Appendix D – Biological Resources

GARY AIRPORT - NORTH DEVELOPMENT

BIOLOGICAL ANALYSIS

Prepared using IPaC

Generated by Christina Svoboda (christina.svoboda@stantec.com)

July 8, 2025

The purpose of this document is to assess the effects of the proposed project and determine whether the project may affect any federally threatened, endangered, proposed, or candidate species. If appropriate for the project, this document may be used as a biological assessment (BA), as it is prepared in accordance with legal requirements set forth under Section 7 of the Endangered Species Act (16 U.S.C. 1536 (c)).

In this document, any data provided by U.S. Fish and Wildlife Service is based on data as of July 8, 2025.

Prepared using IPaC version 6.128.3-rc1

GARY AIRPORT - NORTH DEVELOPMENT BIOLOGICAL ASSESSMENT

TABLE OF CONTENTS

1 DESCRIPTION OF THE ACTION

1.1 PROJECT NAME

Gary Airport - North Development

1.2 EXECUTIVE SUMMARY

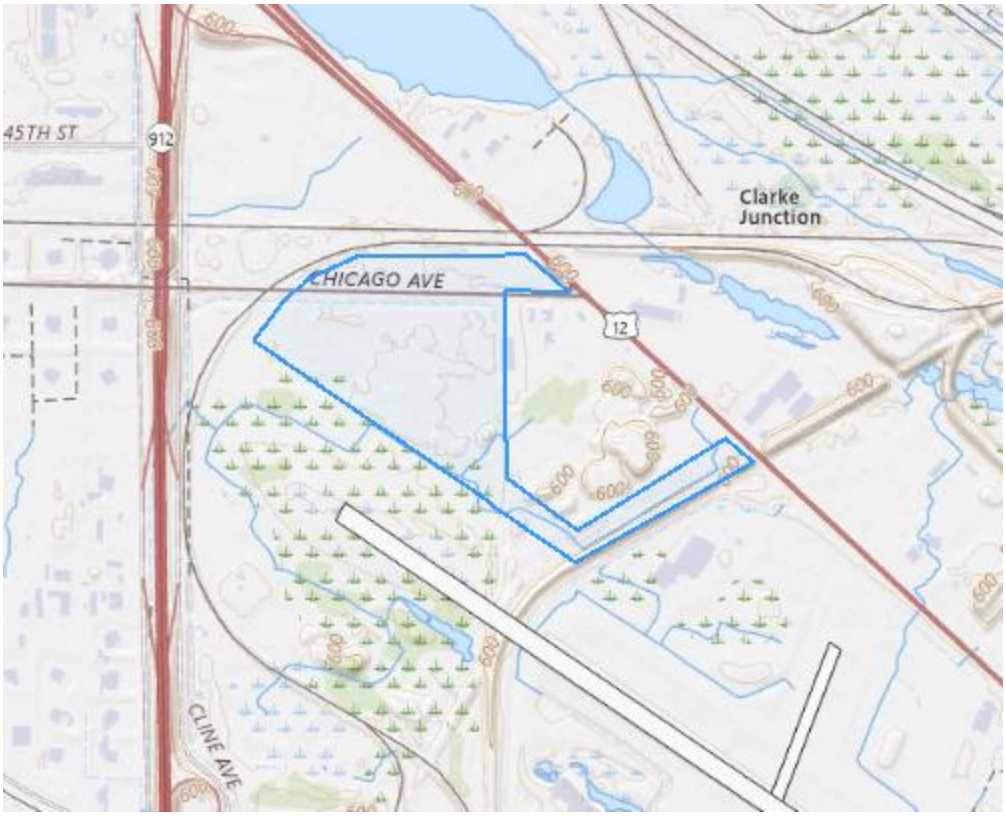
The purpose of the project is to construct a new air cargo logistics area at the Gary Airport. A majority of the project area is previously disturbed. The project is located adjacent to an existing airport in an intensely developed area.

1.3 EFFECT DETERMINATION SUMMARY

SPECIES (COMMON NAME)	SCIENTIFIC NAME	LISTING STATUS	PRESENT IN ACTION AREA	EFFECT DETERMINATION
Indiana Bat	Myotis sodalis	Endangered	No	NE
Monarch Butterfly	Danaus plexippus	Proposed Threatened	Excluded from analysis	Excluded from analysis
Northern Long-eared Bat	Myotis septentrionalis	Endangered	No	NE
Piping Plover	Charadrius melodus	Endangered	No	NE
Whooping Crane	Grus americana	Experimental Population, Non-Essential	Excluded from analysis	Excluded from analysis

1.4 PROJECT DESCRIPTION

1.4.1 LOCATION



LOCATION
Lake County, Indiana

1.4.2 DESCRIPTION OF PROJECT HABITAT

68 acre site with emergent wetland, upland sandy prairie, dune and swale, and a combination

industrial land and abandoned railway. Site has been disturbed

RELEVANT DOCUMENTATION

- RPT_TE_Gary_airport_north_final

1.4.3 PROJECT PROPONENT INFORMATION

Provide information regarding who is proposing to conduct the project, and their contact information. Please provide details on whether there is a Federal nexus.

REQUESTING AGENCY

Private Entity

FULL NAME

Christina Svoboda

STREET ADDRESS

708 Roosevelt Road

CITY	STATE	ZIP
Walkerton	IN	46574

PHONE NUMBER	E-MAIL ADDRESS
2198510173	christina.svoboda@stantec.com

LEAD AGENCY

Department of Transportation

Federal Aviation Administration

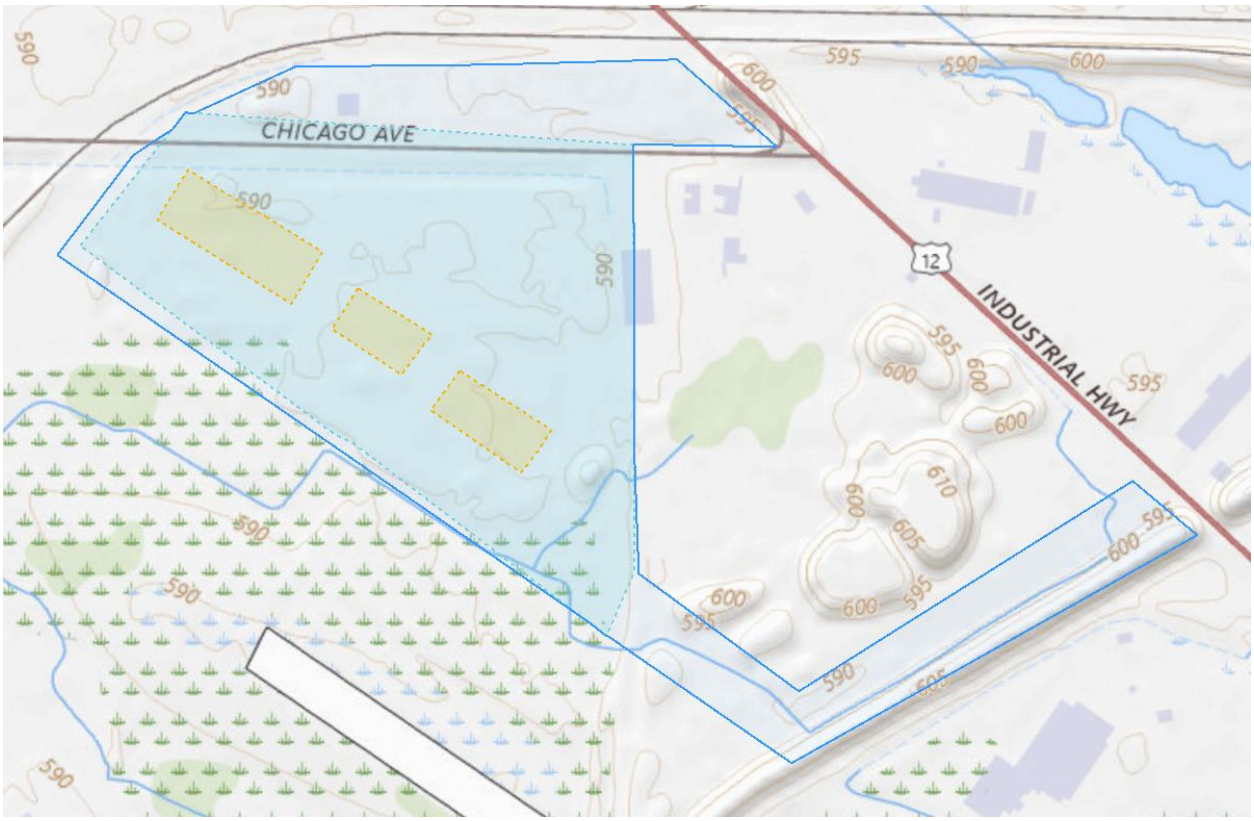
1.4.4 PROJECT PURPOSE

The purpose of the proposed action is to develop a new air cargo logistics area on the northwest side of the Airport with future expansion capabilities to allow GYY to serve as an alternate or supplemental cargo option in the Greater Chicago Area. The need for the proposed action is to serve current cargo operations and to accommodate the air cargo growth that has occurred. GYY does not have a dedicated cargo space, and as a result the majority of cargo activity is handled by FBOs and is limited to small just-in-time shipments of small quantities of high value goods. The development of a new air cargo logistics area will address the existing limits the Airport has in serving the current cargo needs. No dedicated cargo buildings or infrastructure are on the existing Airport site. However, GYY's location in the Greater Chicago Area with its active movement of goods provides a long-term opportunity for the Airport, and air cargo has been a key marketing focus for both the Airport and the City of Gary. The 2022 Master Plan Update concluded that the expected cargo growth needs a dedicated area for aircraft parking, warehousing, and truck parking/movements. Since the completion of the 2022 Master Plan Update, the Airport has secured a long-term lease agreement with United Parcel Service (UPS) for air cargo service. Initially, UPS occupied the passenger terminal building and terminal apron for their offices and operations. In preparation for returning scheduled passenger service the Airport renovated the passenger terminal building, causing UPS offices to be moved to temporary facilities adjacent to the terminal building. However, UPS still uses the terminal apron for their aircraft and cargo operations. A new cargo logistics apron is needed to provide a base for UPS aircraft as well as other cargo carriers that have expressed interest. The new UPS lease agreement illustrates the need for a new dedicated cargo logistics area that separates UPS operations from the passenger terminal area while enhancing safety and efficiency of both cargo and passenger aircraft.

1.4.5 PROJECT TYPE AND DECONSTRUCTION

This project is a residential, commercial, industrial development project.

1.4.5.1 PROJECT MAP



LEGEND

Project footprint

Layer 1: Building (structure)

Pavement: Construct building, prepare the project site (terrestrial), rough grading, staging area construction

1.4.5.2 BUILDING

STRUCTURE COMPLETION DATE
Unspecified

REMOVAL/DECOMMISSION DATE (IF APPLICABLE)
Not applicable

STRESSORS

- Increase in impervious surfaces
- Increase in human presence
- Increase in vehicle traffic

DESCRIPTION
Building will be for air cargo.

1.4.5.3 CONSTRUCT BUILDING

ACTIVITY START DATE
Unspecified

ACTIVITY END DATE
Unspecified

STRESSORS

- Change in vegetation structure
- Decrease in vegetation
- Increase in fuel load
- Increase in contaminants
- Increase in smoke
- Increase in soil moisture/saturation
- Change in topography
- Increase in impervious surfaces
- Change in soil
- Increase in dust
- Increase in soil compaction
- Increase in surface runoff
- Increase in aircraft traffic
- Increase in human presence
- Increase in noise
- Increase in soil disturbance
- Increase in vehicle traffic

DESCRIPTION
Areas of the site will be intense development for an air cargo area. A large portion of this area of the site was already disturbed and developed with parking.

1.4.5.4 PREPARE THE PROJECT SITE (TERRESTRIAL)

ACTIVITY START DATE
August 04, 2025

ACTIVITY END DATE
June 30, 2026

STRESSORS
This activity is not expected to have any impact on the environment.

DESCRIPTION
Mobilization- no new stressors than already discussed

1.4.5.5 ROUGH GRADING

ACTIVITY START DATE
Unspecified

ACTIVITY END DATE
Unspecified

STRESSORS

- Decrease in herbaceous vegetation
- Increase in oil/petroleum
- Increase in human presence

DESCRIPTION
Site will be graded to accommodate new facility. Large portions of the site have already been disturbed

1.4.5.6 STAGING AREA CONSTRUCTION

ACTIVITY START DATE
August 04, 2025

ACTIVITY END DATE
June 30, 2026

STRESSORS

- Increase in fill
- Increase in artificial lighting
- Increase in human presence

DESCRIPTION
Laydown and staging areas and construction parking needed

1.4.6 ANTICIPATED ENVIRONMENTAL STRESSORS

Describe the anticipated effects of your proposed project on the aspects of the land, air and water that will occur due to the activities above. These should be based on the activity deconstructions done in the previous section and will be used to inform the action area.

1.4.6.1 ANIMAL FEATURES

Individuals from the Animalia kingdom, such as raptors, mollusks, and fish. This feature also includes byproducts and remains of animals (e.g., carrion, feathers, scat, etc.), and animal-related structures (e.g., dens, nests, hibernacula, etc.).

1.4.6.2 PLANT FEATURES

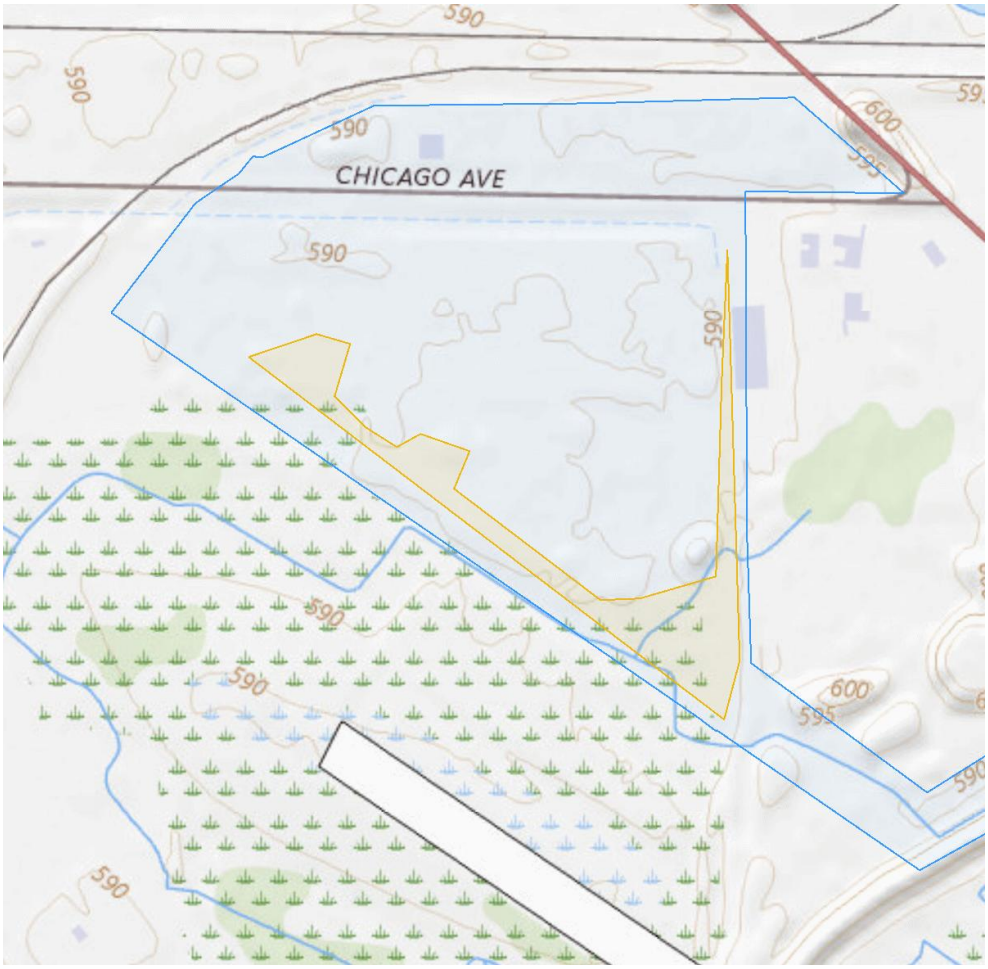
Individuals from the Plantae kingdom, such as trees, shrubs, herbs, grasses, ferns, and mosses. This feature also includes products of plants (e.g., nectar, flowers, seeds, etc.).

1.4.6.2.1 CHANGE IN VEGETATION STRUCTURE

ANTICIPATED MAGNITUDE

Much of the project area is already disturbed. Area will be graded and paved for development

STRESSOR LOCATION



LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

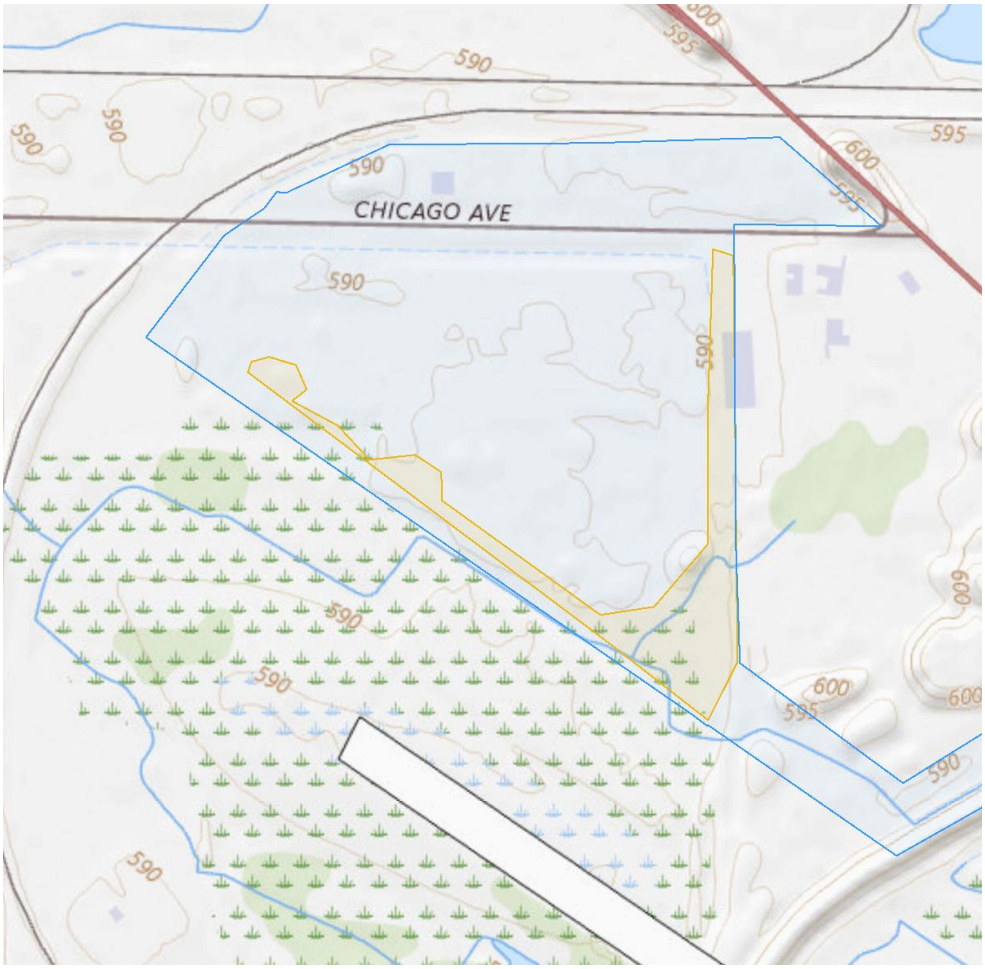
- Construct building

1.4.6.2.2 DECREASE IN HERBACEOUS VEGETATION

ANTICIPATED MAGNITUDE

Areas will need to be developed graded/paved

STRESSOR LOCATION



LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

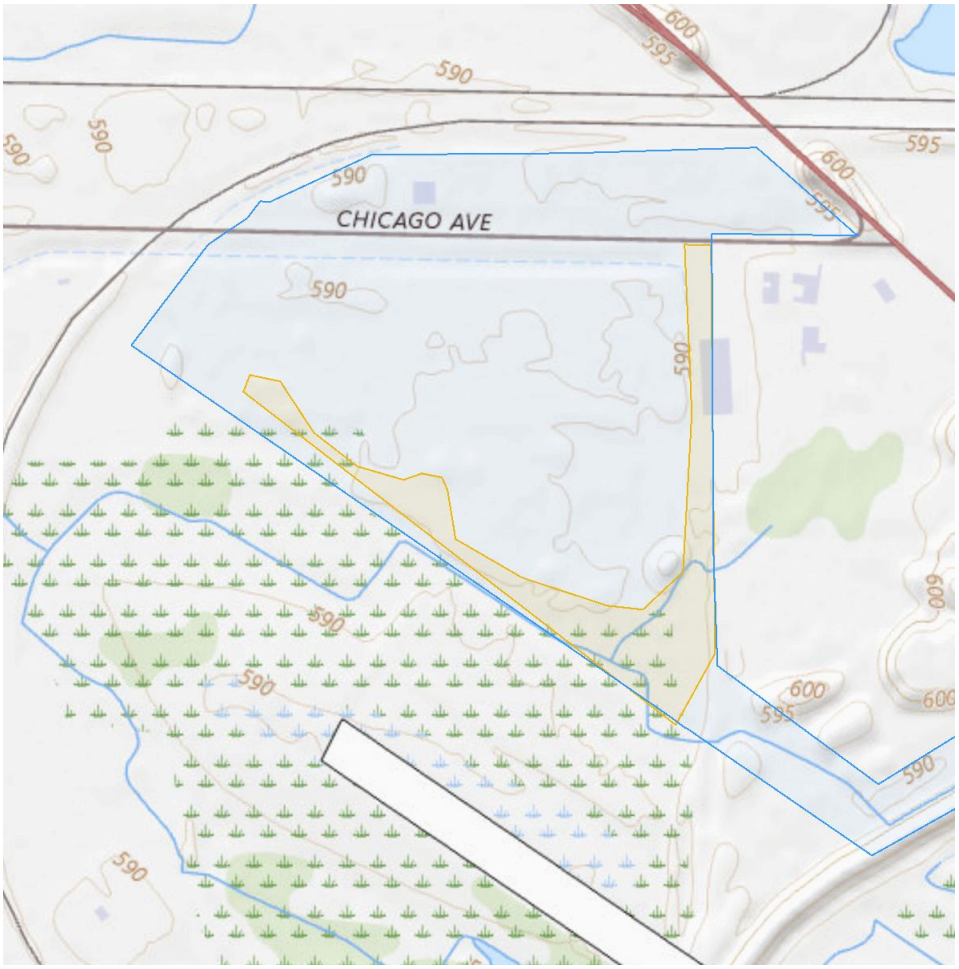
- Rough grading

1.4.6.2.3 DECREASE IN VEGETATION

ANTICIPATED MAGNITUDE

Much of area is already disturbed. Area will need to be cleared and paved

STRESSOR LOCATION



LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Construct building

1.4.6.2.4 INCREASE IN FUEL LOAD

ANTICIPATED MAGNITUDE

fuel will need to be provided for facility

STRESSOR LOCATION

LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Construct building

1.4.6.3 AQUATIC FEATURES

Bodies of water on the landscape, such as streams, rivers, ponds, wetlands, etc., and their physical characteristics (e.g., depth, current, etc.). This feature includes the groundwater and its characteristics. Water quality attributes (e.g., turbidity, pH, temperature, DO, nutrients, etc.) should be placed in the Environmental Quality Features.

1.4.6.4 CHEMICALS / CONTAMINANTS

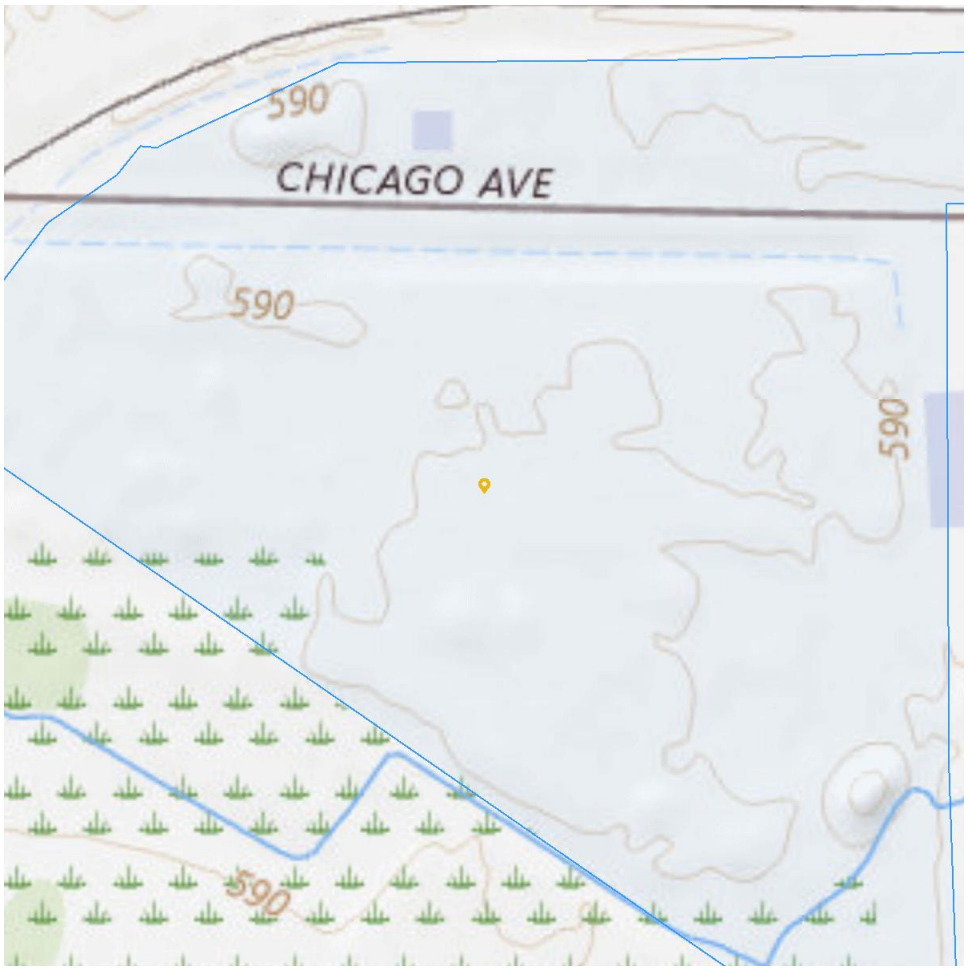
Substances that pollute, spoil, or poison the environment (e.g., herbicides, heavy metals, oil, etc.).

1.4.6.4.1 INCREASE IN CONTAMINANTS

ANTICIPATED MAGNITUDE

Cargo facility will increase air traffic to site area

STRESSOR LOCATION



LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

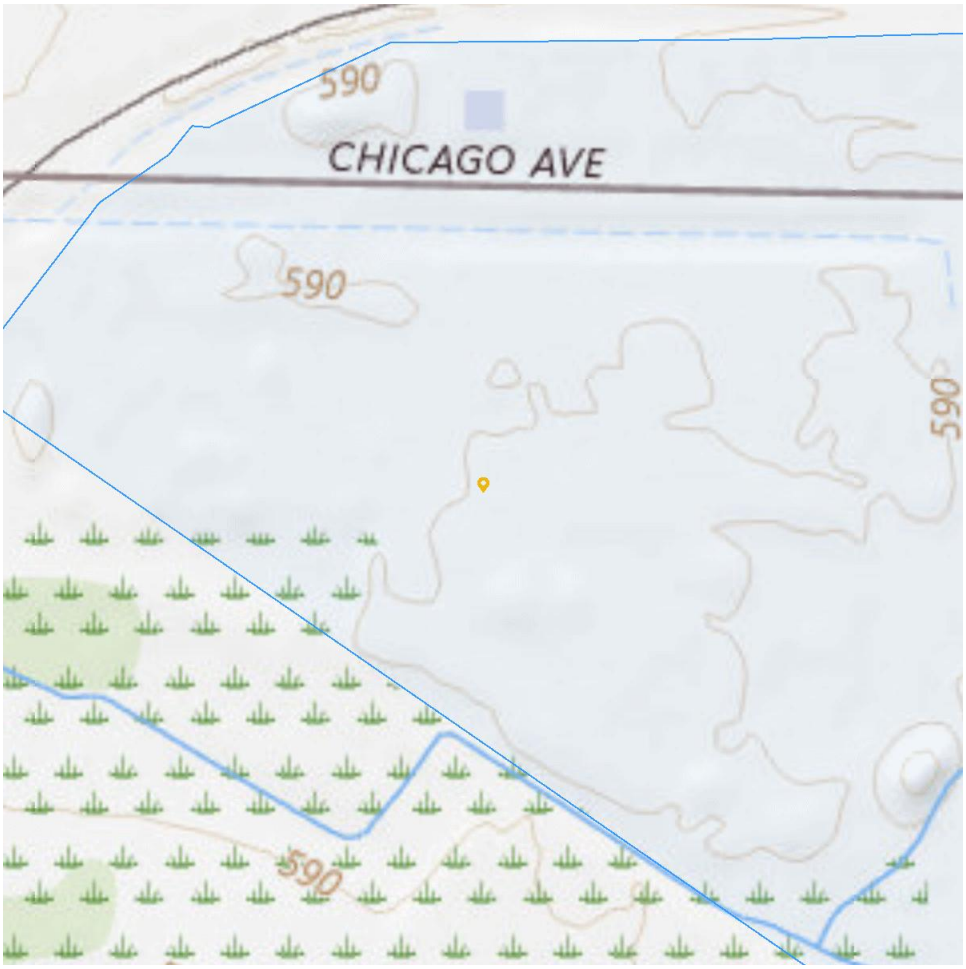
- Construct building

1.4.6.4.2 INCREASE IN OIL/PETROLEUM

ANTICIPATED MAGNITUDE

Oil and petroleum will be used in construction and operations

STRESSOR LOCATION



LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Rough grading

1.4.6.4.3 INCREASE IN SMOKE

ANTICIPATED MAGNITUDE

increase in smoke from construction and operations

STRESSOR LOCATION

LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Construct building

1.4.6.5 ENVIRONMENTAL QUALITY FEATURES

Abiotic attributes of the landscape (e.g., temperature, moisture, slope, aspect, etc.).

1.4.6.5.1 INCREASE IN SOIL MOISTURE/SATURATION

ANTICIPATED MAGNITUDE

This stressor is not expected to occur; the following explanation has been provided:

This stressor was completely avoided by implementing a conservation measure.

CONSERVATION MEASURES

- Positive site grading and drainage

STRUCTURES AND ACTIVITIES

- Construct building

1.4.6.6 LANDFORM (TOPOGRAPHIC) FEATURES

Topographic (landform) features that typically occur naturally on the landscape (e.g., cliffs, terraces, ridges, etc.). This feature does not include aquatic landscape features or man-made structures.

1.4.6.6.1 CHANGE IN TOPOGRAPHY

ANTICIPATED MAGNITUDE

This stressor is not expected to occur; the following explanation has been provided:

This stressor was completely avoided by implementing a conservation measure.

CONSERVATION MEASURES

- Positive site grading and drainage
- Minimization of grading needed

STRUCTURES AND ACTIVITIES

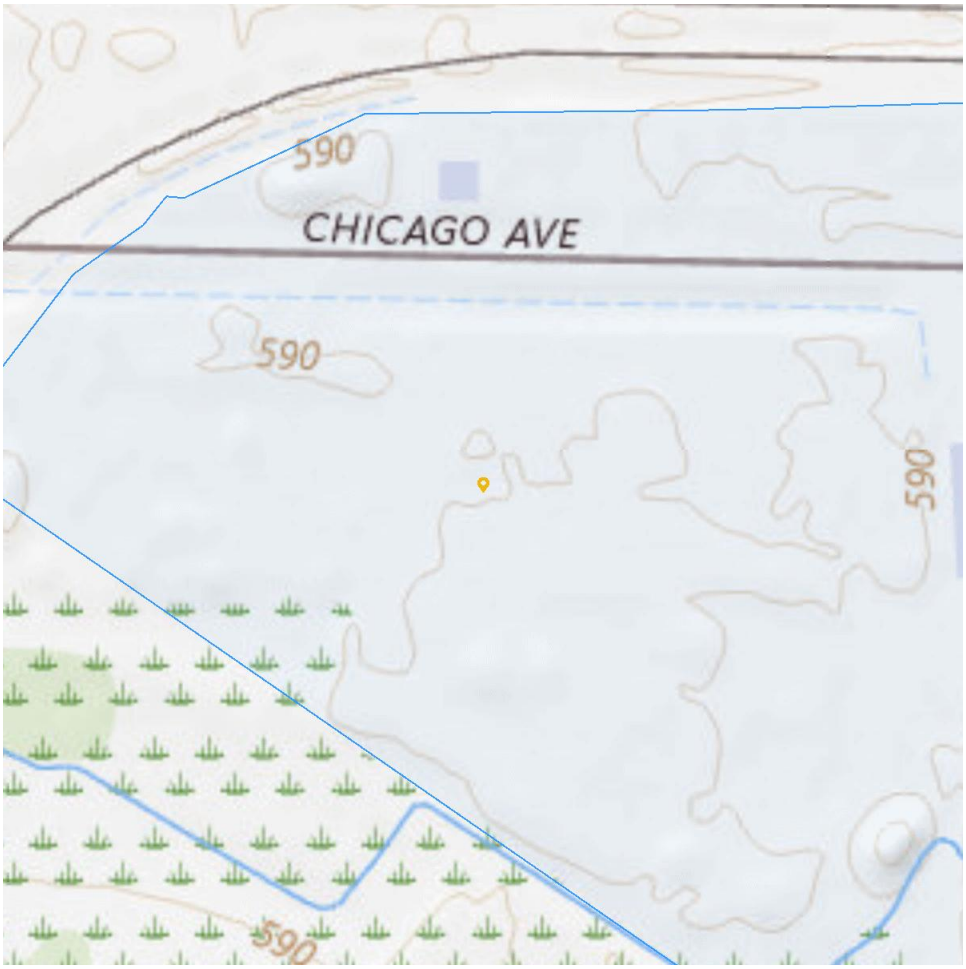
- Construct building

1.4.6.6.2 INCREASE IN IMPERVIOUS SURFACES

ANTICIPATED MAGNITUDE

Area will be paved or utilized by buildings

STRESSOR LOCATION



LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Construct building
- Building

1.4.6.7 SOIL AND SEDIMENT

The topmost layer of earth on the landscape and its components (e.g., rock, sand, gravel, silt, etc.). This feature includes the physical characteristics of soil, such as depth, compaction, etc. Soil quality attributes (e.g, temperature, pH, etc.) should be placed in the Environmental Quality Features.

1.4.6.7.1 CHANGE IN SOIL

ANTICIPATED MAGNITUDE

site will be graded and paved

STRESSOR LOCATION

LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Construct building

1.4.6.7.2 INCREASE IN DUST

ANTICIPATED MAGNITUDE

This stressor is not expected to occur; the following explanation has been provided:

This stressor was completely avoided by implementing a conservation measure.

CONSERVATION MEASURES

- Water trucks and best management practices

STRUCTURES AND ACTIVITIES

- Construct building

1.4.6.7.3 INCREASE IN FILL

ANTICIPATED MAGNITUDE

fill needed for building and pavement construction

STRESSOR LOCATION

LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

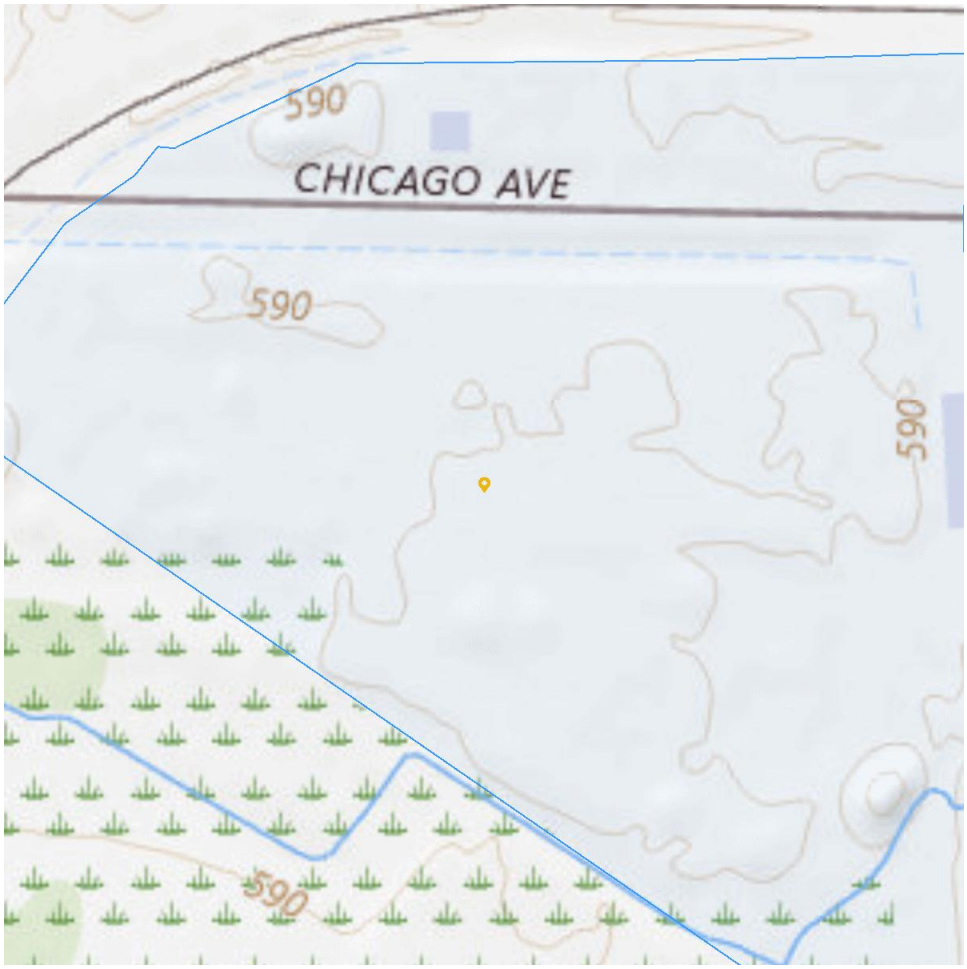
- Staging area construction

1.4.6.7.4 INCREASE IN SOIL COMPACTION

ANTICIPATED MAGNITUDE

soil compaction needed for pavement and building construction

STRESSOR LOCATION



LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Construct building

1.4.6.8 ENVIRONMENTAL PROCESSES

Abiotic processes that occur in the natural environment (e.g., erosion, precipitation, flood frequency, photoperiod, etc.).

1.4.6.8.1 INCREASE IN SURFACE RUNOFF

ANTICIPATED MAGNITUDE

This stressor is not expected to occur; the following explanation has been provided:

This stressor was completely avoided by implementing a conservation measure.

CONSERVATION MEASURES

- Stormwater management plan and use of BMPS

STRUCTURES AND ACTIVITIES

- Construct building

1.4.6.9 HUMAN ACTIVITIES

Human actions in the environment (e.g., fishing, hunting, farming, walking, etc.).

1.4.6.9.1 INCREASE IN AIRCRAFT TRAFFIC

ANTICIPATED MAGNITUDE

Site is for air traffic

STRESSOR LOCATION

LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

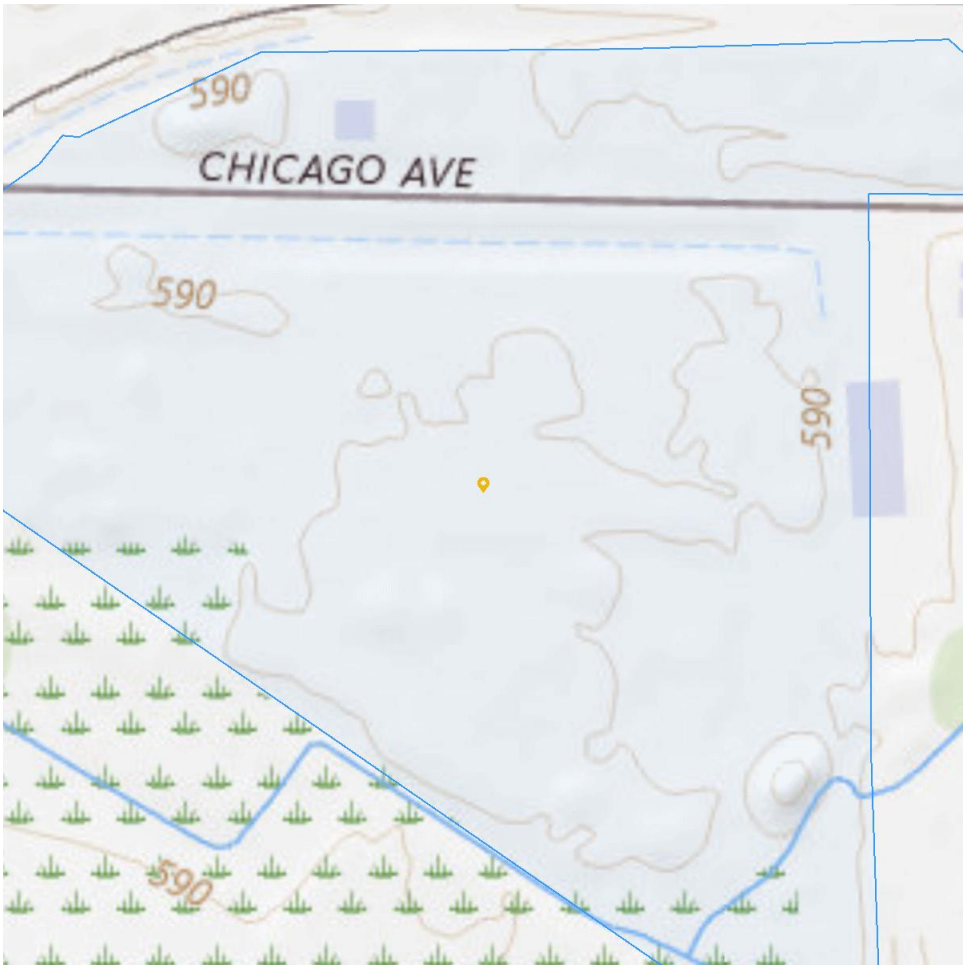
- Construct building

1.4.6.9.2 INCREASE IN ARTIFICIAL LIGHTING

ANTICIPATED MAGNITUDE

increase for construction and operations

STRESSOR LOCATION



LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Staging area construction

1.4.6.9.3 INCREASE IN HUMAN PRESENCE

ANTICIPATED MAGNITUDE

increase for construction and operations

STRESSOR LOCATION

LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Rough grading
- Construct building
- Staging area construction
- Building

1.4.6.9.4 INCREASE IN NOISE

ANTICIPATED MAGNITUDE

construction and operations will create noise

STRESSOR LOCATION

LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

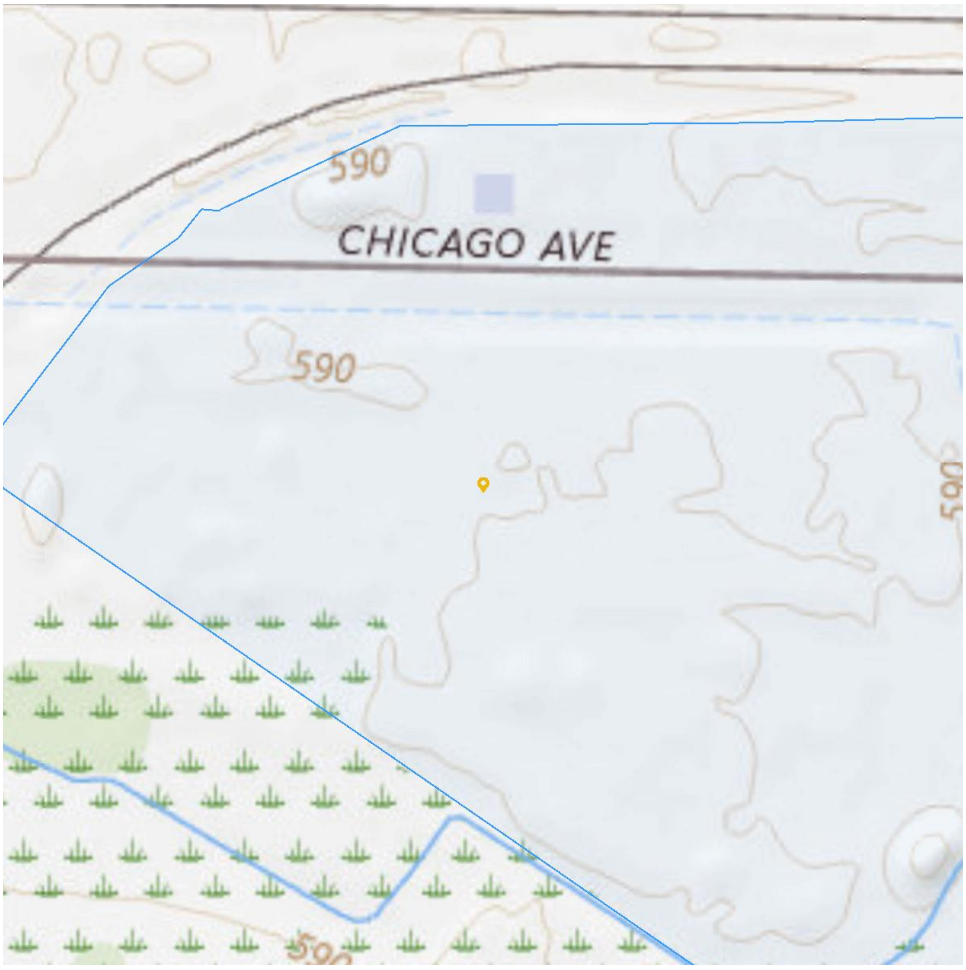
- Construct building

1.4.6.9.5 INCREASE IN SOIL DISTURBANCE

ANTICIPATED MAGNITUDE

project area will be graded for development

STRESSOR LOCATION



LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Construct building

1.4.6.9.6 INCREASE IN VEHICLE TRAFFIC

ANTICIPATED MAGNITUDE

traffic to area will increase

STRESSOR LOCATION

LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

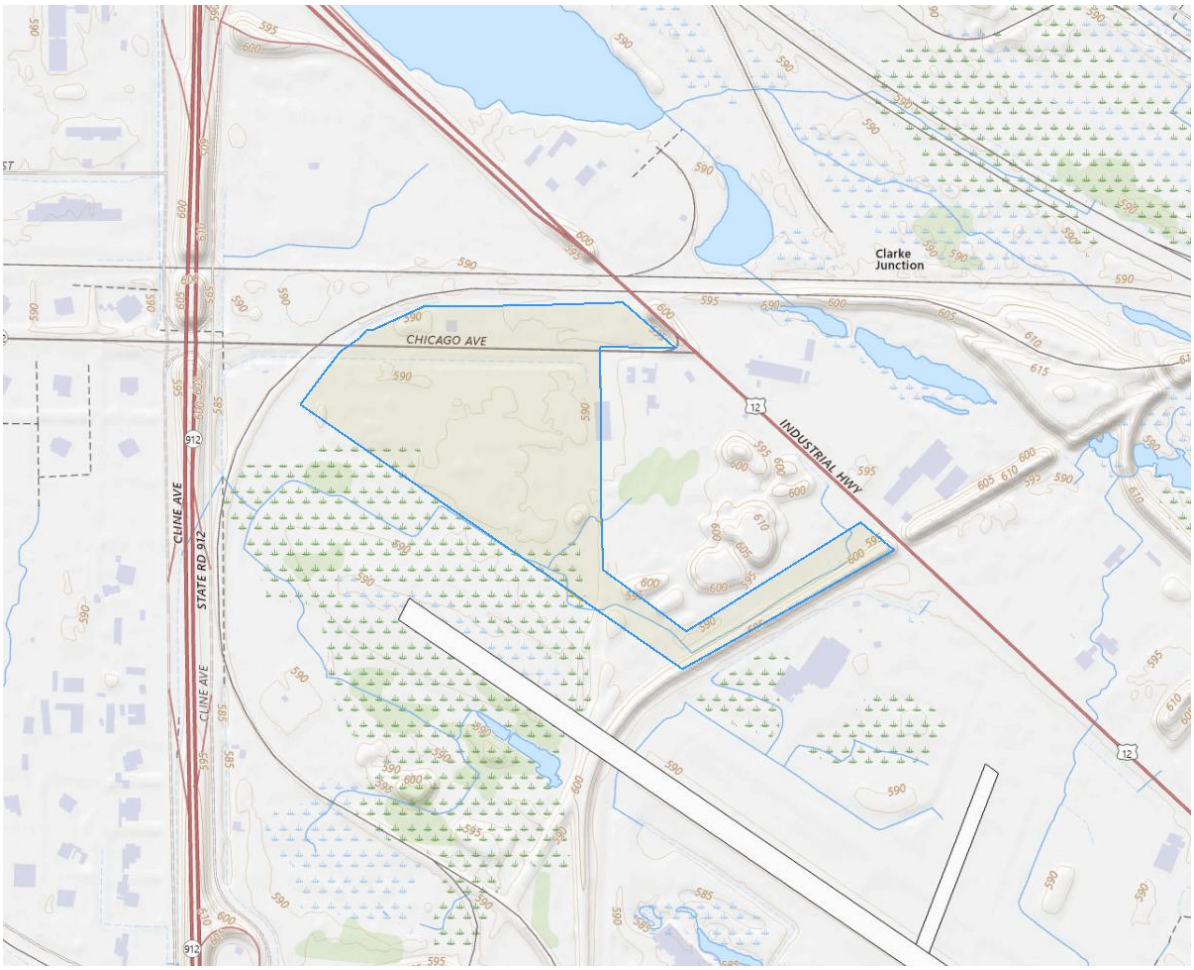
STRUCTURES AND ACTIVITIES

- Construct building
- Building

1.4.6.10 MISCELLANEOUS

Miscellaneous should only be used if the created feature does not fit into one of the other categories or if the creator is not sure in which category it should be placed.

1.5 ACTION AREA



LEGEND

Project footprint

Stressor location

1.6 CONSERVATION MEASURES

1.6.1 MINIMIZATION OF GRADING NEEDED

DESCRIPTION
Site plans will be designed to minimize grading. Site is relatively level

STRESSORS
- Change in topography

1.6.2 POSITIVE SITE GRADING AND DRAINAGE

DESCRIPTION
Site grading plans will be developed to create positive drainage

STRESSORS
- Change in topography
- Increase in soil moisture/saturation

1.6.3 STORMWATER MANAGEMENT PLAN AND USE OF BMPS

DESCRIPTION
Stormwater plan will be developed and implemented

STRESSORS
- Increase in surface runoff

1.6.4 WATER TRUCKS AND BEST MANAGEMENT PRACTICES

DESCRIPTION
Best management practices such as the use of water trucks will be used to keep dust down during construction

STRESSORS
- Increase in dust

1.7 PRIOR CONSULTATION HISTORY

Ipac completed in 2023 - No other consultation with USFWS that I am aware of

1.8 OTHER AGENCY PARTNERS AND INTERESTED PARTIES

Indiana Department of Environmental Management - Stormwater Permit

1.9 OTHER REPORTS AND HELPFUL INFORMATION

RELEVANT DOCUMENTATION

- Figure 2.2 Air Cargo Site Layout Plan

2 SPECIES EFFECTS ANALYSIS

This section describes, species by species, the effects of the proposed action on listed, proposed, and candidate species, and the habitat on which they depend. In this document, effects are broken down as direct interactions (something happening directly to the species) or indirect interactions (something happening to the environment on which a species depends that could then result in effects to the species).

These interactions encompass effects that occur both during project construction and those which could be ongoing after the project is finished. All effects, however, should be considered, including effects from direct and indirect interactions and cumulative effects.

2.1 INDIANA BAT

This species has been excluded from analysis in this environmental review document.

RELEVANT DOCUMENTATION

- RPT_TE_Gary_airport_north_final
- Figure 2.2 Air Cargo Site Layout Plan

JUSTIFICATION FOR EXCLUSION

Small area of ~ 20 standing dead ash trees was observed across the US HWY 12, adjoining project to the northwest in the report. This area is outside of the development. No habitat was observed in the development area

2.2 MONARCH BUTTERFLY

This species has been excluded from analysis in this environmental review document.

RELEVANT DOCUMENTATION

- RPT_TE_Gary_airport_north_final

JUSTIFICATION FOR EXCLUSION

Host plants and some nectar plants. However, no large areas of native undisturbed prairie

2.3 NORTHERN LONG-EARED BAT

This species has been excluded from analysis in this environmental review document.

RELEVANT DOCUMENTATION

- RPT_TE_Gary_airport_north_final
- Figure 2.2 Air Cargo Site Layout Plan

JUSTIFICATION FOR EXCLUSION

Area of ~20 standing dead ash trees NW across US highway 12 noted in habitat assessment. This area is outside of the project development area. No habitat in development area

2.4 PIPING PLOVER

This species has been excluded from analysis in this environmental review document.

RELEVANT DOCUMENTATION

- RPT_TE_Gary_airport_north_final
- Figure 2.2 Air Cargo Site Layout Plan

JUSTIFICATION FOR EXCLUSION

Site is not along the shoreline of any large body of water.

2.5 WHOOPING CRANE

This species has been excluded from analysis in this environmental review document.

RELEVANT DOCUMENTATION

- RPT_TE_Gary_airport_north_final
- Figure 2.2 Air Cargo Site Layout Plan

JUSTIFICATION FOR EXCLUSION

Possibly for stop-over site. Disturbance from adjacent areas, would likely discourage use of this site however as a stop-over.

3 CRITICAL HABITAT EFFECTS ANALYSIS

No critical habitats intersect with the project action area.

4 SUMMARY DISCUSSION AND CONCLUSION

4.1 SUMMARY DISCUSSION

Impacts to species will be minimal since site is primarily disturbed ground adjacent to an existing airport. Habitat within proposed project area is previously disturbed. There were no suitable trees for T&E bat species in the project area.

4.2 CONCLUSION

The project area will be developed for an air cargo logistics area. The project area in the attached T&E habitat report was a larger area. The air cargo logistics area is located primarily in a previously disturbed area. The habitat assessment indicated no suitable trees for T&E bat species on site. While there were host and nectar plants for the Monarch butterfly. The area is previously disturbed and not considered a native prairie. There are some wetland areas that could provide stop-over habitat for whooping cranes, since this site is located adjacent to an existing airport and the surrounding areas are intensely development, it is not likely that these area would be suitable for whooping cranes. Piping plover habitat is not present at the project.

Rare, Threatened, and Endangered Species and Special Habitat Observation Report

Gary Airport – North Area
Lake County, Indiana

November 2023

Stantec

Document Information

Prepared for	NGC Corp.
Client Contact	Ken Ross
Project Name	Rare, Threatened, and Endangered Species and Special Habitat Observation Report Gary Airport – North Area Lake County, Indiana
Project Number	239000570
Stantec Contact	Matt Harmon
Date	December 2023

Prepared for:

NGC Corp.
38 Hackney Road
Ravenswood, WV 26041

Prepared by:

Stantec, Inc.
708 Roosevelt Road Walkerton, IN 46574

Table of Contents

Appendices

Acronyms

BCC	Birds of Conservation Concern
BGEPA	Bald and Golden Eagle Protection Act
CFR	Code of Federal Register
DBH	Diameter at Breast Height
DNP	Division of Nature Preserves
DOR	Division of Reclamation
ECOS	Environmental Conservation Online System
ESA	Endangered Species Act
ETR	Endangered, Threatened, and Rare
GPS	Global Positioning System
IC	Indiana Code
IDNR	Indiana Department of Natural Resources
IPaC	Information, Planning, and Consultation System
MW	Megawatt
NHD	Natural Heritage Database
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

1 Introduction

1.1 Purpose and Scope

On behalf of NGC Corp, Stantec was contracted to assess the potential presence of endangered, threatened, and rare (ETR) species and protected species habitat within the boundaries of the Gary International Airport North Project (Study Area). The purpose of this report was to evaluate the site to identify potential habitat for Federally and State listed ETR species, and based on existing site conditions, determine if habitats within the Study area are supportive in fulfilling the life requisites of ETR species. Stantec's habitat assessment consisted of 1) a preliminary literature and database review of Federal and State listed ETR species 2) on-site field observations of the habitat composition of the site. This was not a species specific presence/absence survey.

This report identifies the environmental and ecological constraints associated with the Study Area based on Stantec's best professional understanding and interpretation of current state and federal code, regulations, and promulgation associated with ETR species and special habitat including Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) roost habitat.

1.2 Habitat and Project Description

The Project Study Area consists of approximately 68 acres (Appendix A - Figure 1). The project is in Gary, Indiana, in Lake County. The site is located in the northern portion of the Gary International Airport.

The Study Area is primarily emergent wetland, upland sandy prairie, dune and swale, and a combination industrial land and abandoned railway. The site consisted of 3 different habitats in the Study Area.

Emergent wetland makes up the primary habitat within the site at approximately 13 acres of the total 70 acres. The wetland is a semi-mature wetland habitat that consists of numerous plant species with a wetland indicator status of facultative or wetter. The study area consists of two large wetland complexes that surround the gravel parking lot and debris field to the southwest and southeast, disconnected by a drive. The emergent wetland then extends to the southeast where they are disconnected from the dune and swale habitat in the southeast corner of the study area, described later in this report. Typical and expected wetland plants that make up the wetland plant community include low quality and invasive plants such as reed canary grass (*Phalaris arundinacea*), large amounts of common reed (*Phragmites australis*) and hybrid cattail (*Typha x glauca*). While the wetlands are dominated by tall emergent invasive plants, the understory of the emergent wetlands contain a diversity of native plants.

The emergent wetlands within the site feature a robust population of various sedges, rushes, and wetland grasses native to the local plant communities, interwoven between and within the canopy of the taller invasive common reed and hybrid cattail. Some native species include green bulrush (*Scirpus atrovirens*), common spikerush (*Eleocharis palustris*), devil's beggarticks (*Bidens frondosa*), rice cut grass (*Leersia oryzoides*), and bluejoint grass (*Calamagrostis canadensis*). While the plant community is not considered biologically robust or particularly diverse in its current state, the presence of these species indicates that while not currently managed as a native wetland restoration, the potential for rare or endangered species is possible, due to the nearby proximity of Indiana DNR managed dune and swale wetlands, in combination with regional hydrology and the adjacent degraded dune and swale habitat located within the unit to the southeast of the emergent wetlands. A more comprehensive botanical inventory would be needed to further assess the presence/absence of ETR species listed within this report.

Dune and swale habitat is unique to the sandy coastal shorelines of the Great Lakes. As the name of the habitat suggests, this complex system's most notable feature is the parallel rolling upland dune ridges with low wetland swales that often feature great potential for varied plant diversity. This higher than normal potential for diversity is directly related to the continuously changing lake levels. As the nearby Lake Michigan water levels fluctuate, so do the water levels of the swales due to their connectivity to the Lake Michigan water table. This direct connection to Lake Michigan groundwater brings with it the potential for varied seed banks from surrounding protected and ecologically diverse lands, thus explaining the potential for randomized plant diversity within the wetlands. The presence of intact dune and swale habitat to the north, across Airport Road, indicates that the geological water flow attributes of a dune and swale habitat could be present, which increases the potential for diversity in both local flora and fauna.

Approximately 10 acres within the Study Area is a mix of upland sandy prairie and degraded dune and swale habitat with limited connectivity to the greater area of open sandy prairie and dune and swale habitat located within other areas of the airport property. Within these areas, rolling upland dune buffers are present with wetland swales running parallel and in between the upland dune buffers. Vegetation is limited in these areas, yet still present. Upland species present include but are not limited to little bluestem (*Schizachyrium scoparium*), indian grass (*Sorghastrum nutans*), lance leaf coreopsis (*Coreopsis lanceolata*), and switch grass (*Panicum virgatum*). Limited invasive woody plants occur within this upland area due to the consistent mowing regiments of open areas. The dune and swale habitat located in the southwest corner of the study area contains higher diversity than in other dune and swale habitats within the Gary/Chicago International Airport. Lady's tresses orchids (*Spiranthes* sp.) were noted within the swales of the southeast wetlands, but were not identified down to species level. See Appendix D photos 17 and 18.

An abandoned railway runs adjacent to the Indiana Land Trust #6365 property and falls partially within the study area. The abandoned railway substrate is primarily limestone gravel and sand with upland prairie plants such as little bluestem grass, Indian grass, with the invasive non-native spotted knapweed (*Centaurea stoebe*) and mugwort (*Artemisia vulgaris*) dominating the community. See Appendix D photos 13-16.

A portion of the study area across Airport Road contains a stand of dead Ash (*Fraxinus* spp.) tree snags, all of which exceed a DBH of 10 inches or more. See Appendix D photo 19. With loose hanging bark intact on these trees, along with their proximity to woodlands and wetlands, indicates the potential for bat roosts.

2 Methods

2.1 Regulatory Considerations

Endangered, threatened, and rare (ETR) species are protected at both the state and federal level (IC 14-22-34 and 50 CFR 17.11 through 17.12, respectively). The Indiana Department of Natural Resources Nongame and Endangered Species Conservation Act states a person may not take, possess, transport, export, process, sell, of offer for sale or shipment of nongame or endangered species; and a common or contract carrier may not knowingly transport of receive for shipment any such species. The Indiana Code (IC) defines "Take" as to harass, hunt, capture, or kill; or attempt to harass, hunt, capture, or kill. The federal Endangered Species Act (ESA) protects endangered and threatened species and their habitats by prohibiting the "take" of listed animals and the interstate or international trade in listed plants and animals, including their parts and products, except under Federal permit. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." The term "harm" is defined as "an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering."

The Bald and Golden Eagle Protection Act (BGEPA) prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" Bald Eagles, including their parts, nests, or eggs. The BGEPA provides criminal penalties for persons who take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or in any manner, any bald or gold eagles, alive or dead, or any part, next, or egg thereof. The BGEPA defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." "Disturb" is defined as "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior." This definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

2.2 Database and Literature Review Methodology

Prior to the site visit, Stantec initially reviewed relevant literary sources, federal and state laws, and supporting information including United States Geological Survey Topographic Quadrangles and representative aerial imagery (Appendix A - Figures 1 and 2). Stantec consulted these sources to assist in the characterization of field conditions present within the proposed project area. Coordination with the IDNR Division of Nature Preserves (DNP) was undertaken on 10/27/2023 to search the Natural Heritage Database (NHD) for documented occurrences of ETR species within the Study Area and a surrounding 0.5 mile radius, and protected bat occurrences within a 5-mile radius of the Study Area (Appendix B). Similarly, the Information, Planning, and Consultation (IPaC) System by the United States Fish and Wildlife Service (USFWS) was utilized to obtain an official list of ETR species and any designated critical habitat that may occur within the Study Area (Appendix C).

2.3 Field Assessment and Bat Roost Habitat Methodology

After the desktop review, a Stantec qualified biologist conducted a field assessment to determine the potential presence of state and federally listed threatened and endangered species, and to characterize habitat conditions within the Study Area. Qualified biologists visually surveyed the full extent of the project area by foot and implemented a survey methodology entailing the utilization of meandering transects (Goff 1982). If understory brush and shrubs were too dense to pass through, biologists examined the tree canopy, identifying tree species and evaluating tree health for signs of snags and peeling bark. The walking survey was conducted by Matt Harmon with Stantec on October 30, 2023. Matt Harmon was accompanied by an airport representative for the duration of the survey. Matt Harmon has 9 years of natural resources experience with a B.Sc. in Biology with a focus on Wildlife Ecology. Matt Harmon served as an assistant biologist on Indiana DNR acoustic bat surveys for 3 seasons.

Suitable roosting and foraging habitat typically occur in forested and wooded areas in uplands, forested wetlands, and riparian areas (along streams); but may also include fencerows or trees located adjacent to agricultural fields and pastures. The Study Area was assessed for potential Indiana bat and northern long-eared bat summer roosting habitat. Potential roost trees include those which are live, dead, or dying trees with exfoliating bark, crevices, cracks, or cavities. Potential roost trees are at least 5 inches diameter at breast height (DBH) for Indiana bat and greater than 3 inches DBH for northern long-eared bat. Individual trees that occur more than 1,000 feet from a forested/wooded habitat, and trees located within a highly urban setting are not considered potential roost trees/habitat. In addition to trees, the northern long-eared bat may also utilize old barns, bat houses, and bridges. Trees and structures that meet the criteria were recorded using a Global Positioning System (GPS) with sub-meter accuracy.

If observed, a narrative describing the type, size, and location of the potential roost tree(s) in Section 3 and a graphic depicting the location(s) of the potential roost tree(s) will be included as an Appendix. If several trees were observed in close proximity, they were grouped into polygons

In addition, high quality natural communities and significant natural habitat areas were documented as part of this field assessment and biologists made note of general topography, dominant vegetation, plant community structure, and any anthropogenic disturbances. Species specific presence/absence surveys were not performed as part of this assessment.

3 Results and Discussion

3.1 Database and Literature Results

Stantec contacted the Indiana Department of Natural Resources (IDNR) – Natural Heritage Database, IDNR – Division of Fish and Wildlife and the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) for information regarding the occurrence of state and federal endangered, threatened or rare species within 0.5-mile radius of the proposed re-routed area. A summary of State and Federal Species within a 0.5-mile radius, preferred habitat and potential for occurrence at the Project is provided in Table 3.11 below. A copy of our correspondence is included in Appendix A.

3.1.1 Endangered, Threatened and Rare Species

Table 3.1.1: Federal and State-Listed Species Documented within 0.5 mile of the Project Area

Common Name	Scientific Name	Status	Preferred Habitat	Probability of Occurance
INVERTIBRATES				
Dusted Skipper	*Atrytonopsis hianna*	SR	Little bluestem, and include open dry fields, open woodlands, barrens, mid grass and tall grass prairies, foothills, prairie gulches	Moderate
Monarch butterfly	*Danaus plexippus*	C	Host plant- Milkweed	High
Columbine Duskywing	*Erynnis lucilius*	SE	Wooded areas including many kinds of glades, barrens, ridgetops as well as gullies and openings in richer woods with an abundance of columbines.	Low
Karner Blue	*Lycaeides melissa samuelis*	SE/EX	Dry and sandy areas, including oak savanna and jack pine barrens, and less often dune communities. Wild Lupine required	None
Bunchgrass Skipper	*Problema byssus*	ST	Tallgrass Prairie- Eastern gamagrass and big bluestem host plants	Moderate
Band-winged Meadowhawk	*Sympetrum semicinctum*	SR	Ponds and marshy areas with slow currents	Moderate
BIRDS				
American Bittern	*Botaurus lentiginosus*	SE	Freshwater marshes, shallow wetlands and tall marsh vegetation	Moderate
Black Tern	*Childonias nigar*	SE	Marshes, rivers, lakeshores. Typically, with mixture of open water and emergent vegetation	Low
Marsh wren	*Cistothorus palustris*	SE	Wetlands with cattails, sedges, rushes and phragmites	Moderate
Whooping Crane[2]	*Grus americana*	EP NE, SE	Habitat during migration and winter includes marshes, shallow lakes, lagoons, salt flats, grain and stubble fields, and barrier islands.	Moderate
Least Bittern	*Ixobrychus exilis*	SE	Dense Marshland ecosystems with cattails and reeds	Moderate
King Rail	*Rallus elegans*	SE	Marsh habitat with dense vegetation cover	Moderate

Common Name	Scientific Name	Status	Preferred Habitat	Probability of Occurance
Virginia Rail	*Rallus limicola*	SE	Fresh water wetlands with cattails and coastal marshes	Moderate
MAMMALS				
Indiana bat[2]	*Myotis sodalis*	E,SE	Caves for hibernation in fall and winter. Stream corridors and forests with mature trees of flaky bark and dead and dying trees, crevices and holes in spring and summer	Moderate
Northern long-eared bat[2]	*Myotis septentrionalis*	E, SE	Roosts in trees during summer; forages in forest interiors and forest edges near grasslands and agricultural fields, and over wetlands; hibernates in caves during winter	Moderate
Tricolored Bat[2]	*Perimyotis subflavus*	PE, SE	During non-winter months, primarily roost in dead leaf clusters of deciduous trees, although they have also been observed roosting amongst the foliage of evergreen trees, artificial structures, and caves.	Moderate
Vascular Plant				
pale false foxglove	Agalinis skinneriana	ST	Open, high quality, graminoid-dominated communities	Moderate
bristly sarsaparilla	Aralia hispida	SE	Shrubby- sunny locations with gravelly, sandy or rocky soils	Moderate
bearberry	Arctostaphylos uva-ursi	ST	Sandy and rocky areas along shoreline, slopes and hilltops in coniferous woods	Moderate
paper birch	Betula papyrifera	ST	Well-drained soils in a variety of topographic situations	Low
bluehearts	Buchnera americana	SE	Margins of wet swales, sandy meadows and sand dunes	Low
Oklahoma grass-pink	Calopogon oklahomensis	SX	Undisturbed upland mesic prairies	Moderate
golden-fruited sedge	Carex aurea	ST	Wet meadows with calcareous soils	High
Crawe's sedge	Carex crawei	ST	Sedge meadows, fens and wet marly sand, interdunal depressions	Moderate
Ebony sedge	*Carex eburnea*	ST	Wet sandy, or calcareous gravelly soil	Moderate
Elk Sedge	Carex garberi	SE	Wet sandy, or calcareous gravelly soil	Moderate
Richardson's sedge	Carex richardsonii	ST	Open sandy prairies, forest edges, barrens, bluffs and Jack Pine stands	Moderate
prairie redroot	Ceanothus herbaceus	SE	Medium to dry, calcareous, well-drained soils in full sun.	Low

Common Name	Scientific Name	Status	Preferred Habitat	Probability of Occurance
Dune thistle	Cirsium pitcheri	SE	Open sand dunes	Low
calamint	Clinopodium arkansanum	ST	Well drained calcareous soils in full sun	Low
bunchberry	Cornus canadensis	SE	Moist to wet forests and bogs	Low
roundleaf dogwood	Cornus rugosa	ST	Moist, well-drained soils, full to partial sun	Moderate
small white lady's-slipper	Cypripedium candidum	ST	Wet, calcareous to neutral soils. Openings and borders in fens and wet prairies	Low
small yellow lady's-slipper	Cypripedium parviflorum var.	ST	Fens, wetland forests, rivers, shorelines	Low
long-bract green orchid	Dactylorhiza viridis	SE	Wet-mesic forests, fens and meadows	Low
capitate spike-rush	Eleocharis geniculata	ST	Sandy, mucky, or peaty shorelines as well as bog and fen mats	Low
variegated horsetail	Equisetum variegatum var.	SE	Full sun, wet to moist sandy soils with some organic material	Moderate
slender cotton-grass	Eriophorum gracile	ST	Wet, boggy areas	Low
Bicknell's northern cranesbill	Geranium bicknellii	SE	Dry sandy, or gravelly soil	Moderate
Jointed rush	*Juncus articulatus*	ST	Wet sandy or calcareous soil	Moderate
twinflower	Linnaea borealis	SX	Cool dark forests with moist soils	Low
globe-fruited false-loosestrife	Ludwigia sphaerocarpa	SE	Wet peaty margins of bogs	Low
American cow-wheat	Melampyrum lineare	SE	Well drained deciduous or coniferous forests	Low
Michaux's stitchwort	Minuartia michauxii var.	ST	Dry, rocky area on cliffs and shorelines	Moderate
prairie goldenrod	Oligoneuron album	ST	Dry prairies, full sun, sandy calcareous sols	Moderate
clustered broomrape	Orobanche fasciculata	SE	Arid grasslands and dunes	Moderate
jack pine	Pinus banksiana	ST	Full sun, dry acidic environments	Moderate
leafy northern green orchid	Platanthera aquilonis	ST	Wet meadows, marshes and fens	Moderate
Hooker's orchid	Platanthera hookeri	SX	Steep wooded slopes and cool exposures	Low
spotted pondweed	Potamogeton pulcher	ST	Aquatic species in depths less than 6.5 feet.	Moderate
beach sumac	Rhus aromatica var. arenaria	ST	Poor rocky dry to wet soils	Moderate

Common Name	Scientific Name	Status	Preferred Habitat	Probability of Occurance
heartleaf willow	Salix cordata	SE	Sand dunes, river banks and lake shores	Moderate
water bulrush	Schoenoplectus subterminalis	ST	Deeper portions of shallow water	Low
Strict blue-eyed grass	Sisyrinchium montanum	SE	Forest edges, meadows and fields, shores of rivers or lakes	Moderate
sticky goldenrod	Solidago simplex var. gillmanii	ST	River scours, and shorelines	Low
shining ladies'-tresses	Spiranthes lucida	ST	Lake shores, seeps and meadows on high PH sites	High
Great plains ladies tresses	Spiranthes magnicamporum	SE	Calcareous prairies or wet meadows	High
Rushlike aster	Symphyotricum boreale	ST	High pH fens and marshes	Moderate
western silvery aster	Symphyotrichum sericeum	ST	Grassy openings in Bur Oak savannah	Moderate
Northern white cedar	Thuja occidentalis	SE	Forested rich fens	Low
False asphodel	Triantha glutinosa	ST	Marshes, wet meadows with calcareous soils	Low
marsh arrow-grass	Triglochin palustris	ST	Beach ridges and nearshore deposits of calcareous sand and gravel	Moderate
horned bladderwort	Utricularia cornuta	SE	Shallow water	Moderate
lesser bladderwort	Utricularia minor	ST	Shallow lakes, streams and backwater channels	Moderate
Purple bladderwort	Utricularia purpurea	ST	Submerged aquatic in small to medium sized lakes	Moderate
Northeastern bladderwort	Utricularia resupinata	SE	Clear acidic waters with sandy or peaty shores	Moderate
AMPHIBIAN				
Blanchard's cricket frog	*Acris blanchardi*	SSC	Shallow wetlands, lakes, or streams	Moderate
Blue-spotted salamander	*Ambystoma laterale*	SCC	Moist, deciduous hardwood forests	Low
REPTILE				
Spotted turtle	*Clemmys guttata*	SE	Swamps, bogs, fens and marshes	Moderate
[1] Status Codes: E = Endangered; EX-Extirpated - Indiana T = Threatened; C = Candidate; NL=Not Listed; SR= State Rare; PE= Proposed Endangered; EP NE – Experimental Population, Non-essential				

3.1.2 Migratory Bird Treaty Act & Bald and Golden Eagle Protection Act

Table 3 presents a summary of migratory birds of particular concern in the area. The birds on this list are of particular concern because they are USFWS Birds of Conservation Concern (BCC) or they warrant special attention due to the Bald and Golden Eagle Protection Act (BGEPA).

Table 3.1.2: Migratory Birds of Special Concern

Common Name	Scientific Name	Status	Breeding Season
American Golden-plover	*Pluvialis dominica*	BCC	Breeds elsewhere
Bald Eagle	*Haliaeetus leucocephalus*	BGEPA	Oct 15-Aug 31
Black -billed Cuckoo	*Coccyzus erythropthalmus*	BCC	May 15- Oct 10
Bobolink	*Dolichonys oryzivorus*	BCC	May 20-Jul 31
Chimney Swift	*Chaetura pelagica*	BCC	March 15-Aug 25
Eastern Whip-poor-will	*Antrostomus vociferus*	BBC	May 1-Aug 20
Henslow's Sparrow	*Ammodranus henslowii*	BBC	May 1-Aug 31
Golden-winged Warbler	*Vermivor chrysoptera*	BCC	May 1-Jul 20
King Rail	*Rallus elegans*	BCC	May 1-Sept 5
Lesser Yellowlegs	*Tringa flavipes*	BCC	Breeds Elsewhere
Pectoral Sandpiper	*Calidris melanotos*	BCC	Breeds Elsewhere
Prothonotary warbler	*Protonotaria citrea*	BCC	Apr 1-Jul-31
Red Headed Woodpecker	*Melanerpes erythrocephalus*	BCC	May 10-Sept 10
Rusty Blackbird	*Euphagus carolinus*	BCC	Breeds Elsewhere
Short-billed Dowitcher	*Limnodromus griseus*	BCC	Breeds elsewhere
Wood Thrush	*Hylocichla mustelina*	BCC	May 10-Aug 31

The study area falls within the Mississippi Migratory Bird Flyway where Lake Michigan plays a critical role in directing movement of large single or mixed species flocks of waterfowl, shore/wading birds, songbirds, and larger birds of prey. Migrating birds move along Lake Michigan's western and eastern shorelines primarily within the months of April/May for spring migration and August/September for fall migration. While some of these migratory birds breed in the southern Lake Michigan region, more than just breeding season should be taken into consideration when impacting potential habitat. Migration periods in which rare or endangered migratory birds are regularly documented along the southern tip of Lake Michigan also has a direct impact on the overall success of individual species of migratory birds. Due to the proximity of the site to managed natural areas and the Lake Michigan southern shoreline, migrating rare or endangered birds may utilize the wetlands within this site as a stopping ground during their flight to and from regions of the Americas where they reproduce.

3.2 Field Assessment and Bat Roost Habitat Results

Stantec completed an onsite assessment of the project area on October 30, 2023. During the assessment, Stantec characterized the site vegetation, which included a variety of habitats such as Emergent Wetland, Dune and Swale, and Sandy Prairie. See the habitat description section for characteristic species and a detailed description. See Appendix D for representative site photos.

Due the proximity to intact dune and swale habitat appropriate for Blanding's turtles (*Emydoidea blandingii*) and spotted turtles (*Clemmys guttata*), it is possible that these species could utilize the large emergent wetland as a nesting habitat.The abundance of sandy substrate surrounding emergent wetlands. Sand being the preferred nesting material for many species of turtles.

The site falls within the Mississippi Migratory Bird Flyway where Lake Michigan plays a critical role in directing movement of large single or mixed species flocks of waterfowl, shore/wading birds, songbirds, and larger birds of prey such as Bald Eagles (*Haliaeetus leucocephalus*) and Golden Eagles (*Aquila chrysaetos*). Migrating birds move along Lake Michigan's western and eastern shorelines primarily within the months of April/May for spring migration and August/September for fall migration. Rare or endangered migratory birds are regularly documented along the southern tip of Lake Michigan during these periods of the year with migratory birds often congregating in the northern portions of Lake and Porter Counties in Indiana. Due to the proximity of the site to managed natural areas and the Lake Michigan southern shoreline, migrating rare or endangered birds may use the wetlands and/or prairies within this site as a stopping ground during their migratory flight north or south.

During the survey of the site, no ETR species from the county list, IDNR NHD, USFWS IPaC Report were observed. The potential for ETR species from the state or federal lists to occur within the Study Area was determined based on habitat observations noted in section 1.3 of this report. The probability of occurrence on site was deemed to range from no probability of occurrence to a high probability of occurrence for most species. (Table 3.1.1.) Due to its proximity to intact habitat, the large emergent wetland documented within the site has a high probability of harboring a wide diversity of plants and animals, some of which might be listed in Table 3.1.1. "Federal and State-Listed Species Documented within 0.5 mile of the Project Area." The various wetlands are mostly intact, vegetatively. An abundance of green bulrush, beggarticks, dense areas of cattail, along with other emergent and semi-emergent plants that provide habitat and food for birds and turtles, increase the probability of occurrence for animals listed in Table 3.1.1. (See, also, Appendix D for representative photographs of the study area.) Occurrence of ETR plants listed in Table 3.1.1. are less likely to be documented within these particular wetlands, however, are not completely out of the probability of occurrence due to the high-quality seed bank documented in the area as well as seasonal draw-down in these interconnected wetlands. Reference Table 3.1.1. for a comprehensive list of plant and animal species and their probability of occurrence within the site in its entirety. Special consideration should be taken when impacting the emergent wetlands and dune and swale habitat within this particular site, as they could potentially serve as a breeding location for the listed King Rail (*Rallus elegans*). See Table 3.1.2.

The sandy prairie and dune and swale habitat also have the potential to harbor state and federally noted plants and animals. Insects that utilize prairie grasses and forbs as host plants, such as the monarch butterfly (*Danaus plexippus*), dusted skipper (*Atrytonopsis hianna*), and bunchgrass skipper (*Problema byssus*) may occur within these areas. Additionally, bunching prairie grasses common to sandy prairies and the upland dunes of the dune and swale habitat often serve as a food source for common insects preyed upon by migrating songbirds, sandhill cranes (*Antigone canadensis*) and whooping cranes (*Grus americana*). Disruption of habitat during breeding/nesting season of the following bird species should be limited within the sandy prairies and dune and swale systems; bobolink (*Dolichonys oryzivorus*), Henslow's sparrow (*Ammodranus henslowii*), and red headed woodpecker (*Melanerpes erythrocephalus*).

The Study Area was walked to identify potential Indiana bat and northern long-eared bat roost trees. Based on the field inspection and our best professional judgment, a potential bat roost site was identified across

Airport Road within the study area. A stand of roughly 20 or more dead ash trees with a DBH >10” borders woodlands and what appears to be a wetland with a stand of common reed as the dominant plant species, as noted by a polygon in Appendix A Figure 3. These trees meet the requirements for a potential bat roost site for all species of bat listed in table 3.1.1.

4 Summary and Conclusion

Stantec's habitat assessment of the Gary Airport North Area consisted of a preliminary literature and database review of Federal and State listed ETR species and on-site field observations of the habitat composition of the site. This was not a species-specific presence/absence survey.

The USFWS IPaC report listed two endangered species; Indiana Bat and Northern Long-eared Bat, one proposed endangered species; Tricolored Bat, one candidate species; Monarch Butterfly, and the whooping crane was listed as an experimental, non-essential population. In addition, 15 migratory birds of concern and the bald eagle were listed on the IPaC report. The IDNR Natural Heritage Database listed 62 ETR species within a 0.5 mile of the project site.

ETR habitat observations were conducted for the Gary International Airport, in Gary, Lake County, Indiana on October 30, 2023. The Study area included approximately 13 acres of emergent wetland and roughly 10 acres of a mix of sandy prairie and dune and swale habitat. All three habitats within the Study Area met ETR species habitat requirements for state listed plants and animals and migratory birds of concern.,

An additional area of roughly 0.2 acre of wetland with dead ash trees was noted as potential bat roost trees meeting the USFWS criteria within the study area that are suitable for harboring federally endangered Indiana bats or northern long-eared bats. See Appendix A, Figure 3 for roost area polygon. If impact on potential bat roosting habitat is necessary, it would be recommended that all clearing activities take place between October 01 and March 31 to avoid impacts to potentially roosting bats. However, if that were not possible, it would be recommended that exit monitoring of the trees takes place the night prior to commencing with clearing and further coordination with the USFWS may be necessary.

Due to the presence of potential habitat for State and Federal Listed ETR species and migratory birds, if impacts are proposed to the habitats identified in the project area, time of year restrictions, species specific presence/absence surveys and further coordination with IDNR and USFWS may be warranted.

5 References

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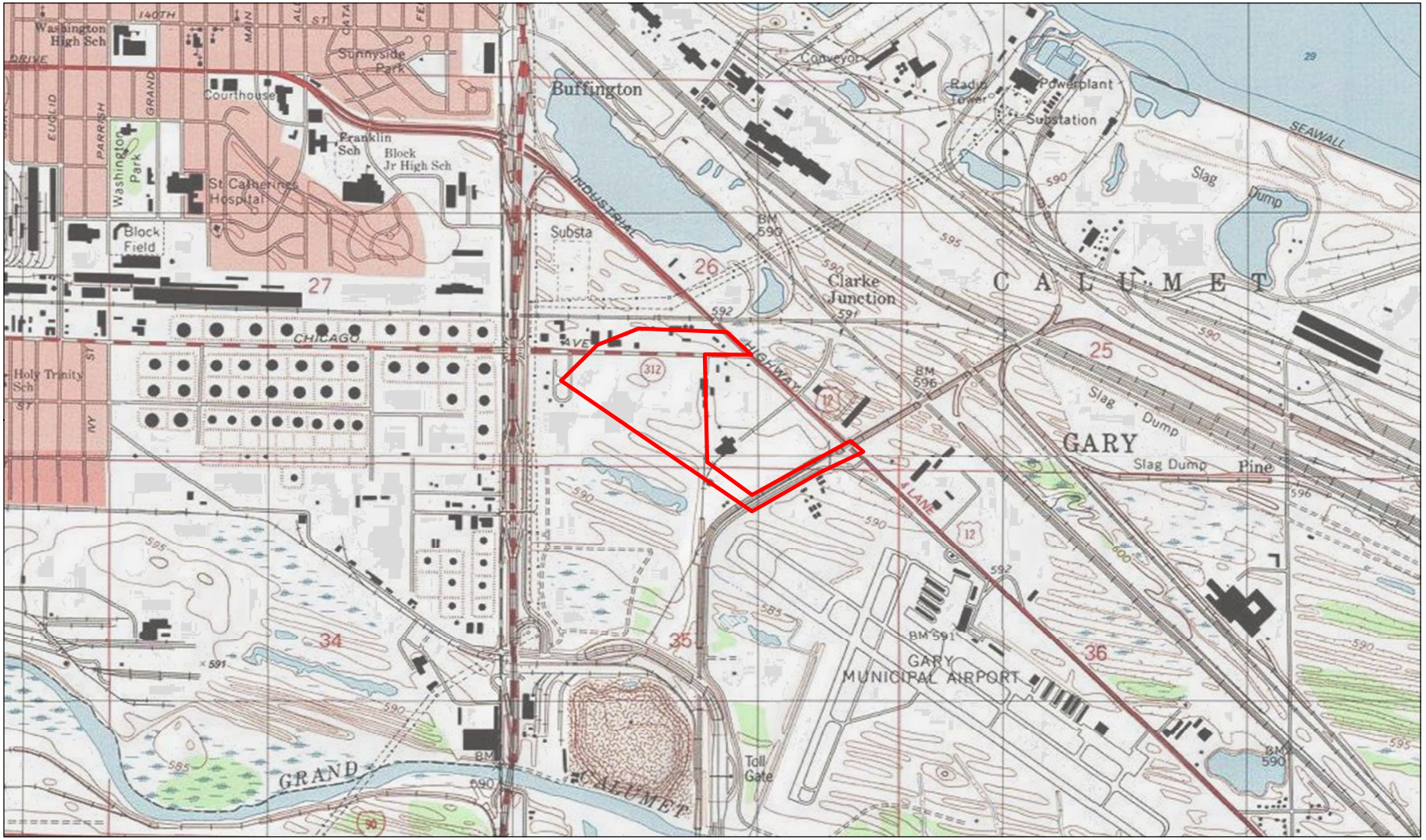
Gary Airport – North Area
Lake County, Indiana

APPENDIX A

FIGURES



Legend

Area of Interest

N

0 1,000 2,000 Feet

(At original document size of 8.5x11)
1:24,000

Notes

1. Coordinate System: NAD 1983 UTM Zone 16N
2. Data Sources:USGS
3. Background: Copyright:© 2013 National Geographic Society, i-cubed
National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

Stantec

Project Location
T37N, R9W, S26, 35
Lake County, Indiana

Prepared by COD on 12/1/2023
TR by MRH on12/1/2023
IR Review by CAS on 12/1/2023

Client/Project
NGC Corporation
Gary Airport North
Rare, T&E Species and Special Habitat Observation Report

239000570

Figure No.
1

Title
Project Location

G:\238102013\03_data\gis_cad\MXD\TandE_report_December2023\20231201_F1_North_projectlocation.mxd Revised: 2023-12-01 By: cdittmar

Legend

- Area of Interest
- Photo Station
- Delineated Wetland
- Wetland Extends beyond AOI

N

0 270 540 Feet

(At original document size of 8.5x11)
1:6,000

Notes

1. Coordinate System: NAD 1983 UTM Zone 16N
2. Data Sources:Stantec
3. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

Stantec

Project Location
T37N, R9W, S26, 35
Lake County, Indiana

Prepared by COD on 12/1/2023
TR by MRH on12/1/2023
IR Review by CAS on 12/1/2023

Client/Project 239000570
NGC Corporation
Gary Airport North
Rare, T&E Species and Special Habitat Observation Report

Figure No.
2

Title
Physcial Setting

G:\238102013\03_data\gis_cad\MXD\TandE_report_December2023\20231201_F2_North_physicalsetting.mxd Revised: 2023-12-01 By: cdittmar

Legend

- Potential Bat Roost Area
- Area of Interest

N

0 270 540 Feet

(At original document size of 8.5x11)

1:6,000

Notes

1. Coordinate System: NAD 1983 UTM Zone 16N

2. Data Sources:Stantec

3. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

Stantec

Project Location
T37N, R9W, S26, 35
Lake County, Indiana

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Client/Project 239000570
NGC Corporation
Gary Airport North
Rare, T&E Species and Special Habitat Observation Report

Figure No.
3

Title
Potential Bat Roosts

G:\238102013\03_data\gis_cad\MXD\TandE_report_December2023\20231201_F3_North_potentialbatroots.mxd Revised: 2023-12-01 By: cditmar

Gary Airport – North Area
Lake County, Indiana

APPENDIX B

IDNR ENDANGERED, THREATENED, AND RARE SPECIES AGENCY CORRESPONDENCE

Division of Nature Preserves
402 W. Washington St., Rm W267
Indianapolis, IN 46204-2739

October 27, 2023

Christina Svoboda
Stantec
708 Roosevelt Road
Walkerton, IN 46574

Dear Christina Svoboda:

I am responding to your request for information on the threatened or endangered (T&E) species, high quality natural communities, and natural areas for the Gary Airport North Development Site located within Lake County, Indiana. The Indiana Natural Heritage Data Center has been checked and included you will find a datasheet with information on the T&E species and significant areas documented within 0.5 mile of the project area.

Within the 0.5 mile search radius of the project area, there are several managed properties that are owned by the DNR Division of Nature Preserves. This list includes the State dedicated Clark and Pine Nature Preserve, the State dedicated Pine Station Nature Preserve, and additional areas of ecological significance. It is expected that project activities do not have negative direct or indirect impact to the natural areas and managed properties, including the systems and features protected therein. For more information concerning the properties and additional coordination prior to any further project development, please contact DNR Regional Ecologist, Emily Stork EStork@dnr.in.gov.

For any high-quality natural communities located within or adjacent to the projected impact zone footprint, it is expected that all precautions are taken to not impact the systems and features protected therein. The use of best management practices for soil erosion and runoff should be utilized during future project activities to minimize direct impacts to any habitat occurrences. Proper dust control measures should be implemented. It is requested that any project materials or equipment required adjacent to or within these natural areas are cleaned per the best management practices to help prevent the spread of invasive or noxious plant species. Ultimately, it is preferred that the eventual project activities do not have direct or indirect impact to the reported high-quality natural communities by avoidance and proper buffering of the habitat areas.

The *Oligoneuron album* and *Calylophus serrulatus* occurrences are documented from within the projected impact zone footprint. To protect these and any potential additional T&E vascular plant occurrences that are documented from within or adjacent to the projected impact zone footprint, surveys should be conducted by qualified personnel for the species prior to work zones being occupied or equipment movement within. If species are identified the area should be flagged and taped off to lessen the possibility of impact to the T&E species. Ultimately, it is preferred that the eventual project activities do not have direct or indirect impact to the reported vascular plant occurrences by avoidance and proper buffering of any appropriate habitat areas.

If you need a review of the impacts to the animal species mentioned or a general environmental review, you can submit the project information (description, location map, and copy of this letter) to the DNR Division of Fish and Wildlife Environmental Coordinator, at environmentalreview@dnr.in.gov (preferred), or send to the street address below.

Department of Natural Resources
Environmental Review
Division of Fish and Wildlife
402 W. Washington Street, Room W273
Indianapolis, IN 46204

The information I am providing does not preclude the requirement for further consultation with the U.S. Fish and Wildlife Service as required under Section 7 of the Endangered Species Act of 1973. If you have concerns about potential Endangered Species Act issues you should contact the Service at their Bloomington, Indiana office.

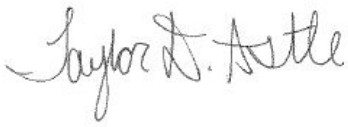
U.S. Fish and Wildlife Service
620 South Walker Street
Bloomington, Indiana 47403-2121
(812)334-4261

Please note that the Indiana Natural Heritage Data Center relies on the observations of many individuals for our data. In most cases, the information is not the result of comprehensive field surveys conducted at particular sites. Therefore, our statement that there are no documented significant natural features at a site should not be interpreted to mean that the site does not support special plants or animals.

Due to the dynamic nature and sensitivity of the data, this information should not be used for any project other than that for which it was originally intended. It may be necessary for you to request updated material from us in order to base your planning decisions on the most current information.

Thank you for contacting the Indiana Natural Heritage Data Center. You may reach me at (317)233-2558 if you have any questions or need additional information.

Sincerely,



Taylor Davis Astle
Indiana Natural Heritage Data Center

Enclosure: datasheet

October 27, 2023

INDIANA HERITAGE DATA WITHIN 0.5 MILE OF:

Gary Airport North Development Site, Lake County

Sci. Name	Com. Name	State	Fed.	Date	Site
Amphibian					
Acris blanchardi	Blanchard's cricket frog	SSC		2011	KIRK YARD - CLARK JUNCTION
Ambystoma laterale	blue-spotted salamander	SSC		1978	CZM LAKE 8
Bird					
Botaurus lentiginosus	American Bittern	SE		1978	CZM LAKE 8
Botaurus lentiginosus	American Bittern	SE		1978	CZM LAKE 8
Chlidonias niger	Black Tern	SE		1978	CZM #8
Cistothorus palustris	marsh wren	SE		1991	CLARKE JUNCTION
Ixobrychus exilis	Least Bittern	SE		1978	CZM LAKE 8
Rallus elegans	King Rail	SE		1978	CZM LAKE 8
Rallus elegans	King Rail	SE		1978	CZM LAKE 8
Rallus limicola	Virginia Rail	SE		1978	
Rallus limicola	Virginia Rail	SE		1978	CZM LAKE 8
High Quality Natural Community					
Prairie - sand dry	Dry Sand Prairie	SG		1978	CLARKE JUNCTION WEST SITE
Prairie - sand dry	Dry Sand Prairie	SG		2020	BUFFINGTON SAND PRAIRIE
Prairie - sand dry	Dry Sand Prairie	SG		1978	CZM LAKE 8
Prairie - sand dry-mesic	Dry-mesic Sand Prairie	SG		1978	
Prairie - sand dry-mesic	Dry-mesic Sand Prairie	SG		1978	CLARKE JUNCTION WEST SITE
Prairie - sand dry-mesic	Dry-mesic Sand Prairie	SG		2020	BUFFINGTON SAND PRAIRIE
Prairie - sand wet	Wet Sand Prairie	SG		2020	BUFFINGTON SAND PRAIRIE
Wetland - marsh	Marsh	SG		1978	BUFFINGTON SAND PRAIRIE

Fed: E = Federal endangered; T = Federal threatened; C = Federal candidate species

State: SE = State endangered; ST= State threatened; SR = State rare; SSC = State species of special concern; SG = State significant; no rank - not ranked but tracked to monitor status

Sci. Name	Com. Name	State	Fed.	Date	Site
Wetland - marsh	Marsh	SG		1978	CZM LAKE 8
Wetland - marsh	Marsh	SG		1978	CLARKE JUNCTION WEST SITE
Wetland - panne	Panne	SG		1978	CZM LAKE 8
Wetland - panne	Panne	SG		2010	CLARKE JUNCTION WEST
Reptile					
Clemmys guttata	spotted turtle	SE	C	2012	CLARK JUNCTION
Vascular Plant					
Agalinis skinneriana	pale false foxglove	ST		1991	CLARK AND PINE GENERAL REFRACTORIES SITE
Aralia hispida	bristly sarsaparilla	SE		1880	
Arctostaphylos uva-ursi	bearberry	ST		1991	
Arctostaphylos uva-ursi	bearberry	ST		1978	BUFFINGTON SAND PRAIRIE
Arctostaphylos uva-ursi	bearberry	ST		2007	CLARKE JUNCTION
Arctostaphylos uva-ursi	bearberry	ST		1978	CLARK AND PINE GENERAL REFRACTORIES SITE
Betula papyrifera	paper birch	ST		2022	CLARK AND PINE; GARY LAGOONS; CLARKE JUNCTION SITE
Buchnera americana	bluehearts	SE		1991	
Buchnera americana	bluehearts	SE		1991	
Buchnera americana	bluehearts	SE		2022	CLARKE JUNCTION SITE AND ROW
Buchnera americana	bluehearts	SE		1906	EDGEMOOR
Calopogon oklahomensis	Oklahoma grass-pink	SX		1912	
Calylophus serrulatus	yellow sundrops	SE		1980	GRAVEL DIKE AT CLARKE JUNCTION
Carex aurea	golden-fruited sedge	ST		2022	CLARKE JUNCTION SITES
Carex aurea	golden-fruited sedge	ST		1899	EDGEMOOR
Carex aurea	golden-fruited sedge	ST		1978	
Carex crawei	Crawe's sedge	ST		2022	CLARKE JUNCTION SITES AND

Fed: E = Federal endangered; T = Federal threatened; C = Federal candidate species

State: SE = State endangered; ST= State threatened; SR = State rare; SSC = State species of special concern; SG = State significant; no rank - not ranked but tracked to monitor status

Sci. Name	Com. Name	State	Fed.	Date	Site
					PRAIRIE PARK SUBSTATION
Carex crawei	Crawe's sedge	ST		1956	CLARK AND PINE GENERAL REFRACTORIES ADDITION SITE
Carex eburnea	ebony sedge	ST		2022	CLARKE JUNCTION SITES
Carex garberi	elk sedge	SE		2022	CLARKE JUNCTION SITES
Carex richardsonii	Richardson's sedge	ST		1986	
Ceanothus herbaceus	prairie redroot	SE		1903	
Cirsium pitcheri	dune thistle	SE	T	1882	
Clinopodium arkansanum	calamint	ST		2022	CLARKE JUNCTION WEST SITE
Clinopodium arkansanum	calamint	ST		1926	CANADIAN NATIONAL RAILWAY
Clinopodium arkansanum	calamint	ST		1895	CLARK AND PINE GENERAL REFRACTORIES
Cornus canadensis	bunchberry	SE		1878	
Cornus rugosa	roundleaf dogwood	ST		1920	
Cypripedium candidum	small white lady's-slipper	ST		1985	
Cypripedium candidum	small white lady's-slipper	ST		1889	EDGEMOOR
Cypripedium candidum	small white lady's-slipper	ST		1898	
Cypripedium candidum	small white lady's-slipper	ST		1897	
Cypripedium parviflorum var. makasin	small yellow lady's-slipper	ST		1987	CLARKE JUNCTION WEST SITE
Cypripedium parviflorum var. makasin	small yellow lady's-slipper	ST		1899	EDGEMOOR
Cypripedium parviflorum var. makasin	small yellow lady's-slipper	ST		1978	
Dactylorhiza viridis	long-bract green orchid	SE		0	
Eleocharis geniculata	capitate spike-rush	ST		1985	
Equisetum variegatum var. variegatum	variegated horsetail	SE		2022	PRAIRIE PARK SUBSTATION
Equisetum variegatum	variegated horsetail	SE		1955	

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State: SE = State endangered; ST= State threatened; SR = State rare; SSC = State species of special concern; SG = State significant; no rank - not ranked but tracked to monitor status

Sci. Name	Com. Name	State	Fed.	Date	Site
var. variegatum					
Eriophorum gracile	slender cotton-grass	ST		1934	
Eriophorum gracile	slender cotton-grass	ST		1934	CLARK AND PINE
Geranium bicknellii	Bicknell's northern cranesbill	SE		1903	
Juncus articulatus	jointed rush	ST		2022	CLARK JUNCTION WEST SITE
Linnaea borealis	twinflower	SX		1897	
Ludwigia sphaerocarpa	globe-fruited false-loosestrife	SE		1952	
Melampyrum lineare	American cow-wheat	SE		1907	
Minuartia michauxii var. michauxii	Michaux's stitchwort	ST		1978	
Oligoneuron album	prairie goldenrod	ST		1991	
Oligoneuron album	prairie goldenrod	ST		1995	
Oligoneuron album	prairie goldenrod	ST		1991	
Oligoneuron album	prairie goldenrod	ST		1995	BUFFINGTON SAND PRAIRIE
Orobanche fasciculata	clustered broomrape	SE		1926	CLARK AND PINE GENERAL REFRACTORIES SITE
Orobanche fasciculata	clustered broomrape	SE		1889	EDGEMOOR
Pinus banksiana	jack pine	ST		1985	
Pinus banksiana	jack pine	ST		1978	
Platanthera aquilonis	leafy northern green orchid	ST		1978	CLARK AND PINE GENERAL REFRACTORIES ADDITION SITE
Platanthera hookeri	Hooker's orchid	SX		1897	EAST OF EDGEMOOR
Potamogeton pulcher	spotted pondweed	ST		1897	
Rhus aromatica var. arenaria	beach sumac	ST		2022	CLARKE JUNCTION SITE
Rhus aromatica var. arenaria	beach sumac	ST		1995	BUFFINGTON SAND PRAIRIE
Rhus aromatica var. arenaria	beach sumac	ST		2007	
Rhus aromatica var.	beach sumac	ST		1904	

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State: SE = State endangered; ST= State threatened; SR = State rare; SSC = State species of special concern; SG = State significant; no rank - not ranked but tracked to monitor status

Sci. Name	Com. Name	State	Fed.	Date	Site
arenaria					
Salix cordata	heartleaf willow	SE		1898	
Schoenoplectus subterminalis	water bulrush	ST		1878	
Sisyrinchium montanum	strict blue-eyed-grass	SE		1980	
Solidago simplex var. gillmanii	sticky goldenrod	ST		1907	E OF INDIANA HARBOR
Spiranthes lucida	shining ladies'-tresses	ST		1934	
Spiranthes lucida	shining ladies'-tresses	ST		1934	
Spiranthes magnicamporum	Great Plains ladies'-tresses	SE		1991	CLARK & PINE GEN. REFRACTORIES ADDITION #2
Spiranthes magnicamporum	Great Plains ladies'-tresses	SE		1990	
Symphyotrichum boreale	rushlike aster	ST		1985	
Symphyotrichum sericeum	western silvery aster	ST		1978	GARY AIRPORT AREA
Thuja occidentalis	northern white cedar	SE		1978	
Thuja occidentalis	northern white cedar	SE		1978	BUFFINGTON SAND PRAIRIE
Triantha glutinosa	false asphodel	ST		2022	CLARKE JUNCTION SITES
Triantha glutinosa	false asphodel	ST		1906	E OF INDIANA HARBOR
Triglochin palustris	marsh arrow-grass	ST		1896	
Utricularia cornuta	horned bladderwort	SE		1916	
Utricularia cornuta	horned bladderwort	SE		1910	EDGEMOOR
Utricularia cornuta	horned bladderwort	SE		1893	
Utricularia minor	lesser bladderwort	ST		1897	
Utricularia minor	lesser bladderwort	ST		1889	EDGEMOOR
Utricularia minor	lesser bladderwort	ST		1897	
Utricularia purpurea	purple bladderwort	ST		1907	EDGEMOOR
Utricularia resupinata	northeastern	SE		1890	EDGEMOOR

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Sci. Name	Com. Name	State	Fed.	Date	Site
	bladderwort				

Fed: E = Federal endangered; T = Federal threatened; C = Federal candidate species

State: SE = State endangered; ST= State threatened; SR = State rare; SSC = State species of special concern; SG = State significant; no rank - not ranked but tracked to monitor status

Gary Airport – North Area
Lake County, Indiana

APPENDIX C

IPAC REPORT

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

In Reply Refer To:
Project Code: 2024-0004105
Project Name: Gary Airport - North Development

October 12, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at - http://www.fws.gov/midwest/endangered/section7/s7process/index.html. This website contains step-by-step instructions which will help you

determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process. For all **wind energy projects** and **projects that include installing towers that use guy wires or are over 200 feet in height**, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of

Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. **Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.**

Attachment(s):

- Official Species List
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403-2121
(812) 334-4261

PROJECT SUMMARY

Project Code: 2024-0004105
Project Name: Gary Airport - North Development
Project Type: Airport - New Construction
Project Description: Development for the Gary Airport
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.626727,-87.42524024650527,14z

Counties: Lake County, Indiana

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. 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.

MAMMALS

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

BIRDS

NAME	STATUS
Whooping Crane *Grus americana* Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non-Essential

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

---

1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read the supplemental

information and specifically the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

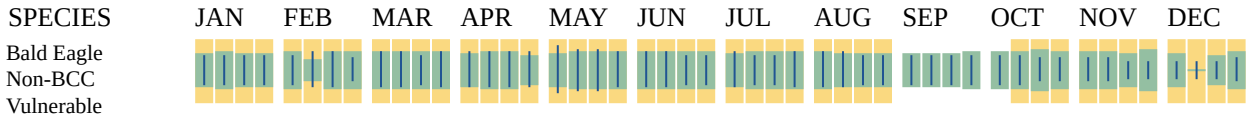
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; 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.

■ probability of presence ■ breeding season | survey effort – no data



Additional information can be found using the following links:

- Eagle Managment 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 BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] 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.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Golden-plover *Pluvialis dominica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31
Black-billed Cuckoo *Coccyzus erythropthalmus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Bobolink *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will *Antrostomus vociferus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10678	Breeds May 1 to Aug 20
Henslow's Sparrow *Ammodramus henslowii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3941	Breeds May 1 to Aug 31

NAME	BREEDING SEASON
King Rail *Rallus elegans* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8936	Breeds May 1 to Sep 5
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Pectoral Sandpiper *Calidris melanotos* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561	Breeds elsewhere
Prothonotary Warbler *Protonotaria citrea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439	Breeds Apr 1 to Jul 31
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Rusty Blackbird *Euphagus carolinus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Short-billed Dowitcher *Limnodromus griseus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read the supplemental information and specifically the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

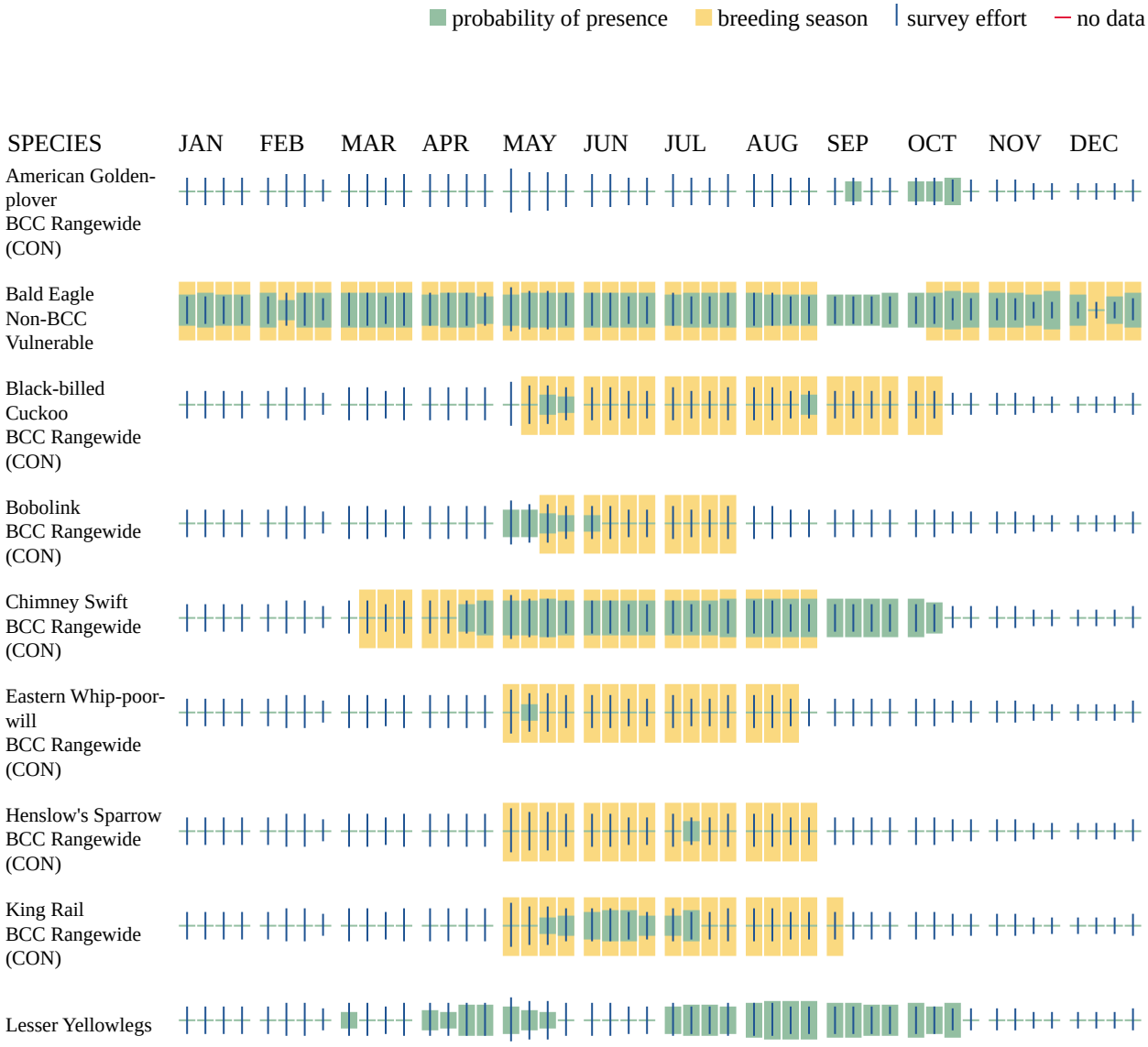
Probability of Presence (■)

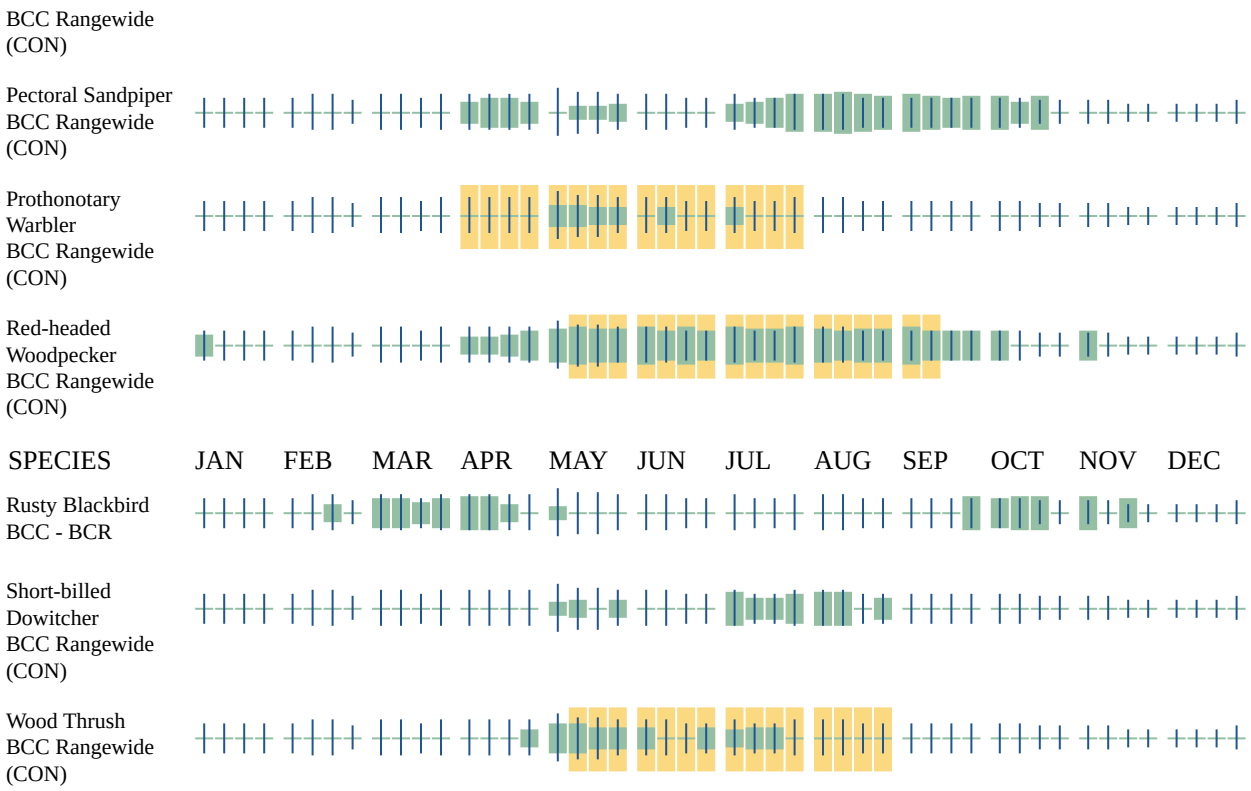
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (▪)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; 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.





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

WETLANDS

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.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

- R2UBFx

FRESHWATER EMERGENT WETLAND

- PEM1/5C
- PEM5C

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Christina Svoboda
Address: 708 Roosevelt Road
City: Walkerton
State: IN
Zip: 46574
Email christina.svoboda@stantec.com
Phone: 2198510173

Gary Airport – North Area
Lake County, Indiana

APPENDIX D

REPRESENTATIVE SITE PHOTOGRAPHS

October 30, 2023—Photo D01, Photo Point 1N, Facing North

October 30, 2023—Photo D02. Photo Point 1N, Facing East

October 30, 2023—Photo D03, Photo Point 1N, Facing South

October 30, 2023—Photo D04, Photo Point 1N, Facing West

Project Number: 239000570	**Site Photographs** **Rare, Threatened, and Endangered Species** **and Special Habitat Observation Report—239000570**	Stantec 708 Roosevelt Road, Walkerton, IN 46574 USA Phone (+1) 574-586-3400 Fax (+1) 574-586-3446 www.stantec.com

October 30, 2023—Photo D05, Photo Point 2N, Facing North

October 30, 2023—Photo D06, Photo Point 2N, Facing East

October 30, 2023—Photo D07, Photo Point 2N, Facing South

October 30, 2023—Photo D08, Photo Point 2N, Facing West

Project Number: 239000570	**Site Photographs, Photo Point 2N** **Rare, Threatened, and Endangered Species** **and Special Habitat Observation Report—239000570**	Stantec 708 Roosevelt Road, Walkerton, IN 46574 USA Phone (+1) 574-586-3400 Fax (+1) 574-586-3446 www.stantec.com

October 30, 2023—Photo D09, Photo Point 3N, Facing North

October 30, 2023—Photo D10, Photo Point 3N, Facing East

October 30, 2023—Photo D11, Photo Point 3N, Facing South

October 30, 2023—Photo D12, Photo Point 3N, Facing West

Project Number: 239000570	**Site Photographs, Photo Point 3N** **Rare, Threatened, and Endangered Species** **and Special Habitat Observation Report—239000570**	Stantec 708 Roosevelt Road, Walkerton, IN 46574 USA Phone (+1) 574-586-3400 Fax (+1) 574-586-3446 www.stantec.com

October 30, 2023—Photo D13, Photo Point 4N, Facing North

October 30, 2023—Photo D14, Photo Point 4N, Facing East

October 30, 2023—Photo D15, Photo Point 4N, Facing South

October 30, 2023—Photo D16, Photo Point 4N, Facing West

Project Number: 239000570	**Site Photographs, Photo Point 4N** **Rare, Threatened, and Endangered Species** **and Special Habitat Observation Report—239000570**	Stantec 708 Roosevelt Road, Walkerton, IN 46574 USA Phone (+1) 574-586-3400 Fax (+1) 574-586-3446 www.stantec.com

October 30, 2023—Photo D17, Photo Point 5N—Swale Plant Diversity Facing South

October 30, 2023—Photo D18, Photo Point 6N—Dune & Swale Vegetation, Facing South

October 30, 2023—Photo D19, Photo Point 7N—Potential Bat Roost Trees, Facing North

Project Number: 239000570	**Site Photographs, Photo Points 5N through 7N** **Rare, Threatened, and Endangered Species** **and Special Habitat Observation Report—239000570**	Stantec 708 Roosevelt Road, Walkerton, IN 46574 USA Phone (+1) 574-586-3400 Fax (+1) 574-586-3446 www.stantec.com

October 30, 2023—Photo D20, Photo Point 8N—Upland Dune with Swales running East/West, Facing South

October 30, 2023—Photo D21, Photo Point 9N—Mowed Degraded Dune and Swale Wetland, Facing South

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