

III. EXISTING ENVIRONMENTAL CONDITIONS, ANTICIPATED IMPACTS AND MITIGATION

D. Flora and Fauna

A natural resource inventory of flora and fauna species and their habitats has been completed for the approximately 152 acre PepsiCo Corporate Campus. The survey involved an assessment of target biological groups including mammals, breeding birds, amphibians, reptiles and plant communities and individual plant species including trees, shrubs, and herbaceous plant materials. Special emphasis was placed on the identification of endangered, threatened, and special concern species and habitats that may be present on the property or in the near vicinity of the site. Vegetative communities were analyzed to determine the habitat values, functions, restoration opportunities and overall attractiveness to support environmentally sensitive species. Survey work was completed during the months of May through September 2009¹. In addition, data on existing site conditions and vegetation was collected during field sessions to complete the wetland delineation conducted by Stephen W. Coleman Environmental Consulting LLC between 02-08-08 and 02-25-08.

The principle survey method involved time-constrained, systematic physical ground searches along random transects throughout each of the habitat types. Unless noted, all species listed were documented through direct observation. Direct observation included visual as well as auditory observations. Each field visit data was collected on habitats, and individual species of plants and animals observed to be present. As noted, groups surveyed included mammals, birds, amphibians and reptiles, and trees, shrubs and herbaceous plants.

1. Existing Conditions

a. On-Site Species, Cover Types and Habitats

Much of the proposed project site has been previously cleared and the vegetative communities significantly altered by prior agricultural uses and the operation of the site as a polo club before its acquisition by PepsiCo in 1967, and development as a corporate headquarters. Currently, the site consists of remnant forested deciduous plant communities with large acreage devoted to meeting the needs of the corporate campus including buildings and parking areas, sculpture gardens that include a series of ponds and perennial and intermittent watercourses, large lawn areas, pedestrian pathways, remnant forested uplands and wetlands.

The existing plant communities can generally be divided into three broad categories, (existing campus/cultural/landscaped areas, forested uplands, and wetlands). The largest percentage of the acreage consists of the existing campus/cultural/landscaped and lawn areas that include the Donald M. Kendall Sculpture Gardens (comprising approximately 72 acres). The second category consists of wetland communities consisting of a series of ponds, perennial and intermittent watercourses and riparian

¹ Specific field visits to the site were conducted on 05-18-09, 05-30-09, 06-26-09, 07-22-09, 08-07-09, 08-20-09 and 09-18-09.

wetlands (comprising approximately 12 acres). The third category is primarily remnant forested upland communities with native trees, shrubs and ground covers (comprising approximately 38 acres).

(1) Plant Communities

(a) Mature Mesophytic Lowland Forest

The overall forested community present on the property, in general, is classified as a “Mature Mesophytic Lowland Forest” habitat that has been extensively studied and characterized by Kiviat and Stevens “Biodiversity Assessment Manual for the Hudson River Estuary Corridor”, 2001, and further described in the publication “Ecological Communities of New York State (draft second edition, January 2002, New York Natural Heritage Program). This forest community is often dominated by oak and tulip trees and classified as a mesophytic hardwood forest that occurs on moist, well-drained soils. Dominant tree species observed included red oak (*Quercus rubra*), black oak (*Quercus velutina*), sugar maple (*Acer saccharum*), American beech (*Fagus Americana*), tulip tree (*Liriodendron tulipifera*), white ash (*Fraxinus americana*), shagbark hickory (*Carya ovata*), pignut hickory (*Carya glabra*), hemlock (*Tsuga Canadensis*), black birch (*Betula lenta*), and sassafras (*Sassafras albidum*). Understory trees that are present consisted of smaller individuals of the same species as the dominant trees. The shrub layer is represented by spicebush (*Lindera benzoin*), witch-hazel (*Hamamelis virginiana*), and arrowwood viburnum (*Viburnum dentatum*). Common ground layer species observed include Christmas fern (*Polystichum acrostichoides*), garlic mustard (*Aliaria petiolaris*), Virginia creeper (*Parthenocissus quinquefolia*), wood ferns (*Dryopteris* spp.), and white wood aster (*Aster divaricatus*).

The canopy coverage is fairly complete, with some openings where dead or fallen trees have created openings in the canopy. A thicker assemblage of understory trees, shrubs, and vines of species previously highlighted dominate the vegetation within these areas. In general, the understory is typical and fairly open, and representative of typical more mature forested conditions in this type of vegetative community. The forest floor consists of a minimal duff or leaf litter layer. The subject site is fenced around the perimeter of the property to protect the sculpture gardens and the extensive collection of landscape ornamental plantings. As such, evidence of extensive deer browse is not as evident as other forest settings within the region.

This forested community has undergone significant changes as a result of development of the Pepsi Corporate Campus and other commercial and residential land use practices immediately adjacent to the property. Portions of the forested upland remaining are more confined to the perimeter areas of the property along the Blind Brook corridor and areas to the south.

(b) Forested Riparian Wetland Complex:

The PepsiCo Campus includes a combination of different wetland types including man-made ponds, intermittent and perennial watercourses and forested wetlands. The forested wetland is similar to the red maple–hardwood swamp community as described by the Natural Heritage Trust Program (NHTP) (2002). Red maple is the dominant tree and sapling species within the wetland on the subject parcel. Other dominant tree species observed included American elm (*Ulmus Americana*). Several upland tree species were also observed along the outer edges of the wetland and watercourse areas. The shrub layer consisted predominately of spicebush, silky dogwood (*Cornus amomum*), and winterberry (*Ilex verticillata*). Ground layer species observed included skunk cabbage (*Symplocarpus foetidus*), sensitive fern (*Onoclea sensibilis*), sphagnum moss (*Sphagnum* spp.), cinnamon fern (*Osmunda cinnemomea*), garlic mustard, and phragmites (*Phragmites australis*). The canopy coverage for this wetland is fairly uniform and closed with some scattered pockets that allow for successful establishment of shrubs and herbaceous vegetation. The watercourses in general are forested along both sides of the channel with a scattered shrub and ground cover layers throughout. (Please refer to section III. E. Surface and Groundwater Resources for a detailed description of the wetlands and watercourse features).

Tables III.D-1 and III.D-2 present plant and animal species that have been observed at the proposed project site.

(2) Whitetail Deer Population

In 2006, a study on deer control was initiated by a citizen appointed committee commissioned by Westchester’s County Executive called the “Westchester Citizen’s Task Force on White-tailed Deer & Forest Regeneration”. This study was completed in November of 2008.

On October 08, 2009, PepsiCo was granted an extension of the variance originally granted in 2006 to maintain the deer fence on the property for a period of three years. In making their findings the Zoning Board determined

- There was no apparent detriment to the surrounding properties or the neighborhood.
- There was no change in the character of the neighborhood.
- There was no change in the circumstances from the issuance of the last variance.

A condition of the variance is to obtain Site Plan approval from the Planning Board for the continued use of the deer fence. The deer fence is included in the proposed site plans as part of the DEIS.

The results of the “Westchester Citizen’s Task Force on White-tailed Deer & Forest Regeneration” (Report) dated November 01, 2008 are excerpted to

illustrate the concerns about the impact deer have on local ecology and the reason that PepsiCo opted to install a perimeter deer fence to minimize impacts to the flora and fauna present throughout the PepsiCo Campus.

The Report concludes “that there is clear evidence that Westchester’s forests are threatened by the overabundance of white-tailed deer. Consequently, the lack of forest regeneration, the severe impact on biodiversity, the threat to water quality, and other detrimental ecological impacts, call for immediate action. The Task Force outlined recommendations in four areas: Deer management and monitoring, public education, legislation and funding, and the establishment of a public-private partnership for an adaptive deer management program”.

The Report further states:

- “The most serious impacts of deer on Westchester County’s flora, fauna, and ecosystems result from browsing of plants for food. Deer consume an average of 4 to 8 pounds of forage per day”.
- “...Heavy deer browsing exacerbates the effects of other human-created impacts on the environment such as habitat loss, invasive species proliferation, soil degradation and erosion, acid rain, and pesticides – which together jeopardize the survival of many wildflowers, hinder regeneration of trees and other plants, and potentially threaten important ecological services provided by healthy forest”.
- “...Deer overabundance is largely (but not solely) responsible for decreases in the abundance of native plants and tree seedlings in forests, both on public and private lands”.

The Report recommends two general methods for the management of deer impacts. These two methods are 1) population management (reducing impacts by lowering the population), and 2) impact prevention (preventing impacts without population control).

The principal form of population management and the most effective techniques are hunting and culling of the deer herd. The prevention of deer impacts focuses on reducing the negative impacts of deer without active population control. The goal is to resolve human-deer conflicts by physically excluding deer or altering their behavior. As noted in the Report “...studies have shown that fencing is the best option for preventing impacts”. In addition, other forms of prevention include the use of repellants and planting of “deer-resistant” plantings.

In recent years, because of the shrinking of open space in Purchase, the deer population in Purchase has been concentrated on fewer and fewer sites. One of the largest open sites in Purchase, with landscaping that is attractive to deer, is the PepsiCo facility. Over the last three to four years, PepsiCo’s expenditures on

replacing the landscaping which has been damaged by deer have been \$80,000 to \$100,000 annually. In addition, PepsiCo has been spending approximately \$30,000 annually to try to prevent this damage by utilizing deer netting over the winter, which has not been successful. To manage the impacts caused by the on-site deer population, PepsiCo installed a deer fence around the perimeter of the PepsiCo property. The fence is 8 feet in height and is located at varying distances from the property line. At its closest point along Lincoln Avenue, the fence is 65 feet from the property line, although a significant portion of the fence is located further from the property line. Along Anderson Hill Road, the fence is 130 feet from the property line, at its closest point. The fence is designed and located in a way so as not to be visually obtrusive. At the two entrances to the property, PepsiCo uses an electronic device, which emits an ultrasonic sound, audible only to deer, which PepsiCo hopes will deter the deer from entering the property. The installation of these measures has prevented excessive browsing by deer of the Campus's forests and gardens. Other measures implemented by PepsiCo to control the damage caused by the on-site deer population have included the use of repellants and "deer resistant" plants.

The Task Force's Report concludes that managing deer for the purposes of preserving Westchester's forests and biodiversity requires implementation of a controlled population reduction program through the use of hunting to reduce deer numbers. The Report recommends that three of the County's Parks be opened for hunting to reduce excessive population numbers and that the results be monitored and evaluated. The results of this program are designed to provide other communities with information and assistance in dealing with deer management issues and options. Public education efforts will be developed to encourage more bow hunting of private and public lands in an effort to reduce deer population numbers. In addition, ongoing research and further studies will be implemented to better understand the deer's role within the forest ecosystem of Westchester and the development of additional prevention techniques for managing deer. Legislation is recommended to amend County and Local laws to allow hunting on County and locally owned park lands and other properties. Public-private adaptive deer management partnerships are recommended to be established to assist in managing the deer population.

Based on the aforementioned, PepsiCo proposes to keep the deer fence in place permanently as part of the overall Master Plan.

**Table III.D-1
Plant Species Observed at the PepsiCo World Headquarters Campus**

Trees		Shrubs and Vines		Herbaceous Plants (wildflowers, ferns, grasses and grass-like plants)	
Common Name	Scientific Name	Common Name	Scientific Name	Common Name	Scientific Name
Norway Maple	<i>Acer platanoides</i>	Japanese Barberry	<i>Berberis thunbergii</i>	Common Yarrow	<i>Achillea millefolium</i>
Red Maple	<i>Acer rubrum</i>	Oriental bittersweet	<i>Celastrus orbiculatus</i>	White Baneberry	<i>Actaea pachypoda</i>
Sugar Maple	<i>Acer saccharum</i>	Silky dogwood	<i>Cornus amomum</i>	Garlic mustard	<i>Alliaria petiolata</i>
Black Birch	<i>Betula lenta</i>	Winged Euonymus	<i>Euonymus atropurpurea</i>	Ragweed	<i>Ambrosia spp.</i>
Ironwood	<i>Carpinus caroliniana</i>	Forsythia	<i>Forsythia spp.</i>	Broom sedge	<i>Andropogon virginicus</i>
Shagbark Hickory	<i>Carya ovata</i>	Witch hazel	<i>Hamamelis virginiana</i>	Wood anemone	<i>Anemone quinquefolia</i>
Pignut Hickory	<i>Carya glabra</i>	Winterberry	<i>Ilex verticillata</i>	Spreading dogbane	<i>Apocynum androsaemifolium</i>
Flowering Dogwood	<i>Cornus florida</i>	Spicebush	<i>Lindera benzoin</i>	Wild columbine	<i>Aquilegia Canadensis</i>
White Ash	<i>Fraxinus Americana</i>	Virginia Creeper	<i>Parthenocissus quinquefolia</i>	Common Burdock	<i>Arctium major</i>
American Beech	<i>Fagus grandifolia</i>	Brambles	<i>Rhus spp.</i>	Jack-in-the-pulpit	<i>Arisaema atrorubens</i>
Red Cedar	<i>Juniperus virginiana</i>	Poison Ivy	<i>Rhus glabra</i>	Mugwort	<i>Artemisia vulgaris</i>
Tulip Poplar	<i>Liriodendron tulipifera</i>	Blackberry	<i>Ribes allegheniensis</i>	White wood aster	<i>Aster divaricatus</i>
Black gum	<i>Nyssa sylvatica</i>	Multiflora Rose	<i>Rosa multiflora</i>	Fringed sedge	<i>Carex crinita</i>
Norway Spruce	<i>Picea abies</i>	Black Raspberry	<i>Rubus occidentalis</i>	Lurid Sedge	<i>Carex lurida</i>
White Pine	<i>Pinus strobus</i>	Wineberry	<i>Rubus phoenicolasias</i>	Tussock Sedge	<i>Carex stricta</i>
Cottonwood	<i>Populus deltoides</i>	Greenbrier	<i>Smilax spp.</i>	Celandine	<i>Chelidonium majus</i>
Black Cherry	<i>Prunus serotina</i>	Arrowood Viburnum	<i>Viburnum dentatum</i>	Lamb's quarters	<i>Chenopodium album</i>
White Oak	<i>Quercus alba</i>	Grape	<i>Vitis spp.</i>	Oxeye daisy	<i>Chrysanthemum leucanthemum</i>
Pin Oak	<i>Quercus palustris</i>			Canada thistle	<i>Cirsium arvense</i>
Red Oak	<i>Quercus rubra</i>			Queen Anne's lace	<i>Daucus carota</i>
Black Oak	<i>Quercus velutina</i>			Hay-scented fern	<i>Dennstaedtia</i>

**Table III.D-1
Plant Species Observed at the PepsiCo World Headquarters Campus**

Trees		Shrubs and Vines		Herbaceous Plants (wildflowers, ferns, grasses and grass-like plants)	
Common Name	Scientific Name	Common Name	Scientific Name	Common Name	Scientific Name
					<i>punctilobula</i>
Sassafras	<i>Sassafras albidum</i>			Naked Tick Trefoil	<i>Desmodium nudiflorum</i>
Basswood	<i>Tilia americana</i>			Crabgrass	<i>Digitaria spp.</i>
Eastern Hemlock	<i>Tsuga Canadensis</i>			Marginal Wood Fern	<i>Dryopteris marginalis</i>
American Elm	<i>Ulmus Americana</i>			New York Fern	<i>Dryopteris noveboracensis</i>
Wheeping Willow	<i>Salix discolor</i>			Wood Fern	<i>Dryopteris spp.</i>
				Horsetail	<i>Equisetum sylvaticum</i>
				Daisy fleabane	<i>Erigeron annuus</i>
				Trout lily	<i>Erythronium americanum</i>
				Bonset	<i>Eupatorium perfoliatum</i>
				Grass-leaved Goldenrod	<i>Euthaemia graminifolia</i>
				Meadow fescue	<i>Fescue elatior</i>
				Wild strawberry	<i>Fragaria virginiana</i>
				Marsh bedstraw	<i>Galium palustre</i>
				Wild geranium	<i>Geranium maculatum</i>
				White avens	<i>Geum canadense</i>
				Gill-over-the ground	<i>Glechoma hederacea</i>
				Jewelweed	<i>Impatiens capensis</i>
				Soft rush	<i>Juncus effusus</i>
				Path rush	<i>Juncus tenuis</i>
				Butter-and-eggs	<i>Linaria vulgaris</i>
				Purple loosestrife	<i>Lythrum salicaria</i>
				Fringed loosestrife	<i>Lysimachia ciliate</i>

**Table III.D-1
Plant Species Observed at the PepsiCo World Headquarters Campus**

Trees		Shrubs and Vines		Herbaceous Plants (wildflowers, ferns, grasses and grass-like plants)	
Common Name	Scientific Name	Common Name	Scientific Name	Common Name	Scientific Name
				Moneywort	<i>Lysimachia nummularia</i>
				Wild mint	<i>Mentha arvensis</i>
				False Solomon's Seal	<i>Mianthemum racemosum</i>
				Japanese stilt grass	<i>Microstegium vimeneum</i>
				Indian Pipe	<i>Monotropa uniflora</i>
				Forget-me-not	<i>Myosotis verna</i>
				Sensitive Fern	<i>Onoclea sensibilis</i>
				Cinnamon Fern	<i>Osmunda cinnamomea</i>
				Yellow wood sorel	<i>Oxalis stricta</i>
				Deer-tongue grass	<i>Panicum clandestinum</i>
				Beardtongue	<i>Penstemon digitalis</i>
				Wild blue phlox	<i>Phlox divaricata</i>
				Common reed	<i>Phragmites communis</i>
				Pokeweed	<i>Phytolacca Americana</i>
				Kentucky bluegrass	<i>Poa pratensis</i>
				Arrow-leafed Tearthumb	<i>Polygonum sagittatum</i>
				Jumpseed	<i>Polygonum virginianum</i>
				Christmas fern	<i>Polystichum acrostichoides</i>
				Cinguefoil	<i>Potentilla simplex</i>

**Table III.D-1
Plant Species Observed at the PepsiCo World Headquarters Campus**

Trees		Shrubs and Vines		Herbaceous Plants (wildflowers, ferns, grasses and grass-like plants)	
Common Name	Scientific Name	Common Name	Scientific Name	Common Name	Scientific Name
				Selfheal	<i>Prunella vulgaris</i>
				Mannagrass	<i>Puccinellia pallida</i>
				Common Name	Scientific Name
				Mountain mint	<i>Pycnanthemum tenuifolium</i>
				Tall buttercup	<i>Ranunculus acris</i>
				Canada goldenrod	<i>Solidago Canadensis</i>
				False Solomon Seal	<i>Smilacina racemosa</i>
				Deadly nightshade	<i>Solanum dulcamara</i>
				Wrinkled goldenrod	<i>Solidago rugosa</i>
				Spagnum moss	<i>Spagnum spp.</i>
				Chickweed	<i>Stellaria alsine</i>
				Skunk cabbage	<i>Symplocarpus foetidus</i>
				Common dandelion	<i>Taraxacum officinale</i>
				Tall meadow rue	<i>Thalictrum polygamum</i>
				Marsh fern	<i>Thelypteris thelypteroides</i>
				Field pennycress	<i>Thlaspi arvense</i>
				White clover	<i>Trifolium repens</i>
				False hellebore	<i>Veratrum viride</i>
				Smooth Yellow violet	<i>Viola pensylvanica</i>

**Table III.D-2
Animal Species Observed at the PepsiCo World Headquarters Campus**

Mammal		Amphibians and Reptiles			
Common Name	Scientific Name	Common Name	Scientific Name	Common Name	Scientific Name
Virginia Opossum	<i>Didelphis virginiana</i>	Gray Tree Frog	<i>Hyla versicolor</i>	Mallard	<i>Anas platyrhynchos</i>
Short-tail Shrew	<i>Blarina brevicauda</i>	Eastern American Toad	<i>Bufo americanus americanus</i>	Great Blue Heron	<i>Ardea herodias</i>
Eastern Cottontail	<i>Sylvilagus floridanus</i>	Green Frog	<i>Ranas clamitans melanota</i>	Great Egret	<i>Casmerodius albus</i>
Eastern Chipmunk	<i>Tamias striatus</i>	American Bullfrog	<i>Rana catesbeiana</i>	Green Heron	<i>Butorides striatus</i>
Woodchuck	<i>Marmota monax</i>	Eastern Garter Snake	<i>Thamnophis sirtalis sirtalis</i>	Canada Goose	<i>Branta canadensis</i>
Gray Squirrel	<i>Sciurus carolinensis</i>	Painted Turtle	<i>Chrysemys picta</i>	Turkey Vulture	<i>Cathartes aura</i>
Southern Flying Squirrel	<i>Glaucomys volans</i>	Snapping Turtle	<i>Chelydra serpentina serpentina</i>	Rock Dove	<i>Columbia livia</i>
Red Squirrel	<i>Tamiasciurus hudsonicus</i>			Mourning Dove	<i>Zenaida macroura</i>
White-footed Mouse	<i>Peromyscus leucopus</i>			Downy Woodpecker	<i>Picoides pubescens</i>
Raccoon	<i>Procyon lotor</i>			Northern Flicker	<i>Colaptes auratus</i>
Striped Skunk	<i>Mephitis mephitis</i>			Red-Bellied Woodpecker	<i>Melanerpes carolinus</i>
				Eastern Phoebe	<i>Sayornis phoebe</i>
				Blue Jay	<i>Cyanocitta cristata</i>
				American Crow	<i>Corvus brachyrhynchos</i>
				Black-capped Chickadee	<i>Parus atricapillus</i>
				Tufted Titmouse	<i>Parus bicolor</i>
				Carolina Wren	<i>Thyothorus ludovicianus</i>
				White-breasted Nuthatch	<i>Sitta carolinensis</i>
				Wood Thrush	<i>Hylocichla mustelina</i>
				American Robin	<i>Turdus migratorius</i>

**Table III.D-2
Animal Species Observed at the PepsiCo World Headquarters Campus**

Mammal		Amphibians and Reptiles			
Common Name	Scientific Name	Common Name	Scientific Name	Common Name	Scientific Name
				Gray Catbird	<i>Dumetella carolinensis</i>
				Northern Mockingbird	<i>Mimus polyglottos</i>
				Red-eyed Vireo	<i>Vireo olivaceus</i>
				Yellow Warbler	<i>Dendroica petechia</i>
				Northern Cardinal	<i>Cardinalis cardinalis</i>
				Rufous-sided Towhee	<i>Pipilo erythrophthalmus</i>
				Chipping Sparrow	<i>Spizella 11arolina11</i>
				Song Sparrow	<i>Milospiza melodia</i>
				Red-winged Blackbird	<i>Agelaius phoeniceus</i>
				Common Grackle	<i>Quiscalus quiscula</i>
				Brown-headed Cowbird	<i>Molothrus ater</i>
				Northern Oriole	<i>Icterus galbula</i>
				House Finch	<i>Carpodacus mexicanus</i>
				American Goldfinch	<i>Carduelis tristis</i>
				House Sparrow	<i>Passer domesticus</i>

b. On-Site or Proximate Rare, Threatened or Endangered Species of Flora and Fauna

One of the primary objectives of the field survey was to determine whether any endangered, threatened or special concern status species were located on the proposed project site. The results of the field survey found no endangered, threatened or special concern status plant, animal species, or ecological communities to be present on the PepsiCo campus. In addition, data records from the New York State Department of Environmental Conservation's New York Natural Heritage Program were consulted for any records of endangered, threatened or special concern species that may be present at the site or within the vicinity of the project site. Copies of this correspondence are included in Appendix A of this DEIS.

One historical data record was provided for the Sedge Wren (*Cistothorus platensis*), a New York State Threatened Bird species. The sedge wren has not been observed to be breeding in Westchester County since the 1960's. Sedge wrens are observed periodically during migration and a few individuals are observed on a yearly basis within the region. Their preferred habitat is sedge meadows and coastal marsh areas. The habitat within the PepsiCo property does not provide suitable habitat capable of supporting the sedge wren. It is very unlikely that the PepsiCo site would have ever had suitable habitat to support a population of sedge wrens.

2. Anticipated Impacts

a. Quantification of Loss of Wooded Areas and Habitat Fragmentation Effects

The proposed PepsiCo Master Plan involves a series of phased improvements that include expansion of the existing corporate campus, parking areas and creation of a new welcome center for visitors. The proposed areas of expansion and potential impacts to flora and fauna are:

(1) Project Area #1 – Center Atrium, Courtyards and Fire Access Improvements

Project Area #1 centers on the existing PepsiCo building complex, including the proposed Center Atrium between the existing buildings, landscape and hardscape improvements proposed in the three outer courtyards between the existing buildings, and improvements to the area surrounding the existing/proposed buildings for emergency vehicle access. These improvements are all proposed in Phase I.

The proposed improvements are located within existing building footprints and courtyard areas, with limited habitat or plant or animal species. The proposed improvements will require the removal of approximately 30 existing trees which would be replaced with new plantings. Therefore, the impacts are not considered significant.

(2) Project Area #2 – Welcome Center, Parking Areas #1 & #2, Maintenance Area

Project Area #2, in the northeastern portion of the property, includes the new Welcome Center with associated parking and a new Welcome Center entrance

onto Anderson Hill Road, an extension of the existing parking area in this vicinity, and a relocated maintenance/storage area with a driveway to Anderson Hill Road. These improvements are all proposed in Phase I.

The construction of the Welcome Center, parking and maintenance areas would require the removal of approximately 714 existing trees and re-grading of existing slopes. Removal of the trees and subsequent grading activities, have the potential to create erosion of sediment and potential impacts to adjacent wetland areas however, all of these impacts would be mitigated through the proposed erosion and sediment control plan. The removal of trees will reduce the amount of available habitat for resident wildlife species and result in a temporary loss of available food and cover resources. This will have the most impact on upper canopy bird species and small mammals that utilize existing cavities in trees for nesting and cover. Some displacement of small mammals such as squirrels, and raccoons may occur due to the loss of trees. A large percentage of the area will be constructed within a former site that was used as a landscape yard and includes several buildings and landscape related materials and debris. The trees proposed to be removed consist of existing native trees and include several stands of trees planted as part of the original campus facilities. Although a large percentage of trees will be removed, this represents a small percentage of the property and the improvements will include an aggressive re-planting and tree replacement plan with 687 trees proposed in this area as depicted in Table III.D-3. Exhibits III.B-22 through III.B-29 present the proposed landscaping plan for the PepsiCo campus. Due to the amount of proposed mitigation measures, the impacts to resident wildlife and plant species are considered a minimal impact that will be effectively mitigated.

Table III.D-3
Tree Replacement Program
Project Area #2 – Welcome Center, Parking Areas #1 & #2, Maintenance Area

DECIDUOUS TREES		
QTY	BOTANICAL	COMMON
108	ACER RUBRUM `OCTOBER GLORY` TM	OCTOBER GLORY MAPLE
24	ACER SACCHARUM	SUGAR MAPLE
8	AMELANCHIER CANADENSIS `WHITE PILLAR`	CANADIAN SERVICEBERRY
34	BETULA NIGRA	RIVER BIRCH MULTI-TRUNK
30	CERCIS CANADENSIS	EASTERN REDBUD
16	CORNUS FLORIDA `EDDIES WHITE WONDER`	FLOWERING DOGWOOD
27	CORNUS KOUSA	KOUSA DOGWOOD
10	CORNUS MAS	CORNELIAN CHERRY DOGWOOD
23	FAGUS GRANDIFOLIA	AMERICAN BEECH
14	FAGUS SYLVATICA `PENDULA`	WEeping EUROPEAN BEECH
31	FRAXINUS PENNSYLVANICA	GREEN ASH
15	HAMAMELIS VIRGINIANA	COMMON WITCH HAZEL

Table III.D-3
Tree Replacement Program
Project Area #2 – Welcome Center, Parking Areas #1 & #2, Maintenance Area

DECIDUOUS TREES		
37	LIQUIDAMBAR STYRACIFLUA	SWEET GUM
13	MALUS FLORIBUNDA	FLORIBUNDA FLOWERING CRABAPPLE
23	NYSSA SYLVATICA `BLACK TUPELO`	BLACK TUPELO
8	QUERCUS ALBA	WHITE OAK
83	QUERCUS PALUSTRIS	PIN OAK
38	QUERCUS RUBRA	RED OAK
24	QUERCUS VELUTINA	BLACK OAK
15	SALIX DISCOLOR	PUSSY WILLOW
EVERGREEN TREES		
QTY	BOTANICAL	COMMON
19	ABIES CONCOLOR	WHITE FIR
16	ILEX OPACA	AMERICAN HOLLY
19	PICEA OMORIKA	SERBIAN SPRUCE
30	PICEA PUNGENS	COLORADO SPRUCE
22	PSEUDOTSUGA MENZIESII	DOUGLAS FIR
687	TOTAL	

(3) Project Area #3 – Parking Area #3

Project Area # 3, east of the existing PepsiCo corporate building complex, includes an extension of existing parking near the "P" pond. These improvements are proposed in Phase I.

The expansion of the parking area will result in the loss of approximately 97 trees and a little over one acre of disturbance. The grades will be changed and fill materials imported to construct the parking extension. The work will follow recommended construction and sediment and erosion control measures and the impacts are considered temporary. Due to the location, it is not anticipated that the expansion of the parking area will create any significant impacts to the functioning of the adjacent pond or impact the area. The loss of existing trees will be offset with an aggressive tree replacement and landscape plan to minimize any long term impacts. 84 trees are proposed to be planted in this area as depicted in Table III.D-4. Exhibits III.B-22 through III.B-29 present the campus-wide landscaping plan as well as details for specific areas throughout the project site.

**Table III.D-4
Tree Replacement Program
Project Area #3 – Parking Area #3**

DECIDUOUS TREES		
QTY	BOTANICAL	COMMON
14	ACER RUBRUM `OCTOBER GLORY` TM	OCTOBER GLORY MAPLE
3	BETULA NIGRA	RIVER BIRCH MULTI-TRUNK
7	FRAXINUS PENNSYLVANICA	GREEN ASH
11	QUERCUS PALUSTRIS	PIN OAK
11	QUERCUS RUBRA	RED OAK
EVERGREEN TREES		
QTY	BOTANICAL	COMMON
11	ILEX OPACA	AMERICAN HOLLY
15	PICEA OMORIKA	SERBIAN SPRUCE
1	PICEA PUNGENS	COLORADO SPRUCE
11	PSEUDOTSUGA MENZIESII	DOUGLAS FIR
84	TOTAL	

(4) Project Area #4 – Internal Connector Drive to Calloway House

Project Area # 4, south of the existing PepsiCo building complex, includes a new internal connector drive from the main campus to the Calloway Parcel, and additional parking spaces to be constructed in landscaped areas of the existing parking lot. These improvements are all proposed in Phase I.

The Internal Connector Drive would include construction of a bridge and road access to connect to the interior road system. This would require the removal of approximately 26 trees from the area to provide for adequate road widths and safety. The loss of trees could result in some loss of habitat for wildlife that utilizes this area along the watercourse. The existing internal road would be widened to meet the needs of the facility, which would require changes to existing grades and have the potential to create erosion. The implementation of proper stormwater practices and re-planting of the area will minimize any long-term impacts to resident wildlife and plant species.

(5) Project Area #5 – Building 2 & 6 Expansions + Pedestrian Bridges

Project Area # 5, includes expansion of existing Buildings 2 & 6, together with associated pedestrian bridges leading to the existing parking lots. These improvements are proposed in Phase II.

The proposed expansion is located within the existing footprint areas of the building and will encroach slightly within a small wetland area. This would require the construction of footings that would result in permanent impacts to the

wetland area. Due to the close proximity to existing structures, it is not anticipated that these improvements will impact resident plant and animal populations. The adjacent areas consist of lawn and landscaped areas and would remain the same after construction.

b. Impacts on Resident Plant and Animal Populations for All Phases of the Proposed Master Plan

The majority of the proposed improvements are located within areas that have been previously converted to lawn areas and or functions related to existing buildings and structures. The primary impact would be from the tree removal and grading activities. The project includes an extensive tree replacement plan as part of the overall landscape plan for the site, plus extensive wetland and wetland buffer restoration and enhancement measures that will improve overall plant diversity that will help to sustain resident wildlife populations. The natural corridors around the perimeter of the property will remain and be enhanced with specific mitigation measures that will offset any impacts from the phased improvements.

c. Effects on Rare, Threatened or Endangered Species, if any

No endangered, threatened or special concern species or habitats were identified to be present on the property. Therefore, no impacts are anticipated.

3. Proposed Mitigation

a. Preservation of Natural Areas; Landscape Plan

The site disturbance from the proposed activities will be effectively mitigated and areas of prior disturbance will be restored to improve the functional value of existing habitats. The degraded wetlands located within the former nursery operations area will be restored and enhanced to improve the overall functional value of the wetlands. In addition, an existing road will be removed from within the wetland buffer to Blind Brook and the area replanted to restore and improve the functional value of the buffer area to the Brook. The proposed landscape plans include replacement of trees on an approximately 1:1 basis, resulting in 851 proposed trees. All wetland impact areas would be replaced at a 2:1 ratio with new native plantings. The proposed Landscape Plan (Exhibits III.B-22 through III.B-29) is designed to supplement and enhance the existing natural areas and provide effective transitional areas between existing natural forested areas and the developed garden areas and facilities.

The new entrance promenade leading to the proposed Center Atrium Building includes a formal landscape design. The proposed landscaping in and along the new entry is consistent with the existing formal design. These plantings include a mixture of evergreen shrubs in linear formation with beds of uniform groundcovers and a central manicured lawn. The three courtyards, or sunken gardens, between the buildings will remain and will include plantings, walkways and sculpture, as at present.

The siting of the Welcome Center building and parking improvements includes a 200 foot buffer area to Lincoln Avenue. This buffer area will be supplemented with proposed deciduous and evergreen trees, shrubs, and lawn and meadow plantings. The design of the Welcome Center parking area includes four separate parking “pods”. Each pod includes planted areas creating opportunities for landscaping and screening along its perimeter and in their interior open space. As a result, a natural “wooded” setting will be created in the proposed parking areas.

The landscaping in the vicinity of the Welcome Center is designed to include a variety of plant species with different colors and textures to create a sense of interest. Ornamental trees, evergreen shrubs, lush grasses, perennials, etc. have been used in this area. Landscaped biofilters have been integrated into the layout and design of the parking bays. Stormwater run-off generated by the proposed improvements will be treated by the utilization of appropriate plant species specified for the biofilters, basins and wetland mitigation areas.

The Calloway Connector Drive, and the proposed Parking Areas & Maintenance Area will also include a mix of densely planted trees, shrubs and meadows to enhance the appearance and function of the improvements, as depicted on the proposed Landscape Plans (Exhibits III.B-22 through III.B-29).