

3.4 Fauna

3.4.1 Existing Faunal Conditions

Fish

No fish were observed in the on-site pond during the walk-over. Potential species that may be present are pumpkinseed and bluegill sunfish, largemouth bass, golden shiner, and brown bullhead. With the exception of the outlet stream from the pond, the other watercourses on the Legacy Ridge site are too small and intermittent to support a fish population. The fish habitat on the Legacy Ridge site consists of the manmade pond on the southern parcel, a portion of the outlet stream on the southern parcel, and Mineral Spring Brook on the northern parcel.

A request was sent to NYSDEC Region 3 for fisheries information on the watercourse exiting the pond and on Mineral Spring Brook. A copy of the request letter and response (dated 17 May and 7 June 2005, respectively) are attached in Appendix 9.11 of Volume II. A July 1986 NYSDEC survey of the exiting watercourse found no trout; fish species that were collected in the exiting watercourse were the blacknose dace, longnose dace, white sucker, common shiner, and golden shiner. A July 1986 survey of Mineral Spring Brook found wild (self-sustaining) brown trout, longnose dace, white sucker, and American eel

Wildlife

The site survey conducted by HDR/LMS biologists⁴ on April 26, 2005 provided information on the existing ecological communities (wetlands, pond, pasture/meadow and deciduous forest) a diversity of wildlife is expected to be found on the Legacy Ridge site. The wildlife includes a variety of birds, reptiles, amphibians, and mammals.

The entire southerly parcel serves as wildlife habitat. The old field and meadow areas provide habitat for a variety of passerine birds (such as chimney swifts, sparrows and swallows) and a feeding area for white-tailed deer, woodchuck and eastern cottontail. The forested areas provide nesting and feeding habitat for several species of warblers, woodpeckers, nuthatches, and chickadees. The forested and emergent wetlands provide habitat and breeding areas for several species of amphibians (including the American toad, green frog, spotted salamander, and pickerel frog) and reptiles (including the painted and snapping turtle and northern water snake). The only identified source of disturbance to wildlife is the existing heavy all-terrain vehicle use on the southerly parcel. The principal limiting factor to wildlife accessing the site from nearby forested/undisturbed habitats are the New York State Thruway and Route 32 west of the property. See Figure 50 for an overview of the potential wildlife habitats on the Legacy Ridge project site.

⁴HDR/LMS Biologist Steve Seymour, has a degree in fish and wildlife technology, a degree in fishery biology and is a Certified Professional Wetlands Scientist (Society of Wetland Scientists). Mr. Seymour has been conducting site biological studies in the Hudson Valley for EIS and permitting projects for 20 years, consisting of existing conditions studies, impact and alternatives analysis, and avoidance/mitigation planning. HDR/LMS Scientist, Jaak Van den Sype has an undergraduate degree in Forest Ecology and a graduate degree in Applied Ecology.

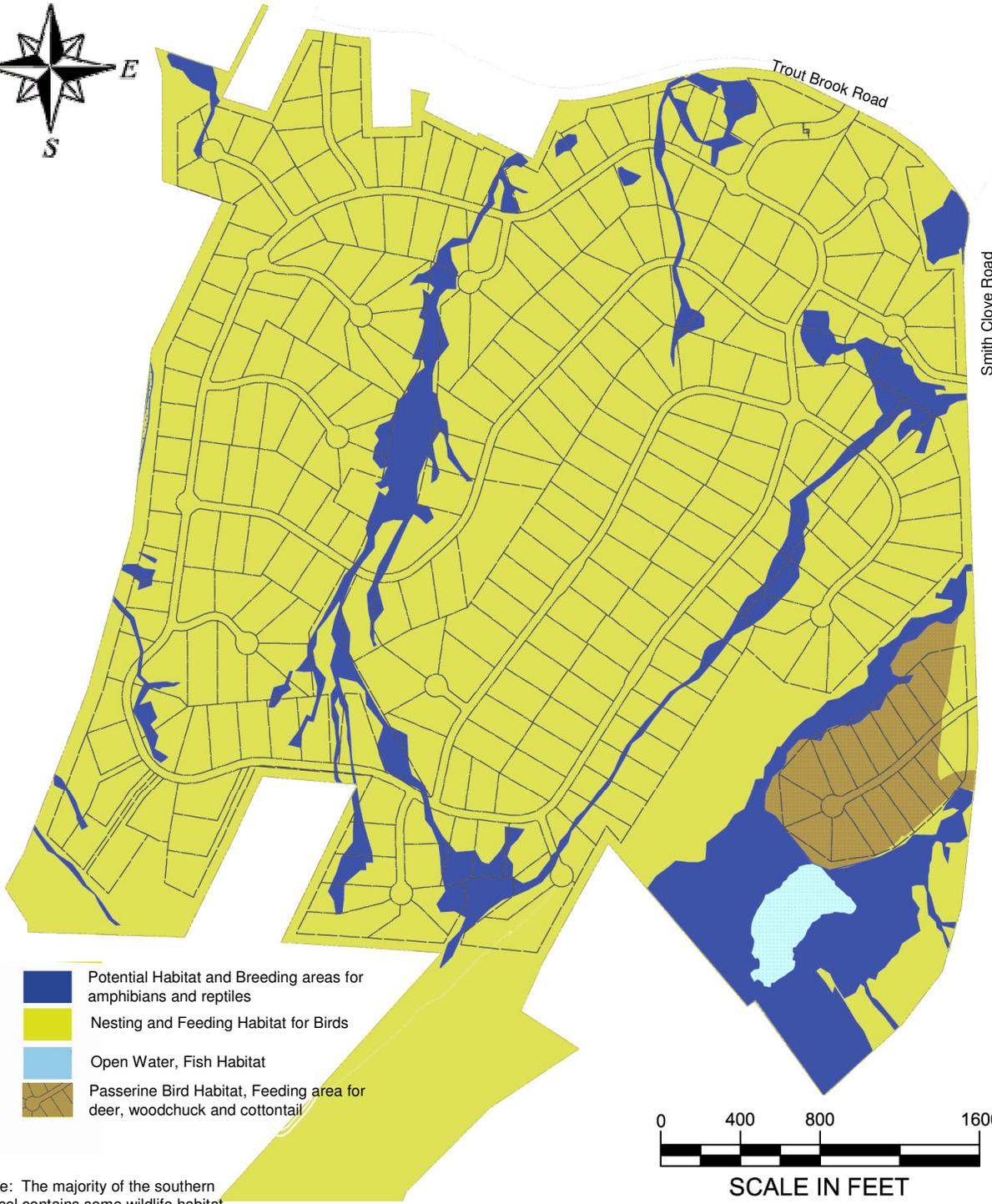
The location and acreage of each of the identified vegetative communities on the site is presented in Figure 49 (Vegetative Communities with Proposed Lots) in Section 3.3.1 of the⁵DEIS. The acreages are also cited in the accompanying descriptive text of each of the communities.

HDR/LMS, as part of our data collection and site assessment, contacted the United States Fish & Wildlife Service (USF&WS) and the NYSDEC Natural Heritage Program for information on endangered/threatened species on site. USF&WS in a response letter dated 26 January 2005 indicates the potential presence of the Indiana bat and bog turtle on or adjacent to the site. NYSDEC in a letter dated 22 November 2005 indicates the potential presence of timber rattlesnakes, eastern small-footed myotis, gray petaltail (a dragonfly), Mead's sedge, rattlebox and large twayblade on or adjacent to the site. During the April 26, 2005 site assessment, HDR/LMS evaluated the site for potential bog turtle, timber rattlesnake, and Indiana bat habitat using the USF&WS assessment protocol. Potentially suitable habitat for each of the three species was found on the site; further consultation with the agencies is in progress.

The endangered and threatened species biologist from NYSDEC Region 3 conducted a file review and walked the Legacy Ridge site on 8 September 2005 to assess any potential for TES species to occur on the site and the need for any detailed studies. Based on a detailed review of habitat requirements, site characteristics and anthropomorphic features, he concluded that the potential for the three cited species to use the Legacy Ridge site was minimal. In the case of timber rattlesnakes, the presence of Route 32 and the New York State Thruway precludes rattlesnake movement from nearest documented dens to the west of the site. For bog turtles, he said lack of calcareous seeps, dryness of the wetlands during the summer, and presence of invasive vegetation over most of the large wetland in the southeastern portion of the site would limit the site's attractiveness to this species. There were also no current or recent observations of bog turtles near the project site.

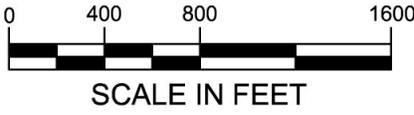
For Indiana bats, the forests on the site are relatively young and few large trees with exfoliating bark and/or cavities (used by Indiana bats as roosting sites) are present on the site. The two exceptions are several large sugar maples along one watercourse in the central portion of the southern parcel, and several large sugar maples near the remnants of a homestead on the southern parcel. Due to their size and habitat value, all efforts will be made to preserve these trees as part of the landscaping plan. Additional information on recent Indiana bat studies by NYSDEC and the U. S. Fish & Wildlife Service in February 2006 indicated that the project area is outside of the recently documented range of Indiana bats in the lower Hudson Valley. In 2004 and 2005, 27 Indiana bats hibernating in mines in Ulster County, New York were equipped with transmitters and found to disperse to summer ranges in Dutchess and Orange Counties (Hicks 2005 and 2006). The portions of Orange County that the Indiana bats used as habitat were north and west of the project area in an 80 square mile area in a triangle bounded roughly by the towns of Slate Hill, Rock Tavern, and Thompson Ridge.

⁵ HDR/LMS Biologist Steve Seymour, has a degree in fish and wildlife technology, a degree in fishery biology and is a Certified Professional Wetlands Scientist (Society of Wetland Scientists). Mr. Seymour has been conducting site biological studies in the Hudson Valley for EIS and permitting projects for 20 years, consisting of existing conditions studies, impact and alternatives analysis, and avoidance/mitigation planning. HDR/LMS Scientist, Jaak Van den Sype has an undergraduate degree in Forest Ecology and a graduate degree in Applied Ecology.



- Potential Habitat and Breeding areas for amphibians and reptiles
- Nesting and Feeding Habitat for Birds
- Open Water, Fish Habitat
- Passerine Bird Habitat, Feeding area for deer, woodchuck and cottontail

Note: The majority of the southern parcel contains some wildlife habitat



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**Legacy Ridge
 at Highland Mills**
 Trout Brook Road
 Town of Woodbury
 Orange County, New York

Source: HDR/LMS Site Plans

Figure 50

Faunal Habitats

April 11, 2006

Data from the New York State Breeding Bird Atlas Program were obtained for block No. 5758C, No. 5757A and 5657B. The data are arranged throughout New York State on blocks that are three miles by three miles in size. The site is located within the three above referenced blocks. Birds associated with this block are summarized in Table 10. The data below shows that 111 species are confirmed breeders in the immediate vicinity of the site. These data suggest that this area is relatively attractive to breeding birds.

Bird observations recorded on 26 April 2005 are highlighted in Table 10 below. A total of 26 bird species were observed on the site. Species that were observed but not listed in the breeding bird atlas include the pine warbler, yellow-rumped warbler, ruby-crowned kinglet, junco and white-throated sparrow.

The site has open pasture/meadows and deciduous forest, creating a variety of ecotones that provide food and cover for local wildlife. Other site features consist of intermittent stream channels, a man-made pond and steep vegetated hillsides. As a result, many of the bird species listed in Table 10 are expected to successfully breed on the site.

Table 10 - New York State Bird Breeding Atlas		
COMMON NAME	SCIENTIFIC NAME	NY LEGAL STATUS
Acadian Flycatcher	<i>Empidonax vireescens</i>	Protected
Alder Flycatcher	<i>Empidonax alnorum</i>	Protected
American Black Duck	<i>Anas rubripes</i>	Game Species
American Crow ¹	<i>Corvus brachyrhynchos</i>	Game Species
American Goldfinch ¹	<i>Carduelis tristis</i>	Unprotected
American Kestrel	<i>Falco sparverius</i>	Protected
American Redstart	<i>Setophaga ruticilla</i>	Protected
American Robin ¹	<i>Turdus migratorius</i>	Protected
American Woodcock	<i>Scolopax minor</i>	Game Species
Baltimore Oriole	<i>Icterus galbula</i>	Protected
Bank Swallow	<i>Riparia riparia</i>	Protected
Barn Swallow ¹	<i>Hirundo rustica</i>	Protected
Barred Owl	<i>Strix varia</i>	Protected
Belted Kingfisher	<i>Ceryle alcyon</i>	Protected
Black-and-white Warbler ¹	<i>Mniotilta varia</i>	Protected
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>	Protected
Black-capped Chickadee ¹	<i>Poecile atricapillus</i>	Protected
Black-throated Green Warbler	<i>Dendroica virens</i>	Protected
Black Vulture	<i>Coragyps atratus</i>	Protected
Blue-gray Gnatcatcher	<i>Poliophtila caerulea</i>	Protected
Blue Jay ¹	<i>Cyanocitta cristata</i>	Protected
Blue-winged Warbler	<i>Vermivora pinus</i>	Protected
Bobolink	<i>Dolichonyx oryzivorus</i>	Protected
Broad-winged Hawk	<i>Buteo platypterus</i>	Protected
Brown Creeper	<i>Certhia americana</i>	Protected
Brown-headed Cowbird ¹	<i>Molothrus ater</i>	Protected
Brown Thrasher	<i>Toxostoma rufum</i>	Protected
Canada Goose	<i>Branta canadensis</i>	Game Species

Canada Warbler	<i>Wilsonia canadensis</i>	Protected
Carolina Wren ¹	<i>Thryothorus ludovicianus</i>	Protected
Cedar Waxwing	<i>Bombycilla cedrorum</i>	Protected
Cerulean Warbler	<i>Dendroica cerulea</i>	Protected-Special Concern
Chestnut-sided Warbler	<i>Dendroica pensylvanica</i>	Protected
Chimney Swift	<i>Chaetura pelagica</i>	Protected
Chipping Sparrow ¹	<i>Spizella passerina</i>	Protected
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>	Protected
Common Grackle ¹	<i>Quiscalus quiscula</i>	Protected
Common Nighthawk	<i>Chordeiles minor</i>	Protected-Special Concern
Common Yellowthroat	<i>Geothlypis trichas</i>	Protected
Cooper's Hawk	<i>Accipiter cooperii</i>	Protected-Special Concern
Downy Woodpecker ¹	<i>Picoides pubescens</i>	Protected
Eastern Bluebird	<i>Sialia sialis</i>	Protected
Eastern Kingbird ¹	<i>Tyrannus tyrannus</i>	Protected
Eastern Meadowlark	<i>Sturnella magna</i>	Protected
Eastern Phoebe ¹	<i>Sayornis phoebe</i>	Protected
Eastern Screech-Owl	<i>Megascops asio</i>	Protected
Eastern Towhee	<i>Pipilo erythrophthalmus</i>	Protected
Eastern Wood-Pewee	<i>Contopus virens</i>	Protected
European Starling	<i>Sturnus vulgaris</i>	Unprotected
Field Sparrow ¹	<i>Spizella pusilla</i>	Protected
Golden-winged Warbler	<i>Vermivora chrysoptera</i>	Protected-Special Concern
Gray Catbird	<i>Dumetella carolinensis</i>	Protected
Great Blue Heron	<i>Ardea herodias</i>	Protected
Great Crested Flycatcher	<i>Myiarchus crinitus</i>	Protected
Great Horned Owl	<i>Bubo virginianus</i>	Protected
Green Heron	<i>Butorides virescens</i>	Protected
Hairy Woodpecker	<i>Picoides villosus</i>	Protected
Hermit Thrush	<i>Catharus guttatus</i>	Protected
House Finch ¹	<i>Carpodacus mexicanus</i>	Protected
House Sparrow	<i>Passer domesticus</i>	Unprotected
House Wren	<i>Troglodytes aedon</i>	Protected
Indigo Bunting	<i>Passerina cyanea</i>	Protected
Killdeer	<i>Charadrius vociferus</i>	Protected
Least Flycatcher	<i>Empidonax minimus</i>	Protected
Louisiana Waterthrush	<i>Seiurus motacilla</i>	Protected
Magnolia Warbler	<i>Dendroica magnolia</i>	Protected
Mallard	<i>Anas platyrhynchos</i>	Game Species
Mourning Dove	<i>Zenaida macroura</i>	Protected
Mute Swan	<i>Cygnus olor</i>	Protected
Nashville Warbler	<i>Vermivora ruficapilla</i>	Protected
Northern Cardinal ¹	<i>Cardinalis cardinalis</i>	Protected
Northern Flicker ¹	<i>Colaptes auratus</i>	Protected
Northern Mockingbird ¹	<i>Mimus polyglottos</i>	Protected
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	Protected
Northern Waterthrush	<i>Seiurus noveboracensis</i>	Protected
Orchard Oriole	<i>Icterus spurius</i>	Protected

Ovenbird	<i>Seiurus aurocapilla</i>	Protected
Pileated Woodpecker ¹	<i>Dryocopus pileatus</i>	Protected
Prairie Warbler	<i>Dendroica discolor</i>	Protected
Purple Finch	<i>Carpodacus purpureus</i>	Protected
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>	Protected
Red-eyed Vireo	<i>Vireo olivaceus</i>	Protected
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	Protected-Special Concern
Red-tailed Hawk ¹	<i>Buteo jamaicensis</i>	Protected
Red-winged Blackbird ¹	<i>Agelaius phoeniceus</i>	Protected
Ring-necked Pheasant	<i>Phasianus colchicus</i>	Game Species
Rock Dove	<i>Columba livia</i>	Unprotected
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	Protected
Ruby-throated Hummingbird	<i>Archilochus colubris</i>	Protected
Ruffed Grouse	<i>Bonasa umbellus</i>	Game Species
Scarlet Tanager	<i>Piranga olivacea</i>	Protected
Sharp-shinned Hawk	<i>Accipiter striatus</i>	Protected-Special Concern
Song Sparrow	<i>Melospiza melodia</i>	Protected
Spotted Sandpiper	<i>Actitis macularia</i>	Protected
Swamp Sparrow	<i>Melospiza georgiana</i>	Protected
Tree Swallow	<i>Tachycineta bicolor</i>	Protected
Tufted Titmouse ¹	<i>Baeolophus bicolor</i>	Protected
Turkey Vulture ¹	<i>Cathartes aura</i>	Protected
Veery	<i>Catharus fuscescens</i>	Protected
Warbling Vireo	<i>Vireo gilvus</i>	Protected
Whip-poor-will	<i>Caprimulgus vociferus</i>	Protected-Special Concern
White-breasted Nuthatch ¹	<i>Sitta carolinensis</i>	Protected
Wild Turkey	<i>Meleagris gallopavo</i>	Game Species
Willow Flycatcher	<i>Empidonax traillii</i>	Protected
Winter Wren	<i>Troglodytes troglodytes</i>	Protected
Wood Duck ¹	<i>Aix sponsa</i>	Game Species
Wood Thrush	<i>Hylocichla mustelina</i>	Protected
Worm-eating Warbler	<i>Helmitheros vermivorus</i>	Protected
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	Protected
Yellow-throated Vireo	<i>Vireo flavifrons</i>	Protected
Yellow Warbler	<i>Dendroica petechia</i>	Protected

Observed on site during 26 April 2005 site assessment.

Amphibian life stages, other than adults, observed on the site on 26 April 2005 were spotted salamander (eggs) and American toad (tadpoles). Table 11 lists additional species of reptiles and amphibians for which the site is geographically and ecologically suited.

Table 11 - Probable reptiles and amphibians on the Legacy Ridge site	
COMMON NAME	
REPTILES	
Black Rat Snake	<i>Elaphe obsoleta</i>
Eastern Box Turtle	<i>Terrapene carolina</i>
Eastern Garter Snake ¹	<i>Thamnophis sirtalis</i>
Eastern Milk Snake	<i>Lampropeltis triangulum</i>
Eastern Ribbon Snake	<i>T. sauritus</i>
Five-Lined Skink ¹	<i>Eumeces fasciatus</i>
Northern Black Racer ¹	<i>Coluber constrictor</i>
Northern Brown Snake	<i>Storeria dekayi</i>
Northern Copperhead	<i>Agkistrodon contortrix</i>
Northern Ringneck Snake	<i>Diadophis punctatus</i>
Northern Water Snake	<i>Natrix sipedon</i>
Painted Turtle ¹	<i>Chrysemys picta</i>
Red-Bellied Snake	<i>S. occipitomaculata</i>
Snapping Turtle	<i>Chelydra serpentina</i>
Smooth Green Snake	<i>Opheodrys vernalis</i>
Spotted Turtle	<i>Clemmys guttata</i>
Stinkpot	<i>Sternotherus odoratus</i>
Wood Turtle	<i>C. insculpta</i>
AMPHIBIANS	
American Toad	<i>Bufo americanus</i>
Bull Frog	<i>Rana catesbeiana</i>
Four-toed Salamander	<i>Hemidactylium scutatum</i>
Fowler's Toad	<i>B. woodhousei</i>
Gray Tree Frog	<i>H. versicolor</i>
Green Frog ¹	<i>R. clamitans</i>
Jefferson Salamander	<i>Ambystoma jeffersonianum</i>
Long-tailed Salamander	<i>E. longicauda</i>
Marbled Salamander	<i>Ambystoma opacum</i>
Mountain Dusky Salamander	<i>D. ochrophaeus</i>
Northern Dusky Salamander	<i>Desmognathus fuscus</i>
Northern Two-lined Salamander ¹	<i>Eurycea bislineata</i>
Pickerel Frog	<i>R. palustris</i>
Red-backed Salamander ¹	<i>Plethodon cinereus</i>
Red-Spotted Newt	<i>Notophthalmus viridescens</i>
Slimy Salamander	<i>P. glutinosus</i>
Spotted Salamander	<i>Ambystoma maculatum</i>
Spring Peeper	<i>Hyla crucifer</i>
Spring Salamander	<i>Gyrinophilus porphyriticus</i>
Wood Frog	<i>R. sylvatica</i>

Observed on site during 26 April 2005 site assessment.

Incidental mammal observations were documented on 26 April 2005 by direct observations or from signs of their presence, including tracks and droppings. Muskrat droppings were identified as well as chewed trees and branches indicating a beaver population in the area of the pond. Six white-tailed deer were observed during the site walk-over and several well-traveled deer trails were found. Table 12 contains a list of probable species found in the area based on incidental site observations and species that are expected to be located in the geographic area.

Table 12 - Probable mammalian species on the Legacy Ridge site	
COMMON NAME	COMMON NAME
Big Brown Bat	<i>Eptesicus fuscus</i>
Eastern Chipmunk	<i>Tamias striatus</i>
Eastern Cottontail	<i>Sylvilagus floridanus</i>
Eastern Coyote	<i>Canis latrans</i>
Eastern Gray Squirrel ¹	<i>Sciurus carolinensis</i>
Eastern Mole	<i>Scalopus aquaticus</i>
Gray Fox	<i>Urocyon cinereoargenteus</i>
Hairytail Mole	<i>Parascalops breweri</i>
House Mouse	<i>Mus musculus</i>
Least Shrew	<i>Cryptotis parva</i>
Longtail Weasel	<i>M. frenata</i>
Masked Shrew	<i>Sorex cinereus</i>
Meadow Jumping Mouse	<i>Zapus hudsonius</i>
Meadow Vole	<i>Microtus pennsylvanicus</i>
Muskrat ¹	<i>Ondatra zibethica</i>
Northern Flying Squirrel	<i>G. sabrina</i>
Northern Shrew	<i>S. palustris</i>
Norway Rat	<i>Rattus norvegicus</i>
Opossum	<i>Didelphis virginiana</i>
Pine Vole	<i>Pitymys pinetorum</i>
Pipistrelle Bat	<i>Pipistrellus subflavus</i>
Raccoon	<i>Procyon lotor</i>
Red Fox	<i>Vulpes fulva</i>
Red Squirrel	<i>Tamiasciurus hudsonicus</i>
Shorttail Shrew	<i>Blarina brevicauda</i>
Shorttail Weasel	<i>Mustela erminea</i>
Smoky Shrew	<i>S. fumeus</i>
Southern Flying Squirrel	<i>Glaucomys volans</i>
Star-nose Mole	<i>Condylura cristata</i>
Striped Skunk	<i>Mephitis mephitis</i>
White-Footed Mouse	<i>Peromyscus leucopus</i>
White-Tailed Deer ¹	<i>Odocoileus virginianus</i>
Woodchuck ¹	<i>Marmota monax</i>
Woodland Jumping Mouse	<i>Napeozapus insignis</i>

3.4.2 Potential Faunal Impacts

The wildlife present on the site will be temporarily displaced by construction activities. Tree removal, if accomplished during late winter – early spring, will not affect birds because of their mobility and availability of other suitable habitat in the vicinity. Most mammals at the site will find adequate habitat in the surrounding areas while construction activities are under way. Most of the wildlife species found on-site are tolerant of humans and are expected to return to the area after construction and landscaping are complete.

The impact of construction will be greatest on the less mobile wildlife species (reptiles, amphibians, and small mammals) and will result in the loss of some individuals and their habitat. The impact will be less for large mammals, such as skunks, raccoons, and coyotes, with the major impact being the loss of available habitat for feeding. The displacement of wildlife may exert population pressures on adjoining areas, particularly for white-tailed deer.

Displacement of deer may result in increased browsing on adjoining parcels and increased car – deer collisions on nearby roadways.

The impact on birds will be minimal unless tree removal comes 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 the vicinity of the site, combined with their mobility, will allow birds to move readily from the site. It is unlikely that the number of residential birds that will be displaced will exert population pressures on adjacent areas. Three of the birds species observed or reported on the site (broad - winged hawk, ovenbird, and black and white warbler) require large patches of forest to forage and breed; these species may be permanently displaced by the project.

The potential for timber rattlesnakes and/or bog turtles to be present on the site based on available habitat, recent records, and proximity to known habitat is under review with NYSDEC Region 3.

Indiana bats hibernate in limestone caves and open, abandoned mine shafts from October to April. There are no suitable hibernating sites on the Legacy Ridge parcel. The nearest documented hibernating areas are in Franklin, New Jersey and near Kingston, New York. Since almost the entire Legacy Ridge site is greater than 580 feet in elevation, there appears to be little potential for Indiana bats to use the site for maternity roosts. Portions of the deciduous forest on the site are relatively young and do not feature significant numbers of trees over 12 inches in diameter.

Notably, the proposed Conservation Cluster Development minimizes the impacts on wildlife, as compared to the conventional plan, under either two-acre or three-acre zoning. There will be a greater potential for impacts on wildlife during the construction and operational phases of the project under the proposed two-acre zoning than under the existing three-acre zoning. Under the conservation cluster plan, approximately 214.92 acres of the successional old field, deciduous forest, and estate planting communities will be disturbed, versus 240 acres under the existing R-3A conventional plan. Due to the increased density within the developed area, the total extent of impervious surface (buildings, roadways and driveways) will be greater under the R-2A plan (60.1 acres) than under the R-3A conventional plan (33.5 acres). However, the preferred conservation cluster retains larger unbroken tracts of forested area, which will provide more usable habitat for wildlife, and provide more substantive noise and visual barriers. A greater percentage of the site will be disturbed and a commensurate lower percentage of the site will remain undisturbed. The greater number of automobiles under the two-acre zoning will increase the potential for animal – vehicle collisions than under the three-acre zoning.

Based on a detailed review of habitat requirements, site characteristics and anthropomorphic features, the potential for the three cited species to use the Legacy Ridge site is believed to be minimal. In the case of timber rattlesnakes, the presence of Route 32 and the New York State Thruway precludes rattlesnake movement from dens to the west of the site. For bog turtles, the lack of calcareous seeps and presence of invasive vegetation over most of the large wetland in the southeastern portion of the site would limit the site's attractiveness to this species. For Indiana bats, the forests on the site are relatively young and few large trees with exfoliating bark and/or cavities (used by Indiana bats as roosting sites) are present on the site.

This has been confirmed through an on-site meeting between HDR|LMS and Mr. Steve Joule of NYSDEC on September 8, 2005. Mr. Joule reported that there were no specific NYSDEC concerns with any of the three major species (bog turtle, timber rattlesnake, Indiana bat) cited in the agency file searches. Mr. Joule's opinion is that the wetlands are of the wrong type and "too dry" for bog turtles. The concern over timber rattlesnake is lessened since the nearest (1.5 miles) timber rattlesnake dens are west of the Thruway, and the nearest dens to the east (on West Point property) are 2.5 miles away which is the maximum the snakes typically travel from the dens. In regards to Indiana Bats, there are no records of Indiana bats near the site and the on-site habitat was not considered particularly suitable for the Indiana bat. However, large trees and snags should be maintained on site where possible to provide habitat.

3.4.3 Faunal Mitigation Measures

Mitigation measures that will be employed for the Legacy Ridge site consist of the avoidance of the active period for Indiana bats for initial land clearing activities, and the retention of larger trees in the landscaping plan, not only for their potential value to bats but also for their aesthetic value and role as a visual and noise barrier. Additionally, the proposed development plan retains approximately 167.9 (approximately 49.5% of the existing forest) acres of deciduous forest on the Legacy Ridge site as open space, or greenbelts thus; adequate roosting and foraging habitat for bats will remain on the parcel.

The two important habitats on the site are the large wetland in the southeast corner and the Mineral Spring Brook corridor north of Trout Brook Road. The value of the large wetland has been somewhat compromised by large expanses (common reed) of invasive vegetation on the eastern side and numerous ditches on the western side. This wetland has been avoided in the development of the site plan. Mineral Spring Brook has also been avoided in the plan.

Additional mitigation for the protection of faunal species includes:

- The incorporation of 430 acres of greenspace into the site design will allow some animals to remain on site. The proposed greenspace will protect the two large ponds and the surrounding deciduous forest, which will continue to provide a resting and foraging area, as well as nesting habitat, for bird species on the site.
- The incorporation of trees and shrubs that provide a source of seeds or berries into the landscaping plan will provide a food source for wildlife.
- The avoidance of tree and shrub species (white cedar, azaleas, and yews) which are favored as food by deer will reduce deer damage to other landscaped features.
- The gradual build-out of the project will allow wildlife species to slowly adjust to changing conditions on site.
- Accomplishing tree clearing in the times when avian species are mobile, that is, not between May and July, will mitigate potential impacts on these species.
- Preservation of ponds, wetland corridors and stream corridors will preserve amphibian and reptile habitats.
- Providing an inter-connected open space network, together with limited clearing in the "back yards" of lots allows wildlife movement throughout the site, thereby preserving populations.