

Pileated woodpecker*	Dryocopus pileatus*	Pipistrelle bat	Pipistrellus subflavus
Eastern kingbird	Tyrannus tyrannus	Eastern cottontail	Sylvilagus floridanus
Eastern phoebe	Sayornis phoebe	Eastern chipmunk*	Tamias striatus*
Tree swallow	Tachycineta bicolor	Woodchuck	Marmota monax
Blue jay	Cyanocitta cristata	Eastern gray squirrel	Sciurus carolinensis
American crow	Corvus brachyrhynchos	Red squirrel	Tamiasciurus hudsonicus
Fish crow	Corvus ossifragus	Southern flying squirrel	Glaucomys volans
Black-capped chickadee	Parus atricapillus	Northern flying squirrel	G. Sabrina
Tufted titmouse*	Parus bicolor*	White-footed mouse	Peromyscus leucopus
Brown creeper	Certhia familiaris	Meadow vole	Microtus pennsylvanicus
House wren	Troglodytes aedon	Pine vole	Pitymys pinetorum
Winter wren	Troglodytes troglodytes	Muskrat	Ondatra zibethica
Northern mockingbird	Mimus polyglottos	House mouse	Mus musculus
Gray catbird*	Dumetella carolinensis*	Norway rat	Rattus norvegicus
American robin*	Turdus migratorius*	Meadow jumping mouse	Zapus hudsonius
Cedar waxwing*	Bombycilla cedrorum*	Woodland jumping mouse	Napeozapus insignis
Starling	Sturnus vulgaris	Red fox	Vulpes fulva
Blue-winged warbler*	Vermivora pinus*	Gray fox	Urocyon cinereoargenteus
Yellow warbler	Dendroica petechia	Eastern coyote*	Canis latrans*
Prairie warbler	Dendroica discolor	Raccoon	Procyon lotor
Yellow-rumped warbler	Dendroica coronata	Striped skunk	Mephitis mephitis
Common yellowthroat*	Geothlypis trichas*	Shorttail weasel	Mustela erminea
Northern oriole	Icterus galbula	Longtail weasel	M. frenata
Red-winged blackbird	Agelaius phoeniceus	White-tailed deer	Odocoileus virginianus
Common grackle	Quiscalus quiscula		
Scarlet tanager*	Piranga olivacea*		
Indigo bunting	Passerina cyanea		
Northern cardinal*	Cardinalis		
		REPTILES	
		Common snapping	Chelydra

Rose-breasted grosbeak	cardinalis* Pheucticus ludovicianus	turtle	serpentina
House finch	Carpodacus mexicanus	Eastern painted turtle	Chrysemys picta
Northern junco	Junco hyemalis	Eastern garter snake	Thamnophis sirtalis
Field sparrow	Spizella pusilla	Eastern ribbon snake	Thamnophis sauritus
White-throated sparrow	Zonotrichia albicollis	Eastern milk snake	Lampropeltis triangulum
Song sparrow	Melospiza melodia	Northern black racer	Coluber constrictor
Wood duck	Aix sponsa	AMPHIBIANS	
Great horned owl	Bubo virginianus	Common Name	Scientific Name
Barn swallow	Hirundo rustica	Red-spotted newt	Notophthalmus viridescens
Northern rough-winged swallow	Stelgidopteryx serripennis	Red-backed-salamander	Plethodon cinereus
White-breasted nuthatch	Sitta carolinensis	Northern spring peeper	Hyla crucifer
Carolina wren	Thryothorus ludovicianus	Gray treefrog	Hyla versicolor
Brown-headed cowbird*	Molothrus ater*	Green frog*	Rana clamitans*
American goldfinch*	Carduelis tristis*	Bull frog	Rana catesbeiana
Rufous-sided towhee*	Pipilo erythrophthalmus*	Pickerel frog	Rana palustris
Chipping sparrow	Spizella passerina	Wood frog	Rana sylvatica
Wild turkey	Meleagris gallopavo		
Golden-crowned kinglet	Regulus satrapa		
Black-throated green warbler	Dendroica virens		
Acadian flycatcher	Empidonax virescens		
American woodcock	Philohela minor		
Brown thrasher	Toxostoma rufum		
Chestnut-sided warbler	Dendroica pensylvanica		

*Observed within the Stoneleigh Woods proposed project site during the habitat assessment site visit on 27 May 2004.

The most abundant habitat suitable for wildlife within the Stoneleigh Woods project site is forested uplands. The Successional Red Cedar Woodlands may serve as roosting habitat for birds, and breeding and foraging habitat for small mammals (Hudsonia 2003). Evidence of wildlife was identified during the site visit on 27 May 2004 within the Successional Red Cedar Woodlands and consisted of a rufous-sided towhee (*Pipilo erythrophthalmus*), a red-tailed hawk (*Buteo jamaicensis*; feather only), cardinal

(*Cardinalis cardinalis*), scarlet tanager (*Piranga olivacea*), cedar waxwing (*Bombycilla cedrorum*), and red-bellied woodpecker (*Melanerpes carolinus*). Eastern coyotes were heard calling and an eastern chipmunk (*Tamias straitus*) was observed. Coyote (*Canis latrans*) sign (droppings) were frequently observed. While the Hudsonia report cited large numbers of white-tailed deer (*Odocoileus virginianus*) in the Greenway report, virtually no sign of deer was observed on the Stoneleigh Woods parcel. The presence of coyotes on the parcel may be responsible for the lack of deer. Butterflies observed in this habitat were the pearl crescent butterfly (*Phycoides tharos*) and olive hairstreak (*Callophrys gyrneus*),

The Hemlock-northern Hardwood Forest and Appalachian Oak-hickory Forest located on the eastern/southeastern portion of the project site can serve as roosting or nesting sites for bats, owls, wood duck, and birds of prey, wild turkey (*Meleagris gallopavo*), pileated woodpecker (*Dryocopus pileatus*), golden-crowned kinglet (*Regulus satrapa*), black-throated green warbler (*Dendroica virens*), and Acadian flycatcher (*Empidonax virens*), as well as small mammals and deer (Edinger et al. 2002 and Hudsonia 2003). Two pileated woodpeckers (*Dryocopus pileatus*) were identified in the Appalachian Oak-hickory forest during the site visit on 27 May 2004.

The Successional Shrubland and Successional Old Field habitats in the proposed project site may serve as breeding and foraging habitat for birds and small mammals. Wildlife that may occur in these areas include American woodcock (*Philohela minor*), sedge wren (*Cistothorus platensis*), field sparrow (*Spizella pusilla*), brown thrasher (*Toxostoma rufum*), blue-winged warbler (*Vermivora pinus*), chestnut-sided warbler (*Dendroica pensylvanica*), prairie warbler (*Dendroica discolor*), rufous-sided towhee, song sparrow (*Melospiza melodia*) and indigo bunting (*Passerina cyanea*) (Hudsonia 2003 and Edinger et al. 2002). Wildlife identified in these habitats during the habitat assessment field survey on 27 May 2004 consisted of a red-shouldered hawk (*Buteo lineatus*) – a special concern species in New York – circling the area, blue-winged warbler, rufous-sided towhee, and a rose-breasted grosbeak (*Pheucticus ludovicianus*). Butterflies observed in this habitat were the pearl crescent, summer azure (*Celastrina neglecta*), little wood satyr (*Megisto cymela*), and Hobomok skipper (*Poanes hobomok*).

The Shallow and Deep Emergent Marsh communities may support a variety of wildlife including birds, amphibians and mammals. Some species that can potentially occur within these habitats include American black duck (*Anas rubripes*), wood duck (*Aix sponsa*), red-spotted newt (*Notophthalmus viridescens*), wood frog (*Rana sylvatica*), spring peepers (*Hyla crucifer*), muskrat (*Ondatra zibethica*), great blue heron (*Ardea herodias*), red-winged blackbird (*Agelaius phoeniceus*), bullfrog (*Rana catesbeiana*) and green frog (*Rana clamitans melanota*) (Hudsonia 2003 and Edinger et al. 2002).

The Rocky Headwater Stream habitat within the proposed project site may provide breeding or foraging habitat for bats, wood duck, American woodcock, turtles, and frogs and fishes (Hudsonia 2003 and Edinger et al. 2002).

Threatened and Endangered Species

According to the responses from NYSDEC and USFWS inquires regarding threatened or endangered species, the Indiana bat (*Myotis sodalis*) is designated as endangered both federally and in New York State. Indiana bat nursery habitat is often located under bark,

such as the bark of dead trees, or those species with loose bark such as the shagbark hickory (NYSDEC 2004a). Indiana bats also prefer lowland floodplain forests with large trees, a habitat type not present on the site. No Indiana bats were identified during the LMS habitat assessment survey in May 2004 nor were the species identified in the 4 December 2003 Hudsonia report.

Species of Concern Habitat

A red-shouldered hawk (*Buteo lineatus*) was briefly identified circling high above a Successional Old Field community during the habitat assessment survey in May 2004. The red-shouldered hawk is listed by the New York State Department of Environmental Conservation as a species of special concern. Preferred nesting and habitat consists of forests (deciduous, coniferous or mixed) with understory and are typically located near standing water (swamp, pond or wetland) (Beans and Niles 2003 and NYSDEC 2004b). Tree species where nests have been reported include oaks, eastern hemlocks, maples, ash, and hickories (Beans and Niles 2003). The red-shouldered hawk observed circling above the proposed project site was likely a transient individual and no nests were observed within the proposed project area boundaries during the habitat assessment survey.

3.4.2 Potential Faunal Impacts

The wetland communities extending along the eastern portion of the proposed project site have been characterized as good quality based on the various complexes of beaver pond stages and plant communities that provide good habitat for wildlife (Hudsonia 2003). Potential impacts on fauna associated with the marsh communities is expected to be negligible since the development is proposed to take place on the eastern portion of the site and a buffer of forested uplands will remain between the development and wetlands. Cumulative impacts on biodiversity due to development are also expected to be minimal since the interconnected wetlands offsite and onsite forms a buffered corridor which will remain undeveloped and allow for wildlife species and genetic pools to mix.

Deer or evidence of significant deer populations such as scat, fur and other remains were not observed during the habitat assessment survey during May 2004. As cited earlier, coyote populations may have chased off or preyed upon the deer population within and adjacent to the proposed project site.

The wildlife on the portion of the site to be developed will be temporarily displaced by construction activities. Tree removal and grading, if accomplished in the late winter – early spring, will not affect birds because of their mobility and the availability of other suitable habitat in the vicinity of the site. The mammals at the site will find adequate habitat in the surrounding areas while construction activities are under way. The impact on birds will be minimal unless clearing occurs at times when they are less mobile, e.g., when they have eggs or hatchlings on nests (May to July). The availability of suitable habitat in undeveloped portions of the site and in the immediate vicinity of the site, combined with their mobility, will allow birds to move readily from the site. It is unlikely that the number of birds and mammals that will be displaced will exert population pressures on adjacent areas.

Potential impacts to threatened and/or endangered species, or species of special

concern are not anticipated within the proposed project site. No Indiana bats were observed during the habitat assessment survey during May 2004 nor is suitable habitat present for the species. The USF&WS letter (6/24/03) concluded that so long as tree clearing operations on the site were limited to the 16 November to 30 March time frame and suitable roost trees are protected "to the highest extent possible" the project is not likely to adversely affect the Indiana bat. The red-shouldered hawk observed circling above the proposed project site was likely a transient individual and no nests were observed within the proposed project area boundaries during the habitat assessment survey.

Proposed Mill Brook Greenway

The incorporation of a central greenway between the Stoneleigh Woods and Woodland Ponds project sites will preserve a relatively undisturbed area for wildlife habitat. The incorporation of the wetland areas into the Mill Brook Preserve will enhance the water supply available for wildlife as well as breeding sites for amphibians. The numbers of deer on the Woodland Ponds site are unknown but are expected to be similarly low based on the field observations made on the Stoneleigh Woods site. It is unknown what effect any hunting and road mortality currently have on the local white-tailed deer population. No evidence of deer hunting, such as tree stands, was observed during the site studies. The low speeds on the internal roadways at Stoneleigh Woods will minimize any potential for an increase in road mortality for deer associated with the project. The use of three-sided box-type culverts (Figure attached) will reduce road mortality for wildlife by providing a below-grade conduit for travel along the existing streamcourses.

It is understood that there have been some prior control efforts for the beavers on the site. Future measures may be necessary to reduce the incidence of beavers blocking culverts and resultant inundation and/or road flooding. The use of a nonlethal exclusion device, known as "deceivers" maintains water flow but prevent beavers from blocking culverts. One of these devices is currently being used at the intersection of South Ohioville and Brookside Roads in the Town of New Paltz.

Due to the fact that the downstream areas on Mill Brook are developed, the value of the Mill Brook Preserve as a wildlife movement corridor will be limited. The Preserve will provide a stopping point for migratory birds and a nesting area for resident birds. The incorporation of seed and fruit-bearing trees in the landscaping plan for Stoneleigh Woods will add habitat value for birds.

Hudsonia

The Wetland Assessment of the Proposed Mill Brook Greenway, completed by Hudsonia Ltd, December 14, 2003 includes several recommendations for management of the proposed Greenway parcels, see Figure 26 for potential Greenway properties. To the extent these recommendation may impact the Stoneleigh Woods @ New Paltz site, they are addressed below:

- 10) Open Space Boundaries. The Hudsonia report addresses the potential for additional open space on the Lent, Woodland Pond, and Stoneleigh Woods sites.

The discussion regarding the need for additional open space buffers on the Stoneleigh site should be reassessed by Hudsonia. The wetland boundaries are as established by the Army Corps of Engineers, as they have provided a Jurisdictional Determination of the boundaries of the federally regulated wetlands²⁵ on site, and the NYSDEC has declined to take jurisdiction over this wetland complex²⁶. The Stoneleigh site has been modified since the initial Hudsonia assessment, and the structures have been kept at least 100' away from the wetland complex.

- 11) Buffer Zones. The Hudsonia Report recommends 100' buffers for wildlife and hydrological protection.

The Stoneleigh Woods @ New Paltz site provides a 100' buffer to the wetlands for all above-ground structures with the exception of the wetland crossing at the western end of the site.

- 12) Connectivity. The Hudsonia Report requests that the DEC make a format determination whether the central wetland complex is subject to state Freshwater Wetlands jurisdiction. The Report also suggests that the Village or Town retain their own wetland consultant to check the wetland boundary delineations.

While the wetland boundaries on the other properties may need review, the wetland boundaries on the Stoneleigh Woods @ New Paltz site are as established by the Army Corps of Engineers, as they have provided a Jurisdictional Determination of the boundaries of the federally regulated wetlands²⁷ on site, and the NYSDEC has declined to take jurisdiction over this wetland complex²⁸.

- 13) Stormwater Management. The Hudsonia Report makes mention of moving certain structures in the vicinity of the wetlands on the lent and Stoneleigh properties to preserve water quality.

The Stoneleigh site plan has been modified since the Hudsonia Report, moving the mentioned structures more than 100' from the wetland edge. Stormwater retention is proposed within the 100' buffer area will be carefully constructed to avoid wetland impacts during construction and operation.

- 14) ATV's. The Hudsonia Report recommends closing the Greenway area to ATVs and restoring the existing ruts to prevent erosion and mosquito breeding.

The Stoneleigh EIS also recommends banning ATVs on site.

- 15) Beaver Management. The Hudsonia Report recommends avoiding roads where beaver flooding is likely.

²⁵ Supra, March 10, 2004 from George Nieves, Chief, Western Permits Section, ACOE.

²⁶ Supra June 3, 2003 NYSDEC to Johannessen.

²⁷ Supra, March 10, 2004 from George Nieves, Chief, Western Permits Section, ACOE.

²⁸ Supra June 3, 2003 NYSDEC to Johannessen.

The Stoneleigh plan does not propose roads where beaver flooding is likely, consistent with this recommendation.

- 16) Dead Trees. The Hudsonia Report recommends leaving these trees in place within the Greenway to encourage habitat diversity.

No tree removal or management within the Greenway is proposed by the Stoneleigh Project Sponsor.

- 17) Invasive Plants. The Hudsonia Report recommends various management techniques for invasive plant control within the Greenway.

The Stoneleigh Project Sponsor supports the Greenway project. As of yet, no management plan for the Greenway has been adopted. The Project Sponsor will offer to work with the Greenway stakeholders to combine efforts for invasive plant control when a management plan has been formally prepared.

- 18) Rare Plants. The Hudsonia Report recommends site-specific rare plant surveys within the Greenway.

As the Stoneleigh Project has not identified the presence of rare plants on the site, and the Greenway area is to remain undisturbed, this project has no impact on this recommendation.

Habitat Disturbance

There will be no impact under the preferred plan to the two most mature plant communities, the Appalachian Oak - Hickory Forest and the Hemlock - Northern Hardwood forest (3.05 and 2.49 acres, respectively). Approximately one-third of the old field community, one-third of the shrubland community, and slightly less than one-half of the red cedar woodland will be replaced by buildings, paved surfaces, and landscaped areas under the preferred development plan. All three of these are ephemeral or transitory communities that feature a change in dominant plants and wildlife use as they progress (e.g.; old field to shrubland to red cedar woodland). The maintenance of some portion of each community on the site, as well as the large Mill Creek drainage basin greenspace proposed on and adjacent to the project site, will reduce any impacts of habitat loss or fragmentation associated with the project. The on-site landscaping will, as it matures, also offer feeding and nesting habitat for some species of passerine birds. Details are included below.

Successional Red Cedar Woodland

This habitat is discussed in detail in Section 3.3.1 above. As shown in Table 2, under the preferred plan 19.5 of the existing 41.44 acres of this habitat (47%) will remain undisturbed. This habitat will be replaced by improvements related to the project: buildings, paved surfaces and landscaping. The Successional Red Cedar Woodland is an ephemeral or transitory community that features a change in dominant plants and wildlife as it progresses. As nearly ½ of the Successional Red Cedar Woodland will remain, habitat fragmentation is not anticipated, although individuals may be displaced. Therefore it is not expected that there will be a significant impact on species which favor

this habitat.

Hemlock-Northern Hardwood Forest

This habitat is discussed in detail in Section 3.3.1 above. As shown in Table 2, under the preferred plan all of this habitat will remain undisturbed. The Hemlock-Northern Hardwood Forest is a mature plant community, and with maintenance of this habitat no habitat fragmentation or species displacement is anticipated. Therefore it is not expected that there will be a significant impact on species which favor this habitat.

Appalachian Oak-hickory Forest

This habitat is discussed in detail in Section 3.3.1 above. As shown in Table 2, under the preferred plan all of this habitat will remain undisturbed. The Appalachian Oak-hickory Forest is a mature plant community, and with maintenance of this habitat no habitat fragmentation or species displacement is anticipated. Therefore it is not expected that there will be a significant impact on species which favor this habitat.

Successional Shrubland

This habitat is discussed in detail in Section 3.3.1 above. As shown in Table 2, under the preferred plan 1.93 of the existing 5.44 acres of this habitat (35.5%) will remain undisturbed. This habitat will be replaced by improvements related to the project: buildings, paved surfaces and landscaping. The Successional Shrubland is an ephemeral or transitory community that features a change in dominant plants and wildlife as it progresses. The community is bordered on one side by a field-type community (Successional Old Field) and by a Successional Red Cedar Woodland on the other side and serves as a Successional buffer zone between the field and forest communities. As more than 1/3 of the Successional Shrubland will remain, habitat fragmentation is not anticipated, although individuals may be displaced. Therefore it is not expected that there will be a significant impact on species which favor this habitat.

Successional Old Field

This habitat is discussed in detail in Section 3.3.1 above. As shown in Table 2, under the preferred plan 0.91 of the existing 2.73 acres of this habitat (31%) will remain undisturbed. This habitat will be replaced by improvements related to the project: buildings, paved surfaces and landscaping. Successional Old Field Communities tend to be short-lived and succeed into shrubland communities. As nearly 1/3 of the Successional Old Field will remain, habitat fragmentation is not anticipated, although individuals may be displaced. Therefore it is not expected that there will be a significant impact on species which favor this habitat.

Deep and Shallow Emergent Marsh

This habitat is discussed in detail in Section 3.3.1 above. As shown in Table 2, under the preferred plan 7.393 of the 7.43 acres of the Federal Wetlands (99.5%) will remain undisturbed. Preservation of the Deep and Shallow Emergent Marsh within the Mill Brook Greenway, together with the preservation of the adjacent wetland areas on the Woodland Pond, Bienstock, Lent and Kniffen parcels will result in no habitat

fragmentation or species displacement. Therefore it is not expected that there will be a significant impact on species which favor this habitat.

Rocky Headwater Stream

This habitat is discussed in detail in Section 3.3.1 above. As shown in Table 2, under the preferred plan 0.40 of the 0.61 acres of the Rocky Headwater Stream (65.5%) will remain undisturbed. Preservation of nearly 2/3 of the Rocky Headwater Stream will result in no habitat fragmentation or species displacement. Therefore it is not expected that there will be a significant impact on species which favor this habitat.

3.4.3 Faunal Mitigation Measures

The following is proposed to mitigate the impact of potential impacts to site vegetation:

- Clearing of vegetation will be kept to the minimum necessary for construction and access. Tree clearing operations shall be limited to November 16 to March 30 time frame to mitigate impacts on the Indiana Bat.
- To the extent possible, initial land clearing activities will not take place during the active breeding season for birds;
- The deployment and maintenance of erosion control features during construction will protect the nearby wetland habitats and the resident fauna.