

3.3 Vegetation and Wildlife

3.3.1 Existing Conditions

3.3.1.1 Introduction and Project Setting

The Town and Village of Chester lie in a hilly section of the Wallkill River Valley that abuts the Black Dirt region of southcentral Orange County. The topography throughout the project site ranges from flat to moderately steep slopes that support a mixture of woods, wetlands and agricultural fields. The soil types on the property vary from very deep, well-drained soils to poorly drained soils. Section 3.1, Soils and Topography, provides a soils list, which includes the descriptions of the site's soils as documented in the Soil Survey of Orange County by the United States Department of Agriculture (USDA) Soil Conservation Service (SCS). Refer to Section 3.1 for a more detailed description of the topography and soils of the project site.

The BT Holdings development is proposed on a parcel of approximately 68.4 acres that is located in two municipalities, partly in the northwestern portion of the Town of Chester, Orange County, New York (see DEIS section 2.0, Figure 2-2) and partly in the northwestern area of the Village of Chester. The project site is northeast of and has road frontage on Route 17M. Other major through-roads nearest the site to the east and south, respectively, are State Routes 17 and 94.

Existing land uses immediately surrounding the project site include: the Chester Mall to the west along 17M; the Castle Family Fun Center also to the west and across Route 17M; the Talmadge farm to the north; single-family residential development and vacant land to the north and east; the Nexans industrial site to the west; and residential neighborhoods to the west and south. The predominant land uses in the project vicinity are a mixture of commercial, industrial and residential uses.

The project site contains a US Army Corps of Engineers-regulated wetland, which is not associated with any NYSDEC-regulated wetland. This wetland is situated along the westerly boundary of the site behind the Chester Mall. A small area of the wetlands will be disturbed as a result of one road crossing that is part of the BT Holdings development.

The proposed project site is entirely vacant except for the concrete foundation of a former shed or barn. The project site consists of approximately 46 acres of field, meadow and brushy areas, about 19 acres of wooded area and contains 3.68 acres of federally-regulated freshwater wetlands. Examination of aerial photographs of site indicate that the present condition of the property as undeveloped farm fields with wooded hedgerows and wooded areas has existed since at least 1975. Approximately two-thirds of the land affected by the proposed development consists of nearly level and gently to moderately sloping terrain. The remaining lands affected by the proposed development are sloped- to rolling terrain containing intermittent steep slope areas.

DEIS section 3.1 provides additional description of the site's terrain. On-site topography and slopes are shown in Figure 3.1-2, Existing Slopes. Elevations vary approximately 138 feet across the site. The highest elevation is located on the broad hilltop, within the northwestern corner of the site at an elevation of 600 feet above sea level. The lowest elevation is along the southern boundary at 462 feet above sea level.

3.3.1.2 Methodology

Tim Miller Associates, Inc. (TMA) staff conducted biological surveys of the BT Holdings project site during the summer/fall of 2008. Investigations focused on determining the presence/absence of protected wildlife, including non-vernal pool breeding amphibians, nesting raptors, other birds and vegetation. A list of plant species observed during the surveys is included in Table 3.3-2; this list is representative of the ecological communities on the site. A list of animal species observed or potentially present on the site is included in Tables 3.3-3 and 3.3-4. Additional observations made during subsequent site visits and also during wetland delineations are included throughout the chapter.

The New York State Department of Environmental Conservation (NYSDEC) provides a list of threatened and endangered plants and animals that are afforded protection statewide.¹ During field investigations no endangered or threatened plant species, habitats or communities were observed within the project area. None of the existing plant and animal communities or habitat types found on the site are unique within the neighboring towns or the wider region and therefore none of these features of the site are unusual, locally rare or significant, or constitute an exemplary local resource.

3.3.1.3 Vegetation

Existing Site Ecological Communities and Typical Associated Wildlife

The BT Holdings development site includes three principal habitat/ecosystems which correspond with the following broadly described “Ecological Communities of New York State”²:

1. Successional old field;
2. Successional northern hardwood forest; and;
3. Shallow emergent marsh.

Table 3.3-1 present the site acreage associated with each ecological community. The location of ecological community types and other habitat features of the site are shown on Figure 3.3-1.

Table 3.3-1 Existing On-site Habitat Coverage	
Habitat Type	Approximate Extent
Successional old field	45.59 acres
Successional northern hardwood forest	19.16 acres
Shallow emergent marsh	3.68 acres
Sources: Langan Engineering and Tim Miller Associates, Inc., 2009	

Overall, the site’s vegetation appears to be healthy and productive, albeit significantly altered from a native, undisturbed state by past and present agricultural usages and by the dominant

¹Young, Stephen M. and Troy W. Weldy. 2006. New York Rare Plant Status List. New York Natural Heritage Program, Albany, NY. May 2006.

²Edinger, G.J. et al (Eds.) 2002. Ecological Communities of New York State. Second Edition. NYSNHP, NYSDEC. Albany, NY. 136 pp.

presence of non-native and invasive exotic shrubs, primarily common buckthorn and multiflora rose.

A 3.68 acre wetland exists in the central portion of the project site. This wetland is described in depth later in this chapter.

Successional Old Field

The majority of the project site currently supports field, brush or meadow areas that were used for past farming activities. This community type occupies approximately 45.52 acres (66.6 percent) of the project site. As the community consists entirely of herbaceous species, the tree and shrub layers are completely absent.

The New York State Natural Heritage Program (NYSNHP) describes successional old field as open uplands, which are defined as “upland communities with less than 25% canopy cover of trees; the dominant species in these communities are shrubs, herbs, or cryptogamic plants (mosses, lichens, etc.)” The successional old field is “...a meadow dominated by forbs and grasses that occurs on sites that have been cleared and plowed (for farming or development), and then abandoned.” According to the NYSNHP, successional old field communities are ranked G4 (apparently secure globally, though it might be quite rare in parts of its range, especially at the periphery) and S4 (apparently secure in New York State).

Open areas located to the north of the 3.68 acre centrally located wetland are partially maintained and used to grow row crops (corn).

Open field areas located to the south of the wetland are more typical of successional fields and have not been maintained. Vegetation in these fields is generally taller (up to three feet high) due to the lack of mowing and includes tall goldenrod (*Salidago altissima*), flat-top fragrant goldenrod (*Euthamia tenuifolia*), orchard grass (*Dactylis glomerata*), common chickweed (*Cerastium arvense*), old-field cinquefoil (*Potentilla simplex*), poison ivy (*Toxicodendron radicans*) and New England Aster (*Aster novae-angliae*). Shrubs are present in these fields, but do not exhibit a dense enough coverage to designate the community as successional shrubland. Shrub species include gray dogwood (*Cornus foemina*), allegheny blackberry (*Rubus allegheniensis*), eastern red cedar (*Juniperus virginiana*) and arrowwood (*Viburnum dentatum*).

The open field community provides habitat for Canada geese, foraging song birds (i.e. sparrows, cardinals) and hunting opportunities for raptor species, such as red tailed hawks. Cottontail rabbits, meadow voles and white tail deer are among the mammals that utilize the fields.

Successional Northern Hardwood Forest

Forested areas of the project site currently support mature second growth upland hardwood forest vegetation. This community type occupies approximately 19.16 acres (28 percent) of the project site. Tree canopy coverage is nearly complete and provides shade that moderates temperature fluctuations at the ground level but restricts the development of well-vegetated understory canopies or groundlayer vegetation.

The NYSNHP describes successional northern hardwood forest as forested uplands, which are loosely defined as “upland communities with more than 60% canopy cover of trees; these communities typically occur on substrates with less than 50% rock outcrop or shallow soil over

bedrock". The successional northern hardwood forest is an ecological community "...that occurs on sites that have been cleared or otherwise disturbed." According to the NYSNHP, "This is a broadly defined community and several serial and regional variants are known." *Successional Northern Hardwood Forests* are ranked G5 (demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery) and S5 (demonstrably secure in New York State).³

The composition of the forest includes a variety of deciduous hardwood trees, dominated by maples, birches, oak, black cherry, ashes and black locusts. Table 3.3-2 presents the list of trees, shrubs, and herbaceous plants observed on the property. Evergreen tree species are generally absent from the site with the exception of scattered eastern red cedars in the southern section of woodlands.

The understory vegetation consists primarily of seedlings and saplings of the overstory trees as well as grape vines, witchhazel, and American elm. The understory vegetation is generally sparse due to the limited amount of solar penetration through the tree canopy and continuous browsing by deer. Seasonally prominent ground layer vegetation is extremely sparse and includes scattered patches of spinulose wood fern, skunk cabbage, enchanter's nightshade, and jumpseed.

The site woods include mature trees of species that provide mast (fruit and nut sources) for deer and other mammals and that supply cover in a well developed upper canopy and in standing dead trees for arboreal species. Lack of significant understory and thickets limits its use as cover for some smaller ground-based fauna. A number of trees that are either standing dead or damaged provide habitat for cavity dwellers such as owls and chipmunks.

Shallow Emergent Marsh

The wetlands that occur on the project site are classified as a shallow emergent marsh community. Approximately 3.68 acres of shallow emergent marsh wetland as regulated by the US Army Corps of Engineers (US ACOE) exists on the project site. The community is dominated by herbaceous species. Tree and shrub coverage are present though extremely scarce within the community.

The NYSNHP describes "shallow emergent marsh, open mineral soil wetlands" as "wetlands with less than 50% cover of trees." The shallow emergent marsh is a "...marsh meadow community that occurs on mineral soil or deep mulch soils (rather than true peat), that are permanently saturated and seasonally flooded." According to the NYSNHP, shallow emergent marshes are ranked G5 (demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery) and S5 (demonstrably secure in New York State).⁴

The shallow emergent marsh wetland contains vegetation that is typical of wet meadows. The shrub layer is sparse exhibiting a coverage of approximately 20 to 30 percent during the growing-season. Dominant shrub species consists of low growing (up to 4 feet high) gray dogwood and red osier dogwood. The herbaceous layer varies in height up to three feet and is nearly complete, exhibiting a ground cover of approximately 90 percent throughout the growing

³Edinger, G.J. et al (Eds.) 2002. *Ecological Communities of New York State*. Second Edition. NYSNHP, NYSDEC. Albany, NY. 136 pp.

⁴Edinger, G.J. et al (Eds.) 2002. *Ecological Communities of New York State*. Second Edition. NYSNHP, NYSDEC. Albany, NY. 136 pp.

season. Dominant vegetation within the layer includes meadow sweet, purple loosestrife, woolgrass, soft rush, phragmites and carex species. Table 3.3-2 presents the list of trees, shrubs, and herbaceous plants observed on the property.

The shallow emergent marsh/wet meadow community could provide suitable habitat for several species of amphibians, such as American toad, green frog, and redback salamander. Songbirds would be attracted to the wetland as a place to forage and to seek cover in shrubby areas. Larger species of wildlife, such as white tail deer, may also forage in the wetland and use it as a drinking source.

Table 3.3-2 Vegetation - Observed Species	
Common name (<i>Scientific name</i>)	
Trees	
American beech (<i>Fagus grandifolia</i>)	Grey birch (<i>Betula populifolia</i>)
American elm (<i>Ulmus americana</i>)	Ironwood (<i>Carpinus caroliniana</i>)
American hackberry (<i>Celtis occidentalis</i>)	Mulberry (<i>Morus</i> spp.)
Ashleaf maple (<i>Acer negundo</i>)	Pignut hickory (<i>Carya glabra</i>)
Bebb willow (<i>Salix bebbiana</i>)	Pin oak (<i>Quercus palustris</i>)
Big tooth aspen (<i>Populus grandidentata</i>)	Poplar (<i>Populus</i> spp.)
Black cherry (<i>Prunus serotina</i>)	Quaking aspen (<i>Populus tremuloides</i>)
Black locust (<i>Robinia pseudoacacia</i>)	Red maple (<i>Acer rubrum</i>)
Black walnut (<i>Juglans nigra</i>)	Shadblow serviceberry (<i>Amelanchier canadensis</i>)
Black willow (<i>Salix nigra</i>)	Shagbark hickory (<i>Carya ovata</i>)
Cherry (<i>Prunus</i> spp.)	Slippery elm (<i>Ulmus rubra</i>)
Chokecherry (<i>Prunus virginiana</i>)	Staghorn sumac (<i>Rhus typhina</i>)
Crabapple (<i>Malus</i> spp.)	Sugar maple (<i>Acer saccharum</i>)
Eastern red cedar (<i>Juniperus virginiana</i>)	Swamp white oak (<i>Quercus bicolor</i>)
Green ash (<i>Fraxinus pennsylvanica</i>)	Tree of Heaven (<i>Ailanthus altissima</i>)
	White ash (<i>Fraxinus americana</i>)
Shrubs	
Allegheny blackberry (<i>Rubus allegheniensis</i>)	Japanese honeysuckle (<i>Lonicera japonica</i>)
Black raspberry (<i>Rubus occidentalis</i>)	Morrow's honeysuckle (<i>Lonicera morrowii</i>)
Blackhaw viburnum (<i>Viburnum prunifolium</i>)	Multiflora rose (<i>Rosa multiflora</i>)
Common buckthorn (<i>Rhamnus cathartica</i>)	Prickly dewberry (<i>Rubus flagellaris</i>)
Common elderberry (<i>Sambucus nigra</i>)	Pussy willow (<i>Salix discolor</i>)
Flowering dogwood (<i>Cornus florida</i>)	Red-osier dogwood (<i>Cornus sericea</i>)
Gray dogwood (<i>Cornus racemosa</i>)	Silky dogwood (<i>Cornus amomum</i>)
Highbush blueberry (<i>Vaccinium corymbosum</i>)	Southern arrowwood (<i>Viburnum recognitum</i>)
Japanese barberry (<i>Berberis thunbergii</i>)	Wineberry (<i>Rubus phoenicolasius</i>)
	Witchhazel (<i>Hamamelis virginiana</i>)
Forbs	
Allegheny monkey flower (<i>Mimulus ringens</i>)	Grape (<i>Vitis</i> spp.)
Alsike clover (<i>Trifolium hybridum</i>)	Harvestlice (<i>Agrimonia parviflora</i>)
American pennyroyal (<i>Hedeoma pulegioides</i>)	Hedge bindweed (<i>Calystegia sepium</i>)
Annual fleabane (<i>Erigeron annuus</i>)	Horsenettle (<i>Solanum carolinense</i>)
Arrowleaf tearthumb (<i>Polygonum sagittatum</i>)	Horseweed (<i>Conyza canadensis</i>)
Awl aster (<i>Symphyotrichum pilosum</i>)	Henbit (<i>Lamium amplexicaule</i>)
Birdsfoot trefoil (<i>Lotus corniculatus</i>)	Indian hemp (<i>Apocynum cannabinum</i>)
Bitter dock (<i>Rumex obtusifolius</i>)	Lady's thumb (<i>Polygonum persicaria</i>)
Black-eyed Susan (<i>Rudbeckia hirta</i>)	Lambsquarter (<i>Chenopodium album</i>)
Black bindweed (<i>Polygonum convolvulus</i>)	Late goldenrod (<i>Solidago altissima</i>)
Blackseed plantain (<i>Plantago rugelii</i>)	Many-flowered aster (<i>Symphyotrichum</i>)
Black nightshade (<i>Solanum nigrum</i>)	Mapleleaf goosefoot (<i>Chenopodium simplex</i>)
Bladder campion (<i>Silene cucubalus</i>)	Marsh marigold (<i>Caltha palustris</i>)
Blue vervain (<i>Verbena hastata</i>)	Meadow hawkweed (<i>Hieracium caespitosum</i>)
Bouncing bet (<i>Saponaria officinalis</i>)	Moth mullein (<i>Verbascum blattaria</i>)
Bur-marigold (<i>Bidens cernua</i>)	Motherwort (<i>Leonurus cardiaca</i>)
Bushy aster (<i>Symphyotrichum dumosum</i>)	Mouse ear chickweed (<i>Cerastium vulgatum</i>)

Table 3.3-2 Vegetation - Observed Species	
Common name (<i>Scientific name</i>)	
Forbs (Continued)	
Butter-and-eggs (<i>Linaria vulgaris</i>)	Mugwort (<i>Artemisia vulgaris</i>)
Canada goldenrod (<i>Solidago canadensis</i>)	New England aster (<i>Symphyotrichum novae-angliae</i>)
Canada thistle (<i>Cirsium arvense</i>)	Northern bugleweed (<i>Lycopus uniflorus</i>)
Catnip (<i>Nepeta cataria</i>)	Orange touch-me-not (<i>Impatiens capensis</i>)
Clearweed (<i>Pilea pumila</i>)	Oriental bittersweet (<i>Celastrus orbiculatus</i>)
Climbing hempweed (<i>Mikania scandens</i>)	Ox-eye daisy (<i>Chrysanthemum</i>
Celandine (<i>Chelidonium majus</i>)	Panicked aster (<i>Symphyotrichum lanceolatum</i>)
Cespitose smartweed (<i>Polygonum cespitosum</i>)	Pennsylvania bittercress (<i>Cardamine</i>
Chicory (<i>Cichorium intybus</i>)	Pennsylvania smartweed (<i>Polygonum pennsylvanicum</i>)
Climbing false buckwheat (<i>Polygonum scandens</i>)	Poison ivy (<i>Toxicodendron radicans</i>)
Climbing nightshade (<i>Solanum dulcamara</i>)	Pokeweed (<i>Phytolacca americana</i>)
Coltsfoot (<i>Tussilago farfara</i>)	Poor man's pepper (<i>Lepidium virginicum</i>)
Common burdock (<i>Arctium minus</i>)	Prickly lettuce (<i>Lactuca serriola</i>)
Common cinquefoil (<i>Potentilla simplex</i>)	Purple loosestrife (<i>Lythrum salicaria</i>)
Common dandelion (<i>Taraxacum officinale</i>)	Purpleleaf willowherb (<i>Epilobium coloratum</i>)
Common dodder (<i>Cuscuta gronovii</i>)	Queen Anne's lace (<i>Daucus carota</i>)
Common evening primrose (<i>Oenothera biennis</i>)	Red clover (<i>Trifolium pratense</i>)
Common greenbriar (<i>Smilax rotundifolia</i>)	Red Sheep sorrel (<i>Rumex acetosella</i>)
Common groundsel (<i>Senecio vulgaris</i>)	Selfheal (<i>Prunella vulgaris</i>)
Common mallow (<i>Malva neglecta</i>)	Shepherd's purse (<i>Capsella bursa-pastoris</i>)
Common milkweed (<i>Asclepias syriaca</i>)	Skunk cabbage (<i>Symplocarpus foetidus</i>)
Common mullein (<i>Verbascum thapsus</i>)	Small white aster (<i>Symphyotrichum</i>
Common plantain (<i>Plantago major</i>)	Smooth goldenrod (<i>Solidago gigantea</i>)
Common smartweed (<i>Polygonum hydropiper</i>)	Spearmint (<i>Mentha spicata</i>)
Common threeseed mercury (<i>Acalypha rhomboidea</i>)	Spotted knapweed (<i>Centaurea stoebe</i>)
Common yellow oxalis (<i>Oxalis stricta</i>)	Stinging nettle (<i>Urtica dioica</i>)
Cow parsnip (<i>Heracleum maximum</i>)	Stinking chamomile (<i>Anthemis cotula</i>)
Common ragweed (<i>Ambrosia artemisiifolia</i>)	Sulfur cinquefoil (<i>Potentilla recta</i>)
Cow vetch (<i>Vicia cracca</i>)	Summer grape (<i>Vitis aestivalis</i>)
Crown vetch (<i>Coronilla varia</i>)	Tall beard-tongue (<i>Penstemon digitalis</i>)
Curlytop knotweed (<i>Polygonum lapathifolium</i>)	Tall goldenrod (<i>Solidago altissima</i>)
Cypress spurge (<i>Euphorbia cyparissias</i>)	Virginia creeper (<i>Parthenocissus quinquefolia</i>)
Deptford pink (<i>Dianthus armeria</i>)	Virginia stickseed (<i>Hackelia virginiana</i>)
Devils beggarticks (<i>Bidens frondosa</i>)	Virginia strawberry (<i>Fragaria virginiana</i>)
Enchanter's nightshade (<i>Circaea lutetiana</i>)	Virginia jumpseed (<i>Polygonum virginianum</i>)
English plantain (<i>Plantago lanceolata</i>)	White avens (<i>Geum canadense</i>)
Field garlic (<i>Allium vineale</i>)	White campion (<i>Silene latifolia</i>)
Field peppergrass (<i>Lepidium campestre</i>)	White clover (<i>Trifolium repens</i>)
Field sowthistle (<i>Sonchus arvensis</i>)	White snakeroot (<i>Ageratina altissima</i>)
Field thistle (<i>Cirsium discolor</i>)	White vervain (<i>Verbena urticifolia</i>)
Flat-top goldenrod (<i>Euthamia graminifolia</i>)	White wood aster (<i>Eurybia divaricata</i>)
Fool's parsley (<i>Aethusa cynapium</i>)	Wild madder (<i>Galium mollugo</i>)
Fuller's Teasel (<i>Dipsacus fullonum</i>)	Wrinkled-leaved goldenrod (<i>Solidago rugosa</i>)

Table 3.3-2 Vegetation - Observed Species	
Common name (<i>Scientific name</i>)	
Forbs (Continued)	
Garlic mustard (<i>Alliaria petiolata</i>)	Yarrow (<i>Achillea millefolium</i>)
Gill-over-the-ground (<i>Glechoma hederacea</i>)	Yellow rocket (<i>Barbarea vulgaris</i>)
	Yellow sweet clover (<i>Melilotus officinalis</i>)
Grasses and Grasslike Plants	
Barnyard grass (<i>Echinochloa crus-galli</i>)	Green foxtail (<i>Setaria viridis</i>)
Broadleaf cattail (<i>Typha latifolia</i>)	Path rush (<i>Juncus tenuis</i>)
Canadian rush (<i>Juncus canadensis</i>)	Rice cut grass (<i>Leersia orizoides</i>)
Common reed (<i>Phragmites australis</i>)	Shallow sedge (<i>Carex lurida</i>)
Corn (<i>Zea mays</i>)	Soft rush (<i>Juncus effusus</i>)
Dark green bulrush (<i>Scirpus atrovirens</i>)	Tussock sedge (<i>Carex stricta</i>)
Fox sedge (<i>Carex vulpinoidea</i>)	Umbrella sedge (<i>Cyperus strigosus</i>)
Fringed sedge (<i>Carex crinita</i>)	Woolly grass bulrush (<i>Scirpus cyperinus</i>)
Giant foxtail (<i>Setaria faberi</i>)	Yellow foxtail (<i>Setaria pumila</i>)
Ferns and Mosses	
Sensitive fern (<i>Onoclea sensibilis</i>)	Sphagnum moss (<i>Sphagnum</i> spp.)
	Spinulose wood fern (<i>Dryopteris carthusiana</i>) *
Notes:	
This list represents the species observed during project surveys of this site in 2005 and 2008. The list is not, however, represented to be an exhaustive list of all plant species on the site.	
* NYS exploitably vulnerable species	
Prepared by: Tim Miller Associates, Inc., 2009.	

Rare and Endangered Vegetation Species

Correspondence from the NHP received November 10, 2008, indicated that it had no records of endangered or threatened plant species or significant habitats occurring on or near the BT Holdings development site. A copy of the letter is included in Appendix B.

No federal or state-listed threatened or endangered plant species, habitats or significant natural communities were identified or observed by field consultants during site visits on the site.

Most ferns present on the site are categorized by New York State as exploitably vulnerable. As a note, the State includes all fern species with the exception of the sensitive, hayscented and bracken ferns in their State list of protected plants. Plants that are “exploitably vulnerable” are listed as protected species under 6NYCRR New Part 193, Protected Native Plants, and are defined in the state listing as, “...native plants likely to become threatened in the near future throughout all or a significant portion of their ranges within the state if casual factors continue unchecked [e.g, all orchids, most ferns].” New York State law protects state-listed plants existing on public lands. Right of protection of exploitably vulnerable species are conveyed by the State to the private land owner on which the species are present. With the consent of the land owner, it is not a violation “for any person, anywhere in the state, to pick, pluck, sever, remove, damage by the application of herbicides or defoliant, or carry away...any protected plant.”

3.3.1.4 Wildlife

The site’s present habitat value is impaired by attributes of scale, fragmentation and community composition. In other areas of the Hudson River Valley, tracts of connected undisturbed habitats of at least 1,000 acres have been identified as potential areas of importance for protecting “landscape scale” biodiversity features.⁵ The relatively small size (approximately 68 acres) of this property, its varied habitats, and adjacent land uses (major roadways and other commercial, residential or agricultural properties) reduce the project site’s value for most larger animal species or interior forest species. The site may be considered to have supportive habitat for smaller species, species with small home ranges or wildlife that are human subsidized species (i.e. species associated with residential developments or other human generated disturbances of the environment).

Correspondence from the NYSDEC Natural Heritage Program received November 10, 2008, indicated that it had no records of endangered or threatened wildlife species occurring on or near the BT Holdings development site. A copy of the letter is included in Appendix B.

The small woodlands, wetlands and agricultural fields on the site provide wildlife habitat for a number of common species, including deer, raccoon, opossum, chipmunk, and gray squirrel. Bird species that selectively reside within tree canopies (e.g. owls, warblers and vireos) may be transient species of the project site. The mowed pastures located on the site offer habitat for the less common species of birds (e.g. meadowlarks and bluebirds) to nest and forage. The woodlands on this site offer a number of cavity dwelling opportunities for owls and small mammals.

⁵Miller, N.A. And M. W. Klemens. 2004. Croton-to-Highlands Biodiversity Plan: Balancing development and the environment in the Hudson River Estuary Catchment. MCA Tech. Paper No. 7. Wildlife Conservation Society, Bronx, NY. 34pp.

There are numerous stone walls distributed throughout the property between existing and former farm fields. These stone walls offer nesting and cover area for a variety of species, including snakes, small mammals (chipmunks, mice, rabbits, voles, etc.) and various amphibian species. Newts and salamanders are particularly likely to find suitable habitat within the stone walls within or near wetlands and watercourses. Insect and worm populations that are likely to live within the walls provide a food base for many of these creatures.

Each of the vegetative community types noted above represents a different type of wildlife habitat. The "edge habitats" between the different vegetative communities provide a diversity of structure and niches for wildlife species. The overall value of the project site as wildlife habitat is generally high, due to the existing interface between open areas and woods.

As described above, the site conditions create a valuable connection between the wooded areas of the site and the open meadows. Predatory species, which include hawks, vultures and owls among the avian species and foxes among the mammals, can hide under the cover of the tree line and prey on smaller species that wander into the open to feed or bask in the sun. Conversely, the prey species, which include rabbits, mice and voles, snakes, ground feeding birds and some of the amphibians, can feed in the open, where seed and fruit are more plentiful, but duck back into the cover of the stone walls and thickets below the tree line and hedgerows.

The location of the site between NYS Route 17, commercial and industrial areas to the west/southwest, the center of the Village of Chester to the southeast and additional commercial and neighborhood areas and the east Chester area to the south, hinders the site's ability to serve as a wildlife corridor between undisturbed habitats that exist within proximity to the property.

Table 3.3-3 provides a list of wildlife species common to the area which are known to or could reasonably be expected to utilize the project site. The list is not limited to direct site observations, but is a more thorough compilation of observations that have been documented throughout Orange County in similar habitat conditions. The list indicates, by asterisks, those species that were identified during project related field activities. Identification was either by direct sighting, audible observation, identification of scat or tracks, or other signs noted during site visits. Herptile (reptilian and amphibian) species were included either if they were directly observed on the property or if there are known populations in central Orange County (Warwick USGS Quad) generally, as indicated in the NYSDEC atlas of reptiles and amphibians that would occur in habitats similar to those found on the project site.⁶

⁶NYS DEC. 2006. New York State Amphibian and Reptile Atlas Project 1990-1998.
Website: www.dec.state.ny.us/website/dfwmr/wildlife/herp/

Table 3.3-3 Wildlife List - Observed and Regional Species	
Common name (Scientific name)	
Mammals	
Deer mouse (<i>Peromyscus maniculatus</i>)	Opossum (<i>Didelphis virginiana</i>)
Eastern chipmunk (<i>Tamias striatus</i>) *	Raccoon (<i>Procyon lotor</i>)
Eastern cottontail (<i>Sylvilagus floridanus</i>) *	Red bat (<i>Lasiurus borealis</i>)
Eastern coyote (<i>Canis latrans</i>)	Red fox (<i>Vulpes vulpes</i>) *
Eastern mole (<i>Scalopus aquaticus</i>)	Short-tail shrew (<i>Blarina brevicauda</i>)
Gray fox (<i>Urocyon cinereoargenteus</i>)	Southern flying squirrel (<i>Glaucomys volans</i>)
Gray squirrel (<i>Sciurus carolinensis</i>) *	Striped skunk (<i>Mephitis mephitis</i>)
House mouse (<i>Mus musculus</i>)	White-footed mouse (<i>Peromyscus leucopus</i>)
Little brown bat (<i>Myotis lucifugus</i>)	White tail deer (<i>Odocoileus virginianus</i>) *
Meadow vole (<i>Microtus pennsylvanicus</i>)	Woodchuck (<i>Marmota monax</i>) *
Reptiles	
Black rat snake (<i>Elaphe obsoleta</i>)	Garter snake (<i>Thamnophis sirtalis</i>)
Box turtle (<i>Terrapene carolina</i>)	Milk snake (<i>Lampropeltis triangulum</i>)
Brown snake (<i>Storeria dekayi</i>)	Northern water snake (<i>Natrix sipedon</i>)
	Ringneck snake (<i>Diadophis punctatus</i>)
Amphibians	
American toad (<i>Bufo americanus</i>) *	Red-backed salamander (<i>Plethodon cinereus</i>)*
Gray treefrog (<i>Hyla versicolor</i>)	Red-spotted newt (<i>Notophthalmus viridescens</i>)
Green frog (<i>Rana clamitans</i>) *	Spring peeper (<i>Pseudocris crucifer</i>)
Pickerel frog (<i>Rana palustris</i>)	Wood frog (<i>Rana sylvatica</i>)
Notes: This list represents many species that could potentially inhabit this site. It is not, however, an exhaustive list.	
* Indicates species observed directly or by signs (e.g. tracks or scat) during 2008 field surveys.	
Prepared by: Tim Miller Associates, Inc., 2009	

NYSDEC Breeding Bird Atlas

Table 3.3-4 provides a list of 82 bird species common to the area which are known to or could reasonably be expected to utilize the site. The list of birds included in Table 3.3-4 was derived from the New York State Breeding Bird Atlas⁷ (BBA) and based on the field consultants' observations of on site habitat and knowledge of the listed birds' distribution and habitat requirements.

The NYS Breeding Bird Atlas (BBA) is a comprehensive, statewide bird survey that documents the breeding birds identified by trained volunteers in three-mile square blocks. The most recent surveys (2000 through 2005) have been completed and data has been compiled and included in the final report titled "The Second Atlas of Breeding Birds in New York State" released in December of 2008. The listings include data on the breeding behavior observed, the year the bird(s) was observed and the state protection status of the species. Therefore, the listing of a particular bird in a breeding block does not mean that the species would breed everywhere in that block, and the list for each block would include a greater number of breeding birds than would utilize any given site within that block.

⁷New York State Department of Environmental Conservation (NYSDEC). 2005. NYS Breeding Bird Atlas
Website: www.dec.state.ny.us/apps/bba/results/.

The project site falls within BBA Block numbers 5557A and 5557B in central Orange County. The breeding bird lists for this block are available from both the 1980-1985 and the recent 2000-2005 surveys and may be considered to provide the most inclusive list of bird species possibly expected to be observed in areas on or near the site. A total of 82 species that were observed within the Blocks during the two BBA survey periods could be expected to utilize the project site. Appendix F provides the individual species lists for each Block for both survey periods.

Of the birds identified during the BBA survey, three are listed by the NYSDEC as protected (i.e. grasshopper sparrow, Cooper's and sharp-shinned hawks are Species of Special Concern). A species of Special Concern is defined by NYSDEC as "any native species for which a welfare concern or risk of endangerment has been documented in New York State."⁸ Special Concern species are not afforded any protection by the State under the Endangered Species.

⁸New York State Department of Environmental Conservation. 2006. List of Endangered, Threatened and Special Concern Fish & Wildlife Species of New York State.

Website: <http://www.dec.state.ny.us/website/dfwmr/wildlife/endspec/etsclist.html>

**Table 3.3-4
Bird List - NYSDEC Breeding Bird Survey Blocks 5557A and 5557B
1980-1985 and 2000-2005**

Common name (<i>Scientific name</i>)	
Alder flycatcher (<i>Empidonax alnorum</i>)	Hairy woodpecker (<i>Picoides villosus</i>)
American crow (<i>Corvus brachyrhynchos</i>)	House finch (<i>Carpodacus mexicanus</i>)
American goldfinch (<i>Carduelis tristis</i>)	House sparrow (<i>Passer domesticus</i>)
American kestrel (<i>Falco sparverius</i>)	House wren (<i>Troglodytes aedon</i>)
American robin (<i>Turdus migratorius</i>)	Indigo bunting (<i>Passerina cyanea</i>)
American woodcock (<i>Scolopax minor</i>)	Killdeer (<i>Charadrius vociferus</i>)
Baltimore oriole (<i>Icterus galbula</i>)	Least flycatcher (<i>Empidonax minimus</i>)
Barn swallow (<i>Hirundo rustica</i>)	Marsh wren (<i>Cistothorus palustris</i>)
Barred owl (<i>Strix varia</i>)	Mourning dove (<i>Zenaida macroura</i>)
Black-and-white warbler (<i>Mniotilta varia</i>)	Northern cardinal (<i>Cardinalis cardinalis</i>)
Black-billed cuckoo (<i>Coccyzus erythrophthalmus</i>)	Northern flicker (<i>Colaptes auratus</i>)
Black-capped chickadee (<i>Poecile atricapillus</i>)	Northern mockingbird (<i>Mimus polyglottos</i>)
Black vulture (<i>Coragyps atratus</i>)	Northern rough-winged swallow (<i>Stelgidopteryx serripennis</i>)
Blue-gray gnatcatcher (<i>Poliotilta caerulea</i>)	Ovenbird (<i>Seiurus aurocapilla</i>)
Blue-winged warbler (<i>Vermivora pinus</i>)	Prairie warbler (<i>Dendroica discolor</i>)
Blue jay (<i>Cyanocitta cristata</i>)	Red-bellied woodpecker (<i>Melanerpes carolinus</i>)
Bobolink (<i>Dolichonyx oryzivorus</i>)	Red-eyed vireo (<i>Vireo olivaceus</i>)
Broad-winged hawk (<i>Buteo platypterus</i>)	Red-tailed hawk (<i>Buteo jamaicensis</i>)
Brown-headed cowbird (<i>Molothrus ater</i>)	Red-winged blackbird (<i>Agelaius phoeniceus</i>)
Brown thrasher (<i>Toxostoma rufum</i>)	Ring-necked pheasant (<i>Phasianus colchicus</i>)
Canada goose (<i>Branta canadensis</i>)	Rock pigeon (<i>Columba livia</i>)
Carolina wren (<i>Thryothorus ludovicianus</i>)	Rose-breasted grosbeak (<i>Pheucticus ludovicianus</i>)
Cedar waxwing (<i>Bombycilla cedrorum</i>)	Ruby-throated hummingbird (<i>Archilochus colubris</i>)
Chestnut-sided warbler (<i>Dendroica pensylvanica</i>)	Ruffed grouse (<i>Bonasa umbellus</i>)
Chipping sparrow (<i>Spizella passerina</i>)	Savannah sparrow (<i>Passerculus sandwichensis</i>)
Common grackle (<i>Quiscalus quiscula</i>)	Scarlet tanager (<i>Piranga olivacea</i>)
Common yellowthroat (<i>Geothlypis trichas</i>)	Sharp-shinned hawk (<i>Accipiter striatus</i>) *
Common raven (<i>Corvus corax</i>)	Song sparrow (<i>Melospiza melodia</i>)
Cooper's hawk (<i>Accipiter cooperii</i>) *	Swamp sparrow (<i>Melospiza georgiana</i>)
Downy woodpecker (<i>Picoides pubescens</i>)	Tree swallow (<i>Tachycineta bicolor</i>)
Eastern bluebird (<i>Sialia sialis</i>)	Tufted titmouse (<i>Baeolophus bicolor</i>)
Eastern meadowlark (<i>Sturnella magna</i>)	Turkey vulture (<i>Cathartes aura</i>)
Eastern phoebe (<i>Sayornis phoebe</i>)	Veery (<i>Catharus fuscescens</i>)
Eastern towhee (<i>Pipilo erythrophthalmus</i>)	Warbling vireo (<i>Vireo gilvus</i>)
Eastern wood-pewee (<i>Contopus virens</i>)	White-breasted nuthatch (<i>Sitta carolinensis</i>)
European starling (<i>Sturnus vulgaris</i>)	Wild turkey (<i>Meleagris gallopavo</i>)
Field sparrow (<i>Spizella pusilla</i>)	Willow flycatcher (<i>Empidonax traillii</i>)
Grasshopper sparrow (<i>Ammodramus savannarum</i>)*	Wood thrush (<i>Hylocichla mustelina</i>)
Gray catbird (<i>Dumetella carolinensis</i>)	Yellow-billed cuckoo (<i>Coccyzus americanus</i>)
Great crested flycatcher (<i>Myiarchus crinitus</i>)	Yellow-throated vireo (<i>Vireo flavifrons</i>)
Great horned owl (<i>Bubo virginianus</i>)	Yellow warbler (<i>Dendroica petechia</i>)

Notes:

This list represents many species that could potentially inhabit this site. It is not, however, an exhaustive list.

* NYSDEC listed Species of Special Concern.

Prepared by: Tim Miller Associates, Inc., 2009.

Potential for Use by Rare or Endangered Species

NYSDEC provides lists of State-listed threatened and endangered species of plants and animals through their NHP group.^{9,10} The NHP has no records of NYS-listed rare or endangered wildlife species known to inhabit the site or nearby areas (See NHP letter in Appendix B).

The United State Fish and Wildlife Service (USFWS) no longer responds to written requests to provide information regarding occurrences of Federally-listed threatened or endangered species within the vicinity of a project. The USFWS website provides the current best available information regarding Federally-listed species "known or likely" to occur in Orange County¹¹. The county list includes three species: Bog turtle (*Clemmys muhlenbergii* - Threatened), Indiana bat (*Myotis sodalis* - Endangered), and the shortnose sturgeon (*Acipenser brevirostrum* - Endangered). One of these species, the sturgeon, is only present in the Hudson River; and another, the Indiana bat, is noted to only be present outside of winter hibernacula during summer months in a limited area of the county.

1 Habitat potential for the other species that are State-listed as endangered, threatened or of special concern¹² and that are known to inhabit Orange County was analyzed. The site was examined for potential use by the following species based strictly on the presence of the existing habitats available on site, (i.e the wooded and open field terrestrial habitats and the wetlands):

- Bog turtle - Endangered;
- Spotted turtle - Special Concern;
- Wood turtle - Special Concern;
- Box turtle - Special Concern;
- Cricket frog - Endangered;
- Some *Ambystomid* salamanders (Blue-spotted, Jefferson, Marbled salamanders) - Special Concern;
- Indiana bat - Endangered;
- Longtail salamander - Special Concern;
- Upland sandpiper - Threatened;
- Cooper's hawk - Special Concern; and
- Sharp-shinned hawk - Special Concern.

Several of these species were eliminated from further consideration due to the lack of appropriate habitat(s) on the site:

- Bog turtle - This well-studied and surveyed species was not identified by the NYSDEC Natural Heritage Program as being known to occur in the area of this project. It appears that open fen habitat, which provides the necessary basking and nesting opportunities for bog turtles, is not present on site.

⁹Young, S. M. and T. W. Weldy. 2005. New York Rare Plant Status List. New York.

¹⁰ <http://www.dec.state.ny.us/website/dfwmr/wildlife/endspec/etsclist.html>

¹¹ <http://www.fws.gov/northeast/nyfo/es/CountyLists/OrangeDec2006.htm>

¹² NYSDEC. 2006. Endangered, Threatened and Special Concern Fish and Wildlife Species of New York State. Website: www.dec.state.ny.us/website/dfwmr/wildlife/endspec/etsclist.html#top

- Spotted turtle - This species may exist in wooded and meadow habitats, but typically returns to woodland vernal pools for feeding, especially when breaking dormancy in the spring months. The lack of vernal pools on this property would appear to limit its potential for supporting spotted turtle individuals.
- Wood turtle - Wood turtles exploit moderate to fast flowing rivers and large cool or coldwater streams, utilizing the deep bank undercuts of such waters for winter burrows and for nesting. In the summer, they exploit extensive, landscape-scale, marshy meadows and stream-side forest habitats for foraging. The absence of suitable stream corridors with sandy banks and overhangs for nesting and hibernating on this property would appear to limit its potential for supporting wood turtles.
- Cricket frog - This species breeds in shallow ponds or lakes with extensive beds of submerged or floating vegetation. Within its range, the cricket frog inhabits sunny, shallow ponds with abundant vegetation in the water or on the shores. Slow moving, algae-filled water courses with sunny banks are the preferred habitat. Deep water is generally avoided. Males are typically found calling from floating mats of vegetation and organic debris. Breeding populations of this species are present within Orange County, most notably in the area of Glenmere Lake, in areas where appropriate breeding habitat is present. The single wetland on the site does not present permanent standing water that would be utilized by this species for maintaining breeding populations.
- *Ambystomid* salamanders - The site lacks vernal pools or other significant wetland areas with appropriate hydrology and vegetation to provide breeding habitat for any of the *Ambystomid* salamander species.
- Upland sandpiper - Upland sandpipers are adaptable to developed areas, including some forms of ungrazed agricultural lands, but require relatively large open areas, particularly in relation to nesting requirements. Nesting and feeding occurs preferentially in grassy vegetation that is less than 24 inches in height. Nesting has been reported from areas of pasture and low tilled cropland as well as from grassy areas alongside highways and at airports. During migration, the species have been noted to sometimes utilize smaller open areas, including golf courses and residential lawns. The draft USFWS Upland Sandpipers Habitat Model• (March, 2001) states that nesting birds are rarely found in areas with less than 50 acres of contiguous open grassland and only infrequently found in areas of less than 125 acres of grassland. While appropriate vegetative structure presently occurs on the project site, the parcel even in its present open, agricultural state is not extensive enough to be utilized by this species for breeding purposes, although it is, and would remain after the planned development, useful as a migratory stopover. This species was not reported to be found in either of the Breeding Bird Blocks during the most recent observations made for the 2000-2005 NYS Breeding Bird Atlas surveys. The BBA's records for this species consists on a single observation of a fledgling bird observed in 1981 in a block over four miles west of the project site within the Black Dirt region of Orange County. As with all migratory birds, adults or juveniles of this species might be present seasonally on this as well as adjacent properties within the area.

Evaluations of site specific requirements were then conducted for the remaining State-listed species.

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- http://www.fws.gov/r5gomp/gom/habitatstudy/metadata/upland_sandpiper_model.htm

Indiana bat

Observations were made regarding the number of potential Indiana bat maternal colony roosting trees on the property and their location relative to solar exposure and other habitat requirements of the species. The ecological habits of the Indiana bat, as presented in the USFWS species recovery plan¹⁴, generally characterizes Indiana bats as utilizing caves for winter hibernation and trees with snags or strongly exfoliating bark for roosting during all other seasons. Females with pups seek shelter underneath the overhanging or peeling bark of live trees or within cracks and splits in standing dead trees in late Spring through early Summer. The preferred trees used by maternal colonies include live black locust (*Robinia pseudoacacia*), live shagbark hickory (*Carya ovata*) and standing dead trees (snags) of many species. Trees with trunks that have exposure to sun are considered to be preferred by maternal colonies over trees that are shaded and not warmed by the sun. This species generally roosts in several trees in relatively close proximity over the summer months. Although not preferred habitat, Indiana bats do forage in areas of forest, open field, and wetlands such as present on the site.

A limited amount of preferred tree species and trees with snags were observed on the project site. The forested areas on the site are fragmented from large tracts of forest in the region by the effects of farming and development on the surrounding parcels. The conclusion of this site evaluation is that, while some potential roosting trees and foraging habitat does exist, the site may nevertheless have a low probability of supporting Indiana bats maternity colonies due to its location further eastward than known roosting areas and lack of quality habitat.

Longtail salamander

There is the possibility that habitat on-site could support populations of longtail salamanders. This species is listed by New York State as being a species of special concern although it is identified as being present locally in several areas of western Orange County and southeastern Sullivan County. It is a secretive, terrestrial animal as an adult, and might utilize any of the stone walls, wooded areas and pastures of the site for daytime cover as well as during its nocturnal feeding forays. Egg deposition occurs in stony crevices or underneath cobble associated with streambeds or seeps. Since the proposed development would leave undeveloped areas of each of these habitats, the property could continue to maintain populations of longtail salamanders if they are present on this site. It is noted that no longtail salamanders were observed on the site during site surveys.

Eastern box turtle

The Eastern box turtle is another species that may occupy this site. Recently listed as a State species of special concern, the box turtle may wander the woods of this site, although none were observed during the site visits. It is primarily a terrestrial turtle, although it may use stream beds or shallow ponds during the hot summer months. Populations of box turtles may be sustained within areas of appropriate habitat as restricted as one acre. The proposed development would retain significant acreage of habitat that meet these criteria.

¹⁴US Fish and Wildlife Service. 1983. Recovery Plan for the Indiana Bat. USFWS, Twin Cities, Minnesota. 82 pp.

Cooper's hawk

This species was observed within BBA Block 5557A during the both BBA surveys (1980-1985, 2000-2005), although not observed at all during either survey in Block 5557B. The observations did not indicate that the bird(s) were breeding in the area when observed. As with all migratory birds, adults or juveniles of this species might be present seasonally on this as well as adjacent properties within the area. Cooper's hawks are more likely to inhabit deciduous, coniferous, and mixed riparian or wetland forests. An individual's territory often contains edge habitat and small openings along streams or roads, which can be utilized for hunting.

Sharp-shinned hawk

This species was observed within BBA Block 5557B during the initial BBA survey of 1980-1985, although not during the survey in 2000-2005. The species was not observed during either survey in Block 5557A. As noted for the Cooper's hawk observations, there was no indication that the bird(s) were breeding in the area when observed. As with all migratory birds, adults or juveniles of this species might be present seasonally on this as well as adjacent properties within the area.

3.3.1.5 Wetlands

A 3.68 acre wetland was delineated in conformance with ACOE criteria on the project site. The information sent to the ACOE to support the wetland area on the subject site is provided in Appendix E. Figure 3.3-2 shows the location of the wetland on the project site. This wetland is characterized as emergent marsh/wet meadow habitat. Wetland vegetation found in the wetland includes red osier dogwood, meadow sweet, purple loosestrife, woolgrass, soft rush, phragmites and carex species. The wetland starts at a spring seepage in the eastern forested region of the property and expands westerly as it collects overland flow from adjacent open fields. The wetland drains to the southwest where the water is collected by a culvert associated with the Chester Mall. Wetland soils are classified as Erie gravelly silt loam. These soils are somewhat poorly drained on the lower parts of slopes. Soils within the wetland exhibit low-chroma matrixes accompanied by mottles throughout the upper horizons. Positive indicators of wetland hydrology observed through most of the wetlands include inundation, soil saturation and surface drainage patterns.

The natural resource benefits of wetlands includes various provisions of flood protection, wildlife habitat, open space uses and water resource protection. Table 3.3-5 shows the 3.68 acre wetland's value in nine areas of freshwater wetland benefits. The small size and lack of permanent standing water limits the wetland's value in contributing to local wetlands benefits. The primary functions of the wetland consist of runoff water control, low wildlife habitat, and filtering of pollutants.

As stated previously, the wetland collects overland flow from adjacent open fields and provides storage while allowing for a limited amount of groundwater recharge. Erosion control and pollutant filtration by hydrophytic vegetation in the wetland are limited by the small size of the wetland and the lack of pollutant input from wetland's watershed. While the active farm fields do contribute pollutants and siltation to the watershed, a majority of the watershed is forested or successional fields.

The lack of permanent standing water limits the potential for wildlife that are dependent on habitat with available standing water, such as fish and species that prey on fish. The presence

of scattered shrub species presents potential foraging and breeding habitat for songbirds, as well as cover for ground dwelling wildlife. The absence of a substantial tree canopy throughout the wetland discourages wildlife that prefers wooded communities. Recreational uses, such as hunting and fishing, of the wetland are limited by its proximity to developed areas as well as the absence of permanent standing water.

Educational and research opportunities are restricted due to the private ownership of the wetland, but the overall low value of the wetland would not contribute to valuable educational and research opportunities if they were available. The benefit of open space and aesthetic appreciation by providing the only remaining open areas along crowded riverfronts and coastal regions does not apply to the wetland as it does not occur in either of these locations. As stated previously, the lack of permanent standing water eliminates the wetland from benefiting freshwater food cycles and freshwater fish habitat.

Table 3.3-5 Assessment of On-site Freshwater Wetland Benefits	
Freshwater Wetland Benefit	3.68 Acre
1) Flood and storm control by the hydrologic absorption and storage capacity of freshwater wetlands.	Medium
2) Wildlife habitat by providing breeding, nesting and feeding grounds and cover for many forms of wildlife, wildfowl and shorebirds, including migratory wildfowl and rare species such as the bald eagle and osprey.	Low
3) Protection of subsurface water resources and provision for valuable watersheds and recharging groundwater supplies.	Low
4) Recreation by providing areas for hunting, fishing, boating, hiking, bird watching, photography, camping and other uses:	Low
5) Pollution treatment by serving as biological and chemical oxidation basins.	Low
6) Erosion control by serving as sedimentation areas and filtering basins, absorbing silt and organic matter and protecting channels and harbors.	Low
7) Education and scientific research by providing readily accessible outdoor bio-physical laboratories, living classrooms and vast training and education resources.	N/A
8) Open space and aesthetic appreciation by providing often the only remaining open areas along crowded riverfronts and coastal regions.	N/A
9) Sources of nutrients in the freshwater food cycles and nursery grounds and sanctuaries for freshwater fish.	N/A
Source: Tim Miller Associates, Inc., 2009.	

Wetland Jurisdiction

Federal Wetlands / U.S. Army Corps of Engineers (ACOE)

The ACOE regulates activities within wetland areas designated as “above the headwaters” of navigable waters of the United States under Section 404 of the Clean Water Act. There is no regulated setback to Federal wetlands delineations.

Based on a jurisdictional request made by Tim Miller Associates, to the United State ACOE and a site visit by that agency on April 19, 2006, a letter of jurisdictional determination from the ACOE was issued on October 12, 2007. A copy of the jurisdictional determination is provided in Appendix B. The limits of the wetland as flagged in the field are shown on Figure 2-1 and Figure 3.3-2.

New York State Freshwater Wetlands Regulations

BT Holdings / Chester Development DEIS

Under Article 24 of the NYS Environmental Conservation Law (NYSECL), wetlands greater than 12.4 acres in area are regulated by the Department of Environmental Conservation but the agency also includes under its jurisdiction certain smaller wetlands that are of unusual local importance. The NYSDEC also regulates activities within 100 feet of these State wetlands.

The delineation of State wetlands is based primarily on vegetative dominance by known hydrophytic species. In some cases, the presence of hydric soils and sufficient hydrology to support this vegetation can also be used to determine wetland boundaries if vegetative dominance is not conclusive.¹⁵ The NYSDEC is responsible for validating the delineations of all freshwater wetlands of 12.4 acres or more in size.

The 3.68 acre wetland located on the project site is not regulated by NYSDEC. Figure 3.3-3 contains the NYSDEC wetland map for the area. No DEC regulated wetlands exist on the project site.

Local Wetland Regulations

The Code of the Town of Chester, Chapter 54 requires a permit for regulated activities in wetlands as defined therein. The ACOE jurisdictional wetland is located on the parcel that is within the Town of Chester, which is proposed for annexation to the Village of Chester. Upon annexation of the parcel to the Village, land development activities would no longer fall within the jurisdiction of the Town’s wetland regulations. The Village of Chester does not have a local law regulating wetlands.

3.3.2 Potential Impacts

To construct the project, 56.61 acres would be disturbed either permanently or temporarily. Loss of vegetation within areas of proposed buildings, roads, driveways or parking areas is an unavoidable impact. Table 3.3-6 below shows the proposed extent of existing ecological communities and associated vegetation that would remain on site after development of the project, as well as the proposed changes in cover types and associated vegetation that would result from completion of the project.

Table 3.3-6 Existing and Proposed Approximate Land Coverage			
Habitat Type	Existing Extent	Proposed Extent	Change
Successional old field	45.59 acres	5.02 acres	- 40.57 acres
Successional northern hardwood forest	19.16 acres	3.22 acres	- 15.94 acres
Shallow emergent marsh	3.68 acres	3.58 acres	- 0.10 acres
Impervious surfaces	0.0 acres	24.65 acres	+ 24.65 acres
Landscaping/Stormwater facilities	0.0 acres	31.96 acres	+ 31.96 acres
TOTAL =	68.43 acres	68.43 acres	
Sources: Langan Engineering and Tim Miller Associates, Inc., 2009			

The overall loss of vegetation associated with the disturbance of ecological communities is not anticipated to result in significant adverse impacts, although it does represent a change to the

¹⁵NYSDEC. 1995. Freshwater Wetlands Delineation Manual - July 1995. Website: <http://www.dec.state.ny.us/website/dfwmr/habitat/wdelman.pdf>

environmental conditions and character of the site. These impacts would be mitigated to the extent practicable as described below.

There are approximately 32 acres of proposed lawn, landscaped areas, and stormwater management basins so these areas of temporary impact would be re-vegetated. The reduction in vegetative cover from the existing site would reduce the available wildlife habitat on the site by approximately the same acreage and require the need for erosion controls until full stabilization is achieved.

As described in Chapter 3.2, the project requires the implementation of a comprehensive state approved Storm Water Pollution Prevention Plan (SWPPP) to be submitted as part of detailed site plan review, including an erosion and sediment control plan, implemented throughout construction. These plans, which would be renewed during actual future site plan review would meet NYSDEC technical requirements designed to prevent adverse erosion-related impacts from construction activities to downstream wetlands and streams. A Preliminary Stormwater Management Plan is provided in Appendix D and Figure 2-10 regarding drainage and Figure 2-13 regarding erosion control illustrate conceptual plans for stormwater management.

3.3.2.1 Potential Impacts to Natural Resources

Impacts to Vegetation

The approximately 57 acres of the project site disturbed would no longer support the type of habitat as occurs under present conditions. Figure 3.3-4 shows the open space after construction of the Proposed Action.

The areas of proposed disturbance are generally conterminous with the previously disturbed farm field areas (successional old fields). Approximately 12 acres of existing vegetation would be retained on the property, with the addition of 32 acres of newly vegetated areas for lawns, landscaping, and plantings in stormwater management basins.

As planned, the development would result in the permanent elimination of vegetation from approximately 24.6 acres, which would be covered by impervious surfaces. Disturbed areas that would not be covered by impervious surfaces would be re-vegetated. Please refer to Section 3.1: Soils and Topography for an in-depth discussion of impacts to soils, including the potential for increased soil erosion.

Since no significant trees were identified on the project site, development of the project would not impact the wildlife and aesthetic values typically associated with significant trees. While trees that exist on the site provide certain benefits to wildlife, no trees were identified as having qualities that merit preservation. However, blocks of existing vegetation that include hardwood forest community will be retained on the property after completion of the project. These tracts of hardwood forest will continue to function as wildlife and aesthetic resources on the property.

Potential Impacts to Wildlife

In general, as a site is developed, many wildlife species move out of the areas of disturbance. Upon project completion, the developed areas will function as a different habitat for some of the species of wildlife that previously used the site. Most species would relocate off site, to areas of connected habitat. Bird species are pretty adaptable and can fly to new habitat. Terrestrial species would need to travel overland to new habitat.

Most wildlife movement from this site would be expected to be towards connected habitats found to the north or the east. These areas offer similar habitat and are less developed than the areas to the south or west of the property.

During development of the site, construction activities may result in a temporary increase in road mortality rates for some of the species vacating the site. After the proposed development of the site and the alteration of the habitat on the project site, wildlife movements into and out of the project site are likely to be reduced, as the site would offer fewer opportunities for food and cover.

Many bird species are migratory, and therefore have always left the subject property annually. Upon return, most migratory species would adaptively seek other nearby or regionally available environments in response to alterations to this property. The more extensive forests in relatively close proximity to this site are expected to provide alternative habitat for most of these species. However, these adjacent lands are expected to already have established resident wildlife populations and, in some cases, may not be able to support the arrival of new individuals. For this reason, the loss of habitat associated with the proposed action may result in reduced regional wildlife populations. This loss, however, is expected to be minimal due to the relatively small size (68.4 acres) of the project site.

The possibility also exists that some of these adjacent parcels, which are similarly situated in a scarcely developed area, may have excess carrying capacity and be able to accommodate additional individuals. There is no known reporting of wildlife habitat in Orange County being saturated for all species.

Since approximately 99 percent of the on-site wetland habitat would remain intact, wildlife species associated with wetland habitats are not expected to be impacted by the development and would not migrate to upland areas as these areas offer significantly drier habitat than the wetland areas. Hydrology would continue to be provided by overland flow, albeit altered due to the construction of impervious surfaces within the wetland's watershed. A preliminary SWPPP as discussed in Chapter 3.2, has been designed to still allow water to flow to the wetland while effectively removing pollutants that may be added by the Proposed Action.

After the project development is completed, the composition of wildlife populations on the project site would adjust to the final site conditions. Species better able to adapt to generally open and landscaped environments (such as raccoons, opossum, woodchucks, mice and certain songbirds) would have a greater ability to populate the site in comparison to species that are less tolerant of human activity.

While not as valuable as the existing forested habitat, the proposed landscaping would be planted with species of trees and shrubs that provide wildlife benefits such as forage and nesting sites for birds, and denning sites for small mammals. The preserved habitat areas of the wetlands, watercourses and open field along with the re-vegetated open space areas would still be used by deer and other wildlife that are human subsidized species.

The project site does not currently function as a significant wildlife corridor to off-site habitat areas due to the surrounding roadways and existing developed commercial and residential areas. Therefore, the project would not fragment an existing wildlife corridor between off-site habitat areas.

Potential Impacts to Rare and Endangered Species

No federal or state-listed threatened or endangered species of wildlife or vegetation were observed on the project site during ecological surveys in 2008.

While not observed during ecological surveys, habitat for the eastern box turtle, a NYSDEC Species of Special Concern, exists on the project site. Clearing of vegetation will result in loss of potential box turtle habitat. Since the proposed development would maintain blocks of habitat within the wetland and throughout the project site, it is expected that this species' habitat requirements can continued to be met.

Similarly, habitat exists within the on-site wetland that is suitable to the longtail salamander, another NYSDEC Species of Special Concern. Of the 3.68 acres of wetland, approximately 4,256 square feet (0.098 acres) would be disturbed, leaving approximately 99 percent of potential longtail salamander habitat in tact. It should be noted that no longtail salamanders were observed during ecological surveys of the project site.

The Cooper's hawk and sharp-shinned hawk are both listed as Species of Special Concern by the NYSDEC. While neither species was observed utilizing the project site, potential habitat for both species exists on the project site. As with all migratory birds, adults or juveniles of this species might be present seasonally on the site, as well as adjacent properties within the area. Approximately 15.94 acres of successional northern hardwood forest would be removed by construction of the Proposed Action and would be permanently lost as habitat for Cooper's and sharp-shinned hawk. However, blocks of forested habitat, as shown in Figure 3.3-1 would remain as potential habitat for these hawks. As neither species was observed on the project site, no significant impacts to these hawks are anticipated.

3.3.2.2 Potential Wetland Impacts

The ACOE jurisdictional wetland is isolated from most site activities, as shown on Figure 2-4 (conceptual site plan) but would be disturbed to install a road to access the southern portion of the property. Access to this section of the site would result in approximately 4,256 square feet (0.098 acres) of wetland disturbance to install open-bottom culverts to construct Road A.

This activity would be authorized under ACOE Nationwide Permits 14 and 29. Nationwide Permit 14, Linear Transportation Projects, is a permit for activities required for the construction, expansion, modification or improvement of linear transportation projects (roads) less than 300 feet in length in waters of the United States. This permit also authorizes temporary structures, fills, and work necessary to construct the road.

Nationwide Permit 29, Residential Developments, is a permit for discharges of dredged or fill material into non-tidal waters of the United States for the construction or expansion of a single residence, a multiple unit residential development, or a residential subdivision. This permit authorizes the construction of building foundations and building pads and attendant features that are necessary for the use of the residence or residential development. Attendant features may include but are not limited to roads, parking lots, garages, yards, utility lines, storm water management facilities, septic fields, and recreation facilities such as playgrounds, playing fields, and golf courses (provided the golf course is an integral part of the residential development).

Impacts to Wetland Vegetation

As a result of 4,256 square feet of disturbance related to the installation of open-bottom culverts for Road A, wetland vegetation within this disturbance would ultimately be eliminated from the project site. The loss of this vegetation would be mitigated by the addition of native wetland vegetation that would be planted within appropriate areas of the 31.96 acres of landscaping and stormwater management practices proposed for the site.

Potential Impacts to Wetland Function

Sedimentation of wetlands, resulting from erosion of unstable soils during construction, is a potential indirect impact from the proposed action. An erosion and sediment control plan has been developed and is provided on Figure 2-13. All soil erosion and sedimentation control practices will be installed in accordance with NYSDEC Best Management Practices for construction site activities and any specific applicable prior conditions of approval for this project. Additional discussion of erosion and sedimentation controls is provided in DEIS Section 3.2.

As a result of the unavoidable creation of impervious surfaces (e.g., roads, parking areas and buildings), more surface runoff would occur from the developed site. Peak rates of surface runoff would increase as would pollutant loadings found in storm water runoff. If these effects are not mitigated, long-term impacts to downstream hydrology and surface water quality can result once the development is complete and operational. The measures proposed for stormwater management are discussed herein in Section 3.2 and detailed in the preliminary Stormwater Management Plan, Appendix D.

Potential Impacts to Connected Wetlands

The implementation of soil erosion and sedimentation control prevention and stormwater control practices, as mentioned above, would eliminate the potential for impacts to off site wetlands and their functionality that are connected to wetlands within the project site. The proposed action will not disturb any wetland vegetation or associated wildlife habitat located outside of the project boundaries.

3.3.3 Proposed Mitigation Measures

3.3.3.1 Vegetation

The proposed project has been designed to minimize impacts to natural features as discussed below and to respect the environment to the maximum extent practicable through the implementation of a stormwater pollution prevention plan (SWPPP); the limitation of the area of disturbance; and by minimizing grading. Additional Low Impact Development measures to be incorporated into the project include buffer strips, grassed swales and the incorporation of human scale lighting and extensive landscaping to minimize the environmental and visual impacts of the project. Site boundaries, including the area along Route 17M, would be landscaped to provide a visually appealing view from these highways and other adjacent properties.

Approximately 12 acres of the property would remain as undisturbed, primarily within the wetlands and wooded area in the central portion of the property and wooded areas along the site's parameter. In addition, the Applicant proposes to create an additional 32 acres of new vegetation in lawn and landscaped areas, as well as new pond habitat in stormwater management basins. In consideration of this and the following aspects of the other actions proposed to offset potential effects of the development, significant adverse impacts to natural resources are not anticipated to result from the completed project.

Proposed Method for Tree Removal and Disposal

Since areas of disturbance are generally located in pre-disturbed farm fields, tree removal on developed portions of the site would be limited. Trees requiring removal would be removed in an area equal to the limits of disturbance as shown on the site plans.

Trees to be removed would be marked prior to commencement of clearing, and removed either by hand, with chainsaws or with a logging machine (such as a "feller-buncher" or other tree cutting machine). Larger trees (generally greater than 18 DBH) would be removed for logging while smaller trees would be chipped on site. The final site erosion control plan would identify locations for log stockpiling and chip stockpiling as appropriate. Wood chips would be used on site to provide areas of temporary stabilization for disturbed soils during construction.

The Applicant considers it to be unlikely that Indiana bats are utilizing this site, however, the process of tree removal can be scheduled to avoid any direct impact on the species by considering the seasonal usage that Indiana bats make of forest habitat. The USFWS standard recommendation to avoid any potential for directly killing Indiana bats for sites on which Indiana bats may be seasonally present is, "...to clear all potential roost trees between October 1 and March 30 (for sites greater than 5 miles from an hibernaculum)."

Proposed Measures to Protect Trees to Remain

The limits of disturbance would be established in the field. No trees beyond these limits would be disturbed. These limits would be delineated by fencing or similar methods prior to commencing clearing or grading activities. Trees near working areas may be wrapped at the base by snow fencing to avoid accidental damage to trunks and roots.

For trees to be protected during construction activities there should be no disturbance of any kind within the projected root zone of each tree, or within the drip line of the tree foliage. Snow fencing or other highly visible means of marking should be placed around the maximum area of the root system to prevent the destruction of roots by exposure or through the compaction of soils. Construction crews would be notified to exclude all equipment from these protected areas. If necessary, trees would be protected by tree wells in fill areas, and retaining walls in cut areas.

Proposed Landscape Plan: Landscaping With Native Vegetation

Native species and a naturalistic style where possible would be used for landscaping purposes at the entry, around the residences, at the property boundaries, and for revegetating portions of the proposed water quality and stormwater detention basins. Native plants would be preferred because of their adaptability to local climatic conditions, including temperature, precipitation and length of the growing season and the landscape design would use naturalistic arrangements of plantings to achieve the integration of the proposed development into the existing setting. In addition, many native species selected for landscape use may also be beneficial to indigenous wildlife--especially birds--by providing wildlife benefits such as nesting, cover and food.

The landscaping plans for the project schematically present the major evergreen and deciduous tree plantings to be installed throughout the project site. This naturalistic Landscape Plan proposes to add screening and soften the visibility of buildings from off-site locations.

More detailed landscaping plans will be provided during actual site plan review. For example, at the site frontage along NYS Route 17M, the sloping meadow would be maintained as meadow, and the stormwater basin would be planted with native grasses and flowering plants. Similarly, at the several areas along the property boundaries where the removal of vegetation will occur, a combination of evergreen and deciduous trees and shrubs drawn from the native palette will be planted to soften and screen views of the property.

Typical landscape plantings that may be chosen for their hardiness to the local climate and to the proposed settings on the site include the native regional landscaping species listed in Table 3.3-7. This list would be supplemented with other minor shrubs and plants that would provide a variety of foraging, nesting and shelter benefits for the wildlife that repopulates the site.

Table 3.3-7 Regional Upland Condition Landscaping Plantings	
Trees	Shrubs
Deciduous Trees - Major	Deciduous Shrubs
Horse chestnut (<i>Aesculus hippocastanum</i>)	Bottlebrush buckeye (<i>Aesculus parviflora</i>)
Red maple (<i>Acer rubrum</i>)	Oak leaf hydrangea (<i>Hydrangea quercifolia</i>)
American beech (<i>Fagus grandifolia</i>)	Common witchhazel (<i>Hamamelis virginiana</i>)
White oak (<i>Quercus alba</i>)	Staghorn sumac (<i>Rhus typhina</i>)
Red oak (<i>Quercus rubra</i>)	Red-osier dogwood (<i>Cornus stolonifera</i>)
Little leaf linden (<i>Tilia cordata</i>)	Sweetfern (<i>Comptonia peregrina</i>)
American elm (<i>Ulmus americana</i>)	Winterberry (<i>Ilex verticillata</i>)
Sugar maple (<i>Acer saccharum</i>)	Juneberry (<i>Amelanchier canadensis</i>)
Deciduous Trees - Minor	Beautybush (<i>Kolkwitzia amabilis</i>)
Mulberries (<i>Morus</i> spp.)	Northern bayberry (<i>Myrica pennsylvanica</i>)
Paperbark birch (<i>Betula papyrifera</i>)	Viburnums (<i>Viburnum</i> spp.)
Flowering dogwood (<i>Cornus florida</i>)	Elderberries (<i>Sambucus</i> spp.)
Crabapples (<i>Malus</i> spp.)	Eastern wahoo (<i>Euonymus atropurpureus</i>)
Cherries (<i>Prunus</i> spp.)	Snowberry (<i>Symphoricarpos alba</i>)
Plums (<i>Prunus</i> spp.)	Cotoneasters (<i>Cotoneaster</i> spp.)
Coniferous Trees	Evergreen shrubs/vines
White fir (<i>Abies concolor</i>)	Rosebay rhododendron (<i>Rhododendron maximum</i>)
Colorado spruce (<i>Picea pungens</i>)	White rhododendron (<i>Rhododendron album</i>)
Northern white cedar (<i>Thuja occidentalis</i>)	Virginia creeper (<i>Parthenocissus quinquefolia</i>)
Norway spruce (<i>Picea abies</i>)	Leatherleaf viburnum (<i>Viburnum rhytidophyllum</i>)
Douglas fir (<i>Pseudotsuga mensiesii</i>)	Inkberry (<i>Ilex glabra</i>)
White pine (<i>Pinus strobus</i>)	Eastern red cedar (<i>Juniperus virginiana</i>)
Red pine (<i>Pinus resinosa</i>)	Mountain laurel (<i>Kalmia latifolia</i>)

Source: Tim Miller Associates, Inc., 2009.

3.3.3.2 Wildlife

While the existing woodland and successional field vegetation would be replaced by native ornamental plants, lawns, and landscaped plots within the developed areas, the introduced plantings could still be used as forage by deer and other wildlife and shrub species chosen for landscaping would provide immediate habitat for songbirds and other avian species. Trees that are planted would mature in the long-term and would provide some roosting and nesting opportunities for birds that are adaptable to suburban conditions. Coniferous trees and shrubs such as pines, spruces, firs, arborvitae, and junipers provide spring and summer nest sites as well as year-around shelter. Unmown grasses, meadows and stormwater berm plantings provide cover for ground-nesting birds.

In addition to their value as hardy plantings, some of the native plant species in Table 3.3-7 are cited by the Cornell Lab of Ornithology as berry and seed-bearing trees and shrubs that would offer songbirds seasonal food sources incidental to their use as landscape plantings.

Summer-fruiting plants provide food during nesting season. Native fruit-bearing plants which are adaptable to landscaping purposes are available for use, including various species of cherry, chokeberry, raspberry, serviceberry, blackberry, blueberry, mulberry, and elderberry.

Fall-fruiting plants are important for birds in building up or maintaining fat reserves during migration. Examples of these include dogwoods, cotoneasters, and buffalo-berries.

Winter-persistent plants provide season-long fruit sources for winter resident species. Adaptable members of this group include varieties of crabapple, snowberry, bittersweet, sumac, viburnums such as American highbush cranberry, eastern wahoo, and winterberry or other hollies. Oaks, hickories, buckeyes, chestnuts, butternuts, walnuts and hazels provide nutrient rich nuts and acorns as food for birds and mammals as well as providing good nesting habitat for many birds and arboreal mammals.

The following landscaping groups and plants, which could be incorporated into final site plans, develop seasonal fruiting characteristics that are useful as food for wildlife:

- Deciduous Trees: Red maple (spring fruiting)
Sugar maple (summer fruiting)
Mulberries (summer fruiting)
Juneberries (summer fruiting)
Flowering dogwood (fall fruiting)
Crabapples (fall fruiting with winter-persistent fruit)
White oak (fall fruiting with winter-persistent fruit)
Sumacs (fall fruiting with winter-persistent fruit)
American mountain ash (fall fruiting)
- Coniferous Trees: Cedars (fall fruiting with winter-persistent fruit; nest sites)
Spruces (fall fruiting with winter-persistent fruit; nest sites)
- Native Vines: Virginia creeper (fall fruiting with winter-persistent fruit)
- Shrubs: Dogwoods (fall fruiting)
Viburnums (fall fruiting; some being winter-persistent)
Winterberry (fall fruiting with winter-persistent fruit)
White fringetree (summer fruiting)
Northern bayberry (fall fruiting with winter-persistent fruit)
Washington hawthorn (fall fruiting)

The proper bedding and positioning of landscape plants is important, as each of the species used would not thrive in all of the soils or exposures presented by the developed site. Particular plant requirements regarding planting, soil, water and sun/shade preferences would be used in determining final plant positioning.

The replacement of invasive plants with native plants would be beneficial to most wildlife species that would repopulate the site. Certain invasive species such as buckthorn, multiflora rose, barberry, tree-of-heaven and common reed would be eliminated on those portions on the project site within the landscaping plan.

3.3.3.3 Wetlands

As stated previously, careful site planning has minimized wetland disturbance to the greatest extent possible while still providing access the southern portion of the project site. A single crossing of the ACOE regulated wetland would result in less than 0.1 acre of wetland disturbance and would be covered by Nationwide Permits 14 and 29. Since wetland disturbance is minimal, no mitigation to on-site wetlands is proposed.

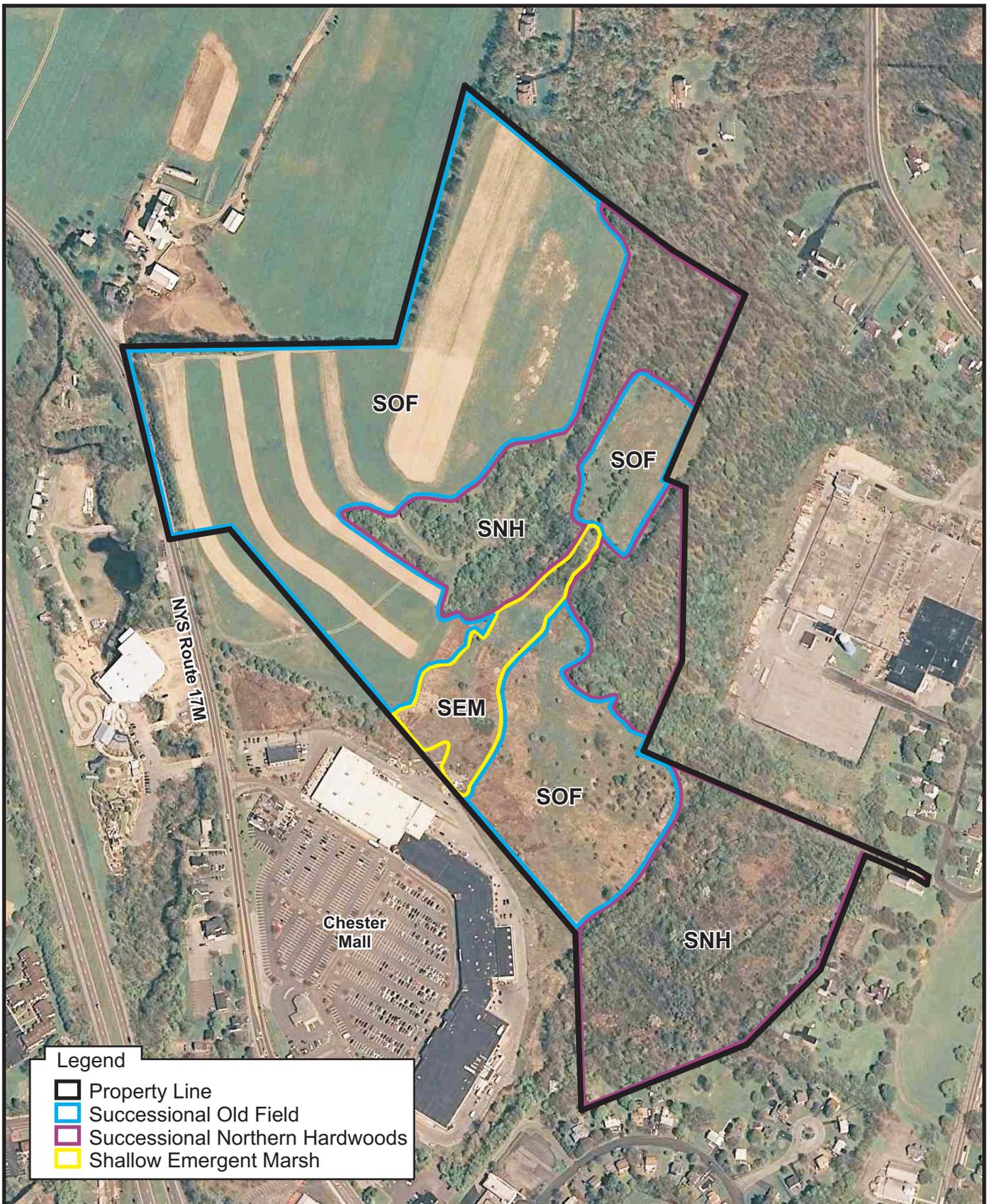
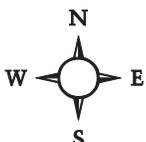


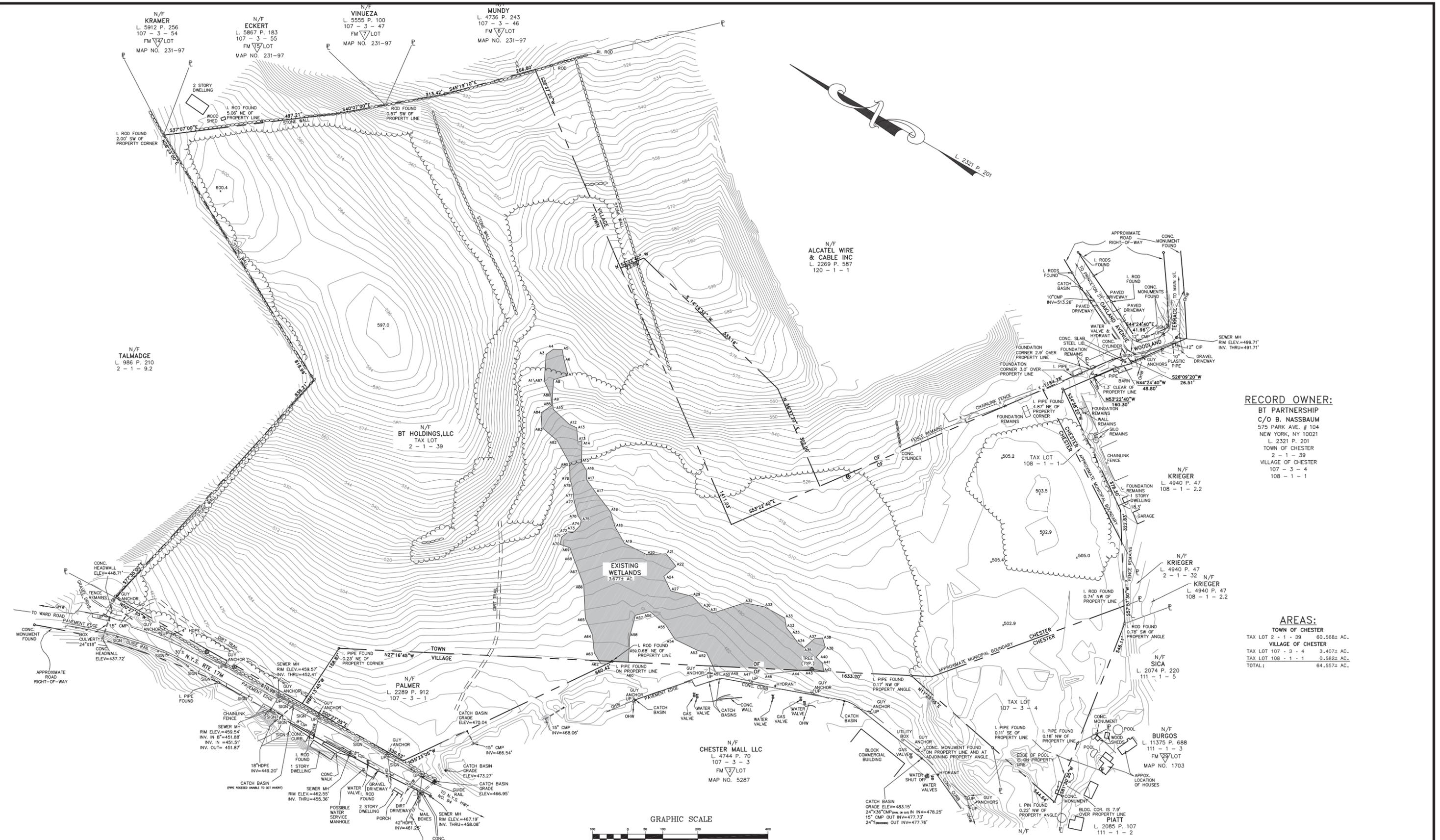
Figure 3.3-1: Ecological Communities
BT Holdings - Chester

Village of Chester, Town of Chester, Orange County, New York

Source: NYS GIS Clearinghouse, 2007 Aerial Photograph

Scale: 1" = 460'





RECORD OWNER:
 BT PARTNERSHIP
 C/O B. NASSBAUM
 575 PARK AVE. # 104
 NEW YORK, NY 10021
 L. 2321 P. 201
 TOWN OF CHESTER
 2 - 1 - 39
 VILLAGE OF CHESTER
 107 - 3 - 4
 108 - 1 - 1

AREAS:
 TOWN OF CHESTER
 TAX LOT 2 - 1 - 39 60.568± AC.
 VILLAGE OF CHESTER
 TAX LOT 107 - 3 - 4 3.407± AC.
 TAX LOT 108 - 1 - 1 0.582± AC.
 TOTAL: 64.557± AC.

**Figure 3.3-2: Existing ACOE Jurisdictional Wetlands
 BT Holdings - Chester Development
 Village of Chester, Town of Chester, Orange County, New York
 Source: Lanc & Tully Engineering, 3/17/06
 Scale: As Shown**

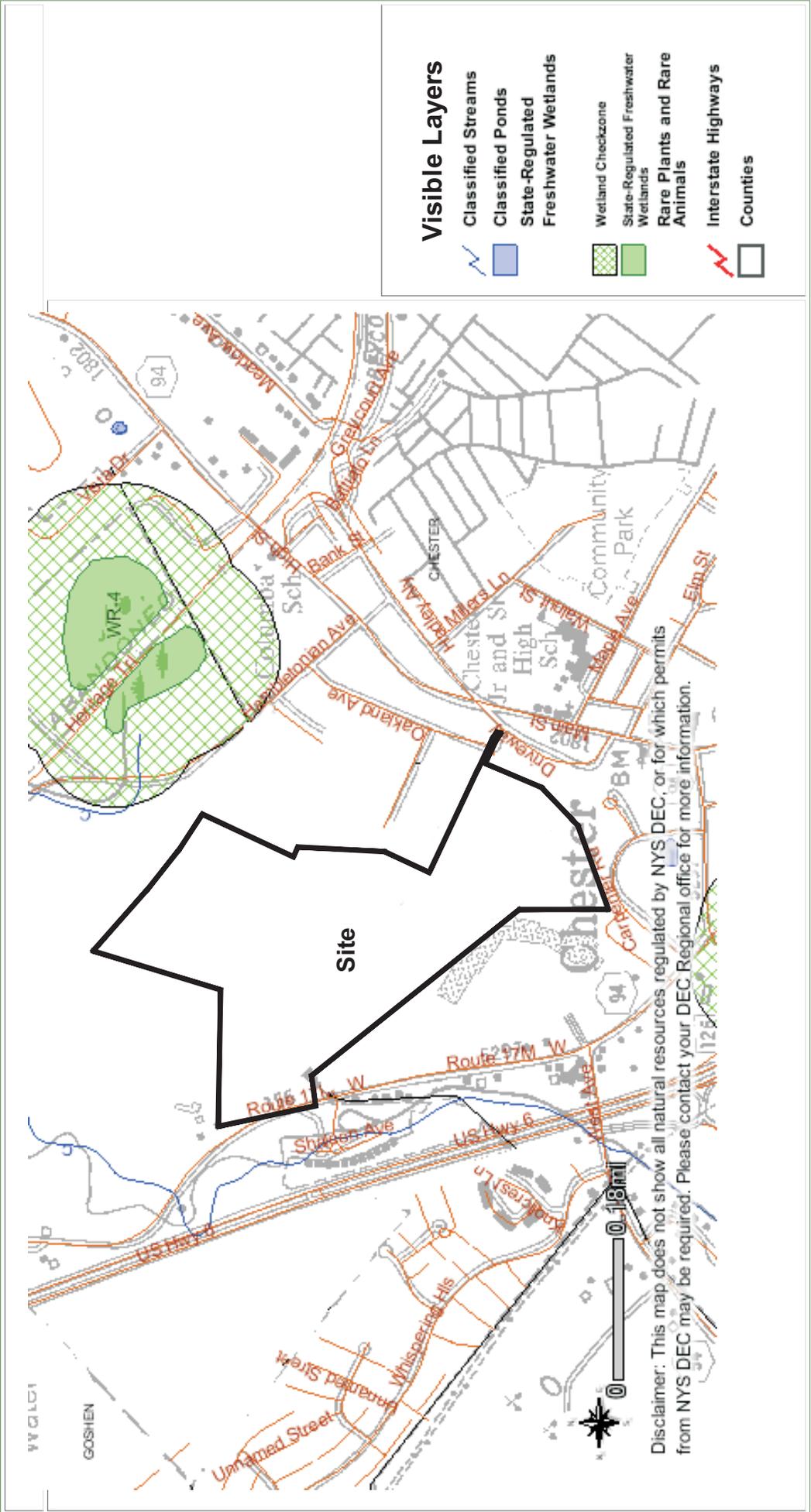
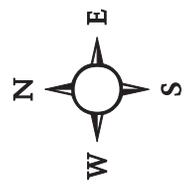
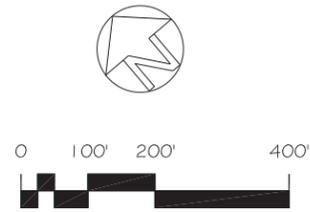


Figure 3.3-3: Site on NYS DEC Freshwater Wetlands Map
 BT Holdings - Chester Development
 Town of Chester, Orange County, NY
 Source: NYS Department of Environmental Conservation
 Scale: 1" = 1,000'





Undisturbed Open Space