

**VEGETATION, WILDLIFE AND SOIL CONDITIONS REPORT
WESTERN AVENUE MIXED USED REDEVELOPMENT PROJECTS
TOWN OF GUILDERLAND,
ALBANY COUNTY, NEW YORK**

**October 2019
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¹ A separate natural resource assessment of the Rapp Road site proposed for residential development was prepared for this DEIS and is attached as a separate Appendix.

² Wetlands are discussed in detailed in a separate Wetland Delineation and Permitting Report by B. Laing Associates, Inc.

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1.0 INTRODUCTION

B. Laing Associates, Inc. has prepared this report in connection with the proposed redevelopment project on ±26.2 acres land in the Town of Guilderland, Albany County, New York (see Appendix C). This report presents findings of an ecological review of habitats conducive to the presence of state and federally listed endangered, threatened and/or rare species of flora and fauna, wetlands and any other sensitive ecological characteristics of the site³. B. Laing Associates, Inc. has analyzed the site in relation to its ecology and the proposed action in relation to environmental/ecological disturbance and for any potential, significant, adverse environmental impacts to natural resources as a result of the project.

1.1 Existing Conditions

The ±26.2 acres site consists of two locations and are referred to as Site 2 and Site 3⁴ (“the Site”). Site 2 is located north of Western Avenue and east of the southwestern Crossgates Mall Road in the Town of Guilderland, Albany County, New York. It is bordered on the north by the Crossgates Mall and to the east by largely vacant residential properties on Lawton Terrace, Tiernan Court and Rielton Court and Gabriel Terrace. The site is 14.86 acres and is comprised of several tax lots. The property was cleared and operated as a horse farm. It was then subdivided to residential lots. The lots and the homes on them are largely unoccupied, some for decades. Currently, the site is occupied by secondary, successional woodland, the remnants of old Rapp Road and the unoccupied residences mixed with mostly landscaped trees and shrubs. The properties are still maintained. However, the vegetation is tending toward secondary succession. In addition, the very disturbed ecological condition of the Site’s western half is the result of the abandonment of old Rapp Road with its relocation westward as Crossgates Mall Road where it connects to Western Avenue. That action resulted in deep ditching of the area to allow drainage for the old Rapp Road, which remains as a roadbed and shoulders, and the newer Crossgates Mall Road. This action occurred in the late 1980s’ and early 1990’s. This ditching was an excavation ranging from a few feet to approximately 12 feet deep. Thus, it substantially altered the original topography.

Site 3 is located on ±11.34 acres of land between Site 2 and the existing hotel (Hilton) site. The half of this site contains an existing parking lot. There are no current redevelopment plans for this area. This development will include as possible future development 115,000 SF of retail space, 50,000 SF of office space, and 48 multi-family apartments.

³ B. Laing Associates, Inc. has been conducting ecological assessments in and around the Crossgates Mall for 20 plus years. This site was assessed in detail in 2019 but has been the subject of reconnaissance-level investigations beginning in the late 1990’s. Several detailed assessments of the site were conducted between March and July 2019

⁴ For a discussion of the natural resources on Site 1, see separate Vegetation, Wildlife and Soil Conditions Report for Site 1.

The Site is largely uplands and the dominant characteristics of the uplands are disturbed, fill soils and the secondary succession vegetation. A small, very linear and narrow (man-altered) wetland is present on Site 2. It extends northeast from the old Rapp Road culvert to the Crossgates Mall Road's drainage culvert. Detailed descriptions of natural resources – general vegetation, soils and hydrology and wildlife – and potential impacts are discussed below. A separate wetland delineation report for Site 2 has been prepared and is attached as a separate Appendix.

1.1.1 Vegetation

Vegetation on-Site is consistent with a secondary succession woodland as a result of new growth after decades of use as a horse farm followed by residential development. The canopy of the woodland is moderately closed (in the western half, flanking old Rapp Road) to open (in the eastern half, minimally-maintained residential lots and houses) and composed of young white pine (*Pinus strobus*, FACU), red maple (*Acer rubrum*, FAC), black cherry (*Prunus serotina*, FACU), cottonwood (*Populus deltoides*, FAC), and boxelder (*Acer negundo*, FAC). These tree species are largely transitional in nature and less numerous than a “typical” woodland as they are interrupted by the remnants of former development. Shrubs identified in this area include Japanese honeysuckle (*Lonicera japonica*, FACU), tartarian honeysuckle (*Lonicera tatarica*, FACU), serviceberry (*Amelanchier canadensis*, FAC) and hawthorn (*Crataegus sp.*, UPL).

The understory herbaceous layer on-site is thick in the western half of the site, flanking old Rapp Road, and consists mainly of upland species. It is composed of dispersed Virginia creeper (*Parthenocissus quinquefolia*), goldenrod (*Solidago sp.*), garlic mustard (*Alliaria petiolate*, FACU), Queen Anne’s lace (*Daucus carota*, UPL), daisy fleabane (*Erigeron annuus*, FACU), and wild geranium (*Geranium maculatum*, FACU). Invasive vine species, such as Oriental bittersweet (*Celastrus orbiculatus*) are especially dominant in the vicinity of the old Rapp Road where they are so thickly occurring that they are smothering both other trees and shrubs and themselves. The eastern half of the Site consists of residential lots and houses, the shrub layer is mostly absent but consists largely of landscape species such as daylilies (*Hemerocallis sp.*), hostas (*Hosta sp.*), burning bush (*Euonymus alatus*), etc.

The majority of the identified plants are facultative, facultative upland and obligate upland species. Only few species of vegetation observed during field efforts were facultative to wetland species. These species were largely located in the small, linear wetland northeast of old Rapp Road. Thus, the vast majority of the site is a moist to dry, open canopy, successional woodland.

The linear strip of wetlands comprises ±4,051 square feet. These wetlands occur at the bottom of a steeply-sided, man-altered drainage ditch. They occur to the northeast of old Rapp Road (where a drainage culvert occurs) and extend to the northeast. The wetland area contained species typical of freshwater wetlands (facultative to obligate wetland species) such as jewelweed (*Impatiens capensis*), sensitive fern (*Onoclea sensibilis*), and skunk cabbage (*Symplocarpus foetidus*). The wetland has no shrub or tree stratum, although facultative to facultative-wetland shrubs and trees were observed in small numbers elsewhere (i.e., as non-dominant in uplands.) Wetlands on site are discussed separately in the attached Freshwater Wetland Delineation Report by B. Laing Associates, Inc., for this proposed redevelopment.

There is no Albany Pine Bush habitat on the Site. The Site lacks pitch pine (*Pinus rigida*)⁵ or scrub oak and contains few grassland species. Blue lupine (*Lupinus perrennis*) was specifically searched for and was not found. This result was expected due to its location in a previously developed residential area located on the south side of Crossgates Mall (and its associated roads and parking) and at least 1,200 feet away in a straight-line distance across the Crossgates Mall facilities from the nearest Preserve property. Moreover, there is also a woodland canopy on the majority of the Site (See also Section 2.0). There is an area of the Site which largely lacks trees

⁵ Save for one or two individuals used as ornamental/landscape vegetation in the unoccupied residential lots.

and shrubs (i.e., a field), just to the northwest of where Lawton Terrace and Western Avenue intersect. This area was specifically searched for the potential for any Pine Bush herbaceous plants such as blue lupine; none was found and the area was shown to be largely lawn and disturbance-oriented species. In addition, the Site is not mentioned in the Albany Pine Bush 2017 Management Plan as serving any ecological function. The complete plant list can be found in this report in Table 1.

1.1.2 Soils

The Soil Survey for Albany County depicts the Site has consisting of Colonie loam fine sand, Elnora loamy fine sand, Granby loamy fine sand, Stafford loamy fine sand, Udipsamments, smoothed. The United States Department of Agriculture (USDA) National Resources Conservation District (NRCS) described the soils as follows:

The **Colonie** series consists of very deep, well drained to excessively drained soils formed in glaciolacustrine, glaciofluvial, or eolian deposits dominated by fine sand and very fine sand. Permeability is moderately rapid or rapid. Slope ranges from 0 to 60 percent (but range that steeply on-site only on ditch side slopes).

The **Elnora** series consists of very deep, moderately well drained soils on glacial lake plains and deltas. These soils formed in wind or lacustrine deposited sands. Slopes range from 0 to 8 percent.

The **Granby** series consists of very deep, poorly drained to very poorly drained soils on glacial lake plains or deltas. These soils formed in water or wind deposited sands. Slopes range from 0 to 2 percent.

The **Stafford** series consists of very deep, somewhat poorly drained soils formed in sandy glacio-lacustrine deposits. They are nearly level soils on deltas and sand plains. Saturated hydraulic conductivity is high or very high throughout the soil. Slope ranges from 0 to 3 percent.

Udipsamments series consists of very deep, well drained to somewhat excessively well drained soils that have been smoothed, cut or filled. Slopes range from 0 to 8 percent.

Soil investigations on-site determined that the Site is dominated by Colonie and Elnora, upland soils which have been heavily disturbed over time. Those areas depicted as Stafford or Granby soils were, in fact, also dry, high chroma upland, sandy soils. No deep, somewhat poorly drained or poorly drained soils were identified on-site. Bright yellow chromas (5-6) were identified from a soil depth of 8 inches to 18 inches on-site. This is often the result of disturbed, fill soils placed on-site (see below) as well as the very deep drainage cuts in the soils related to old Rapp Road and the Crossgates Mall Road (as re-aligned approximately 30 years ago). Additionally, no free water was observed within 18 inches of the surface the surface of the former Stafford or Granby soils. The lack of an aquiclude resulting from the excessive drainage cuts which occurred many decades ago has apparently prevented water retention in the upper, sandy soils and so, hydric conditions have not developed. Thus, it was determined that no Stafford or

Granby soils were present on-site. Well drained soils such as the Colonie, Elnora and Udipsamments series described above occupy the Site with the exception of the small strip of wetlands. Wetlands on site are discussed separately in the attached Freshwater Wetland Delineation Report for this proposed redevelopment.

Soils mixed through many portions of the Site can be considered Udipsamments/Udorthents – i.e., urban cut and fills. Virtually all of the Site’s soils and vegetation has been substantially disturbed during its use as a horse farm followed by residential use plus cut/fill activities for old Rapp Road and a part of the Crossgates Mall Road where it connects to Western Avenue. The farm and then the residential development created numerous buildings many of which still remain on site. The farm was kept in an “open aspect” with little to no tree or shrub vegetation and, most likely, annually exposed soils.

The original soils in the residential section of the Site are entirely Udipsamments/ Udorthents – i.e., urban cut and fills.

The Site also has considerable cuts and fills (ten to twelve feet deep) on the Site’s northeastern quadrant, northwest of the old Rapp Road’s roadbed and shoulders. Cutting is also evident on the Site’s southwestern quadrant. The cutting was done to promote drainage for both the old Rapp Road and Crossgates Mall Road realignment where it connects to Western Avenue. As a result of these activities, any areas of original soils and especially those which may have been originally somewhat poorly Stafford or poorly drained Granby soils have disappeared.

1.1.3 Hydrology

Sites 2 and 3 are almost entirely uplands with well drained soils/fills dominating the landscape. The lack of hydric features on-site is due to (i) the dominance of sands, (ii) the absence of a shallow, impermeable layer or aquaclude beneath the sandy sediment layer, (iii) significant erosion from high topography areas to lower topography areas when the site was heavily disturbed and (iv) significant, prior cutting of the site’s surface for pass-through drainage (see below) and (v) the current condition as an existing developed residential area. Thus, the localized permeability rate is high and site conditions are dominantly dry.

No wetlands are identified on the New York State Department of Environmental Conservation (NYSDEC) freshwater wetlands map, the U.S. Fish and Wildlife Service National Wetland Inventory (NWI) maps or the Albany County Mapping system. In addition, no hydrologic features are shown on the 1962 United States Geological Survey quadrangle (see Figure 2). However, a small, highly linear wetland does occur on site.

A linear strip of wetlands, approximately 10 to 20 feet wide and 350 feet long and $\pm 4,051$ square feet, is present on Site 2. These wetlands occur at the bottom of a steeply-sided, man-altered drainage ditch. They occur to the northeast of the old Rapp Road (where a drainage culvert occurs) and extend to the northeast. At their northeast terminus, they flow into an underground drainage system which runs along Crossgates Mall Road. See B. Laing Associates, Inc’s Freshwater Wetland Delineation Report (attached as a separate Appendix) for more information regarding hydrology.

1.1.4 General Wildlife

Several wildlife species were observed during B. Laing Associates, Inc.'s field inventories. These field inventories were to determine general wildlife characteristics but were also specifically conducted to target potential⁶ listed species (e.g., Karner blue butterfly, eastern worm snake, eastern hognose snake, etc.). Wildlife recorded consisted of species common to the Guilderland/Albany and typical of the secondary, disturbed woodland habitat on site. This includes a number of avian species such as various woodland passerines, woodpeckers, etc., as well as mammals characteristic of suburban and woodland areas.

Search methodologies employed for locating listed species and species of special concern varied depending on the subject species:

- For locating listed lepidopterans (i.e. butterflies), transects were walked throughout habitat which were found to be conducive to flying adults. In addition, these transects were specifically searched for those host plants, of which their larvae are specialists. In addition, nocturnal surveys were conducted, including lighting and “sheet” attraction methods.
- For locating listed herptiles (e.g., worm snake, eastern hognose snake, etc.), trained observers methodically walked the Site in rough transects, searching for individual organisms, as well as their habitat and under objects beneath which they might roost/hide. In addition, nocturnal surveys were conducted, including listening for vocalizing frogs and toads.
- Any “general” wildlife and plant life encountered in these more specific surveys were also identified and recorded.

A list of species observed on site during B. Laing Associates field efforts can be found in Table 2. Potential endangered, threatened or special concern species are discussed separately below.

⁶ The distance to the Albany Pine Bush Preserve land is approximately 1,200 feet across the Crossgates Mall and its associated roads and parking. However, out an abundance of caution, the subject property was specifically searched for species characteristic of same.



FIGURE 2
HISTORIC AERIAL MAP
(Source: Google Aerial Photography circa 1994)

PROJECT SITE:
TOWN OF GUILDERLAND,
ALBANY COUNTY, NEW YORK

Table 1 Vegetative Species (Alphabetical by Common Name)		
Common Name	Scientific Name	Indicator Status
American elm	<i>Ulmus americana</i>	FACW
American pokeweed	<i>Phytolacca americana</i>	FACU
Arborvitae	<i>Thuja occidentalis</i>	FAC
Basswood	<i>Tilia Americana</i>	FACU
Bear oak ⁷	<i>Quercus ilicifolia</i>	UPL
Bedstraw	<i>Galium sp.</i>	FAC
Bitternut hickory	<i>Carya cordiformis</i>	FAC
Black cherry	<i>Prunus serotina</i>	FACU
Black locust	<i>Robinia pseudoacacia</i>	FACU
Black walnut	<i>Juglans nigra</i>	FACU
Blackberry	<i>Rubus sp.</i>	UPL
Black-eyed Susan	<i>Rudbeckia hirta</i>	FACU
Bladder campion	<i>Silene vulgaris</i>	UPL
Bloody crane's-bill	<i>Geranium sanguineum</i>	UPL
Blue spruce	<i>Picea pungens</i>	FAC
Boxelder	<i>Acer negundo</i>	FAC
Bush Clover	<i>Lespedeza sp.</i>	FAC
Canada Mayflower	<i>Maianthemum canadense</i>	FACU
Catalpa	<i>Catalpa speciosa</i>	FACU
Chinese Wisteria	<i>Wisteria sinensis</i>	FAC
Clover	<i>Trifolium repens</i>	FACU
Common milkweed	<i>Asclepias syriaca</i>	UPL
Common Mullein	<i>Verbascum thapsus</i>	UPL
Cottonwood	<i>Populus deltoides</i>	FAC
Crabapple	<i>Crataegus sp.</i>	FACU
Dandelion	<i>Taraxacum officinale</i>	FACU
Daylily	<i>Hemerocallis sp.</i>	
Deadly nightshade	<i>Atropa belladonna</i>	UPL
Deer tongue grass	<i>Dichanthelium clandestinum</i>	FACW
Early blue cohosh	<i>Caulophyllum thalictroides</i>	FACU
Eastern redcedar	<i>Juniperus virginiana</i>	FACU
False Solomon's seal	<i>Maianthemum racemosum</i>	FACU
Garlic mustard	<i>Alliaria petiolata</i>	FACU
Goldenrod	<i>Solidago sp.</i>	FAC
Grape	<i>Vitis sp.</i>	FAC
Grasses	<i>Poaceae sp.</i>	
Gray alder	<i>Alnus incana</i>	FACW

⁷ Observed only as an ornamental/landscape plant (i.e. in the yard of an unoccupied residential lot).

<i>Veg. Species, cont.</i>		
Greater celandine	<i>Chelidonium majus</i>	UPL
Hay-scented fern	<i>Dennstaedtia punctilobula</i>	UPL
High-bush blueberry	<i>Vaccinium corymbsum</i>	FACW
Hoary Alyssum	<i>Berteroa incana</i>	UPL
Horsetail	<i>Equisetum sp.</i>	FACW
Horseweed	<i>Erigeron canadensis</i>	FACU
Hosta	<i>Hosta sp.</i>	
Iris	<i>Iris pseudacorus</i>	OBL
Japanese honeysuckle	<i>Lonicera japonica</i>	FACU
Japanese maple	<i>Acer palmatum</i>	UPL
Japanese barberry	<i>Berberis thunbergii</i>	FACU
Jewelweed	<i>Impatiens capensis</i>	FACW
Kentucky coffeetree	<i>Gymnocladus dioicus</i>	UPL
Knapweed	<i>Centaurea biebersteinii</i>	UPL
Kousa Dogwood	<i>Cornus kousa</i>	UPL
Lily-of-the-valley	<i>Convallaria majalis</i>	UPL
Low smartweed	<i>Persicaria longiseta</i>	FAC
Mugwort	<i>Artemisia vulgaris</i>	UPL
Multiflora rose	<i>Rosa multiflora</i>	FACU
Nodding trillium	<i>Trillium cernuum</i>	FAC
Norway maple	<i>Acer platanoides</i>	UPL
Norway spruce	<i>Picea abies</i>	UPL
Onion	<i>Allium sp.</i>	FAC
Oriental bittersweet	<i>Celastrus obiculatus</i>	UPL
Pitch pine ⁸	<i>Pinus rigida</i>	FACU
Poison ivy	<i>Toxicodendron radicans</i>	FAC
Porcelain berry	<i>Ampelopsis brevipedunculata</i>	UPL
Pussy willow	<i>Salix discolor</i>	FACW
Queen Anne's lace	<i>Daucus carota</i>	UPL
Raspberry	<i>Ruus idaeus</i>	FACU
Red baneberry	<i>Actaea rubra neglecta</i>	FACU
Red maple	<i>Acer rubrum</i>	FAC
Red oak	<i>Quercus rubra</i>	FACU
Rhododendron	<i>Rhododendron sp.</i>	
River birch	<i>Betula nigra</i>	FACW
Rye grass	<i>Lolium sp.</i>	FAC
Sassafras	<i>Sassafras albidum</i>	FACU
Sensitive fern	<i>Onoclea sensibilis</i>	FACW
Skunk cabbage	<i>Symplocarpus foetidus</i>	OBL

⁸ Ibid 6.

<i>Veg. Species, cont.</i>		
Solomon's seal	<i>Polygonatum biflorum</i>	FACU
St. John's-wort	<i>Hypericum perforatum</i>	UPL
Staghorn sumac	<i>Rhus typhina</i>	FACU
Stonecrop	<i>Sedum sp.</i>	FAC
Sweetgum	<i>Liquidambar styraciflua</i>	FAC
Thistle	<i>Cirsium vulgare</i>	FACU
Tiger lily	<i>Lilium lancifolium</i>	
Tree-of-heaven	<i>Ailanthus altissima</i>	UPL
Vetch	<i>Securigera varia</i>	FACU
Virginia creeper	<i>Parthenocissus quinquefolia</i>	FACU
White campion	<i>Silene latifolia</i>	UPL
White ash	<i>Fraxinus americana</i>	FACU
White pine	<i>Pinus strobus</i>	FACU
Wild geranium	<i>Gernanium maculatum</i>	FACU
Wild strawberry	<i>Fragaria vesca</i>	UPL
Winged euonymus	<i>Euonymus alatus</i>	UPL
Wood anemone	<i>Anemone quinquefolia</i>	FACU
Yew	<i>Taxus baccata</i>	FACU

Table 2
Wildlife Species List⁹

Birds	Common Name	Scientific Name
(Taxonomic Order)	Canada Goose	<i>Branta canadensis</i>
	Feral Pigeon	<i>Columba livia</i>
	Turkey Vulture	<i>Cathartes aura</i>
	Red-tailed Hawk	<i>Buteo jamaicensis</i>
	Red-bellied Woodpecker	<i>Melanerpes carolinus</i>
	Downy Woodpecker	<i>Dryobates pubescens</i>
	Pileated Woodpecker	<i>Drycopus pileatus</i>
	Eastern Phoebe	<i>Sayornis phoebe</i>
	Eastern Kingbird	<i>Tyrannus tyrannus</i>
	Fish Crow	<i>Corvus ossifragus</i>
	Black-capped Chickadee	<i>Poecile atricapillus</i>
	Tufted Titmouse	<i>Baeolophus bicolor</i>
	Ruby-crowned Kinglet	<i>Regulus calendula</i>
	White-breasted Nuthatch	<i>Sitta carolinensis</i>
	Blue-gray Gnatcatcher	<i>Polioptila caerulea</i>
	Carolina Wren	<i>Thryothorus ludovicianus</i>
	Gray Catbird	<i>Dumetella carolinensis</i>
	Northern Mockingbird	<i>Mimus polyglottos</i>
	American Robin	<i>Turdus migratorius</i>
	Cedar Waxwing	<i>Bombycilla cedrorum</i>
	House Finch	<i>Haemorhous mexicanus</i>
	American Goldfinch	<i>Spinus tristis</i>
	Chipping Sparrow	<i>Spizella passerina</i>
	Dark-eyed Junco	<i>Junco hyemalis</i>
	Red-winged Blackbird	<i>Agelaius phoeniceus</i>
	Brown-headed Cowbird	<i>Molothrus ater</i>
	Common Grackle	<i>Quiscalus quiscula</i>
	American Redstart	<i>Setophaga ruticilla</i>
	Blackburnian Warbler	<i>Setophaga fusca</i>
	Pine Warbler	<i>Setophaga pinus</i>
	Myrtle Warbler	<i>Setophaga coronata coronata</i>
	Northern Cardinal	<i>Cardinalis cardinalis</i>
Mammals	Eastern Coyote	<i>Canis latrans</i>
(Alphabetical)	Eastern Raccoon	<i>Procyon lotor</i>

⁹ As identified by sight, sound, or sign.

Mammals, cont.	Gray Squirrel	<i>Sciurus carolinensis</i>
	White-tailed Deer	<i>Odocoileus virginianus</i>
Invertebrates	Ambersnail	<i>Succinea sp.</i>
(Alphabetical)	Annual cicada	<i>Cicadidae sp.</i>
	Asian tiger mosquito	<i>Aedes albopictus</i>
	Black carpenter ant	<i>Camponotus pennsylvanicus</i>
	Common earthworm	<i>Lumbricus terrestris</i>
	Common eastern bumblebee	<i>Bombus impatiens</i>
	Common whitetail	<i>Plathemis lydia</i>
	Crane fly sp.	<i>Tipulidae sp.</i>
	Dusky-type slug	<i>Arion sp.</i>
	Eastern harvester	<i>Leiobunum vittatum</i>
	Fall field cricket	<i>Gryllus pennsylvanicus</i>
	Greenhouse millipede	<i>Oxidus gracilis</i>
	House mosquito	<i>Culex quinquefasciatus</i>
	Japanese beetle	<i>Popillia japonica</i>
	Large lace-border	<i>Scopula limboundata</i>
	Leaf litter moth	<i>Herminiinae sp.</i>
	Leaf-footed bug	<i>Acanthocephala terminalis</i>
	Little wood satyr	<i>Megisto cymela</i>
	Long-legged fly	<i>Condylostylus sp.</i>
	Marsh snipefly	<i>Rhagio tringarius</i>
	Oriental Beetle	<i>Exomala orientalis</i>
	Pale beauty	<i>Campaea perlata</i>
	Polymerus sp.	<i>Polymerus sp.</i>
	Red velvet mite	<i>Trombidiidae sp.</i>
	Scorpion fly	<i>Panorpa rufescens</i>
	Twelve-spotted skimmer	<i>Libellula pulchella</i>
	Western honeybee	<i>Apis mellifera</i>
	Wood louse	<i>Oniscidea sp.</i>
Herptiles	Gray tree frog	<i>Hyla versicolor</i>

1.2 Impacts

The project proposes the redevelopment of Sites 2 and 3 and construction of two projects.

As depicted on the site plan, Sites 2 and 3 will be regraded and/or re-landscaped to facilitate the redevelopment. The already disturbed, secondary successional, plants and wildlife (a mix of native and disturbance-oriented species typical of residentially-developed suburban areas) on this portion of the property will be removed.

The small, man-made wetland on site and impacts/mitigation relating to it is discussed separately in the attached Freshwater Wetland Delineation Report for this proposed redevelopment. These wetlands, which are under the jurisdiction of the US Army Corps of Engineers, will be developed under Nationwide Permit #39.

As Sites 2 and 3 are currently disturbed and lack any characteristics significant in Albany Pine Bush habitats, no significant impacts are anticipated as a result of the project. As a part of the redevelopment, buildings, parking and related infrastructure will be constructed on site. Existing utilities are available in the area from the south and east plus access is available off Washington Avenue. Traffic proceeding northward on Rapp Road and past the Crossgates Mall/Gipp Road to the northwest will be minimal. Thus, no indirect adverse impacts to wildlife, flora and fauna (either related to the Albany Pine Bush Preserve or other more typical of suburban settings) due to the redevelopment of the Sites.

2.0 POTENTIAL ENDANGERED AND THREATENED ZOOLOGICAL SPECIES OF NEW YORK STATE:

B. Laing Associates consulted directly with the NYSDEC New York Natural Heritage Program for up to date information regarding rare animals, rare plants, and significant ecosystems located in this portion of the Town of Guilderland, Albany County, New York. In response to the request, New York Natural Heritage Program issued a letter report with species potentially located within the region of the project site. Species identified are the Karner blue butterfly (*Lycaeides melissa samuelis*) and the threatened frosted elfin (*Callophrys irus*). Several species identified as Special Concern were also documented within the vicinity of the project site. These include the eastern wormsneak (*Carphophis amoenus*) and eastern spadefoot toad (*Scaphiopus holbrookii*). Two species of butterflies and moths, both of Special Concern, were also listed as occurring in the Albany Pine Bush Preserve.

The US Fish and Wildlife Service's IPaC system was also checked. This search also determined the Karner blue butterfly potentially may occur in the area and added the northern long-eared bat (*Myotis septentrionalis*).

Listed species potentially occurring within the vicinity of the Site are described below. As a result of this documentation, B. Laing Associates determined that formal field review of the Site was warranted. B. Laing visited the Site on one occasion in 2017 and, subsequently, multiple occasions to-date in 2019. During the field reviews, B. Laing actively searched for endangered, threatened and/or rare, flora and fauna of special concern on-site. B. Laing specifically reviewed the Site for habitats that would be deemed conducive to the presence of

those species documented to occur in the area¹⁰.

While surveying for listed lepidopterans (i.e. butterflies), transects were walked throughout habitat which were found to be conducive to flying adults. In addition, these transects were specifically searched for those host plants, of which their larvae are specialists. Finally, nocturnal surveys were conducted, including lighting and “sheet” attraction methods for those night-flying species (i.e. moths).

The Site 2 and 3 properties are 1,200 feet south of the closest sections of the Albany Pine Bush Preserve lands (and in a straight line across Crossgates Mall access roadways plus parking). The Site does not contain any properties classified in the Albany Pine Bush 2017 Management Plan for any ecological protection purposes.

2.1 Karner Blue (*Lycaeides melissa samuelis*)

2.1.1 Habitat and Needs

The Karner blue butterfly is listed by New York State and the US Fish and Wildlife Service as endangered. The butterfly is also listed as federally endangered. The NYSDEC defines endangered as:

- (1) are native species in imminent danger of extirpation or extinction in New York listing in section 182.3(b) of this Part and that are listed as endangered in section 182.5(a) of this Part; or
- (2) are species listed as endangered by the United States Department of the Interior in the *Code of Federal Regulations* (50 CFR Part 17).

The U.S. Fish and Wildlife describes the appearance of the Karner blue as a small butterfly with a wingspan of about one inch. The male and female vary in appearance. The topside of the male is silvery or dark blue with narrow black margins. The female is grayish brown, especially on the outer portions of the wings, to blue on the topside, with irregular bands of orange crescents inside the narrow black border. In both sexes, the underside is gray with a continuous band of orange crescents along the edges of both wings and with scattered black spots circled with white. The Karner blue butterfly is found in small populations from Minnesota to New Hampshire where their main food source, the blue lupine (*Lupinus perrennis*), are present.

Karner blue are found in New York in the Albany Pine Bush area¹¹. They have four typical life

¹⁰ To provide some context, B Laing Associates, Inc. has had decades of experience in and around portions of the Albany Pine Bush. As such, B Laing Associates, Inc. is very familiar with the habitat characteristics of the sensitive species occurring in this region.

¹¹ B. Laing Associates, Inc. personnel have been conducting ecological inventories on projects in and around the Pine Bush of New York for at least 20 years. They have located (but not collected) Karner blue butterflies and the associated blue lupine in past efforts.

cycles and produce two broods. Broods appear May to mid-June and mid-July to early August. These butterflies occupy areas that are dry and sandy with open woods and clearings (shrubby and field habitats) that support blue lupine. Vegetative species connected with this type of habitat include pitch pine (*Pinus rigida*) and scrub oak/bear oak (*Quercus ilicifolia*) communities with interspersed grassy fields.

2.1.2 Potential On-site

The Site does not provide adequate or suitable habitat for the Karner blue butterfly. The butterfly relies on blue lupine, its host plant, for its lifecycle. Karner blue eggs are laid on the stems of blue lupine and the leaves of the blue lupine are consumed by the caterpillar. No blue lupine plants were identified or were expected to occur on site within either the moderately closed to open canopy woodland nor in the small, isolated field located on the southcentral portion of same. Blue lupine and the Karner Blue Butterfly require open sandy areas with open space and low shrubby to herbaceous growth, which does not occur on site. Albany Pine Bush Preserve property that occurs approximately 1,200 feet north of the Site, directly across the Crossgates Mall property, is far removed and remote from the Site. In addition, B. Laing Associates, personnel walked transects through any habitat conducive for flying adult Karner blue butterflies and none were found.

2.1.3 Conclusion

No suitable habitat exists on-site for the Karner blue butterfly, and no Karner blue butterflies were located on Sites 2 and 3. Thus, there are no potential adverse impacts to the Karner blue butterflies as a result of the proposed project.

2.2 Frosted Elfin (*Incisalia irus*)

2.2.1. Habitat and Needs

The frosted elfin is listed by New York State as threatened. The NYSDEC defines threatened as “any native species likely to become an endangered species within the foreseeable future in New York State.”

The males are gray-brown above and females are reddish overall or in patches. The frosted elfin occurs from Florida north to New England, and west to Alabama and Wisconsin. In the eastern parts of its range, it occurs in mostly small patches of habitat, but larger populations are found further west, where the habitat is more contiguous. The life cycle of the frosted elfin begins with a yellowish-green caterpillar that feeds on the flowers and fruits of lupines (*Lupinus sp.*) and false indigo (*Baptisia tinctoria*). Examples of host plants include lupines, false indigo and rattlebox (*Crotalaria sagittalis*). The chrysalis or pupa weaves a loose threaded cocoon in organic material and leaf litter to over winter. The elfin takes flight between late April and May and has one brood. They are weak fliers but are efficient colonizers that establish small, scattered

populations. These insects inhabit open, second growth woods, roadside areas near host plants, Pine Barrens, and open brushy fields.

2.2.2. Potential On-site

Sites 2 and 3 do not provide adequate or suitable habitat for the frosted elfin butterfly. The elfin relies on specific host plants (but a broader species pallet than the Karner blue) which the caterpillar feeds on. These plants include lupines, false indigo (*Baptisia australis*) and rattlebox (*Crotalaria sp.*). Neither the elfin, nor any of these plants have been identified on-site. The blue lupine plant has been identified in the Albany Pine Bush but not on this site. Albany Pine Bush Preserve property that occurs approximately 1,200 feet north of the Site, directly across the Crossgates Mall property, is far removed and remote from the Site. In addition, B. Laing Associates, personnel walked transects through any habitat conducive for flying adult frosted elfins and none were found.

2.2.3. Conclusion

No suitable habitat exists on the Site for the frosted elfin. No frosted elfin were located on the Site thus, there are no potential adverse impacts to the frosted elfin as a result of the Project.

2.3 Northern Long-eared Bat (*Myotis septentrionalis*)

2.3.1 Habitat and Needs:

The northern long-eared bat (or long-eared Myotis) is listed by New York State and the federal government as Threatened. This listing is relatively new and occurred in April 2015. The northern long-eared bat's range includes much of the eastern and north central United States, and all Canadian provinces from the Atlantic Ocean west to the southern Yukon Territory and eastern British Columbia. Like most Northeastern bats, they feed solely on flying insects and presumably males spend the summer preparing for the breeding season and winter that follows; the females spend the summer raising their pups.

Northern Long-eared bats are typically associated with cave habitats when hibernating in the winter and trees with crevasses and snags for roosting in the summer. Suitable potential summer roosting/maternity habitat is characterized by numerous trees (e.g. dead, dying, or alive) or snags, down to 3 inches diameter breast height (d.b.h.). The northern long-eared bat is currently presumed by USFWS to have a biology and life history very similar to the Indiana bat (*Myotis sodalis*), with a difference being that the northern long-eared bat will also roost in old, loosely sealed, or abandoned structures.

2.3.2 Potential On-site:

The Site does not contain any cave habitats and is, therefore, not suitable habitat for winter-hibernating northern long-eared bats. Vacant residential structures exist on site and a number

of large trees such as cottonwood and red maple, including some older, broken individuals have the potential to provide summer roosting habitat for this species.

However, according to NYSDEC publications, this location is outside the 5-mile radius of the nearest recorded winter hibernaculum and is more than 7-miles away from known hibernacula. There are no confirmed summer occurrences of the NLEB in Albany County.

2.3.3 Conclusion:

Sites 2 and 3 are largely comprised of secondary growth woodland and unused residential structures, which will be cleared for the proposed project. Since this site is outside the 5-mile radius of the nearest, recorded winter hibernaculum and is slightly more than 7-miles away from known hibernacula, and because there have been no confirmed summer occurrences in Albany County, it is not likely that these bats would be found on or near the site. Therefore, there are no anticipated potential adverse impacts on the northern long-eared bat as a result of the proposed project.

3.0 POTENTIAL SPECIAL CONCERN & RARE ZOOLOGICAL AND BOTANICAL SPECIES OF NEW YORK STATE

3.1 Worm Snake (*Carphophis amoenus*)

3.1.1 Habitat and Needs

The worm snake is listed by New York State as a species of special concern. NYSDEC defines special concern as “any native species for which a welfare concern or risk of endangerment has been documented in New York State.” It has been found in several locations in the Albany Pine Bush. The worm snake is characterized as an un-patterned brown snake with a pink belly, pointed head and small eyes. Its range is southern New England to central Georgia, west to southeast Nebraska, eastern Kansas, eastern Oklahoma and extreme northeast Texas. The worm snake breeds from April to May and September to October. During cold periods, it retreats deep into soil. The snakes dwell in damp locations such as under rocks, decaying logs or stumps in loose soils. Typical habitat for the species includes damp hilly woodlands, partially wooded or grassy hillsides above streams and farmland bordering woodlands. The worm snake predominantly feeds on earthworms.

3.1.2 Potential On-site

The Site does not provide adequate or suitable habitat for the worm snake. The preferred habitat for the snake is shallow, sandy soils within or bordering damp woodlands or streams. Although sandy soils do occur on-site, the Site does not provide the habitats typical of the worm snake. The Site’s vegetation is dominated by upland species, it has been substantially filled and it has been subject to significant cutting and erosion. These factors have caused the wetter soils to fill and they are now on the drier end of their drainage class (i.e., moderately well drained). On-site soil samples also confirmed the *absence* of Stafford or Granby soils, with a well-drained, sandy, man-made soil actually being present. Finally, grades adjacent to the man-altered wetland on site are very steep which limit this species’ ability to access same.

The worm snake is found at or near the soil surface for most of the year. However, the soil surface and shallow soils of the project site has been very significantly disturbed for many decades. This was/is the result of (i) surface cutting for drainage purposes, (ii) agricultural practices, (iii) disturbed, fill soils placed on-site, (iv) extensive erosion resulting from both and (v) an existing developed residential area. These activities would have eliminated the species decades ago. In addition, no free water was observed within 18 inches of the surface. The lack of an aquaclude prevents water retention and so, hydric soils. Only a small wetland in a deep drainage cut occurs on site. Worm snakes are intolerant of dry conditions and often disappear from areas that have been cleared of vegetation, such as the vast majority of the project site. The entire Site is disturbed and/or contains excessively to moderately well drained soils. Migration of the species to the Site¹² is unlikely due to the condition of the site and as limited by the adjacent Crossgates Mall, parking and roadways.

While surveying for eastern worm snake, trained observers methodically walked the Site in rough transects, searching for individual organisms, as well as their habitat and under objects

¹² The worm snake was determined to occur in the right-of-way to the northeast of Crossgates “Butterfly Hill.” (approx. 1,500 feet northeast of the site) by B. Laing Associates, Inc. and NYSDEC Region 4, June 2007.

beneath which they might roost/hide. No individuals of this species were found on Site.

3.1.3 Conclusion

Little to no suitable habitat exists on sites 2 or 3, or in the vicinity, for the worm snake. As above, the Site was specifically searched for the species and none were found. Thus, there are no potential adverse impacts to the worm snake as a result of the proposed project.

3.2 Eastern Spadefoot Toad (*Scaphiopus holbrookii*)

3.2.1 Habitat and Needs

The eastern spadefoot toad is listed by New York State as a species of special concern. NYSDEC defines special concern as “any native species for which a welfare concern or risk of endangerment has been documented in New York State.” The spadefoot is described as a stout toad with very elliptical pupils and a sickle-shaped spade on each hind foot. The eastern spadefoot occurs in much of the eastern United States, from Alabama eastward and north to Massachusetts. Breeding occurs from March to September during extremely heavy rains. Egg deposition occurs in temporary pools or ponds of rainwater runoff from “clean” sources. Toads will travel to reach these breeding areas. The toad is nocturnal and lives in shallow holes protecting itself from inclement weather above. The eastern spadefoot is typically found in areas of moist meadows, “prairie” woodlands and pine scrub. It inhabits areas with sandy or friable soils. This species feeds on other frogs and toads as well as any prey they can catch.

3.2.2 Potential On-site

Sites 2 and 3 do not provide adequate or suitable habitat for the eastern spadefoot toad. The preferred habitat for the toad is moist meadows, “prairie” woodlands and pine scrub with shallow, sandy soils. The Soil Survey of Albany County does depict the site as consisting of sandy soils; however, the majority of the site was and is significantly disturbed. No undisturbed, moist habitats occur on-site. This is the result of (i) surface cutting for drainage purposes, (ii) agricultural practices, (iii) disturbed, fill soils placed on-site and (iv) extensive erosion resulting from both and (v) an existing developed residential area. These activities (especially cutting, filling and grubbing in the upper soils) would have eliminated the species decades ago, if it had occurred on the project site.

No vernal (seasonal) wetlands occur on or near the site. The average distance from wetlands, for the eastern spadefoot toad, post-breeding, has been recorded between 130 meters (426 feet) with a maximum of 449 meters (1,473 feet) over natural, relatively undisturbed uplands. The closest mapped and relatively natural, vernal wetlands are more than 7,000 feet from the site¹³. Potential migration of the species to the Site is highly unlikely due to the condition of the Site (as noted above) and as limited by the 1,200 feet of adjacent Crossgates Mall, parking and

¹³ A wet, fenced-in “storm” basin occurs 1,500 feet to the site’s northeast behind a commercial, cable company facility and the Crossgates Mall. This basin was found in 2008-2009 to contain fish. Spade foot toads will only breed in waters which are vernal and lack fish species. As such, no spade foot toad populations were found or were expected to occur at or near that location.

roadways.

Finally, dispersion of the species to the Site is unlikely and limited by the excessive distances to the nearest wetlands, intervening roadways to the north, south and east, and Crossgates Mall, roadway and parking to the north.

While surveying for eastern spadefoot toad, trained observers methodically walked Sites 2 and 3 in rough transects, searching for individual organisms, as well as their habitat and under objects beneath which they might roost/hide. No individuals of this species were located on Site.

3.2.3 Conclusion

Little to no suitable habitat exists on Sites 2 or 3, or in the vicinity, for the eastern spadefoot toad. As above, Sites 2 and 3 were specifically searched for the species and none were found. Thus, there are no potential adverse impacts to the eastern spadefoot toad as a result of the Project.

3.3 Eastern Hognose Snake (*Heterodon platyrhinos*)

3.3.1 Habitat and Needs

The eastern hognose snake is listed by New York State as a species of special concern. NYSDEC defines special concern as “any native species for which a welfare concern or risk of endangerment has been documented in New York State.” The hognose snake is a stout-bodied snake with pointed, slightly upturned snout and wide neck. The snake is found from eastern-central Minnesota to extreme southern New Hampshire south to Florida and west to east Texas and western Kansas. The snake mates in spring and fall and resides in shallow cavities in loose or sandy soil from June to July. During winter months, the snake burrows deeper into loose earth. Sandy soils are an essential habitat characteristic for hognose snakes. These snakes can be found in sandy woodlands, fields, thinly wooded upland hillsides, farmland and coastal areas (dunes). The hognose snake mainly feeds on toads and frogs.

3.3.2 Potential On-site

The Site does not provide adequate or suitable habitat for the eastern hognose snake. The snake prefers sandy soil fields, woodlands and coastal areas. The Soil Survey of Albany County does depict the Site as consisting of sandy soils; however, on-site surveys confirmed that the majority of the Site was and is significantly disturbed. No undisturbed, moist habitats occur on-site. This is the result of (i) surface cutting for drainage purposes, (ii) agricultural practices, (iii) disturbed, fill soils placed on-site and (iv) extensive erosion resulting from both, and (v) an existing developed residential area. These activities (especially cutting, filling and grubbing in the upper soils) would have eliminated the species decades ago, if it had occurred on the Site. In addition, the above-mentioned actions would have also eliminated species of toads and frogs, the hognose snake’s primary prey. The existing Site does not provide suitable habitat for those

species and, thus, there is most likely limited prey/food for the hognose snake. The eastern hognose snake may be found in the Albany Pine Bush Preserve lands where more suitable habitat occurs. The species could exist in the National Grid right of way because of the “field-like” (open) conditions. The right of way is maintained as such due to the high voltage power lines. Even assuming that such species were present in the right of way, it is unlikely the snake would disperse toward the Site since (a) numerous man-made features (a regional shopping center) separate the Site from such prior identified location and (b) there is little to no suitable habitat within the Site due to its forest-like and disturbed conditions consisting of dense undergrowth and an existing developed residential area.

While surveying for eastern hognose snake, trained observers methodically walked Sites 2 and 3 in rough transects, searching for individual organisms, as well as their habitat and under objects beneath which they might roost/hide. No individuals of this species were found on these Sites.

3.3.3 Conclusion

Little to no suitable habitat exists on-site or in the vicinity for the eastern hognose snake. However, the site was specifically searched for the species and none were found. Thus, there are no potential, significant adverse impacts to the eastern hog nosed snake as a result of the Project.

3.4 Butterflies and Moths

3.4.1 Noted Species

In addition to Section 2 above, many species of butterflies and moths were identified within the January 6, 2017 correspondence from New York Natural Heritage Program. These species include: Inland Barrens Buckmoth (*Hemileuca maia maia*, Special Concern), Edwards' Hairstreak (*Satyrium edwardsii*, Unlisted), Bird Dropping Moth (*Cerma cora*, Unlisted), Two-striped Cord Grass Moth (*Macrochilo bivittata*, Unlisted), Barrens chytonix (*Chytonix sensilis*, Unlisted) and Pine Barrens Zanclognatha (*Zanclognatha martha*, Unlisted). These species have been documented in pitch pine/scrub oak barrens of the Albany Pine Bush Preserve lands.

3.4.2 Potential On-site

The Site does not provide adequate or suitable habitat for the above listed butterflies and moths. These species prefer sandy pine barrens/pine bush and pitch pine/scrub oak habitats found in the Albany Pine Bush Preserve. The Site is outside the Albany Pine Bush Preserve area where these species have been documented. The canopy of the woodland is open but extensive. It is composed mostly of mature and young tree species including cottonwood, white pine, red maple, black cherry, and boxelder. Shrubs identified in this area include Japanese honeysuckle, tartarian honeysuckle, serviceberry, etc. The Site does not constitute a pitch pine/scrub oak barrens/pine bush community habitat where these species could occur. Additionally, the Barrens chytonix and Two-striped Cord Grass Moth inhabit maritime

grasslands¹⁴ and relatively undisturbed wetlands, respectively.

3.4.3 Conclusion

Little to no suitable habitat exists on-site or in the vicinity for these butterflies and moth species. However, sites 2 and 3 were specifically searched for the species and none were found. As none of the above lepidopteran species' habitat exists on site, and no individuals of same were observed on sites 2 and 3, there are no potential adverse impacts to these species as a result of the Project.

3.5 Pitch Pine Scrub Oak Barrens

3.5.1 Potential On-site

The Site does not contain pitch pine-scrub oak barrens/pine bush. Thus, no habitat occurs on the Site. The Site is a moderately closed to open canopy, secondary growth woodland and is composed white pine, red maple, black cherry, and boxelder. Shrubs identified in this area include Japanese honeysuckle, tartarian honeysuckle, serviceberry, etc. The Site does not constitute a pitch pine scrub oak barrens habitat as characteristics of this terrestrial community are not present. Pitch pine and bear oak were both observed on Site 2 but not associated with Pine Bush habitat. These plants were associated with the existing residential lots on the eastern side of Site 2 (i.e. a part of residential landscaping) and only one or two individuals of each were located. Finally, neither Site 2 nor Site 3 is mentioned in the Albany Pine Bush 2017 Management Plan as serving any potential ecological function.

3.5.2 Conclusion

Sites 2 and 3 do not constitute a pitch pine/scrub oak barrens habitat. Thus, there are no potential adverse impacts to this the Albany Pine Bush Preserve as a result of the Project.

3.6 Nodding Trillium (*Trillium cernuum*)

3.6.1 Status and Presence On-site

Nodding trillium is a long-lived, woodland, perennial wildflower. This *Trillium* species exists from the maritime provinces in Canada, south to Virginia, and as far west as Saskatchewan and North and South Dakota. In New York State, this wildflower is considered “exploitably vulnerable.” Per the NYSDEC, an “exploitably vulnerable” plant is likely to become threatened in the near future throughout all or a significant portion of their ranges within the state if causal factors continue unchecked. The plant is not endangered or threatened nor of “special concern” in New York.

Nodding trillium (like all trilliums) emerge from the ground as a single stem which terminates in a series of three leaves. From below the three leaves hangs a single flower which itself has three

¹⁴ There are no “maritime” habitats in the region.

petals and three sepals. Nodding trillium flowers from spring through July depending on latitude and/or elevation. This species occurs in wet woods, wooded swamps, and various riparian habitats. It can also be found in deciduous woodlands as well as upland, mixed conifer-deciduous woodlands. During field investigations, two individuals of nodding trillium were observed at the top of the slope, associated with the linear, man-made wetland on Site 2.

3.6.2 Mitigative Measures

Nodding trillium is an “exploitably vulnerable” plant per the NYSDEC. While this does not offer the plant any direct protection, measures will be put in place to try to save it. Only two individuals of nodding trillium were located during B. Laing Associates, Inc., field investigations. These individuals will be carefully transplanted and moved to another appropriate location in the vicinity before redevelopment begins. The trillium will be relocated to a habitat type similar to that in which they were found and at a location which is to remain undeveloped.

3.6.3 Conclusion

Two individuals of nodding trillium were located on Site 2. This plant, is considered rare and “exploitably vulnerable”. Because the location where the trillium was found is slated for redevelopment, the trillium will be relocated to the edge of the storm basins on the southeastern corner of the Crossgates Mall. In this way, the project aims to not further reduce the overall population of this “exploitably vulnerable” wildflower.

4.0 CONCLUSION

B. Laing Associates, Inc., conducted thorough ecological assessments of Sites 2 and 3. During the review, no threatened, endangered species of special concern, rare or other ecologically significant ecological habitats were identified on the property. Sites 2 and 3 are dominated by an open but extensive canopy, secondary growth woodland in a dominantly upland condition. The vegetation is indicative of prior use as a horse farm, drainage, residential use and otherwise manipulated lands. Sites 2 and 3 are not within the Albany Pine Bush Preserve nor do they contain the flora and most of the fauna typically associated within the Albany Pine Bush Preserve. The Site is not included in the Albany Pine Bush 2017 Management Plan as having or serving any ecological function. B. Laing Associates, Inc. has analyzed the proposed action in respects to proposed environmental and ecological disturbance and has determined that no significant, environmental impacts will occur to wildlife species or flora as a result of the project.

A small strip of wetlands, approximately 10-20 feet wide and 350 feet long, $\pm 4,051$ square feet, are present on Site 2. These wetlands occur at the bottom of a steeply-sided, man-altered drainage ditch. They occur to the northeast of the old Rapp Road (where a drainage culvert occurs) and extend to the northeast. At their terminus, they flow into an underground drainage system which runs along Crossgates Mall Road. Wetlands on site and the project's impact to same are discussed separately in the Freshwater Wetland Delineation Report for this proposed redevelopment. Nodding trillium occurs near the wetland. While it is not endangered or threatened, it will be transplanted to an appropriate location prior to the Site's redevelopment.

APPENDIX A

PHOTOGRAPHS



Photo A1: Existing conditions on-site are consistent with secondary successional woodland.



Photo A2: Existing “abandoned” residential conditions on-site are consistent with secondary successional trees.



Photo B: Early spring conditions on Site 2 looking south along old Rapp Road



Photo C: Typical value/chroma of upland soils on-site observed approximately 18" below surface layer.



Photo D: Looking along the narrow wetland area at the northeastern corner of the site. Notice deep, older ditching and resulting steep topography.



Photo E: Looking along the narrow ditch at the southwest-central portion of the site. Notice older ditching.



Photo F: Drone photograph looking down and south at the wooded section of Site 2.



Photo G: Drone photograph looking down and east at Site 2 towards Site 3.

APPENDIX B

NYSDEC NY NATURAL HERITAGE CORRESPONDENCE

US FISH AND WILDLIFE SERVICE IPaC SEARCH RESULTS

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 | F: (518) 402-8925
www.dec.ny.gov

September 30, 2019

Brigid Meyers
B. Laing Associates
103 Fort Salonga Road, Suite 5
Fort Salonga, NY 11768

Re: Potential development of area bounded by Rapp Road, Western Avenue, and Crossgate Mall Road

County: Albany Town/City: City Of Albany

Dear Ms. Meyers:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

The Natural Heritage database has no records of rare or state-listed animals or plants or significant natural communities directly on the project site. However, we are not able to verify there are no listed species at the site. The absence of data does not necessarily mean that rare or state-listed species, significant natural communities, or other significant habitats do not exist on or adjacent to the proposed site. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities.

Less than .2 mile from the site is an area with pine bush habitat and associated rare species. Enclosed is a report of the rare or state-listed animals and plants and significant pine bush natural communities that our database indicates occur in the general vicinity of the project site. If suitable pine bush habitat occurs at the project, these species and communities may occur there also. Further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

Given the proximity of state-listed animals, New York Natural Heritage is not authorized to make an official determination on their presence or on any permit considerations for your project. For an official NYSDEC determination, please contact the Permits staff at the NYSDEC Region 4 Office at dep.r4@dec.ny.gov, 518-357-2449.

Sincerely,



Nicholas Conrad
Information Resources Coordinator
New York Natural Heritage Program

1124



The following rare and listed animals, and significant natural communities, have been documented within .2 mile of the project site in pine bush habitat.

For animals that are listed by NYS as Endangered, Threatened, or Special Concern, and/or that are federally listed: **For information regarding any permit considerations for the project, contact the NYSDEC Region 4 Office, Division of Environmental Permits, at dep.r4@dec.ny.gov, 518-357-2449.**

Animals listed by NYS as Endangered, Threatened, or Special Concern, and/or federally listed.

<i>COMMON NAME</i>	<i>SCIENTIFIC NAME</i>	<i>NY STATE LISTING</i>	<i>FEDERAL LISTING</i>
Butterflies			
Karner Blue	<i>Plebejus melissa samuelis</i>	Endangered	Endangered
Frosted Elfin	<i>Callophrys irus</i>	Threatened	
Reptiles			
Eastern Wormsnake	<i>Carphophis amoenus</i>	Special Concern	

Animals not listed by NYS, but are rare in New York and of conservation concern.

Butterflies			
Dusted Skipper	<i>Atrytonopsis hianna</i>	Unlisted	Imperiled in NYS
Moths			
Inland Barrens Buckmoth	<i>Hemileuca maia maia</i>	Special Concern	Critically Imperiled in NYS

State-significant natural communities of the Albany Pine Bush.

<i>COMMON NAME</i>	<i>HERITAGE CONSERVATION STATUS</i>
Pitch Pine-Scrub Oak Barrens	High Quality Occurrence of Rare Community Type and Globally Rare
Pitch Pine-Oak Forest	High Quality Occurrence of Rare Community Type
Successional Northern Sandplain Grassland	High Quality Occurrence of Uncommon Community Type

This report only includes records from the NY Natural Heritage database.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the rare animals and plants in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org.

Information about many of the natural community types in New York, including identification, dominant and characteristic vegetation, distribution, conservation, and management, is available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org. For descriptions of all community types, go to www.dec.ny.gov/animals/97703.html for Ecological Communities of New York State.

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

Albany County, New York



Local office

New York Ecological Services Field Office

☎ (607) 753-9334

📅 (607) 753-9699

3817 Luker Road

Cortland, NY 13045-9385

<http://www.fws.gov/northeast/nyfo/es/section7.htm>

Endangered species

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

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

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

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

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

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

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

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

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

Mammals

NAME

STATUS

Northern Long-eared Bat *Myotis septentrionalis*
No critical habitat has been designated for this species.
<https://ecos.fws.gov/ecp/species/9045>

Threatened

Insects

NAME

STATUS

Karner Blue Butterfly *Lycaeides melissa samuelis*
There is **proposed** critical habitat for this species. The location of the critical habitat is not available.
<https://ecos.fws.gov/ecp/species/6656>

Endangered

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 [below](#).

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

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.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 [E-bird data mapping tool](#) (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 (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Bald Eagle *Haliaeetus leucocephalus*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1626>

Breeds Dec 1 to Aug 31

Black-billed Cuckoo *Coccyzus erythrophthalmus*

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

<https://ecos.fws.gov/ecp/species/9399>

Breeds May 15 to Oct 10

Bobolink *Dolichonyx oryzivorus*

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

Breeds May 20 to Jul 31

Canada Warbler *Cardellina canadensis*

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

Breeds May 20 to Aug 10

<p>Dunlin <i>Calidris alpina arctica</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	Breeds elsewhere
<p>Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 1 to Aug 20
<p>Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680</p>	Breeds Jan 1 to Aug 31
<p>Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 1 to Jul 31
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 10 to Sep 10
<p>Semipalmated Sandpiper <i>Calidris pusilla</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds elsewhere
<p>Short-billed Dowitcher <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480</p>	Breeds elsewhere
<p>Snowy Owl <i>Bubo scandiacus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds elsewhere
<p>Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 10 to Aug 31

Probability of Presence Summary

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

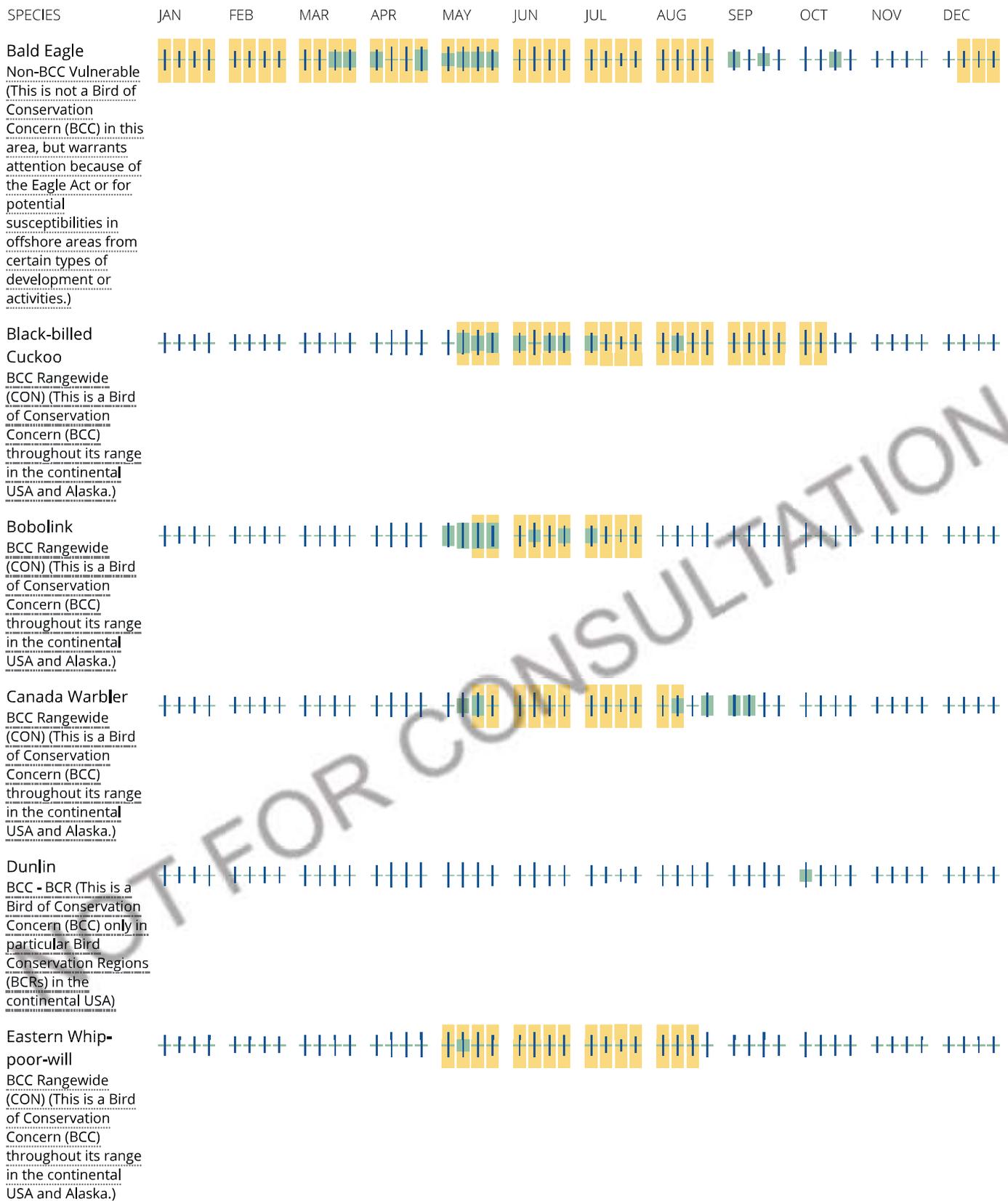
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

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

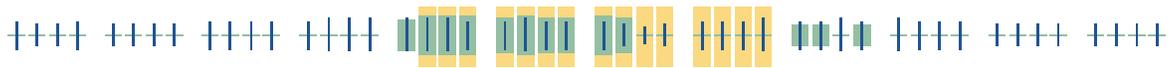
Survey Timeframe

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



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](#) and/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 migratory birds potentially occurring in my specified location?

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

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

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

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

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

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

How do I know if a bird is breeding, wintering, migrating or present year-round in my project 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 refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

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

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

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

Details about birds that are potentially affected by offshore projects

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

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

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

Facilities

National Wildlife Refuge lands

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

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

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

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

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

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

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

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

Data exclusions

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

Data precautions

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

NOT FOR CONSULTATION

APPENDIX C

PROPOSED SITE PLAN