

Enrollment Application for the Nationwide Conservation Benefit Agreement for At-Risk Bumble Bees on Energy and Transportation Lands

Version: May 2026

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A **complete** application package must include:

- Your completed application form (this document)
- Maps or GIS files displaying the extent of lands being enrolled in the Bumble Bee Conservation Benefit Agreement (Bumble Bee CBA)
- Section 7 analysis supporting documentation
- Any supplemental information necessary to support your application, including files supporting baseline acres estimation

Already enrolled in the Monarch Candidate Conservation Agreement with Assurances (CCAA)? This application is easier to complete.

- Add your Certificate of Inclusion number to the Applicant Information below.
- Much of your Monarch CCAA application overlaps with requirements for the Bumble Bee CBA application. Include references to sections of your Monarch CCAA application where appropriate. Add Bumble Bee CBA-specific details into this application as necessary.

Submit the completed application (via email) to the Program Administrator:

University of Illinois Chicago's Energy Resources Center
Megan Petraitis, Senior Program Manager, Conservation Agreements
Email: mpetrait@uic.edu

Upon review of your completed application package, the Program Administrator will request:

- The return of your organization's Bumble Bee CBA Certificate of Inclusion (provided upon review completion) with a signature (a copy is available in the [Conservation Agreement Toolkit](#))
- Payment for the first year's administrative fee as calculated by the Program Administrator (Administrative Fee Calculator can be found on the [Conservation Agreement Toolkit](#)).

Looking for additional information to guide your application preparation? Check out the "Application" resources within the [Conservation Agreement Toolkit](#).

1. Applicant Information

Please list the contact information for the primary point of contact for your application as well as the name of the individual that is authorized to sign the certificate of inclusion.

Organization name: Bombus Energy, LLC
Date submitted: [June 1, 2026](#)
Monarch CCAA Certificate of Inclusion Number (if applicable): BEL2024-01

Primary Point of Contact:

Name: John Smith
Title: Environmental Specialist
Email: JSmith@BE.com
Phone: 555-555-1234

Authorizing Signature Contact:

Name:
Title:
Email:
Phone:

Does this application contain confidential or sensitive business information per Section 8 of the Agreement? If checking “yes”, describe what parts of the application are considered confidential or business-sensitive information below.

- No, this application does not contain confidential or sensitive information.
- Yes, this application contains confidential or sensitive information. The following sections should be treated as such:
[Click or tap here to enter text.](#)

Enrolled Lands Summary:

This is intended as a snapshot summary of your organization’s enrollment in the Monarch CCAA and Bumble Bee CBA. Additional information on enrolled lands should be described in Section 3 of this application.

Agreement	Acres Enrolled	Brief Description
Bumble Bee CBA	4,920	Linear rights-of-way located across three states (IA, MN, SD)
Monarch CCAA	4,920	Linear rights-of-way located across three states (IA, MN, SD)
Do these enrollments overlap?	Yes	<p>If yes, indicate the percentage of overlap and general vicinity of overlap (state/county or other description).</p> <p>100% overlap between CCAA and CBA throughout the three state enrolled lands.</p>

2. Covered Species and Baseline Acres

Indicate the covered species for which commitments and permit coverage on enrolled lands will be targeted. You may select multiple species. Species will vary by geographic extent of enrolled lands; please consult the [Occurrence Area Maps](#) to review species extent(s).

Acres of baseline habitat will be calculated for the selected species. Include a summary of estimated baseline acres calculated using the methodology described in Section 4.4 (Enrollment Process) of the Bumble Bee CBA, which is located in the Conservation Agreement Toolkit. Please add rows to the table below for additional species, as necessary.

Supporting documentation should be included as an attachment to this application. This includes any written summary or geospatial files supporting baseline acres estimation. It is recommended that Partners use the [Bumble Bee Habitat Analysis Tool](#). Summarize baseline acres by species in the table provided below.

Target	Common Name	Scientific Name	Estimated Baseline Acres
<input checked="" type="checkbox"/>	American bumble bee	<i>Bombus pensylvanicus</i>	163 Acres
<input type="checkbox"/>	Ashton's cuckoo bumble bee	<i>Bombus bohemicus</i>	Acres
<input type="checkbox"/>	Crotch's bumble bee	<i>Bombus crotchii</i>	Acres
<input type="checkbox"/>	Franklin's bumble bee	<i>Bombus franklini</i>	Acres
<input type="checkbox"/>	Morrison's bumble bee	<i>Bombus morrisoni</i>	Acres
<input checked="" type="checkbox"/>	Rusty patched bumble bee	<i>Bombus affinis</i>	7.0 Acres
<input checked="" type="checkbox"/>	Southern plains bumble bee	<i>Bombus fraternus</i>	4.0 Acres
<input checked="" type="checkbox"/>	Suckley's cuckoo bumble bee	<i>Bombus suckleyi</i>	0 Acres
<input type="checkbox"/>	Variable cuckoo bumble bee	<i>Bombus variabilis</i>	Acres
<input type="checkbox"/>	Western bumble bee	<i>Bombus occidentalis</i>	Acres
<input type="checkbox"/>	Yellow banded bumble bee	<i>Bombus terricola</i>	Acres

3. Description of Enrollment

Use the following questions to describe your enrollment. This includes existing conditions and functions, extent, ownership, land cover and habitat availability, anticipated covered activities, management constraints, and other incidental take permit or incidental take statements issued by the U.S. Fish and Wildlife Service or National Marine Fisheries Service under Section 10 or Section 7 of the Endangered Species Act that pertain to lands proposed for enrollment in the Bumble Bee CBA.

Enrolled Lands

Provide a short summary of the enrolled lands describing their location, extent, acreage, and land management ability (e.g., owned, easement, leased). Include:

- Applicant organization information (i.e., services provided, service area coverage).
- A summary or list of facilities occurring on enrolled lands (as applicable).
- Location and estimated acreage of enrolled lands.
- Land management ability: ownership, easement, and (if applicable) facilities located on easement or ROW held by other entities.

Bombus Energy, LLC proposes to enroll approximately 4,920 acres of managed (owned or held through easements) electrical transmission line rights-of-way. The enrolled lands are located along a subset of the company's transmission system in central Iowa, southern Minnesota, and eastern South Dakota (see attached map).

Lines were selected for enrollment based on the company's internal operational regions and their overlap with areas subject to similar management requirements under the Monarch CCAA. The majority of

enrolled lands are managed through easements, each of which defines the company's authority to conduct vegetation management within the right-of-way. In limited instances, Bombus Energy, LLC owns the land underlying the easement and retains full control over vegetation management. Some of Bombus Energy, LLC's easements overlap with areas enrolled by other Monarch CCAA and Bumble Bee CCA partners.

The proposed enrolled acres do not include substations or other Bombus Energy, LLC facilities at this time. This initial enrollment also excludes transmission lines located outside of the areas identified in this application and accompanying maps.

Describe existing land cover and bumble bee habitat availability on the enrolled lands.

This narrative should include a general description of the enrolled lands (size and location, facilities, presence of habitat, etc.), vegetation, and land cover providing suitable habitat for covered species. Include a short description of your planned conservation measures.

Bombus Energy, LLC easements may include suitable bumble bee habitat on enrolled lands that are in a naturalized condition. Suitable habitat is unlikely to occur on lands that are actively farmed, maintained as frequently mowed turf, or consist of impervious surfaces. Bombus Energy, LLC used the UIC Bumble Bee Baseline Tool to identify areas within its system where potential habitat may occur.

Describe how the boundaries of enrolled lands were delineated from lands not enrolled.

Include a description of assumptions or features used to delineate the boundaries of enrolled lands. Describe the general contents of the mapping provided, including the boundaries or assumptions used to delineate enrolled lands versus lands excluded from enrollment in the Bumble Bee CBA. Describe whether areas to be enrolled in the Bumble Bee CBA overlap with lands enrolled in the Monarch CCAA. If lands overlap between the Bumble Bee CBA and Monarch CCAA, describe the percentage of overlap and, where relevant, how enrollment in the Bumble Bee CBA differs from enrollment in the Monarch CCAA.

Transmission line fee-owned and easement boundaries are used to delineate the enrolled lands. Substations and other facilities located outside of these fee-owned or easement boundaries are not included in this enrollment at this time.

Areas enrolled represent a 100% overlap with lands currently enrolled by Bombus Energy, LLC in the Monarch CCAA.

Covered Activities

Summarize the covered activities for which enrollment will apply.

A list of activities eligible for coverage by the Bumble Bee CBA (Covered Activities) may be found in Section 5 of that document. Summarize the covered activities included within your enrollment. If enrolling the entire list of activities considered as covered activities in the Bumble Bee CBA, note as such. If only enrolling for a subset of covered activities, list or summarize which categories of, or specific, covered activities are included.

For example: "[COMPANY] is enrolling the entire list of covered activities as stated in Section 5 of the Nationwide Bumble Bee CBA on [insert type of operations i.e., Energy and Transportation] Lands. This will include [insert types of activities i.e., General Operations and Access and Vegetation Management] activities on [insert types of properties or facilities]."

Bombus Energy, LLC is enrolling the entire list of covered activities as stated in Section 5 of the Nationwide Bumble Bee CBA on transmission line rights-of-way lands. This will include operations, maintenance, and modernization activities on transmission lines.

Endangered Species Act Compliance

By checking this box, I, the Applicant, certify that I am currently, and will continue to remain in compliance with the Endangered Species Act. For the purposes of compliance with the Bumble Bee CBA, this includes avoiding take of federally listed fish and wildlife species, or designated critical habitat, unless authorized under a Service authorization or permit.

Summarize any existing agreements, permits, or other authorizations your organization may have regarding incidental take coverage for other federally listed endangered species.

This may include HCPs, incidental take authorizations, CCA/CCAAs, SHAs, CBAs, and consultations (e.g., Section 7 consultations).

Bombus Energy, LLC has been an enrolled partner in the Monarch CCAA since 2024. Aside from this participation, the company does not currently hold any other agreements, permits, or authorizations.

Conservation Commitments

Applicants are required to commit to specific minimum percentages for certain conservation measures on their enrolled lands. These minimum commitments are designed to ensure a net conservation benefit to the covered species:

- **Suitable habitat set-asides:** Partners must annually commit 5 percent or more of their enrolled lands as suitable habitat set-asides.
- **Conservation measures under “Manage, protect, and enhance foraging habitat”:** Partners must annually commit to the cumulative implementation of “active” conservation measures on a minimum of 3 percent or more of enrolled lands.
- **All other measures:** See the minimum commitment expectations summarized for individual conservation measures in Table 6-2 within the Bumble Bee CBA.

Including the extent to which measures are planned for implementation allows the Program Administrator to confirm alignment with minimum expectations for enrollment and alignment with the Biological Opinion issued in connection with U.S. Fish and Wildlife Service’s approval of the Bumble Bee CBA.

Select the conservation measures to be implemented on enrolled lands. Partners are required to select at least one conservation measure in at least four different conservation objective categories (light orange). Where relevant, estimate the extent (in acres) to which each measure will be applied on an annual basis.

Selected	Conservation Objective / Measure	Extent (ac) *
<input checked="" type="checkbox"/>	Manage, protect, and enhance nesting and overwintering habitat	--
<input checked="" type="checkbox"/>	Suitable habitat set asides (mandatory)	500
<input checked="" type="checkbox"/>	Avoidance of known or observed nest sites (mandatory)	4,920
<input checked="" type="checkbox"/>	Manage, protect, and enhance foraging habitat	--
<input checked="" type="checkbox"/>	Targeted herbicide treatments	300
<input checked="" type="checkbox"/>	Seeding and planting diverse and native floral resources	20
<input type="checkbox"/>	Conservation mowing	Acres
<input checked="" type="checkbox"/>	Brush removal that sustains native floral resources	200
<input type="checkbox"/>	Prescribed burning	Acres
<input type="checkbox"/>	Prescribed grazing	Acres
<input checked="" type="checkbox"/>	Minimize exposure to stressors and direct impacts	--
<input checked="" type="checkbox"/>	Targeted herbicide treatments	300
<input type="checkbox"/>	Reduce managed bee conflicts	Acres
<input type="checkbox"/>	Mowing to reduce exposure to pesticides and physical risks	Acres
<input type="checkbox"/>	Reduce exposures to mowing-related stressors	Acres
<input type="checkbox"/>	Reduce pesticide exposures via Partner-specific policies and planning	Acres
<input type="checkbox"/>	Increase knowledge of population trends and conservation needs	--
<input type="checkbox"/>	Collect and share data on bumble bee presence	--
<input type="checkbox"/>	Conduct bumble bee surveys using Service-approved protocols	--
<input type="checkbox"/>	Fund or conduct research that informs bumble bee conservation	--
<input checked="" type="checkbox"/>	Encourage advanced conservation commitments	--
<input checked="" type="checkbox"/>	Implement BMPs to limit the spread of invasive species	4,920
<input type="checkbox"/>	Controlling invasive species for conservation purposes	Acres
<input type="checkbox"/>	Create new bumble bee habitat areas	Acres
<input type="checkbox"/>	Enrollment in complementary certification programs that amplify conservation	--
<input type="checkbox"/>	Maintain a bumble bee conservation program for staff and contractors	--
<input type="checkbox"/>	Map high-quality habitat areas	--

Describe how the selected conservation measures will be implemented.

Provide descriptions and examples for all conservation measures selected. If selected measures overlap with Monarch CCAA enrollment, note that in your narrative. Describe the estimated extent and timing of each conservation measure, resources available, and other considerations, as appropriate.

Under the **Manage, protect, and enhance nesting and overwintering habitat** objective:

- Suitable habitat set asides (mandatory) will be maintained in areas where no vegetation management, maintenance, or construction work is conducted in the calendar year. We anticipate approximately 500 acres of idle lands set aside annually, or approximately 10% of Bombus Energy enrolled lands.
- Avoidance of known or observed nest sites (mandatory) will occur in locations where bumble bee nests are identified for covered species per the measure expectations.

Under the **Manage, protect, and enhance foraging habitat** objective:

- Targeted herbicide treatments will be applied in conjunction with Bombus Energy's vegetation management program in a manner compliant with the minimum expectations described in the CBA Table 6-2.
- Seeding and planting diverse and native floral resources will be accomplished through post-construction revegetation practices using native seed mixes. The company will also periodically complete natural area restoration seeding through partnerships on enrolled lands.
- Brush removal that sustains native floral resources will be applied similar to targeted herbicides. Work will be done in conjunction with Bombus Energy's vegetation management program in a manner compliant with the minimum expectations described in the CBA Table 6-2.

Under the **Minimize exposure to stressors and direct impacts** objective:

- Targeted herbicide treatments will also help minimize exposures to pesticides through reduced application use.

Under the **Encourage advanced conservation commitments** objective:

- Implement BMPs to limit the spread of invasive species will be accomplished through Bombus Energy's corporate invasive species prevention policy. This policy requires all equipment to remove all dirt, mud, and plant parts before mobilizing equipment on or off of a site with natural vegetation. A copy of this policy is available as an attachment to this application.

Identify any management constraints that may affect your ability to implement the identified conservation measures.

Describe in a short summary (1-2 paragraphs) any constraints that affect your ability to implement conservation measures or to address key threats. Management constraints are limitations on your management controls that may result from laws and regulations, restrictions based on the type of ownership, provisions in relevant easements or leases, organizational policies, site conditions, or management capabilities.

Most of the enrolled lands are located on easements held by property owners other than Bombus Energy, LLC. This may affect the company's ability to implement certain conservation measures in some locations. For example, where easements do not currently authorize herbicide use, the company must obtain landowner permission before applying herbicides. Landowner refusal may limit the use of targeted herbicide treatments in these areas.

In addition, some Bombus Energy, LLC rights-of-way are co-located with other infrastructure corridors, including roadsides, pipelines, and electric distribution lines. The activities and rights of other easement holders may periodically influence the company's ability to implement conservation measures in these locations.

If conservation measure commitments will not be fully implemented during the first full calendar year of enrollment, describe the proposed implementation schedule.

If the targeted implementation rate will not be achieved during the first full calendar year of enrollment, include an estimate of the anticipated interim implementation rate(s), and the expected interim implementation acres targeted, for each of the interim years until the full target implementation rate is expected to be met (Note: Interim period cannot last longer than 5 years).

Bombus Energy, LLC anticipates being able to achieve the minimum commitments required by the end of Year 1.

Describe the proposed schedule and planned approach to annual monitoring.

Provide a description of the effectiveness monitoring approach planned pursuant to Section 14 of the Bumble Bee CBA.

Monitoring will be conducted annually by Bombus Energy, LLC staff or qualified contractors. A minimum of 30 plots will be randomly selected across the enrolled lands each year, and plot locations will vary annually. Monitoring will generally take place between May and August. All results will be reported to the Program Administrator.

4. Attachments

Attachment 1. Section 7 Determination

In accordance with the Biological Opinion issued by the U.S. Fish and Wildlife Service (USFWS) in connection with its approval of the Bumble Bee CBA, provide documentation to support the USFWS Section 7 evaluation of covered activities and their potential to jeopardize to species currently listed or proposed for listing under the ESA, or to destroy or adversely modify critical habitat designated or proposed for designation by USFWS. Documentation should, at a minimum, include a summary with:

- List of the current or proposed federal-listed species within and critical habitats that overlap with enrolled lands,
- Existing procedures and data sources used by the Applicant to identify the location of listed species or potentially occupied suitable habitat,
- Activities that are subject to S7 outside of this Agreement, if applicable,
- Where species listed or proposed for listing under the ESA occur on lands that overlap with covered species habitat, include avoidance and minimization measures currently used (or proposed) for each federally listed or proposed plant species.
- Where proposed or designated critical habitat occurs on lands that overlap with covered species habitat, include avoidance and minimization measures currently used (or proposed) for each critical habitat. Reference any existing ESA authorizations addressing such designated or proposed critical habitat.

If Bumble Bee CBA enrolled lands completely overlap with lands enrolled in the Monarch CCAA, then the existing ESA Section 7 analysis conducted for that agreement may fulfill the Section 7 analysis needs for the Bumble Bee CBA. A copy of the Applicant's most current Section 7 attachment should be provided to verify the inclusion of any species or critical habitat proposed or finalized since the Applicant's enrollment in the Monarch CCAA.

Name of Attachment 1: [Bombus_Section 7 Attachment.pdf](#)

Attachment 2. Map of Enrolled Lands

Provide either a map or GIS data showing the location and extent of Enrolled Lands. Indicate below which will be submitted and attached to the application package upon submittal. If enrollment in both the Monarch CCAA and Bumble Bee CBA does not completely overlap, provide a map or GIS files that illustrate the geographic differences between lands enrolled in each agreement.

- Map
- GIS files

Name of Attachment 2: [Enrollment map.pdf](#)

Attachment 3. Baseline Calculation

Provide documentation supporting the methodology and data used for calculating baseline acres for covered species. Include links or files to the data as well as other resources used in this calculation.


Please provide a summary that includes:

- Description of methodology and data used for baseline calculations demonstrating compliance with the methods described in Section 4.4.3 (Baseline Determinations) in the Bumble Bee CBA,
- Summary of baseline acres for each covered species selected,
- Links, references, or files of data used in baseline calculations.

Name of Attachment 3: *Bombus baseline calculations June 2026.pdf*

5. Acknowledgements

In witness whereof, the participating entity here acknowledges that this application is accurate and submitted with the intent to enroll in a Certificate of Inclusion under the Bumble Bee CBA. The permit coverage provided will be in effect as of the last date and signature included on the Certificate of Inclusion, which is prepared after application review.

	Jane Johnson, Environmental Manager	6/1/2026
Applicant(s) Signature	Printed Name, Title	Date

Upon issuance of a Certificate of Inclusion by the Program Administrator, the enrolled Partner must adhere to all terms and conditions of the Agreement. According to the pending listing finding, the primary threat to monarchs is habitat loss and degradation. Therefore, in order for this Agreement to address the conservation needs of the covered species, the conservation measures in this application must be implemented by all representatives of the applying organization on the enrolled lands.

By signing this Application, in compliance with the Agreement, you agree to:

1. Abide by all terms of the Agreement, including but not limited to, provisions relating to reporting, payment of fees, and notification to Administrator regarding compliance issues and/or the occurrence of any unforeseen or changed circumstances, as well as specific management strategies for each conservation measure designated in the application with respect to enrolled lands. Administrative fees are due prior to full execution of the Certificate of Inclusion, then on an annual basis from the date of the fully executed Certificate of Inclusion, or subject to another previously agreed upon date between the Partner and Program Administrator.
2. Complete an implementation plan within one year from the date of the fully executed Certificate of Inclusion. Partners already enrolled in the Monarch CCAA may update or modify their existing implementation plan to incorporate considerations for both the Monarch CCAA and this Agreement in a combined implementation plan. An implementation plan will be created by the Partner and address the following:
 - i. Roles and responsibilities - who is involved in the implementation of the conservation measures, and the applicable communication structure.
 - ii. How the Partner intends to implement the conservation measures, tracking, monitoring, adaptive management, and reporting required in the Agreement, including:
 - > Timing and prescriptions for conservation measures,
 - > Timing expectations for tracking, monitoring, and reporting,
 - > Targeted implementation ramp up periods and targets (if applicable),
 - > Proposed approach to implement monitoring,
 - > Adherence to any applicable quality control procedures internal to the Partner organization, and
 - > Funding for implementation (whether funding for conservation measures and other requirements comes from capital expenditures or operations and maintenance budgets).

- > Use of best management practices and guidance available on the Conservation Agreement Toolkit website.¹
- 3. Acknowledge that, as a Partner, the organization is responsible for their own compliance with applicable state and Federal laws related to listed species, historic and cultural resources, and other environmental resource protection. The organization also acknowledges that they will communicate and coordinate with underlying landowners (as applicable) and follow terms and conditions of the Enhancement of Survival (EOS) Permit issued to the Program Administrator. The Service's guidelines for complying with Section 106 of the National Historic Preservation Act are included as part of Appendix C (Supplemental Information) in the Agreement.
- 4. Implement Partner-selected conservation measures within the first full calendar year following the full execution of an individual Certificate of Inclusion. If implementation within the first full calendar year is not practical, the Applicant may propose an alternative implementation timeline (up to five years) to the Program Administrator for review and approval.
- 5. Track the location (e.g., statewide or finer scale) of where and when (e.g., the date of last completion) conservation measures are implemented for compliance verification as described in Section 7 of the Agreement (Obligations of the Parties).
- 6. Conduct effectiveness monitoring within a subset of locations where conservation measures are implemented for compliance verification as described in Section 14 of the Agreement (Monitoring Provisions).
- 7. Provide the Service and the Program Administrator, or their agreed upon representatives, access to the enrolled property to identify or monitor covered species and their habitat, evaluate conservation measures, and monitor effectiveness and compliance with individual Partners at mutually agreeable times. All applicable safety trainings and appropriate measures will be communicated to Program Administrator, the Service, or their designee by the Partner in a timely manner prior to site access. Any and all representatives of Program Administrator, the Service, or their designee must adhere to all Partner-specific and site-specific health and safety compliance requirements, including associated training, certifications (if applicable), and protocols.
- 8. Allow the Program Administrator to share, as requested, with the Service or other Agreement Partners, habitat and other planning or monitoring information related to the enrolled properties. Information sharing will not include any confidential business or proprietary information per the terms and conditions specified in Section 8 (Confidentiality) of the Agreement.

¹ An existing integrated vegetation management (IVM) plan (if consistent with conservation measures proposed in the application and includes all information listed above) may suffice for this description or provide the basis for one.

Species	Taxa	Federal Status	Bumble Bee Habitat Overlap	Notes
Indiana Bat (<i>Myotis sodalis</i>)	Mammals	Endangered	Yes	
Tricolored Bat (<i>Perimyotis subflavus</i>)	Mammals	Proposed Endangered	Yes	
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Mammals	Endangered	Yes	
Red Knot (<i>Calidris canutus rufa</i>)	Birds	Threatened	No	
Topeka Shiner (<i>Notropis topeka</i>)	Fishes	Endangered	No	
Topeka Shiner (<i>Notropis topeka</i>)	Critical Habitat	Designated	No	
Dakota Skipper (<i>Hesperia dacotae</i>)	Insects	Threatened	Yes	
Dakota Skipper (<i>Hesperia dacotae</i>)	Critical Habitat	Designated	Yes	Critical habitat elements do not overlap with enrolled lands.
Monarch Butterfly (<i>Danaus plexippus</i>)	Insects	Proposed Threatened	Yes	
Suckley's Cuckoo Bumble Bee (<i>Bombus suckleyi</i>)	Insects	Endangered	Yes	0 baseline acres, but included in CBA enrollment
Western Regal Fritillary (<i>Argynnis idalia occidentalis</i>)	Insects	Proposed Threatened	Yes	
Prairie Bush-clover (<i>Lespedeza leptostachya</i>)	Plants	Threatened	Yes	
Western Prairie-fringed Orchid (<i>Platanthera praeclara</i>)	Plants	Threatened	Yes	
Poweshiek Skipperling (<i>Oarisma Poweshiek</i>)	Critical Habitat	Designated	No	Critical habitat elements do not overlap with enrolled lands.

**General and Species- or Habitat-Specific Avoidance and Minimization Measures (AMMs) for Federal-listed Plants
and Critical Habitats within Enrolled Lands**

General

1. Avoid affecting any area where listed or proposed plant species may be present during operations and maintenance projects. See individual species for habitat requirements. To determine known locations of listed and proposed plant species, a desktop review of state natural heritage information systems will be conducted. In addition, a desktop review for suitable habitat of listed and proposed plants will be conducted prior to implementing covered activities (i.e., operations and maintenance activities including vegetation management). If suitable habitat is identified, presence will be assumed, or surveys will be conducted to determine presence or absence. If impacts cannot be avoided or if uncertain impacts can be avoided, coordinate with the U.S. Fish and Wildlife Service (USFWS).
2. Ensure that the environmental inspectors and operations and maintenance staff are trained to ensure a sufficient understanding of the AMMs, as well as information about potential habitat, or any protected plant species in the project area.
3. Design project or implement measures to reduce or avoid alterations to natural surface run-off patterns and dynamics of terrestrial habitats in order to avoid impacts on listed and proposed plant species (see general AMM #1 above) and to proposed or designated terrestrial critical habitats. Species-specific AMMs are provided below for critical habitats designated for aquatic species.
4. Ensure materials used (e.g., soil, gravel, rock) at project sites are free of invasive species before placement on-site. Implement prevention and control measures to reduce the presence of invasive species onsite. All vehicles, machinery, and equipment, including technical gear and personal protective equipment, must be clean of all visible dirt and mud and free of invasive species before use at the project site. Operators should initiate a weed monitoring program to aggressively detect and control the spread of any invasive weeds if they become established within the project area.
5. In areas containing listed or proposed plant species (see general AMM #1 above), herbicide applications for invasive species control will be made to individual plants or stands of the target invasive species. Specifically, spot treat noxious weeds with herbicides in areas with listed or proposed plant populations and follow label instructions. Control populations of reed canary grass, smooth brome, and other highly invasive non-native grasses. Adhere to timing and use recommendations for herbicides.
6. Disturbed areas of potential habitat will be restored using native, non-invasive seed mixes. Seed mix and any mulch used should be certified weed-free; seed test results should be requested from the vendor to avoid inadvertently introducing non-native species to the site. Seed mixes and restoration plans will be informed by native reference ecosystems and assessed against clear goals and objectives.
7. Institute timing restrictions designed to minimize or avoid the effects of certain activities. These avoidance periods typically overlap with important life history functions for a species (e.g., flowering). Any seasonal restrictions would be developed in coordination with the USFWS field office. See individual species for requirements.
8. Avoid working in locations with listed or proposed plant species (see general AMM #1 above) when activities there are likely to cause damage to the species or its habitat. Ideally, this would involve frozen, snow-covered ground. However, in areas where frozen conditions are unreliable, very dry soils late in the growing season might be the best available alternative. No work will be conducted in locations with listed or proposed plant species without incorporating recommendations for the avoidance and minimization of impacts from the local USFWS field office.

Species	Federal Status	Habitat and Related Information	Species-specific AMMs	Sources
Plants				
Prairie Bush-clover (<i>Lespedeza leptostachya</i>)	T	<p>A Midwestern endemic species known only from the tallgrass prairie region of the upper Mississippi River Valley, it is found in prairie remnants in four Midwestern states. It may be found on mesic to dry-mesic prairie slopes and upper slopes of bluff prairies.</p> <p>Threats include habitat degradation and loss, including conversion of pasture to cropland, overgrazing, and exurban development.</p>	<p>The following AMMs will be implemented when initiating operations and maintenance activities (1) near or within locations of known occurrences; and (2) in areas where desktop habitat review has shown that the species may be present and (a) presence is assumed or (b) surveys are subsequently conducted and document occurrence (see general AMM #1 above):</p> <ol style="list-style-type: none"> 1. If woody vegetation removal activities are implemented, we will maintain and restore open habitat through selective clearing and brushing and the remaining stumps will be treated with herbicide to prevent regrowth. 2. We will avoid introduction of aggressive competing plant species and, if they are already present, minimize their expansion. When possible, invasive species will be targeted for herbicide spot treatment. 3. Vegetation maintenance activities will take place outside of the growing season (typically early to late May through mid-September), except spot-spraying of target non-native invasive species. Vegetation maintenance activities include mowing, woody vegetation removal, and treating of stumps of woody vegetation, and spot-spraying for invasive non-native species. 	<p>USFWS. 2009. Prairie Bush Clover (<i>Lespedeza leptostachya</i>): Fact sheet. Available at: https://www.fws.gov/midwest/endangered/plants/prairiebushclover/prairieb.html.</p> <p>Minnesota DNR. 2020. Prairie Bush Clover (<i>Lespedeza leptostachya</i>). Available at: https://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&selectedElement=PDFAB27090.</p>
Western Prairie Fringed Orchid (<i>Platanthera praeclara</i>)	T	<p>Occurs most often in mesic to wet unplowed tallgrass prairies and meadows but have been found in old fields and roadside ditches.</p> <p>The primary threat to this species is habitat loss, mostly through conversion to cropland. Competition</p>	<p>The following AMMs will be implemented when initiating operations and maintenance activities (1) near or within locations of known occurrences; and (2) in areas where desktop habitat review has shown that the species may be present and (a) presence is assumed or (b) surveys are subsequently conducted and document occurrence (see general AMM #1 above):</p>	<p>USFWS. 2004. Prairie Fringed Orchids: Fact sheet. Available at: https://www.fws.gov/midwest/endangered/plants/prairief.html.</p>

Species	Federal Status	Habitat and Related Information	Species-specific AMMs	Sources
		<p>with introduced alien plants, filling of wetlands, intensive hay mowing, fire suppression, and overgrazing also threaten habitat and populations.</p>	<ol style="list-style-type: none"> 1. Preconstruction hydrological conditions will be maintained throughout the duration of construction activities and in post construction. 2. We will filter runoff and discharge to ensure removal of any substances introduced by project activities. Water discharged into habitat will be a similar temperature and stream flow rate to existing water bodies. 3. If woody vegetation removal activities are implemented, we will maintain and restore open habitat through selective clearing and brushing and the remaining stumps will be treated with herbicide to prevent regrowth. 4. We will avoid the introduction of aggressive competing plant species and, if they are already present, minimize their expansion. When possible, invasive species will be targeted for herbicide spot treatment. 5. Vegetation maintenance activities will take place outside of the growing season (October 1 to March 31) s, except spot-spraying of target non-native invasive species. 	<p>Minnesota DNR. 2020. Western Prairie Fringed Orchid (<i>Platanthera praeclara</i>). Available at: https://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&selectedElement=PMORC1Y0S0.</p>

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Iowa, Minnesota, and South Dakota



Local offices

Illinois-Iowa Ecological Services Field Office

☎ (309) 757-5800

📠 (309) 757-5807

Illinois & Iowa Ecological Services Field Office

1511 47th Ave

Moline, IL 61265-7022

Minnesota-Wisconsin Ecological Services Field Office

☎ (952) 858-0793

3815 American Blvd East

Bloomington, MN 55425-1659

South Dakota Ecological Services Field Office

☎ (605) 224-8693

📠 (605) 224-1416

420 South Garfield Avenue, Suite 400

Pierre, SD 57501-5408

<https://www.fws.gov/office/south-dakota-ecological-services>

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

Birds

NAME	STATUS
Rufa Red Knot <i>Calidris canutus rufa</i> Wherever found There is proposed critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/1864	Threatened

Fishes

NAME	STATUS
Topeka Shiner <i>Notropis topeka</i> (=tristis) There is final critical habitat for this species. Your location overlaps the critical habitat. https://ecos.fws.gov/ecp/species/4122	Endangered

Insects

NAME	STATUS
Dakota Skipper <i>Hesperia dacotae</i> Wherever found There is final critical habitat for this species. Your location overlaps the critical habitat. https://ecos.fws.gov/ecp/species/1028	Threatened
Monarch Butterfly <i>Danaus plexippus</i> Wherever found There is proposed critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/9743	Proposed Threatened
Suckley's Cuckoo Bumble Bee <i>Bombus suckleyi</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10885	Proposed Endangered
Western Regal Fritillary <i>Argynnis idalia occidentalis</i> Wherever found No critical habitat has been designated for this species.	Proposed Threatened

Flowering Plants

NAME	STATUS
Prairie Bush-clover <i>Lespedeza leptostachya</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4458	Threatened
Western Prairie Fringed Orchid <i>Platanthera praeclara</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1669	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
Dakota Skipper <i>Hesperia dacotae</i> https://ecos.fws.gov/ecp/species/1028#crithab	Final
Poweshiek Skipperling <i>Oarisma poweshiek</i> For information on why this critical habitat appears for your project, even though Poweshiek Skipperling is not on the list of potentially affected species at this location, contact the local field office. https://ecos.fws.gov/ecp/species/9161#crithab	Final
Topeka Shiner <i>Notropis topeka</i> (=tristis) https://ecos.fws.gov/ecp/species/4122#crithab	Final

Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their nests, should follow appropriate regulations and implement required avoidance and minimization measures, as described in the various links on this page.

The [data](#) in this location indicates that no eagles have been observed in this area. This does not mean eagles are not present in your project area, especially if the area is difficult to survey. Please review the 'Steps to Take When No Results Are Returned' section of the [Supplemental Information on Migratory Birds and Eagles document](#) to determine if your project is in a poorly surveyed area. If it is, you may need to rely on other resources to determine if eagles may be present (e.g. your local FWS field office, state surveys, your own surveys).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

Bald and Golden Eagle information is not available at this time

Bald & Golden Eagles FAQs

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are an eagle ([Bald and Golden Eagle Protection Act](#) requirements may apply).

Proper interpretation and use of your eagle report

On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort line or no data line (red horizontal) means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

How do I know if eagles are breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the [RAIL Tool](#) and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:

The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Migratory birds

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior [authorization](#) by the Department of Interior U.S. Fish and Wildlife Service (FWS).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

Migratory bird information is not available at this time

Migratory Bird FAQs

Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Avoidance & Minimization Measures for Birds](#) describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the [Bald and Golden Eagle Protection Act](#) and those species marked as "Vulnerable". See the FAQ "What are the levels of concern for migratory birds?" for more information on the levels of concern covered in the IPaC migratory bird species list.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) with which your project intersects. These species have been identified as warranting special attention because they are BCC species in that area, an eagle ([Bald and Golden Eagle Protection Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, and to verify survey effort when no results present, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

Why are subspecies showing up on my list?

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the [RAIL Tool](#) and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Bald and Golden Eagle Protection Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ "Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Proper interpretation and use of your migratory bird report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list does not represent all birds present in your project area. It is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:

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To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

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Survey Effort ()

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()

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Survey Timeframe

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Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

This location overlaps the following National Wildlife Refuge lands:

LAND	ACRES
DAKOTA TALLGRASS PRAIRIE WILDLIFE MANAGEMENT AREA	672.13 acres
KOSSUTH COUNTY WATERFOWL PRODUCTION AREA	3,309.81 acres
KOSSUTH COUNTY WATERFOWL PRODUCTION AREA	511.97 acres
MOODY COUNTY WATERFOWL PRODUCTION AREA	571.65 acres
NORTHERN TALLGRASS PRAIRIE NATIONAL WILDLIFE REFUGE	473.97 acres

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

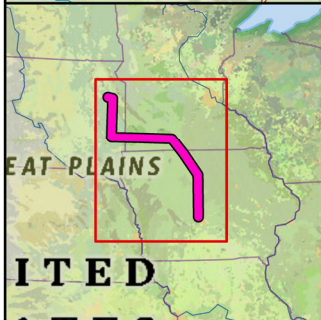
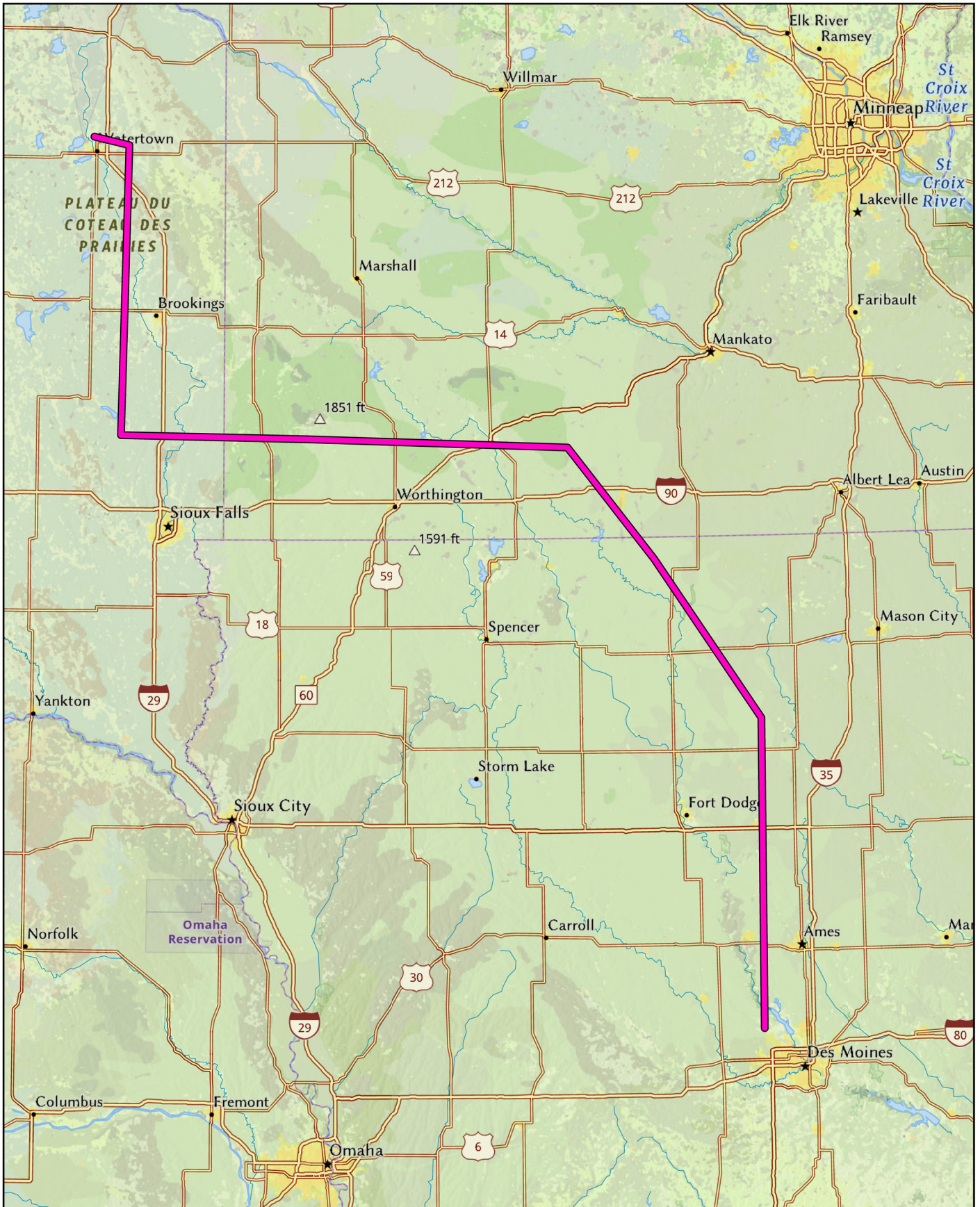
Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions


Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local

government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION



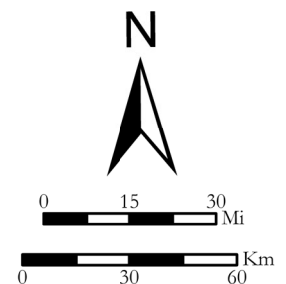
Bumble Bee CBA Enrolled Lands Bombus Energy, LLC

 Enrolled Lands

Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS, Sources: Esri, USGS, Esri, USGS, Iowa DNR, Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, NPS, USFWS

June 2026

Coordinate System: NAD 1983 HARN Contiguous USA Albers



DEMO Bee Report

This report identifies areas of overlap between all management areas, and occurrence areas for bumble bee species of concern.

Date Exported: 5/28/2026 4:04 PM
Group: Bombus Energy

Number of Management Areas: 23
Total Acreage: 4,920
Total Bee Occurrence Acreage: 174

American: 163
Ashtons Cuckoo: 0
Crotch's: 0
Franklin: 0
Morrison's: 0
Rusty Patched: 7
Southern Plains: 4
Suckley's: 0
Variable Cuckoo: 0
Western: 0
Yellow Banded: 0