



Stantec Consulting Services Inc.
209 Commerce Parkway, PO Box 128, Cottage Grove WI 53527-8955

September 22, 2021

Attention: Ms. Emily Truebner
Saratoga Solar Project, LLC
422 Admiral Blvd.
Kansas City, MO 64106

Reference: Wild Lupine Surveys for the Proposed Saratoga Solar Project in Wood County, WI

Dear Ms. Truebner,

This letter report summarizes the results of the 2021 wild lupine and Karner blue butterfly surveys conducted by Stantec Consulting Services Inc. on behalf of the Saratoga Solar Project located in Wood County, Wisconsin.

PROJECT DESCRIPTION AND ENVIRONMENTAL REVIEW

The Saratoga County Solar Project (the "Project") includes the construction and operation of a 150-megawatt (MW) photovoltaic (PV) energy-generating facility and associated infrastructure in Wood County, Wisconsin. During the Project's pre-application planning phase, Saratoga Solar Project, LLC retained Stantec Consulting Services Inc. (Stantec) to perform an Endangered Resources (ER) Review. During the review process, Stantec identified that the Project is within the Wisconsin Department of Natural Resources' (WDNR) Karner Blue Butterfly High Potential Range (HPR) and that Karner blue butterflies (KBB) were documented within one mile of the proposed Project boundary in 2013.

The KBB is listed as federally endangered by the United States Fish and Wildlife Service (USFWS), and the WDNR maintains a Habitat Conservation Plan (HCP) that accompanies an incidental take permit issued by the USFWS. The permit and the plan are designed to protect and conserve KBB while allowing activities to occur that could impact KBB or their habitat. By signing on as HCP partners, organizations such as utilities and timber companies agree to follow specific protocols to avoid and minimize impacts to KBB during the course of their work. In return, the HCP extends permit coverage allowing them to conduct activities that may inadvertently "take" (harass, harm, or kill) the federally endangered KBB.

In 2019, Stantec staff with valid WDNR HCP Karner Blue Butterfly and Lupine Survey Training Certificates performed wild lupine and KBB surveys on portions of the Project site west of WI-13 (Public Service Commission (PSC) docket # 9803-CE-100; Endangered Resources Review (ERR) Log # 20-053). No lupine was identified within the western portion of the Project (Figure 1). In 2021, qualified staff performed wild lupine and KBB surveys on the remainder of the Project site east of WI-13, per the requirements of the HCP. This report summarizes the methods and results of the 2021 surveys, which are valid for five years.

WILD LUPINE SURVEY

Species Information

Wild lupine (*Lupinus perennis*) is a native perennial plant in the pea family which grows in habitats characterized by full sun, dry to moderate moisture, and sandy soils (Black & Judziewicz 2009). Wild lupine serves as the only known host plant of the KBB (WDNR 2014). Survey protocols for wild lupine were based on WDNR's document "A Guide to Conducting Monitoring for the Wisconsin Karner Blue Butterfly Habitat

Reference: Wild Lupine Surveys for the Proposed Saratoga Solar Project in Wood County, WI

Conservation Plan” (WDNR 2014). WDNR protocols require that wild lupine surveys be conducted prior to July 31 of any given year, after which lupine may be senescent.

Methods

WDNR protocols (WDNR 2014) indicate that the following sites are eligible for wild lupine surveys:

1. Sites within the High Potential Range (HPR) of KBB; and
2. Sites which meet the definition of potential habitat (i.e., sites on dry, sandy soils with dominant overstory vegetation of an age and/or character that could support KBB habitat). In particular, this includes:
 - a. Forest stands and upland openings or existing corridors;
 - b. If forested, stands which support trees between 0-15 years of age which are not dense enough to cause crown closure; or
 - c. If not forested, sites characterized by upland openings or existing corridors.

Sites considered a low priority for wild lupine surveys include:

1. Wetlands or other flooded areas;
2. Forests with dense canopy (>75%);
3. Sites on non-sandy soils; or
4. Cultivated or otherwise developed areas supporting no native vegetation.

To thoroughly survey the Project site not previously investigated in 2019, Stantec divided the site into 20 uniquely identified 40-acre parcels (quarter-quarter sections or QQ). Using the WDNR protocols, pairs of Stantec KBB HCP trained biologists walked transects with 20-meter spacing throughout all areas of QQ sections not actively farmed.

When wild lupine was located during systematic searches, Stantec staff mapped each patch of lupine on iPads using Collector for ArcGIS. Patches of lupine were labeled using the corresponding QQ identifier, the abbreviation “LP,” and an ascending number in the order that they were detected (for example, QQ1 LP1 would be the first lupine patch found in QQ 1).

Results

Between the dates of June 1 – June 8, Stantec staff identified and delineated three lupine patches large enough to support KBB near one another within QQ7 (Figure 1 inset). One lupine point too small to support KBB was identified within QQ18.

Reference: Wild Lupine Surveys for the Proposed Saratoga Solar Project in Wood County, WI

KARNER BLUE BUTTERFLY SURVEY

Species Information

The Karner blue butterfly (*Lycaeides melissa samuelis*) was listed as federally endangered on December 14, 1992. In Wisconsin, it is considered a species of special concern. KBB ecology is closely tied to its larval host plant, wild lupine.

In Wisconsin, KBB populations undergo two generations per year (i.e., they are bivoltine). Late summer flying adults lay eggs at the base of lupine plants, which senesce shortly thereafter. Larvae hatch and feed in spring. The first flight period (i.e., when the first annual generation are adults) typically begins in early June. The more substantial second flight period (i.e., when the second annual generation are adults) typically begins in mid-July.

Methods

According to WDNR, the purpose of the KBB survey is to determine if KBB occupy a particular habitat area (i.e., lupine and surrounding nectar plants). During surveys, KBB are marked as either "Present," indicating that KBB were detected during the survey, or "Absent," indicating that KBB were not detected. In this case, a determination of absence does not mean that Karner blue butterflies are absolutely not there; however, a determination of absence is acceptable for USFWS standards and approved under the federal Incidental Take Permit TE 010064-6.

WDNR protocol prioritizes monitoring on sites that meet the criteria for wild lupine surveys, in particular, sites where:

1. The presence of lupine has been confirmed on the site within the last five years; and
2. The site has at least 25 lupine plants or clumps of lupine at a density of 50 lupine plants per acre.

In order to indicate that KBB are absent from a particular site, up to three surveys are required. However, if KBB are detected during any of the three surveys, no subsequent surveys are needed.

KBB surveys are restricted to optimal times and weather conditions for KBB detection. Protocols require that surveys are only conducted:

1. Between 8:00 a.m. and 6:00 p.m.;
2. When temperatures are above 60°F, and
 - a. If temperatures are between 60°F and 70°F, only when skies are mostly sunny and winds are calm, or
 - b. If temperatures are above 70°F, no wind restrictions apply;
3. Only when conditions are not drizzly or rainy (WDNR 2014).

Reference: Wild Lupine Surveys for the Proposed Saratoga Solar Project in Wood County, WI

Results

Stantec staff performed presence / absence surveys in lupine patches sufficient to support KBB during both the first and second flight periods. Surveys during the first flight period were concurrent with the wild lupine survey and occurred June 1, 2021. Surveys during the second flight period occurred July 6 and July 12, 2021. No KBB were found during any surveys.

CONCLUSIONS

The wild lupine surveys conducted by Stantec indicate that portions of the Project site are suitable for wild lupine, and that wild lupine is present throughout the western half of the site. Lupine survey results and mapping are valid for five years, from 2019 – 2024 for the western portion of the Project and 2021 -2026 for the eastern portion of the Project. Despite the presence of lupine within portions of the Project site, we determined per the WDNR HCP protocol that KBB were not present within the Project site during either the 2019 or 2021 surveys. If you have any questions or need more information, please contact me at the phone number or email address listed below.

Regards,

Stantec Consulting Services Inc.



Amy Flansburg

Phone: (608) 294-8877
E-mail: Amy.Flansburg@Stantec.com

Attachments: Figure 1 – Lupine Survey Overview Map
Saratoga Solar Project Lupine Presence/Absence Survey Report Forms
Saratoga Solar Project Karner Blue Butterfly Form

REFERENCES

Black, Merel., & Judziewicz, Emmet. 2009. *Wildflowers of Wisconsin and the Great Lakes Region*. Second edition. The University of Wisconsin Press, Madison, WI, USA.

Wisconsin Department of Natural Resources (WDNR). 2014. *A Guide to Conducting Monitoring for the Wisconsin Karner Blue Butterfly Habitat Conservation Plan*.

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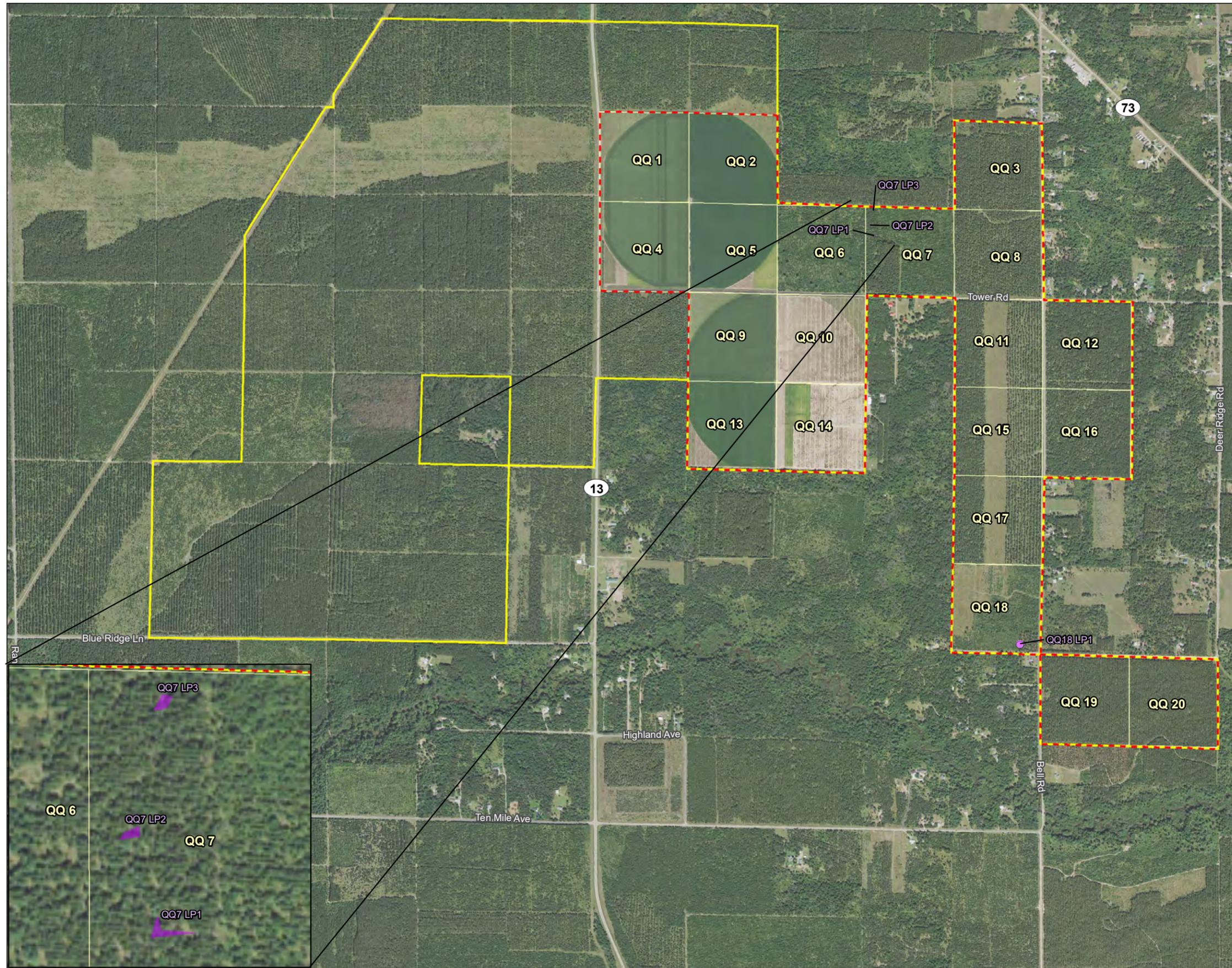


Figure No.

1

Title

Lupine Survey Overview

Client/Project
 Saratoga Solar Project, LLC
 Saratoga Solar Project

193708352

Project Location
 Wood County, WI

Prepared by CA on 2021-07-30
 TR by SF on 2021-08-02
 IR by AF on 2021-08-04

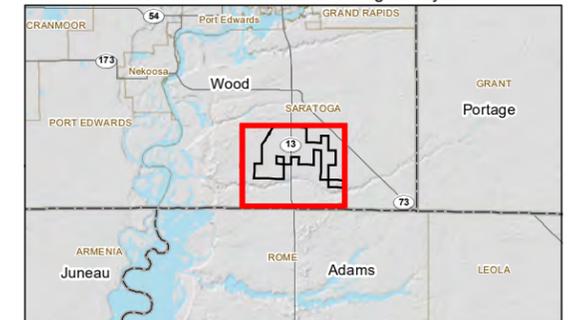


0 750 1,500
 Feet
 (At original document size of 11x17)
 1:18,000

Legend

- Project Area
- Survey Area
- Survey Block Boundary
- Karner Blue Butterfly Survey Point*
- Lupine Point
- Lupine Patch

*No Karner Blue Butterflies were found during surveys.



Notes

1. Coordinate System: NAD 1983 StatePlane Wisconsin Central FIPS 4802 Feet
2. Data Sources: Stantec, Saratoga Solar, LLC, WisDOT, WDNR
3. Orthophotography: 2020 NAIP



Wisconsin Karner Blue Butterfly Habitat Conservation Plan

Survey Report Form

Lupine Presence/Absence

2021

Enter year of survey

Purpose

Wild lupine is the obligate host plant for the federally endangered Karner blue butterfly. The purpose of the Lupine presence/absence survey is to determine if sufficient lupine is present on the site to support Karners, and if present, to map its location. Lupine presence/absence surveys are also used to document nectar plant abundance.

General Instructions

Report on this form results of lupine presence/absence surveys and restoration assessment following construction projects conducted by HCP Partners and their agents. Collecting complete and accurate data will minimize potential project delays. Surveys are valid for 5 years for that particular site, and July 31st is the last day to survey. If it is a drought year, the last day to survey may be earlier. This information will be posted on the KBB website and communicated by the HCP coordinator.

Submit a copy of your completed surveys via email to Rebecca.Roth@wisconsin.gov, or by mail to:

HCP Coordinator
101 S. Webster St.
Madison, WI 53703

Keep a copy of this completed form for your records! Contact Karner blue Habitat Conservation Plan program staff at the Wisconsin Department of Natural Resources if you have any questions, or refer to the KBB website for current monitoring protocols.

Partner & Surveyor Information

Date of survey: 6/8/21
Partner Name: Savion
Landowner (if different than partner):
Surveyor(s) (Last name, First name): Flansburg, Amy

- Are you using this form for (check one):
[X] Pre-management
[] Post-management
[] On-going management
[] Post-construction assessment
[] Site assessment
[] Other:

Have you completed the online survey training provided by the WI DNR? [X] Yes [] No

If yes, what is the most recent year you took the training: 2018 (certification is valid for 5 years)

Did you attend the optional field day held by HCP staff with WDNR? [X] Yes [] No

Site Location & Description

Complete all site identification information that applies:

County: Wood Partner site code: Saratoga Solar
Site/project name or comp/stand (or other descriptive name): Saratoga Solar QQ1
Legal description: Township Range Section
Site size (acres):
**GPS Coordinates: Lat: 44.283140 Long: -89.807386
** Provide the coordinates for the approximate center of the site. If you are unable to provide GPS coordinates, please provide T-R-S information.

- Management strategy type (check one):
[] Shifting mosaic (forestry/short term habitat)
[X] Barrens, prairie, or savanna
[] Right-of-way
[] Post-construction restoration assessment

Date of last management activity (on this site): n/a Date of last survey (on this site): n/a

Lupine Observations

1. Lupine survey method (check one):

- transects covering entire site transects covering portion of site random walk

2. Is lupine present on the site?:

Yes Continue.

No If this survey is for pre-management, stop here. If this survey **is not** for pre-management, complete the rest of this survey.

3. Is the lupine density at least 50 lupine plants/acre, or 25 lupine plants/200 meters for linear (e.g. right-of-way) sites?

Yes Lupine is sufficient to support Karners. Complete the rest of this survey and a Karner presence/absence survey for this site.

No If this survey is for pre-management, stop here. If this survey is not for pre-management, complete the rest of this survey.

4. If sufficient lupine is present to support Karners, estimate approximate sizes (in acres) of the following:

Lupine area: _____ Nectar plant area: _____

5. Distribution pattern of lupine (circle one):

1
2
3
4
(scattered patches)
(uniform throughout)

6. Number of plants or clumps of lupine (check one): 10's 100's 1,000's 10,000+

7. Relative abundance of lupine (check one):

- Dominant, abundant Locally abundant, frequently encountered
 Infrequent, occasional Rare, very few plants seen

Habitat Observations

8. Negative factors:

- | | |
|---|---|
| ___ Mildew on lupine | ___ Barren soil or little vegetative response |
| ___ Other disturbances (e.g. ATVs) | ___ Encroaching trees or shrubs |
| ___ Browsing | ___ Agricultural sprays or other chemicals |
| ___ Competing with other vegetation (e.g. bracken, sedges, shrubs, etc) | |
| ___ Exotic/Invasive plants (indicate species and severity) | |

Nectar Plant Abundance

This section is **required** for mitigation projects, short-term habitat replacement for major construction projects, and any project requiring a Habitat Replacement Plan. These projects need nectar plant abundance for both 1st and 2nd flight periods. This section is recommended for others. You may fill out this information on the Karner presence/absence form.

9. General availability of nectar plants during **1st flight** period: Abundant - (50% or more coverage of nectar area)

(First flight periods are generally late May- June.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

10. General availability of nectar plants during **2nd flight** period: Abundant - (50% or more coverage of nectar area)

(Second flight periods are generally mid-July-mid-August.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

Wisconsin Karner Blue Butterfly Habitat Conservation Plan

Survey Report Form

Lupine Presence/Absence

2021

Enter year of survey

Purpose

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Madison, WI 53703

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Partner & Surveyor Information

Date of survey: 6/8/21
Partner Name: Savion
Landowner (if different than partner):
Surveyor(s) (Last name, First name): Flansburg, Amy

- Are you using this form for (check one):
[X] Pre-management
[] Post-management
[] On-going management
[] Post-construction assessment
[] Site assessment
[] Other:

Have you completed the online survey training provided by the WI DNR? [X] Yes [] No

If yes, what is the most recent year you took the training: 2018 (certification is valid for 5 years)

Did you attend the optional field day held by HCP staff with WDNR? [X] Yes [] No

Site Location & Description

Complete all site identification information that applies:

County: Wood Partner site code: Saratoga Solar
Site/project name or comp/stand (or other descriptive name): Saratoga Solar QQ2
Legal description: Township Range Section
Site size (acres):
**GPS Coordinates: Lat: 44.282809 Long: -89.803146
** Provide the coordinates for the approximate center of the site. If you are unable to provide GPS coordinates, please provide T-R-S information.

- Management strategy type (check one):
[] Shifting mosaic (forestry/short term habitat)
[X] Barrens, prairie, or savanna
[] Right-of-way
[] Post-construction restoration assessment

Date of last management activity (on this site): n/a Date of last survey (on this site): n/a

Lupine Observations

1. Lupine survey method (check one):

- transects covering entire site transects covering portion of site random walk

2. Is lupine present on the site?:

Yes Continue.

No If this survey is for pre-management, stop here. If this survey **is not** for pre-management, complete the rest of this survey.

3. Is the lupine density at least 50 lupine plants/acre, or 25 lupine plants/200 meters for linear (e.g. right-of-way) sites?

Yes Lupine is sufficient to support Karners. Complete the rest of this survey and a Karner presence/absence survey for this site.

No If this survey is for pre-management, stop here. If this survey is not for pre-management, complete the rest of this survey.

4. If sufficient lupine is present to support Karners, estimate approximate sizes (in acres) of the following:

Lupine area: _____ Nectar plant area: _____

5. Distribution pattern of lupine (circle one):

1
2
3
4
(scattered patches)
(uniform throughout)

6. Number of plants or clumps of lupine (check one): 10's 100's 1,000's 10,000+

7. Relative abundance of lupine (check one):

- Dominant, abundant Locally abundant, frequently encountered
 Infrequent, occasional Rare, very few plants seen

Habitat Observations

8. Negative factors:

- | | |
|---|---|
| ___ Mildew on lupine | ___ Barren soil or little vegetative response |
| ___ Other disturbances (e.g. ATVs) | ___ Encroaching trees or shrubs |
| ___ Browsing | ___ Agricultural sprays or other chemicals |
| ___ Competing with other vegetation (e.g. bracken, sedges, shrubs, etc) | |
| ___ Exotic/Invasive plants (indicate species and severity) | |

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10. General availability of nectar plants during **2nd flight** period: Abundant - (50% or more coverage of nectar area)

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Wisconsin Karner Blue Butterfly Habitat Conservation Plan

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2021

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Madison, WI 53703

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Partner & Surveyor Information

Date of survey: 6/1/21
Partner Name: Savion
Landowner (if different than partner):
Surveyor(s) (Last name, First name): Flansburg, Amy

- Are you using this form for (check one):
[X] Pre-management
[] Post-management
[] On-going management
[] Post-construction assessment
[] Site assessment
[] Other:

Have you completed the online survey training provided by the WI DNR? [X] Yes [] No

If yes, what is the most recent year you took the training: 2018 (certification is valid for 5 years)

Did you attend the optional field day held by HCP staff with WDNR? [X] Yes [] No

Site Location & Description

Complete all site identification information that applies:

County: Wood Partner site code: Saratoga Solar
Site/project name or comp/stand (or other descriptive name): Saratoga Solar QQ3
Legal description: Township Range Section
Site size (acres):
**GPS Coordinates: Lat: 44.282938 Long: -89.787369
** Provide the coordinates for the approximate center of the site. If you are unable to provide GPS coordinates, please provide T-R-S information.

- Management strategy type (check one):
[X] Shifting mosaic (forestry/short term habitat)
[] Barrens, prairie, or savanna
[] Right-of-way
[] Post-construction restoration assessment

Date of last management activity (on this site): n/a Date of last survey (on this site): n/a

Lupine Observations

1. Lupine survey method (check one):

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2. Is lupine present on the site?:

Yes Continue.

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3. Is the lupine density at least 50 lupine plants/acre, or 25 lupine plants/200 meters for linear (e.g. right-of-way) sites?

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Habitat Observations

8. Negative factors:

- | | |
|---|---|
| ___ Mildew on lupine | ___ Barren soil or little vegetative response |
| ___ Other disturbances (e.g. ATVs) | ___ Encroaching trees or shrubs |
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| ___ Competing with other vegetation (e.g. bracken, sedges, shrubs, etc) | |
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Wisconsin Karner Blue Butterfly Habitat Conservation Plan

Survey Report Form

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2021

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Site Location & Description

Complete all site identification information that applies:

County: Wood Partner site code: Saratoga Solar
Site/project name or comp/stand (or other descriptive name): Saratoga Solar QQ4
Legal description: Township Range Section
Site size (acres):
**GPS Coordinates: Lat: 44.279486 Long: -89.807728
** Provide the coordinates for the approximate center of the site. If you are unable to provide GPS coordinates, please provide T-R-S information.

- Management strategy type (check one):
[] Shifting mosaic (forestry/short term habitat)
[X] Barrens, prairie, or savanna
[] Right-of-way
[] Post-construction restoration assessment

Date of last management activity (on this site): n/a Date of last survey (on this site): n/a

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- | | |
|---|---|
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Nectar Plant Abundance

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9. General availability of nectar plants during **1st flight** period: Abundant - (50% or more coverage of nectar area)

(First flight periods are generally late May- June.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

10. General availability of nectar plants during **2nd flight** period: Abundant - (50% or more coverage of nectar area)

(Second flight periods are generally mid-July-mid-August.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

Wisconsin Karner Blue Butterfly Habitat Conservation Plan

Survey Report Form Lupine Presence/Absence

2021

Enter year of survey

Purpose

Wild lupine is the obligate host plant for the federally endangered Karner blue butterfly. The purpose of the Lupine presence/absence survey is to determine if sufficient lupine is present on the site to support Karners, and if present, to map its location. Lupine presence/absence surveys are also used to document nectar plant abundance.

General Instructions

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HCP Coordinator
101 S. Webster St.
Madison, WI 53703

Keep a copy of this completed form for your records! Contact Karner blue Habitat Conservation Plan program staff at the Wisconsin Department of Natural Resources if you have any questions, or refer to the KBB website for current monitoring protocols.

Partner & Surveyor Information

Date of survey: 6/8/21

Partner Name: Savion

Landowner (if different than partner):

Surveyor(s) (Last name, First name):
Flansburg, Amy

Are you using this form for (*check one*):

- Pre-management
- Post-management
- On-going management
- Post-construction assessment
- Site assessment
- Other: _____

Have you completed the online survey training provided by the WI DNR? Yes No

If yes, what is the most recent year you took the training: 2018 (*certification is valid for 5 years*)

Did you attend the optional field day held by HCP staff with WDNR? Yes No

Site Location & Description

Complete all site identification information that applies:

County: Wood Partner site code: Saratoga Solar

Site/project name or comp/stand (or other descriptive name):
Saratoga Solar QQ5

Legal description: Township _____ Range _____ Section _____
Site size (acres): _____

**GPS Coordinates: Lat: 44.279486 Long: -89.802997

** Provide the coordinates for the approximate center of the site. If you are unable to provide GPS coordinates, please provide T-R-S information.

Management strategy type (*check one*):

- Shifting mosaic (forestry/short term habitat)
- Barrens, prairie, or savanna
- Right-of-way
- Post-construction restoration assessment

Date of last management activity (on this site): n/a Date of last survey (on this site): n/a

Lupine Observations

1. Lupine survey method (check one):

- transects covering entire site transects covering portion of site random walk

2. Is lupine present on the site?:

Yes Continue.

No If this survey is for pre-management, stop here. If this survey **is not** for pre-management, complete the rest of this survey.

3. Is the lupine density at least 50 lupine plants/acre, or 25 lupine plants/200 meters for linear (e.g. right-of-way) sites?

Yes Lupine is sufficient to support Karners. Complete the rest of this survey and a Karner presence/absence survey for this site.

No If this survey is for pre-management, stop here. If this survey is not for pre-management, complete the rest of this survey.

4. If sufficient lupine is present to support Karners, estimate approximate sizes (in acres) of the following:

Lupine area: _____ Nectar plant area: _____

5. Distribution pattern of lupine (circle one):

1
2
3
4
(scattered patches)
(uniform throughout)

6. Number of plants or clumps of lupine (check one): 10's 100's 1,000's 10,000+

7. Relative abundance of lupine (check one):

- Dominant, abundant Locally abundant, frequently encountered
 Infrequent, occasional Rare, very few plants seen

Habitat Observations

8. Negative factors:

- | | |
|---|---|
| ___ Mildew on lupine | ___ Barren soil or little vegetative response |
| ___ Other disturbances (e.g. ATVs) | ___ Encroaching trees or shrubs |
| ___ Browsing | ___ Agricultural sprays or other chemicals |
| ___ Competing with other vegetation (e.g. bracken, sedges, shrubs, etc) | |
| ___ Exotic/Invasive plants (indicate species and severity) | |

Nectar Plant Abundance

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9. General availability of nectar plants during **1st flight** period: Abundant - (50% or more coverage of nectar area)

(First flight periods are generally late May- June.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

10. General availability of nectar plants during **2nd flight** period: Abundant - (50% or more coverage of nectar area)

(Second flight periods are generally mid-July-mid-August.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

Wisconsin Karner Blue Butterfly Habitat Conservation Plan

Survey Report Form

Lupine Presence/Absence

2021

Enter year of survey

Purpose

Wild lupine is the obligate host plant for the federally endangered Karner blue butterfly. The purpose of the Lupine presence/absence survey is to determine if sufficient lupine is present on the site to support Karners, and if present, to map its location. Lupine presence/absence surveys are also used to document nectar plant abundance.

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Partner & Surveyor Information

Date of survey: 6/1/21
Partner Name: Savion
Landowner (if different than partner):
Surveyor(s) (Last name, First name): Flansburg, Amy

- Are you using this form for (check one):
[X] Pre-management
[] Post-management
[] On-going management
[] Post-construction assessment
[] Site assessment
[] Other:

Have you completed the online survey training provided by the WI DNR? [X] Yes [] No

If yes, what is the most recent year you took the training: 2018 (certification is valid for 5 years)

Did you attend the optional field day held by HCP staff with WDNR? [X] Yes [] No

Site Location & Description

Complete all site identification information that applies:

County: Wood Partner site code: Saratoga Solar
Site/project name or comp/stand (or other descriptive name): Saratoga Solar QQ6
Legal description: Township Range Section
Site size (acres):
**GPS Coordinates: Lat: 44.279442 Long: -89.797705
** Provide the coordinates for the approximate center of the site. If you are unable to provide GPS coordinates, please provide T-R-S information.

- Management strategy type (check one):
[] Shifting mosaic (forestry/short term habitat)
[X] Barrens, prairie, or savanna
[] Right-of-way
[] Post-construction restoration assessment

Date of last management activity (on this site): n/a Date of last survey (on this site): n/a

Lupine Observations

1. Lupine survey method (check one):

- transects covering entire site transects covering portion of site random walk

2. Is lupine present on the site?:

Yes Continue.

No If this survey is for pre-management, stop here. If this survey **is not** for pre-management, complete the rest of this survey.

3. Is the lupine density at least 50 lupine plants/acre, or 25 lupine plants/200 meters for linear (e.g. right-of-way) sites?

Yes Lupine is sufficient to support Karners. Complete the rest of this survey and a Karner presence/absence survey for this site.

No If this survey is for pre-management, stop here. If this survey is not for pre-management, complete the rest of this survey.

4. If sufficient lupine is present to support Karners, estimate approximate sizes (in acres) of the following:

Lupine area: _____ Nectar plant area: _____

5. Distribution pattern of lupine (circle one):

1
2
3
4
(scattered patches)
(uniform throughout)

6. Number of plants or clumps of lupine (check one): 10's 100's 1,000's 10,000+

7. Relative abundance of lupine (check one):

- Dominant, abundant Locally abundant, frequently encountered
 Infrequent, occasional Rare, very few plants seen

Habitat Observations

8. Negative factors:

- | | |
|---|---|
| ___ Mildew on lupine | ___ Barren soil or little vegetative response |
| ___ Other disturbances (e.g. ATVs) | ___ Encroaching trees or shrubs |
| ___ Browsing | ___ Agricultural sprays or other chemicals |
| ___ Competing with other vegetation (e.g. bracken, sedges, shrubs, etc) | |
| ___ Exotic/Invasive plants (indicate species and severity) | |

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(First flight periods are generally late May- June.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

10. General availability of nectar plants during **2nd flight** period: Abundant - (50% or more coverage of nectar area)

(Second flight periods are generally mid-July-mid-August.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

Wisconsin Karner Blue Butterfly Habitat Conservation Plan

Survey Report Form

Lupine Presence/Absence

2021

Enter year of survey

Purpose

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Partner & Surveyor Information

Date of survey: 6/1/21
Partner Name: Savion
Landowner (if different than partner):
Surveyor(s) (Last name, First name): Flansburg, Amy

- Are you using this form for (check one):
[X] Pre-management
[] Post-management
[] On-going management
[] Post-construction assessment
[] Site assessment
[] Other:

Have you completed the online survey training provided by the WI DNR? [X] Yes [] No

If yes, what is the most recent year you took the training: 2018 (certification is valid for 5 years)

Did you attend the optional field day held by HCP staff with WDNR? [X] Yes [] No

Site Location & Description

Complete all site identification information that applies:

County: Wood Partner site code: Saratoga Solar
Site/project name or comp/stand (or other descriptive name): Saratoga Solar QQ7
Legal description: Township Range Section
Site size (acres):
**GPS Coordinates: Lat: 44.279228 Long: -89.792985
** Provide the coordinates for the approximate center of the site. If you are unable to provide GPS coordinates, please provide T-R-S information.

- Management strategy type (check one):
[X] Shifting mosaic (forestry/short term habitat)
[] Barrens, prairie, or savanna
[] Right-of-way
[] Post-construction restoration assessment

Date of last management activity (on this site): n/a Date of last survey (on this site): n/a

Lupine Observations

1. Lupine survey method (check one):

- transects covering entire site transects covering portion of site random walk

2. Is lupine present on the site?:

 Yes Continue. **No** If this survey is for pre-management, stop here. If this survey **is not** for pre-management, complete the rest of this survey.

3. Is the lupine density at least 50 lupine plants/acre, or 25 lupine plants/200 meters for linear (e.g. right-of-way) sites?

 Yes Lupine is sufficient to support Karners. Complete the rest of this survey and a Karner presence/absence survey for this site. **No** If this survey is for pre-management, stop here. If this survey is not for pre-management, complete the rest of this survey.

4. If sufficient lupine is present to support Karners, estimate approximate sizes (in acres) of the following:

Lupine area: 0.25-acre Nectar plant area: 0.25-acre

5. Distribution pattern of lupine (circle one):

 1 2 3 4

(scattered patches)

(uniform throughout)

6. Number of plants or clumps of lupine (check one): 10's 100's 1,000's 10,000+

7. Relative abundance of lupine (check one):

- Dominant, abundant Locally abundant, frequently encountered
 Infrequent, occasional Rare, very few plants seen

Habitat Observations

8. Negative factors:

- Mildew on lupine Barren soil or little vegetative response
 Other disturbances (e.g. ATVs) Encroaching trees or shrubs
 Browsing Agricultural sprays or other chemicals
 Competing with other vegetation (e.g. bracken, sedges, shrubs, etc)
 Exotic/Invasive plants (indicate species and severity)

Nectar Plant Abundance

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9. General availability of nectar plants during **1st flight** period: Abundant - (50% or more coverage of nectar area)

(First flight periods are generally late May- June.)

 Common - (25-50% coverage) Scarce - (<25% coverage)10. General availability of nectar plants during **2nd flight** period: Abundant - (50% or more coverage of nectar area)

(Second flight periods are generally mid-July-mid-August.)

 Common - (25-50% coverage) Scarce - (<25% coverage)

Nectar plants <i>(fill in observed species below)</i>	1 st flight period <i>(common, scarce, or abundant)</i>	2 nd flight period <i>(common, scarce, or abundant)</i>
wild raspberry	scarce	
hawkweed	scarce	
long-leaved bluets	scarce	
bird's foot violet	scarce	
pussytoes	scarce	
rock cress	scarce	
dandelion	scarce	
hoary puccoon	scarce	
blue-eyed grass	scarce	
bastard toadflad	scarce	
wild lupine	common	

Post-Construction or Restoration Projects

12. **For restoration following construction, reference your approved Habitat Replacement Plan (in site location section) or ATTACH A COPY OF THE SEED MIX USED. In order to be considered successful, sites should not have large gaps in vegetation, and when applicable, contain abundant first and second flight nectar species. For measures of success, refer to Construction Guidelines and associated protocols or your approved restoration plan. For a complete list of 1st and 2nd flight nectar species, refer to HCP webpage or contact the HCP Program.**

Date of seeding: _____ Density of established wild lupine: _____

Percentage of mitigation area vegetated: _____ Are there large gaps in vegetation? _____

Is wild lupine established? _____ Are native grasses established? _____

Additional Comments and Concerns (attach additional pages if necessary)

13.

Site Map

14. Mapping Options:

OPTION 1. Use the DNR's location finder tool to create a map.

- a. http://dnrmmaps.wi.gov/H5/?viewer=Location_Finder
- b. Accept the Terms and Conditions
- c. Zoom to the survey area. Use the "Search By" tool to zoom to an area by coordinates, city name, town-range section, etc.
- d. Hit the "Get lat/long" button and click on the map where Karners or lupine are found. Numbered markers with the coordinates will be appear for each location you click on the map. You can delete and edit these markers by clicking on the 3 dots to the right of each coordinate.
- e. Once you are done, hit "Print". Change the output to "Pdf", change the map scale to 1:3960, add a title, and indicate in the notes what your markers represent. To reposition the print area, zoom in/out or pan to over and then hit "print" again at the top of the webpage.
- f. Hit "Print" below the notes section and then "Open File" to view and download your map.
- g. **Save a copy of the PDF map.** Attach map to this survey form.

OPTION 2. Photo copy a USGS topo map, or print a satellite or aerial photo with hand-drawn locations (perhaps this is the map that was brought into the field for the survey).

- a. Make sure that road names, town-range-section information is included and legible
- b. Zoomed to 24,000m at minimum and 2,000m at maximum
- c. Indicate on map the karner and lupine observations (discretely hand-drawn patches or points) **with coordinates**
- d. Attach map to this survey form.

Wisconsin Karner Blue Butterfly Habitat Conservation Plan

Survey Report Form

Lupine Presence/Absence

2021

Enter year of survey

Purpose

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Partner & Surveyor Information

Date of survey: 6/1/21
Partner Name: Savion
Landowner (if different than partner):
Surveyor(s) (Last name, First name): Flansburg, Amy

- Are you using this form for (check one):
[X] Pre-management
[] Post-management
[] On-going management
[] Post-construction assessment
[] Site assessment
[] Other:

Have you completed the online survey training provided by the WI DNR? [X] Yes [] No

If yes, what is the most recent year you took the training: 2018 (certification is valid for 5 years)

Did you attend the optional field day held by HCP staff with WDNR? [X] Yes [] No

Site Location & Description

Complete all site identification information that applies:

County: Wood Partner site code: Saratoga Solar
Site/project name or comp/stand (or other descriptive name): Saratoga Solar QQ8
Legal description: Township Range Section
Site size (acres):
**GPS Coordinates: Lat: 44.279204 Long: -89.787534
** Provide the coordinates for the approximate center of the site. If you are unable to provide GPS coordinates, please provide T-R-S information.

- Management strategy type (check one):
[X] Shifting mosaic (forestry/short term habitat)
[] Barrens, prairie, or savanna
[] Right-of-way
[] Post-construction restoration assessment

Date of last management activity (on this site): n/a Date of last survey (on this site): n/a

Lupine Observations

1. Lupine survey method (check one):

- transects covering entire site transects covering portion of site random walk

2. Is lupine present on the site?:

Yes Continue.

No If this survey is for pre-management, stop here. If this survey **is not** for pre-management, complete the rest of this survey.

3. Is the lupine density at least 50 lupine plants/acre, or 25 lupine plants/200 meters for linear (e.g. right-of-way) sites?

Yes Lupine is sufficient to support Karners. Complete the rest of this survey and a Karner presence/absence survey for this site.

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4. If sufficient lupine is present to support Karners, estimate approximate sizes (in acres) of the following:

Lupine area: _____ Nectar plant area: _____

5. Distribution pattern of lupine (circle one):

1
2
3
4
(scattered patches)
(uniform throughout)

6. Number of plants or clumps of lupine (check one): 10's 100's 1,000's 10,000+

7. Relative abundance of lupine (check one):

- Dominant, abundant Locally abundant, frequently encountered
 Infrequent, occasional Rare, very few plants seen

Habitat Observations

8. Negative factors:

- | | |
|---|---|
| ___ Mildew on lupine | ___ Barren soil or little vegetative response |
| ___ Other disturbances (e.g. ATVs) | ___ Encroaching trees or shrubs |
| ___ Browsing | ___ Agricultural sprays or other chemicals |
| ___ Competing with other vegetation (e.g. bracken, sedges, shrubs, etc) | |
| ___ Exotic/Invasive plants (indicate species and severity) | |

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(First flight periods are generally late May- June.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

10. General availability of nectar plants during **2nd flight** period: Abundant - (50% or more coverage of nectar area)

(Second flight periods are generally mid-July-mid-August.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

Wisconsin Karner Blue Butterfly Habitat Conservation Plan

Survey Report Form Lupine Presence/Absence

2021

Enter year of survey

Purpose

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Partner & Surveyor Information

Date of survey: 6/8/21

Partner Name: Savion

Landowner (if different than partner):

Surveyor(s) (Last name, First name):
Flansburg, Amy

Are you using this form for (*check one*):

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- Post-management
- On-going management
- Post-construction assessment
- Site assessment
- Other: _____

Have you completed the online survey training provided by the WI DNR? Yes No

If yes, what is the most recent year you took the training: 2018 (*certification is valid for 5 years*)

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Site Location & Description

Complete all site identification information that applies:

County: Wood Partner site code: Saratoga Solar

Site/project name or comp/stand (or other descriptive name):
Saratoga Solar QQ9

Legal description: Township _____ Range _____ Section _____
Site size (acres): _____

**GPS Coordinates: Lat: 44.272235 Long: -89.802682

** Provide the coordinates for the approximate center of the site. If you are unable to provide GPS coordinates, please provide T-R-S information.

Management strategy type (*check one*):

- Shifting mosaic (forestry/short term habitat)
- Barrens, prairie, or savanna
- Right-of-way
- Post-construction restoration assessment

Date of last management activity (on this site): n/a Date of last survey (on this site): n/a

Lupine Observations

1. Lupine survey method (check one):

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Habitat Observations

8. Negative factors:

- | | |
|---|---|
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(Second flight periods are generally mid-July-mid-August.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

Wisconsin Karner Blue Butterfly Habitat Conservation Plan

Survey Report Form

Lupine Presence/Absence

2021

Enter year of survey

Purpose

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Madison, WI 53703

Keep a copy of this completed form for your records! Contact Karner blue Habitat Conservation Plan program staff at the Wisconsin Department of Natural Resources if you have any questions, or refer to the KBB website for current monitoring protocols.

Partner & Surveyor Information

Date of survey: 6/8/21
Partner Name: Savion
Landowner (if different than partner):
Surveyor(s) (Last name, First name): Flansburg, Amy

- Are you using this form for (check one):
[X] Pre-management
[] Post-management
[] On-going management
[] Post-construction assessment
[] Site assessment
[] Other:

Have you completed the online survey training provided by the WI DNR? [X] Yes [] No

If yes, what is the most recent year you took the training: 2018 (certification is valid for 5 years)

Did you attend the optional field day held by HCP staff with WDNR? [X] Yes [] No

Site Location & Description

Complete all site identification information that applies:

County: Wood Partner site code: Saratoga Solar
Site/project name or comp/stand (or other descriptive name): Saratoga Solar QQ10
Legal description: Township Range Section
Site size (acres):
**GPS Coordinates: Lat: 44.275366 Long: -89.798112
** Provide the coordinates for the approximate center of the site. If you are unable to provide GPS coordinates, please provide T-R-S information.

- Management strategy type (check one):
[] Shifting mosaic (forestry/short term habitat)
[X] Barrens, prairie, or savanna
[] Right-of-way
[] Post-construction restoration assessment

Date of last management activity (on this site): n/a Date of last survey (on this site): n/a

Lupine Observations

1. Lupine survey method (check one):

- transects covering entire site transects covering portion of site random walk

2. Is lupine present on the site?:

Yes Continue.

No If this survey is for pre-management, stop here. If this survey **is not** for pre-management, complete the rest of this survey.

3. Is the lupine density at least 50 lupine plants/acre, or 25 lupine plants/200 meters for linear (e.g. right-of-way) sites?

Yes Lupine is sufficient to support Karners. Complete the rest of this survey and a Karner presence/absence survey for this site.

No If this survey is for pre-management, stop here. If this survey is not for pre-management, complete the rest of this survey.

4. If sufficient lupine is present to support Karners, estimate approximate sizes (in acres) of the following:

Lupine area: _____ Nectar plant area: _____

5. Distribution pattern of lupine (circle one):

1
2
3
4
(scattered patches)
(uniform throughout)

6. Number of plants or clumps of lupine (check one): 10's 100's 1,000's 10,000+

7. Relative abundance of lupine (check one):

- Dominant, abundant Locally abundant, frequently encountered
 Infrequent, occasional Rare, very few plants seen

Habitat Observations

8. Negative factors:

- | | |
|---|---|
| ___ Mildew on lupine | ___ Barren soil or little vegetative response |
| ___ Other disturbances (e.g. ATVs) | ___ Encroaching trees or shrubs |
| ___ Browsing | ___ Agricultural sprays or other chemicals |
| ___ Competing with other vegetation (e.g. bracken, sedges, shrubs, etc) | |
| ___ Exotic/Invasive plants (indicate species and severity) | |

Nectar Plant Abundance

This section is **required** for mitigation projects, short-term habitat replacement for major construction projects, and any project requiring a Habitat Replacement Plan. These projects need nectar plant abundance for both 1st and 2nd flight periods. This section is recommended for others. You may fill out this information on the Karner presence/absence form.

9. General availability of nectar plants during **1st flight** period: Abundant - (50% or more coverage of nectar area)

(First flight periods are generally late May- June.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

10. General availability of nectar plants during **2nd flight** period: Abundant - (50% or more coverage of nectar area)

(Second flight periods are generally mid-July-mid-August.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

Wisconsin Karner Blue Butterfly Habitat Conservation Plan

Survey Report Form

Lupine Presence/Absence

2021

Enter year of survey

Purpose

Wild lupine is the obligate host plant for the federally endangered Karner blue butterfly. The purpose of the Lupine presence/absence survey is to determine if sufficient lupine is present on the site to support Karners, and if present, to map its location. Lupine presence/absence surveys are also used to document nectar plant abundance.

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Partner & Surveyor Information

Date of survey: 6/2/21
Partner Name: Savion
Landowner (if different than partner):
Surveyor(s) (Last name, First name): Flansburg, Amy

- Are you using this form for (check one):
[X] Pre-management
[] Post-management
[] On-going management
[] Post-construction assessment
[] Site assessment
[] Other:

Have you completed the online survey training provided by the WI DNR? [X] Yes [] No

If yes, what is the most recent year you took the training: 2018 (certification is valid for 5 years)

Did you attend the optional field day held by HCP staff with WDNR? [X] Yes [] No

Site Location & Description

Complete all site identification information that applies:

County: Wood Partner site code: Saratoga Solar
Site/project name or comp/stand (or other descriptive name): Saratoga Solar QQ11
Legal description: Township Range Section
Site size (acres):
**GPS Coordinates: Lat: 44.275553 Long: -89.787437
** Provide the coordinates for the approximate center of the site. If you are unable to provide GPS coordinates, please provide T-R-S information.

- Management strategy type (check one):
[X] Shifting mosaic (forestry/short term
[X] habitat Barrens, prairie, or savanna
[] Right-of-way
[] Post-construction restoration assessment

Date of last management activity (on this site): n/a Date of last survey (on this site): n/a

Wisconsin Karner Blue Butterfly Habitat Conservation Plan

Survey Report Form
Lupine Presence/Absence

2021

Enter year of survey

Purpose

Wild lupine is the obligate host plant for the federally endangered Karner blue butterfly. The purpose of the Lupine presence/absence survey is to determine if sufficient lupine is present on the site to support Karners, and if present, to map its location.

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Partner & Surveyor Information

Date of survey: 6/1/21
Partner Name: Savion
Landowner (if different than partner):
Surveyor(s) (Last name, First name): Flansburg, Amy

- Are you using this form for (check one):
[X] Pre-management
[] Post-management
[] On-going management
[] Post-construction assessment
[] Site assessment
[] Other:

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If yes, what is the most recent year you took the training: 2018 (certification is valid for 5 years)

Did you attend the optional field day held by HCP staff with WDNR? [X] Yes [] No

Site Location & Description

Complete all site identification information that applies:

County: Wood Partner site code: Saratoga Solar
Site/project name or comp/stand (or other descriptive name): Saratoga Solar QQ12
Legal description: Township Range Section
Site size (acres):
**GPS Coordinates: Lat: 44.275293 Long: -89.782465
** Provide the coordinates for the approximate center of the site. If you are unable to provide GPS coordinates, please provide T-R-S information.

- Management strategy type (check one):
[X] Shifting mosaic (forestry/short term habitat)
[] Barrens, prairie, or savanna
[] Right-of-way
[] Post-construction restoration assessment

Date of last management activity (on this site): n/a Date of last survey (on this site): n/a

Lupine Observations

1. Lupine survey method (check one):

- transects covering entire site transects covering portion of site random walk

2. Is lupine present on the site?:

Yes Continue.

No If this survey is for pre-management, stop here. If this survey **is not** for pre-management, complete the rest of this survey.

3. Is the lupine density at least 50 lupine plants/acre, or 25 lupine plants/200 meters for linear (e.g. right-of-way) sites?

Yes Lupine is sufficient to support Karners. Complete the rest of this survey and a Karner presence/absence survey for this site.

No If this survey is for pre-management, stop here. If this survey is not for pre-management, complete the rest of this survey.

4. If sufficient lupine is present to support Karners, estimate approximate sizes (in acres) of the following:

Lupine area: _____ Nectar plant area: _____

5. Distribution pattern of lupine (circle one):

1
2
3
4
(scattered patches)
(uniform throughout)

6. Number of plants or clumps of lupine (check one): 10's 100's 1,000's 10,000+

7. Relative abundance of lupine (check one):

- Dominant, abundant Locally abundant, frequently encountered
 Infrequent, occasional Rare, very few plants seen

Habitat Observations

8. Negative factors:

- | | |
|---|---|
| ___ Mildew on lupine | ___ Barren soil or little vegetative response |
| ___ Other disturbances (e.g. ATVs) | ___ Encroaching trees or shrubs |
| ___ Browsing | ___ Agricultural sprays or other chemicals |
| ___ Competing with other vegetation (e.g. bracken, sedges, shrubs, etc) | |
| ___ Exotic/Invasive plants (indicate species and severity) | |

Nectar Plant Abundance

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9. General availability of nectar plants during **1st flight** period: Abundant - (50% or more coverage of nectar area)

(First flight periods are generally late May- June.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

10. General availability of nectar plants during **2nd flight** period: Abundant - (50% or more coverage of nectar area)

(Second flight periods are generally mid-July-mid-August.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

Wisconsin Karner Blue Butterfly Habitat Conservation Plan

Survey Report Form
Lupine Presence/Absence

2021

Enter year of survey

Purpose

Wild lupine is the obligate host plant for the federally endangered Karner blue butterfly. The purpose of the Lupine presence/absence survey is to determine if sufficient lupine is present on the site to support Karners, and if present, to map its location. Lupine presence/absence surveys are also used to document nectar plant abundance.

General Instructions

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Partner & Surveyor Information

Date of survey: 6/8/21
Partner Name: Savion
Landowner (if different than partner):
Surveyor(s) (Last name, First name): Flansburg, Amy

- Are you using this form for (check one):
[X] Pre-management
[] Post-management
[] On-going management
[] Post-construction assessment
[] Site assessment
[] Other:

Have you completed the online survey training provided by the WI DNR? [X] Yes [] No

If yes, what is the most recent year you took the training: 2018 (certification is valid for 5 years)

Did you attend the optional field day held by HCP staff with WDNR? [X] Yes [] No

Site Location & Description

Complete all site identification information that applies:

County: Wood Partner site code: Saratoga Solar
Site/project name or comp/stand (or other descriptive name): Saratoga Solar QQ13
Legal description: Township Range Section
Site size (acres):
**GPS Coordinates: Lat: 44.272522 Long: -89.802582
** Provide the coordinates for the approximate center of the site. If you are unable to provide GPS coordinates, please provide T-R-S information.

- Management strategy type (check one):
[] Shifting mosaic (forestry/short term habitat)
[X] Barrens, prairie, or savanna
[] Right-of-way
[] Post-construction restoration assessment

Date of last management activity (on this site): n/a Date of last survey (on this site): n/a

Lupine Observations

1. Lupine survey method (check one):

- transects covering entire site transects covering portion of site random walk

2. Is lupine present on the site?:

Yes Continue.

No If this survey is for pre-management, stop here. If this survey **is not** for pre-management, complete the rest of this survey.

3. Is the lupine density at least 50 lupine plants/acre, or 25 lupine plants/200 meters for linear (e.g. right-of-way) sites?

Yes Lupine is sufficient to support Karners. Complete the rest of this survey and a Karner presence/absence survey for this site.

No If this survey is for pre-management, stop here. If this survey is not for pre-management, complete the rest of this survey.

4. If sufficient lupine is present to support Karners, estimate approximate sizes (in acres) of the following:

Lupine area: _____ Nectar plant area: _____

5. Distribution pattern of lupine (circle one):

1
2
3
4
(scattered patches)
(uniform throughout)

6. Number of plants or clumps of lupine (check one): 10's 100's 1,000's 10,000+

7. Relative abundance of lupine (check one):

- Dominant, abundant Locally abundant, frequently encountered
 Infrequent, occasional Rare, very few plants seen

Habitat Observations

8. Negative factors:

- | | |
|--|--|
| <input type="checkbox"/> Mildew on lupine | <input type="checkbox"/> Barren soil or little vegetative response |
| <input type="checkbox"/> Other disturbances (e.g. ATVs) | <input type="checkbox"/> Encroaching trees or shrubs |
| <input type="checkbox"/> Browsing | <input type="checkbox"/> Agricultural sprays or other chemicals |
| <input type="checkbox"/> Competing with other vegetation (e.g. bracken, sedges, shrubs, etc) | |
| <input type="checkbox"/> Exotic/Invasive plants (indicate species and severity) | |

Nectar Plant Abundance

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9. General availability of nectar plants during **1st flight** period: Abundant - (50% or more coverage of nectar area)

(First flight periods are generally late May- June.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

10. General availability of nectar plants during **2nd flight** period: Abundant - (50% or more coverage of nectar area)

(Second flight periods are generally mid-July-mid-August.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

Wisconsin Karner Blue Butterfly Habitat Conservation Plan

Survey Report Form Lupine Presence/Absence

2021

Enter year of survey

Purpose

Wild lupine is the obligate host plant for the federally endangered Karner blue butterfly. The purpose of the Lupine presence/absence survey is to determine if sufficient lupine is present on the site to support Karners, and if present, to map its location. Lupine presence/absence surveys are also used to document nectar plant abundance.

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Partner & Surveyor Information

Date of survey: 6/8/21

Partner Name: Savion

Landowner (if different than partner):

Surveyor(s) (Last name, First name):
Flansburg, Amy

Are you using this form for (*check one*):

- Pre-management
- Post-management
- On-going management
- Post-construction assessment
- Site assessment
- Other: _____

Have you completed the online survey training provided by the WI DNR? Yes No

If yes, what is the most recent year you took the training: 2018 (*certification is valid for 5 years*)

Did you attend the optional field day held by HCP staff with WDNR? Yes No

Site Location & Description

Complete all site identification information that applies:

County: Wood Partner site code: Saratoga Solar

Site/project name or comp/stand (or other descriptive name):
Saratoga Solar QQ14

Legal description: Township _____ Range _____ Section _____
Site size (acres): _____

**GPS Coordinates: Lat: 44.272283 Long: -89.797611

** Provide the coordinates for the approximate center of the site. If you are unable to provide GPS coordinates, please provide T-R-S information.

Management strategy type (*check one*):

- Shifting mosaic (forestry/short term habitat)
- Barrens, prairie, or savanna
- Right-of-way
- Post-construction restoration assessment

Date of last management activity (on this site): n/a Date of last survey (on this site): n/a

Wisconsin Karner Blue Butterfly Habitat Conservation Plan

Survey Report Form

Lupine Presence/Absence

2021

Enter year of survey

Purpose

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Date of survey: 6/2/21
Partner Name: Savion
Landowner (if different than partner):
Surveyor(s) (Last name, First name): Flansburg, Amy

- Are you using this form for (check one):
[X] Pre-management
[] Post-management
[] On-going management
[] Post-construction assessment
[] Site assessment
[] Other:

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Did you attend the optional field day held by HCP staff with WDNR? [X] Yes [] No

Site Location & Description

Complete all site identification information that applies:

County: Wood Partner site code: Saratoga Solar
Site/project name or comp/stand (or other descriptive name): Saratoga Solar QQ15
Legal description: Township Range Section
Site size (acres):
**GPS Coordinates: Lat: 44.271973 Long: -89.787636
** Provide the coordinates for the approximate center of the site. If you are unable to provide GPS coordinates, please provide T-R-S information.

- Management strategy type (check one):
[X] Shifting mosaic (forestry/short term
[X] habitat Barrens, prairie, or savanna
[] Right-of-way
[] Post-construction restoration assessment

Date of last management activity (on this site): n/a Date of last survey (on this site): n/a

Lupine Observations

1. Lupine survey method (check one):

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2. Is lupine present on the site?:

Yes Continue.

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3
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(scattered patches)
(uniform throughout)

6. Number of plants or clumps of lupine (check one): 10's 100's 1,000's 10,000+

7. Relative abundance of lupine (check one):

- Dominant, abundant Locally abundant, frequently encountered
 Infrequent, occasional Rare, very few plants seen

Habitat Observations

8. Negative factors:

- | | |
|---|---|
| ___ Mildew on lupine | ___ Barren soil or little vegetative response |
| ___ Other disturbances (e.g. ATVs) | ___ Encroaching trees or shrubs |
| ___ Browsing | ___ Agricultural sprays or other chemicals |
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Scarce - (<25% coverage)

10. General availability of nectar plants during **2nd flight** period: Abundant - (50% or more coverage of nectar area)

(Second flight periods are generally mid-July-mid-August.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

Wisconsin Karner Blue Butterfly Habitat Conservation Plan

Survey Report Form Lupine Presence/Absence

2021

Enter year of survey

Purpose

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Partner & Surveyor Information

Date of survey: 6/1/21

Partner Name: Savion

Landowner (if different than partner):

Surveyor(s) (Last name, First name):
Flansburg, Amy

Are you using this form for (*check one*):

- Pre-management
- Post-management
- On-going management
- Post-construction assessment
- Site assessment
- Other: _____

Have you completed the online survey training provided by the WI DNR? Yes No

If yes, what is the most recent year you took the training: 2018 (*certification is valid for 5 years*)

Did you attend the optional field day held by HCP staff with WDNR? Yes No

Site Location & Description

Complete all site identification information that applies:

County: Wood Partner site code: Saratoga Solar

Site/project name or comp/stand (or other descriptive name):
Saratoga Solar QQ16

Legal description: Township _____ Range _____ Section _____
Site size (acres): _____

**GPS Coordinates: Lat: 44.271973 Long: -89.782331

** Provide the coordinates for the approximate center of the site. If you are unable to provide GPS coordinates, please provide T-R-S information.

Management strategy type (*check one*):

- Shifting mosaic (forestry/short term habitat)
- Barrens, prairie, or savanna
- Right-of-way
- Post-construction restoration assessment

Date of last management activity (on this site): n/a Date of last survey (on this site): n/a

Wisconsin Karner Blue Butterfly Habitat Conservation Plan

Survey Report Form

Lupine Presence/Absence

2021

Enter year of survey

Purpose

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Date of survey: 6/2/21
Partner Name: Savion
Landowner (if different than partner):
Surveyor(s) (Last name, First name): Flansburg, Amy

- Are you using this form for (check one):
[X] Pre-management
[] Post-management
[] On-going management
[] Post-construction assessment
[] Site assessment
[] Other:

Have you completed the online survey training provided by the WI DNR? [X] Yes [] No

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Complete all site identification information that applies:

County: Wood Partner site code: Saratoga Solar
Site/project name or comp/stand (or other descriptive name): Saratoga Solar QQ17
Legal description: Township Range Section
Site size (acres):
**GPS Coordinates: Lat: 44.268126 Long: -89.787869
** Provide the coordinates for the approximate center of the site. If you are unable to provide GPS coordinates, please provide T-R-S information.

- Management strategy type (check one):
[X] Shifting mosaic (forestry/short term habitat)
[X] Barrens, prairie, or savanna
[] Right-of-way
[] Post-construction restoration assessment

Date of last management activity (on this site): n/a Date of last survey (on this site): n/a

Lupine Observations

1. Lupine survey method (check one):

- transects covering entire site transects covering portion of site random walk

2. Is lupine present on the site?:

Yes Continue.

No If this survey is for pre-management, stop here. If this survey **is not** for pre-management, complete the rest of this survey.

3. Is the lupine density at least 50 lupine plants/acre, or 25 lupine plants/200 meters for linear (e.g. right-of-way) sites?

Yes Lupine is sufficient to support Karners. Complete the rest of this survey and a Karner presence/absence survey for this site.

No If this survey is for pre-management, stop here. If this survey is not for pre-management, complete the rest of this survey.

4. If sufficient lupine is present to support Karners, estimate approximate sizes (in acres) of the following:

Lupine area: _____ Nectar plant area: _____

5. Distribution pattern of lupine (circle one):

1
2
3
4
(scattered patches)
(uniform throughout)

6. Number of plants or clumps of lupine (check one): 10's 100's 1,000's 10,000+

7. Relative abundance of lupine (check one):

- Dominant, abundant Locally abundant, frequently encountered
 Infrequent, occasional Rare, very few plants seen

Habitat Observations

8. Negative factors:

- | | |
|---|---|
| ___ Mildew on lupine | ___ Barren soil or little vegetative response |
| ___ Other disturbances (e.g. ATVs) | ___ Encroaching trees or shrubs |
| ___ Browsing | ___ Agricultural sprays or other chemicals |
| ___ Competing with other vegetation (e.g. bracken, sedges, shrubs, etc) | |
| ___ Exotic/Invasive plants (indicate species and severity) | |

Nectar Plant Abundance

This section is **required** for mitigation projects, short-term habitat replacement for major construction projects, and any project requiring a Habitat Replacement Plan. These projects need nectar plant abundance for both 1st and 2nd flight periods. This section is recommended for others. You may fill out this information on the Karner presence/absence form.

9. General availability of nectar plants during **1st flight** period: Abundant - (50% or more coverage of nectar area)

(First flight periods are generally late May- June.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

10. General availability of nectar plants during **2nd flight** period: Abundant - (50% or more coverage of nectar area)

(Second flight periods are generally mid-July-mid-August.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

Wisconsin Karner Blue Butterfly Habitat Conservation Plan

Survey Report Form

Lupine Presence/Absence

2021

Enter year of survey

Purpose

Wild lupine is the obligate host plant for the federally endangered Karner blue butterfly. The purpose of the Lupine presence/absence survey is to determine if sufficient lupine is present on the site to support Karners, and if present, to map its location. Lupine presence/absence surveys are also used to document nectar plant abundance.

General Instructions

Report on this form results of lupine presence/absence surveys and restoration assessment following construction projects conducted by HCP Partners and their agents. Collecting complete and accurate data will minimize potential project delays. Surveys are valid for 5 years for that particular site, and July 31st is the last day to survey. If it is a drought year, the last day to survey may be earlier. This information will be posted on the KBB website and communicated by the HCP coordinator.

Submit a copy of your completed surveys via email to Rebecca.Roth@wisconsin.gov, or by mail to:

HCP Coordinator
101 S. Webster St.
Madison, WI 53703

Keep a copy of this completed form for your records! Contact Karner blue Habitat Conservation Plan program staff at the Wisconsin Department of Natural Resources if you have any questions, or refer to the KBB website for current monitoring protocols.

Partner & Surveyor Information

Date of survey: 6/2/21
Partner Name: Savion
Landowner (if different than partner):
Surveyor(s) (Last name, First name): Flansburg, Amy

- Are you using this form for (check one):
[X] Pre-management
[] Post-management
[] On-going management
[] Post-construction assessment
[] Site assessment
[] Other:

Have you completed the online survey training provided by the WI DNR? [X] Yes [] No

If yes, what is the most recent year you took the training: 2018 (certification is valid for 5 years)

Did you attend the optional field day held by HCP staff with WDNR? [X] Yes [] No

Site Location & Description

Complete all site identification information that applies:

County: Wood Partner site code: Saratoga Solar
Site/project name or comp/stand (or other descriptive name): Saratoga Solar QQ18
Legal description: Township Range Section
Site size (acres):
**GPS Coordinates: Lat: 44.265189 Long: -89.787758
** Provide the coordinates for the approximate center of the site. If you are unable to provide GPS coordinates, please provide T-R-S information.

- Management strategy type (check one):
[X] Shifting mosaic (forestry/short term
[X] habitat Barrens, prairie, or savanna
[] Right-of-way
[] Post-construction restoration assessment

Date of last management activity (on this site): n/a Date of last survey (on this site): n/a

Lupine Observations

1. Lupine survey method (check one):

- transects covering entire site transects covering portion of site random walk

2. Is lupine present on the site?:

Yes Continue.

No If this survey is for pre-management, stop here. If this survey **is not** for pre-management, complete the rest of this survey.

3. Is the lupine density at least 50 lupine plants/acre, or 25 lupine plants/200 meters for linear (e.g. right-of-way) sites?

Yes Lupine is sufficient to support Karners. Complete the rest of this survey and a Karner presence/absence survey for this site.

No If this survey is for pre-management, stop here. If this survey is not for pre-management, complete the rest of this survey.

4. If sufficient lupine is present to support Karners, estimate approximate sizes (in acres) of the following:

Lupine area: 0.1-acre Nectar plant area: 0.25 acre

5. Distribution pattern of lupine (circle one):

1

2

3

4

(scattered patches)

(uniform throughout)

6. Number of plants or clumps of lupine (check one): 10's 100's 1,000's 10,000+

7. Relative abundance of lupine (check one):

- Dominant, abundant Locally abundant, frequently encountered
 Infrequent, occasional Rare, very few plants seen

Habitat Observations

8. Negative factors:

- Mildew on lupine Barren soil or little vegetative response
 Other disturbances (e.g. ATVs) Encroaching trees or shrubs
 Browsing Agricultural sprays or other chemicals
 Competing with other vegetation (e.g. bracken, sedges, shrubs, etc)
 Exotic/Invasive plants (indicate species and severity)

Nectar Plant Abundance

This section is **required** for mitigation projects, short-term habitat replacement for major construction projects, and any project requiring a Habitat Replacement Plan. These projects need nectar plant abundance for both 1st and 2nd flight periods. This section is recommended for others. You may fill out this information on the Karner presence/absence form.

9. General availability of nectar plants during **1st flight** period: Abundant - (50% or more coverage of nectar area)

(First flight periods are generally late May- June.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

10. General availability of nectar plants during **2nd flight** period: Abundant - (50% or more coverage of nectar area)

(Second flight periods are generally mid-July-mid-August.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

Wisconsin Karner Blue Butterfly Habitat Conservation Plan Lupine Presence/Absence Survey

Nectar plants <i>(fill in observed species below)</i>	1 st flight period <i>(common, scarce, or abundant)</i>	2 nd flight period <i>(common, scarce, or abundant)</i>
wild lupine	scarce	
hoary puccoon	scarce	
raspberry	scarce	

Post-Construction or Restoration Projects

12. **For restoration following construction, reference your approved Habitat Replacement Plan (in site location section) or ATTACH A COPY OF THE SEED MIX USED. In order to be considered successful, sites should not have large gaps in vegetation, and when applicable, contain abundant first and second flight nectar species. For measures of success, refer to Construction Guidelines and associated protocols or your approved restoration plan. For a complete list of 1st and 2nd flight nectar species, refer to HCP webpage or contact the HCP Program.**

Date of seeding: _____ Density of established wild lupine: _____

Percentage of mitigation area vegetated: _____ Are there large gaps in vegetation? _____

Is wild lupine established? _____ Are native grasses established? _____

Additional Comments and Concerns (attach additional pages if necessary)

13.

Site Map

14. Mapping Options:

OPTION 1. Use the DNR's location finder tool to create a map.

- a. http://dnrmmaps.wi.gov/H5/?viewer=Location_Finder
- b. Accept the Terms and Conditions
- c. Zoom to the survey area. Use the "Search By" tool to zoom to an area by coordinates, city name, town-range section, etc.
- d. Hit the "Get lat/long" button and click on the map where Karners or lupine are found. Numbered markers with the coordinates will be appear for each location you click on the map. You can delete and edit these markers by clicking on the 3 dots to the right of each coordinate.
- e. Once you are done, hit "Print". Change the output to "Pdf", change the map scale to 1:3960, add a title, and indicate in the notes what your markers represent. To reposition the print area, zoom in/out or pan to over and then hit "print" again at the top of the webpage.
- f. Hit "Print" below the notes section and then "Open File" to view and download your map.
- g. **Save a copy of the PDF map.** Attach map to this survey form.

OPTION 2. Photo copy a USGS topo map, or print a satellite or aerial photo with hand-drawn locations (perhaps this is the map that was brought into the field for the survey).

- a. Make sure that road names, town-range-section information is included and legible
- b. Zoomed to 24,000m at minimum and 2,000m at maximum
- c. Indicate on map the karner and lupine observations (discretely hand-drawn patches or points) **with coordinates**
- d. Attach map to this survey form.

Wisconsin Karner Blue Butterfly Habitat Conservation Plan

Survey Report Form

Lupine Presence/Absence

2021

Enter year of survey

Purpose

Wild lupine is the obligate host plant for the federally endangered Karner blue butterfly. The purpose of the Lupine presence/absence survey is to determine if sufficient lupine is present on the site to support Karners, and if present, to map its location. Lupine presence/absence surveys are also used to document nectar plant abundance.

General Instructions

Report on this form results of lupine presence/absence surveys and restoration assessment following construction projects conducted by HCP Partners and their agents. Collecting complete and accurate data will minimize potential project delays. Surveys are valid for 5 years for that particular site, and July 31st is the last day to survey. If it is a drought year, the last day to survey may be earlier. This information will be posted on the KBB website and communicated by the HCP coordinator.

Submit a copy of your completed surveys via email to Rebecca.Roth@wisconsin.gov, or by mail to:

HCP Coordinator
101 S. Webster St.
Madison, WI 53703

Keep a copy of this completed form for your records! Contact Karner blue Habitat Conservation Plan program staff at the Wisconsin Department of Natural Resources if you have any questions, or refer to the KBB website for current monitoring protocols.

Partner & Surveyor Information

Date of survey: 6/1/21
Partner Name: Savion
Landowner (if different than partner):
Surveyor(s) (Last name, First name): Flansburg, Amy

- Are you using this form for (check one):
[X] Pre-management
[] Post-management
[] On-going management
[] Post-construction assessment
[] Site assessment
[] Other:

Have you completed the online survey training provided by the WI DNR? [X] Yes [] No

If yes, what is the most recent year you took the training: 2018 (certification is valid for 5 years)

Did you attend the optional field day held by HCP staff with WDNR? [X] Yes [] No

Site Location & Description

Complete all site identification information that applies:

County: Wood Partner site code: Saratoga Solar
Site/project name or comp/stand (or other descriptive name): Saratoga Solar QQ19
Legal description: Township Range Section
Site size (acres):
**GPS Coordinates: Lat: 44.261127 Long: -89.782415
** Provide the coordinates for the approximate center of the site. If you are unable to provide GPS coordinates, please provide T-R-S information.

- Management strategy type (check one):
[X] Shifting mosaic (forestry/short term habitat)
[] Barrens, prairie, or savanna
[] Right-of-way
[] Post-construction restoration assessment

Date of last management activity (on this site): n/a Date of last survey (on this site): n/a

Lupine Observations

1. Lupine survey method (check one):

- transects covering entire site transects covering portion of site random walk

2. Is lupine present on the site?:

Yes Continue.

No If this survey is for pre-management, stop here. If this survey **is not** for pre-management, complete the rest of this survey.

3. Is the lupine density at least 50 lupine plants/acre, or 25 lupine plants/200 meters for linear (e.g. right-of-way) sites?

Yes Lupine is sufficient to support Karners. Complete the rest of this survey and a Karner presence/absence survey for this site.

No If this survey is for pre-management, stop here. If this survey is not for pre-management, complete the rest of this survey.

4. If sufficient lupine is present to support Karners, estimate approximate sizes (in acres) of the following:

Lupine area: _____ Nectar plant area: _____

5. Distribution pattern of lupine (circle one):

1
2
3
4
(scattered patches)
(uniform throughout)

6. Number of plants or clumps of lupine (check one): 10's 100's 1,000's 10,000+

7. Relative abundance of lupine (check one):

- Dominant, abundant Locally abundant, frequently encountered
 Infrequent, occasional Rare, very few plants seen

Habitat Observations

8. Negative factors:

- | | |
|---|---|
| ___ Mildew on lupine | ___ Barren soil or little vegetative response |
| ___ Other disturbances (e.g. ATVs) | ___ Encroaching trees or shrubs |
| ___ Browsing | ___ Agricultural sprays or other chemicals |
| ___ Competing with other vegetation (e.g. bracken, sedges, shrubs, etc) | |
| ___ Exotic/Invasive plants (indicate species and severity) | |

Nectar Plant Abundance

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9. General availability of nectar plants during **1st flight** period: Abundant - (50% or more coverage of nectar area)

(First flight periods are generally late May- June.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

10. General availability of nectar plants during **2nd flight** period: Abundant - (50% or more coverage of nectar area)

(Second flight periods are generally mid-July-mid-August.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

Wisconsin Karner Blue Butterfly Habitat Conservation Plan

Survey Report Form

Lupine Presence/Absence

2021

Enter year of survey

Purpose

Wild lupine is the obligate host plant for the federally endangered Karner blue butterfly. The purpose of the Lupine presence/absence survey is to determine if sufficient lupine is present on the site to support Karners, and if present, to map its location. Lupine presence/absence surveys are also used to document nectar plant abundance.

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Partner & Surveyor Information

Date of survey: 6/1/21
Partner Name: Savion
Landowner (if different than partner):
Surveyor(s) (Last name, First name): Flansburg, Amy

- Are you using this form for (check one):
[X] Pre-management
[] Post-management
[] On-going management
[] Post-construction assessment
[] Site assessment
[] Other:

Have you completed the online survey training provided by the WI DNR? [X] Yes [] No

If yes, what is the most recent year you took the training: 2018 (certification is valid for 5 years)

Did you attend the optional field day held by HCP staff with WDNR? [X] Yes [] No

Site Location & Description

Complete all site identification information that applies:

County: Wood Partner site code: Saratoga Solar
Site/project name or comp/stand (or other descriptive name): Saratoga Solar QQ20
Legal description: Township Range Section
Site size (acres):
**GPS Coordinates: Lat: 44.261127 Long: -89.782415
** Provide the coordinates for the approximate center of the site. If you are unable to provide GPS coordinates, please provide T-R-S information.

- Management strategy type (check one):
[X] Shifting mosaic (forestry/short term habitat)
[] Barrens, prairie, or savanna
[] Right-of-way
[] Post-construction restoration assessment

Date of last management activity (on this site): n/a Date of last survey (on this site): n/a

Lupine Observations

1. Lupine survey method (check one):

- transects covering entire site transects covering portion of site random walk

2. Is lupine present on the site?:

Yes Continue.

No If this survey is for pre-management, stop here. If this survey **is not** for pre-management, complete the rest of this survey.

3. Is the lupine density at least 50 lupine plants/acre, or 25 lupine plants/200 meters for linear (e.g. right-of-way) sites?

Yes Lupine is sufficient to support Karners. Complete the rest of this survey and a Karner presence/absence survey for this site.

No If this survey is for pre-management, stop here. If this survey is not for pre-management, complete the rest of this survey.

4. If sufficient lupine is present to support Karners, estimate approximate sizes (in acres) of the following:

Lupine area: _____ Nectar plant area: _____

5. Distribution pattern of lupine (circle one):

1
2
3
4
(scattered patches)
(uniform throughout)

6. Number of plants or clumps of lupine (check one): 10's 100's 1,000's 10,000+

7. Relative abundance of lupine (check one):

- Dominant, abundant Locally abundant, frequently encountered
 Infrequent, occasional Rare, very few plants seen

Habitat Observations

8. Negative factors:

- | | |
|---|---|
| ___ Mildew on lupine | ___ Barren soil or little vegetative response |
| ___ Other disturbances (e.g. ATVs) | ___ Encroaching trees or shrubs |
| ___ Browsing | ___ Agricultural sprays or other chemicals |
| ___ Competing with other vegetation (e.g. bracken, sedges, shrubs, etc) | |
| ___ Exotic/Invasive plants (indicate species and severity) | |

Nectar Plant Abundance

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9. General availability of nectar plants during **1st flight** period: Abundant - (50% or more coverage of nectar area)

(First flight periods are generally late May- June.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

10. General availability of nectar plants during **2nd flight** period: Abundant - (50% or more coverage of nectar area)

(Second flight periods are generally mid-July-mid-August.)

Common - (25-50% coverage)

Scarce - (<25% coverage)

Wisconsin Karner Blue Butterfly Habitat Conservation Plan

Survey Report Form

2021

Karner Blue Butterfly Presence/Absence

Enter year of survey

Purpose

Wild lupine is the obligate host plant for the federally endangered Karner blue butterfly. The purpose of the Lupine presence/absence survey is to determine if sufficient lupine is present on the site to support Karners, and if present, to map its location. Lupine presence/absence surveys are also used to document nectar plant abundance.

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Partner & Surveyor Information

Date of survey: 6/1/21

Partner Name: Savion

Landowner (if different than partner):

Surveyor(s) (Last name, First name): Flansburg, Amy

Are you using this form for (check one):

- Pre-management
Post-management
On-going management
Post-construction assessment
Site assessment
Other:

Have you completed the online survey training provided by the WI DNR? Yes No

If yes, what is the most recent year you took the training: 2018 (certification is valid for 5 years)

Did you attend the optional field day held by HCP staff with WDNR? Yes No

Site Location & Description

Complete all site identification information that applies:

County: Wood Partner site code: Saratoga Solar

Site/project name or comp/stand (or other descriptive name): Saratoga Solar QQ7

Legal description: Township Range Section
Site size (acres):

**GPS Coordinates: Lat: 44.279228 Long: -89.792985

** Provide the coordinates for the approximate center of the site. If you are unable to provide GPS coordinates, please provide T-R-S information.

Management strategy type (check one):

- Shifting mosaic (forestry/short term habitat)
Barrens, prairie, or savanna
Right-of-way
Post-construction restoration assessment

Date of last management activity (on this site): n/a Date of last survey (on this site): n/a

General Survey Information

****Dates of surveys**:** Three surveys are **required** to prove Karner absence. The first survey may be done during the first Karner blue butterfly flight period. If you find Karners on the first or second survey, you do not need to complete subsequent surveys. Both second and third surveys must be done during the second Karner blue butterfly flight period, with a 3-7 day interval between surveys. Refer to the Emergence Model website: <https://dnr.wi.gov/topic/ForestPlanning/karner/emergence.html> for the approximate dates of first and second flights.

Wind speed: Use a Kestrel wind speed monitor OR the following indicators to help you estimate wind speed:

Mph	Indication
<1	Smoke rises vertically
1-3	Wind direction shown by smoke drift
4-7	Wind felt on face, leaves rustle
8-12	Leaves and small twigs in constant motion; small branches sway
13-18	Wind raises dust and loose paper; small branches sway

Karner Blue Butterfly Survey- Information

Survey method: The two acceptable survey methods are (1): walk entire habitat area, and (2) transect method.

3. Fill in or circle the appropriate responses for each survey conducted:

	First survey	Second survey	Third survey
Date (mm/dd/yyyy)	6/1/21	7/6/21	7/12/21
Start time for survey	10:55 / 12:00 am or pm	10:36 am or pm	9:05 am or pm
End time for survey	11:10 / 12:16 am or pm	11:10 am or pm	9:40 am or pm
Minutes spent on survey	31 min	34 min	35 min
Temperature (°F)	74 degrees	82 degrees	66 degrees
Cloud cover (%)	20%	50%	40%
Wind speed (mph)	1-3 mph	1-3 mph	1-3 mph
Survey method	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2

Karner Blue Butterfly Survey- Observations

4. Circle the appropriate response for each survey conducted.

	First survey	Second survey	Third survey
Larvae feeding signs present?	Yes <input checked="" type="checkbox"/> No Not sure	Yes <input checked="" type="checkbox"/> No Not sure	Yes <input checked="" type="checkbox"/> No Not sure
Ants present?	Yes <input checked="" type="checkbox"/> No Not sure	Yes <input checked="" type="checkbox"/> No Not sure	Yes <input checked="" type="checkbox"/> No Not sure
Ants tending Karner larvae present?	Yes <input checked="" type="checkbox"/> No Not sure	Yes <input checked="" type="checkbox"/> No Not sure	Yes <input checked="" type="checkbox"/> No Not sure
Karner adults present?	Yes <input checked="" type="checkbox"/> No Not sure Optional: number of adults: _____	Yes <input checked="" type="checkbox"/> No Not sure Optional: number of adults: _____	Yes <input checked="" type="checkbox"/> No Not sure Optional: number of adults: _____

Other observations:

Nectar Plant Abundance

This section is **required** for mitigation projects, short-term habitat replacement for major construction projects, and any project requiring a Habitat Replacement Plan. These projects need nectar plant abundance for both 1st and 2nd flight periods. This section is recommended for others

5. General availability of nectar plants during **1st flight** period: Abundant - (50% or more coverage of nectar area)
(First flight periods are generally late May- June) Common - (25-50% coverage)

Scarce - (<25% coverage)

6. General availability of nectar plants during **2nd flight** period: Abundant - (50% or more coverage of nectar area)
(Second flight periods are generally mid-July-mid-August) Common - (25-50% coverage)

Scarce - (<25% coverage)

7. **If nectar is SCARCE (<25% coverage in lupine patch) in either 1st or 2nd flight**, map and calculate nectar area in acres within 200 meters of occupied lupine.

Nectar area outside of Karner blue occupied lupine: 1 acre

Nectar plants <i>(fill in observed species below)</i>	1 st flight period <i>(common, scarce, or abundant)</i>	2 nd flight period <i>(common, scarce, or abundant)</i>
bird's foot violet	scarce	
wild lupine	common	
frostweed		scarce
daisy fleabane		scarce
hoary puccoon		scarce
flowering spurge		scarce
long-leaved bluets		scarce
pale spiked lobelia		scarce

Site Map

14. Mapping:

NOTE: Ideally, you should complete your lupine survey and first Karner survey (if needed) in the same site visit. It would need to be during the first flight period. If Karners are observed, add those observations to a copy of your lupine map. Use the options below if you choose to complete your Karner survey for this site at a later date, or if Karners are not observed until your 2nd or 3rd KBB survey.

OPTION 1. Use a copy of the same map you used for the Lupine Presence/Absence survey.

- Hand-draw or add in using Adobe the locations where Karners were observed. You can use Adobe comment feature to add red squares or dots to the locations where Karners were observed, and the Adobe tools feature to add and change text on your map (i.e. changing the title and adding the coordinates to the legend).
- Include coordinates for each Karner observation.
- Attach map to this form.

OPTION 2. Recreate the map you used for the lupine survey.

- Use the DNR mapping application (https://dnrmapping.wi.gov/H5/?viewer=Location_Finder) and steps from the lupine survey form to recreate the site map.
- Add coordinates using the "Get lat/long" button for any Karners observed.
- Indicate what the flagged numbers represent in the "notes" section.
- Print and attach the map to this form.

Please note that we generally submit new or updated Karner blue butterfly occurrences to the Natural Heritage Inventory (NHI) at the end of each monitoring season. NHI data are exempt from the Wisconsin Open Records Law because rare species are very vulnerable to collection as well as destruction. NHI does not publish exact locations of rare species. However, the Bureau of Endangered Resources can and does share NHI data to facilitate management, protection, planning, and avoiding impacts to rare resources. Examples of groups we have shared data with are WDNR employees, local units of government, federal agencies, land trusts, and environmental consultants. If you have any questions or concerns about sharing information about Karner occurrences on your properties with NHI, please contact the HCP Program.