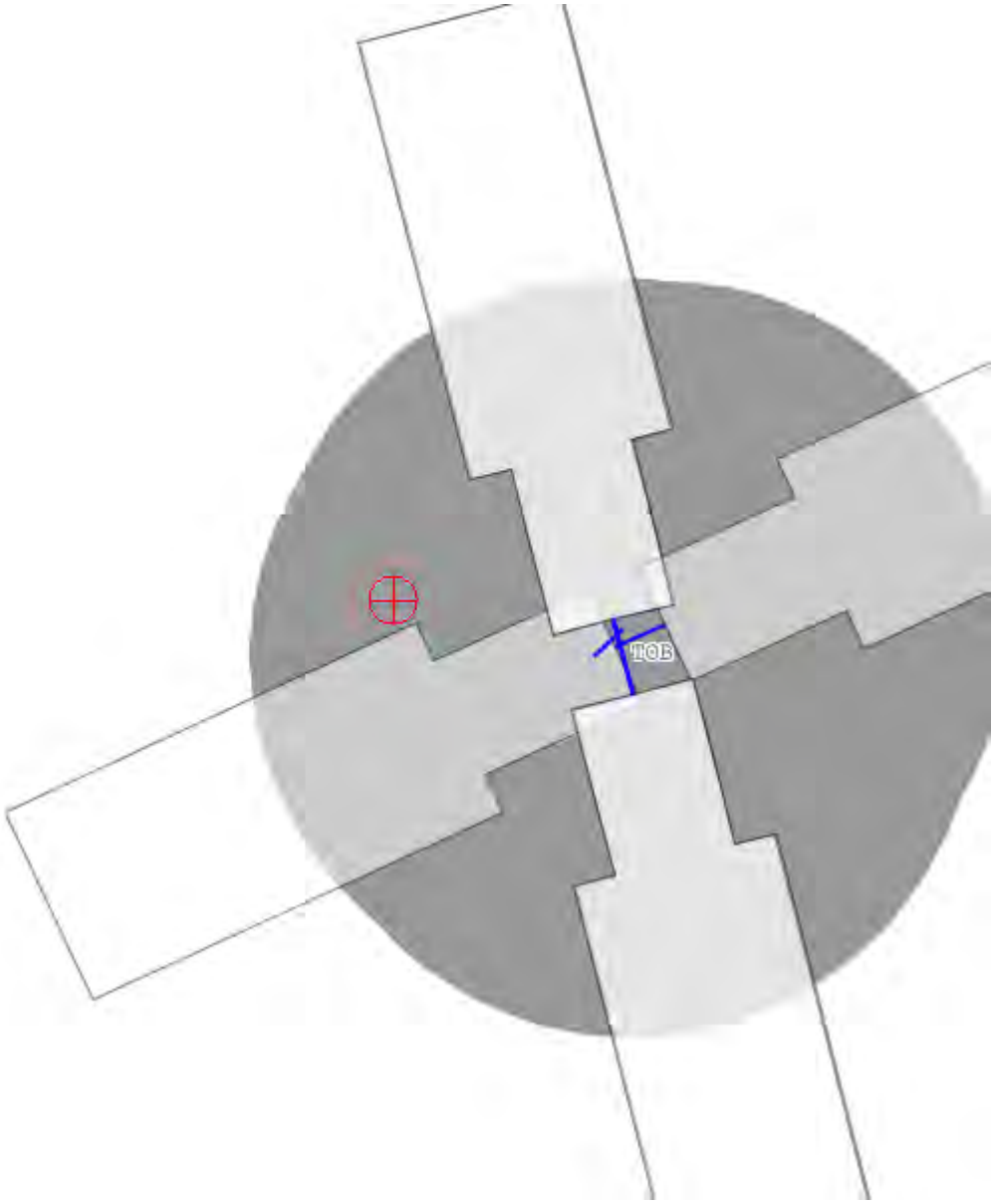
If you require additional information regarding the filing requirements for your structure, please identify and contact the appropriate FAA representative using the Air Traffic Areas of Responsibility map for Off Airport construction, or contact the FAA Airports Region / District Office for On Airport construction.

The tool below will assist in applying Part 77 Notice Criteria.

| | |
|---|---|
| **Latitude:** | 44 Deg 01 M 34 S N |
| **Longitude:** | 92 Deg 52 M 54 S W |
| **Horizontal Datum:** | NAD83 |
| **Site Elevation (SE):** | 1270 (nearest foot) |
| **Structure Height (AGL):** | 10 (nearest foot) |
| **Traverseway:** | No Traversew ay<br>(Additional height is added to certain structures under 77.9(c)) |
| **Is structure on airport:** | ◉ No<br>○ Yes |
| | Submit |

## Results

You do not exceed Notice Criteria.

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Federal Aviation Administration

Fiesta City

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# Notice Criteria Tool

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The requirements for filing with the Federal Aviation Administration for proposed structures vary based on a number of factors: height, proximity to an airport, location, and frequencies emitted from the structure, etc. For more details, please reference CFR Title 14 Part 77.9.

You must file with the FAA at least 45 days prior to construction if:

- your structure will exceed 200ft above ground level
- your structure will be in proximity to an airport and will exceed the slope ratio
- your structure involves construction of a traverseway (i.e. highway, railroad, waterway etc...) and once adjusted upward with the appropriate vertical distance would exceed a standard of 77.9(a) or (b)
- your structure will emit frequencies, and does not meet the conditions of the FAA Co-location Policy
- your structure will be in an instrument approach area and might exceed part 77 Subpart C
- your proposed structure will be in proximity to a navigation facility and may impact the assurance of navigation signal reception
- your structure will be on an airport or heliport
- filing has been requested by the FAA

If you require additional information regarding the filing requirements for your structure, please identify and contact the appropriate FAA representative using the Air Traffic Areas of Responsibility map for Off Airport construction, or contact the FAA Airports Region / District Office for On Airport construction.

The tool below will assist in applying Part 77 Notice Criteria.

| | |
|---|---|
| **Latitude:** | 44 Deg 57 M 19 S N |
| **Longitude:** | 95 Deg 41 M 19 S W |
| **Horizontal Datum:** | NAD83 |
| **Site Elevation (SE):** | 1030 (nearest foot) |
| **Structure Height (AGL):** | 10 (nearest foot) |
| **Traverseway:** | No Traversew ay<br>(Additional height is added to certain structures under 77.9(c)) |
| **Is structure on airport:** | ◉ No<br>○ Yes |
| | Submit |

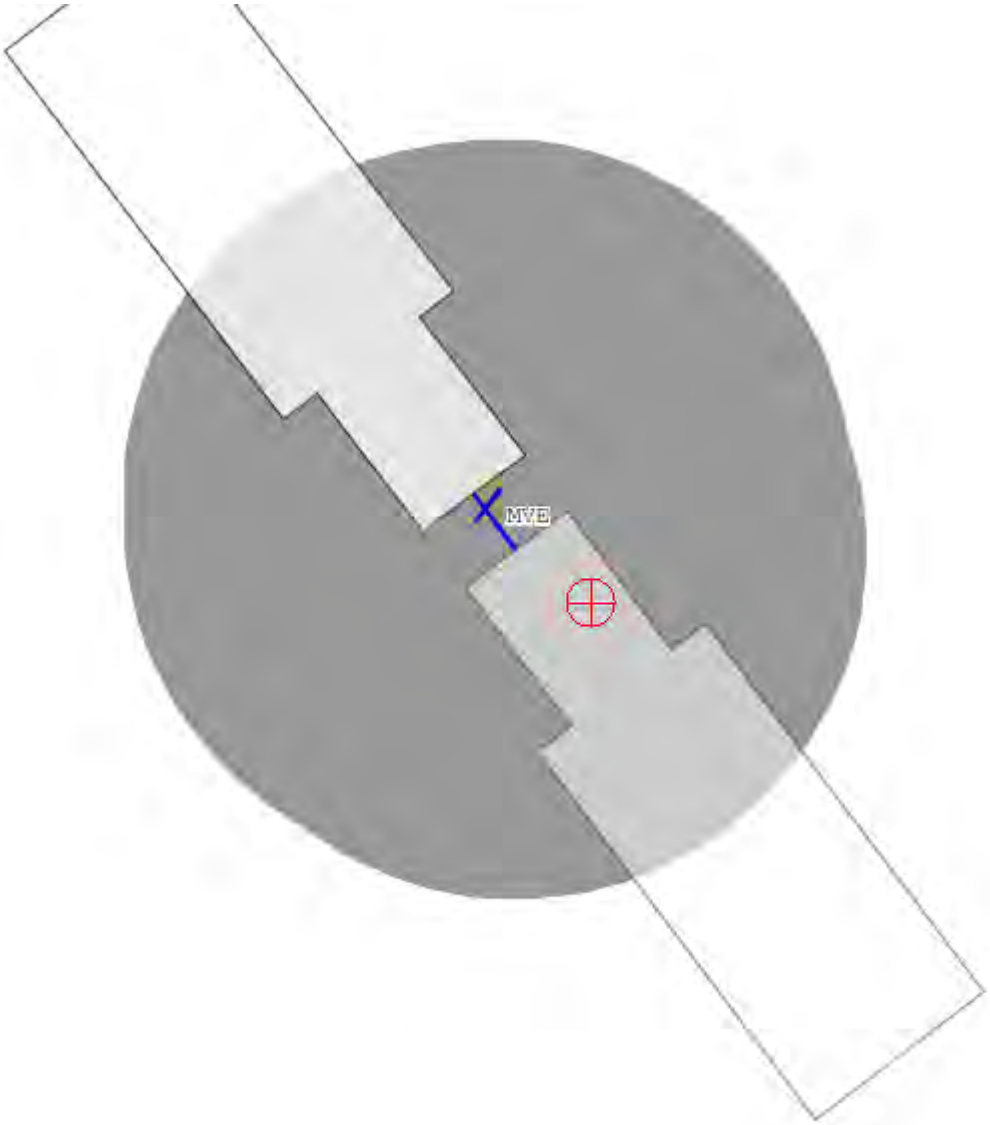
## Results

You exceed the following Notice Criteria:

Your proposed structure exceeds an instrument approach area by 19 feet and aeronautical study is needed to determine if it will exceed a standard of subpart C of 14CFR Part 77. The FAA, in accordance with 77.9, requests that you file.

Your proposed structure is in proximity to a navigation facility and may impact the assurance of navigation signal reception. The FAA, in accordance with 77.9, requests that you file.

The FAA requests that you file

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Federal Aviation Administration

Lake Pulaski

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- View Interim Cases
- View Proposed Cases
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- Wind Turbine FAQs
- Discretionary Review FAQs
- Notice Criteria Tool
- DoD Preliminary Screening Tool
- Wind Turbine Build Out
- Distance Calculation Tool

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- New User Registration
- Instructions

**Information Resources**

- FAA Acronyms
- Forms
- Regulatory Policy
- Relevant Advisory Circulars
- Survey Accuracy

# Notice Criteria Tool

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The requirements for filing with the Federal Aviation Administration for proposed structures vary based c number of factors: height, proximity to an airport, location, and frequencies emitted from the structure, e more details, please reference CFR Title 14 Part 77.9.

You must file with the FAA at least 45 days prior to construction if:

- your structure will exceed 200ft above ground level
- your structure will be in proximity to an airport and will exceed the slope ratio
- your structure involves construction of a traverseway (i.e. highway, railroad, waterway etc...) anc adjusted upward with the appropriate vertical distance would exceed a standard of 77.9(a) or (
- your structure will emit frequencies, and does not meet the conditions of the FAA Co-location Po
- your structure will be in an instrument approach area and might exceed part 77 Subpart C
- your proposed structure will be in proximity to a navigation facility and may impact the assurance navigation signal reception
- your structure will be on an airport or heliport
- filing has been requested by the FAA

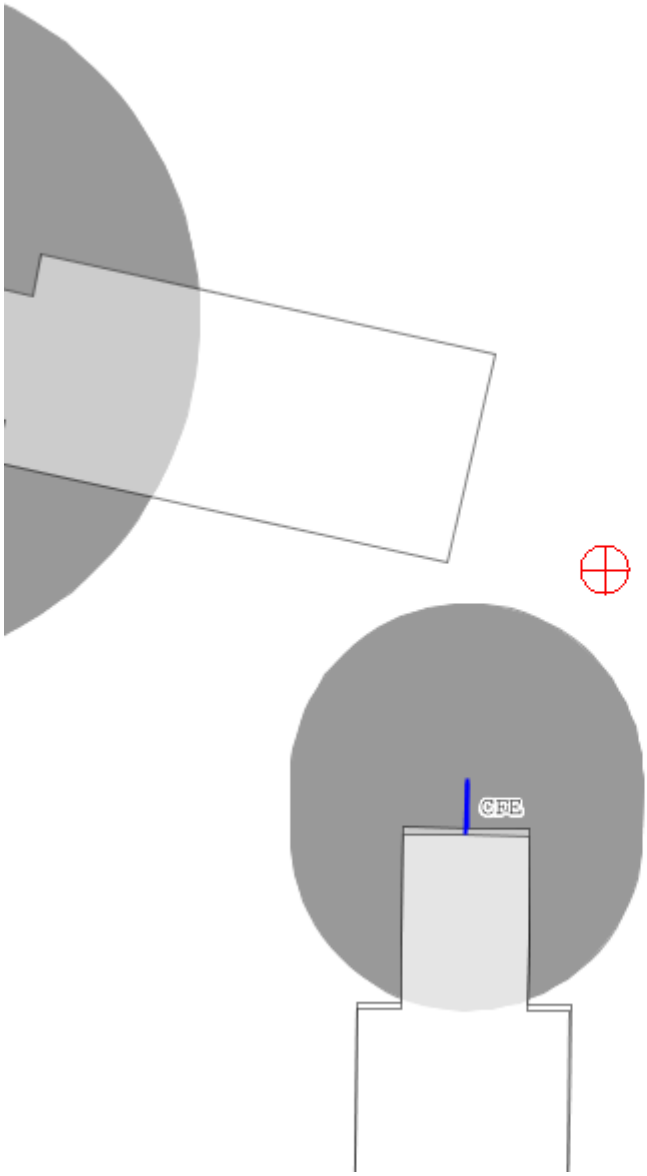
If you require additional information regarding the filing requirements for your structure, please identify a contact the appropriate FAA representative using the Air Traffic Areas of Responsibility map for Off Airp construction, or contact the FAA Airports Region / District Office for On Airport construction.

The tool below will assist in applying Part 77 Notice Criteria.

| | |
|---|---|
| **Latitude:** | 45 Deg 11 M 45 S N |
| **Longitude:** | 93 Deg 48 M 46 S W |
| **Horizontal Datum:** | NAD83 |
| **Site Elevation (SE):** | 1008 (nearest foot) |
| **Structure Height (AGL):** | 10 (nearest foot) |
| **Traverseway:** | No Traversew ay (Additional height is added to certain structures under 77.9(c)) |
| **Is structure on airport:** | No / Yes |
| | Submit |

## Results

You do not exceed Notice Criteria.



Federal Aviation Administration

Lester Prairie

« OE/AAA

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# Notice Criteria Tool

faa.gov Tools: Print t

The requirements for filing with the Federal Aviation Administration for proposed structures vary based c number of factors: height, proximity to an airport, location, and frequencies emitted from the structure, e more details, please reference CFR Title 14 Part 77.9.

You must file with the FAA at least 45 days prior to construction if:

- your structure will exceed 200ft above ground level
- your structure will be in proximity to an airport and will exceed the slope ratio
- your structure involves construction of a traverseway (i.e. highway, railroad, waterway etc...) anc adjusted upward with the appropriate vertical distance would exceed a standard of 77.9(a) or (
- your structure will emit frequencies, and does not meet the conditions of the FAA Co-location Po
- your structure will be in an instrument approach area and might exceed part 77 Subpart C
- your proposed structure will be in proximity to a navigation facility and may impact the assuranc navigation signal reception
- your structure will be on an airport or heliport
- filing has been requested by the FAA

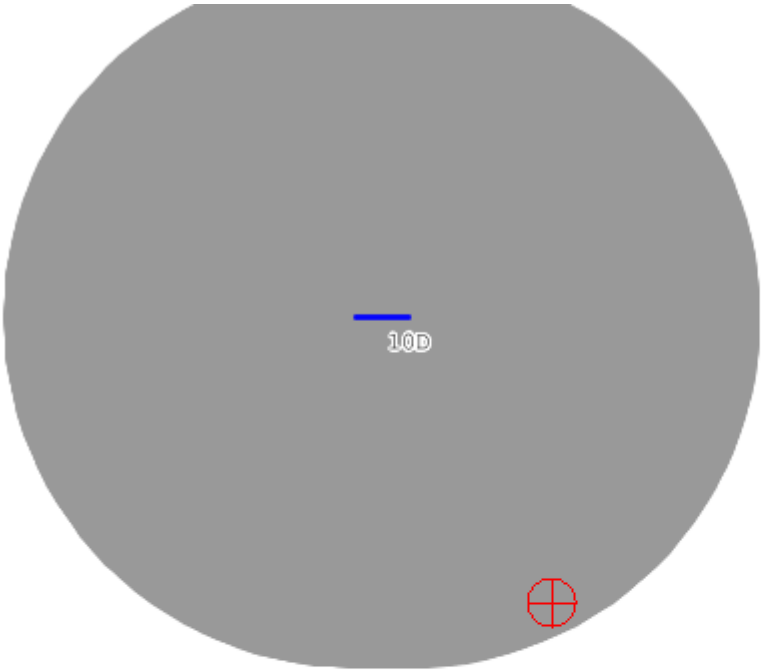
If you require additional information regarding the filing requirements for your structure, please identify a contact the appropriate FAA representative using the Air Traffic Areas of Responsibility map for Off Airp construction, or contact the FAA Airports Region / District Office for On Airport construction.

The tool below will assist in applying Part 77 Notice Criteria.

| | |
|---|---|
| **Latitude:** | 44 Deg 54 M 31 S N |
| **Longitude:** | 94 Deg 01 M 40 S W |
| **Horizontal Datum:** | NAD83 |
| **Site Elevation (SE):** | 1000 (nearest foot) |
| **Structure Height (AGL):** | 10 (nearest foot) |
| **Traverseway:** | No Traversew ay<br>(Additional height is added to certain structures under 77.9(c)) |
| **Is structure on airport:** | ◉ No<br>○ Yes |
| | Submit |

## Results

You do not exceed Notice Criteria.



Federal Aviation Administration

Pipestone

« OE/AAA

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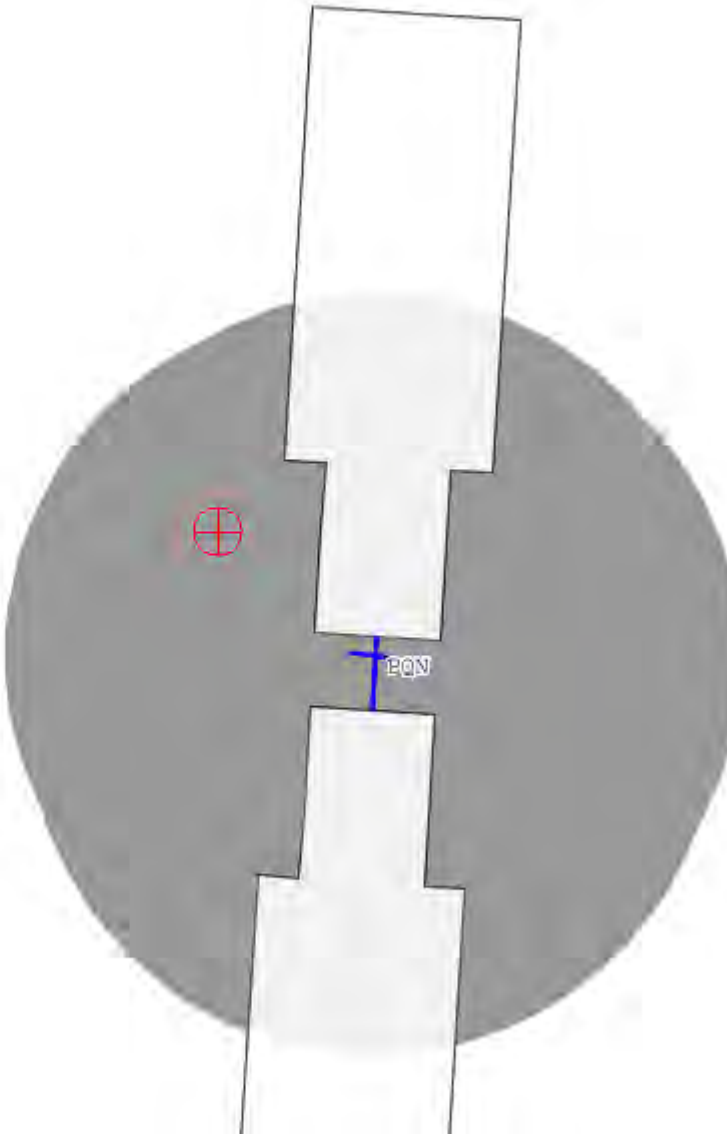
The tool below will assist in applying Part 77 Notice Criteria.

| | |
|---|---|
| **Latitude:** | 44 Deg 00 M 13 S N |
| **Longitude:** | 96 Deg 20 M 06 S W |
| **Horizontal Datum:** | NAD83 |
| **Site Elevation (SE):** | 1684 (nearest foot) |
| **Structure Height (AGL):** | 10 (nearest foot) |
| **Traverseway:** | No Traversew ay (Additional height is added to certain structures under 77.9(c)) |
| **Is structure on airport:** | No / Yes |
| | Submit |

## Results

You do not exceed Notice Criteria.



Federal Aviation Administration

Waseca

« OE/AAA

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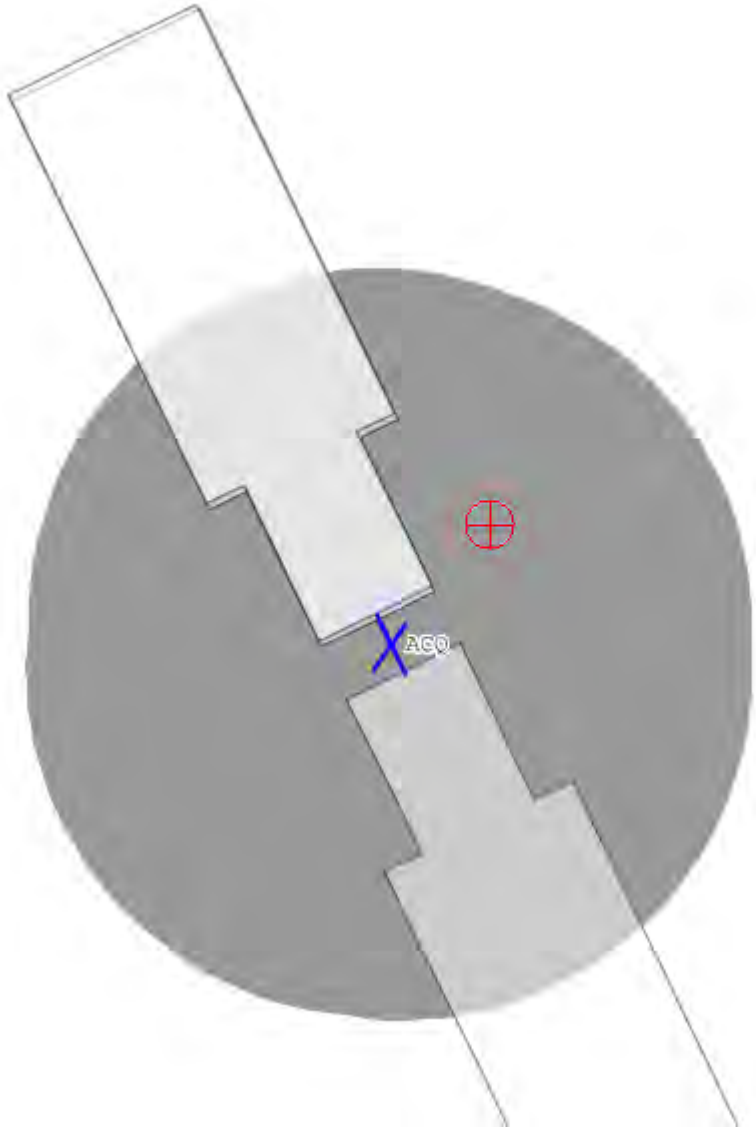
The tool below will assist in applying Part 77 Notice Criteria.

| | |
|---|---|
| **Latitude:** | 44 Deg 05 M 33 S N |
| **Longitude:** | 93 Deg 31 M 52 S W |
| **Horizontal Datum:** | NAD83 |
| **Site Elevation (SE):** | 1135 (nearest foot) |
| **Structure Height (AGL):** | 10 (nearest foot) |
| **Traverseway:** | No Traversew ay<br>(Additional height is added to certain structures under 77.9(c)) |
| **Is structure on airport:** | ◉ No<br>○ Yes |
| | Submit |

## Results

You do not exceed Notice Criteria.



Federal Aviation Administration

West Faribault

« OE/AAA

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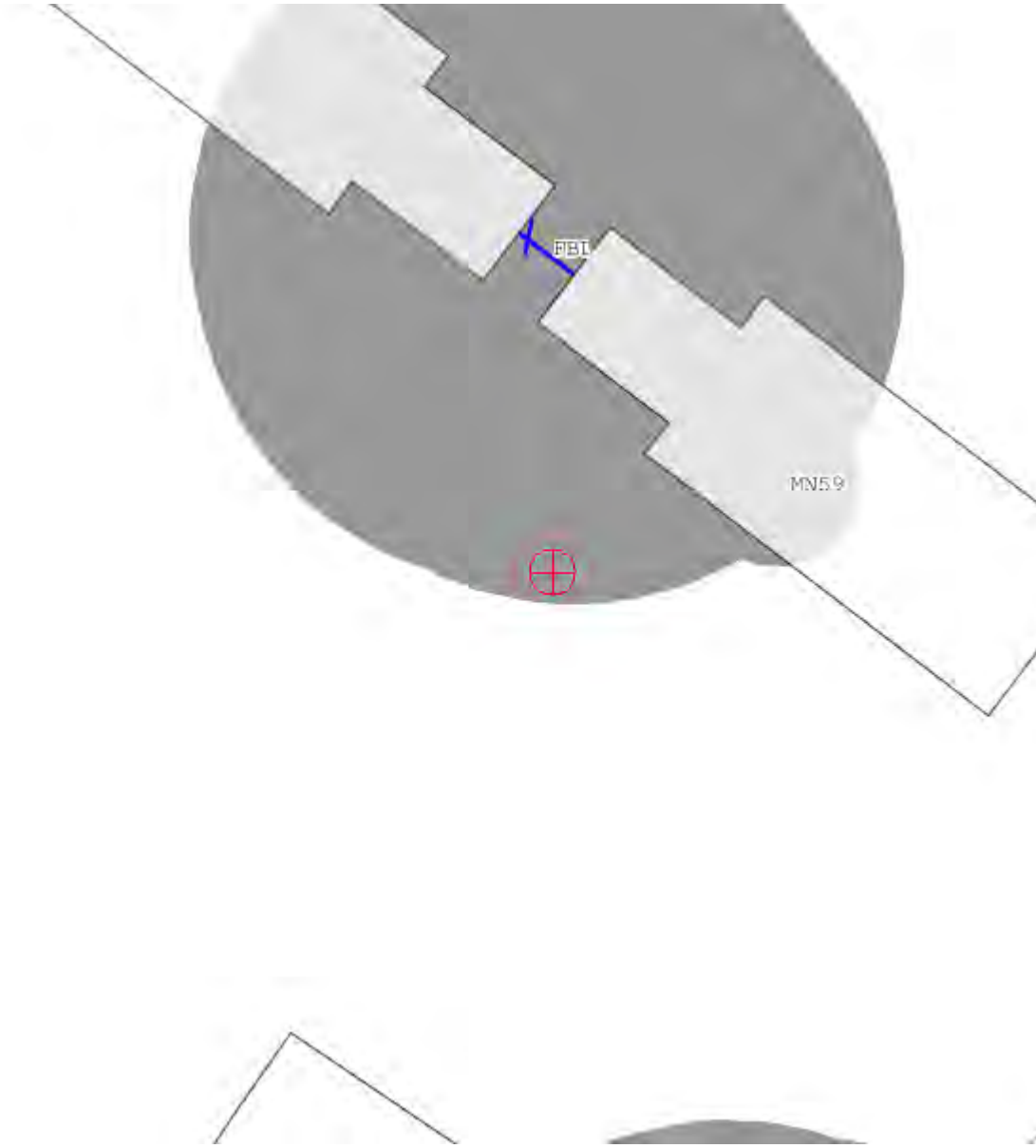
The tool below will assist in applying Part 77 Notice Criteria.

| | |
|---|---|
| **Latitude:** | 44 Deg 16 M 28 S N |
| **Longitude:** | 93 Deg 18 M 37 S W |
| **Horizontal Datum:** | NAD83 |
| **Site Elevation (SE):** | 1088 (nearest foot) |
| **Structure Height (AGL):** | 10 (nearest foot) |
| **Traverseway:** | No Traversew ay (Additional height is added to certain structures under 77.9(c)) |
| **Is structure on airport:** | ◉ No ○ Yes |
| | Submit |

## Results

You do not exceed Notice Criteria.



## Other Stakeholders