Biological & Habitat Assessment Report

for

Shelby Crushed Stone

Quarry Property

Town of Shelby

Orleans County, New York

for

Shelby Crushed Stone



October 13, 2022 EDI Project Code: **W9D12e** REPORT SUMMARIZING THE RESULTS OF A BIOLOGICAL & HABITAT ASSESSMENT SURVEY OF

Shelby Crushed Stone

Quarry Property

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REPORT DATE: October 13, 2022 EDI PROJECT CODE: W9D12e

PROJECT INFORMATION

Project Name	Shelby Crushed Stone – Quarry Property		
Street Address			
SBL Numbers			
Town	Shelby		
County	Orleans		
State	New York		
Latitude/Longitude (NAD83)			
Investigation Area			
USGS 7.5 Minute Topographical Map	Medina Quadrangle		
Waterway	Oak Orchard Creek		
Hydrologic Unit Code			
Date of Investigation May 18	, June 8, September 1 & September 23, 2022		
Consultant	Earth Dimensions, Inc.		
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EXECUTIVE SUMMARY

Shelby Crushed Stone has proposed the expansion of the existing rock quarry within a 14.8± acre portion of a 95.0± acre parcel located on the south side of Blair Road in the Town of Shelby, County of Orleans, and State of New York. Shelby Crushed Stone has retained Earth Dimensions, Inc. (EDI) to perform a Biological and Habitat Assessment study to identify the existence or potential for listed State and/or Federal species and/or their habitats, as well as how the site is utilized by wildlife. This Biological and Habitat Assessment is in response to comments provided by NYSDEC in a letter dated November 8, 2021. The letter describes inadequacies regarding biota and vegetative descriptions and conditions of the site. Coordination with the New York State Department of Environmental Conservation (NYSDEC) and United States Fish & Wildlife Service (USFWS) was conducted to determine their jurisdictional authority over the investigation area, pursuant to Title 6 of the New York Codes, Rules and Regulations (6NYCRR), Part 360.8 and Section 7 of the Endangered Species Act.

A preliminary review of available information pertaining to listed species in the project area was implemented prior to conducting a field investigation at the site. Sources of information include the NYSDEC On-line Resource Mapper, NYSDEC EAF Mapper and USFWS on-line Information for Planning and Consultation (IPaC) tool. Additional baseline resources referenced include United States Geological Survey (USGS) (Figure 1), National Wetland Inventory (NWI) (Figure 2), Natural Resources Conservation Service (NRCS) (Figure 3), and NYSDEC Freshwater Wetland maps (Figure 4). EDI applied methodology specified by the New York Natural Heritage Program in performing the habitat assessment. Within the investigation area, EDI identified five (5) ecological communities.

During initial review, USFWS identified the potential for Federal Candidate Species Monarch Butterfly (*Danaus plexippus*) within the project area. Additionally, USFWS identified sixteen (16) migratory birds as Birds of Conservation Concern (BCC). No federally listed significant habitats were identified. NYSDEC Natural Heritage did not identify and State Threatened or Endangered species as potentially within or adjacent to the project area.

Detailed field investigations were conducted on May 18, June 8, September 1 & September 23, 2022 to document existing site conditions and survey for listed species and/or habitats. Additionally, a detailed plant and wildlife inventory was conducted during each visit. During the May 18 and June 8 visits, breeding marsh bird surveys were conducted per NYSDEC protocol. The four dates chosen for

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field surveys were to document the site conditions during different seasons as well as peak songbird migration times/dates.

During the field investigations, three (3) of the listed Birds of Conservation Concern were identified within the site. The species identified were blue-winged warbler, cerulean warbler and wood thrush. It is EDI's professional opinion that the proposed project will have minimal effect on these species, based on the preservation of similar or higher quality habitat within the remaining 80+ acres of the site. It is EDI's professional opinion that the site contains potentially suitable habitat for Federal Candidate species Monarch butterfly based on the presence of flowering plants, including milkweed species, throughout the site.

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SECTION I: INTRODUCTION

Shelby Crushed Stone has proposed the expansion of the existing rock quarry within a 14.8± acre portion of a 95.0± acre parcel located on the south side of Blair Road in the Town of Shelby, County of Orleans, and State of New York. The investigation area is currently dominated by a forested wetland community with an open-canopy emergent marsh community in the center of the site. Scattered upland wooded and old field areas are present along the edge of the wetland. The site is located on the USGS 7.5 minute quadrangle map indexed as Medina/USGS (Figure 1). The habitat assessment field work was completed on May 18, June 8, September 1 & September 23, 2022 by two Ecologists (one plant expert, one wildlife expert) from Earth Dimensions, Inc.

Shelby Crushed Stone has retained Earth Dimensions, Inc. (EDI) to complete a Biological & Habitat Assessment study at this site. The vegetative communities found during the field assessment used the technical document updated in 2014 titled, "Ecological Communities of New York State" (Edinger et al.). The investigation was designed to facilitate a determination of the extent of NYSDEC and USFWS jurisdiction over the project area pursuant to Title 6 of New York Codes, Rules and Regulations (6NYCRR) Part 360.8 and Section 7 of the Endangered Species Act. Additionally, the investigation was designed to document seasonal wildlife usage within the proposed impact and preservation areas.

The New York State Natural Heritage Program and the U.S. Fish and Wildlife Service (USFWS) on-line mapping resources were consulted in order to determine whether known occurrences of protected species have been located in the project vicinity. The Natural Heritage Program identified no listed species or significant habitats within the site. USFWS identified Federal Candidate species Monarch butterfly as potentially within the project area. USFWS also identified sixteen (16) migratory birds that are identified as a Bird of Conservation Concern. The birds identified are American Golden Plover, Bald Eagle, Belted Kingfisher, Black-billed Cuckoo, Blue-Winged Warbler, Bobolink, Canada Warbler, Cerulean Warbler, Chimney Swift, Eastern Meadowlark, Eastern Whip-poor-will, Evening Grosbeak, Lesser Yellowlegs, Red-headed Woodpecker, Upland Sandpiper and Wood Thrush.

EDI has performed a biological and habitat assessment at the site under guidelines specified by the NYSDEC New York Natural Heritage Program and USFWS. The purpose of this report is to present EDI's findings with respect to the Shelby Crushed Stone Quarry site.

SECTION II: SITE DESCRIPTION

The Shelby Crushed Stone Quarry Property (expansion investigation area) site is comprised of two parcels totaling $95.0\pm$ acres. The project area is dominated by semi-mature forested wetlands with an open-canopy emergent marsh community in the central portion of the site. The site is bordered to the north by the existing Shelby Crushed Stone Quarry, to the east and west by forested and emergent wetlands and to the south by scattered agricultural fields and woodlots. The semi-mature wooded community extends westward from the west boundary for a long distance. The investigation area is outlined on Figure 1 in Appendix A.

The site is located in the Lake Ontario Lake Plain ecosystem, approximately 3.2 miles north of the Oak Orchard Swamp and Alabama Swamp, which are part of the Iroquois National Wildlife Refuge. The site sits within the Atlantic Flyway zone for bird migration, which funnels birds north to the boreal forest for breeding in the spring and south to wintering grounds in Central and South America in the fall.

The natural topography of the investigation area is flat to gently sloping. The uplands within the investigation area consisted of successional northern hardwood and successional old field communities. The wetland areas were found to consist of emergent marsh and hardwood swamp communities. Several ephemeral ditches are present in the site, while an intermittent stream/ditch is present in the northern portion of the site. This intermittent feature is identified as a Class C stream by NYSDEC, although the feature was completely dry during the September visits. The vegetative communities of the investigation area are described according to *Ecological Communities of New York State* (Edinger et al. 2014).

Numerous invasive/noxious plant species were identified within the project site. Density is generally low; however some areas of nearly full coverage were identified for some species. Many species are scattered throughout the site in several habitat types. Invasive species are identified in the vegetation lists in Appendix C.

SECTION III: PURPOSE

The purpose of this study is to complete a general assessment of the site for listed species and to analyze the physical characteristics of communities on site. Additionally, the site investigation documented vegetation coverage and fish and wildlife species observed utilizing the property. The investigation was designed to provide additional biota and vegetative descriptions for the Draft EIS per NYSDEC comments. Additionally, the investigation was designed to facilitate a determination of the extent of the NYSDEC's jurisdiction over the project pursuant 6NYCRR Part 360.8(b) which states: "Endangered species. Person(s) must not construct a facility or laterally expand an existing one in a manner that causes or contributes to the taking of any endangered or threatened species or to the destruction or adverse modification of their critical habitat".

On-line resources and agency coordination were used prior to the site visit to determine if listed species and/or significant habitats were present within or adjacent to the site. USFWS identified Monarch Butterfly (candidate species) as potentially being present within the project area. NYSDEC Natural Heritage Program identified no listed species or critical habitats within the project area. These on-line resource map documents are included in Appendix F of this report.

In response to the potential for listed species to be present within the project site, EDI has completed this Habitat Assessment to identify the potential for listed species or suitable habitats. In response to comments by NYSDEC requesting additional biota and vegetative descriptions, a detailed Biological Assessment was performed. A detailed field investigation was conducted during appropriate weather and season for each listed species, as well as migration and nesting season for the listed migratory birds.

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SECTION IV: SPECIES DESCRIPTIONS

USFWS identified Federal Candidate Species Monarch Butterfly as potentially within the investigation area.

The Monarch Butterfly is not a Threatened or Endangered species federally or within New York. USFWS has recently added Monarch Butterfly as a candidate to be Federally listed based on recent population declines. The listing has been assigned a priority number of 8, which indicates the magnitude of threats as moderate, and those threats are imminent. The Monarch Butterfly's status will be reviewed each year until it is no longer a candidate. Monarch Butterfly is widespread in New York, frequenting open meadows and fields that usually contain a variety of wildflowers including milkweed. Potentially suitable habitat is present within the successional old field and emergent marsh communities of the site.

The sixteen bird species identified by USFWS are only protected under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act. There are no Section 7 ESA regulations for migratory birds not specifically listed as threatened or endangered.

American Golden-plovers (*Pluvialis dominica*) do not breed in New York but utilize specific habitats during migration. The habitat preferred includes flooded farm fields, mudflats, pastures, rice fields and golf courses. This species migrates southward through New York in early-mid fall and is an uncommon migrant. Per eBird data, there have been no sightings of this species within 3 miles of the project area. The known location to observe migrating birds in the fall (August to October) is approximately 3.5 miles south, in the Iroquois National Wildlife Refuge wetlands and mudflats. There is no suitable habitat for migrating American golden-plovers within the project site. The emergent marsh present within the central portion of the site is heavily vegetated, with no exposed soil or open water/soil edges. The vegetation density prohibits use by shorebird species.

Bald eagle (*Haliaeetus leucocephalus*) is not listed as a Bird of Conservation Concern but warrants attention based on the Eagle Act. During the field investigation, no bald eagles were observed within the investigation area. It is unlikely that Bald Eagles utilize the site for feeding or breeding. Breeding Bald Eagles prefer large, mature white pine or other large trees to build nests. The lack of open water (ponds, lakes, large streams) in the immediate vicinity of the project site deter eagles from nesting. Additionally, very suitable nesting and feeding habitat is present 3 miles south of the site, in the National

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Wildlife Refuge. No eagle nests were observed during the field investigation, and no suitable nesting trees were observed. Per eBird data, four (4) Bald Eagle sightings within 1 mile of the site have been documented since 2019 (no sighting prior to that year). All of the sightings were flyover birds, likely traveling to or from the wildlife refuge. The proposed project will have no negative impact to Bald Eagle based on the lack of suitable nesting trees and limited feeding areas.

Belted Kingfisher (*Megaceryle alcyon*) is a common and widespread breeder in New York. Belted Kingfishers utilize streams with steep banks where they nest in burrows in the earthen banks. They prefer to hunt calm streams and lakes where they can easily see fish and aquatic invertebrate prey. Per eBird data, there have been no sightings of this species within 3 miles of the project area. The known location to observe nesting and feeding birds is approximately 3.5 miles south, in the Iroquois National Wildlife Refuge wetlands and stream corridors. There is no suitable habitat for breeding or foraging Belted Kingfishers within the project site. The lack of open water communities for hunting and lack of stream corridors with steep earthen banks for breeding prohibit use for this species.

Black-billed Cuckoo (*Coccyzus erythropthalmus*) is a scattered breeder in Western New York, utilizing thickets, orchards, abandoned farm fields, brushy hillsides and forest edges for nesting locations (often near water). Substantial seasonal movement is common with this species, which tends to follow caterpillar outbreaks. Migrating Black-billed Cuckoos can be found in several types of habitat, including forested areas and early successional communities. Per eBird data, there have been five sightings of this species within 3 miles of the project area. These observations have been of breeding birds during breeding bird surveys of the outer National Wildlife Refuge area. Additional scattered nesting locations have been documented within the main Wildlife Refuge habitat. There is potentially suitable habitat present within the project area for migrating birds to feed, especially in the area proposed to be preserved. It is EDI's professional opinion that the proposed project with have minimal effect on migrating Black-billed Cuckoos. The proposed preservation area south of the project location is highly suitable for migrating birds, and there is limited potential for breeding locations based on the densely wooded communities within the site.

Blue-winged Warbler (*Vermivora pinus*) is a common, although localized, breeder in Western New York. This species prefers dry, early-to-mid successional habitats with a high density of shrubs for breeding. They prefer open spaces and edges of cleared habitats. Singing males are often seen perched from the tallest sapling within an early successional community. Per eBird data, blue-winged warbler is

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a semi-common migrant and breeder in Orleans County. Three sightings within 1 mile of the site have been documented on Ebird since 2020, each of which is a likely nesting location. Minimal suitable breeding habitat is present within the site for blue-winged warblers. The potential breeding habitat is in the early successional old field community in the northeast portion of the project area, where saplings and shrubs are common. One individual of this species was heard singing from the potentially suitable habitat during the May 18, 2022 site visit. There were no individuals seen or heard during the June 8, 2022 visit. It is likely that the bird heard in May was migrating to more suitable breeding habitat. The likelihood of this species breeding in the limited suitable habitat is slim. The community is small and is directly adjacent to the active quarry. It is EDI's professional opinion that the proposed project may effect, but is not likely to adversely effect, breeding Blue-winged Warblers.

Bobolink (*Dolichonyx oryzivorus*) is a locally common breeder in western New York. They are habitat specific breeders, utilizing open field areas with dense herbaceous vegetation and scattered shrubs for perching. Per Ebird data, three sightings within 1 mile of the site have been recorded. The sightings appear to be nesting birds within a large fallow agricultural field. Potentially suitable habitat is not present within the site based on the lack of large open field areas. The small successional old field community in the northeastern portion of the site is of insufficient size, and more desirable habitat is present on adjacent properties. It is EDI's professional opinion that the proposed project will have no negative effect on nesting Bobolink.

Canada Warbler (*Cardellina canadensis*) is an uncommon migrant and rare breeder in Western New York. Breeding birds are most commonly found in the southern portion of the ecozone, within the Alleghany Plateau and Hills. Only one breeding record is shown on the latest Breeding Bird Atlas for Orleans County. Canada Warblers prefer forested areas with dense understory for breeding and feeding during migration. It is found in a variety of deciduous and coniferous forests but prefers moist mixed forests with a well-developed understory. Per Ebird data, there have been no sightings within 3 miles of the project area. No known breeding locations are present, although numerous migration sightings are shown from the National Wildlife Refuge area. Potentially suitable habitat is present in the southern portion of the investigation area, although Canada Warblers are not known to breed in the area. It is EDI's professional opinion that the proposed project will have no negative effect on breeding Canada Warblers due to the potentially suitable habitat being preserved.

Cerulean Warbler (*Dendroica cerulea*) is a localized breeder in Orleans County. They have a patchy breeding distribution due to the specific breeding habitat required. They prefer two distinct habitats for breeding; forested wetlands and riparian corridors dominated by sycamore, cottonwood, silver maple and red maple and forested ridgetops and hillsides dominated by mature oak-hickory forests. One of the densest breeding populations in New York is located 3 miles south of the site, in the National Wildlife Refuge forested swamps. Potentially suitable breeding habitat is present in the southern portion of the investigation area. During the May 18 site visit, two singing males were heard and observed in the southeastern portion of the site in a mature forested wetland. During the June 8 visit, three singing males were heard and observed in the same location and habitat. The birds were observed approximately 550 feet south of the proposed limits of quarry expansion. The habitat is highly suitable to breeding Cerulean Warblers, with numerous mature silver and red maples and a very dense canopy. It is EDI's professional opinion that the proposed project may effect, but is not likely to adversely effect, breeding Cerulean Warblers. The identified nesting area was 500+ feet from the proposed project, and there is significantly suitable habitat throughout the southern portion of the site. This entire area is proposed to be preserved, and the distance from the project area to the breeding habitat is likely to not impact nesting Cerulean Warblers.

Chimney swift (*Chaetura pelagica*) is a bird of developed areas, often seen hunting over rooftops, roadways and fields near development. Chimney swift populations are declining due to nesting habitat loss, as chimneys become less frequently built and existing chimneys fall into disuse. There is no potentially suitable nesting habitat within or adjacent to the site. Per Ebird, the nearest observation of this species is within the town of Medina, 2.5 miles northeast of the site. Additional observations have been noted within the National Wildlife Refuge 3+ miles south of the site. It is EDI's professional opinion that the proposed project will have no negative effect on breeding or feeding Chimney Swifts.

Eastern Meadowlark (*Sturnella magma*) is a locally common breeder and migrant in Western New York. Populations have been steadily declining in much of the state because of habitat loss. Eastern Meadowlark is a species of agricultural and developed landscapes, where it breeds in hay fields, grassy pastures and grassy areas of airports and golf courses. They prefer large, contiguous areas for nesting. Per Ebird data, this species has been observed 3 times within 2 miles of the project area. The majority of sightings and suitable habitat is within the Wildlife Refuge south of the site. There is no potentially suitable habitat present within the investigation area based on the lack of fields and grassy areas. It is

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EDI's professional opinion that the proposed project will have no negative effect on breeding or migrating Eastern Meadowlarks.

Eastern Whip-poor-will (*Antrostomus vociferus*) is a very rare breeder and migrant in Orleans County. No known breeding locations are depicted in the Breeding Bird Atlas for Orleans County. Less than ten sightings of this species in the county have been documented per Ebird data, with only one sighting in the Wildlife Refuge area. Eastern Whip-poor-wills breed in several habitats, all of which provide open areas for aerial foraging and shaded areas for nesting and roosting. They do not prefer large forested areas and forests with a closed forest canopy. There is no potentially suitable breeding habitat present within the investigation area. It is EDI's professional opinion that the proposed project will have no negative effect on breeding or migrating Eastern Whip-poor-wills.

Evening Grosbeak (*Coccothraustes vespertinus*) is an uncommon migrant in Western New York. Per the most recent Breeding Bird Atlas, they are not known to breed in Orleans County, or any county adjacent to Orleans. Breeding is restricted to the Adirondack High Peaks. Sightings in Western New York are during late fall and winter months, when birds move south following the seed and pinecone crop. It is unlikely this species utilizes the project site for winter feeding based on the lack of fruiting shrubs and cone-bearing conifer trees. It is EDI's professional opinion that the proposed project will have no negative effect on Evening Grosbeak.

Lesser Yellowlegs (*Tringa flavipes*) do not breed in New York but utilize specific habitats during migration. The habitat preferred includes flooded farm fields, mudflats, pastures, rice fields and golf courses. This species migrates northward through Western New York from late-April to mid-May and is an uncommon migrant. Per eBird data, there have been no observations of this species within 2 miles of the project location. All of the observations have been south of the site, in the Iroquois National Wildlife Refuge. This species can be a common spring and fall migrant in the Refuge area. There is no suitable habitat for migrating lesser yellowlegs within the project site. Lesser yellowlegs prefer habitat with shallow water and dense muddy substrate rich with invertebrates. There is no suitable habitat within the site, as the wetlands and ponds lack a muddy shore or are forested or heavily vegetated.

Red-headed Woodpeckers (*Melanerpes erythrocephalus*) are rare to uncommon in New York. This species is found in habitats such as open areas with scattered trees, parks, golf courses, open swamps with dead trees and river bottoms with standing dead trees. Scattered nesting pairs are found in

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Orleans County, mostly along the Lake Ontario shore and within the Iroquois National Wildlife Refuge south of the site. The forested wetland community within the proposed project area and within the proposed preservation area contains minimally potentially suitable nesting habitat. The forested wetland is not the ideal nesting habitat but may be deemed suitable for younger birds that have become too dense in other nesting areas. Although potentially suitable habitat may exist within the project area, the most suitable is the area to be preserved south of the proposed project area. No red-headed woodpeckers were seen or heard during the field investigation. Per eBird data, very few (less than 10) observations have been recorded within 5 miles of the project site, all of which are within the Refuge area. It is not likely that the site is utilized for nesting based on the scarcity of the species and marginal quality of the suitable nesting habitat. It is EDI's professional opinion that the proposed project may effect, but is not likely to adversely effect, breeding Red-headed Woodpeckers. Any woodpeckers utilizing the northern portion of the site will likely relocate to the preserved forested area in the southern portion of the site.

The Upland Sandpiper (*Bartramia longicauda*) is a shorebird of prairies and open grasslands, being a mostly terrestrial shorebird. They are uncommon breeders in Western New York, with the known suitable breeding habitat being in the National Wildlife Refuge south of the site. Breeding occurs from late April to Late July in old pastures, hayfields, airports and other similarly mowed areas. Nests are built on the ground in dense herbaceous vegetation. The New York Breeding Bird Atlas describes preferred nesting habitat as having perches and low vegetation for visibility during courting, higher vegetation to hide the nest and lower vegetation during supervision of young. This schedule of habitat maintenance is uncommon, attributing to the birds decline. Airports provide half or more of the suitable nesting habitat in New York. There is no potentially suitable nesting habitat within or adjacent to the site. It is EDI's professional opinion that the proposed project will have no negative effect on Upland Sandpipers.

Per eBird data, Wood Thrush (*Hylocichla mustelina*) is a very common migrant and local breeder. Wood thrushes breed in deciduous forests with a high canopy, a well-developed understory, and some moisture. Suitable breeding habitat is present within the site. During the May 18 visit, four individuals were heard singing in the southern portion of the site. During the June visit, one individual was heard singing in the southwestern portion of the site. Suitable nesting habitat is present within the investigation area. It is EDI's professional opinion that the proposed project may effect, but is not likely to adversely effect, breeding Wood Thrush. The area to be preserved in the southern portion of the site is

where the birds were observed during field visits and provides suitable nesting habitat. If birds utilize the northern portion of the site for breeding, it is likely they will relocate to the southern portion of the site.

Per NYSDEC comments in the DEIS review, a breeding marsh bird survey was conducted within the investigation area during the May 18 and June 8 site visits. Per marsh bird breeding protocol, the species surveyed for were Least Bittern (*Ixobrychus exilis*), Sora (*Porzana carolina*), Virginia Rail (*Rallus limicola*), King Rail (*Rallus elegans*), American Bittern (*Botaurus lentiginosus*) and Pied-billed Grebe (*Podilymbus podiceps*).

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SECTION V: FIELD INVESTIGATION PROCEDURES

Detailed field surveys were conducted at the site on May 18, June 8, September 1 & September 23, 2022 to document all plant and wildlife species. The survey periods were chosen based on song-bird migration overlapping with songbird breeding season, as well as vegetation growth. The site was traversed thoroughly, and all species encountered were documented. Each site visit was completed with two Ecologists from Earth Dimensions.

In order to accurately identify the limits of various vegetative communities, aerial photography (Figure 6) and ground truthing were utilized. Vegetation data was taken during transects through each community type and cumulative species lists were generated. Figure 5 depicts the locations of the photos included in Appendix B.

In addition to plant community descriptions, a full wildlife assessment was conducted during the site visits. All birds, mammals and reptiles/amphibians were identified while performing the ecological community and vegetation descriptions. During the site visits, eight (8) mammals, seven (7) amphibians, and ninety (90) bird species were identified.

Marsh bird breeding surveys were conducted during the May and June visits. During the May visit, two locations were selected (identified prior to site visit) and surveyed. The third potential survey location was not able to be accessed during the May 18 visit because of water levels too deep to access. The three survey locations were able to be surveyed during the June visit. Survey locations were chosen based on aerial imagery of suitable habitat (emergent marsh edges) and knowledge of the site from previous site visits. Per NYSDEC survey protocol, surveys were conducted in the morning, starting ½ hour before sunrise to 3 hours after sunrise. Each survey point was visited the same day in the same order. Surveys lasted approximately 11 minutes, including a 5-minute passive listening period to begin each point. The passive listening period was followed by six one-minute intervals, 30 seconds of calling and 30 seconds of listening for the each of the six focal species. The species order was followed per the guidelines; Least Bittern, Sora, Virginia Rail, King Rail, American Bittern and Pied-billed Grebe. During each survey period, secondary focal species were recorded. These species include Common Moorhen, American Coot, Wilson's Snipe, Black Tern, Common Tern, Willow Flycatcher, Marsh Wren and Swamp Sparrow. Data forms from the marsh bird survey and habitat evaluation are included in Appendix G.

SECTION VI: STUDY AREA HABITATS

Within the investigation area, EDI identified five (5) major ecological communities, none of which are listed as vulnerable in New York State. They are as follows:

Ecological Community	Global Rank	State Rank
1. Successional Northern Hardwood	1. G5	1. S5
2. Successional Old Field	2. G5	2. S5
3. Emergent Marsh	3. G5	3. S5
4. Hardwood Swamp	4. G5	4. S5
5. Rock Quarry	5. G5	5. S5

Figure 5 in Appendix A depicts the vegetative communities as they existed at the time of the investigation. The vegetative communities of the investigation area are described according to Ecological Communities of New York State (Edinger et al. 2014). The following is a description of each major community type encountered.

The **successional northern hardwood** community is scattered throughout the upland portions of the site. The largest portion of this community is along the northern edge of the hardwood swamp. Several smaller inclusions of this community are scattered within the forested wetland community. This community is identified as mature, with trees ranging from 40 to 80 years old. Tree species and sizes varied throughout the site. A moderately dense understory of shrubs/saplings and herbaceous plants is present in much of the community. A full plant species list for this community is included as Table 1 in Appendix C.

The **successional old field** community is present in the northern portion of the site. This community borders the existing mine and entrance path to the property. Numerous shrubs and saplings are present, with dense or very dense herbaceous growth. A full plant species list for this community is included as Table 2 in Appendix C.

The **emergent marsh** community is present in the central portion of the site. The community is very heavily vegetated with herbaceous species. Common reed (*Phragmites australis*) dominates the northern portion of this community. The emergent marsh was flooded with approximately 6-12 inches of

water during the spring visits. The community was dry and walkable during the fall visits. A full plant species list for this community is included as Table 3 in Appendix C.

The **hardwood swamp** community dominates the forested portions of the site. The community is similar to the upland forested communities in tree size and age. The understory is much less dense than the upland forested areas, with evidence of inundation up to several feet on tree bases. The community is depressional and has minimal topographic relief. A full plant species list for this community is included as Table 4 in Appendix C.

The **rock quarry** community is present in the northwest corner of the investigation area. There was no vegetative data taken in this community due to access and the lack of plants. The edge of this community is nearly vertical, with loose rock and unstable banks.

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SECTION VII: WILDLIFE OBSERVATIONS

During the site visit, eight (8) mammals, seven (7) amphibians and ninety (90) bird species were identified. Individuals of chipmunk, red squirrel, woodchuck, cotton-tail rabbit, gray squirrel, and white-tailed deer were observed. Tracks of raccoon and opossum were also noted throughout the site. Within the wetland communities, northern leopard frog, green frog, American toad, bull frog, wood frog, gray tree frog and spring peeper were seen or heard. Detailed bird lists were generated during each visit using Ebird mobile. A full bird species list by date of observation is included as Table 5 in Appendix C.

Several species were observed that warrant additional discussion. The first species observed was Cerulean Warbler. This species is identified by USFWS as a Bird of Conservation Concern based on limited breeding habitat and restricted breeding range. During the spring field visits, males were heard singing (and also seen) from the forested wetland area south of the ditch. Two males were observed during the May 18 visit and three males were observed during the June 8 visit. The habitat is ideal for this species to breed and was expected to be seen during initial project review. The forested wetland community proposed to be impacted during project development has a less dense canopy cover (70-80%) and has a denser understory than the community south of the ditch. The singing birds were observed along the eastern portion of the site in the dense forested wetland. Since no singing birds were observed within the proposed project footprint (or within 500-feet of the footprint), EDI believes there will be no impact to future nesting of this species in the preserved hardwood swamp.

During the breeding marsh bird survey on May 18, a single Virginia Rail was heard responding to the recording at MBS#2 in the western portion of the emergent marsh community. The bird was close to the observers and appeared to be in the flooded ditch surrounded by *Phragmites*. The bird called two times, after the 30-second listening period. No additional responses were heard after the remaining species surveys were completed. The habitat in this area for the listed marsh species is less than ideal, and it was a surprise to get a response from this species. Based on the lack of response during the June 8 survey, EDI concluded the bird was moving to more suitable habitat or migrating locally. There is some potential the bird was not recorded because it had found a mate and was on territory, but the habitat was not deemed highly suitable. The habitat was dominated by a fringe of dense *Phragmites* with low emergent vegetation in the center of the wetland. All areas of inundation were vegetated, and there were no areas where the vegetation was open for foraging. Based on the marginally suitable habitat and lack

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of response from this species during additional surveys, EDI concludes that the proposed project will not effect breeding Virginia Rails. If this species is present, the emergent marsh community in the southern portion of the site may provide suitable breeding habitat. Additionally, there is significantly better potential breeding habitat offsite to the east and south.

Two secondary species were observed during the marsh bird surveys in May and June. The first species, which was very common on-site, was Swamp Sparrow. Numerous individuals were seen and heard signing from the emergent marsh community, mostly outside of the *Phragmites* patch. Individuals were heard and seen during each of the four site visits. Per Ebird sighting maps, the significant sighting cluster is the Iroquois Nation Wildlife Refuge 3 miles south of the project area. Based on the expansive suitable habitat onsite, EDI concludes the proposed project will have no effect on Swamp Sparrow nesting. The proposed project will be impacting forested wetland and a portion of the *Phragmites* patch.

The other secondary species identified during marsh bird breeding surveys was Willow Flycatcher. This species was heard and seen during both spring visits. One individual was heard on May 18 and three individuals were heard on June 8. Per Ebird sightings maps, three records are shown within 2.5 miles of the project site. The significant observation cluster is in the National Wildlife Refuge 3 miles south of the site. Based on the expansive suitable habitat onsite, EDI concludes the proposed project will have no effect on Willow Flycatcher nesting.

One additional secondary bird species was observed onsite, but not during the marsh bird breeding surveys. During the September 1 site visit, a single Marsh Wren was observed in the central portion of the emergent marsh community. The bird was along the south edge of the *Phragmites* patch and was observed for several minutes. No singing marsh wrens were observed during the spring visits. EDI concludes the bird observed in September was likely migrating, although potentially suitable habitat is present in the emergent marsh portion of the preserved area. If this species breeds onsite, the proposed project will not effect their breeding habitat.

SECTION VIII: CONCLUSION

Earth Dimensions, Inc. (EDI) has completed a Biological and Habitat assessment study at the Shelby Crushed Stone Quarry Property located in the Town of Shelby, County of Orleans, and State of New York. A field investigation was conducted by two Ecologists from EDI. The study identified five vegetative community types, eight mammal species, seven amphibian species, and ninety bird species present within the site.

A map which depicts the site boundaries, the dominant community types and the location of all photos taken during the field survey is included as Figure 5 in Appendix A of this report. Appendix B includes representative photographs of the community types. Appendix C includes vegetation community plant species lists and full bird list. Appendix D notes the references used during the preparation of this report and during the field investigation. Appendix E provides the names, addresses and phone numbers of the survey personnel involved in the Habitat Assessment study. Appendix F provides the correspondence from the USFWS and NYSDEC. Breeding Marsh Bird Survey forms are included as Appendix G.

The Habitat Assessment found potentially suitable habitat for Monarch Butterfly present within the investigation area. The open field and emergent marsh communities contain numerous flowering plants and milkweed species. The milkweed is critical for breeding Monarchs to lay eggs and for caterpillars to feed. Based on the habitats within the proposed project area, EDI concludes that minor impacts to Monarch Butterfly may occur. The loss of the successional old field community will result in less habitat within the site. However, there are currently no restrictions on vegetation removal or development for this species.

The Biological Assessment found the potential for uncommon species to utilize the site. Several bird species that require specific habitat for nesting/breeding were observed. However, the species and individuals observed were generally outside of the proposed project footprint. The northern portion of the site has minimally suitable habitat for Cerulean Warblers, which were identified in the southeastern portion of the site. Virginia Rail, Marsh Wren, Swamp Sparrow and Willow Flycatcher utilize the emergent marsh community more than the forested wetland. The emergent marsh community is proposed to be largely preserved.

No other significant or unusual species or habitats were identified. The mammal and amphibian species observed are common in the area and will be able to relocate to adjacent properties. The forested wetland portion of the project footprint is average quality. Numerous invasive plant species are present in this community and the understory density is high in most areas. The western portion of the forested wetland to be impacted in higher quality, similar to the area south of the ditch. This area is small compared to the area to be preserved.

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APPENDIX A - FIGURES



FIGURE 1: USGS 7.5 MINUTE TOPOGRAPHICAL MAP

Medina Quadrangle / U.S. Geological Survey Shelby Crushed Stone Quarry Property Town of Shelby, Orleans County, New York





FIGURE 2: NATIONAL WETLANDS INVENTORY MAP https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/ (Visited 10/11/22) Shelby Crushed Stone Quarry Property Town of Shelby, Orleans County, New York





FIGURE 3: NRCS ORLEANS COUNTY SOIL SURVEY MAP

http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx (Visited 10/11/22)

Shelby Crushed Stone Quarry Property Town of Shelby, Orleans County, New York





FIGURE 4: NYSDEC ENVIRONMENTAL RESOURCE MAPPER https://gisservices.dec.ny.gov/gis/erm/ (Visited 10/11/22)

Shelby Crushed Stone Quarry Property Town of Shelby, Orleans County, New York







FIGURE 6: SITE AERIAL PHOTOGRAPH

https://orleansplanning.maps.arcgis.com/apps/webappviewer/index.html (Visited 10/11/22)

Shelby Crushed Stone Quarry Property Town of Shelby, Orleans County, New York



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APPENDIX B - SITE PHOTOGRAPHS

*Not all photographs taken during the four site visits are included in this report. Digital photograph files are available upon request.



<u>Photo 1</u>: Facing east. Depicts the hardwood swamp community in the northwest portion of the site. 5/18/22



<u>Photo 5</u>: Facing east. Depicts the successional northern hardwood community along the northern limits of the site. 5/18/22.



Photo 7: Facing east. Depicts the low quality wetland in the northern portion of the site. 5/18/22



Photo 2: Facing east. Depicts the successional northern hardwood community along the northern limits of the site. 5/18/22



<u>Photo 6</u>: Facing north. Depicts the successional old field community along the edge of the quarry. 5/18/22



<u>Photo 9</u>: Facing west. Depicts the successional old field community in the northeast portion of the site. 5/18/22



Photo 11: Facing south. Depicts the hardwood swamp to be preserved in the southeast portion of the site. 5/18/22



Photo 14: Facing north. Depicts the successional northern hardwood community in the northeast corner of the site. 5/18/22



<u>Photo 18</u>: Facing south. Depicts the location of Marsh Bird Breeding Survey #2. 6/8/22



Photo 12: Facing west. Depicts the hardwood swamp to be preserved in the southeast portion of the site. 5/18/22



Photo 16: Facing south. Depicts the location of Marsh Bird Breeding Survey #1. 6/8/22



Photo 20: Facing south. Depicts the hardwood swamp community in the northwest portion of the site. 6/8/22



<u>Photo 21</u>: Facing south. Depicts the hardwood swamp community in the northern portion of the site. 6/8/22



<u>**Photo 27:**</u> Facing west. Depicts the eastern edge of the emergent marsh community. 6/8/22



<u>**Photo 37</u>:** Facing north. Depicts the hardwood swamp community to be preserved along the southern edge of the site. 6/8/22</u>



Photo 25: Facing north. Depicts the hardwood swamp to be preserved in the eastern portion of the site. 6/8/22



Photo 32: Facing north. Depicts the emergent marsh community and invasive plant species in the preserved area. 6/8/22



Photo 40: Facing south. Depicts the emergent marsh community to be preserved in the southwest portion of the site. 6/8/22



<u>Photo 42</u>: Facing north. Depicts the location of Marsh Bird Breeding Survey #3. 6/8/22



Photo 44: Facing northeast. Depicts the dense invasive species in the emergent marsh community. 6/8/22



<u>Photo 49</u>: Facing northeast. hardwood swamp community to be preserved in the southwest portion of the site. 6/8/22

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Photo 43: Facing east. Depicts the emergent marsh community at the MBS #3 location. 6/8/22



<u>**Photo 47</u>:** Facing east. Depicts the hardwood swamp community to be preserved in the southwest portion of the site. 6/8/22</u>



Photo 52: Facing south. Depicts the emergent marsh slightly west of the MBS #2 location. 9/1/22



<u>Photo 54</u>: Facing east. Depicts the hardwood swamp community in the southwest portion of the site. 9/1/22



<u>Photo 56</u>: Facing west. Depicts the ditch (Class C Stream) in the northern portion of the site. 9/1/22



Photo 60: Facing south. Depicts the hardwood swamp community in the northwest portion of the site. 9/1/22

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<u>**Photo 55:**</u> Facing west. Depicts the successional northern hardwood community along the edge of the quarry. 9/1/22



<u>Photo 59</u>: Facing northeast. Depicts the edge of the existing quarry along the northern edge of the site. 9/1/22



Photo 61: Facing south. Depicts dense invasive species in the emergent marsh at the MBS #1 location. 9/1/22


Photo 62: Facing west. Depicts the emergent marsh community in the center of the site. 9/1/22



<u>**Photo 73:**</u> Facing south. Depicts the hardwood swamp to be preserved. Cerulean Warbler habitat. 9/1/22



<u>Photo 78</u>: Facing north. Depicts the emergent marsh in the southwest portion of the site. 9/1/22

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<u>Photo 63</u>: Facing south. Depicts the emergent marsh community in the center of the site. 9/1/22



Photo 76: Facing northwest. Depicts the emergent marsh in the southern portion of the site. 9/1/22



Photo 82: Facing south. Depicts the successional northern hardwood community in the southeast corner of the site. 9/1/22



Photo 83: Facing west. Depicts the hardwood swamp to be preserved. Cerulean Warbler habitat. 9/1/22



<u>**Photo 85:**</u> Facing south. Depicts the community slightly south of MBS#2. 5/18/22

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Photo 84: Facing south. Depicts the community slightly south of MBS#1. 5/18/22

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Appendix C – Vegetation Community Lists & Bird Species List

Table 1: Successional Northern Hardwood Community Hardwood forest areas on site, ground is hard and contains many invasive species in the understory, ATV and foot trails, nearly closed canopy. **Common Name Scientific Name Indicator Status** Dominant **Invasive Species** Yellow avens Geum aleppicum FAC Ν FAC Ν Common wood violet Viola sororia FACU γ Black walnut Juglans nigra American elm Ulmus americana FACW Ν Y FACU Ν Dame's rocket Hesperis matronalis Common burdock Arctium minus FACU Ν Y Summer grape Vitis aestivalis FACU FAC Jumpseed Polygonum virginianum Ν Y FAC Υ European buckthorn Rhamnus cathartica Common dandelion Taraxacum officinale FACU Y Eastern cottonwood Populus deltoides FAC Υ Wild onion FACU Ν Allium canadense Jack in the pulpit Arisaema triphyllum FAC Ν Clematis virginiana FAC Ν Virgin's bower Multiflora rose Rosa multiflora FACU Ν Y Y Y Garlic mustard FACU Alliaria petiolata Virginia creeper Parthenocissus quinquefolia FACU γ Grey dogwood Cornus racemosa FAC Ν Tall buttercup Ranunculus acris FAC Ν Sweet vernal grass FACU Ν Anthoxanthum odoratum Blue cohosh Caulophyllum thalictroides NI Ν Common red raspberry Rubus idaeus FACU Ν Wood nettle Laportea canadensis Ν FAC White baneberry Actaea pachypoda FACU Ν Ostrich fern Matteuccia struthiopteris FAC Ν Acer saccharum Y Sugar maple FACU Virginia strawberry Fragaria virginiana FACU Ν Eastern woodland sedge Υ Carex blanda FAC Dwarf ginseng Panax trifolius NI Ν Hydrophyllum canadense FAC Y Blunt water leaf Thalictrum dioicum FAC Ν Meadow rue Ironwood Carpinus caroliniana FAC Ν FAC Ν Canadian honewort Cryptotaenia canadensis Downy wood violet Viola pubescens FAC Ν Spring beauty Claytonia virginica FAC γ Great ragweed Ambrosia trifida FAC Ν Common pricky ash Zanthoxylum americanum FACU Ν Y White snakeroot FAC Υ Eupatorium rugosum Canadian black snakeroot Sanicula canadensis NI Ν Shagbark hickory FACU Ν Carya ovata willow Salix spp. NI Ν Ν Ox-eye daisy Chrysanthemum FACU leucanthemum Green ash Fraxinus pennsylvanica FACW Ν

Wormwood	Artemisia vulgaris	FACU	Ν	Y
motherwort	Leonurus cardiaca	FACU	Ν	
Kentucky bluegrass	Poa pratensis	FACU	Y	
Summer grape	Vitis aestivalis	FACU	N	
American basswood	Tilia americana	FACU	N	
Canada goldenrod	Solidago canadensis	FACU	Y	
May apple	Podophyllum peltatum	FACU	N	
Herb robert	Geranium robertianum	NI	N	
Poison ivy	Toxicodendron radicans	FAC	Y	
False spike nettle	Boehrmia cylindrica	OBL	Y	
Common ragweed	Ambrosia artemisifolia	FACU	Y	
Common black raspberry	Rubus occidentalis	FACU	N	
Bottle brush grass	Elymus histrix	NI	N	
Canada wildrye	Elymus canadensis	FACU	N	
Enchanter's nightshade	Circea quadrisulcata	FACU	N	Y
American beech	Fagus grandifolia	FACU	Y	
Large leaf plantain	Plantago major	FACU	N	
Orchard grass	Dactylis glomerata	FACU	N	
Hedge bind weed	Convolvous sepium	FACU	Ν	Y
Canada bluegrass	Poa compressa	FACU	N	

Table 2: Successional Old Field Community				
Present along t	the edge of the existing quar	ry and the entrance	e trail to the s	ite.
Common Name	Scientific Name	Indicator Status	Dominant	Invasive Species
Wrinkled goldenrod	Solidago rugosa	FAC	Y	
Curly dock	Rumex crispus	FAC	N	
Bird's foot trefoil	Lotus corniculatus	FACU	Y	
Soft rush	Juncus effusus	OBL	N	
Chickory	Cichorium intybus	FACU	N	Y
Frost aster	Symphyotrichum pilosum	FACU	N	
Red clover	Trifolium pratensis	FACU	Y	
Reed canary grass	Phalaris arundinacea	FACW	N	Y
Common milkweed	Asclepias syriaca	FACU	N	
New England aster	Symphyotrichum novae- angliae	FACW	N	
Clayton's sweet root	Osmorhiza claytonia	FACU	N	
Wool grass	Scirpus cyperinus	OBL	N	
Summer grape	Vitis aestivalis	FACU	N	
Garden vetch	Vicia sativa	FACU	N	Y
Great ragweed	Arisaema triphyllum	FACU	N	
English plantain	Plantago lanceolata	NI	N	
Yellow avens	Geum aleppicum	FAC	Y	
Common dandelion	Taraxacum officinale	FACU	Y	
Eastern cottonwood	Populus deltoides	FAC	N	
Teasel	Dipsacus fullonum	NI	N	
Common plantain	Plantago major	FACU	N	
Flat topped goldenrod	Euthamia graminifolia	FAC	N	
Wild lettuce	Lactuca canadensis	FACU	N	
Ox-eye daisy	Chrysanthemum	FACU	N	
	leucanthemum			
Canada bluegrass	Poa compressa	FACU	N	
Green ash	Fraxinus pennsylvanica	FACW	N	
Kentucky bluegrass	Poa pratensis	FACU	Y	
Thymeleaf speedwell	Veronica serpuyllifolia	FAC	N	
Canada goldenrod	Solidago canadensis	FACU	Y	
Sweet vernal grass	Anthoxanthum odoratum	FACU	Y	
Grey dogwood	Cornus racemosa	FAC	N	
Queen Anne's lace	Daucus carota	FACU	N	
Heal all	Prunella vulgaris	FACU	N	
Northern bedstraw	Galium boreale	FACU	N	
Common black raspberry	Rubus occidentalis	NI	N	
Tatarian honeysuckle	Lonicera tatarica	FACU	N	Y
Pokeweed	Phytolacca americana	NI	N	
Hedge bind weed	Convolvous sepium	FACU	N	Y
Sweet clover	Melilotus officinalis	FACU	N	
Mouse eared chickweed	Cerastium vulgatum	FACU	N	
Canada goldenrod	Solidago canadensis	FACU	N	
Prickly ash	Zanthoxylum	FACU	Ν	
	americanum			

Calico aster	Symphyotrichum lateriflorum	FAC	Y	
Common ragweed	Ambrosia artemisia	FACU	N	
Bee balm	Monarda fistulosa	FACU	N	
Orchard grass	Dactylis glomerata	FACU	N	
burdock	Arctium minus	FACU	N	
Spotted knapweed	Centaurea stoebe	NI	Y	Y
Dame's rocket	Hesperis matronalis	FACU	Y	Y

Table 3: PEM Shallow Emergent Marsh Community

Open emergent areas on site, mainly south of the canal. Mucky black soils, open water areas, evidence of variable water levels. Some trees and shrubs scattered. Some invasives

Common Name	Scientific Name	Indicator Status	Dominant	Invasive Species
Purple loosestrife	Lythrum salicaria	OBL	N	Y
Wood nettle	Laportea canadensis	FACW	Y	
Red maple	Acer rubrum	FAC	Y	
Clear weed	Pilea pumila	OBL	N	
chicory	Cichorium intybus	FACU	N	
Woolgrass	Scirpus cyperinus	OBL	N	
Climbing nightshade	Solanum dulcamara	FAC	N	Y
Burnweed	Erechtites hieracifolia	NI	N	
Canada thistle	Cirsium arvensis	FAC	N	Y
Barnyard grass	Echinochloa crus-galli	FAC	N	
Deptford pink	Dianthus armeria	UPL	N	Y
Common reed	Phragmites australis	FACW	Y	Y
Great bur-reed	Sparganium eurycarpum	OBL	Y	
Rough cocklebur	Xanthium sturmarium	FAC	N	
Fowl manna grass	Glyceria striata	OBL	Y	
Jumpseed	Polygonum virginianum	FAC	Y	
Eastern cottonwood	Populus deltoides	FAC	Y	
Spotted touch me not	Impatiens capensis	FACW	N	
Calico aster	Symphyotrichum lateriflorum	FAC	Y	
Purple stemmed aster	Symphyotrichum puniceum	OBL	N	
Tatarian honeysuckle	Lonicera tatarica	FACU	N	Y
Broom sedge	Carex scoparia	FACW	N	
Sensitive fern	Onoclea sensibilis	FACW	Y	
Water plantain	Alisma plantago aquatica	OBL	N	
Reed canarygrass	Phalaris arundinacea	FACW	Y	Y
Swamp milkweed	Asclepias incarnata	FACW	N	
Arrowleaf tearthumb	Polygonum sagittatum	OBL	N	
Lesser duckweed	Lemna minor	OBL	Y	
Nodding beggartick	Bidens cernua	OBL	N	
Bearded beggartick	Bidens aristosa	FACW	N	
Spotted water hemlock	Cicuta maculata	OBL	N	
Green stemmed bulrush	Scirpus atrovirens	OBL	N	
Awl fruited sedge	Carex stipata	OBL	N	
Bugleweed	Lycopus americana	OBL	N	
Soft rush	Juncus effusus	OBL	Y	

Table 4: PFO Hardwood Swamp Community

Hardwood swamp forest areas on site, north and south of the canal. Mucky black soils, open forest floor, evidence of variable water levels. Larger trees (12-24" DBH), some smaller green ash are still alive. Some disturbance (northern portion) contains invasives in the understory, ATV and foot trails

Common Name	Scientific Name	Indicator Status	Dominant	Invasive Species
Yellow avens	Geum aleppicum	FAC	N	•
Silky dogwood	Cornus amomum	FACW	Y	
American elm	Ulmus americana	FACW	N	
Dame's rocket	Hesperis matronalis	FACU	N	Y
Common burdock	Arctium minus	FACU	N	
Summer grape	Vitis aestivalis	FACU	N	
Jumpseed	Polygonum virginianum	FAC	Y	
European buckthorn	Rhamnus cathartica	FAC	N	Y
Tall goldenrod	Solidago gigantea	OBL	N	
Eastern cottonwood	Populus deltoides	FAC	Y	
Spotted touch me not	Impatiens capensis	FACW	N	
Jack in the pulpit	Arisaema triphyllum	FAC	N	
Virgin's bower	Clematis virginiana	FAC	N	
Multiflora rose	Rosa multiflora	FACU	N	Y
Garlic mustard	Alliaria petiolata	FACU	N	Y
Virginia creeper	Parthenocissus quinquefolia	FACU	Y	
Long hair sedge	Carex comosa	OBL	N	
Indian hemp	Apocynum cannabinum	FAC	N	
New England aster	Symphyotrichum novae-angliae	FACW	N	
Calico aster	Symphyotrichum lateriflorum	FAC	Y	
Purple stemmed aster	Symphyotrichum puniceum	OBL	N	
Lance leaf aster	Symphyotrichum simplex	FACW	N	
Rice cut grass	Leersia oryzoides	OBL	N	
Ramps	Allium tricoccum	FACU	N	
Northern bedstraw	Galium boreale	FACU	N	
Cockspur hawthorn	Crataegus crus-galli	FAC	N	
Canada moonseed	Menispermum canadense	FAC	N	
Daisy fleabane	Erigeron annuus	FACU	N	
Fowl bluegrass	Poa palustris	OBL	N	
Devil's beggartick	Bidens frondosa	FACW	N	
Canada bluegrass	Poa compressa	FACU	N	
Dead nettle	Lamium purpureum	NI	N	
Lake sedge	Carex lacustris	OBL	N	
Fox sedge	Carex vulpinoidea	OBL	N	
Awl fruited sedge	Carex stipata	OBL	N	
Pointed broom sedge	Carex tribuloides	OBL	N	
Fringed sedge	Carex crinita	OBL	N	
Broom sedge	Carex scoparia	FACW	N	
Creeping jenny	Lysimachia nummularia	FACW	N	
Sensitive fern	Onoclea sensibilis	FACW	Y	
Climbing nightshade	Solanum dulcamara	FAC	N	Y
Northern pin oak	Quercus palustris	FACW	N	
Hemlock water parsnip	Sium suave	OBL	N	
Purple leaf willowherb	Epilobium coloratum	FACW	N	
White meadowsweet	Spiraea alba	FACW	N	
Ditch stonecrop	Penthorum sedoides	OBL	N	
Wood nettle	Laportea canadensis	FAC	N	

Spinulose wood fern	Dryopteris spinulosa	FAC	N	
Common boneset	Eupatorium perfoliatum	FACW	N	
Silver maple	Acer saccharinum	FACW	N	
Freeman maple	Acer x fremanii	NI	Y	
Red maple	Acer rubrum	FAC	N	
Reed canary grass	Phalaris arundinacea	FACW	Y	Y
Eastern woodland sedge	Carex blanda	FAC	Y	
Cocklebur	Xanthium strumarium	FAC	N	
Blunt water leaf	Hydrophyllum canadense	FAC	Y	
willow	Salix spp.	NI	N	
Fowl mannagrass	Glyceria striata	OBL	Y	
Silky dogwood	Cornus amomum	FACW	N	
Common moonseed	Menispermum canadensis	FAC	N	
Ostrich fern	Matteuccia struthiopteris	FAC	N	
Maple leaf viburnum	Viburnum acerifolium	NI	N	
Canada thistle	Cirsium arvensis	FAC	N	Y
Yellow rocket	Barbarea vulgaris	FACU	N	Y
Bur-reed	Sparganium eurycarpum	OBL	N	
Swamp milkweed	Asclepias incarnata	FACW	N	
Arrowleaf tearthumb	Polygonum sagittatum	OBL	N	
White snakeroot	Eupatorium rugosum	FAC	N	Y
Blueflag	Iris versicolor	OBL	N	
Shagbark hickory	Carya ovata	FACU	N	
Green ash	Fraxinus pennsylvanica	FACW	N	
Nodding beggarticks	Bidens cernua	OBL	N	
Bearded beggarticks	Bidens aristosa	FACW	N	
Spotted water hemlock	Cicuta maculata	OBL	N	
Enchanter's nightshade	Circaea quadrisulcata	FAC	N	Y
Herb robert	Geranium robertianum	NI	N	
Poison ivy	Toxicodendron radicans	FAC	Y	
Common reed	Phragmites australis	FACW	Y	Y
Spotted joe-pye weed	Eupatoriadelphus maculatus	FACW	N	
Bugleweed	Lycopus americana	OBL	N	
White grass	Leersia virginica	FACW	N	
White avens	Geum canadensis	FACU	N	
Enchanter's nightshade	Circea quadrisulcata	FACU	N	
Northern spicebush	Lindera benzoin	FACW	Y	
Wood reed grass	Cinna arundinacea	FACW	N	
Soft rush	Juncus effusus	OBL	Y	
Box elder	Acer negundo	FAC	N	

Table 5: Bird Species list Yellow indicates birds listed by USFWS as Birds of Conservation Concern.					
Blue	indicates marsh birds observed du	ring the Mars	h Bird Bree	eding Surve	eys.
Species #	Species	5/18/22	6/8/22	9/1/22	9/23/22
1	Alder Flycatcher		Х		
2	American Crow	Х	Х	Х	Х
3	American Goldfinch	Х	Х	Х	Х
4	American Redstart	Х	Х	Х	
5	American Robin	Х		Х	
6	Baltimore Oriole	Х	Х	Х	
7	Bank Swallow	Х	Х		
8	Barn Swallow		Х		
9	Bay-breasted Warbler	Х		Х	
10	Black-and-white Warbler	Х		Х	
11	Blackburnian Warbler	Х			
12	Black-capped Chickadee		Х	Х	Х
13	Blackpoll Warbler				
14	Black-throated Blue Warbler	Х			
15	Black-throated Green Warbler	Х			
16	Blue Jay	Х	Х	Х	Х
17	Blue-gray Gnatcatcher		Х		
18	Blue-headed Vireo	Х			Х
19	Blue-winged Warbler	Х			
20	Brown-headed Cowbird	Х	Х		
21	Canada Goose	Х			Х
22	Cedar Waxwing	Х		Х	
23	Cerulean Warbler	Х	Х		
24	Chestnut-sided Warbler	Х	Х		
25	Common Grackle		Х		
26	Common Raven	Х			
27	Common Yellowthroat	Х	Х	Х	Х
28	Double-crested Cormorant	Х			Х
29	Downy Woodpecker	Х	Х	Х	Х
30	Eastern Bluebird		Х		
31	Eastern Kingbird	Х	Х		
32	Eastern Phoebe	Х	Х	Х	
33	Eastern Towhee	Х			
34	Eastern Wood-Pewee	Х	Х	Х	
35	European Starling	1		Х	
36	Field Sparrow	Х	Х		
37	Golden-crowned Kinglet				Х
38	Gray Catbird	Х	Х	Х	Х
39	Great Blue Heron	Х	Х		

Species #	Species	5/18/22	6/8/22	9/1/22	9/23/22
40	Great Crested Flycatcher	Х	Х		
41	Green Heron		Х		
42	Hairy Woodpecker	Х	Х		Х
43	Hermit Thrush	Х			
44	House Wren	Х			
45	Indigo Bunting	Х	Х		Х
46	Killdeer		Х		
47	Least Flycatcher		Х		
48	Lincoln's Sparrow	Х			
49	Magnolia Warbler			Х	
50	Mallard	Х			
51	Marsh Wren			Х	
52	Mourning Dove	Х	Х	Х	Х
53	Mourning Warbler	Х	Х		
54	Nashville Warbler			Х	
55	Northern Cardinal	Х	Х	Х	Х
56	Northern Flicker	Х	Х	Х	
57	Northern Parula	Х			
58	Northern Rough-winged Swallow	Х	Х		
59	Northern Waterthrush	Х			
60	Ovenbird		Х	Х	
61	Philadelphia Vireo				Х
62	Pileated Woodpecker		Х		
63	Pine Warbler			Х	
64	Red-bellied Woodpecker	Х	Х	Х	Х
65	Red-eyed Vireo	Х	Х		
66	Red-tailed Hawk		Х	Х	
67	Red-winged Blackbird	Х	Х	Х	Х
68	Rose-breasted Grosbeak	Х	х	Х	Х
69	Ruby-crowned Kinglet				Х
70	Ruby-throated Hummingbird	Х	Х	Х	
71	Scarlet Tanager	Х	Х		
72	Song Sparrow	Х	Х	Х	Х
73	Swainson's Thrush	Х			
74	Swamp Sparrow	Х	Х	Х	Х
75	Tennessee Warbler	Х		Х	
76	Tree Swallow	Х	Х		
77	Tufted Titmouse	Х	Х		
78	Turkey Vulture	Х	Х	Х	Х
79	Veery	Х	х		
80	Virginia Rail	Х			
81	Warbling Vireo	х	Х	х	

Species #	Species	5/18/22	6/8/22	9/1/22	9/23/22
82	White-breasted Nuthatch			Х	Х
83	White-throated Sparrow				Х
84	Willow Flycatcher	Х	Х	Х	
85	Wood Duck	Х	Х		
86	Wood Thrush	Х	Х		
87	Yellow Warbler	Х	Х		
88	Yellow-bellied Sapsucker		Х		
89	Yellow-billed Cuckoo		Х		
90	Yellow-throated Vireo		Х	Х	

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APPENDIX D - REFERENCES

W9D12e

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APPENDIX E - FIELD INVESTIGATION PERSONNEL

Vegetation Sampling & Habitat Assessment

Thomas Somerville, Ecologist (Wildlife) Jody Celeste, Ecologist (Plants) Earth Dimensions, Inc. 1091 Jamison Road Elma, New York 14059 (716) 655-1717

Report Preparation Thomas Somerville, Ecologist Earth Dimensions, Inc. 1091 Jamison Road Elma, New York 14059 (716) 655-1717

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APPENDIX F - AGENCY CORRESPONDENCE



Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
Part 1 / Question 20 [Remediation Site]	No

IPaC resource list

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

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

Location





Local office

New York Ecological Services Field Office

(607) 753-9334

💼 (607) 753-9699

✓ fw5es_nyfo@fws.gov

3817 Luker Road Cortland, NY 13045-9385

TEORCONSULTATION

Endangered species

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

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

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

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

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

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

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact <u>NOAA Fisheries</u> for <u>species under their jurisdiction</u>.

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

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

Insects

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

Critical habitats

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

There are no critical habitats at this location.

Migratory birds

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

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

- 1. The Migratory Birds Treaty Act of 1918.
- 2. The <u>Bald and Golden Eagle Protection Act</u> of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <u>https://www.fws.gov/program/migratory-birds/species</u>
- Measures for avoiding and minimizing impacts to birds <u>https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds</u>
- Nationwide conservation measures for birds
 <u>https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-</u>

measures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the <u>E-bird data mapping tool</u> (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

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.	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.	Breeds Dec 1 to Aug 31
Belted Kingfisher Megaceryle alcyon This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 15 to Jul 25
Black-billed Cuckoo Coccyzus erythropthalmus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/9399</u>	Breeds May 15 to Oct 10
Blue-winged Warbler Vermivora pinus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30

Bobolink Dolichonyx oryzivorus
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
Canada Warbler Cardellina canadensis
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Cerulean Warbler Dendroica cerulea This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/2974</u>

Chimney Swift Chaetura pelagica This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Eastern Meadowlark Sturnella magna This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Eastern Whip-poor-will Antrostomus vociferus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Evening Grosbeak Coccothraustes vespertinus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Lesser Yellowlegs Tringa flavipes This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/9679</u>

Red-headed Woodpecker Melanerpes erythrocephalus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Upland Sandpiper Bartramia longicauda This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <u>https://ecos.fws.gov/ecp/species/9294</u> Breeds May 20 to Jul 31

Breeds May 20 to Aug 10

Breeds Apr 20 to Jul 20

Breeds Mar 15 to Aug 25

Breeds Apr 25 to Aug 31

Breeds May 1 to Aug 20

Breeds May 15 to Aug 10

Breeds elsewhere

Breeds May 10 to Sep 10

Breeds May 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

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

Probability of Presence (

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

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

- 1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
- 2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of
- presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
- 3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (=)

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

Survey Effort ()

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)

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

Survey Timeframe

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

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SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
American Golden-plover BCC Rangewide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	+	++++	++++	++++
Bald Eagle Non-BCC Vulnerable	₩ ₩₩	┼╪┼║		***			<u>an</u>	ff)n	•	+###	▋₽┼₿	# ++#
Belted Kingfisher BCC - BCR	₩ ₩++	++++	++++	HIL	!!!!	001++	1111	****	###-	·ⅢⅢ≢∔	₩₩++	+++•
Black-billed Cuckoo BCC Rangewide (CON)	++++	++++*	ΗH	++++	++++++	II++	# + #+	+#++	++++	<mark>┼┼</mark> ┼┼	++++	++++
Blue-winged Warbler BCC - BCR	++++	++++	++++	++++		1111	∎∎∔+	₩#++	++++	- ++++	++++	++++
Bobolink BCC Rangewide (CON)	++++	++++	++++	┼┼┼╪		1111	1111	####	++++	- ++++	++++	++++
Canada Warbler BCC Rangewide (CON)	++++	++++	++++	++++	┼┼╂╂	++++	++++	<mark>┼┼</mark> ┼ᡎ	++++	- ++++	++++	++++
Cerulean Warbler BCC Rangewide (CON)	++++	++++	++++	++ <mark>+</mark> ∔	++1+	++++	++++	++++	++++	- ++++	++++	++++
Chimney Swift BCC Rangewide (CON)	++++	++++	++++	++++	┼∎┿┿	• # • •	++++	∎∔+∔	++++	• •+++	++++	++++

Eastern Meadowlark BCC - BCR	++++	++++	┼╫┿║	** * *	 	11+1	** ! *	≢∔≢∎	++++	++++	++++	┼╨┼┼
Eastern Whip- poor-will BCC Rangewide (CON)	++++	++++	++++	++++	+++++	++++	++++	++++	++++	++++	++++	++++
Evening Grosbeak BCC Rangewide (CON)	++++	++++	++++	++++	┼╂╂╂	++++	++++	<mark>++</mark> ++	++++	++#	*#*+	++++
SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Lesser Yellowlegs BCC Rangewide (CON)	++++	++++	++++	┼┿║║	### +	++++	+ + ∥ ≢	₩#++	++++	++++	++++	1+++
Red-headed Woodpecker BCC Rangewide (CON)	++++	++++	++++	++#+	+ <mark>+</mark> ++	∎∔¢∎	+#++	++++	++++	++++	++++	+#++
Upland Sandpiper BCC - BCR	++++	++++	++++	++++	++++	++++	3	1)))	++++	++++	++++	++++
Wood Thrush BCC Rangewide (CON)	++++	++++	++++	+++4	y	MVI	1111	+ ‡II	111+	₩+++	++++	++++

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

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

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

The Migratory Bird Resource List is comprised of USFWS <u>Birds of Conservation Concern (BCC)</u> and other species that may warrant special attention in your project location.

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

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the <u>Rapid Avian Information Locator (RAIL) Tool</u>.

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

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

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

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

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the <u>RAIL Tool</u> and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

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

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

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

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

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

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

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

Coastal Barrier Resources System

Projects within the John H. Chafee Coastal Barrier Resources System (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local Ecological Services Field Office or visit the CBRA Consultations website. The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

There are no known coastal barriers at this location.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the <u>official CBRS maps</u>. The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: <u>https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation</u>

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact <u>CBRA@fws.gov</u>.

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Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the <u>National Wildlife Refuge</u> system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to <u>NWI wetlands</u> 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>U.S. Army Corps of</u> <u>Engineers District</u>.

Wetland information is not available at this time

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

Data limitations

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

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

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

Data exclusions

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

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

SHELBY CRUSHED STONE QUARRY PROPERTY

APPENDIX G - BREEDING MARSH BIRD SURVEY DOCUMENTS

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	secondary focal species. point, record each individual on separate	ly mark minute segment in which <u>first</u> 1. Indicate distance band: 0-50m, 50-	.100m.			Comments	ig non-state from march	of from march	nd peritorial behavior	r twice																	[°] Distance aid:	0 unaided	1 rangefinder	2 maps / aerial photos	3 distance markers	4 rangefinder and maps		s the call in comment section.
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New York State Marsh Bird Monitoring Survey Data Sheet

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New York State Marsh Bird Monitoring Survey Data Sheet
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NEW YORK MARSH BIRD MONITORING HABITAT DATASHEET

Date (e.g. 15 May 2011):	18 may 22	Observer(s): Lann	8. Johy	
Hexagon #:	1	Survey Route:		Region:

Survey point (e.g. X-0001): MBS * 2									
Water depth (cm): 0-5		How accesse	ed (circle):	canoe	motor boat	walk	wade	
Cover type:	Emergent	Shrub	Open H ₂ O	Floating	Trees	Snags	Mudflat	Upland	
Percent cover:	80		5		5	ي من المان المراجع الع	10	distance in the second	
Dominant plant species: Invasive plants (list species and percent cover):									
1. PHRAGA	NITES	AUSTRA	g11 - 6	0	30 PHAA	6,RC	6-10		
2. Abrostus StuloniferA-15									
3. IMPATI	iens cr	A penso	20)					
Edge type (circle)	: roadside/	marsh dite	h or berm/ma	rsh upland	l/marsh op	en water/mars	sh) interior/	marsh	
Density of marsh	vegetation (circle one):	None	Sparse / M	Aoderate	Rank			
Estimated average	Estimated average marsh vegetation height (m) (circle one): 0-1 (1-3) 3-6 >6								
Stewart and Kantrud wetland cover class (circle one): Type 1 Type 2 Type 3 Type 4									
Comments: Deer tracks, rAccountracks									
		,							

Survey point (e.g	. X-0001) : (NBS±	12							
Water depth (cm): 0-10)	How access	ed (circle):	canoe	motor boat	walk	wade		
Cover type: Percent cover:	Emergent 70	Shrub O	Open H ₂ O [O	Floating	Trees	Snags Ø	Mudflat	Upland		
Dominant plants	Invasive pla	ants (list spec	ies and perce	nt cover):						
1. PHALARUS ATUNDINACEA						PHRAG 10				
2. PHRAGM	R(6 80									
3. ImpAt	iers one	ansis								
Edge type (circle): roadside/	marsh (dite	chor berm/ma	ursh uplan	d/marsh op	en water/mars	sh interior/	marsh		
Density of marsh vegetation (circle one): None Sparse Moderate Rank										
Estimated average	ge marsh veg	etation heig	ht (m) (circle	one): 0-	-1 (1-3)	3-6 >6				
Stewart and Kan	trud wetland	l cover class	(circle one):	Type 1	Type 2	Type 3	Type 4			
Comments:										
5										

1

Date (e.g. 15 May 2011): 8 June 22			Observer(s): $JM \subset T S$						
Hexagon #:		Survey Rou	te:	,		Region: 💡			
Survey point (e.	.g. X-0001):	MBS-	1						
Water depth (ci	m): SAT		How accesse	ed (circle):	canoe	motor boat	walk	wade	
Cover type:	Emergent	Shrub	Open H ₂ O	Floating	Trees	Snags	Mudflat	Upland	
Percent cover:	80		10				10		
Dominant plant	t species:				Invasive plants (list species and percent cover):				
1. PHR.	AVJ				PHARAG, RCG, LONICERA				
2. PhA	ARU								
3. Imp	CAP								
Edge type (circl	e): roadside	/marsh dite	ch or berm/ma	rsh) upland	l/marsh op	en water/mar	sh interior/1	narsh	
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Stewart and Kantrud wetland cover class (circle one): Type 1 Type 2 Type 3 Type 4									
Comments:	ATV T	RAIL,	Brid	SE A	LON	CANAL		ж. 2	

NEW YORK MARSH BIRD MONITORING HABITAT DATASHEET

Survey point (e.g	. X-000 1):	MBS-2							
Water depth (cm): SAT - 6" How accessed (circle):						motor boat	(walk)	wade	
Cover type:	Emergent 85	Shrub	Open H ₂ O	Floating	Trees ノロ	Snags	Mudflat	Upland	
Dominant plant species: Invasive plants (list species and percent cov							nt cover):		
1. Phalaw	υ								
2 TAND CAPP									
3. Phra	3. Phragan								
Edge type (circle)): roadside/	marsh dite	h or berm/ma	ursh upland	d/marsh) op	en water/mar	sh interior/	marsh	
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Estimated average	Estimated average marsh vegetation height (m) (circle one): 0-1 1-3 (3-6) >6								
Stewart and Kantrud wetland cover class (circle one): Type 1 Type 2 Type 3 Type 4									
Comments: MVCK, DITCH, IArGE WETZAND									

Date (e.g. 15 May 2011):	8/22	Observer(s):	JMC /	TT	
Hexagon #:		Survey Route:			Region:

Survey point (e.g	. X-000 1):	MBS-3						
Water depth (cm): SAT		How accesse	ed (circle):	canoe	motor boat	(walk)	wade
Cover type:	Emergent	Shrub	Open H ₂ O	Floating	Trees	Snags	Mudflat	Upland
Percent cover:	10		2					
Dominant plant s	species:				Invasive pla	nts (list spec	ies and perce	nt cover):
1. SOA ON	nl	PON SO	19		pHi	2.A6, R	CG	
2. Pha and wood nextle								
3. Imp C	1970	Phri	rg					
Edge type (circle)): roadside	/marsh dito	h or berm/ma	rsh upland	d/marsh op	en water/mars	h (interior/	marsh
Density of marsh	vegetation (circle one):	None	Sparse 🔿	Aoderate)	Rank	A STATE OF THE OWNER	N 20 7 10 41 1 41 1 41 1 41 1 41 1 41 1 41
Estimated average marsh vegetation height (m) (circle one): 0-1 1-3 (3-6) >6								
Stewart and Kantrud wetland cover class (circle one): Type 1 (Type 2 / Type 3) Type 4								
Comments: Sorth both								

Survey point (e.g. X-0001):									
):		How accesse	ed (circle):	canoe	motor boat	walk	wade		
Emergent	Shrub	Open H ₂ O	Floating	Trees	Snags	Mudflat	Upland		
species:				Invasive pla	nts (list spec	ies and perce	nt cover):		
2.									
): roadside/	marsh dito	h or berm/ma	ursh upland	l/marsh op	en water/mars	sh interior/	marsh		
vegetation (circle one):	None	Sparse N	Ioderate	Rank				
Estimated average marsh vegetation height (m) (circle one): 0-1 1-3 3-6 >6									
Stewart and Kantrud wetland cover class (circle one): Type 1 Type 2 Type 3 Type 4									
Comments:									
	. X-0001):): Emergent species:): roadside/ vegetation (ge marsh veg htrud wetland	. X-0001):): Emergent Shrub species:): roadside/marsh ditc : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : <td:< td=""></td:<>	. X-0001):): How accesse Emergent Shrub Open H ₂ O species:	How accessed (circle): Emergent Shrub Open H2O Floating Species: Species: Species: Species: : roadside/marsh ditch or berm/marsh upland : roadside/marsh ditch or berm/marsh upland : roadside/marsh itch or berm/marsh upland : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :	How accessed (circle): canoe Emergent Shrub Open H2O Floating Trees species: Invasive plant invasive Invasive invasive Invasive	X-0001): How accessed (circle): canoe motor boat Emergent Shrub Open H2O Floating Trees Snags species: Invasive plants (list species)): roadside/marsh ditch or berm/marsh upland/marsh open water/marsh): roadside/marsh ditch or berm/marsh upland/marsh open water/marsh (circle one): None Sparse Moderate Rank ge marsh vegetation height (m) (circle one): 0-1 1-3 3-6 >6	X-0001): How accessed (circle): canoe motor boat walk Emergent Shrub Open H2O Floating Trees Snags Mudflat species: Invasive plants (list species and percent of the species) Invasive plants (list species and percent of the species)): roadside/marsh ditch or berm/marsh upland/marsh open water/marsh interior/marsh): roadside/marsh ditch or berm/marsh upland/marsh open water/marsh interior/marsh): roadside/marsh ditch or berm/marsh upland/marsh open water/marsh interior/marsh (circle one): None Sparse Moderate Rank ge marsh vegetation height (m) (circle one): 0-1 1-3 3-6 >6 utrud wetland cover class (circle one): Type 1 Type 2 Type 3 Type 4		

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