

Appendix J-4
Wildlife Resources

Wildlife Resources

This appendix provides tables of those species of birds, and reptiles and amphibians (herpetofauna, or “herps”) as documented in New York State Department of Environmental Conservation’s (NYSDEC) 2000-2005 New York State Breeding Bird Atlas and 1990-1999 Herp Atlas as potentially occurring within the census block(s) in which of each of the four study areas is located. As part of the preparation for the Draft EIS, a wildlife ecologist conducted a survey of wildlife in the vicinity of the four study areas in July 29, 2016. Observations made during the July 2016 survey are summarized in the following sections.

A. I-81 VIADUCT STUDY AREA

BIRDS

The 2000-2005 New York State Breeding Bird Atlas documented 97 species as confirmed or probable/possible breeders within the three census blocks in which the I-81 Viaduct Study Area is located (Blocks 3976B, 4076A, and 4076C) (**Table 1**). These nine-square-mile census blocks (27 total square miles) span larger and less disturbed habitats, and different habitat types from those which are present in the vicinity of the I-81 Viaduct Study Area. As such, many species documented as present in the Atlas are not considered to have the potential to nest in the vicinity of the I-81 Viaduct Study Area because it offers minimal and low quality breeding habitat due to intensive urban development and high levels of noise and human activity.

Table 1

**Birds Documented by the 2000-2005 New York State Breeding Bird Atlas in
Census Blocks 3976B, 4076A, and 4076C**

Common Name	Scientific Name
Alder Flycatcher	<i>Empidonax alnorum</i>
American Crow	<i>Corvus brachyrhynchos</i>
American Goldfinch	<i>Spinus tristis</i>
American Kestrel	<i>Falco sparverius</i>
American Redstart	<i>Setophaga ruticilla</i>
American Robin	<i>Turdus migratorius</i>
Baltimore Oriole	<i>Icterus galbula</i>
Bank Swallow	<i>Riparia riparia</i>
Barn Swallow	<i>Hirundo rustica</i>
Belted Kingfisher	<i>Megasceryle alcyon</i>
Black-and-white Warbler	<i>Mniotilta varia</i>
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>
Black-capped Chickadee	<i>Poecile atricapillus</i>
Black-throated Green Warbler	<i>Dendroica virens</i>
Blue Jay	<i>Cyanocitta cristata</i>
Blue-gray Gnatcatcher	<i>Polioptila caerulea</i>

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Table 1 (cont'd)

**Birds Documented by the 2000-2005 New York State Breeding Bird Atlas in
Census Blocks 3976B, 4076A, and 4076C**

Common Name	Scientific Name
Blue-winged Warbler	<i>Vermivora pinus</i>
Brown Creeper	<i>Certhia americana</i>
Brown Thrasher	<i>Toxostoma rufum</i>
Brown-headed Cowbird	<i>Molothrus ater</i>
Canada Goose	<i>Branta canadensis</i>
Carolina Wren	<i>Thryothorus ludovicianus</i>
Cedar Waxwing	<i>Bombycilla cedrorum</i>
Chestnut-sided Warbler	<i>Dendroica pensylvanica</i>
Chimney Swift	<i>Chaetura pelagica</i>
Chipping Sparrow	<i>Spizella passerina</i>
Common Grackle	<i>Quiscalus quiscula</i>
Common Yellowthroat	<i>Geothlypis trichas</i>
Cooper's Hawk	<i>Accipiter cooperii</i>
Dark-eyed Junco	<i>Junco hyemalis</i>
Double-crested Cormorant	<i>Phalacrocorax auritus</i>
Downy Woodpecker	<i>Picoides pubescens</i>
Eastern Bluebird	<i>Sialia sialis</i>
Eastern Kingbird	<i>Tyrannus tyrannus</i>
Eastern Phoebe	<i>Sayornis phoebe</i>
Eastern Screech-Owl	<i>Megascops asio</i>
Eastern Towhee	<i>Pipilo erythrophthalmus</i>
Eastern Wood-Pewee	<i>Contopus virens</i>
European Starling	<i>Sturnus vulgaris</i>
Field Sparrow	<i>Spizella pusilla</i>
Fish Crow	<i>Corvus ossifragus</i>
Golden-crowned Kinglet	<i>Regulus satrapa</i>
Gray Catbird	<i>Dumetella carolinensis</i>
Great Blue Heron	<i>Ardea herodias</i>
Great Crested Flycatcher	<i>Myiarchus crinitus</i>
Green Heron	<i>Butorides virescens</i>
Hairy Woodpecker	<i>Picoides villosus</i>
Hooded Warbler	<i>Wilsonia citrina</i>
House Finch	<i>Carpodacus mexicanus</i>
House Sparrow	<i>Passer domesticus</i>
House Wren	<i>Troglodytes aedon</i>
Indigo Bunting	<i>Passerina cyanea</i>
Killdeer	<i>Charadrius vociferus</i>
Least Flycatcher	<i>Empidonax minimus</i>
Louisiana Waterthrush	<i>Seiurus motacilla</i>
Mallard	<i>Anas platyrhynchos</i>
Marsh Wren	<i>Cistothorus palustris</i>
Mourning Dove	<i>Zenaida macroura</i>
Mute Swan	<i>Cygnus olor</i>
Northern Cardinal	<i>Cardinalis cardinalis</i>
Northern Flicker	<i>Colaptes auratus</i>
Northern Mockingbird	<i>Mimus polyglottos</i>

Table 1 (cont'd)

**Birds Documented by the 2000-2005 New York State Breeding Bird Atlas in
Census Blocks 3976B, 4076A, and 4076C**

Common Name	Scientific Name
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>
Orchard Oriole	<i>Icterus spurius</i>
Osprey	<i>Pandion haliaetus</i>
Ovenbird	<i>Seiurus aurocapilla</i>
Peregrine Falcon	<i>Falco peregrinus</i>
Pileated Woodpecker	<i>Dryocopus pileatus</i>
Pine Warbler	<i>Dendroica pinus</i>
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>
Red-breasted Nuthatch	<i>Sitta canadensis</i>
Red-eyed Vireo	<i>Vireo olivaceus</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>
Red-winged Blackbird	<i>Agelaius phoeniceus</i>
Ring-necked Pheasant	<i>Phasianus colchicus</i>
Rock Pigeon	<i>Columba livia</i>
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>
Ruby-throated Hummingbird	<i>Archilochus colubris</i>
Savannah Sparrow	<i>Passerculus sandwichensis</i>
Scarlet Tanager	<i>Piranga olivacea</i>
Sharp-shinned Hawk	<i>Accipiter striatus</i>
Song Sparrow	<i>Melospiza melodia</i>
Sora	<i>Porzana carolina</i>
Spotted Sandpiper	<i>Actitis macularius</i>
Swamp Sparrow	<i>Melospiza georgiana</i>
Tree Swallow	<i>Tachycineta bicolor</i>
Tufted Titmouse	<i>Baeolophus bicolor</i>
Turkey Vulture	<i>Cathartes aura</i>
Warbling Vireo	<i>Vireo gilvus</i>
White-breasted Nuthatch	<i>Sitta carolinensis</i>
Wild Turkey	<i>Meleagris gallopavo</i>
Willow Flycatcher	<i>Empidonax traillii</i>
Wood Duck	<i>Aix sponsa</i>
Wood Thrush	<i>Hylocichla mustelina</i>
Yellow Warbler	<i>Dendroica petechia</i>
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>
Yellow-throated Vireo	<i>Vireo flavifrons</i>
Note: Boldface indicates the subset of species that is considered to have the potential to nest within the study area on the basis of their habitat associations and sensitivity to human disturbance (Poole 2005).	

On the basis of their habitat associations and general sensitivity to human disturbance (Poole 2005), only 57 of the 97 species documented by the Breeding Bird Atlas are considered to have the potential to nest within the vicinity of the I-81 Viaduct Study Area (see **Table 1**). The most substantive areas of habitat to support native breeding birds are the Oakwood Cemetery, the marshes bordering Ley Creek, and the stormwater management basins at the northern end of the I-81 Viaduct Study Area. Otherwise, the I-81 Viaduct

Study Area is dominated by impervious surfaces and only the most urban-adapted birds, such as the non-native house sparrow (*Passer domesticus*), European starling (*Sterna vulgaris*), and rock pigeon (*Columbia livia*), would be expected to nest in this area. The birds observed during the July 29, 2016 survey, which coincided with the breeding period of most bird species in the region, are listed in **Table 1**.

Oakwood Cemetery and the marshes at the north end of the I-81 Viaduct Study Area represent the most substantive overwintering and migration stopover habitat for birds within the I-81 Viaduct Study Area. Overwintering birds in these areas likely include common backyard birds, such as northern cardinal (*Cardinalis cardinalis*), blue jay (*Cyanocitta cristata*), white-throated sparrow (*Zonotrichia albicollis*), American goldfinch (*Spinus tristis*), house finch (*Carpodacus mexicanus*), downy woodpecker (*Picoides pubescens*), hairy woodpecker (*Picoides villosus*), and white-breasted nuthatch (*Sitta carolinensis*). In the more intensively developed portions of the I-81 Viaduct Study Area where there is little to no green space, the only birds expected to occur during the wintertime are the house sparrow, European starling, and rock pigeon. Human-modified habitats within cities are commonly used by an abundance of birds as stopover sites during spring and fall migration. Numerous species of birds have the potential to occur briefly in the vegetated areas during spring and fall, with the most species and the most individuals likely occurring in Oakwood Cemetery. Examples include ovenbird (*Seiurus aurocapilla*), hermit thrush (*Catharus guttatus*), yellow-rumped warbler (*Setophaga coronata*), American redstart (*Setophaga ruticilla*), magnolia warbler (*Setophaga magnolia*), black and white warbler (*Mniotilta varia*), and white-throated sparrow (*Zonotrichia albicollis*).

In addition, as described in **Appendix J-5**, the State-listed endangered peregrine falcon (*Falco peregrinus*) has been documented within the vicinity of the I-81 Viaduct Study Area. Therefore, the peregrine falcon has the potential to occur within the I-81 Viaduct Study Area.

MAMMALS

The majority of the I-81 Viaduct Study Area is intensively developed and covered by impervious surfaces and likely supports the most urban-adapted generalist species of mammals. These include the eastern gray squirrel (*Sciurus carolinensis*), Norway rat (*Rattus norvegicus*), raccoon (*Procyon lotor*), house mouse (*Mus musculus*), and feral cat (*Felis domesticus*). Oakwood Cemetery may support some additional mammals, including red fox (*Vulpes vulpes*), eastern coyote (*Canis latrans*), white-footed mouse (*Peromyscus leucopus*), groundhog (*Marmota monax*), striped skunk (*Mephitis*), Virginia opossum (*Didelphis virginiana*), white-tailed deer (*Odocoileus virginianus*), big brown bat (*Eptesicus fuscus*), eastern red bat (*Lasiurus borealis*), hoary bat (*Lasiurus cinereus*), and silver-haired bat (*Lasionycteris noctivagans*). Muskrats (*Ondatra zibethicus*) are expected to occur within Ley Creek and the stormwater management basins in the vicinity of the north end of the I-81 Viaduct Study Area. White-tailed deer and eastern gray squirrel were the only mammal species observed during the July 29, 2016 survey.

In addition, as described in **Appendix J-5**, the State- and Federally-listed endangered Indiana bat (*Myotis sodalis*) and the State- and Federally-listed threatened northern long-eared

bat (*Myotis septentrionalis*) have been documented as having the potential to occur within the vicinity of the I-81 Viaduct Study Area. Reptiles and Amphibians

The NYSDEC Herp Atlas Project, a survey conducted from 1990 to 1999 to document the geographic distribution of New York's reptile and amphibian species, recorded 21 species in the census block in which the I-81 Viaduct Study Area is located (Syracuse West Quadrangle) (Table 2).

Table 2
Reptiles and Amphibians Documented by the NYSDEC Herp
Atlas Project in the Syracuse West Quadrangle

Common Name	Scientific Name
Spotted salamander	<i>Ambystoma maculatum</i>
Eastern American toad	<i>Bufo a. americanus</i>
Common snapping turtle	<i>Chelydra s. serpentina</i>
Painted turtle	<i>Chrysemys picta</i>
Wood turtle †	<i>Clemmys insculpta</i> †
Northern dusky salamander	<i>Desmognathus fuscus</i>
Northern ringneck snake	<i>Diadophis punctatus edwardsii</i>
Northern two-lined salamander	<i>Eurycea bislineata</i>
Gray treefrog	<i>Hyla versicolor</i>
Eastern milk snake	<i>Lampropeltis t. triangulum</i>
Northern water snake	<i>Nerodia s. sipedon</i>
Red-spotted newt	<i>Notophthalmus v. viridescens</i>
Northern redback salamander	<i>Plethodon c. cinereus</i>
Northern slimy salamander	<i>Plethodon glutinosus</i>
Northern spring peeper	<i>Pseudacris c. crucifer</i>
Green frog	<i>Rana clamitans melanota</i>
Northern leopard frog	<i>Rana pipiens</i>
Common musk turtle	<i>Sternotherus odoratus</i>
Northern brown snake	<i>Storeria d. dekayi</i>
Northern redbelly snake	<i>Storeria o. occipitomaculata</i>
Common garter snake	<i>Thamnophis sirtalis</i>
Notes: Boldface indicates the subset of species that is considered to have the potential to nest within the study area on the basis of their habitat associations and sensitivity to human disturbance (Poole 2005). † denotes state-listed species of special concern.	

Aside from Ley Creek, the I-81 Viaduct Study Area lacks the freshwater habitats that are needed to support most of the reptile and amphibian species of New York State. The only areas where reptiles or amphibians have the potential to occur are Oakwood Cemetery and Ley Creek and the stormwater management basins at the northern end of the area. Of the 21 species documented by the Herp Atlas, only the northern red-backed salamander (*Plethodon cinereus*), eastern American toad (*Anaxyrus americanus*), spring peeper (*Pseudacris crucifer*), green frog (*Rana clamitans melanota*), common snapping turtle (*Chelydra serpentina*), northern brown snake (*Storeria dekayi*), and common garter snake (*Thamnophis sirtalis*) potentially occur within the I-81 Viaduct Study Area (Gibbs et al. 2007); however, no reptiles or amphibians were observed during the July 29, 2016 survey. Furthermore, the State-listed endangered and Federally-listed threatened eastern massasauga (*Sistrurus*

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catenatus) has been documented as having the potential to occur within the vicinity of the I-81 Viaduct Study Area.

In addition, as described in **Appendix J-5**, the State-listed threatened lake sturgeon (*Acipenser fulvescens*) has been documented in surface waters of Onondaga Lake, Onondaga Creek, and Ley Creek, which are within the I-81 Viaduct Study Area. As such, lake sturgeon has the potential to occur within the I-81 Study Area.

B. I-481 SOUTH STUDY AREA

BIRDS

The 2000-2005 New York State Breeding Bird Atlas documented 80 species as confirmed or probable/possible breeders within the census block in which the I-481 South Study Area is located (Block 4076C) (**Table 3**).

Table 3
Birds Documented by the 2000-2005 New York State Breeding Bird Atlas in
Census Block 4076C

Common Name	Scientific Name
Canada Goose	<i>Branta canadensis</i>
Mute Swan	<i>Cygnus olor</i>
Mallard	<i>Anas platyrhynchos</i>
Wild Turkey	<i>Meleagris gallopavo</i>
Great Blue Heron	<i>Ardea herodias</i>
Green Heron	<i>Butorides virescens</i>
Turkey Vulture	<i>Cathartes aura</i>
Osprey	<i>Pandion haliaetus</i>
Sharp-shinned Hawk	<i>Accipiter striatus</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>
American Kestrel	<i>Falco sparverius</i>
Killdeer	<i>Charadrius vociferus</i>
Spotted Sandpiper	<i>Actitis macularius</i>
Rock Pigeon	<i>Columba livia</i>
Mourning Dove	<i>Zenaida macroura</i>
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>
Eastern Screech-Owl	<i>Megascops asio</i>
Chimney Swift	<i>Chaetura pelagica</i>
Ruby-throated Hummingbird	<i>Archilochus colubris</i>
Belted Kingfisher	<i>Megaceryle alcyon</i>
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>
Downy Woodpecker	<i>Picoides pubescens</i>
Hairy Woodpecker	<i>Picoides villosus</i>
Northern Flicker	<i>Colaptes auratus</i>
Pileated Woodpecker	<i>Dryocopus pileatus</i>
Eastern Wood-Pewee	<i>Contopus virens</i>
Eastern Phoebe	<i>Sayornis phoebe</i>

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Table 3 (cont'd)
Birds Documented by the 2000-2005 New York State Breeding Bird Atlas in
Census Block 4076C

Common Name	Scientific Name
Great Crested Flycatcher	<i>Myiarchus crinitus</i>
Eastern Kingbird	<i>Tyrannus tyrannus</i>
Warbling Vireo	<i>Vireo gilvus</i>
Red-eyed Vireo	<i>Vireo olivaceus</i>
Blue Jay	<i>Cyanocitta cristata</i>
American Crow	<i>Corvus brachyrhynchos</i>
Fish Crow	<i>Corvus ossifragus</i>
Tree Swallow	<i>Tachycineta bicolor</i>
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>
Bank Swallow	<i>Riparia riparia</i>
Barn Swallow	<i>Hirundo rustica</i>
Black-capped Chickadee	<i>Poecile atricapillus</i>
Tufted Titmouse	<i>Baeolophus bicolor</i>
Red-breasted Nuthatch	<i>Sitta canadensis</i>
White-breasted Nuthatch	<i>Sitta carolinensis</i>
Carolina Wren	<i>Thryothorus ludovicianus</i>
House Wren	<i>Troglodytes aedon</i>
Marsh Wren	<i>Cistothorus palustris</i>
Golden-crowned Kinglet	<i>Regulus satrapa</i>
Blue-gray Gnatcatcher	<i>Poliophtila caerulea</i>
Eastern Bluebird	<i>Sialia sialis</i>
Wood Thrush	<i>Hylocichla mustelina</i>
American Robin	<i>Turdus migratorius</i>
Gray Catbird	<i>Dumetella carolinensis</i>
Northern Mockingbird	<i>Mimus polyglottos</i>
European Starling	<i>Sturnus vulgaris</i>
Cedar Waxwing	<i>Bombicilla cedrorum</i>
Yellow Warbler	<i>Dendroica petechia</i>
Chestnut-sided Warbler	<i>Dendroica pensylvanica</i>
Pine Warbler	<i>Dendroica pinus</i>
American Redstart	<i>Setophaga ruticilla</i>
Ovenbird	<i>Seiurus aurocapilla</i>
Louisiana Waterthrush	<i>Seiurus motacilla</i>
Common Yellowthroat	<i>Geothlypis trichas</i>
Hooded Warbler	<i>Wilsonia citrina</i>
Eastern Towhee	<i>Pipilo erythrophthalmus</i>
Chipping Sparrow	<i>Spizella passerina</i>
Field Sparrow	<i>Spizella pusilla</i>
Song Sparrow	<i>Melospiza melodia</i>
Swamp Sparrow	<i>Melospiza georgiana</i>
Dark-eyed Junco	<i>Junco hyemalis</i>
Scarlet Tanager	<i>Piranga olivacea</i>
Northern Cardinal	<i>Cardinalis cardinalis</i>
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>
Indigo Bunting	<i>Passerina cyanea</i>
Red-winged Blackbird	<i>Agelaius phoeniceus</i>

Table 3 (cont'd)
Birds Documented by the 2000-2005 New York State Breeding Bird Atlas in
Census Block 4076C

Common Name	Scientific Name
Common Grackle	<i>Quiscalus quiscula</i>
Brown-headed Cowbird	<i>Molothrus ater</i>
Baltimore Oriole	<i>Icterus galbula</i>
House Finch	<i>Carpodacus mexicanus</i>
American Goldfinch	<i>Spinus tristis</i>
House Sparrow	<i>Passer domesticus</i>
Note: Boldface indicates the subset of species that is considered to have the potential to nest within the study area on the basis of their habitat associations and sensitivity to human disturbance (Poole 2005).	

The I-481 South Study Area is heavily developed, and open space available for breeding birds is primarily limited to a long, linear woodland fragment bordering the east and west sides of I-81 south of East Seneca Turnpike (much of which is within Heath Park) and successional shrubland and southern successional hardwoods forest surrounding the utility corridor between Rock Cut Road and East Seneca Turnpike. Of the 80 species documented in the Atlas, 55 are expected to nest in the vicinity of the I-481 South Study Area (see **Table 3**). Birds observed within the I-481 South Study Area during the July 29, 2016 survey are listed in **Table 3**.

Birds that are expected to occur in the I-481 South Study Area during the winter, primarily in Heath Park and in the vicinity of the utility corridor to the south of Rock Cut Road, include northern cardinal, blue jay, white-throated sparrow, American goldfinch, house finch, downy woodpecker, hairy woodpecker, and white-breasted nuthatch. Examples of migrating birds that likely occur within the I-481 South Study Area during spring and fall include ovenbird, Swainson's thrush, hermit thrush, yellow-rumped warbler, American redstart, magnolia warbler, black and white warbler, chestnut-sided warbler (*Setophaga pennsylvanica*), prairie warbler (*Setophaga discolor*), indigo bunting (*Passerina cyanea*), and white-throated sparrow.

MAMMALS

The majority of the I-481 South Study Area is developed with residential and commercial buildings and transportation infrastructure. Eastern gray squirrel, Norway rat, raccoon, house mouse, and feral cat are the only mammals that likely occur in the portions of the I-481 South Study Area that have minimal or no vegetation cover. In Heath Park and the additional woodland bordering I-81, south of East Seneca Turnpike, and/or in the successional shrubland/successional southern hardwoods forest to the south of Rock Cut Road, additional mammals have the potential to occur, including red fox, eastern coyote, white-footed mouse, groundhog, striped skunk, Virginia opossum, white-tailed deer, big brown bat, eastern red bat, hoary bat, and silver-haired bat. Eastern gray squirrel was the only mammal species observed in the I-481 South Study Area during the July 29, 2016 survey.

In addition, as described in **Appendix J-5**, the State- and Federally-listed endangered Indiana bat and the State- and Federally-listed threatened northern long-eared bat have been documented as having the potential to occur within the vicinity of the I-481 South Study Area.

REPTILES AND AMPHIBIANS

The NYSDEC Herp Atlas Project, a survey conducted from 1990 to 1999 to document the geographic distribution of New York's reptile and amphibian species, recorded 24 species in the census blocks in which the I-481 South Study Area is located (Syracuse West and South Onondaga Quadrangles) (**Tables 4 and 5**).

Table 4
Reptiles and Amphibians Documented by the NYSDEC Herp
Atlas Project in the Syracuse West Quadrangle

Common Name	Scientific Name
Spotted salamander	<i>Ambystoma maculatum</i>
Eastern American toad	<i>Bufo a. americanus</i>
Common snapping turtle	<i>Chelydra s. serpentina</i>
Painted turtle	<i>Chrysemys picta</i>
Wood turtle †	<i>Clemmys insculpta</i> †
Northern dusky salamander	<i>Desmognathus fuscus</i>
Northern ringneck snake	<i>Diadophis punctatus edwardsii</i>
Northern two-lined salamander	<i>Eurycea bislineata</i>
Gray treefrog	<i>Hyla versicolor</i>
Eastern milk snake	<i>Lampropeltis t. triangulum</i>
Northern water snake	<i>Nerodia s. sipedon</i>
Red-spotted newt	<i>Notophthalmus v. viridescens</i>
Northern redback salamander	<i>Plethodon c. cinereus</i>
Northern slimy salamander	<i>Plethodon glutinosus</i>
Northern spring peeper	<i>Pseudacris c. crucifer</i>
Green frog	<i>Rana clamitans melanota</i>
Northern leopard frog	<i>Rana pipiens</i>
Common musk turtle	<i>Sternotherus odoratus</i>
Northern brown snake	<i>Storeria d. dekayi</i>
Northern redbelly snake	<i>Storeria o. occipitomaculata</i>
Common garter snake	<i>Thamnophis sirtalis</i>
Notes: Boldface indicates the subset of species that is considered to have the potential to nest within the study area on the basis of their habitat associations and sensitivity to human disturbance (Poole 2005). † denotes state-listed species of special concern.	

Table 5

**Reptiles and Amphibians Documented by the NYSDEC Herp
Atlas Project in the South Onondaga Quadrangle**

Common Name	Scientific Name
Spotted salamander	<i>Ambystoma maculatum</i>
Eastern American toad	<i>Bufo a. americanus</i>
Common snapping turtle	<i>Chelydra s. serpentina</i>
Painted turtle	<i>Chrysemys picta</i>
Northern dusky salamander	<i>Desmognathus fuscus</i>
Allegheny dusky salamander	<i>Desmognathus ochrophaeus</i>
Northern ringneck snake	<i>Diadophis punctatus edwardsii</i>
Northern two-lined salamander	<i>Eurycea bislineata</i>
Eastern milk snake	<i>Lampropeltis t. triangulum</i>
Red-spotted newt	<i>Notophthalmus v. viridescens</i>
Northern redback salamander	<i>Plethodon c. cinereus</i>
Northern slimy salamander	<i>Plethodon glutinosus</i>
Northern spring peeper	<i>Pseudacris c. crucifer</i>
Green frog	<i>Rana clamitans melanota</i>
Pickerel frog	<i>Rana palustris</i>
Northern leopard frog	<i>Rana pipiens</i>
Wood frog	<i>Rana sylvatica</i>
Common garter snake	<i>Thamnophis sirtalis</i>
Note: Boldface indicates the subset of species that is considered to have the potential to nest within the study area on the basis of their habitat associations and sensitivity to human disturbance (Poole 2005).	

The I-481 South Study Area lacks the freshwater habitats needed to support most of the reptile and amphibian species of New York State (Gibbs et al. 2007). In addition, most of the area is heavily developed and is unsuitable habitat for reptiles and amphibians. Of the 21 species identified in the census blocks of the Herp Atlas Project, only the northern redbacked salamander, eastern American toad, northern brown snake, and ring-necked snake (*Diadophis punctatus*) are expected to occur within the area on the basis of their habitat associations and sensitivity to disturbance. Heath Park and the additional woodland bordering I-81, south of East Seneca Turnpike, and the successional shrubland/successional southern hardwoods forest to the south of Rock Cut Road are the only places within the I-481 South Study Area in which any of these species would be expected to occur.

In addition, as described in **Appendix J-5**, the State-listed endangered and Federally-listed threatened eastern massasauga has been documented as having the potential to occur within the vicinity of the I-481 South Study Area.

C. I-481 EAST STUDY AREA

BIRDS

The 2000-2005 New York State Breeding Bird Atlas documented 89 species as confirmed or probable/possible breeders within the census blocks in which the I-481 East Study Area is located (Blocks 4076B and 4077D) (Table 6).

Table 6

**Birds Documented by the 2000-2005 New York State Breeding
Bird Atlas in Census Blocks 4076B and 4077D**

Common Name	Scientific Name
American Crow	<i>Corvus brachyrhynchos</i>
American Goldfinch	<i>Spinus tristis</i>
American Kestrel	<i>Falco sparverius</i>
American Redstart	<i>Setophaga ruticilla</i>
American Robin	<i>Turdus migratorius</i>
American Woodcock	<i>Scolopax minor</i>
Baltimore Oriole	<i>Icterus galbula</i>
Bank Swallow	<i>Riparia riparia</i>
Barn Swallow	<i>Hirundo rustica</i>
Belted Kingfisher	<i>Megaceryle alcyon</i>
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>
Black-capped Chickadee	<i>Poecile atricapillus</i>
Black-throated Green Warbler	<i>Dendroica virens</i>
Blue Jay	<i>Cyanocitta cristata</i>
Blue-gray Gnatcatcher	<i>Poliophtila caerulea</i>
Bobolink	<i>Dolichonyx oryzivorus</i>
Brown Creeper	<i>Certhia americana</i>
Brown-headed Cowbird	<i>Molothrus ater</i>
Canada Goose	<i>Branta canadensis</i>
Carolina Wren	<i>Thryothorus ludovicianus</i>
Cedar Waxwing	<i>Bombycilla cedrorum</i>
Chestnut-sided Warbler	<i>Dendroica pensylvanica</i>
Chimney Swift	<i>Chaetura pelagica</i>
Chipping Sparrow	<i>Spizella passerina</i>
Common Grackle	<i>Quiscalus quiscula</i>
Common Merganser	<i>Mergus merganser</i>
Common Yellowthroat	<i>Geothlypis trichas</i>
Downy Woodpecker	<i>Picoides pubescens</i>
Eastern Bluebird	<i>Sialia sialis</i>
Eastern Kingbird	<i>Tyrannus tyrannus</i>
Eastern Meadowlark	<i>Sturnella magna</i>
Eastern Phoebe	<i>Sayornis phoebe</i>
Eastern Towhee	<i>Pipilo erythrophthalmus</i>
Eastern Wood-Pewee	<i>Contopus virens</i>
European Starling	<i>Sturnus vulgaris</i>
Field Sparrow	<i>Spizella pusilla</i>
Fish Crow	<i>Corvus ossifragus</i>

Table 6 (cont'd)

**Birds Documented by the 2000-2005 New York State Breeding
Bird Atlas in Census Blocks 4076B and 4077D**

Common Name	Scientific Name
Grasshopper Sparrow	<i>Ammodramus savannarum</i>
Gray Catbird	<i>Dumetella carolinensis</i>
Great Blue Heron	<i>Ardea herodias</i>
Great Crested Flycatcher	<i>Myiarchus crinitus</i>
Great Horned Owl	<i>Bubo virginianus</i>
Green Heron	<i>Butorides virescens</i>
Hairy Woodpecker	<i>Picoides villosus</i>
House Finch	<i>Carpodacus mexicanus</i>
House Sparrow	<i>Passer domesticus</i>
House Wren	<i>Troglodytes aedon</i>
Indigo Bunting	<i>Passerina cyanea</i>
Killdeer	<i>Charadrius vociferus</i>
Least Flycatcher	<i>Empidonax minimus</i>
Mallard	<i>Anas platyrhynchos</i>
Mourning Dove	<i>Zenaida macroura</i>
Northern Cardinal	<i>Cardinalis cardinalis</i>
Northern Flicker	<i>Colaptes auratus</i>
Northern Mockingbird	<i>Mimus polyglottos</i>
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>
Northern Waterthrush	<i>Seiurus noveboracensis</i>
Osprey	<i>Pandion haliaetus</i>
Pileated Woodpecker	<i>Dryocopus pileatus</i>
Purple Finch	<i>Carpodacus purpureus</i>
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>
Red-breasted Nuthatch	<i>Sitta canadensis</i>
Red-eyed Vireo	<i>Vireo olivaceus</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>
Red-winged Blackbird	<i>Agelaius phoeniceus</i>
Ring-billed Gull	<i>Larus delawarensis</i>
Rock Pigeon	<i>Columba livia</i>
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>
Ruby-throated Hummingbird	<i>Archilochus colubris</i>
Ruffed Grouse	<i>Bonasa umbellus</i>
Savannah Sparrow	<i>Passerculus sandwichensis</i>
Scarlet Tanager	<i>Piranga olivacea</i>
Sharp-shinned Hawk	<i>Accipiter striatus</i>
Song Sparrow	<i>Melospiza melodia</i>
Spotted Sandpiper	<i>Actitis macularius</i>
Swamp Sparrow	<i>Melospiza georgiana</i>
Tree Swallow	<i>Tachycineta bicolor</i>
Tufted Titmouse	<i>Baeolophus bicolor</i>
Turkey Vulture	<i>Cathartes aura</i>
Vesper Sparrow	<i>Poocetes gramineus</i>
Warbling Vireo	<i>Vireo gilvus</i>
White-breasted Nuthatch	<i>Sitta carolinensis</i>
Wild Turkey	<i>Meleagris gallopavo</i>

Table 6 (cont'd)
Birds Documented by the 2000-2005 New York State Breeding
Bird Atlas in Census Blocks 4076B and 4077D

Common Name	Scientific Name
Willow Flycatcher	<i>Empidonax traillii</i>
Wood Duck	<i>Aix sponsa</i>
Wood Thrush	<i>Hylocichla mustelina</i>
Yellow Warbler	<i>Dendroica petechia</i>
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>
Notes: Boldface indicates the subset of species that is considered to have the potential to nest within the study area on the basis of their habitat associations and sensitivity to human disturbance (Poole 2005).	

The southern end of the I-481 East Study Area, south of the I-481 interchange with Kirkville Road, is bordered by mature woodland and a large freshwater wetland that is fed by Buttermilk Creek (located outside and to the east of the I-481 East Study Area). This freshwater wetland is capable of supporting numerous wetland and forest bird species, although noise and visual disturbances from the elevated roadway of I-481, which passes through the area, diminish its suitability for more sensitive species. The northern segment of the I-481 East Study Area is bordered to the west by development and to the east by a narrow linear woodland fragment that is closely bounded by I-481 on one side and Pheasant Road on the other. This area represents suitable nesting habitat for few species of birds other than disturbance-tolerant generalists. Of the 89 species documented by the Breeding Bird Atlas, 76 would be expected to nest within the I-481 East Study Area (see **Table 6**). The majority of these would occur at the southern end of the I-481 East Study Area. Birds observed during the July 29, 2016 survey are listed in **Table 6**.

Birds that may occur in the I-481 East Study Area during the winter include common backyard birds, such as downy woodpecker, hairy woodpecker, and white-breasted nuthatch. Examples of migrating birds that likely occur within the I-481 East Study Area during spring and fall include ovenbird, Swainson's thrush, hermit thrush, yellow-rumped warbler, American redstart, magnolia warbler, black and white warbler, and white-throated sparrow. Some migratory waterfowl, such as northern shoveler (*Anas chryseata*), blue-winged teal (*Anas discors*), and redhead (*Aythya americana*), may also occur during fall migration in the open waters of the freshwater wetland bordering the southern end of the I-481 East Study Area.

MAMMALS

Mammals that are expected to occur in the I-481 East Study Area include eastern gray squirrel, Norway rat, raccoon, house mouse, white-tailed deer, muskrat, groundhog, striped skunk, Virginia opossum, feral cat, red fox, eastern coyote, white-footed mouse, big brown bat, eastern red bat, hoary bat, and silver-haired bat. American beaver (*Castor canadensis*) and mink (*Neovison vison*) are also considered to have the potential to occur within the open

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wetlands fed by Buttermilk Creek. Muskrat was the only mammal observed during the July 29, 2016 survey.

In addition, as described in **Appendix J-5**, the State- and Federally-listed endangered Indiana bat and the State- and Federally-listed threatened northern long-eared bat have been documented as having the potential to occur within the vicinity of the I-481 East Study Area.

REPTILES AND AMPHIBIANS

The NYSDEC Herp Atlas Project, a survey conducted from 1990 to 1999 to document the geographic distribution of New York's reptile and amphibian species, recorded 19 species in the census blocks in which the I-481 East Study Area is located (Syracuse East Quadrangle) (**Table 7**).

Table 7

**Reptiles and Amphibians Documented by the NYSDEC Herp
Atlas Project in the Syracuse East Quadrangle**

Common Name	Scientific Name
Spotted salamander	<i>Ambystoma maculatum</i>
Eastern American toad	<i>Bufo a. americanus</i>
Common snapping turtle	<i>Chelydra s. serpentina</i>
Painted turtle	<i>Chrysemys picta</i>
Northern ringneck snake	<i>Diadophis punctatus edwardsii</i>
Northern two-lined salamander	<i>Eurycea bislineata</i>
Gray treefrog	<i>Hyla versicolor</i>
Eastern milk snake	<i>Lampropeltis t. triangulum</i>
Northern water snake	<i>Nerodia s. sipedon</i>
Red-spotted newt	<i>Notophthalmus v. viridescens</i>
Northern redback salamander	<i>Plethodon c. cinereus</i>
Northern slimy salamander	<i>Plethodon glutinosus</i>
Northern spring peeper	<i>Pseudacris c. crucifer</i>
Bullfrog	<i>Rana catesbeiana</i>
Green frog	<i>Rana clamitans melanota</i>
Pickerel frog	<i>Rana palustris</i>
Northern leopard frog	<i>Rana pipiens</i>
Northern brown snake	<i>Storeria d. dekayi</i>
Common garter snake	<i>Thamnophis sirtalis</i>
Note:	Boldface indicates the subset of species that is considered to have the potential to nest within the study area on the basis of their habitat associations and sensitivity to human disturbance (Poole 2005).

Of the 19 species identified in the census blocks of the Herp Atlas Project, only red-spotted newt (*Notophthalmus viridescens*), northern red-backed salamander, northern two-lined salamander (*Eurycea bislineata*), eastern American toad, gray tree frog (*Hyla versicolor*), spring peeper, bullfrog (*Rana catesbeiana*), green frog, northern leopard frog (*Rana pipiens*), common snapping turtle, painted turtle (*Chrysemys picta*), northern water snake (*Nerodia sipedon*), and common garter snake are considered to have the potential to occur within the area on the basis of their habitat associations and tolerance of disturbance. Most of these species would

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likely occur in the wetland associated with Buttermilk Creek (Wetland E-5 as shown in **Appendix J-2**). During the July 29, 2016 survey, green frog, northern leopard frog, bullfrog, painted turtle, and common snapping turtle were observed.

In addition, as described in Appendix J-5, the State-listed endangered and Federally-listed threatened eastern massasauga has been documented as having the potential to occur within the vicinity, of the I-481 East Study Area.I-481 North Study Area

BIRDS

The 2000-2005 New York State Breeding Bird Atlas documented 106 species as confirmed or probable/possible breeders within the census blocks in which the I-481 North Study Area is located (Blocks 4077A and 4077B) (**Table 8**).

Table 8

**Birds Documented by the 2000-2005 New York State Breeding Bird Atlas in
Census Blocks 4077A and 4077B**

Common Name	Scientific Name
Canada Goose	<i>Branta canadensis</i>
Wood Duck	<i>Aix sponsa</i>
American Black Duck	<i>Anas rubripes</i>
Mallard	<i>Anas platyrhynchos</i>
Wild Turkey	<i>Meleagris gallopavo</i>
Pied-billed Grebe	<i>Podilymbus podiceps</i>
American Bittern	<i>Botaurus lentiginosus</i>
Least Bittern	<i>Ixobrychus exilis</i>
Great Blue Heron	<i>Ardea herodias</i>
Green Heron	<i>Butorides virescens</i>
Sharp-shinned Hawk	<i>Accipiter striatus</i>
Cooper's Hawk	<i>Accipiter cooperii</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>
Killdeer	<i>Charadrius vociferus</i>
Spotted Sandpiper	<i>Actitis macularius</i>
Wilson's Snipe	<i>Gallinago delicata</i>
American Woodcock	<i>Scolopax minor</i>
Rock Pigeon	<i>Columba livia</i>
Mourning Dove	<i>Zenaida macroura</i>
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>
Eastern Screech-Owl	<i>Megascops asio</i>
Great Horned Owl	<i>Bubo virginianus</i>
Chimney Swift	<i>Chaetura pelagica</i>
Belted Kingfisher	<i>Megaceryle alcyon</i>
Downy Woodpecker	<i>Picoides pubescens</i>
Hairy Woodpecker	<i>Picoides villosus</i>

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Table 8 (cont'd)

**Birds Documented by the 2000-2005 New York State Breeding Bird Atlas in
Census Blocks 4077A and 4077B**

Common Name	Scientific Name
Northern Flicker	<i>Colaptes auratus</i>
Pileated Woodpecker	<i>Dryocopus pileatus</i>
Eastern Wood-Pewee	<i>Contopus virens</i>
Willow Flycatcher	<i>Empidonax traillii</i>
Least Flycatcher	<i>Empidonax minimus</i>
Eastern Phoebe	<i>Sayornis phoebe</i>
Great Crested Flycatcher	<i>Myiarchus crinitus</i>
Eastern Kingbird	<i>Tyrannus tyrannus</i>
Warbling Vireo	<i>Vireo gilvus</i>
Blue Jay	<i>Cyanocitta cristata</i>
American Crow	<i>Corvus brachyrhynchos</i>
Tree Swallow	<i>Tachycineta bicolor</i>
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>
Barn Swallow	<i>Hirundo rustica</i>
Black-capped Chickadee	<i>Poecile atricapillus</i>
Tufted Titmouse	<i>Baeolophus bicolor</i>
White-breasted Nuthatch	<i>Sitta carolinensis</i>
Brown Creeper	<i>Certhia americana</i>
Carolina Wren	<i>Thryothorus ludovicianus</i>
House Wren	<i>Troglodytes aedon</i>
Marsh Wren	<i>Cistothorus palustris</i>
Blue-gray Gnatcatcher	<i>Poliophtila caerulea</i>
Wood Thrush	<i>Hylocichla mustelina</i>
American Robin	<i>Turdus migratorius</i>
Gray Catbird	<i>Dumetella carolinensis</i>
Northern Mockingbird	<i>Mimus polyglottos</i>
European Starling	<i>Sturnus vulgaris</i>
Cedar Waxwing	<i>Bombycilla cedrorum</i>
Yellow Warbler	<i>Dendroica petechia</i>
Chestnut-sided Warbler	<i>Dendroica pensylvanica</i>
American Redstart	<i>Setophaga ruticilla</i>
Mourning Warbler	<i>Oporornis philadelphia</i>
Common Yellowthroat	<i>Geothlypis trichas</i>
Eastern Towhee	<i>Pipilo erythrophthalmus</i>
Chipping Sparrow	<i>Spizella passerina</i>
Song Sparrow	<i>Melospiza melodia</i>
Swamp Sparrow	<i>Melospiza georgiana</i>
Dark-eyed Junco	<i>Junco hyemalis</i>
Northern Cardinal	<i>Cardinalis cardinalis</i>
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>
Indigo Bunting	<i>Passerina cyanea</i>
Bobolink	<i>Dolichonyx oryzivorus</i>
Red-winged Blackbird	<i>Agelaius phoeniceus</i>
Common Grackle	<i>Quiscalus quiscula</i>

Table 8 (cont'd)
Birds Documented by the 2000-2005 New York State Breeding Bird Atlas in
Census Blocks 4077A and 4077B

Common Name	Scientific Name
Brown-headed Cowbird	<i>Molothrus ater</i>
Baltimore Oriole	<i>Icterus galbula</i>
Purple Finch	<i>Carpodacus purpureus</i>
House Finch	<i>Carpodacus mexicanus</i>
American Goldfinch	<i>Spinus tristis</i>
House Sparrow	<i>Passer domesticus</i>
Turkey Vulture	<i>Cathartes aura</i>
Northern Harrier	<i>Circus cyaneus</i>
Red-shouldered Hawk	<i>Buteo lineatus</i>
American Kestrel	<i>Falco sparverius</i>
Barred Owl	<i>Strix varia</i>
Ruby-throated Hummingbird	<i>Archilochus colubris</i>
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>
Yellow-throated Vireo	<i>Vireo flavifrons</i>
Blue-headed Vireo	<i>Vireo solitarius</i>
Red-eyed Vireo	<i>Vireo olivaceus</i>
Purple Martin	<i>Progne subis</i>
Bank Swallow	<i>Riparia riparia</i>
Winter Wren	<i>Troglodytes troglodytes</i>
Veery	<i>Catharus fuscescens</i>
Hermit Thrush	<i>Catharus guttatus</i>
Blue-winged Warbler	<i>Vermivora pinus</i>
Magnolia Warbler	<i>Dendroica magnolia</i>
Black-throated Blue Warbler	<i>Dendroica caerulescens</i>
Black-throated Green Warbler	<i>Dendroica virens</i>
Cerulean Warbler	<i>Dendroica cerulea</i>
Ovenbird	<i>Seiurus aurocapilla</i>
Northern Waterthrush	<i>Seiurus noveboracensis</i>
Canada Warbler	<i>Wilsonia canadensis</i>
Field Sparrow	<i>Spizella pusilla</i>
Savannah Sparrow	<i>Passerculus sandwichensis</i>
Scarlet Tanager	<i>Piranga olivacea</i>
Eastern Meadowlark	<i>Sturnella magna</i>
Notes: Boldface indicates the subset of species that is considered to have the potential to nest within the study area on the basis of their habitat associations and sensitivity to human disturbance (Poole 2005).	

Habitat available to birds within the I-481 North Study Area is limited to isolated and highly disturbed patches of woodland and freshwater wetlands associated with NYSDEC-mapped creeks, within the I-81 and I-481 interchange, and drainage ditches along I-481 and Hamilton Road. Of the 106 species documented by the Breeding Bird Atlas, only 53 would be expected to nest within the area given the high levels of disturbance and degraded habitat conditions (**Table 8**). Birds observed within the I-481 North Study Area during the

July 29, 2016 wildlife survey included American crow (*Corvus brachyrhynchos*), American goldfinch, song sparrow, black-capped chickadee (*Poecile atricapillus*), common grackle (*Quiscalus quiscula*), red-winged blackbird, American robin, hairy woodpecker, gray catbird, and red-tailed hawk.

Birds that are expected to occur in the I-481 North Study Area during the winter include common backyard birds, such as downy woodpecker, hairy woodpecker, and white-breasted nuthatch. Examples of migrating birds that likely occur within the I-481 North Study Area during spring and fall include ovenbird, Swainson's thrush, hermit thrush, yellow-rumped warbler, American redstart, magnolia warbler, black and white warbler, and white-throated sparrow.

In addition, as described in **Appendix J-5**, the State-listed threatened least bittern (*Ixobrychus exilis*) has been documented within the vicinity of the I-481 North Study Area.

MAMMALS

The mammal community within the I-481 North Study Area is likely composed of disturbance-tolerant generalists due to the fragmented and highly degraded habitat conditions in the area. There is frequent vehicular noise on I-81, I-481, and the interchanges, and substantial potential for vehicle collision mortality. The species of mammals that are expected to occur in the area include common, urban-adapted species, such as eastern gray squirrel, Norway rat, raccoon, house mouse, feral cat, eastern coyote, white-footed mouse, groundhog, striped skunk, Virginia opossum, and white-tailed deer. No mammals were observed in the I-481 North Study Area during the July 29, 2016 survey.

In addition, as described in **Appendix J-5**, the State- and Federally-listed endangered Indiana bat and the State- and Federally-listed threatened northern long-eared bat have been documented as having the potential to occur within the vicinity of the I-481 North Study Area.

REPTILES AND AMPHIBIANS

The NYSDEC Herp Atlas Project, a survey conducted from 1990 to 1999 to document the geographic distribution of New York's reptile and amphibian species, recorded 22 species in the census blocks in which the I-481 North Study Area is located (Cicero Quadrangle) (**Table 9**).

Table 9

**Reptiles and Amphibians Documented by the NYSDEC Herp
Atlas Project in the Cicero Census Quadrant**

Common Name	Scientific Name
Jefferson salamander †	<i>Ambystoma jeffersonianum</i> †
Blue-spotted salamander †	<i>Ambystoma laterale</i> †
Eastern American toad	<i>Bufo a. americanus</i>
Common snapping turtle	<i>Chelydra s. serpentina</i>
Painted turtle	<i>Chrysemys picta</i>
Spotted turtle †	<i>Clemmys guttata</i> †
Wood turtle †	<i>Clemmys insculpta</i> †
Gray treefrog	<i>Hyla versicolor</i>
Common mudpuppy	<i>Necturus maculosus</i>
Northern water snake	<i>Nerodia s. sipedon</i>
Red-spotted newt	<i>Notophthalmus v. viridescens</i>
Northern redback salamander	<i>Plethodon c. cinereus</i>
Northern spring peeper	<i>Pseudacris c. crucifer</i>
Bullfrog	<i>Rana catesbeiana</i>
Green frog	<i>Rana clamitans melanota</i>
Pickerel frog	<i>Rana palustris</i>
Northern leopard frog	<i>Rana pipiens</i>
Wood frog	<i>Rana sylvatica</i>
Eastern massasauga *	<i>Sistrurus c. catenatus</i> *
Northern brown snake	<i>Storeria d. dekayi</i>
Northern redbelly snake	<i>Storeria o. occipitomaculata</i>
Common garter snake	<i>Thamnophis sirtalis</i>
Notes: Boldface indicates the subset of species that is considered to have the potential to nest within the study area on the basis of their habitat associations and sensitivity to human disturbance (Poole 2005). * Indicates state-listed endangered species. † Indicates state-listed species of special concern.	

Freshwater habitat that is needed to support most of the reptile and amphibian species of New York State (Gibbs et al. 2007) is limited to NYSDEC-mapped creeks and stormwater infrastructure ditches in the I-481 North Study Area. These small, disturbed wetlands are dominated by non-native common reed. The isolated and degraded habitat within the I-81 and I-481 interchange (e.g., clover leaf) is also likely to support only the most disturbance-tolerant and urban-adapted species of reptiles and amphibians. Of the 22 species identified in the census blocks of the Herp Atlas Project, only northern red-backed salamander, eastern American toad, spring peeper, bullfrog, green frog, northern brown snake, and common garter snake are considered to have the potential to occur within the area on the basis of their habitat associations and sensitivity to disturbance. Common garter snake and an unidentified *Rana* (frog) species were the only reptiles and amphibians observed during the July 29, 2016 survey.

In addition, as described in **Appendix J-5**, the State-listed endangered and Federally-listed threatened eastern massasauga has been documented as having the potential to occur within the vicinity of the I-481 North Study Area.

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