

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

Minnesota



Local office

Minnesota-Wisconsin Ecological Services Field Office

☎ (952) 858-0793

3815 American Blvd East

Bloomington, MN 55425-1659

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
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
Whooping Crane <i>Grus americana</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/758	EXPN

Clams

NAME	STATUS
Salamander Mussel <i>Simpsonia ambigua</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/6208	Proposed Endangered

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

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

Critical habitats

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

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

There are no documented cases of eagles being present at this location. However, if you believe eagles may be using your site, please reach out to the local Fish and Wildlife Service office.

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-incidental-take-migratory-birds>
- Nationwide conservation 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

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 a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

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

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

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) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle 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, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

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-incidental-take-migratory-birds>
- Nationwide conservation 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>

Migratory bird information is not available at this time

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

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding 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 USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

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) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle 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, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

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 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 year-round), you may query your location using the [RAIL Tool](#) and look at 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 migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, 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 [Eagle 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 try 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 eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

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.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

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 also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). 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 is not perfect; 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 helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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
KANDIYOHI COUNTY WATERFOWL PRODUCTION AREA	33,350.07 acres
LYON COUNTY WATERFOWL PRODUCTION AREA	369.38 acres
YELLOW MEDICINE COUNTY WATERFOWL PRODUCTION AREA	457.93 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.

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.

**Natural Heritage Information System Records of State Special Concern Species Documented
within One Mile of the Project**

Scientific Name	Common Name	Type	State Status	Federal Status	Habitat ¹
<i>Anaxyrus cognatus</i>	Great plains toad	Toad	Special concern	Not listed	Formerly occurred in the extensive dry tallgrass prairie and open grasslands but is now found primarily in agricultural areas and in tiny remnant prairies and grasslands.
<i>Argynnis idalia</i>	Regal fritillary	Butterfly	Special concern	Not listed	Native prairie.
<i>Astragalus flexuosus</i> var. <i>flexuosus</i>	Slender milk-vetch	Vascular plant	Special concern	Not listed	Dry prairies and in mesic prairies, and most commonly in hill prairies, which are frequently dry-mesic in nature.
<i>Astragalus missouriensis</i> var. <i>missouriensis</i>	Missouri milk-vetch	Vascular plant	Special concern	Not listed	Dry prairies on glacial till, and primarily in dry sand-gravel prairies or in dry, sandy areas within hill prairies.
<i>Atrytone arogos iowa</i>	Iowa skipper	Butterfly	Special concern	Not listed	Mesic to dry mesic native prairie.
<i>Buellia nigra</i>	A species of lichen	Fungus	Special concern	Not listed	Non-calcareous rock in sunny exposed areas, sometimes near the edge of hardwood forests.
<i>Buteo lineatus</i>	Red-shouldered hawk	Bird	Special concern	Not listed	Large tracts of mature deciduous forests with scattered wetlands.
<i>Chondestes grammacus</i>	Lark sparrow	Bird	Special concern	Not listed	Rock outcrops, fire dependent forests, savannas, upland prairies.
<i>Cirsium pumilum</i> var. <i>hillii</i>	Hill's thistle	Vascular plant	Special concern	Not listed	Southern dry prairies and southern dry savannas, and to a lesser extent drier examples of southern mesic prairies and woodlands (central dry pine woodland and central poor dry pine woodland with scattered oaks or Jack pine.
<i>Cygnus buccinator</i>	Trumpeter swan	Bird	Special concern	Not listed	Littoral zone of lakes, marshes.

Scientific Name	Common Name	Type	State Status	Federal Status	Habitat ¹
<i>Cypripedium candidum</i>	Small white lady's-slipper	Vascular plant	Special concern	Not listed	Mesic prairies with deep soil.
<i>Falco peregrinus</i>	Peregrine falcon	Bird	Special concern	Not listed	Cliff ledges along rivers and lakes.
<i>Gallinula galeata</i>	Common gallinule	Bird	Special concern	Not listed	Freshwater cattail-bulrush marshes (northern) and prairie.
<i>Gymnocladus dioica</i>	Kentucky coffee tree	Vascular plant	Special concern	Not listed	Mesic hardwood forests on terraces of the Minnesota River, the Mississippi River below the Twin Cities, and a few major tributaries
<i>Lasmigona compressa</i>	Creek heelsplitter	Mussel	Special concern	Not listed	Small rivers and streams.
<i>Leucophaeus pipixcan</i>	Franklin's gull	Bird	Special concern	Not listed	Large prairie marshes.
<i>Ligumia recta</i>	Black sandshell	Mussel	Special concern	Not listed	Large and medium rivers and streams.
<i>Necturus maculosus</i>	Mudpuppy	Salamander	Special concern	Not listed	Rivers, lakes, reservoirs, and sluggish streams.
<i>Onychomys leucogaster</i>	Northern grasshopper mouse	Mouse	Special concern	Not listed	Sites with gravelly or coarse soils, including active and inactive quarry sites. They occur in a variety of upland prairie habitats, most often in areas with sparse vegetation.
<i>Opuntia macrorhiza</i>	Devil's tongue	Vascular plant	Special concern	Not listed	Margins of bedrock exposures and in associated dry prairie communities, specifically in thin, dry soil over granite, quartzite, and gneiss
<i>Panax quinquefolius</i>	American ginseng	Vascular plant	Special concern	Not listed	Well-developed forest soil, typically mesic loamy soil. In most cases, the forests have a closed canopy of mature sugar maple, basswood, or northern red oak.
<i>Pituophis catenifer</i>	Gophersnake	Snake	Special concern	Not listed	Well-drained, loose sandy and gravel soils in dry sand prairies and bluff prairies.

Scientific Name	Common Name	Type	State Status	Federal Status	Habitat ¹
<i>Pleurobema sintoxia</i>	Round pigtoe	Mussel	Special concern	Not listed	Medium to large rivers.
<i>Progne subis</i>	Purple martin	Bird	Special concern	Not listed	Open fields, streams and rivers, and open water habitats including wetlands, marshes, and lakes.
<i>Sterna forsteri</i>	Forster's tern	Bird	Special concern	Not listed	Extensive marshes with an interspersed of emergent vegetation and open water
<i>Trillium nivale</i>	Snow trillium	Vascular plant	Special concern	Not listed	Mesic hardwood forests dominated by sugar maple, basswood, and oaks.
<i>Urocitellus richardsonii</i>	Richardson's ground squirrel	Squirrel	Special concern	Not listed	Open habitat, preferring dry well-drained soils for burrowing.
<i>Vireo bellii</i>	Bell's vireo	Bird	Special concern	Not listed	Shrub thickets, clumps, and edges within or bordering open habitats such as grasslands or wetlands.

¹ Habitat information is from Rare Species Guide available here:

<https://www.dnr.state.mn.us/rsg/index.html>.

Regional Segment					Region A																	
					A1 (Purple Route)		A2		A3 (Blue Route)		A4		A5		A6		A7					
Buffer					ROW	Route Width h	1- Mile	ROW	Route Width h	1- Mile	ROW	Route Width h	1- Mile	ROW	Route Width h	1- Mile	ROW	Route Width h	1- Mile	ROW	Route Width h	1- Mile
					ROW	Route Width h	1- Mile	ROW	Route Width h	1- Mile	ROW	Route Width h	1- Mile	ROW	Route Width h	1- Mile	ROW	Route Width h	1- Mile	ROW	Route Width h	1- Mile
Scientific Name	Common Name	Type	State Status	Federal Status																		
<i>Ammodramus henslowii</i>	Henslow's sparrow	Bird	Endangered	Not listed								X			X					X		
<i>Juglans cinerea</i>	Butternut	Vascular plant	Endangered	Not listed																		
<i>Lampsilis teres</i>	Yellow sandshell	Mussel	Endangered	Not listed																		
<i>Lanius ludovicianus</i>	Loggerhead shrike	Bird	Endangered	Not listed																		
<i>Oarisma poweshiek</i>	Poweshiek skipperling	Butterfly	Endangered	Endangered						X	X	X	X	X	X			X	X	X	X	X
<i>Rallus elegans</i>	King rail	Bird	Endangered	Not listed																		
<i>Simpsoniolas ambigua</i>	Salamander mussel	Mussel	Endangered	Not listed																		
<i>Actinonaias ligamentina</i>	Mucket	Mussel	Threatened	Not listed																		
<i>Alasmodonta marginata</i>	Elktoe	Mussel	Threatened	Not listed																		
<i>Asclepias sullivantii</i>	Sullivant's milkweed	Vascular plant	Threatened	Not listed																		
<i>Bacopa rotundifolia</i>	Waterhyssop	Vascular plant	Threatened	Not listed			X			X												
<i>Berula erecta</i>	Stream parsnip	Vascular plant	Threatened	Not listed													X					
<i>Emydoidea blandingii</i>	Blanding's turtle	Turtle	Threatened	Not listed																		
<i>Eurynia dilatata</i>	Spike	Mussel	Threatened	Not listed																		
<i>Lasmigona costata</i>	Fluted-shell	Mussel	Threatened	Not listed																		
<i>Lespedeza leptostachya</i>	Prairie bush clover	Vascular plant	Threatened	Threatened																		
<i>Minuartia dawsonensis</i>	Rock sandwort	Vascular plant	Threatened	Not listed																		
<i>Quadrula nodulata</i>	Wartyback	Mussel	Threatened	Not listed																		
<i>Anaxyrus cognatus</i>	Great plains toad	Toad	Special concern	Not listed																		
<i>Argynnis idalia</i>	Regal fritillary	Butterfly	Special concern	Not listed						X	X	X	X	X	X			X	X	X	X	X
<i>Astragalus flexuosus</i> var. <i>flexuosus</i>	Slender milk-vetch	Vascular plant	Special concern	Not listed																		
<i>Astragalus missouriensis</i> var. <i>missouriensis</i>	Missouri milk-vetch	Vascular plant	Special concern	Not listed																		
<i>Atrytone arogas iowa</i>	Iowa skipper	Butterfly	Special concern	Not listed																		
<i>Buellia nigra</i>	A species of lichen	Fungus	Special concern	Not listed																		
<i>Buteo lineatus</i>	Red-shouldered hawk	Bird	Special concern	Not listed																		
<i>Chondestes grammacus</i>	Lark sparrow	Bird	Special concern	Not listed																		
<i>Cirsium pumilum</i> var. <i>hillii</i>	Hill's thistle	Vascular plant	Special concern	Not listed																		
<i>Cygnus buccinator</i>	Trumpeter swan	Bird	Special concern	Not listed																		
<i>Cyripedium candidum</i>	Small white lady's-slipper	Vascular plant	Special concern	Not listed																		
<i>Falco peregrinus</i>	Peregrine falcon	Bird	Special concern	Not listed																		
<i>Gallinula galeata</i>	Common gallinule	Bird	Special concern	Not listed																		
<i>Gymnocladus dioica</i>	Kentucky coffee tree	Vascular plant	Special concern	Not listed																		
<i>Lasmigona compressa</i>	Creek heelsplitter	Mussel	Special concern	Not listed							X			X			X	X	X	X	X	
<i>Leucophaeus pipixcan</i>	Franklin's gull	Bird	Special concern	Not listed																		
<i>Ligumia recta</i>	Black sandshell	Mussel	Special concern	Not listed																		
<i>Necturus maculosus</i>	Mudpuppy	Salamander	Special concern	Not listed																		
<i>Onychomys leucogaster</i>	Northern grasshopper mouse	Mouse	Special concern	Not listed							X	X			X	X		X	X		X	
<i>Opuntia macrorhiza</i>	Devil's tongue	Vascular plant	Special concern	Not listed																		
<i>Panax quinquefolius</i>	American ginseng	Vascular plant	Special concern	Not listed																		
<i>Pituophis catenifer</i>	Gophersnake	Snake	Special concern	Not listed																		
<i>Pleuroberma sintoxia</i>	Round pigtoe	Mussel	Special concern	Not listed																		
<i>Progne subis</i>	Purple martin	Bird	Special concern	Not listed																		
<i>Sterna forsteri</i>	Forster's tern	Bird	Special concern	Not listed																		
<i>Trillium nivale</i>	Snow trillium	Vascular plant	Special concern	Not listed			X			X			X		X	X			X		X	
<i>Urocitellus richardsonii</i>	Richardson's ground squirrel	Squirrel	Special concern	Not listed																		
<i>Vireo bellii</i>	Bell's vireo	Bird	Special concern	Not listed																		

[illegible]

[illegible]

Regional Segment					Region D																	
					D1 (Purple Route)			D2		D3		D4 (Blue Route)		D5		D6		D7				
Buffer					ROW	Route Width h	1- Mile	ROW	Route Width h	1- Mile	ROW	Route Width h	1- Mile	ROW	Route Width h	1- Mile	ROW	Route Width h	1- Mile	ROW	Route Width h	1- Mile
Scientific Name	Common Name	Type	State Status	Federal Status																		
<i>Ammodramus henslowii</i>	Henslow's sparrow	Bird	Endangered	Not listed																		
<i>Juglans cinerea</i>	Butternut	Vascular plant	Endangered	Not listed																		
<i>Lampsilis teres</i>	Yellow sandshell	Mussel	Endangered	Not listed																		
<i>Lanius ludovicianus</i>	Loggerhead shrike	Bird	Endangered	Not listed																		
<i>Oarisma poweshiek</i>	Poweshiek skipperling	Butterfly	Endangered	Endangered																		
<i>Rallus elegans</i>	King rail	Bird	Endangered	Not listed																		
<i>Simpsoniolas ambigua</i>	Salamander mussel	Mussel	Endangered	Not listed																		
<i>Actinonaias ligamentina</i>	Mucket	Mussel	Threatened	Not listed																		
<i>Alasmidonta marginata</i>	Elktoe	Mussel	Threatened	Not listed																		
<i>Asclepias sullivantii</i>	Sullivant's milkweed	Vascular plant	Threatened	Not listed																		
<i>Bacopa rotundifolia</i>	Waterhyssop	Vascular plant	Threatened	Not listed																		
<i>Berula erecta</i>	Stream parsnip	Vascular plant	Threatened	Not listed																		
<i>Emydoidea blandingii</i>	Blanding's turtle	Turtle	Threatened	Not listed																		
<i>Eurynia dilatata</i>	Spike	Mussel	Threatened	Not listed																		
<i>Lasmigona costata</i>	Fluted-shell	Mussel	Threatened	Not listed																		
<i>Lespedeza leptostachya</i>	Prairie bush clover	Vascular plant	Threatened	Threatened																		
<i>Minuartia dawsonensis</i>	Rock sandwort	Vascular plant	Threatened	Not listed																		
<i>Quadrula nodulata</i>	Wartyback	Mussel	Threatened	Not listed																		
<i>Anaxyrus cognatus</i>	Great plains toad	Toad	Special concern	Not listed																		
<i>Argynnis idalia</i>	Regal fritillary	Butterfly	Special concern	Not listed																		
<i>Astragalus flexuosus</i> var. <i>flexuosus</i>	Slender milk-vetch	Vascular plant	Special concern	Not listed																		
<i>Astragalus missouriensis</i> var. <i>missouriensis</i>	Missouri milk-vetch	Vascular plant	Special concern	Not listed																		
<i>Atrytone arogois iowa</i>	Iowa skipper	Butterfly	Special concern	Not listed																		
<i>Buellia nigra</i>	A species of lichen	Fungus	Special concern	Not listed																		
<i>Buteo lineatus</i>	Red-shouldered hawk	Bird	Special concern	Not listed																		
<i>Chondestes grammacus</i>	Lark sparrow	Bird	Special concern	Not listed																		
<i>Cirsium pumilum</i> var. <i>hillii</i>	Hill's thistle	Vascular plant	Special concern	Not listed																		
<i>Cygnus buccinator</i>	Trumpeter swan	Bird	Special concern	Not listed																		
<i>Cyripedium candidum</i>	Small white lady's-slipper	Vascular plant	Special concern	Not listed																		
<i>Falco peregrinus</i>	Peregrine falcon	Bird	Special concern	Not listed																		
<i>Gallinula galeata</i>	Common gallinule	Bird	Special concern	Not listed																		
<i>Gymnocladus dioica</i>	Kentucky coffee tree	Vascular plant	Special concern	Not listed																		
<i>Lasmigona compressa</i>	Creek heelsplitter	Mussel	Special concern	Not listed																		
<i>Leucophaeus pipixcan</i>	Franklin's gull	Bird	Special concern	Not listed																		
<i>Ligumia recta</i>	Black sandshell	Mussel	Special concern	Not listed																		
<i>Necturus maculosus</i>	Mudpuppy	Salamander	Special concern	Not listed																		
<i>Onychomys leucogaster</i>	Northern grasshopper mouse	Mouse	Special concern	Not listed																		
<i>Opuntia macrorhiza</i>	Devil's tongue	Vascular plant	Special concern	Not listed																		
<i>Panax quinquefolius</i>	American ginseng	Vascular plant	Special concern	Not listed																		
<i>Pituophis catenifer</i>	Gophersnake	Snake	Special concern	Not listed																		
<i>Pleurobema sintoxia</i>	Round pigtoe	Mussel	Special concern	Not listed																		
<i>Progne subis</i>	Purple martin	Bird	Special concern	Not listed																		
<i>Sterna forsteri</i>	Forster's tern	Bird	Special concern	Not listed																		
<i>Trillium nivale</i>	Snow trillium	Vascular plant	Special concern	Not listed																		
<i>Urocitellus richardsonii</i>	Richardson's ground squirrel	Squirrel	Special concern	Not listed																		
<i>Vireo bellii</i>	Bell's vireo	Bird	Special concern	Not listed																		

Regional Segment					Region E						
					E1 (Purple Route)			E2 (Blue Route)			
					Buffer	ROW	Route Width h	1-Mile	ROW	Route Width h	1-Mile
Scientific Name	Common Name	Type	State Status	Federal Status							
<i>Ammodramus henslowii</i>	Henslow's sparrow	Bird	Endangered	Not listed							
<i>Juglans cinerea</i>	Butternut	Vascular plant	Endangered	Not listed							
<i>Lampsilis teres</i>	Yellow sandshell	Mussel	Endangered	Not listed							
<i>Lanius ludovicianus</i>	Loggerhead shrike	Bird	Endangered	Not listed				X	X	X	
<i>Oarisma poweshiek</i>	Poweshiek skipperling	Butterfly	Endangered	Endangered							
<i>Rallus elegans</i>	King rail	Bird	Endangered	Not listed							
<i>Simpsonia ambigua</i>	Salamander mussel	Mussel	Endangered	Not listed							
<i>Actinonaias ligamentina</i>	Mucket	Mussel	Threatened	Not listed							
<i>Alasmidonta marginata</i>	Elktoe	Mussel	Threatened	Not listed							
<i>Asclepias sullivantii</i>	Sullivant's milkweed	Vascular plant	Threatened	Not listed							
<i>Bacopa rotundifolia</i>	Waterhyssop	Vascular plant	Threatened	Not listed							
<i>Berula erecta</i>	Stream parsnip	Vascular plant	Threatened	Not listed							
<i>Emydoidea blandingii</i>	Blanding's turtle	Turtle	Threatened	Not listed			X				X
<i>Eurytnia dilatata</i>	Spike	Mussel	Threatened	Not listed							
<i>Lasmigona costata</i>	Fluted-shell	Mussel	Threatened	Not listed							
<i>Lespedeza leptostachya</i>	Prairie bush clover	Vascular plant	Threatened	Threatened							
<i>Minuartia dawsonensis</i>	Rock sandwort	Vascular plant	Threatened	Not listed							
<i>Quadrula nodulata</i>	Wartyback	Mussel	Threatened	Not listed							
<i>Anaxyrus cognatus</i>	Great plains toad	Toad	Special concern	Not listed							
<i>Argynnis idalia</i>	Regal fritillary	Butterfly	Special concern	Not listed							
<i>Astragalus flexuosus</i> var. <i>flexuosus</i>	Slender milk-vetch	Vascular plant	Special concern	Not listed							
<i>Astragalus missouriensis</i> var. <i>missouriensis</i>	Missouri milk-vetch	Vascular plant	Special concern	Not listed							
<i>Atrytone arogas iowa</i>	Iowa skipper	Butterfly	Special concern	Not listed							
<i>Buellia nigra</i>	A species of lichen	Fungus	Special concern	Not listed							
<i>Buteo lineatus</i>	Red-shouldered hawk	Bird	Special concern	Not listed							
<i>Chondestes grammacus</i>	Lark sparrow	Bird	Special concern	Not listed							
<i>Cirsium pumilum</i> var. <i>hillii</i>	Hill's thistle	Vascular plant	Special concern	Not listed							
<i>Cygnus buccinator</i>	Trumpeter swan	Bird	Special concern	Not listed							
<i>Cypripedium candidum</i>	Small white lady's-slipper	Vascular plant	Special concern	Not listed							
<i>Falco peregrinus</i>	Peregrine falcon	Bird	Special concern	Not listed							
<i>Gallinula galeata</i>	Common gallinule	Bird	Special concern	Not listed							
<i>Gymnocladus dioica</i>	Kentucky coffee tree	Vascular plant	Special concern	Not listed							
<i>Lasmigona compressa</i>	Creek heelsplitter	Mussel	Special concern	Not listed							
<i>Leucophaeus pipixcan</i>	Franklin's gull	Bird	Special concern	Not listed							
<i>Ligumia recta</i>	Black sandshell	Mussel	Special concern	Not listed							
<i>Necturus maculosus</i>	Mudpuppy	Salamander	Special concern	Not listed							
<i>Onychomys leucogaster</i>	Northern grasshopper mouse	Mouse	Special concern	Not listed							
<i>Opuntia macrorhiza</i>	Devil's tongue	Vascular plant	Special concern	Not listed							
<i>Panax quinquefolius</i>	American ginseng	Vascular plant	Special concern	Not listed							
<i>Pituophis catenifer</i>	Gophersnake	Snake	Special concern	Not listed							
<i>Pleurobema sintoxia</i>	Round pigtoe	Mussel	Special concern	Not listed							
<i>Progne subis</i>	Purple martin	Bird	Special concern	Not listed							
<i>Sterna forsteri</i>	Forster's tern	Bird	Special concern	Not listed							
<i>Trillium nivale</i>	Snow trillium	Vascular plant	Special concern	Not listed							
<i>Urocyonellus richardsonii</i>	Richardson's ground squirrel	Squirrel	Special concern	Not listed							
<i>Vireo bellii</i>	Bell's vireo	Bird	Special concern	Not listed				X	X	X	

[illegible]

Regional Segment					Region G																	
					G1 (Blue Route)			G2			G3 (Purple Route)			G4			G5			G6		
					Buffer	ROW	Route Width 1-Mile	ROW	Route Width 1-Mile	ROW	Route Width 1-Mile	ROW	Route Width 1-Mile	ROW	Route Width 1-Mile	ROW	Route Width 1-Mile	ROW	Route Width 1-Mile	ROW	Route Width 1-Mile	
Scientific Name	Common Name	Type	State Status	Federal Status																		
<i>Ammodramus henslowii</i>	Henslow's sparrow	Bird	Endangered	Not listed																		
<i>Juglans cinerea</i>	Butternut	Vascular plant				X		X														
<i>Lampsilis teres</i>	Yellow sandshell	Mussel	Endangered	Not listed																		
<i>Lanius ludovicianus</i>	Loggerhead shrike	Bird	Endangered	Not listed		X		X			X			X			X			X		
<i>Oarisma poweshiek</i>	Poweshiek skipperling	Butterfly	Endangered	Endangered																		
<i>Rallus elegans</i>	King rail	Bird	Endangered	Not listed																		
<i>Simpsoniaias ambigua</i>	Salamander mussel	Mussel	Endangered	Not listed																		
<i>Actinonaias ligamentina</i>	Mucket	Mussel	Threatened	Not listed																		
<i>Alasmidonta marginata</i>	Elktoe	Mussel	Threatened	Not listed																		
<i>Asclepias sullivantii</i>	Sullivant's milkweed	Vascular plant	Threatened	Not listed																		
<i>Bacopa rotundifolia</i>	Waterhyssop	Vascular plant	Threatened	Not listed																		
<i>Berula erecta</i>	Stream parsnip	Vascular plant	Threatened	Not listed																		
<i>Emydoidea blandingii</i>	Blanding's turtle	Turtle	Threatened	Not listed		X	X		X	X	X	X	X	X	X	X	X	X	X	X		
<i>Eurynia dilatata</i>	Spike	Mussel	Threatened	Not listed																		
<i>Lasmigona costata</i>	Fluted-shell	Mussel	Threatened	Not listed																		
<i>Lespedeza leptostachya</i>	Prairie bush clover	Vascular plant	Threatened	Threatened																		
<i>Minuartia dawsonensis</i>	Rock sandwort	Vascular plant	Threatened	Not listed																		
<i>Quadrula nodulata</i>	Wartyback	Mussel	Threatened	Not listed																		
<i>Anaxyrus cognatus</i>	Great plains toad	Toad	Special concern	Not listed																		
<i>Argynnis idalia</i>	Regal fritillary	Butterfly	Special concern	Not listed																		
<i>Astragalus flexuosus</i> var. <i>flexuosus</i>	Slender milk-vetch	Vascular plant	Special concern	Not listed																		
<i>Astragalus missouriensis</i> var. <i>missouriensis</i>	Missouri milk-vetch	Vascular plant	Special concern	Not listed																		
<i>Atrytone aragos iowa</i>	Iowa skipper	Butterfly	Special concern	Not listed																		
<i>Buellia nigra</i>	A species of lichen	Fungus	Special concern	Not listed																		
<i>Buteo lineatus</i>	Red-shouldered hawk	Bird	Special concern	Not listed		X		X		X			X			X				X		
<i>Chondestes grammacus</i>	Lark sparrow	Bird	Special concern	Not listed		X		X														
<i>Cirsium pumilum</i> var. <i>hillii</i>	Hill's thistle	Vascular plant	Special concern	Not listed		X		X		X			X			X				X		
<i>Cygnus buccinator</i>	Trumpeter swan	Bird	Special concern	Not listed						X			X			X				X		
<i>Cypripedium candidum</i>	Small white lady's-slipper	Vascular plant	Special concern	Not listed																		
<i>Falco peregrinus</i>	Peregrine falcon	Bird	Special concern	Not listed																		
<i>Gallinula galeata</i>	Common gallinule	Bird	Special concern	Not listed		X	X		X	X												
<i>Gymnocladus dioica</i>	Kentucky coffee tree	Vascular plant	Special concern	Not listed																		
<i>Lasmigona compressa</i>	Creek heelsplitter	Mussel	Special concern	Not listed						X			X			X				X		
<i>Leucophaeus pipixcan</i>	Franklin's gull	Bird	Special concern	Not listed																		
<i>Ligumia recta</i>	Black sandshell	Mussel	Special concern	Not listed		X		X		X			X			X				X		
<i>Necturus maculosus</i>	Mudpuppy	Salamander	Special concern	Not listed																		
<i>Onychomys leucogaster</i>	Northern grasshopper mouse	Mouse	Special concern	Not listed																		
<i>Opuntia macrorhiza</i>	Devil's tongue	Vascular plant	Special concern	Not listed																		
<i>Panax quinquefolius</i>	American ginseng	Vascular plant	Special concern	Not listed										X						X		
<i>Pituophis catenifer</i>	Gophersnake	Snake	Special concern	Not listed																		
<i>Pleurobema sintoxia</i>	Round pigtoe	Mussel	Special concern	Not listed																		
<i>Progne subis</i>	Purple martin	Bird	Special concern	Not listed																		
<i>Sterna forsteri</i>	Forster's tern	Bird	Special concern	Not listed																		
<i>Trillium nivale</i>	Snow trillium	Vascular plant	Special concern	Not listed																		
<i>Urocitellus richardsonii</i>	Richardson's ground squirrel	Squirrel	Special concern	Not listed																		
<i>Vireo bellii</i>	Bell's vireo	Bird	Special concern	Not listed																		