



**CARVEL PROPERTY DEVELOPMENT**

**Pine Plains and Milan,  
Dutchess County, New York**

**CHAPTER 1 – EXECUTIVE SUMMARY**

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**Prepared for:**

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# **CHAPTER 1 EXECUTIVE SUMMARY**

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## ***1.0 INTRODUCTION***

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The Draft Environmental Impact Statement (DEIS) for the Carvel Property Development as presented to the Pine Plains Planning Board, Lead Agency for the coordinated environmental review of the proposed action, has been prepared in accordance with the standards and provisions as set forth in State Environmental Quality Review (SEQR) 6 NYCRR Part 617 and the project specific DEIS Final Scoping Document as adopted by the Lead Agency on March 11, 2004, and as supplemented by various Interim Scope Submissions (ISS) as were required by the adopted Scoping Document to more specifically describe the respective impact assessment methodologies to be followed.

The purpose of the DEIS is to consider environmental issues along with other aspects of the proposed action's planning and design; specifically it identifies and analyzes potential significant environmental effects, explores reasonable alternatives and presents appropriate mitigation measures. The environmental data and impact assessments presented in the DEIS provides the Lead Agency, other involved agencies and the public with relevant information to enable the asking of informed questions about the project and of the environmental impact assessment methodologies utilized.

The DEIS provides a means for reviewing agencies to give early consideration to environmental factors and assists in the balancing of environmental issues with social and economic considerations during project planning and the decision making process. The DEIS also provides the means for public review and comment about the proposed action.

The following Executive Summary provides a concise overview of each chapter of the Carvel Property Development DEIS. These abstract summaries abbreviate the full content of each DEIS chapter in order to provide the reader a brief synopsis and understanding of each. Major chapter subheadings are replicated and where appropriate, references to certain figures, tables and appendices found in the DEIS chapters are also included. For a more thorough analysis, the reader is encouraged to refer to the complete chapters referenced below.

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## **1.1 DEIS ORGANIZATION AND CONTENT**

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The DEIS information is formatted into chapters which are organized by environmental impact subject areas, in each case describing the existing environmental setting of the project site and the larger surrounding community and environment, the project itself, the potential or anticipated environmental impacts of the proposed action, and the various design features and measures taken to avoid, minimize to the greatest extent practicable and mitigate identified environmental impacts of the proposed action.

The data, information and analyses presented in the DEIS has been generated and gathered by the project sponsor, and the development organizations' staff and consulting environmental planners, engineers, natural resource scientists, landscape architects, economic and fiscal impact analysts, social scientists, archeologists, etc.

Existing data has been obtained from extensive site investigations, mapped sources, published sources, commercial sources, public sources and individuals, many of whom include local officials and municipal department staff who were cooperative and professional in allocating their time to allow this to occur.

In each area of potential impact assessment, the analysis has been undertaken pursuant to accepted environmental impact assessment methodologies as refined and targeted to the specific instance guided by the SEQR regulations, the Lead Agency's adopted Final DEIS Scoping Document, the various Interim Scope Submissions and the definition of the study areas to be examined.

The DEIS environmental impact assessments provide analyses at a level of detail and breadth of focus as defined by the aforementioned guidances to be sufficient to provide the public and the reviewing agencies with data and information to enable informed decision making. As set forth in the SEQR regulations, the DEIS document is not meant to be exhaustive or encyclopedic and it is not purported that every impact subject area is studied entirely or covers every level of detailed inquiry conceivable in environmental theory or science.

To help focus the reader, the DEIS text discussions are primarily addressed in plain language and utilize tabular presentations, maps, graphs, figures, photographs, sketches and other color visual images where they facilitate a clearer understanding of the subject matter and/or provide the summarization of data and findings. Supporting detailed technical studies and back-up information are contained in the DEIS Appendices, and are incorporated and summarized in the DEIS text. Also included is relevant correspondence with involved and interested agencies (*refer to Appendix 1.1, Correspondence for copies*).

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## **1.2 CHAPTER 2: DESCRIPTION OF PROPOSED ACTION**

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### **1.2.1 MISSION STATEMENT**

The Carvel Property Development project design and planning team has been guided by the mission statement established by the project sponsor, 1133 Taconic LLC, and development partner, Landmark Land Company, Inc. That mission is to create an exciting new master planned golf and vacation home community designed and operated with sensitivity to environmental resources and local identity. To achieve this, the Carvel Property Development has applied environmentally sound practices intended to preserve and protect community character and avoid sensitive environmental and cultural resources.

### **1.2.2 PROPERTY HISTORY**

Thomas Carvel established the Carvel Country Club and the existing 230-lot subdivision surrounding Lake Carvel in the early 1970s as a golf community. Carvel constructed an 18-hole golf course with related facilities and completed portions of the existing subdivision, along with the limited central wastewater and water supply services for that subdivision. In 1999, 1133 Taconic, LLC acquired the country club property from the Carvel estate. Thereafter, a number of other adjacent parcels were also acquired. Although improvements have been made to operations and the clubhouse facility, the country club has required considerable owner subsidy. 1133 Taconic, LLC also operates and maintains the infrastructure for the existing subdivision.

### **1.2.3 PROPOSED ACTION DESCRIPTION**

The proposed action consists of a master planned golf and recreation-oriented second home and vacation community offering a range of recreational amenities and clustered housing types within driving distance of the New York Metropolitan area. The existing 18-hole golf course will be reconfigured and expanded to create an 18-hole Championship course and 9-hole Academy course. A new golf clubhouse, as well as Homeowners' Association club facilities and recreational amenities, will be constructed in Pine Plains near Lake Carvel. A new private recreational sports park will also be constructed in Milan on the north side of Ferris Lane.

The proposed action includes the development of 951 clustered single-family residences. Of these, 563 will consist of detached residences on individual lots (varying in area from approximately one to five or more acres) and 388 will be attached and semi-attached residences within four distinctly designed cluster complexes. The new residences will be clustered around open space, the golf course and/or other planned recreational amenities. The planned community will be served by new central sewer and water systems, and connected by a series of public roads. The proposed action will also retain the site's existing commercial facilities, including a sand and gravel mining operation and the existing warehouse currently leased to an antique wood retailer.

#### **1.2.4 PROJECT APPLICATION**

On July 2, 2003 an initial Site Plan and Subdivision Application, Concept Plan and a completed State Environmental Quality Review Act (SEQRA) Long Form Environmental Assessment Form (EAF) Part 1 (*refer to Appendix 1.2, Full Environmental Assessment Form*) were submitted to the Town of Pine Plains Planning Board. Subsequently, a Part 2 EAF was prepared and submitted (*refer to Appendix 1.3, Environmental Assessment Form Part 2*). The proposed action is classified as a Type I action under SEQRA, requiring a coordinated environmental review among all involved agencies. The Town of Pine Plains Planning Board established lead agency status and on November 12, 2003 issued a SEQR Positive Declaration (*refer to Appendix 1.4, SEQR Positive Declaration, Resolution and Notice*) requiring the preparation of an Environmental Impact Statement. Two Public Scoping sessions were held on December 6, 2003 and January 10, 2004 to obtain public input on the proposed action. On March 11, 2004 the Pine Plains Planning Board, as lead agency, issued a Final Scoping Document (*refer to Appendix 1.5, Final Scoping Document*) defining the issues, content and breadth of analysis required to be included and evaluated in the DEIS.

The Town of Milan has been granted ex-officio status on the Pine Plains Planning Board for purposes of the SEQRA review of the proposed action. By resolution dated June 11, 2007, the Town Board of the Town of Milan resolved to support the positions of the ex-officio representatives appointed to participate in the SEQR process for the Carvel project. The Town of Milan has commented that they disagree with certain aspects of the project sponsor's evaluation in regard to the proposed action's potential subdivision entitlements, the definition and compliance with open space standards, the actions required to implement the proposed action in Milan, and the qualification of the proposed action as a cluster development consistent with the standards and requirements of Milan's Zoning and Land Subdivision Regulations. These comments are more fully discussed and responded to in *Chapter 3, Section 3.2.3.2, Town of Milan* and in *Chapter 5, Open Space Resources*.

#### **1.2.5 PROJECT SITE LOCATION**

The Carvel Property Development project site, totaling approximately 2,200 acres, is located primarily within the Town of Pine Plains (approximately 1,772 acres, or 80.5%) and partially within the Town of Milan (approximately 428 acres, or 19.5%), in northern-central Dutchess County, New York, just south of Columbia County and approximately 95 miles north of New York City. Local landmarks include Little Stissing Mountain, Stissing Mountain and the Fire Tower at Stissing Mountain which are located within approximately one mile southeast of the project site. The Taconic State Parkway (TSP) passes through the western portion of the project site in a north-south direction. Ferris Lane/Woodward Hill Road crosses in an east-west direction through the northern portion of the project site, while NYS Route 199 crosses through the southern portion also in an east-west direction. The project site is also located within the Pine Plains Central School District (PPCSD), partially (approximately 44%) within Agricultural District #21, and the portion of the site located in Milan is within an A5A Zoning District. There currently is no zoning in Pine Plains.

### **1.2.6 ABOUT MASTER PLANNED COMMUNITIES**

Master planned communities are a highly specialized form of development. Typically, they are created by combining high-quality project elements (including built amenities, natural resources, community character, open space and housing products) and operated with care to ensure the successful integration of the new community with its surrounding environment. The degree to which master planned communities are integral to, can be seen by, and can interact with the town(s) in which they are located depends on the particular geographic conditions, community character objectives, environmental resources, and infrastructure elements of the locale.

Vacation home master planned communities, such as the proposed action, have economic and community impacts that are in many ways related to the concept of a destination tourist resort. This is evident in the generally positive relationship between many master planned vacation communities and the larger host communities in which they are located. Because they attract predominately seasonal residents, these planned vacation communities demonstrably generate few or no public school children, and demand fewer community services, while creating substantial tax revenue for their host communities.

Master planned communities and their related homeowners' associations are widely recognized as a viable mechanism to conserve and forever protect open space and natural resources. Typically, operations and maintenance of these communities is guided by adaptive and integrated site management programs. Likewise, development within the proposed planned community has been sited and designed to protect local resources of environmental concern.

### **1.2.7 PROPOSED ACTION PLANNING**

The design and layout of the proposed master planned community began with a comprehensive analysis of the site's environmental resources to formulate a development plan that ensures consistency, creates a community context, and minimizes land disturbances, guided by the following:

- Detailed investigations and analyses of the project site's natural and cultural features, as well as those of the local community and surrounding area.
- Incorporation of design aspects from the local community and surrounding area into the layout of roads, building lots and proposed buildings and structures.
- Location and design of facilities, roads, lots and cluster complexes to avoid sensitive resources and minimize environmental impacts.
- Siting of lots to provide maximization of open space and non-developed land areas, and establishment of restricted development envelopes on individual lots.
- Clustering of residential units to minimize site disturbances, preserve contiguous tracts of open space, and minimize visual and community character impacts.
- Avoidance or minimization of visual and community character impacts through design guidelines on site planning, architectural design and landscaping.

Natural resource protection is a desired feature within the vacation home market, and the project sponsor is among the world's foremost green developers, with commitment and experience spanning more than three decades (*refer to Chapter 15, Use and Conservation of Energy and*

*Sustainable Development for more details*). The sponsor's stated intent is to make the Carvel Property Development the most green and energy conserving project of its type and size. To achieve this, the project sponsor aims to advance state-of-the-art green development technologies to reduce energy demand and consumption beyond traditional development practices.

Design of the proposed action has been based upon a comprehensive site assessment, natural resource inventory and reporting process. The following resources of the project site and surrounding area have been inventoried, mapped and/or evaluated:

- Land uses
- Agricultural resources
- Open space resources, both protected and unprotected
- Cultural resources, including historic and archeological resources
- Recreational resources
- Scenic and visual resources, including community character
- Fauna and flora, including rare and conservation concern species
- Surface water and groundwater resources
- Streams, wetlands and associated buffers
- Geology, soils and topography
- Transportation corridors
- Air and noise considerations
- Infrastructure and site utilities
- Community services, including fiscal and economic considerations

The project sponsor has also reviewed and analyzed various existing rural design guidelines. Among these are the Dutchess County Department of Planning and Development's Rural Development, Hamlet Design and Building Form Guidelines. Many aspects of the proposed action land use and conservation development plan are consistent with the design guidelines, including:

- Consideration of the existing topography, vegetation, and other features
- Open space planning as a central focus
- Preservation of stonewalls and hedgerows
- Limits on building height, and use of vegetation to reduce building prominence
- Minimization of steep slope crossings
- Use of best management practices for erosion and sediment control

### **1.2.8 HOMEOWNERS' ASSOCIATIONS**

A Master Homeowners' Association will also be formed to oversee the ongoing maintenance and governance of defined subdivision areas, which will own and maintain the common community facilities, with the exception of the water supply and sewage treatment facilities, which will be owned and managed by Transportation Corporations as discussed below. The Championship Golf Course, Clubhouse and other club facilities will be owned and operated by the project sponsor.

### **1.2.9 WATER AND WASTEWATER TRANSPORTATION CORPORATIONS**

Water supply wells and treatment, distribution and storage facilities will be owned and operated by a private Transportation Corporation established as set forth in the laws of New York State and in compliance with the regulations of the New York State Department of Health (NYSDOH), New York State Department of Environmental Conservation (NYSDEC) and the New York State Public Service Commission (NYSPSC). Wastewater treatment collection, treatment and discharge facilities will be owned and operated by a private “Sewage-Works Transportation Corporation” that will also be established as set forth in the laws of New York State and in compliance with the regulations of the Dutchess County Department of Health (DCDOH). For both water and wastewater the formation of the above described public utility “Transportation Corporations” is a standard method for provision of these services under the regulation and operating controls set forth in the laws of New York State.

### **1.2.10 DEVELOPER-IMPOSED DEVELOPMENT GUIDELINES**

The project sponsor and Master Homeowners’ Association will establish formal internal development guidelines to direct residential improvements in such a manner as to preserve a harmonious appearance and function with other site improvements, the surrounding community and the environment. These guidelines will address site planning, architectural design and landscape considerations. Conformance with these guidelines will be assured through an internal review process administered by the Master Homeowners’ Association.

### **1.2.11 OPEN SPACE PRESERVATION**

The proposed action has been designed to include various levels of open space protection, from outright avoidance and preservation of existing natural resources within proposed Community Conservation Areas (CCAs) and other areas of the project site to self-imposed deed restrictions on land use conversion and development guidelines limiting lot clearing and site disturbances. In total, the proposed action will include approximately 1,197 acres of “Protected Open Space” (*refer to Chapter 5, Open Space Resources for further details*), with a substantial portion (approximately 957 acres or 44% of the total project site area) of that left in its current existing natural state. The remainder of the project site will either be disturbed (approximately 534 acres or 24%) or left undisturbed (708 acres or 32%) as “Unprotected Open Space,” but not formally protected. Note that not all of the resources identified as “open space” in this DEIS may meet the definition of open space in the Town of Milan Zoning or Land Subdivision Regulations (*refer to Chapter 3, Section 3.2.3.2, Town of Milan and Chapter 5, Open Space Resources for details*).

### **1.2.12 PROJECT PHASING**

The major infrastructure for the proposed action has been designed to be developed in four phases with subdivision development over a ten-year build-out period. As each phase is completed, facilities and residential structures will be occupied during construction of

subsequent phases. Appropriate maintenance, safety and construction traffic plans will be prepared as part of the permitting process for each individual phase.

The phasing of the proposed action has been developed based on the design of the project infrastructure as suited to the physical characteristics of the project site, the anticipated absorption of the residential product types, and service to the Golf Club, Homeowners' Club and related facilities. The phasing may be adjusted to respond to the market and absorption.

***Refer to Figure 2.20, Phasing Plan included in Chapter 2, Description of Proposed Action for the distribution and content of each of the individual phases of proposed development.***

Phase I construction involves the majority of the recreation and social amenities, base utility infrastructure for the entire project, and an initial phase of residential development. The early construction of the recreation and social amenities infrastructure is intended to support sales activities and to allow the amenities to "mature" during early construction phases. Phases II, III, and IV primarily involve construction of the remaining residential development and associated utility infrastructure.

### **1.2.13 PURPOSE, NEED AND PUBLIC BENEFIT**

The primary purpose of the proposed action is to address the growing regional market demand for recreationally-focused vacation and second home opportunities. ***Chapter 14, Community Services and Fiscal Impacts*** contains a project market study which concludes that the market for this type of master planned community consists of 797 units per year within driving distance of the New York Metropolitan area.

The overall conservation design is intended to avoid and permanently preserve the most environmentally sensitive areas of the project site, including avoidance of approximately 99% of site wetlands and watercourses. Approximately 76% of the project site is proposed to remain undisturbed and approximately 55% of the site will be formally protected as open space, including approximately 44% of the site preserved in its current natural undeveloped state.

As a master planned recreation second home community, the proposed action is anticipated to generate a limited demand for public services, particularly on the PPCSD. The proposed action is anticipated to result in a net positive fiscal impact across all taxing jurisdictions of approximately \$7 million, of which more than \$5 million will go to the PPCSD with minimal increased costs due to the low increase in school children enrollment anticipated as a result of the proposed action. ***Refer to Chapter 14, Community Services and Fiscal Impacts for further details.***

The proposed action is also anticipated to positively contribute to the local and regional economies through substantial increased expenditures associated with: proposed construction activities (the proposed action is projected to result in a total construction cost of approximately \$462.5 million and generate approximately 133 construction jobs annually for the 10-year build-out period); secondary and indirect benefits generated by increased on-site and off-site employment; and operational and resident spending (the proposed action is projected to generate approximately \$32 million annually in the purchase of goods and services).

From a non-fiscal impact perspective, the proposed action will also enable the communities in which the project is located to plan for growth in a coordinated resource sensitive fashion rather than facing the prospect of reviewing individual and separate projects based on individually owned lots and subdivisions.

#### **1.2.14 TARGET MARKET**

The target market for the Carvel Property Development consists of the affluent and uber-affluent second home buyers that have fueled vacation home development throughout the Continental U.S. and the Caribbean. Of these buyers, approximately 50-60% own 3 or 4 homes for personal use (on average they own 2.4 homes each).

In 2005, there were over 160,000 households in the Primary Market Area with earnings more than \$250,000 per year, and almost 100,000 households in 2004 earning more than \$500,000 per year. By 2009, the number of households earning more than \$500,000 is projected to top 135,000. These statistics exclude that portion of the region's population that has a net worth of over \$1 million, but an income below these thresholds.

#### **1.2.15 LOCAL ECONOMIC CONSIDERATIONS**

The proposed action is anticipated to substantially increase the local and regional tax base and economic opportunities while respecting local community goals, preserving rural character and protecting natural features. In addition, the proposed action protects the larger community from less desirable uncoordinated and non master-planned development. The proposed action is anticipated to generate approximately \$11,947,000 in total annual tax revenue at Year 10 build-out, of which approximately \$7,208,000 would be generated for use by the PPCSD with minimal increased costs due to the limited number of new students generated by the proposed seasonal community.

#### **1.2.16 APPROVALS AND PERMITS**

Implementation of the proposed action will require several permits and approvals from a number of local, County, State and Federal agencies (*refer below to Table 1.1, Permits and Approvals and to Chapter 2, Section 2.4, Approvals and Permits*).

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TABLE 1.1 PERMITS AND APPROVALS						
AGENCY	PERMIT APPROVAL DESCRIPTION	PHASE I		PHASE II	PHASE III	PHASE IV
		PHASE IA	PHASE IB			
Pine Plains Town Board	Wastewater Approval to file Transportation Corporation	● (entire site)				
	Approval of Wastewater Tariffs	● (entire site)				
	Water Approval to file Transportation Corporation	● (entire site)				
	Road Acceptance	● (realignment of Woodward Hill Road)	● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)
	Cluster Authorization Amendment	● (entire site)				
	Possible PRC (Planned Recreational Community) Ordinance as Zoning or Site Plan or Subdivision Approval	● (entire site)				
Milan Town Board	Wastewater Approval to file Transportation Corporation	● (entire site)				
	Approval of Wastewater Tariffs	● (entire site)				
	Water Approval to file Transportation Corporation	● (entire site)				
	Road Acceptance	● (realignment of Ferris Lane)			● (specific area of project phase)	● (specific area of project phase)
	Zoning Amendment relating to proposed residential density, such as a possible PRC Ordinance	● (entire site)				
	Possible Open Development Area designation to address applicable street frontage requirement for lots within the proposed action cluster development plan	● (entire site)				
Pine Plains Planning Board	Subdivision Approvals		● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)
	Site Plan Approvals	● (golf course & irrigation)	● (Golf & HOA Clubhouses)			
	Possible PRC Plan Approval	● (entire site – overall plan)	● (implementing plan for specific area of project phase)	● (implementing plan for specific area of project phase)	● (implementing plan for specific area of project phase)	● (implementing plan for specific area of project phase)
	Waiver to permit 4 lots served by a common driveway		● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)
Milan Planning Board	Cluster Authorization		● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)
	Subdivision Approvals		● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)
	Site Plan Approvals	● (golf course & irrigation)	● (sales office)	● (sports park)		
	Possible PRC Plan Approval	● (entire site – overall plan)	● (implementing plan for specific area of project phase)	● (implementing plan for specific area of project phase)	● (implementing plan for specific area of project phase)	● (implementing plan for specific area of project phase)
	Freshwater Wetlands and Watercourse Permits	● (as needed)	● (as needed)	● (as needed)	● (as needed)	● (as needed)
Milan Zoning Board of Appeals	Possible Zoning Area Variances for minimum street frontage, minimum lot width and/or maximum lot coverage for certain lots within the proposed action cluster development plan	● (as needed)	● (as needed)	● (as needed)	● (as needed)	● (as needed)
Pine Plains Building Inspector	Demolition Permits		● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)
	Building Permits	● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)
<b>LEGEND:</b> ● ENTIRE SITE ● SPECIFIC DEVELOPMENT COMPONENT ● AS NEEDED ● SPECIFIC AREA OF PROJECT PHASE (Represents the permit/approvals for a specific area of a project phase required prior to the commencement of the improvements of that specific area of project phase.)						

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TABLE 1.1 PERMITS AND APPROVALS						
AGENCY	PERMIT APPROVAL DESCRIPTION	PHASE I		PHASE II	PHASE III	PHASE IV
		PHASE IA	PHASE IB			
Milan Building Inspector	Demolition Permits	● (existing Clubhouse)				
	Building Permits		● (area of project phase)	● (area of project phase)	● (area of project phase)	● (area of project phase)
Pine Plains Highway Superintendent	Curb cuts on existing town roads		● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)
	Water Approval to file Transportation Corporation	● (entire site)				
Milan Highway Superintendent	Curb cuts on existing town roads			● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)
	Water Approval to file Transportation Corporation	● (entire site)				
Dutchess County Health Department	Wastewater Treatment (WWT) Plant Plan Approval	● (entire site)				
	Water Recommendation to NYSDOH	● (entire site)				
	Subdivision Plats		● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)
Dutchess County Planning Department	Referrals per General Municipal Law §239-1, m & n	● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)
Dutchess County Water and Wastewater Authority	Filing of Water and Wastewater Transportation Corporations (Referral Only)	● (entire site)				
New York State Department of Environmental Conservation	SPDES Wastewater Discharge Permit	● (entire site)	● (specific area of project phase / collection system)	● (specific area of project phase / collection system)	● (specific area of project phase / collection system)	● (specific area of project phase / collection system)
	SPDES General Stormwater Pollution Permit	● (entire site)	● (specific area of project phase / stormwater permit implementation)	● (specific area of project phase / stormwater permit implementation)	● (specific area of project phase / stormwater permit implementation)	● (specific area of project phase / stormwater permit implementation)
	Protection of Waters Permit including Supplement D-1 (Dam/Impoundment Application)	● (entire site)				
	Section 401 Water Quality Certification	● (entire site)				
	Water Supply Approval Permit for community water supply	● (entire site)				
	Freshwater Wetlands Permits	● (entire site)				
New York State Department of Health	Water Supply Plan Approval	● (entire site)	● (specific area of project phase / water distribution system)	● (specific area of project phase / water distribution system)	● (specific area of project phase / water distribution system)	● (specific area of project phase / water distribution system)
New York State Department of State	Filing of Water and Wastewater Certificate of Incorporation (Referral Only)	● (entire site)				
New York State Department of Transportation	Taconic State Parkway Work Permit		● (TSP Exit)			
	NYS Rt. 199 Work Permit		● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)	● (specific area of project phase)
NYS Office of Parks, Recreation, and Historic Preservation	Consultation with state agencies with permit authority (NYS DEC, DOT) regarding historic and archaeological resources	● (entire site)	● (as needed)	● (as needed)	● (as needed)	● (as needed)
New York State Public Service Commission	Approval of Water Supply Tariffs	● (entire site)				
US Army Corps of Engineers	Section 404 Clean Water Act Wetland Permit	● (entire site)				
US Fish and Wildlife Service	Endangered/Threatened Species Related Impacts where a Federal permit is required, Federal fish and wildlife consultation	● (entire site)				

**LEGEND:** ● ENTIRE SITE ● SPECIFIC DEVELOPMENT COMPONENT ● AS NEEDED  
● SPECIFIC AREA OF PROJECT PHASE (Represents the permit/approvals for a specific area of a project phase required prior to the commencement of the improvements of that specific area of project phase.)

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## 1.3 CHAPTER 3: LAND USE AND ZONING

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A summary of the environmental setting, potential impacts and mitigation measures related to land use and zoning is provided below. *Table 3.0, Land Use and Zoning – Chapter Summary Matrix included in Chapter 3, Land Use and Zoning* also provides a summary of these major components and issues.

### 1.3.1 ENVIRONMENTAL SETTING

The project site is a combination of multiple tax parcels owned by the project sponsor within the Towns of Pine Plains and Milan, including a majority of lots from the previously approved, platted, and partially constructed 230-lot subdivision surrounding Lake Carvel. Those approved subdivision lots not owned by the project sponsor (all but one of which are located to the west of the lake) are not included in the project site. Within the perimeter of the project site there are also three other unrelated land parcels not included in the project site.

The project site predominately consists of the existing 18-hole Carvel Country Club with related amenities and facilities, woodlands and forest (previously logged), wetlands and streams, the approximately 29-acre Lake Carvel, several single and multi-family residences, five former farm complexes with associated oldfields, limited commercial facilities, and a small family cemetery plot. Several roads cross through the project site but only limited public utilities serve the area.

Less than 2% of the project site consists of dedicated or restricted lands (consisting of approximately 43 acres of existing golf course designated “open land” in Milan). There are no other lands with restrictions, easements or other covenants affecting the use or development of the project site. The project site includes 56 existing buildings and structures, of which 17 are potentially eligible for listing on the State and National Registers of Historic Places, and numerous lengths of stone walls primarily constructed in association with the former farms.

Existing primary land uses on or associated with the project site include:

- **Recreational Uses:** Including golf and private passive open space.
- **Residential Uses:** Including residential units scattered throughout the site.
- **Commercial Uses:** Including a commercial warehouse leased by an antique wood retailer and a NYSDEC-permitted sand and gravel mining operation (*refer to Appendix 1.6, Permits for a copy of the current NYSDEC, Article 23, Title 27, Mined Land Reclamation, Permit Renewal/Modification, dated March 24, 2003*).
- **Roadways:** Including several public roads which traverse the project site.
- **Infrastructure and Utilities:** Including limited water, sewage disposal, and other utilities.

The land use pattern of surrounding properties within one mile of the project site consists primarily of undeveloped lands, including forest and woodland hills, wetlands and streams, oldfields of inactive farms, as well as State-protected recreation lands. Active land uses surrounding the project site include a few farms, scattered residences and the hamlet of Pine Plains to the east.

Pine Plains regulates land use development through its Land Subdivision Regulations, Site Plan Review Law and Highway Specifications. There currently is no Zoning Map or Zoning Law in Pine Plains. In 2005, the Pine Plains Town Board appointed a Zoning Commission to evaluate potential zoning regulations for the town and adopted a one-year moratorium on certain land uses, including multiple lot subdivisions. Pine Plains is also currently reviewing its existing Land Subdivision Regulations based on recommendations set forth in its recently adopted Comprehensive Plan (April 2004).

Milan regulates land development activities through its Zoning Law, Land Subdivision Regulations and other portions of its Town Code including the Town Highway Specifications. In March 2005, the Milan Planning Board adopted Habitat Assessment Guidelines, and in January, 2006, the Milan Town Board adopted an updated Comprehensive Plan.

Milan is currently reviewing potential amendments to its Zoning Law and Land Subdivision Regulations regarding the establishment of a new Rural Space Overlay Zone that would require a minimum subdivision lot area of 10 acres for all existing parcels ten-acres or larger; the current standard is five acres. If adopted, this would affect the zoning for the entire portion of the project site within Milan. Milan is also reviewing the adoption of a Wetlands and Watercourses Law that would exceed and be more restrictive than State and Federal standards.

Both Pine Plains and Milan are Dutchess County Greenway Compact communities.

The following local and regional land use plans and policy documents address land use planning and development related issues which can be used to guide the use and development of the project site, and design of the proposed action land use plan:

- Town of Pine Plains Comprehensive Plan (April 2004)
- Town of Milan Updated Comprehensive Plan (2006)
- *Directions: The Plan for Dutchess County*
- *Greenway Connections: Greenway Compact Program and Guides for Dutchess County Communities* (2000)
- Smart Growth Housing Task Force Report (December 2001)

Like most Towns in Dutchess County, Pine Plains and Milan are experiencing growth pressure as people continue to move north from the greater New York Metropolitan area. Between 1990 and 2000, according to the 2000 US Census, seasonal housing units increased 33% within Dutchess County, 86% within Pine Plains, and 145% within Milan. The prevailing trend of declining agricultural uses and increasing residential populations is likely to continue and accelerate for some time.

Increasing growth pressure causes changes in land use and conversion of undeveloped lands to developed lands, resulting in increased demands on local and regional services, resources and

facilities. Like the Comprehensive Plans of Pine Plains and Milan, the noted regional land use plans identify the need for quality planning to avoid and minimize potential impacts due to uncontrolled or poorly planned growth and development. These regional land use plans also note the importance of conservation planning, open space preservation, lot clustering, environmental constraints avoidance, and the protection of natural habitat, agricultural resources and community character.

### 1.3.2 **POTENTIAL IMPACTS**

The proposed action land uses are all consistent with the land uses as permitted by the development regulations of both Pine Plains and Milan, except as follows:

- Pine Plains Town Board legislative subdivision amendment authorizing lot clustering as set forth in §278 of NYS Town Law to permit attached and semi-attached single-family units on common parcels.
- Pine Plains waiver to permit 4 lots to be served by a common driveway.
- For Milan, the reader should note that Milan officials disagree with certain aspects of the evaluation that follows, as covered in *Chapter 3, Section 3.2.3.2, Town of Milan*, which outlines Milan's concerns with the project sponsor's DEIS land use and zoning evaluation for the Milan portion of the project site. The practical consequence of this is that during the DEIS public comment period, FEIS preparation phase, and at the time of project review, the involved agencies of the Town of Milan will have several opportunities to evaluate and determine the appropriate intensity and layout of the type, amount and location of proposed action land uses.

The proposed action land uses are also all compatible and consistent with the site's existing land uses, and the land uses on surrounding and adjacent properties. As such, no significant adverse environmental impacts on existing, permitted and surrounding land use are anticipated.

Implementation of the proposed action includes the following land uses:

- **Recreational Uses:** Including an 18-hole Championship Golf Course, 9-hole Academy Course, driving range and Golf Clubhouse, Homeowners' Club Complex and Sports Park.
- **Residential Uses:** Including 951 single-family residences consisting of 563 individual detached units on single-family lots and 388 single-family attached and semi-attached units sited within four separate cluster complexes.
- **Open Space Lands:** Including approximately 957 acres of permanently protected open space that will be preserved in its current natural state and an additional approximately 240 acres of developed protected open space consisting primarily of the playable golf course areas and other active recreation facilities. Note that not all of the resources identified as "open space" in this DEIS may meet the definition of open space in the Town of Milan Zoning or Land Subdivision Regulations (*refer to Chapter 3, Section 3.2.3.2, Town of Milan and Chapter 5, Open Space Resources for details*).

- **Existing Commercial Uses to Remain:** Including the antique wood retailer and sand and gravel mining operation.
- **Roadways:** Including new public roadways and related improvements to existing public roadways, designed to maintain community character and limit site disturbances, and private cluster roadways and private common driveways, to reduce the need for additional public roadways.
- **Infrastructure and Utilities:** Including central water supply and wastewater services, extended electric, telephone and new cable utilities. New utilities will be installed underground in common trenches to reduce site disturbances. No public street lighting is proposed. Solid waste is to be handled privately and disposed at existing facilities within Dutchess County.

None of the proposed action land uses will conflict with or adversely affect adjacent and surrounding land uses, or the use or operations associated with neighboring properties.

The proposed action will generate an increased seasonal resident population. Potential impacts largely relate to the increased use by project residents of surrounding commercial, recreation, open space and transportation resources, and their potential affect on community services and programs, schools and municipal fiscal resources. However, seasonal residents generate fewer demands for community services than would all-year primary residents, while their residences and other land use components will generate the same annual tax revenues as primary homes would. This will result in a substantial net positive fiscal impact, primarily to benefit the PPCSD.

The construction, operation and maintenance of the proposed land use components are anticipated to generate substantial increased consumer spending and create numerous new jobs (both on and off-site). The seasonal residents are also anticipated to generate considerable increased household and entertainment related expenditures in the local and regional economies. These impacts are anticipated to be substantially positive.

Implementation of the proposed action will require Subdivision and Site Plan approvals from Pine Plains and Milan, and other various Federal, State, County and local permit approvals. All of the land use components of the proposed action are permitted principal and accessory uses as set forth in the respective Towns' land use and development regulations, and have been designed to provide land uses that are consistent and compliant with the various requirements and guidelines for overall subdivision lot size and layout. Notwithstanding, in Milan, area variances may be required for some of the proposed clustered lots to address applicable zoning requirement for minimum street frontage (an Open Development Area designation by the Milan Town Board would be an alternative option for addressing lack of minimum street frontage), minimum lot width and maximum lot coverage. Also, a waiver in Pine Plains will be sought to permit certain common driveways to serve 4 lots instead of the current maximum of 3 lots.

However, in that both Town's are currently reviewing their respective land use development regulations for potential amendments, or in the case of Pine Plains, the possible adoption of its first Zoning Ordinance. Therefore, incorporation of a Planned Recreational Community (PRC)

ordinance as new zoning or as an amendment to existing subdivision or site plan regulations could provide a coordinated land use mechanism to which the proposed action could be established. Such an ordinance or regulation could provide each Town with an integrated set of development standards, review criteria, site design considerations, etc which may be better suited to the size and type of project as proposed, and which may more ideally enable its land use, open space, and natural resource protection objectives as expressed in their respective Comprehensive Plans. Adoption of a PRC type regulation or ordinance could provide for the integration of all aspects (i.e., recreational amenities, utility and infrastructure, attached and detached residential, open space, etc) of the proposed action under a coordinated set of standards, rather than treated as separate land uses subject to unrelated individual standards as is currently provided for in each Town's respective land use codes.

Clustered residential development is consistent with recommendations of the Pine Plains 2004 Comprehensive Plan and Milan's zoning provisions, which permit and encourage "cluster development" (§200-22 of the Milan Zoning Law). However, authorization and amendment of the Pine Plains Land Subdivision Regulations will be needed to permit lot clustering in Pine Plains consistent with the provision set forth in §278 of NYS Town Law. Should the Town Board of Pine Plains not initiate the needed amendment as recommended by its recently adopted Comprehensive Plan, the project sponsor will petition the Town Board for such an amendment. Unlike Pine Plains, authorization for lot clustering pursuant to §278 of NYS Town Law currently exists in Milan's Zoning Law. The proposed action complies with all of the cluster development requirements as set forth in Milan's Land Subdivision Regulations and Zoning Law, with the exception of the proposed unit density for which an area variance is proposed. In regard to requirements for open space and recreation reservations, the proposed action substantially exceeds the minimum requirements of both Pine Plains and Milan (*refer to Chapter 5, Open Space Resources*). A waiver for the number of lots served by a common driveway in Pine Plains is also needed to permit certain proposed common driveways to serve four lots instead of the permitted maximum of three.

The proposed action will address the growing demand for second and vacation homes in the southern Hudson Valley. As a conservation subdivision that employs lot clustering and a variety of second home housing types, the design of the proposed action substantially avoids and protects environmental resources, preserves community character and viewsheds, and will increase tourism and the economic vitality of the region. Thus, the proposed action is consistent with local and regional land use plans.

### **1.3.3 MITIGATION MEASURES**

Development of the proposed action will be gradual and phased over a ten-year period. The use of lot clustering, conservation subdivision design, coordinated master planning, and low impact development measures will avoid impacts on sensitive environmental and cultural features within and surrounding the project site, including wetlands, steep slopes, important ecological communities, open space lands, oldfields, intact historic structures and stone walls. Proposed deed restricted land use, preservation of open space and implementation of self-imposed development guidelines and restrictions governing future development on individual lots will maintain existing community image and character.

Constructed components will evoke the architectural themes and landscape patterns found throughout northern Dutchess County and the Hudson Valley region. This has been accomplished by use of varying lot sizes, clustered development and planned open space, vernacular architectural styles and design elements, natural colors and quality building materials, native plantings, naturalized streetscapes, minimal signage, and small-scale and architecturally appropriate lighting.

The number of additional residents associated with the project will increase over the 10-year construction period of the proposed action; annual net positive tax revenues, resulting from site improvements, will offset increased municipal service costs that may result.

No significant adverse environmental land use impacts are anticipated as all proposed land uses are permitted, therefore no specific mitigation is warranted.

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## 1.4 CHAPTER 4: AGRICULTURAL RESOURCES

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Existing conditions and potential impacts regarding use of agricultural land and resources on and around the project site have been evaluated in terms of agricultural trends, operations and lands, the 1998 Dutchess County Agricultural and Farmland Protection Plan, and the agricultural value of on-site soils. Components of the related DEIS environmental setting, potential impacts and mitigation measures pertaining to agricultural resources are summarized below. *Table 4.0, Agricultural Resources – Chapter Summary Matrix included in Chapter 4, Agricultural Resources* also provides a summary of these major components and issues.

### 1.4.1 ENVIRONMENTAL SETTING

Assessment of agricultural resources in the project area has been divided into specific and general areas of study. The Specific Study Area includes the project site and lands included in Agricultural Districts 20 and 21 that lie within 500 feet of the project site's boundary. The General Study Area includes agricultural lands in Agricultural Districts 20 and 21, Dutchess County, and the Vaill Farm located north just across the Columbia County boundary in the Town of Gallatin. *Refer to Chapter 4, Appendix 4.1, Agricultural Resources Interim Scope Submission, Figure 1, Map of Agricultural Resources Specific Study and Figure 2, Map of Agricultural Resources General Study Area.*

The **Specific Study Area** has been evaluated pertaining to recent agricultural trends, existing conditions and soil potential. There have been no active agricultural operations on the project site since the 1970s and associated facilities are limited to structures and land from five former farms, now comprising oldfields, shrublands and woodlands. These former farm lands on the project site have not been sought out by farmers. None of the tax parcels on the project site are classified by the Dutchess County Real Property Tax Service Agency (DCRPTSA) as a current agricultural use. Approximately 972 acres or 44% of the project site area is located in Agricultural District 21; no project site lands are located in Agricultural District 20.

Presently, there are seven farming operations within 500 feet of the project site boundary, only three of which are classified as agricultural land according to DCRPTSA. Surrounding farms are generally representative of investor owner or hobby farms. The closest farm to the project site is the Vaill Farm, a dairy farm, located approximately 1,100 feet to the north.

Several soils classified by the U.S. Department of Agriculture (USDA) as Prime Farmland, Prime Farmland Where Drained, or Farmland of Statewide Importance occur on the project site and total approximately 1,028 acres (or approximately 45% of the total project site acreage). However, agricultural use of these soils is limited by previous development, poor drainage, shallow depth to bedrock, rock outcrops and other natural limitations resulting in approximately 591 acres of fragmented useful agricultural soils on the project site. Thus the project site offers limited suitability for larger, more traditional farming operations. Although these smaller tracts could be farmed by specialty or niche operations, the likelihood of such farming use is small. Other locations within the region provide comparably more suitable conditions for both large and small scale farming operations.

In the **General Study Area**, Dutchess County has seen a decline of large dairy farms, but an increase in small crop related farms, including vegetable and nursery goods. Between 1987 and 1997, Census of Agriculture figures indicate that land in farms declined by almost 15% in Dutchess County, and the value of the county's agricultural output, adjusted for inflation, has declined by over 30% in the last two decades.

#### 1.4.2 **POTENTIAL IMPACTS**

Since there are no active farms on the project site, the proposed action will not result in the conversion of any active agricultural land to another use. However, the proposed action will eliminate the possibility of resuming operations at former farms on the site (assuming such demand existed), as well as the feasibility of start-up agricultural operations on the project site.

The proposed action subdivision and development plans will result in the further fragmentation of the site's useful agricultural soils, as the majority of these soils will be located within subdivided single-family lots. Although development will be avoided in many of these areas, the resulting fragmentation of agricultural soils will generally eliminate their use for agricultural purposes. Useful agricultural soils will also be included within other proposed lots of the planned community; those left in golf course lands will remain on-site for non-agricultural uses, while those within proposed open space parcels and buffers will remain undisturbed.

The substantial investments made to improve the project site may have the indirect effect of raising land values in the surrounding area, which may influence the ability of farmers to purchase or lease land outside the project site for agricultural operations. However, interviews with farmers revealed that the market cost of leasing land is less related to the market value of the land than to agricultural economics which establish what a farmer can pay for agricultural lands as a percent of what value or utility will be created by their use.

Potential impacts of land in agriculture as it relates to community character and open space is discussed in *Chapter 5, Open Space Resources and Chapter 7, Visual Resources and Community Character*.

Because the majority of the surrounding agricultural operations are concentrated in areas away from the project site, and transportation routes anticipated to be used by future residents (the TSP and NYS Route 199) are different from those used by area farms, no potential conflicts typically associated with the mixing of agricultural and residential uses (noise, dust, odors, dangers to children, nuisance complaints, etc.) are anticipated. Potential impacts due to runoff and golf course maintenance, which could otherwise affect area surface and groundwater supplies, will be mitigated.

Indirectly, the proposed action will have a positive impact on regional agriculture by providing a larger consumer base likely resulting in an increase in sales for local and regional farmer's markets, orchards, wineries, greenhouses and nurseries.

### 1.4.3 **MITIGATION MEASURES**

Since there are no active farms on the project site, the proposed action will not result in conversion of agricultural land to another use and thus no mitigation measures are warranted. In addition, the proposed action will result in the preservation of many existing oldfields and several former farm buildings on the project site, thereby minimizing potential adverse impacts to its agricultural image and openness. Proposed open space preservation measures and other development restrictions will permanently protect portions of on-site agricultural soils from future disturbance.

As the proposed action will not impact the soil composition of off-site surrounding agricultural lands, it will have no direct impacts on those agricultural lands in the area. Additionally, turf management controls used on the golf course will pose little to no threat to beneficial insects, particularly bees, which surrounding agricultural operations may depend on.

Potential conflicts with off-site farming operations are not anticipated but to the extent minor impacts result, they will be mitigated by the implementation of stormwater quality management (*refer to Chapter 9, Surface and Subsurface Water Resources for specific details*) and an Integrated Pest Management Plan (IPM) (*refer to Chapter 10, Geology, Soils and Topography for specific details*) developed specifically for the project site.

Development of the proposed action is compatible with local agricultural protection recommendations. For example, the proposed action is consistent with the recommendations of the Dutchess County Agricultural and Farmland Protection Plan (DCAFPP) in that all proposed development activity will occur in a marginal area and no active productive farmland will be disturbed or converted. In addition, the rural image and character of the project site will be maintained through the establishment of permanently protected open space, including Community Conservation Areas preserved in their natural state, and development restrictions on the golf course, other non-residential parcels and portions of individual residential lots, and through a conservation and cluster subdivision pattern, which will mitigate potential impacts and preserve important rural features such as wetlands, oldfields, steep slopes, viewsheds and existing open space lands. For further details, *refer to Chapter 5, Open Space Resources and Chapter 7, Visual Resources and Community Character*. Several existing farm structures and buildings related to former farm operations will also be retained and re-used, thus maintaining the rural agricultural image and character of portions of the project site.

The additional seasonal population to result from the proposed action is anticipated to add to the demand for regional farm products, thus improving the local market for surrounding farms. This would help to offset the impact of any increase in area agricultural land prices that might result from improvements made to the project site.

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## 1.5 CHAPTER 5: OPEN SPACE RESOURCES

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Existing conditions and potential impacts pertaining to open space resources on and within 2.5 miles of the project site have been evaluated in terms of “protected open space” and “unprotected open space” lands as specifically defined in the Interim Scope Submission (ISS) (*refer to Chapter 5, Appendix 5.1, Open Space Interim Scope Submission*). Components of the related DEIS environmental setting, potential impacts and mitigation measures pertaining to open space resources are summarized below. *Table 5.0, Open Space Resources – Chapter Summary Matrix included in Chapter 5, Open Space Resources* also provides a summary of these major components and issues.

### 1.5.1 ENVIRONMENTAL SETTING

Open space is more than just protected areas of contiguous sensitive natural resources or extended tracts of unique biodiversity; it also includes areas providing active and passive recreational opportunities and visual qualities that define community image and character (i.e., aesthetic landscapes, contiguous tree canopy, open meadow, scenic vistas, perceived intensity of development or non-development, etc). Open space resources include National, State, County and local parks, public and private recreational lands and facilities, cultural and historic resources, lakes and ponds, campgrounds and other types of active land resources, buffer areas between different land uses and development densities, connectivity between larger areas of open space, important viewsheds, and resources that maintain or enhance the protection of community image and character.

A distinction between “protected” and “unprotected” open space is important, as much of what constitutes unprotected open space is simply private undeveloped land, or private recreational lands of an open character such as lakes and golf courses. Without conservation easements or other formal protections, this land is not assured to remain in its current use or condition, and should not be confused with permanently protected or preserved private or public lands/facilities.

For the purpose of this DEIS, as set forth in the above noted ISS, “open space” has been specifically categorized and defined as follows:

- **Unprotected Open Space**, includes agricultural land as well as vacant undeveloped areas of land and water identified based on orthophoto images dated 2000. These open space areas are not formally restricted from development.
- **Protected Open Space**, includes public and semi-public lands, and private lands that are formally restricted from development and/or are accessible to the general public (examples: conservation easements, private reserves or sanctuaries).

The ISS also established a defined area of study, which includes the project site and surrounding lands within a 2.5 mile radius around the outer project site boundary.

In addition to the specific definitions for open space as noted above from the ISS, pertinent open space definitions from a local regulatory (subdivision and zoning) perspective have also been identified and discussed (*refer to Chapter 3, Land Use and Zoning for further details regarding the compatibility between the proposed action and local laws*). These include provisions from Pine Plains' subdivision regulations, and from Milan's subdivision and zoning regulations.

Much of the existing project site consists of open, vacant and undeveloped lands of private unprotected open space, while less than 2% of the overall project site consists of protected open space (including several very small areas of the previously platted and approved 167-lot Stage II Subdivision for Sports City estates near Lake Carvel, plus an approximately 43 acre portion of the existing golf course in Milan). The site's undeveloped and unprotected natural resource areas are fragmented by the scattered historical use of the property, including 56 buildings (many clustered within the former farmsteads of the site), two existing commercial enterprises, the existing golf course and clubhouse and existing roads.

Within the 2.5 mile study area, approximately 18,812 acres (or 70%) of the surrounding lands also consist of private unprotected open space, and approximately 3,331 acres (12%) are protected open space lands, including:

- Lafayetteville SMUA/State Forest
- Roeliff-Jansen Kill SMUA/State Forest
- Stissing Mountain SMUA/State Forest
- Wilcox County Park
- Pine Plains Town Beach at Stissing Lake
- Milan Town Park
- Thompson Pond Nature Reserve
- Nature Conservancy lands and the Fire Tower on Stissing Mountain
- Other privately held land protected by conservation easement

Of these, only the Lafayetteville and Roeliff-Jansen Kill SMUAs physically abut the project site. The other protected open space resources within 2.5 miles are more distant and in most instances provide no physical or visual connections to the project site.

### 1.5.2 **POTENTIAL IMPACTS**

The proposed action will result in significant positive open space benefits by protecting and permanently preserving a substantial portion of the unprotected lands within the project site, much in its current natural state.

While the development aspects of the proposed action will result in the disturbance and conversion of undeveloped, unprotected open space on the project site to construct the roads, golf and related facilities, recreational facilities, site utility infrastructure, clustered attached and detached residences of the planned community, it will also provide for the protection of approximately 1,197 acres or 55% of the property. Site disturbances will impact approximately 534 acres or 24% of the project site.

Although much less than with a conventional subdivision pattern, the proposed action may result in further fragmentation of remaining open space resources due to proposed roads and structural land use components.

**Table 1.2, Inventory of Existing and Proposed Protected Open Space Resources**, provides at-a-glance comparison of existing and proposed protected open space resources on the project site.

TABLE 1.2 INVENTORY OF EXISTING AND PROPOSED PROTECTED OPEN SPACE RESOURCES							
	TOTAL SITE AREA	EXISTING			PROPOSED		
		PINE PLAINS	MILAN	TOTAL	PINE PLAINS	MILAN	TOTAL
<b>Overall Project Site</b>	2,200 acres	0 acres (0%)	43 acres (10%)	43 acres (2%)	876 acres (50%)	321 acres (75%)	1,197 acres (55%)
COMPLIANCE WITH LAND RESERVATION REQUIREMENTS OF PINE PLAINS AND MILAN							
AREA	OPEN SPACE REQUIREMENT	PROPOSED PROTECTED OPEN SPACE					
		UNDEVELOPED (Natural State)	DEVELOPED OPEN SPACE	TOTAL			
<b>PINE PLAINS</b>							
1,772 acres	10% <sup>(1)</sup> (178 acres)	42.9% (761 acres)	6.5% (115 acres)	50% (876 acres)			
<b>MILAN<sup>(4)</sup></b>							
Total Project Site Area in Milan	428 acres	10% <sup>(2)</sup> (43 acres)	45.8% (196 acres)	29.2% (125 acres)	75% (321 acres)		
Cluster Development Area in Milan	288 acres	40% <sup>(3)</sup> (115 acres)	46.9% (135 acres)	14.6% (42 acres)	61.5% (177 acres)		
<i>Source: Compiled by MDRA.</i>							
<b>Notes:</b>							
(1) §A61-16 of Pine Plains Land Subdivision Regulations.							
(2) §177-24 of the Milan Land Subdivision Regulations.							
(3) §200-22F(5) of the Milan Zoning Law							
(4) Note that not all of the resources identified as "open space" in this DEIS may meet the definition of open space in the Town of Milan Zoning or Land Subdivision Regulations ( <i>refer to Chapter 3, Section 3.2.3.2, Town of Milan and Chapter 5, Open Space Resources for details</i> ).							

In addition to the quantity of open space, the environmental planning analysis undertaken to design the proposed action has focused on the quality of open space to be protected, emphasizing avoidance of sensitive natural and cultural site features. For example, only approximately 1.2% of all site wetlands will be potentially impacted by the proposed action, and approximately 119 acres (39%) of project site oldfields will be preserved and protected from future development. Most importantly, most of the visible oldfields as viewed along existing public roads traversing the project site, and which contribute significantly to the area's rural community image and character, have been avoided and will be preserved.

Proposed protected open space areas on the project site will include:

- **Protected Undeveloped (Natural State) Open Space**
  - ▶ Community Conservation Areas (CCA)
  - ▶ Golf Course Buffer Area
  - ▶ Golf Clubhouse Buffer Area
  - ▶ Sports Park Buffer Area
  - ▶ Cluster Complex Buffer Area
  - ▶ Antique Wood Retailer Facility Buffer Area
  - ▶ Private Single-Family Lot Buffer Area
  - ▶ Utility Lot Buffer Area
  
- **Protected Developed Open Space**
  - ▶ Golf Course Playable Areas
  - ▶ Homeowners' Sports Park
  - ▶ Developed Portions of Utility Lots (including open vegetated basins only, not building facilities)

The remaining open space lands, while not formally protected through deed restrictions or outright preservation, will be protected from uncontrolled development through self-imposed and controlled site planning and landscaping guidelines.

Approximately 455 acres of preserved, undisturbed natural resource lands will be protected as proposed CCA open space parcels. The CCAs will preserve oldfields, wetlands (including vernal pools), waterbodies (including Lake Carvel), and other environmentally sensitive areas. These areas will also maintain visual continuity and provide habitat connections between on-site and off-site open space resources. The proposed CCAs will form long and wide contiguous open space corridors for ecological functioning and passive recreation. There will be no development permitted in these protected open space areas except scenic walking trails.

Another approximately 502 acres of non-disturbed lands will be preserved as open space buffers on individual single-family lots and within the undeveloped portions of the golf course lands, utility lots and other private parcels (these areas will be fully defined during the individual phases of subdivision plat configuration and approval). Protected areas have been selected to include sensitive natural features, establish perimeter buffers, maintain viewsheds and protect habitat functions. Construction, clearing or grading will be prohibited in these areas. Substantial additional portions of individual single-family lots will remain undisturbed through lot site planning, clearing limits and controls guiding development thereon.

The remaining golf course lands, driving range, Homeowners' Sports Park and the developed portions of the utility lots, covering approximately 240 acres, will be protected from other future development or land use conversion through deed restrictions or a conservation easement.

The variety and extent of protected undeveloped and developed open space within the planned community has been purposefully designed to create a network of open space lands. Together with the proposed unpaved trail system, the multiple planned open space resources define an

overall Open Space Plan consistent with the various definitions of open space as discussed in **Chapter 5, Section 5.1.1, Definition of Open Space.**

None of the existing protected open space areas and resources that surround the project site will be physically altered or diminished by implementation of the proposed action. In regard to the SMUAs abutting the project site, substantial areas of the shared boundary will be preserved as protected open space forming a natural buffer and continuation of open, undisturbed lands.

### **1.5.3 MITIGATION MEASURES**

The proposed action will result in approximately 1,905 acres (87%) of the overall approximately 2,200 acre project site remaining as protected or unprotected open space, as defined by the DEIS ISS. Approximately 957 acres, (44%) of the total project site, will remain in its current natural state and will be formally preserved as protected open space. Additionally, approximately 240 acres (11%) of the total project site will be protected from future land use conversion, and will provide on-site private open space and recreational resources. Most significantly, approximately 455 acres (21%) of the total project site will be permanently preserved in its natural state as CCA parcels owned and maintained by a Master Homeowners' Association. Note that not all of the resources identified as "open space" in this DEIS may meet the definition of open space in the Town of Milan Zoning or Land Subdivision Regulations (*refer to Chapter 3, Section 3.2.3.2, Town of Milan and Chapter 5, Open Space Resources for details*).

The above noted proposed open space resources substantially exceed the combined Town standards (approximately 177 acres in Pine Plains and 43 acres in Milan, for a total of 220 acres) for land reservation (for parks, playgrounds, recreation and open space) as set forth in the Subdivision regulations of Pine Plains and Milan. Further, an effort has been made to include environmentally and culturally sensitive areas as protected open space, to connect open space areas through the use of trails and corridors, to create buffer areas, and to limit future development on private lots.

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## **1.6 CHAPTER 6: CULTURAL, RECREATIONAL, HISTORICAL AND ARCHEOLOGICAL RESOURCES**

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Existing conditions and potential impacts regarding cultural, recreational, historical and archeological resources on and surrounding the project site have been evaluated. Components of the related DEIS environmental setting, potential impacts and mitigation measures pertaining to these resources are summarized below. *Table 6.0, Cultural, Recreational, Historical and Archeological Resources – Chapter Summary Matrix included in Chapter 6, Cultural, Recreational, Historical and Archeological Resources* also provides a summary of these major components and issues.

### **1.6.1 ENVIRONMENTAL SETTING**

Evaluation of potential cultural, historical and archeological resources on the project site included an inquiry to the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) regarding the site's potential archeological sensitivity and potential historical content, including submission of an pictorial inventory of existing standing buildings and structures 50 years and older on and within one-half mile of the project site. The evaluation also included completion of Phase IA/IB archeological assessments and additional Phase II archeological investigations as required by the Lead Agency, despite the response from OPRHP that "the State Historic Preservation Office has no concerns regarding potential project effects on archeological resources and does not consider an archeological survey to be warranted."

The completed archeological assessments confirmed that there are no recorded archeological sites located within one-half mile of the project site in the files of the OPRHP or the New York State Museum (NYSM). In addition, no State or National Register listed properties exist on the project site. However, 17 site buildings which are primarily associated with the former farm complexes have been noted by OPRHP as having potential for listing on the State and National Registers of Historic Places. Resources located off-site and within one-half mile of the project site include the Taconic State Parkway (TSP), a designated State Scenic Byway (1992) also listed on the State and National Registers of Historic Places (2005); a former schoolhouse (an unoccupied structure located in a woodland setting within the right-of-way of NYS Route 199) that is potentially eligible for historic listing; and the listed Melius-Bently House located in neighboring Gallatin, Columbia County. Also to the south of the project site is the Stissing Fire Tower which is potentially eligible for historic listing.

In regard to potential archeological significance, the project site is considered overall to be low in sensitivity to pre-contact resources, while based on the completed Phase IB investigations approximately 57% of the project site was not considered sensitive for potential cultural resource presence due to excessive slopes (over 15% slope), bedrock, prior disturbance, and distance to water resources. Areas of sensitivity and potential for pre-contact sites primarily include level areas adjacent to streams and wetlands. Other areas with potential cultural sensitivity include locations of bedrock outcrops generally overlooking streams and wetlands, as well as the former farm complexes and existing older buildings upon the project site.

Current recreational opportunities on the project site include the existing golf course facility located at the Carvel Country Club. However, the existing golf course receives minimal play and thus is not considered economically sustainable.

There are several recreational resources located near the project site. The Towns of Pine Plains and Milan include an estimated 952 and 1,766 acres of parks and recreation facilities, respectively. Those in Pine Plains include Stissing Mountain State Forest/State Multiple-Use Area, Thompson Pond Preserve (also designated as a National Landmark), Town of Pine Plains Beach, Roeliff-Jansen Kill and Ham Brook. Those in Milan include Lafayetteville State Forest/Multiple Use Area, Roeliff-Jansen Kill State Forest/Multiple Use Area, Wilcox County Park, Town of Milan Park and Camp Taconic. Relative standards for park and open space, as published by the Urban Land Institute, recommend approximately 8.5 acres of parks per 1,000 residents, which both towns significantly exceed.

### 1.6.2 **POTENTIAL IMPACTS**

During the completed Phase IB Investigations, a total of 1,509 shovel test pits (STPs) were excavated. Based on this testing and the current project development plan, only five locations have been recommended for further Phase II testing, which are predominantly associated with the project site's former farm complexes. As recommended, Phase II archeological investigations were conducted at these five locations. Of the five Phase II archeological investigation areas, four are recommended to be National Register Eligible (NRE). One site, the Best Farm Site is not recommended to be NRE, because the site does not contain any intact archeological deposits. The remaining four sites (Ferris Complex Site, F. Wilbur Site, Warehouse Site, and U. Hicks) did reveal intact archeological deposits in portions of each area and are therefore likely to be NRE. The Phase II analysis recommends that these four areas either be avoided by changes to the proposed action development plans or completion of Phase III data recovery. In response to these recommendations, the project sponsor has revisited the proposed development plans for the four NRE sites in order to make appropriate plan revisions that will avoid these areas. These revisions are detailed in **Chapter 6, Appendix 6.5, Cultural Resource Avoidance Plan**.

The proposed action will retain and reuse 10 of the 17 existing buildings and structures on the project site with potential eligibility for listing on the State and National Registers of Historic Places as identified by OPRHP. As detailed in **Chapter 6, Appendix 6.5, Cultural Resource Avoidance Plan (Appendix E)**, the structures that will be affected will be removed in accordance with a Demolition Protocol that will be implemented to avoid adverse impacts on any remaining buried archeological deposits. Further consultation from OPRHP will be sought prior to the alteration of any potentially eligible buildings.

Nearby cultural features will not be altered by the proposed action. Measures such as controlled and minimized tree cutting, vegetation clearing, and avoidance of ridgelines and hilltops, together with the use of vernacular architectural styles and natural materials to blend and match existing rural building images and patterns, will minimize potential visual impacts as viewed from the Stissing Fire Tower and points along the TSP and other existing public travel corridors through the project site.

Expansion of golf facilities will retain the open character of the project site and will provide green buffers between the residential components. The existing clubhouse will be removed and a new centrally located Golf Clubhouse will be constructed to the north of Woodward Hill Road and Lake Carvel.

The golf course design will consist of a 9-hole Academy Course, which will be part of the Homeowners' Club facilities and available for use by all development residents, and an 18-hole Championship Golf Course with memberships available to both residents and non-residents. The PPCSD golf program will also be provided access to the Academy course on a mutually agreeable basis.

The proposed Homeowners' Club and Sports Park facilities will provide project residents with a variety of recreation and open space amenities, including:

- Spa
- Health and fitness center
- Arts and crafts building
- Barn theater
- Grill and general store
- Tennis courts
- Swimming pool
- Lakefront aquatic recreation
- Academy golf course
- Driving range/practice green
- Field sports
- Playing fields (1 soccer field and 1 baseball diamond)
- Open play fields
- BMX area
- Skate park
- Summer camp ground
- Trails and passive park

The Master Homeowners' Association will own and maintain numerous open space areas, including Community Conservation Areas, wildlife corridors, and hiking and biking trails. Cluster-specific Homeowners' Associations will maintain cluster common areas.

These on-site recreation and open space facilities will be the main draw of the project and as such, increased demand by project residents on existing similar off-site recreation and open space resources is anticipated to be minimal. Increased demand or use of dissimilar off-site recreation resources, such as the State Forests/MUAs at Lafayetteville, Roeliff-Jansen Kill, and Stissing Mountain, which all permit hunting, and the Roeliff-Jansen Kill and Ham Brook, which are trout fishing streams, would likely result; note, however, that these facilities are already available to the general public, and that additional use as a result of the proposed action is anticipated to be minimal.

None of the existing protected open space areas and resources that surround the project site will be physically altered or diminished by implementation of the proposed action, nor will area

residents' ability to use and enjoy these facilities. Potential impacts on these surrounding recreation uses are not anticipated to be significant.

### 1.6.3 **MITIGATION MEASURES**

The Phase IB Report states that no further archeological investigation is necessary for the majority of the project site. As such, no mitigation is warranted in these areas. The proposed development plan avoids the majority of the remaining areas identified through the completed Phase IA/IB archeological investigations. For the four NRE sites where the Phase II investigations identify the presence of intact buried archeological deposits, the project sponsor has revised the proposed action development plans accordingly, to also avoid these areas of sensitivity. In addition to avoidance of areas of archeological sensitivity, the project sponsor proposes the following mitigation measures:

- Utilization of OPRHP recommended protective measures (i.e., protective construction fencing and "Sensitive Area/No Access" signage) during site construction.
- Protection of archeological sensitive areas by requiring that the final construction plans show and note archeological avoidance areas as "Sensitive Area/No Access."
- Maintenance of the existing landscape in the area of the archeological avoidance areas.
- Retention of the majority of the existing buildings in the archeological avoidance areas. Any demolition of buildings in these areas will be subject to a prescribed Demolition Protocol.
- Establishment of archeological covenants to be transferred with any property including an area of archeological sensitivity that is to be avoided or for which Phase III data recovery would be required to be performed prior to disturbance of the avoidance area.

Further detailed analysis and consultation with OPRHP will occur prior to demolition or construction in areas of remaining historic or archeological sensitivity, including Phase II Archeological Investigations, where and when appropriate.

The proposed action will retain and reuse 10 of the 17 existing buildings and structures on the project site with potential eligibility for listing on the State and National Registers of Historic Places as identified by OPRHP. Further consultation from OPRHP will be sought prior to the alteration of any potentially eligible buildings.

The design of proposed buildings and facilities will incorporate elements and styles of surrounding vernacular architecture and will preserve and enhance the qualities of the remnant agrarian landscapes of the former farm complexes. Significant historic resources such as several existing former farm buildings, the cemetery and numerous lengths of existing stone walls will be retained and have been incorporated in the site development. Potential visual impacts from the Stissing Fire Tower, although anticipated to be minimal due to the conservation subdivision design, will be mitigated by the use of controlled minimal clearing, avoidance of ridgelines and hilltops, and use of natural and rural architectural styles and building materials to blend new construction into the landscape.

The proposed action includes the redesign of the existing Ferris Lane access to the TSP which will follow the recommendations outlined in the Taconic State Parkway Management Plan.

Additionally, bordering woodlands and oldfields along the TSP on the project site will remain substantially intact.

The proposed action will provide substantial on-site passive and active recreation facilities, thereby limiting the potential for increased demand on existing surrounding recreation resources. In addition, the existing surrounding recreation facilities in both towns significantly exceed the recommended Urban Land Institute standard of 8.5 acres of parks and recreation facilities per 1,000 residents in both Pine Plains and Milan.

With implementation of a comprehensive Stormwater Pollution Prevention Plan, Integrated Pest Management Plan and an extensive Erosion and Sedimentation Control Plan, no significant adverse environmental impacts to off-site streams providing recreational opportunities are anticipated.

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## ***1.7 CHAPTER 7: VISUAL RESOURCES AND COMMUNITY CHARACTER***

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More than just aesthetic value, visual and community character is about the relationship between the natural and built environments. For the purpose of this DEIS, community character is discussed in terms of how the proposed action will fit into the visual image and socio-economic and demographic character of the communities in the general study area. With respect to the New York State Department of Environmental Conservation (NYSDEC) Policy System on Assessing and Mitigating Visual Impacts, the general study area is identified as all areas within a five-mile radius of the project site. Major components and issues of the related DEIS environmental setting, potential impacts and mitigation measures pertaining to visual resources and community character are summarized below. *Table 7.0, Visual Resources and Community Character – Chapter Summary Matrix included in Chapter 7, Visual Resources and Community Character* also provides a summary of these major components and issues.

### **1.7.1 ENVIRONMENTAL SETTING**

The project site, located approximately one mile from the Hamlet of Pine Plains, includes an 18-hole golf course, a portion of a previously approved and platted 230-lot residential subdivision (including roads, water and sewer provisions), an existing antique wood retailer, an existing sand and gravel mine, numerous buildings, open oldfields, woodlands and a series of wetlands and watercourses primarily tributary to the off-site Roeliff-Jansen Kill.

The majority of the project site lands, including the area of the existing golf course, cover the area of five former farm complexes, out of operation since the 1970s. Several public roads traverse the project site, primarily including NYS Route 199, Ferris Lane/Woodward Hill Road, and the Taconic State Parkway (TSP) which was designated by the State Legislature as a State Scenic Byway in 1992 and added to the State and National Registers of Historic Places in 2005.

The project site's topography encompasses areas of nearly level ground, rolling fields and golf links and moderate to steeply sloped wooded hillsides separated by generally narrow valleys. Within the central topographic valley lies Lake Carvel, sitting low within the landscape. A majority of the project site is physically separated from surrounding rural neighborhoods by the TSP on the west, the Lafayetteville State Multiple Use Area (SMUA)/State Forest to the south and the Roeliff-Jansen Kill SMUA/State Forest to the north. Visually, the project site is very well shielded from the surrounding landscape due to topography and vegetation.

Overall, the Hudson Valley Region is characterized by compact, somewhat denser old town and hamlet centers, surrounded by active and abandoned farmland and increased residential land development. Historic agricultural uses are characterized by small to medium sized farms with traditional barns and other outbuildings, representing the traditional farm architecture of 50 to 100 years ago.

According to the 2004 Pine Plains Comprehensive Plan, Pine Plains is a rural, agricultural community surrounding a community center, the Hamlet of Pine Plains, comprising a traditional town center with small businesses such as real estate offices and antiques stores as the

dominating venues. The Hamlet displays a denser and more compact development pattern than other portions of the Town. Approximately 33% of the town's housing stock was built before 1940.

Less dense than Pine Plains, Milan is described in its 2006 Comprehensive Plan as a rural and primarily residential community, supported by surrounding towns for employment and shopping opportunities. Less than 1% of the Town is zoned commercial. There are two hamlets (Lafayetteville and Rock City), but no traditional town center. Milan's varied topography and transportation infrastructure make it less conducive to commercial enterprise than neighboring towns, with the exception of smaller, service-oriented establishments and home-based enterprises.

Both Pine Plains and Milan are traditional agricultural towns characterized by hamlet businesses and small-lot residences within the hamlet areas, and farms or undeveloped forests and wetlands in the outlying areas. The neighborhoods surrounding the project site consist of predominantly large-lot residential areas of active and inactive farms and protected State recreational lands with very little commercial development. Much of the area is interspersed with single-family houses accessed via short private drives from major roads. This development pattern has slowly changed over the last century due to the decline of the regional agricultural industry, coupled with the area's attractiveness and proximity to the New York Metropolitan area. From 1990-2000, population growth in both towns has exceeded that of the County.

Median household income in Dutchess County is \$53,086, which is 26.4% and 22.3% above the national and New York State median household incomes, respectively. With a Census 2000 figure of \$54,491, Milan's median household income is slightly larger than that of the County and the Nation as a whole, while Pine Plains' median household income of \$43,125 is lower than all three. Also according to the 2000 Census, the median value for owner-occupied housing units in Dutchess County was greater than both that in Pine Plains and Milan. The two Towns each possess a larger percentage of homes valued at less than \$100,000 than the County.

Real estate trends discussed in *Chapter 14, Community Services and Fiscal Impacts* document an increasing rate of second home ownership in the region. Between the 1990 and 2000 Census, the number of seasonally-occupied homes in Pine Plains increased by 86%, and the number in Milan increased by 145%. Both outpaced the County in this regard.

Both Pine Plains and Milan exhibit low unemployment rates. Despite long commute times compared to the national average, traffic in Pine Plains and Milan is characterized by lower flow and shorter waiting times at intersections than in more urban areas.

Community goals and values common to Pine Plains and Milan, as expressed in each town's Comprehensive Plan, include preserving open spaces, natural and cultural resources, and rural image and character; focusing development in hamlet business centers; and avoiding impacts on the PPCSD and local property taxes.

Due to its proximity to the New York Metropolitan Area, the region has undergone rapid growth in residential development, particularly in northern Dutchess County. The region has diversified subsequent to recent population trends, causing most area farms to shift from predominantly large dairy and beef operations to smaller-scale vegetable farms and horse ranches. The amount

of land farmed has also declined. This has resulted in a regional landscape of oldfields and old barns, some of which, like those on the project site, have remained unused for decades.

### 1.7.2 **POTENTIAL IMPACTS**

The proposed action over the course of its planned ten-year build-out will add 951 new residential units and approximately 2,817 people (2,535 seasonal and 282 permanent residents) to the populations of Pine Plains and Milan.

As detailed in *Chapter 14, Appendix 14.4, Market Support Evaluation*, the market addressed by the proposed action is second homes purchased by households with anticipated average annual income of approximately \$500,000 or more. As part of the market segmentation analysis projected purchasers of these second homes were broken down into the following categories:

- Family Age: 55% of homebuyers
- Pre-Retiree: 35% of homebuyers
- Retiree: 10% of homebuyers

Of these, approximately 5% are projected to be full-time residents of family age. Retirees are expected to spend less than 50% of their time at the project site, while the remaining 85% of homebuyers are projected to be strictly seasonal residents. The anticipated average project household will be approximately 3.0 persons, which is a slight increase from existing conditions in the surrounding area.

The proposed action will not generate a demand for new affordable housing or lessen the likelihood that affordable housing could be built in the hamlets or rural areas.

The most evident effects of population change would involve induced economic influences and subjective potential visual impacts created by proposed site changes and construction of new facilities, roads and homes. As detailed in *Chapter 14, Community Services and Fiscal Impacts*, the proposed action will generate net positive annual tax revenues, provide new on and off-site job opportunities and significantly contribute to the local and regional economies.

Potential project impacts relating to increased traffic due to additional residents are fully discussed in *Chapter 11, Transportation and Traffic*. Increased traffic volumes will occur over time, but congestion and motorist comfort and safety at each of the studied locations has been projected not to be significantly affected.

The proposed action will affect and alter existing site topography, including some areas with greater than 15% slope, as well as existing woodland areas. However, natural topographic features, such as hilltops and ridgelines, have been substantially avoided. Furthermore, the proposed roads and land use components have been carefully planned to substantially avoid site wetlands and watercourses and areas of slope greater than 25% and to minimize disturbances in areas with 15-25% slope. Changes to existing site conditions will result due to the addition of new roads, active recreational facilities and associated buildings and residences. The conversion of undeveloped lands due to vegetation clearing and site grading, and the removal of existing buildings (many of which are not structurally intact) could also result in potential changes to the

site's existing visual image and character if not conducted in a coordinated and planned manner respectful of the prevailing community character.

In assessing potential visual impacts, twenty individual viewpoint locations on the project site and surrounding landscape were evaluated using a Geographic Information System (GIS), viewshed mapping and photo simulations (before and after). The results are summarized in cumulative viewshed maps for the major roadway corridors. Overall, the project's visual impact on the surrounding area is anticipated to be minimal, particularly given that the main recreational facilities and highest residential density has been sited in the central "topographic valley" around Lake Carvel, which is not visible from the TSP or NYS Route 199. No significant adverse changes to the character and appearance of the project site and surrounding area, as experienced while traveling along the TSP corridor, are anticipated.

Potential visual changes as viewed from Stissing Fire Tower are anticipated to be minimal due to distance, interceding topography and vegetation, and the proposed conservation subdivision design.

The proposed action is likely to result in increased light emissions. However, the design and visual appearance of all exterior site lighting will be harmonious and compatible with the architectural character, style and materials used throughout the development. Site lighting will be residential in scale and design, and less than 15 feet in height to minimize increased light emissions.

### 1.7.3 **MITIGATION MEASURES**

The primary strategy for the proposed action has been to create an environmental resource-based project design focused on minimizing alteration and disturbance to sensitive site resources, while fitting into the existing community and environs as unobtrusively as possible. To this end, the project sponsor has completed several detailed site analyses of topographic, environmental, cultural and infrastructure resources. These analyses have guided and focused the site design and planning processes.

While other environmental impact areas studied (such as traffic, open space, or induced economic activity) have a bearing on the character of the community, it is the visual experience of the project site and the siting of development activities which, if not carefully planned, could have the most immediate effect on neighbors and travelers.

For this reason, proposed action components planned near roadways or within public view have been carefully sited to avoid or minimize visual impacts. In an effort to maintain the rural character of the project site, natural open space lands will be preserved and protected throughout (*refer to Chapter 5, Open Space Resources for further details*). The proposed action substantially preserves many natural features of the property (*refer to Chapter 8, Ecological Communities, Flora and Fauna and Chapter 9, Surface and Subsurface Water Resources*), along with former farm structures and stone walls (*refer to Chapter 6, Cultural, Recreational, Historical and Archeological Resources*). Specific design and construction measures will be implemented to minimize potential adverse environmental impacts due to proposed cut and fill and alteration of steep slopes.

The proposed golf and homeowners' club facilities have been clustered near Lake Carvel and designed to maximize open space and retention of natural resources. Architectural design will be consistent with local vernacular styles and include the use of quality natural materials.

The proposed dwellings have been designed to provide a mixed product type with a variety of housing configurations; each designed with an architectural theme compatible with its natural setting within the project site and consistent with the community character of the surrounding area. Landscaping, streetscaping, signage, and lighting for the entire project site will be consistent and compatible with the surrounding community.

Future development on individual lots will be controlled by Homeowners' Association administered site planning, architectural and landscaping guidelines.

Through on-site conservation measures and proposed land preservation, existing visual and recreational facilities surrounding the project site will not be impacted by the proposed action. Incorporation of natural colors, quality natural building materials and area-consistent architectural styling will blend new buildings with the surrounding landscape pattern. Preservation of open space areas and minimization of individual lot disturbances will provide natural buffers along the boundary of the project site. Many of the existing open oldfields on the project site will be preserved, particularly those that are visible from existing public roadways traversing the property. Also, proposed public roadways have been designed to a rural design standard that will flow with existing topography and minimizes clearing and land disturbances.

As community character may also be affected by changes in population density, such concerns will be minimized due to the mostly seasonal nature of the future project residents, and given that most will reside in a concentrated location (the central topographic valley) which substantially is not visible from existing publicly traveled roadways in the area. Development east of this valley will likely be more visible, but will also be more rural in character (larger lot sizes surrounded by large undisturbed open space parcels) and will not dramatically alter the visual nature of the landscape.

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## ***1.8 CHAPTER 8: ECOLOGICAL COMMUNITIES, FLORA AND FAUNA***

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Exhaustive site assessments were conducted to establish a baseline understanding of the ecological communities, flora and fauna present on site, with special attention to rare, endangered and unusual species. Major components and issues of the related DEIS environmental setting, potential impacts and mitigation measures pertaining to project site ecological communities, flora and fauna are summarized below. ***Table 8.0, Ecological Communities, Flora and Fauna – Chapter Summary Matrix included in Chapter 8, Ecological Communities, Flora and Fauna*** also provides a summary of these major components and issues.

### **1.8.1 ENVIRONMENTAL SETTING**

Detailed surveys for a broad spectrum of vascular plant taxa (flowering plants, conifers, ferns and fern allies) as well as animals, including many invertebrate animal groups that are not usually subject to SEQRA review; i.e., butterflies, moths, damselflies, dragonflies, snails, clams, mussels, stoneflies, mayflies, caddisflies, beetles, craneflies, etc., were conducted on the project site from June 2003 through July 2006. Collectively, more than 700 species of plants and animals have been documented on the project site by more than a dozen professional field biologists with expertise in one or more major plant and/or animal groups. More than 1,350 person hours were spent on the project site investigating natural resources. Considerable additional days were spent delineating and flagging wetlands (wetland fieldwork is addressed more specifically in ***Chapter 9, Surface and Subsurface Water Resources***) and conducting focused surveys for flora and fauna including:

- Federal Protocol Survey for Indiana Bats
- Bird Survey
- Northern Cricket Frog Survey
- Rare Insect Habitat Assessment
- Blanding's Turtle Survey
- Fish Survey
- Freshwater Mollusk Survey
- Bog Turtle Habitat Assessment

Despite the extent of field time invested and the use of field protocols that met or surpassed established survey standards, only a few species of rare plants and animals were recorded on the project site (see below). However, at the request of the Lead Agency, an additional focused survey was conducted on the project site from April to the end of July 2006 pertaining to breeding raptors, including hawks, falcons, owls, osprey and eagles. In addition, an extensive assessment of over 750 species of plants and animals of conservation concern (all NYSDEC and Natural Heritage Program (NHP)-listed species, Hudsonia, Ltd-listed species and those species on an additional list provided by E. Kiviat) was completed. Nearly 300 species with some potential to occur on the project site were profiled in detail, including an analysis of areas of potentially suitable habitat on the project site for these species based on an evaluation of project site ecological communities.

Twenty-six (26) principal ecological communities which serve a variety of ecological and societal functions have been identified and mapped on the project site. In addition to the extensive fieldwork, the following research and assessments have been completed:

- A review of available regional biological information and literature, including the appropriate maps, aerial photographs and local and regional species records.
- Correspondence and consultation with:
  - ▶ New York State Department of Environmental Conservation
  - ▶ Natural Heritage Program
  - ▶ U.S. Fish and Wildlife Service
  - ▶ U.S. Army Corps of Engineers
- Habitat analysis to assess site potential to support wildlife.

Project site ecological communities can be separated into four major categories:

- Open Uplands and Woodlands (approximately 31% of the project site), which includes successional oldfields, shrublands, rocky summit areas and red cedar woodlands
- Forested Uplands (approximately 49% of the project site), which includes all hardwood, mixed conifer hardwood and conifer forests
- Wetlands and Surface Waters (approximately 8% of the project site)
- Cultural Ecological Communities, which include constructed ponds, mown lawn, etc. (approximately 12% of the project site)

The predominant ecological community types and habitats on the project site are second growth forest, abandoned farmland, and various types of aquatic and wetland habitats; all common habitat types in New York State. Several ecological community types occurring on the project site have been developing under relatively undisturbed conditions for at least several decades, e.g. conifer plantations and some upland hardwoods, following initial disturbance (e.g., logging and clearing for agricultural purposes), while others are disturbed at irregular intervals (e.g., mowing or brush-hogging of hay fields or oldfields every few years). According to the NHP system for rarity ranking of ecological communities, the only relatively uncommon ecological communities on the project site include:

- Red Cedar Rocky Summit (NHP-ranked S3)
- Pitch Pine-Oak-Heath Rocky Summit (NHP-ranked S3/S4)
- Vernal Pool (NHP-ranked S3/S4)

The NHP state rarity ranking system ranges from S1 (especially vulnerable in New York State) to S5 (demonstrably secure in New York State). **Refer to Chapter 8, Appendix 8.9, NHP Ranking System.** An NHP rank of S3 means that the community is considered to be of limited state-wide occurrence. An NHP rank of S4 means that the community is considered to be apparently secure in New York State.

Biological diversity on the project site is similar to regional floral and faunal biodiversity, particularly in those areas surrounding the project site which have been subject to logging, post-agricultural use, subdivision development, on going oldfield mowing and land conversion to golf course. Project site biological diversity is not as significant or important as that of the Stissing Mountain-Thompson Pond-Wappinger Creek biodiversity complex located southeast of the project site.

Two state-listed threatened plant species (prickly hornwort, Bicknell's sedge) and two state-listed rare plant species (Jack pine and false hop sedge) were found on the project site. The results of animal surveys reported two threatened species (pied-billed grebe and bald eagle) and eight NYSDEC-listed special concern species (red-shouldered hawk, Cooper's hawk, sharp-shinned hawk, osprey, Eastern box turtle, spotted turtle, wood turtle, Jefferson salamander or hybrids of Jefferson salamander x blue-spotted salamander complex) on or near the project site.

### 1.8.2 **POTENTIAL IMPACTS**

The proposed conservation/cluster subdivision has been designed largely to avoid wetlands and watercourses, significant ecological communities, notable ecological communities, and potential wildlife corridors. Nonetheless, removal of some project site vegetation will be required to construct the proposed development. Over a planned gradual 10-year build-out, approximately 534 acres (24%) of the project site will be disturbed or altered, including approximately 2.6 acres of wetlands/surface water resources on the project site (1.2% of the total of these resources). Impacts related to vegetation removal, construction of built surfaces, and maintenance of developed areas may include:

- A reduction in size and extent of ecological communities on the project site, and an increase in some cultural communities, such as maintained lawn, due to the golf course expansion.
- A reduction of the size, extent, and quality of available wildlife habitat. If not controlled, potential habitat degradation due to runoff, stream warming, sedimentation and discharge of pollutants into on-site ecological communities.
- Potential for habitat fragmentation, reduction in on-site wildlife populations or displacement from on-site habitats, disruption of wildlife activities, changes in movement patterns and potential for increases in wildlife roadway mortality.
- Potential change in wildlife species composition, including loss of rare or notable flora and fauna species, loss of host or nectar-source plants for insects and increased spread of non-native invasive plant species and displacement of native species.

Based on an analysis of "presumed presence" of nearly 300 species of conservation concern with potential to occur on the project site, it is unlikely under existing site conditions, site use, and site management practices that more than a small number of those species would likely utilize the project site on a predictable basis, if at all, due to their rarity (e.g., king rail, Henslow's sparrow, small whorled pogonia, Engelmann's spikerush, eastern hognose snake and American burying beetle). Consequently, impacts to species of conservation concern are anticipated to be minimal,

especially to those species that have the potential to utilize project site wetlands and surface waters as impacts to these resources have been largely avoided. Plant and animal species of conservation concern with potential to utilize upland habitats may be subject to adverse impacts due to the proposed removal of portions of several ecological communities.

Based on the location, drainage and existing land use relationship between the project site and natural areas off-site, including Stissing Mountain and Thompson Pond, no impacts to these areas are anticipated. However, due to the connections of the Roeliff-Jansen Kill with on-site streams, the potential for secondary impacts, including changes in the rate and volume of stormwater discharge and potential for increased pollutants, does exist, if not properly controlled. Since little development is proposed near most of the boundary of the project site with the neighboring State Multiple Use Areas, and because substantial areas of shared boundary will be preserved as on-site protected open space forming a natural buffer and continuation of open, undisturbed lands, no impacts to off-site natural areas are anticipated.

### **1.8.3 MITIGATION MEASURES**

Preservation of more than 75% of the project site ecological communities, including more than 221 acres or approximately 98.8% of all on-site aquatic habitats important to wildlife and establishment of protected open space Community Conservation Areas will afford protection to on-site fauna where none currently exists. These areas proposed for protection in perpetuity will continue to provide habitat for a broad spectrum of wildlife in largely continuous, unbroken tracts along riparian corridors near other protected on-site ecological communities. Vegetation removal on residential lots will be limited to a prescribed building envelope of approximately 7,000 square feet or 25% of the lot area thereby protecting substantial vegetation and wildlife habitat on each lot. Residential development will occur in several phases carried out over a period of 10 years, thus allowing ample time for most wildlife to move into nearby undisturbed areas.

The boundary of expanded golf course areas will provide transitional edge habitat and foraging areas for many birds, including raptors and other wildlife. Substantial areas of oldfields and nearby on-site wetlands will remain intact, thereby maintaining considerable habitat for wildlife which utilize these habitats, including regionally rare butterflies and dragonflies. A no hunting policy on the project site will also continue to protect game species of conservation concern; notably rails, gallinules, woodcock, ruffed grouse, weasels and bobcat.

Significant on-site aquatic resources, including most vernal pools and Ham Brook, will be protected from disturbance, thereby preserving habitats that support rare or uncommon species. Educational awareness programs and sub-roadbed herptile crossings can be incorporated into roadway construction to mitigate potential impacts to herptiles.

A Stormwater Pollution Prevention Plan, including extensive erosion and sediment control measures, will be implemented to control potential secondary impacts to remaining protected ecological communities, particularly wetlands and aquatic communities. An Integrated Pest Management Plan, which includes a Fertilizer and Pesticide Risk Assessment and Environmental Monitoring Plan, will also be implemented on the golf courses which will assess, monitor, and control which chemicals are used as well as monitor their usage and release.

Substantial portions of all on-site ecological community types will remain undisturbed including approximately 98.8% of all wetlands on the project site, 68% of oldfields and approximately 83% of all forested uplands. Established Community Conservation Areas, open space parcels, protected open space buffer areas on private lots and the golf course, and deed-restricted clearing limits on residential lots will assure protection in perpetuity portions of all on-site ecological communities. These protected and restricted areas in which no development or community alteration will be permitted will assure that connectivity between on-site and off-site ecological communities will remain intact following completed build-out of the project site, and will continue to provide potentially suitable habitat for biota of conservation concern.

Overall, the large amount of protected natural open space, combined with other protected open green landscapes and areas to remain undeveloped following project completion, will allow many species to find suitable habitat and protection from hunting on the project site.

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**1.9 CHAPTER 9: SURFACE AND SUBSURFACE WATER RESOURCES**

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Major components and issues of the related DEIS environmental setting, potential impacts and mitigation measures pertaining to project site surface and subsurface water resources are summarized below. *Table 9.0, Surface and Subsurface Water Resources – Chapter Summary Matrix included in Chapter 9, Surface and Subsurface Water Resources* also provides a summary of these major components and issues.

**1.9.1 ENVIRONMENTAL SETTING**

Surface and subsurface water resources on the project site include ponds, lakes, streams and wetlands which perform numerous functions, such as stormwater detention, water quality renovation, recreation, and aesthetic value. The analysis of surface and subsurface water impacts for the proposed action is an essential component of the SEQR review, as these resources are present throughout the project site.

Wetlands on the project site total approximately 221 acres, of which approximately 216 acres are under the jurisdiction of United States Army Corps of Engineers (ACOE), including approximately 115 acres under the jurisdiction of the NYSDEC. The remaining five acres are isolated, non-regulated wetlands. Surrounding and within 100 feet of NYSDEC-regulated wetlands are approximately 144 acres of NYSDEC-regulated Adjacent Area.

Sixteen perennial or intermittent streams have been mapped on the project site and are divided into three major drainage divides; two located in the western portion and one located in the eastern portion of the project site. The streams in the western portion of the site drain predominantly in a northwesterly direction towards the Roeliff-Jansen Kill. The third major drainage divide in the eastern portion of the project site, near the former Spruce Farm, drains off the project site to Wappinger Creek via Twin Island Pond located southeast of the project boundary. Off-site streams consist of the Roeliff-Jansen Kill, located approximately 600 to 1,500 feet north of the project site, and its tributary, Shekomeko Creek, which is located approximately 3,000 feet northeast of the project site. The Roeliff-Jansen Kill supports trout and is popular for fishing and other recreational activities.

Lake Carvel is located in the western-central portion of the project site and is a man-made impounded water body of approximately 29 acres. Its water level varies throughout the year depending on precipitation, evaporation, and intensity of existing golf course irrigation, which is accomplished through a network of pipes and a pump house. Other small ponds onsite include existing golf course ponds and former farm ponds.

The majority of existing on-site stormwater runoff is currently conveyed through open ditches alongside roadways that provide limited sediment or run-off controls. Existing on-site drainage pipes are limited to culvert crossings under existing roadways and paths and between ponds.

Surface water sampling in the Fall of 2004 and Spring of 2005 showed water quality at acceptable levels and generally in compliance with State standards for Class C waters.

Aquifer recharge on the project site is provided by precipitation infiltrating site soils, some limited areas of unconfined sand and gravel, and surface water discharge. The aquifer underlying the project site produced statistical well yields ranging from five to 15 gallons per minute (gpm). Assessments of groundwater resources during two separate 120-hour aquifer pumping tests confirmed that eight wells together were able to support a combined potable water supply yield of approximately 500 gpm. Several wells are currently active on the site, including those that supply the golf course and private residences. Current groundwater use on-site is estimated at approximately 1,140 gpd.

The project site is located in Zone C, “Areas of Minimal Flooding,” and the closest 100-year floodplain (Zone A) is located along the Roeliff-Jansen Kill, approximately 600 to 1,500 feet north of the project site. No areas of 100-year floodplain occur on any portion of the project site.

### 1.9.2 **POTENTIAL IMPACTS**

Approximately 2.6 acres (1.2%) of wetlands and approximately 7.4 acres of lands designated as NYSDEC-regulated Adjacent Area will be disturbed by the proposed action. Wetlands impacts may be categorized as direct or permanent impacts (affecting approximately 1.3 acres), temporary impacts or areas which will be restored following construction (affecting approximately 0.24 acres), and isolated or non-jurisdictional wetland impacts (affecting approximately 1 acre).

Select locations of on-site streams will be impacted by proposed roadway crossings and other proposed minimal or temporary crossings.

In the absence of comprehensive stormwater management and treatment controls, potential impacts to wetlands and on- and off-site streams could also include:

- Water quantity and quality impacts due to increased runoff such as increased siltation, turbidity, warming, decreased levels of dissolved oxygen, and/or increased pollution from herbicides, insecticides, fertilizers and roadway deicing measures.
- Reduction in vegetated buffer areas.
- Changes to hydrology, potential for drawdown due to well usage.
- Reduction in wetland function and streamflow or altered hydrology.
- Streambank erosion, scouring and floodplain expansion.

Impacts to Lake Carvel are primarily associated with its increased use for golf course irrigation and stormwater detention, and with slated improvements to reconstruct the dam to current safety standards. Increased seasonal drawdown due to irrigation may affect lake hydrology, temperature and pollutant concentrations, and increase stress to biota. Dam construction-related impacts may include sedimentation, fuel spills, noise, disturbance of bank vegetation in the area of the dam, and potential for changes in water levels.

As unconfined sand and gravel aquifers will not be used for water supply on the project site, no adverse environmental impacts to these resources are anticipated. Aquifer pumping test impacts beyond drawdown observed in the pumped wells were generally minimal. Potential impacts to

subsurface water resources may include loss of groundwater recharge capacity. Reduction of vegetated lands and increase in impervious surfaces may result in reduced infiltration and groundwater recharge capacity. Proposed wells on the project site were found to meet the projected standards with limited drawdown in the surrounding areas and in off-site locations.

### 1.9.3 MITIGATION MEASURES

The proposed action has been designed with a primary objective of wetland and watercourse avoidance. Large or high-quality wetlands, such as the Ham Brook corridor (Wetland SR-1) and vernal pools (e.g. Wetland HH-5), have been completely avoided. Also, the proposed action has been designed to avoid impacts to the hydrology and water flow characteristics of wetlands and watercourses on the project site, and no substantial changes to existing wetland hydrology are anticipated. Impacts related to filling small portions of wetlands and watercourses have been limited to those necessary for the development of the project site. A Wetlands Mitigation Plan will be implemented to enhance and/or construct wetlands to compensate for the approximately 2.6 acres of wetland filling or disturbances, as well as for disturbances to NYSDEC-regulated 100-foot Adjacent Areas.

Streams will only be crossed at designated locations with appropriate erosion and sedimentation controls in place. Secondary impacts to surface waters will be mitigated by implementation of a comprehensive Stormwater Pollution Prevention Plan, Integrated Pest Management Plan, and an extensive Erosion and Sedimentation Control Plan. The golf course will implement no-spray buffer areas between greens and surface waters.

A Stormwater Pollution Prevention Plan and management system, meeting the requirements of the 2003 *New York State Stormwater Management Design Manual* and in compliance with EPA Phase II Stormwater Regulations/NYSDEC SPDES General Permit for Stormwater Discharge, has been designed to provide detention of increased stormwater runoff from proposed new impervious surfaces. This system will also result in decreased off-site peak flows, greatly reducing the potential for off-site flooding. The potential for thermal impacts to streams due to higher ambient water temperature discharges from proposed detention ponds will be mitigated through the construction of micropool extended detention ponds.

Construction phasing on the project site will minimize impacts to groundwater resources. Water supply utilities will be constructed sequentially to support the water needs of the first phase of development and will be expanded as the development increases. Proposed improvements to the Lake Carvel dam as well as improvements to the outlet controls and overflow spillway will provide a sufficient factor of safety against dam failure and better control and limit downstream flooding.

No changes to watershed and drainage patterns are anticipated, therefore no mitigation is warranted.

Potential impacts to Lake Carvel's hydrology due to increased irrigation will be mitigated by the discharge of treated wastewater into the lake (supplemented initially by well water until build-out occurs). Lake water quality will be protected by stormwater controls and implementation of the Integrated Pest Management Plan. Proposed improvements to the existing impoundment as

well as improvements to the outlet controls and overflow spillway will provide a sufficient factor of safety against dam failure and better control and limit downstream flooding.

Measures to mitigate potential surface water impacts from chemicals and fertilizers used in golf course maintenance include:

- Elimination of several chemicals from use, as determined by a Fertilizer and Pesticide Risk Assessment.
- Modeling of any chemicals proposed for use on the golf course, to assess potential environmental impacts.
- Establishment of protective landscape features and Best Management Practices (BMPs) such as no-spray buffers, detention basins, drainage swales and biofilters.
- Implementation of an Environmental Monitoring Plan (EMP).
- Implementation of an Integrated Pest Management (IPM) Plan.

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**1.10 CHAPTER 10: GEOLOGY, SOILS AND TOPOGRAPHY**

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Major components and issues of the related DEIS environmental setting, potential impacts and mitigation measures pertaining to geology, soils, and topography on the project site are summarized below. *Table 10.0, Geology, Soils and Topography – Chapter Summary Matrix included in Chapter 10, Geology, Soils and Topography* also provides a summary of these major components and issues.

**1.10.1 ENVIRONMENTAL SETTING**

The geology of the project site consists of underlying bedrock, unconsolidated materials of glacial origin and overlying soils. It is underlain by the Walloomsac and Austin Glen formations, with unconsolidated deposits of glacial till and small deposits of alluvial and kame. Thirty soil types have been mapped as occurring on the project site, according to the Dutchess County Soil Survey (2002). Three soil series, Dutchess-Cardigan complex, Nassau-Cardigan complex and Stockbridge silt loam, make up approximately 63% (1,428 acres) of the project site. Approximately 16% (356 acres) is underlain by mapped hydric soils. The remaining 21% (approximately 417 acres) is underlain by other upland soil types, including Hoosic gravelly loam and Georgia silt loam.

There are approximately 1,028 total acres classified as Prime Farmland, Prime Farmland Where Drained and Soils of Statewide Importance but, due to wetlands and steep slopes, only approximately 591 acres are considered useful agricultural soils. Site topography encompasses areas of nearly level ground, rolling fields and golf links and moderate to steeply sloped wooded hillsides separated by generally narrow valleys. The highest site elevation is approximately 950 feet above mean sea level (ASL) occurring in the southern portion of the project site and the lowest evaluation point, at approximately 409 ASL, occurs in NYSDEC Wetland PP-55, west of the Taconic State Parkway. Approximately 56% (1,268 acres) of the project site exhibits a gently sloping to rolling topography with 0-15% slopes and approximately 28% (645 acres) of the project site exhibits topography grades with 15-25% slopes. The remaining 15% (349 acres) includes grades greater than 25% slope. It should be noted that Town roads are included in these calculations; total site area is approximately 2,200 acres.

A broad ridge of low hills crossing the approximate center of the property forms one of the major drainage divides on the project site. The second major drainage divide occurs in the eastern portion of the project site, near the former Spruce Farm. Several other steeply sloped hills (elevations generally 700 to 800 feet ASL) frame the project site boundary to the north and south and descend into the site, forming two principal valleys. This area encompasses Lake Carvel and the surrounding lands, and sits low within the landscape as compared with the surrounding uplands and ridgeline to the east.

Past uses of the project site have influenced soil quality; Environmental Site Assessment Phase I and II investigations identified a number of sources of soil contamination. Several areas warrant further investigation and remedial action, including suggested underground storage tank (UST) removal at several sites.

### 1.10.2 POTENTIAL IMPACTS

Construction will include the on-site excavation, storage and reuse of soil and subsurface materials, which could result in impacts including erosion, sediment dispersal, fugitive dust, and increased potential for contamination. Blasting, if necessary, would be short term and highly controlled.

Potential impacts associated with proposed grading (cutting and filling) activities include soil erosion and sediment dispersal into undisturbed areas, wildlife habitat areas and water related resources adjacent to the areas of construction. Potential impacts to “classified” agricultural soils include the excavation, disturbance and further fragmentation of useful agricultural soils.

Remediation of existing soil contamination will include UST and petroleum-contaminated soils removal. The potential for additional soil contamination also exists due to maintenance and expansion of the existing golf course, including the use of fertilizers and pesticides.

Proposed development will affect and alter existing site topography, including some areas greater than 15% slope. The proposed action will disturb approximately 534 acres, or 24% of the overall project site (0-15% slopes: 352 acres, 15-25% slopes: 153 acres, >25% slopes: 29 acres). The highest density of residential development will occur in the central portion, or “topographic valley” area of the project site. Hilltops and major ridgelines within the project site have been substantially avoided.

### 1.10.3 MITIGATION MEASURES

The proposed action has been designed with the intent to avoid and minimize impacts to bedrock, ledge and rock outcrops. Any blasting will be conducted using appropriate preventative measures to minimize adverse affects upon the surrounding environment. Steep slopes will be substantially avoided due to the design and alignment of proposed roads and distribution of land use.

Impacts to undisturbed site soils are anticipated to be minimal due to the implementation of an extensive Stormwater Pollution Prevention Plan in compliance with EPA Phase II Stormwater Regulations/NYSDEC SPDES General Permit for Stormwater Discharge, Erosion and Sedimentation Control Plan and Integrated Pest Management Plan (IPM). Soil erosion and sedimentation controls will comply with Best Management Practices as outlined in *New York Guidelines for Urban Erosion and Sediment Control*. All existing soil contamination and spills will be mitigated by removal of USTs and contaminated soils, in accordance with NYSDEC regulations.

Potential impacts associated with the application of fertilizers and pesticides on the golf course will be mitigated through implementation of the IPM and stormwater management measures. The IPM identifies the cultural practices (i.e. mowing, water management, etc.) to be implemented in order to establish and maintain healthy turfgrass, to minimize the amount of fertilizers and pesticides that need to be applied, and to minimize the amount of environmental risk from necessary applications of fertilizers and pesticides. Further, the IPM Plan identifies the landscape level features and BMPs that will be incorporated into the golf course design such as

no spray zones, detention basins, drainage swales, and biofilters. In order to monitor fertilizer and pesticide management on the proposed golf courses and identify any potential contamination, an Environmental Monitoring Plan will be implemented in three phases--before, during, and after the establishment of golf course turfgrass. Pesticides that model leaching or runoff concentrations greater than regulatory standards or guidance values will be eliminated from future use.

Potential topographical related impacts will be mitigated by revegetation of disturbed areas not proposed to become impervious surfaces. Created slopes will be stabilized. Proposed road alignment and project land use components have been carefully planned to substantially avoid areas of slope greater than 25% and to minimize disturbances in areas with 15-25% slope. The general landscape will remain visually similar to its current appearance, particularly due to the preservation of approximately 455 acres of the project site in its natural state as Community Conservation Area open space parcels, along with an additional 502 acres of other permanently preserved open space buffer lands.

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## **1.11 CHAPTER 11: TRANSPORTATION AND TRAFFIC**

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Existing and future traffic operating conditions of the proposed action including major components and issues of the related DEIS environmental setting, potential impacts and mitigation measures are summarized below. *Table 11.0, Transportation and Traffic – Chapter Summary Matrix included in Chapter 11, Transportation and Traffic* also provides a summary of these major components and issues.

### **1.11.1 ENVIRONMENTAL SETTING**

A Traffic Impact Study (TIS) was conducted to determine existing and future traffic operating conditions at relevant area intersections as identified in the Final Scoping Document. Existing traffic volumes were established during the spring of 2004 as well as during the Dutchess County Fair in August 2004, peak hours of traffic flow were determined and Level of Service (LOS) analyses were conducted for 20 existing intersections and three primary new intersections. All existing street segments studied currently operate at LOS C or better during the above peak hour periods. A LOS C is considered a design standard for new intersections, reflecting the objective of intersection design for normal and safe operations. Accident data obtained from the New York State Department of Transportation (NYSDOT) revealed no unsafe operating conditions or circumstances in the vicinity of the project site.

Public transportation service in northern Dutchess County includes the County-operated Loop 7 bus, Metro-North and Amtrak Railroads, and commercial air traffic from Albany International Airport and Stewart International Airport in Newburgh.

### **1.11.2 POTENTIAL IMPACTS**

In determining potential traffic impacts upon full build-out of the proposed action, the TIS assumed a primary home scenario to reflect a worst case scenario analysis. Traffic estimates were developed using information published by the Institute of Transportation Engineers (ITE) in *Trip Generation, 7th Edition*, 2003. The TIS concludes that the build-out of the proposed action, even under the worst case scenario, can occur with minimum capacity (congestion) impacts. Both the 2014 No-Build and 2014 Build Conditions at all studied intersections would operate at LOS C or better during peak periods under all analyzed traffic scenarios. However, there are two exceptions: NYS Route 199 between the TSP and CR 51 goes from an LOS C to D for the 2014 Build weekday PM peak; and NYS Route 199 between CR 51 and NYS Route 308 goes from a LOS C to D for both the weekday PM peak and the Saturday peak. These conditions are not significant relative to mobility, as sufficient excess capacity will remain and average speed will therefore not be affected.

Temporary and typical construction related traffic impacts are expected to be minor. Much of the heavy equipment used on site will arrive via trailer and/or will remain for the length of time needed to accomplish the given task. Similarly, much of the construction materials needed will be stored on-site and used as needed.

The proposed action is not expected to impact existing public transportation, as residents will predominantly use their own vehicles. It is reasonable to assume that some increase in use of regional transportation systems may occur, but this is expected to be negligible.

### **1.11.3 MITIGATION MEASURES**

Although traffic Levels of Service are anticipated to remain at a LOS C or better upon full build-out, minor modifications to be implemented by the project sponsor are proposed to create better conditions for the foreseeable future. These include reconfiguration of the Taconic State Parkway (TSP)/Ferris Lane intersection (as will be required by NYSDOT) to stop traffic from crossing the TSP at Ferris Lane, provision of a new deceleration lane and potentially an acceleration lane, adjustments to signal timing to better accommodate future traffic volumes, and reconfiguration of the Woodward Hill/NYS Route 199 intersection to form a “T” intersection. Other site access road connections to public roads will include necessary improvements, primarily sight line improvements, signage, and striping. The conceptual designs for all improvements will be determined in concert with appropriate Town, County, and State officials as appropriate for all approval processes. The final detailed design of these local town intersections will be reviewed with the appropriate Town Highway Superintendents as part of the local permit approval process. The intent of this coordination is to incorporate local input into the design process to ensure expeditious implementation and consistency with maintenance requirements. Within the project site, where new roadways are to be constructed or existing roadways reconstructed, the improvements will be in accordance with applicable Town/State standards.

Construction related traffic will be planned to avoid area road peak hours. Appropriate traffic control measures (i.e.: signage, flag persons, etc.), will be coordinated with local/State officials and roadways will be maintained near construction activities to minimize sedimentation dispersal.

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## 1.12 CHAPTER 12: NOISE AND AIR

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Major components and issues of the related DEIS environmental setting, potential impacts and mitigation measures pertaining to noise and air quality are summarized below. **Table 12.0, Noise and Air – Chapter Summary Matrix included in Chapter 12, Noise and Air** also provides a summary of these major components and issues.

### 1.12.1 ENVIRONMENTAL SETTING

The project site is located within the Hudson Valley Air Quality Control Region 3 (including Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester Counties), which is one of nine regions in New York State monitored for compliance with National and State Ambient Air Quality Standards (AAQS). According to the most recent *New York State Air Quality Report (NYSDEC, 2003)*, ozone (O<sub>3</sub>), which generally results from breakdown of vehicle emissions, was the only NAAQS pollutant with exceedances in Region 3.

Pollutants are characterized by the Environmental Protection Agency (EPA) as Naturally Occurring Sources (i.e., wind blown dust, radionuclides), Stationary Sources (i.e. factories and power plants), and Mobile Sources (i.e. automobiles, planes, and trains). There are no existing stationary sources of pollution relating to the project site. Radon is the only known source of naturally occurring pollution on the project site; however, testing showed that radon levels above 4.0 pCi/L, the EPA standard, was limited to one location on the project site, at the former Spruce Farm Property.

Existing mobile sources of pollution on or near the project site are generally limited to automobiles and trucks, which emit carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), hydrocarbons, ozone (O<sub>3</sub>), particulate matter (PM), lead (Pb), and sulfur dioxide (SO<sub>2</sub>). Existing mobile sources directly related to the project site are minimal and seasonal (a greater level of traffic generation to the present site is typical during the golf season).

The major existing contributor to environmental noise at and around the project site area includes vehicular noise from automobile and truck traffic on NYS Route 199. Existing changes in elevation and substantial woodland vegetation buffer noise from traffic on the Taconic State Parkway (TSP). The existing land uses of the project site (golf, scattered residences, retail antique wood store and substantially undeveloped land) do not generate significant noise audible beyond the site boundaries.

### 1.12.2 POTENTIAL IMPACTS

Implementation of the proposed action will not result in any significant short or long term adverse impacts on existing air and/or noise quality. Potential air and noise quality impacts will be temporary and will not result in any adverse or permanent contravention of prevailing air quality standards.

Trapped radon gas (a naturally occurring pollutant) could potentially be a concern for a number of the proposed buildings and residences. However, radon can efficiently be abated. Other naturally occurring potential impacts could result from wind blown dust during construction when soils are exposed for prolonged dry periods.

The proposed action does not include the development or installation of any significant generator of noise or air pollution. However, without air and noise buffering and absent adherence to best management practices and proper maintenance, potential noise and odor related impacts could result from the proposed on-site water and wastewater treatment plants. Also, without proper placement, venting or equipment, potential noise and odor related impacts could result from proposed project site air conditioners and food related services.

Increased mobile sources of potential air and noise pollution are anticipated with the generation of both construction and project resident traffic. However, increased traffic to and from the project site will be limited as a result of the seasonal and second home nature of the proposed action. Furthermore, traffic associated with the proposed action will not generally be concentrated to a single peak hour (weekends and spring-summer months will experience the heaviest traffic flows). According to the Traffic Impact Study (*refer to Chapter 11, Transportation and Traffic*) and SEQR Air Quality Screening Analysis completed for the proposed action, the findings under the carbon monoxide screening analysis indicate that the proposed action will not impede progress toward ozone attainment. Therefore, the proposed action's moderate increase in mobile sources due to increased traffic generation will not contribute significantly to ozone pollution within Region 3.

Potential air and noise related impacts from project site construction activities will primarily include construction vehicle traffic and the use of construction equipment. Since the majority of the surrounding area is substantially undeveloped, air and noise related impacts due to site construction are not anticipated to affect area residents.

### **1.12.3 MITIGATION MEASURES**

With the implementation of best management measures and proper vehicle and equipment maintenance, and given the temporary nature of construction activities, potential construction related impacts to air and noise quality are anticipated to be minimal and of temporary duration. Potential project noise and odor related impacts will be generally limited to the project site and mitigated through restriction of construction hours, the use of noise reducing techniques on machinery as required by the Occupational Safety and Health Administration (OSHA), distance and the presence of intervening vegetation and topography.

Current construction techniques will mitigate potential radon levels in project site buildings. Standard construction practices, erosion controls and implementation of construction best management practices will mitigate and control dust and wind borne related impacts. Proper use and maintenance of construction vehicles and equipment according to OSHA and manufacturer standards will also mitigate and control exhaust emissions. Potential noise and air impacts due to potential blasting activity will be minimized through implementation of appropriate controls under the direction and supervision of licensed professionals, and limitation of blasting hours.

Construction of the proposed on-site water and wastewater treatment plants will be in full compliance with NYSDEC regulations in regards to noise and odor controls as mandated by the permit approval process. Air conditioners will be appropriately located and buffered; structures will be properly vented in accordance with State, County and local building codes. Appropriate exhaust equipment will be used in all food related facilities.

Since no permanent stationary sources of potential air or noise impacts are proposed, no mitigation is warranted. Site generated traffic is not anticipated to cause any significant changes to the ambient air quality or noise concentrations in the area or region, thus no mitigation is warranted.

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**1.13 CHAPTER 13: SITE UTILITIES AND INFRASTRUCTURE**

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Existing and proposed site utility and infrastructure components of the proposed action include water supply and distribution facilities, wastewater collection, treatment and disposal facilities, telephone, electric and other associated site utilities, solid waste collection and disposal services, public and private roadways, and stormwater management facilities. Major components and issues of the related DEIS environmental setting, potential impacts and mitigation measures pertaining to site utilities and infrastructure facilities are summarized below. *Table 13.0, Site Utilities and Infrastructure – Chapter Summary Matrix included in Chapter 13, Site Utilities and Infrastructure* also provides a summary of these major components and issues.

**1.13.1 ENVIRONMENTAL SETTING**

Existing public utilities serving the project site are generally limited to electric and telephone services in areas near Ferris Lane/Woodward Hill Road. Utilities are generally nonexistent in undeveloped areas.

Existing water supply facilities on or associated with the project site include both private water supply wells, primarily on individual lots, and a small private centralized water system serving only a portion of the project site area (associated with the existing golf club facilities and the majority of the existing 230-lot residential subdivision). Existing wastewater treatment and disposal facilities on or associated with the project site include both private individual lot septic systems and a small private centralized wastewater collection and treatment system, again serving only a portion of the project site.

The existing golf course is currently irrigated with water from Lake Carvel. Lake Carvel was originally constructed to provide stormwater storage and management to the existing 230-lot subdivision, as a source for golf irrigation and as an aesthetic amenity. The existing dam does not conform to current design standards. The existing irrigation system on the golf course is antiquated, inefficient, costly to operate and wasteful.

Several public and private roadways cross through or abut the project site, including the TSP, NYS Route 199, Ferris Lane/Woodward Hill Road, Hicks Hill Road and Sherwood Road. Portions of the project site include overhead telephone and electric service lines. Propane gas and heating oil services are limited to local delivery companies. There is no cable television or cable internet service but such services are available through telephone and satellite services. Wireless phone coverage is limited. Existing lighting on the project site is minimal and limited to typical lighting associated with individual land uses and residences.

Municipal waste collection services are not provided to the project site. Existing users of the project site contract individually with private waste haulers.

Existing stormwater management control facilities include a series of uncoordinated systems in various conditions, including unregulated flows along drainage courses and sheet flows from

forested areas and the golf course. Most stormwater runoff generated on the project site is conveyed untreated to area streams, wetlands and ponds.

### 1.13.2 **POTENTIAL IMPACTS**

Implementation of the proposed action will result in the development and expansion of site utilities and infrastructure serving the project site. The proposed action includes the development of new and expanded central water supply and wastewater services, each of which will be separately operated and maintained by newly formed Transportation Corporations. These new services will be provided to the entire project site, the remaining existing subdivision lots not within the project site and to other limited properties not of the project site but located within its boundaries.

The combined (non-residential and residential) average daily water demand has been calculated to be approximately 397,878 gallons per day (gpd), with an average daily rate of approximately 276 gallons per minute (gpm) and a maximum daily rate of approximately 480 gpm. Wastewater flows have been calculated to be approximately 418,000 gpd. These figures have been confirmed by the DCDOH and are based on primary or full-time occupation; noting however, that the proposed action includes a mix of primarily vacation homes with a small percentage of primary homes. Therefore, the evaluated annual water demand and wastewater generation is conservative and represents a worst case scenario.

Two 120-hour aquifer pumping tests were conducted on water supply test wells. During the simultaneous test, eight production wells supported a combined yield of 500 gpm, while the test of the mechanical back up well confirmed adequate capacity of 210 gpm. During testing, both on-site and off-site wells were monitored. No significant impacts were detected nor were any changes in surface water levels noted, except for one off-site well (Funk Residence) which went dry during the tests due to its shallow construction but recovered promptly after each test.

Based on water quality testing, standard treatment will be needed for the water to meet applicable State limits. As required by the Ten States Standards, the new system will also include on-site storage volume equal to one average day of use. To this end, a 400,000 gallon storage tank will be located on a wooded hilltop southeast of Lake Carvel.

The planned wastewater system, like the water supply system, will be a community system owned and managed by a newly formed Transportation Corporation. The design and operation will consist of a modified activated sludge biological treatment system that can accommodate off-season low-flow periods, achieve stringent effluent standards and be built in phases to reflect the planned 10-year development timeline. Wastewater effluent treated to NYSDOH and NYSDEC standards will be discharged to Lake Carvel.

The existing irrigation system will be redeveloped and will include a new pump house, pump and a computerized system to permit the system to be automated, ensuring watering when and where needed. The new system will also be integrated with an injection pump system to assist in fertilizing and other turf management processes. Irrigation water will continue to be withdrawn from Lake Carvel.

Reconstruction of the existing Lake Carvel dam and weir is proposed for the purpose of adjusting the depth of water to better regulate overflows and potential for downstream flooding. Its reconstruction will also address existing non-conformance conditions.

Approximately 60,000 linear feet of public roadways (54,000 in Pine Plains and 6,000 in Milan) are proposed. Several new intersection connections with existing public roads are planned. Approximately 12,000 linear feet of private cluster roadways and approximately 27,000 linear feet of private common driveways are also proposed.

Extended electric, telephone and new cable utilities will be provided to serve the planned development. Provision for expanded wireless phone coverage is envisioned but no specific plans have been developed.

New development will continue to rely on individual propane and/or oil services, although the project sponsor is exploring the potential benefits of developing limited centralized gas service (distributed generation) for the individual cluster complexes and/or the golf club and homeowners' association common facilities.

No public street lighting is proposed; lighting will be typical residential style lights.

A total annual solid waste generation of approximately 1,269 tons (35 from non-residential uses and 1,234 from residential uses) is estimated based on primary or full-time occupation; noting however, that the proposed action includes a mix of a large percentage of vacation homes with a small percentage of primary homes. Therefore, the evaluated generation of solid waste is conservative and represents a worse case scenario. No significant adverse impacts are anticipated as existing disposal facilities within Dutchess County can accommodate the worst case scenario project-generated solid waste.

A comprehensive stormwater management and treatment program has been developed to support all components of the master planned golf and vacation community, in accordance with applicable local, State and Federal design standards and requirements

### **1.13.3 MITIGATION MEASURES**

A sufficient and safe water supply with no significant adverse drawdown impacts will be developed on the project site. Standard water quality treatment will be provided. Adequate on-site storage volume will be provided by a storage tank to be constructed below the height of surrounding trees. Appropriate coloring of the tank will be coordinated with the Pine Plains Planning Board to minimize and mitigate potential related visual impacts.

Project generated wastewater will be centrally collected and treated according to applicable design standards and requirements. The treatment plant will be fully enclosed and potential visual impacts will be mitigated by proper siting and landscape buffering. Internal building control measures will mitigate potential noise and odor impacts. Reuse of treated wastewater effluent for golf course irrigation will support groundwater resources by decreasing the demand on fresh water sources.

Lake Carvel water quality will be maintained through implementation of proper wastewater and stormwater treatment processes and controls. The critical water elevation of the lake will be maintained by the reconstruction of the existing dam at its northern end and supplementation of natural stormwater recharge with treated wastewater effluent. Potential flooding related impacts downstream of the lake will be mitigated by reconstruction of the existing non-conforming dam and weir structure and construction of a new overflow channel. A new irrigation control system will be developed to provide efficient operation and coverage, allowing those areas that either need less irrigation or which have drainage problems not to be irrigated.

Most site generated traffic will enter and leave via the TSP and NYS Route 199, and then primarily use proposed roadways internal to the project site. A minimal number of new public roadways have been proposed for the site, and these have been designed to follow existing landscape contours, substantially avoid steep slopes, wetlands and other site constraints, and to maintain a rural appearance and character. Proposed improvements to existing public roads will increase traffic safety.

The proposed action will result in expanded and improved electric and telephone services, the introduction of cable services and additional options for internet access. New utilities will be substantially installed underground to minimize and mitigate potential visual and community character impacts and potential outages due to storm events. Individual or common propane and/or oil storage tanks will be appropriately sited and screened. Centralized facilities will be provided where appropriate.

Site lighting will be minimal and primarily residential in scale and design. Where appropriate, cut-off shielding will be utilized to control light spillage.

Solid waste containers will be centralized and integrated with the surrounding landscape and site design to minimize and mitigate potential impacts on adjacent land uses (which are all internal to the project site). Enclosures and landscape screening will be provided.

Stormwater runoff related impacts will be controlled and mitigated through the implementation and maintenance of comprehensive stormwater management, erosion and sedimentation, and golf course turf management controls.

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**1.14 CHAPTER 14: COMMUNITY SERVICES AND FISCAL IMPACTS**

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*Chapter 14, Community Services and Fiscal Impacts* evaluates potential fiscal and economic impacts of the proposed action. These potential impacts have been determined by analyzing pertinent demographic data as well as existing economic and fiscal conditions. The analyses project the proposed action's impact on future tax revenues to all relevant taxing jurisdictions, including the school district. The analyses also project the proposed action's impact on municipal services demands and costs. Additionally, *Chapter 14, Community Services and Fiscal Impacts* examines secondary economic impacts of the proposed action in terms of direct and indirect effects from construction, property operations, and household spending. Analyses are performed at Year 5 and Year 10 of a proposed 10-year project build-out.

The impact analysis evaluates three different scenarios. The primary evaluation, the proposed action, is of a planned community comprised with 90% vacation home occupancy and 10% primary home occupancy. The analysis also includes theoretical comparative assessments involving the ownership configurations of the project as both a 90% primary home occupancy and 10% vacation home occupancy and as a 50% primary home and 50% vacation home occupancy (as it relates to potential school enrollment impacts).

Under each of these three studied scenarios, school district revenues and costs are potentially the most consequential. Due to the projected value of the proposed action's non-residential and residential land uses, an overall net positive fiscal tax revenue generation is anticipated under all three scenarios which will substantially exceed projected municipal and school related costs. For example, the proposed action is projected to generate a net positive of \$5 million annually to the PPCSD, while the comparative primary home scenario is estimated to generate a net positive of approximately \$1.5 million annually, both after accounting for ongoing continued declining enrollments and reductions in NYS per capita aid.

The analysis also includes a study that determined that there is an annual regional demand of approximately 800 second and vacation homes in the New York Metropolitan area, of which the proposed action projects to capture 100 per year.

Major components and issues of the environmental setting, potential impacts and mitigation measures pertaining to community services and fiscal impacts are summarized below. *Table 14.0.1, Community Services and Fiscal Impacts – Chapter Summary Matrix included in Chapter 14, Community Services and Fiscal Impacts* also provides a summary of these major components and issues.

**1.14.1 ENVIRONMENTAL SETTING**

The Towns of Pine Plains and Milan have undergone faster population growth than Dutchess County (*refer below to Table 1.3, Resident Population: 1990 – 2000 Towns of Pine Plains, Milan and Dutchess County*). Projections based on current trends indicate continued rapid growth over the coming decade.

	<b>DUTCHESS COUNTY</b>	<b>PINE PLAINS</b>	<b>MILAN</b>
<b>2000 Population</b>	280,150	2,569	2,356
<b>1990 Population</b>	259,462	2,287	1,895
<b>Change</b>	20,688	282	461
<b>% Change</b>	8%	12.3%	24.3%

*Source: 1990 and 2000 U.S. Census. Compiled by HMA, Inc.*

While all three jurisdictions experienced growth in relative school-age populations between 1990 and 2000, Milan had a substantially higher increase of over 77%. Roughly 70% of the households in all three jurisdictions are family households, with the balance comprised of single person households or unrelated persons living together. Average household size (approximately 2.6 persons per household) is consistent across all three jurisdictions.

2000 Census figures indicate that 94% of Dutchess County's 106,103 housing units are occupied. Both Towns have higher vacancy rates than the County. However, many of the vacant units serve as seasonal homes. If the seasonal homes are excluded, then the vacancy rates in the two Towns are similar to the County's vacancy rate.

Seasonal homes play a large role in both towns, and that role has increased rapidly in recent years. Between the 1990 and 2000 Census, the number of seasonal units increased by 86% in Pine Plains, and by 145% in Milan. These rates of increase far outpaced the County as a whole.

Over the last six years, since the 2000 Census, the average house sale price in Milan has increased at a faster rate than the average house sale price increase rate in Dutchess County. Similarly, average house sale prices in Pine Plains also appear to be increasing rapidly. *Refer below to Table 1.4, Single-Family Residential Sales, Town of Pine Plains and Milan, Dutchess County, which indicates changes in average house sale prices since the 2000 Census based on supplementary data generated by the Dutchess County Real Property Tax Service Agency.*

	<b>JULY 1, 2002- DECEMBER 31, 2002</b>	<b>JANUARY 1, 2003- JUNE 30, 2003</b>	<b>PERCENT CHANGE</b>
<b>Town of Pine Plains<sup>1</sup></b>			
Number of Sales	18	8	-56%
Average Price <sup>2</sup>	\$157,778	\$228,270	45%
<b>Town of Milan<sup>1</sup></b>			
Number of Sales	9	8	-11%
Average Price <sup>2</sup>	\$232,889	\$254,875	9%
<b>Dutchess County<sup>1</sup></b>			
Number of Sales	947	849	-10%
Average Price <sup>2</sup>	\$212,289	\$249,372	17%

*Source: Dutchess County Real Property Tax Agency. Compiled by HMA, Inc.*

**Note:**

(1) Homes with less than 10 acres of land.

(2) According to the 2000 Census, the median value for owner-occupied homes in Dutchess County (\$154,200) was 32.9% higher than that of Pine Plains, and 11.7% greater than that of Milan.

Between 2001 and 2004 absolute numeric employment growth in Dutchess County exceeded that of Columbia, Putnam and Westchester Counties, and New York State. Locally, both Pine Plains and Milan exhibit lower unemployment rates than the County. Year 2000 unemployment rates were only 4.1% and 2.8% in Pine Plains and Milan respectively, compared to 5.7% in the County.

In addition to the demographics of Pine Plains and Milan, *Chapter 14, Community Services and Fiscal Impacts* examines the municipal services offered and the potential impact of the proposed action on these services. The services covered include community policing, fire protection and emergency services, library facilities, parks and recreation, public works, building inspection and zoning enforcement, Town Clerk, and tax assessors. In addition, area medical care and day care services were inventoried as well as public and private education services. The information gathered included staffing levels, levels of service, operational capacities, and equipment inventories.

The existing market demand for the proposed vacation second home product within a master planned community is also addressed. A nationally recognized real estate advisory firm was commissioned to evaluate the market for the type and variety of units proposed (*refer to Chapter 14, Appendix 14.4, Market Support Evaluation*). The report concludes that there is an annual demand for 797 units of highly amenitized product in a mountain/lake environment within a 100 mile driving distance of the primary market area (defined as the New York Metropolitan Area).

Additional factors were researched by case studies of comparable existing master planned communities to verify impacts including market capture rates, public school child generation rates, resident occupancy and expenditure patterns, and local community participation patterns.

The study of master planned communities indicates that such communities generate higher tax revenues than related costs for municipal services. The municipalities hosting the case-studied master planned communities were also contacted for additional information about the impacts these master planned communities have had.

#### **1.14.2 POTENTIAL IMPACTS**

A variety of methodologies were used to gauge the potential impacts of the proposed action including demography, regional economic impact, tax revenue, community service costs and the cumulative impact of induced commercial and residential growth. Chosen methodologies were identified in the Final Scoping Document adopted by the Lead Agency and subsequently reviewed by the Lead Agency consultants.

Projected resident population was estimated using household and demographic information derived from two different data sources: the 1987 American Housing Survey and the 2000 Census. The results provided a range of likely primary home and seasonal home resident populations. For the proposed action, the projected range would include 2,374 to 2,535 seasonal residents and 264 to 282 primary home residents; and under the comparative primary home scenario the projected range would include 2,339 to 2,535 primary home residents and 260 to

282 seasonal residents. A description of the methodology and calculations is included in *Chapter 14, Appendix 14.1, Resident Population Projections Methodology*.

Future property tax revenues (including County, Town, Fire and PPCSD) generated by the proposed action are estimated at approximately \$12 million (*refer below to Table 1.5, Summary Table of Proposed Action Economic Related Components, for a breakdown by taxing jurisdiction*), nearly \$11.7 million more than \$280,888 currently generated by the project site. Property tax revenues would incrementally increase each year during the development of the proposed action, as new buildings are completed, assessed, and placed on the tax rolls of Pine Plains or Milan.

*Table 1.5, Summary Table of Proposed Action Economic Related Components* below provides a summary comparison of projected tax revenues with estimated potential municipal costs, as well as other potential municipal revenue generators, associated with the proposed action.

<b>TABLE 1.5</b>				
<b>SUMMARY TABLE OF PROPOSED ACTION ECONOMIC RELATED COMPONENTS</b>				
	<b>PROPOSED ACTION SECOND HOME COMMUNITY</b>		<b>COMPARATIVE PRIMARY HOME SCENARIO</b>	
	<b>PINE PLAINS</b>	<b>MILAN</b>	<b>PINE PLAINS</b>	<b>MILAN</b>
<b>Full-Time Residents</b>	246-260	18-22	2,175-2,338	164-197
<b>Seasonal Residents</b>	2,207-2,338	167-197	242-260	18-22
<b>Students in PPCSD</b>	43	3	381	34
<b>Annual Household Spending</b>	<b>\$30,527,100</b>		<b>\$30,767,520</b>	
<b>TAX REVENUES</b>				
<b>Total Assessed Value</b>	\$314,682,233	\$54,547,819	\$314,682,233	\$54,547,819
<b>County Tax Revenues</b>				
<b>PPCSD Tax Revenues</b>	\$7,207,681		\$7,207,681	
<b>Municipal Tax Revenues</b>	\$2,394,732	\$99,277	\$2,394,732	\$99,277
<b>Fire District Tax Revenues</b>	\$335,919	\$29,456	\$335,919	\$29,456
<b>Total Municipal Tax Revenues</b>	<b>\$2,730,651</b>	<b>\$128,733</b>	<b>\$2,730,651</b>	<b>\$128,733</b>
<b>PROJECT RELATED MUNICIPAL COSTS</b>				
<b>Municipal Costs</b>	(\$1,218,462)	(\$128,553)	(\$2,696,615)	(\$128,553)
<b>Existing Tax Revenues</b>	(\$46,914)	(\$13,271)	(\$46,914)	(\$13,271)
<b>Annual Fiscal Impact</b>	<b>\$1,465,275</b>	<b>(\$13,091)*</b>	<b>\$12,878</b>	<b>(\$13,091)*</b>
<b>OTHER REVENUE GENERATORS</b>				
<b>Building Permit Fees</b>	\$792,076	\$52,050	\$792,076	\$52,050
<b>Recreation Fee in lieu of Land Reservation</b>	\$1,768,000	\$67,000	\$1,768,000	\$67,000
<b>Total Non-Tax Revenues</b>	<b>\$2,560,076</b>	<b>\$119,050</b>	<b>\$2,560,076</b>	<b>\$119,050</b>
<b>Notes:</b>				
All data is from Year 10 projections.				
* The negative tax consequence projected for Milan relates to an existing low tax rate maintained due to substantial non-tax revenues received by Milan.				

Due to the largely seasonal population of the proposed action, school related impacts would be minimal given the associated limited increased school enrollment. The market analysis indicates

that the market for primary homes as part of the proposed action is very limited, and that only about 15% of the homebuyers would be full-time residents. This conclusion roughly coincides with the developer's conservative assumption that 10% of the homes in the proposed community could potentially be occupied by primary home residents.

The assessment in *Chapter 14, Community Services and Fiscal Impacts* estimates the number of school children that may be generated from the proposed action as well as potential related costs to the PPCSD (refer below to *Table 1.6, Summary of PPCSD Costs and Revenues for a side by side comparison*). The estimated school enrollment of the proposed action was determined using methodologies derived from the 1987 American Housing Survey and the 2000 Census (as agreed upon in the Final Scoping Document.) As indicated in *Table 1.6, Summary of PPCSD Costs and Revenues* below, under all studied scenarios, particularly the proposed action, the resulting net revenue to the PPCSD is substantially positive.

The market analysis provides support for these estimates, both through its own independent calculations and by way of the case study analysis of six other master planned communities around the country. These communities consistently demonstrate very low levels of school children generation, with the average children per housing unit ranging from 0 to 0.04.

<b>ALTERNATIVE STUDIED</b>	<b>PROPOSED ACTION</b>	<b>PRIMARY HOME</b>	<b>50/50</b>
No. of PPCSD Students	46	415	240
Cost to educate students	\$0.49 million	\$4.39 million	\$2.54 million
Loss of State Aid	\$1.23 million	\$1.19 million	\$1.23 million
Tax Revenue to PPCSD	\$7.21 million	\$7.21 million	\$7.21 million
(Minus Existing Tax Revenue)	(0.18 million)	(0.18 million)	(0.18 million)
Net Revenues Beyond Costs to PPCSD	\$5.32 million	\$1.46 million	\$3.27 million
<i>Source: Compiled by HMA, Inc.</i>			

Positive economic impacts from the construction and operation of the planned community were studied, and five primary types of economic impact identified:

- Construction period direct effect benefits.
- Secondary, or indirect benefits of the construction phase, comprised of spin-off economic activity.
- Operational period direct benefits, comprised of the on-site jobs and payroll.
- Indirect benefits of on-site operations, comprised of economic activity supported by the anticipated spending of on-site employees.
- The operational period impact of household spending in the regional economy.

The total construction costs of the proposed action are estimated at \$462.5 million. There will be a need for an estimated 133 construction workers annually over the phased 10-year build-out period. In addition to the direct economic benefits of construction, an estimated 3,811 secondary jobs will be created (2/3 of which in construction industry).

Projected on-site employment will increase earnings and employment in the Dutchess County economy. Upon full build-out (Year 10), the total annual payroll is projected to be

approximately \$2.7 million, which is also projected to result in an annual increase in Dutchess County earnings of approximately \$3.8 million. Project employees will likely spend some of these earnings locally. As these personal expenditures circulate through the economy, they will take on a multiplier effect of increased earnings throughout the region.

In addition to the above, project resident household discretionary spending is expected to result in an annual increase of direct and secondary sale of goods and services in the local and Dutchess County economies by approximately \$34.5 million at Year 10. The projected commercial growth in conjunction with this increased market demand would likely be approximately 91,000 square feet at the conclusion of the 10-year build out,

Approximately \$2.4 million in annual property taxes would be collected by the Town of Pine Plains and \$99,277 would be collected by the Town of Milan annually. The total future assessed value of the project has been estimated to be approximately \$314.7 million for the portion of the project in Pine Plains and approximately \$54.5 million for the portion in Milan, resulting in a total assessed value of roughly \$369.2 million at Year 10. Based on the 2005 tax rates for Dutchess County, Pine Plains, Milan, the PPCSD and other associated taxing districts, the total annual tax payments generated by the proposed action at Year 10 would be approximately \$12 million.

An additional \$844,000 in one-time permit fees would be generated, with \$792,000 collected by the Town of Pine Plains and \$52,000 collected by the Town of Milan. The Town of Pine Plains could also potentially require an additional \$2,000 per unit for a recreation fee, which would add approximately \$1,768,000 to the Town recreation fund. Milan could potentially require similar recreation fees of approximately \$67,000.

Projected municipal service costs as a result of the proposed action were determined using a per capita multiplier methodology, which was agreed upon with the Lead Agency. Based on that assessment, it was determined that the increase in municipal service costs for Pine Plains at Year 10 would be approximately \$1.22 million and for Milan approximately \$128,500 per year under the proposed action. For the comparative primary home scenario, the increase in municipal service costs for Pine Plains was projected to be roughly \$2.7 million per year at Year 10. The increased costs for Milan were essentially the same as under the proposed action second home community, with a total of roughly \$128,500. Finally, under the additional 50/50 scenario used by the PPCSD in their enrollment projections (50% primary and 50% seasonal homes), the potential increase in annual municipal costs was calculated at roughly \$1.64 million at Year 10 for Pine Plains and \$128,500 for Milan.

According to municipal officials (personal communications) from the towns containing the master planned communities studied in the market analysis report, their respective master planned communities produced property tax revenues far in excess of the community service costs generated by them.

The projected tax revenue generation from the proposed action across all taxing jurisdictions is approximately \$12 million annually, approximately \$7.21 million of which will be collected by the PPCSD.

The final step in the analysis of costs associated with the proposed action involves projecting the potential increase in school district costs. These costs consist of two components: direct per pupil spending and changes in state aid to the PPCSD. Under the proposed action second home community, the 46 students generated were expected to cost the school district \$488,116 annually and the PPCSD was projected to lose approximately \$1.23 million in annual state aid as a result of the proposed action. Thus, the total cost to the school district would be approximately \$1.72 million per year. Under a comparative primary home scenario, this number rises to roughly \$5.58 million per year due to the significantly larger number of school children generated under such a scenario. Finally, under the 50/50 scenario, the total cost is expected to be \$3.77 million per year. It is important to note that the operational costs of the school district have not been adjusted via the Consumer Price Index (CPI) or any other measure of inflation and that the baseline year is 2005, in order to maintain a consistent method of comparison with projected tax revenues.

When the costs and revenues generated by the proposed action are compared to one another, the net fiscal impact of the completed project can be estimated. The proposed action is projected to result in a positive net fiscal impact of approximately \$6.77 million annually. These additional funds would be spread between the municipalities and the PPCSD. Even under the comparative primary home scenario, the related development would generate a positive net fiscal impact of roughly \$1.42 million annually.

Further, since the PPCSD service area includes other Towns and taxpayers, the potential impact of changes in the PPCSD levies to homeowners outside of Pine Plains and Milan were evaluated. It was calculated that the typical homeowner with an average assessed property value of \$200,000 in the PPCSD member towns would pay 27% less in school district taxes as a result of the proposed action (based on the proposed action as a second home community). Depending on which town the typical homeowners resides in this would translate into a savings of between \$591 and \$1,138 per year. These general tax positive outcomes were confirmed by the case studies of other Master Planned Communities, which reflect the minimal public school generation rates across the board.

In summary, the development of the proposed action as a highly amenitized second home community would provide an annual surplus over increased costs of \$5.51 million to the PPCSD, \$1.55 million to the Town of Pine Plains, and generate a small annual loss of \$13,000 to the Town of Milan. This is because the Milan municipal tax rate of \$1.82 per \$1,000 of assessed value generates insufficient revenue to cover the average per capita municipal costs attributable to the proposed action.

### **1.14.3 MITIGATION MEASURES**

In assessing whether the projected population growth impacts on Town services would require mitigation, the previous section includes an assessment of the costs associated with expanding municipal services to meet the additional need generated by the proposed action. The assessment indicates that annual tax revenues generated by the proposed action would result in a net positive fiscal impact. The potential fiscal impacts of the two theoretical comparative assessments also are projected to result in annual net positive tax revenues. The projected tax revenues for all scenarios are assumed constant, and given the uncertainty of speculating on

changes in future tax rates, the estimates assume that the tax rates and levels of assessment in Pine Plains and Milan also remain constant during the 10-year build-out. Following construction, the actual assessed values, tax levies, and revenues generated by the proposed action would vary according to differences between the actual assessments and those estimated in *Chapter 14, Community Services and Fiscal Impacts*.

Some municipal services are projected to require expansion due to the population increase associated with the proposed action. However, project generated tax revenues can be used to offset these additional costs. *Refer below to Table 1.7, Summary of Net Fiscal Impact for a comparison of estimated tax revenues and estimated costs.* Pine Plains is projected to collect more in net revenue as a result of the proposed action than it will spend in increased municipal services. Milan, by contrast, may experience a small shortfall due to the presently existing low tax rate. Milan receives a substantial amount of non-tax revenue from a variety of sources. These revenue sources enable Milan to provide a level of municipal services that is much higher than would normally be experienced with such a low tax rate. Rather than increase taxes, this situation could be addressed by increasing Milan Town fees on items such as building and zoning permits. This would generate additional revenue directly tied to new development impacts, rather than tax increases that would be borne by existing property owners.

<b>TABLE 1.7 SUMMARY OF NET FISCAL IMPACT</b>		
	<b>SECOND HOME SCENARIO</b>	
	<b>YEAR 5</b>	<b>YEAR 10</b>
<b>Town of Pine Plains (including Fire)</b>		
Projected Future Tax Revenues	\$1,476,161	\$2,730,651
(-) Existing Tax Revenues	\$46,914	\$46,914
= Net New Tax Revenue	\$1,429,247	\$2,683,737
(-) Increased Service Costs	\$649,276	\$1,218,462
<b>= Pine Plains Net Fiscal Impact</b>	<b>\$779,971</b>	<b>\$1,465,275</b>
<b>Town of Milan (including Fire)</b>		
Projected Future Tax Revenues	\$74,797	\$128,733
(-) Existing Tax Revenues	\$13,271	\$13,271
= Net New Tax Revenue	\$61,526	\$115,462
(-) Increased Service Costs	\$48,134	\$128,553
<b>= Milan Net Fiscal Impact</b>	<b>\$13,392</b>	<b>\$(13,091)</b>
<b>Pine Plains Central School District (PPCSD)</b>		
Projected Future Tax Revenues	\$3,920,502	\$7,207,681
(-) Existing Tax Revenues	\$175,050	\$175,050
= Net Tax Revenue	\$3,745,452	\$7,032,631
(-) Increased Service Costs	\$1,187,623	\$1,716,323
<b>= PPCSD Net Fiscal Impact</b>	<b>\$1,476,161</b>	<b>\$5,316,308</b>
<i>Source: Based on project sponsor data. Compiled by HMA, Inc. February 2006.</i>		
<b>Note:</b>		
County, Town and Fire District Tax Rates based on Fiscal Year January 1 - December 31, 2005. School District Tax Rates based on Fiscal Year July 1, 2004 - June 30, 2005.		

The PPCSD is anticipated to substantially benefit, from a fiscal perspective, by the proposed action, with an estimated annual tax generation of approximately \$5.3 million more in tax revenue than costs.

Because the results of the fiscal impact analyses vary significantly based upon the degree to which the proposed action is a second home community versus a comparative primary home community, it is important to establish with a significant degree of certainty that the proposed action will be a second home community. The case study component of the market analysis (*refer to Chapter 14, Appendix 14.4, Market Support Evaluation*) looked at a number of factors that often help determine the amount of time residents spend at a master planned community. The market analysis report discusses a variety of reasons why the proposed action is not well situated to be a primary home community. This analysis is intended to provide certainty that the proposed action will not be a primary home community.

In summary, as a master planned recreation second home community, the proposed action is anticipated to result in a net positive fiscal impact across all taxing jurisdictions of approximately \$7 million, of which more than \$5 million will go to the PPCSD with minimal increased costs due to the minimal increased school children enrollment anticipated by the proposed action.

The proposed action is also anticipated to positively contribute to the local and regional economies through substantial increased expenditures associated with: proposed construction activities (the proposed action is projected to result in a total construction cost of approximately \$462.5 million and generate approximately 133 construction jobs annually for the 10-year build-out period); secondary and indirect benefits generated by increased on-site and off-site employment; and operational and resident spending (the proposed action is projected to generate approximately \$32 million annually in the purchase of goods and services).

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## **1.15 CHAPTER 15: USE AND CONSERVATION OF ENERGY AND SUSTAINABLE DEVELOPMENT**

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*Chapter 15, Use and Conservation of Energy and Sustainable Development* provides a discussion of the proposed action's projected energy use, along with energy conservation and sustainable development measures proposed by the project sponsor. The project sponsor has demonstrated leadership in constructing energy efficient and environmentally sustainable buildings, including the world's first environmentally responsible large office tower, in the 1990s, and the world's most environmentally advanced office building (under construction). One goal for the proposed action is to construct the proposed Golf Clubhouse and Homeowners' Association buildings to attain a Gold Leadership in Energy and Environmental Design (LEED) rating. All individual residences within the planned community will also be constructed to meet energy efficient design standards and incorporate sustainable site planning measures. *Table 15.0, Use and Conservation of Energy and Sustainable Development – Chapter Summary Matrix included in Chapter 15, Use and Conservation of Energy and Sustainable Development* also provides a summary of the major components and issues relating to environmental sustainability and use and conservation of energy.

### **1.15.1 LOW IMPACT DEVELOPMENT**

The proposed action site design applies conservation subdivision and cluster development techniques to minimize site clearing, foster a sense of place and encourage a pedestrian oriented environment. Combined with cutting edge energy efficient and green building techniques, and sustainable low impact site planning measures, the proposed action will produce an environmentally responsible model master planned community development.

The proposed action primarily adheres to principles of low impact development through the clustering of proposed land uses and structures, and by the use and rehabilitation of existing features and building. These techniques minimize the use of energy intensive materials, involve less energy consumption, increase natural stormwater attenuation, and permit a greater degree of native land retention and preservation.

Other low impact development strategies have included the careful siting of proposed land uses, buildings and facilities, energy efficient techniques for conveyance of stormwater, vegetation preservation, soil amending, highly controlled and monitored irrigation systems and equipment, impervious area minimization, installation of micropool extended detention ponds, vegetated swales, filter strips, dry wells, infiltration trenches, rain barrels or cisterns, and use of on-site sand and gravel resources to reduce the energy intensive transport of such materials.

Landscaping will take full advantage of existing established native vegetation. Computer models devised by the U.S. Department of Energy show that the proper placement of only three trees can save an average household between \$100 and \$250 in energy costs annually. The proposed action will also use native vegetation to minimize the energy and materials needed for irrigation systems, and reduce dependence on energy-intensive petroleum-based fertilizers, herbicides and pesticides.

The proposed action will provide opportunities, whenever possible, for non-polluting forms of transportation including bikes and alternative-fueled vehicles, such as golf carts. It will include approximately 43,600 linear feet of trails, resulting in a pedestrian-friendly site. Boating on Lake Carvel will be limited to non-motorized craft. The project sponsor will use alternative-fueled utility vehicles such as electric cars or hybrids.

### **1.15.2 SUSTAINABLE CONSTRUCTION PRACTICES**

The use of energy and materials during construction is typical and unavoidable. However, efforts will be made to maximize reuse and recycling, while minimizing waste disposal. During construction a portable temporary batch plant will be operated to make concrete on site, using as much on-site or local material as possible.

Reusing the resources of the site will also help reduce the amount of energy and water needed for the production and transport of materials.

### **1.15.3 ENERGY CONSERVATION AND FACILITY SUSTAINABILITY**

The identification of specific energy conserving measures and building design choices is a continuing process of evaluation. As identified in *Chapter 15, Appendix 15.1, Energy Conservation and other Sustainable Considerations in Facilities*, the project sponsor is investigating a wide variety of technologies, materials, and programs for incorporation into the ultimate design of the project structures and facilities.

The project sponsor has established the goal of LEED Gold for its main buildings which will substantially reduce energy usage compared to a traditional development. This goal will be reached using techniques such as:

- Building siting and orientation
- Building design and energy efficiency
- High performance envelope
- Heating, cooling and ventilation
- Sophisticated controls
- Lighting and appliances
- Distributed generation and combined heat & power
- Renewable energy (geothermal heating & cooling, solar electric and solar hot water)
- Implementation of builder greening and energy efficiency requirements and guidelines

The proposed action is currently proposing a Sequencing Batch Reactor wastewater collection, treatment and disposal system (*refer to Chapter 13, Site Utilities and Infrastructure for further details of wastewater management*). This system provides an optimal combination of a robust technology that adapts quickly to seasonal varying flows, an energy efficient design, including high efficiency pump motors, variable speed drives on pumps for lower energy consumption during low flow periods, smaller “half-size” tanks for more efficient operation during low flow periods, and heat recovery on building ventilation units.

The proposed wastewater treatment technology will meet all NYSDEC effluent quality requirements so that treated effluent from the WWTP can be reused as golf course irrigation water, thus avoiding any need for additional capacity from the proposed water supply system.

Project residences will be built to guided energy efficiency standards, ensuring the project sponsor's energy conservation, greening considerations and sustainable goals are met.

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**1.16 CHAPTER 16: GROWTH INDUCING ASPECTS**

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Economic activity resulting from the proposed action could potentially result in new residential development, and new or expanded commercial development. However, the proposed action is only anticipated to induce the latter, by increasing consumer spending. Any resulting commercial expansion is expected to be accommodated by existing businesses and facilities within the immediate region.

Details of the growth-inducing aspects of the proposed action are as follows:

- With 951 proposed residential units, the development is designed to capture the demand that its own recreational facilities will generate. It is anticipated that limited demand for additional homes will be generated off-site.
- The construction and operation of the proposed action is projected to increase consumer spending at amusement, eating and drinking establishments, food stores, and home furnishing providers. In aggregate, the expenditures that seasonal households make at area businesses are anticipated to increase the current level of local sales by approximately 3% at the project's completion.
- If no commercial business capacity existed and all commercial demand were to be accommodated through new development, the proposed action might induce the need for approximately 91,000 square feet of new business space. However, the actual amount of new commercial development induced by the proposed action is expected to be significantly less because of existing commercial capacity.

It is highly unlikely that the demand for retail and commercial uses generated by background or project-based population growth will radiate outside of the immediate project study area.

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**1.17 CHAPTER 17: ALTERNATIVES TO PROPOSED ACTION**

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Inherent in the process of natural resource based planning is the consideration of alternative approaches, locations, designs, and materials, through which the preferred development solution is ultimately defined. As set forth in the Lead Agency's adopted Scoping Document, the following alternatives have been evaluated and compared to the proposed action golf and second home planned community:

- 1) No Action Alternative
- 2a) 5-Acre / 20,000 SF Conventional Residential Subdivision Alternative
- 2b) 5-Acre Conventional Residential Subdivision Alternative
- 2c) 5-Acre / 3-Acre Conventional Residential Subdivision Alternative
- 3) Golf and Related Components in Pine Plains Only Alternative
- 4) Conservation Subdivision Alternative
- 5) Cluster Subdivision Alternative
- 6) Alternative Use Alternative
- 7) Development of Project Site not by Project Sponsor Alternative
- 8) Affordable Housing Alternative
- 9) Very Large Estate Lots Alternative

**Refer to Table 1.8, Alternatives Comparison Matrix** which provides a side-by-side comparison summary of the proposed action and the above studied alternatives, as well as related potential environmental and socioeconomic impacts.

SEQR 6 NYCRR Part 617 "requires that the EIS discuss a range of reasonable alternatives which are feasible considering the objectives and capabilities of the project sponsor" (The SEQR Handbook, NYSDEC, November 1992). In this regard, although all of the alternatives identified in the Scoping Document have been evaluated, none are consistent with the needs of the target market or conservation objectives of the project sponsor in comparison to the proposed action; and thus from the project sponsor's perspective they are not considered feasible.

Key to the success of master planned communities is a central focus and quality social amenities. For the proposed action, the central focus is golf, while the other proposed recreation facilities will provide venues for an active and social lifestyle. The provision of these amenities requires substantial capital. Therefore, it is necessary to create a certain number of housing units in order to generate enough membership in the Golf Club to support these costs, as only approximately 30 – 40% of project residents will join the Golf Club.

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TABLE 1.8  
ALTERNATIVE COMPARISON MATRIX

IMPACT ISSUE	ALT 1 NO ACTION / EXISTING CONDITIONS	ALT 4 CONSERVATION SUBDIVISION PROPOSED ACTION	ALT 2A 5-ACRE/ 20,000 SF CONVENTIONAL SUBDIVISION	ALT 2B 5-ACRE CONVENTIONAL SUBDIVISION	ALT 2C 5-ACRE / 3-ACRE CONVENTIONAL SUBDIVISION	ALT 5 CLUSTER SUBDIVISION	ALT 6 ALTERNATIVE USE	ALT 7 DEVELOPMENT NOT BY PROJECT SPONSOR	ALT 9 VERY LARGE STATE LOTS ALTERNATIVE
<b>LAND USE RESOURCE CONSIDERATIONS</b>									
Golf Club and Related Facilities	Existing 18-hole course, Golf Clubhouse, Golf Maintenance Facility	18-hole Championship Course, 9-hole Academy Course, Golf Clubhouse, Driving Range, Golf Maintenance Facility	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as proposed action	No facilities	Same as Proposed Action
Total	552 acres 25%	316 acres 14%							
Pine Plains	211 acres 12%	145 acres 8%							
Milan	341 acres 80%	171 acres 40%							
Homeowners' Club and Related Facilities	None Exist	HOA Club facilities (Homeowners' Club Complex and Sports Park)	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	No facilities or land	Same as Proposed Action
Total	0 acres 0%	29 acres 1%	29 acres	29 acres	29 acres	29 acres	29 acres	0 acres	29 acres
Pine Plains	0 acres 0%	5 acres 0%	5 acres	5 acres	5 acres	5 acres	5 acres	0 acres	5 acres
Milan	0 acres 0%	24 acres 6%	24 acres	24 acres	24 acres	24 acres	24 acres	0 acres	24 acres
Residential – Detached units									
Total	12 units	563 units	1,445 units	278 units	395 units	563 units	563 units	1,592 units	112 units
Pine Plains	8 units	526 units	1,414 units	249 units	365 units	551 units	551 units	1,536 units	96 units
Milan	4 units	37 units	31 units	29 units	30 units	12 units	12 units	56 units	16 units
Residential – Attached units									
Total	5 structures, 14 units	388 units	N/A	N/A	N/A	388 units	388 units	N/A	N/A
Pine Plains	5 structures, 14 units	358 units	N/A	N/A	N/A	358 units	358 units	N/A	N/A
Milan	0 structures, 0 units	30 units	N/A	N/A	N/A	30 units	30 units	N/A	N/A
Residential – Total # of units									
Total	17 structures, 26 units	951 units	1,445 units	278 units	395 units	951 units	951 units	1,592 units	112 units
Pine Plains	13 structures, 22 units	884 units	1,414 units	249 units	365 units	909 units	909 units	1,536 units	96 units
Milan	4 structures, 4 units	67 units	31 units	29 units	30 units	42 units	42 units	56 units	16 units
Overall Residential – Density (per gross acre)									
Total	0.01 units/ acre	0.43 units/ acre	0.66 units / acre	0.13 units / acre	0.18 units / acre	0.43 units / acre	0.43 units / acre	0.73 units / acre	0.05 units / acre
Pine Plains	0.01 units/ acre	0.50 units/ acre	0.80 units / acre	0.14 units / acre	0.21 units / acre	0.51 units / acre	0.51 units / acre	0.87 units / acre	0.05 units / acre
Milan	0.01 units/ acre	0.16 units/ acre	0.07 units / acre	0.07 units / acre	0.07 units / acre	0.10 units / acre	0.10 units / acre	0.13 units / acre	0.04 units / acre
Residential									
Total	1,461 acres 68%	1218 acres 55%	1,468 acres 67%	1,619 acres 74%	1,579 acres 72%	464 acres 21%	464 acres 21%	1,596 acres 73%	1,673 acres 77%
Pine Plains	1,374 acres 80%	1067 acres 60%	1,263 acres 71%	1,442 acres 81%	1,387 acres 78%	423 acres 24%	423 acres 24%	1,278 acres 72%	1,454 acres 83%
Milan	87 acres 19%	151 acres 35%	205 acres 49%	177 acres 41%	192 acres 46%	41 acres 10%	41 acres 10%	318 acres 75%	219 acres 52%
Public Roads (linear feet/ acres of pavement)									
Total	45,000 21 acres	60,210 lf 28 acres	99,050 lf 46 acres	74,705 lf 35 acres	64,925 lf 30 acres	49,830 lf 25 acres	49,830 lf 25 acres	123,380 lf 59 acres	70,726 lf 32 acres
Pine Plains	37,550 17 acres	54,158 lf 25 acres	92,805 lf 43 acres	57,655 lf 27 acres	57,875 lf 27 acres	42,600 lf 22 acres	42,600 lf 22 acres	111,105 lf 52 acres	61,788 lf 28 acres
Milan	7,450 3 acres	6,052 lf 3 acres	6,245 lf 3 acres	17,050 lf 8 acres	7,050 lf 3 acres	7,230 lf 3 acres	7,230 lf 3 acres	12,275 lf 6 acres	8,938 lf 4 acres

TABLE 1.8  
ALTERNATIVE COMPARISON MATRIX

IMPACT ISSUE	ALT 1 NO ACTION / EXISTING CONDITIONS	ALT 4 CONSERVATION SUBDIVISION PROPOSED ACTION	ALT 2A 5-ACRE/ 20,000 SF CONVENTIONAL SUBDIVISION	ALT 2B 5-ACRE CONVENTIONAL SUBDIVISION	ALT 2C 5-ACRE / 3-ACRE CONVENTIONAL SUBDIVISION	ALT 5 CLUSTER SUBDIVISION	ALT 6 ALTERNATIVE USE	ALT 7 DEVELOPMENT NOT BY PROJECT SPONSOR	ALT 9 VERY LARGE STATE LOTS ALTERNATIVE
<b>LAND USE RESOURCE CONSIDERATIONS (CONTINUED)</b>									
Private Cluster Roadways (linear feet/ acres of pavement)									
Total	N/A	11,863 lf 5 acres	N/A	N/A	N/A	24,110 lf 9 acres	24,110 lf 9 acres	N/A	N/A
Pine Plains	N/A	10,932 lf 5 acres	N/A	N/A	N/A	23,300 lf 9 acres	23,300 lf 9 acres	N/A	N/A
Milan	N/A	931 lf 0 acres	N/A	N/A	N/A	810 lf 0.4 acres	810 lf 0.4 acres	N/A	N/A
Private Common Driveways (linear feet/ acres of pavement)									
Total	0 lf	27,259 lf 10 acres	11,300 lf 4 acres	13,150 lf 5 acres	27,350 lf 10 acres	N/A	N/A	2,400 lf 1 acres	3,640 lf 1 acres
Pine Plains	0 lf	22,006 lf 8 acres	2,450 lf 1 acres	7,350 lf 3 acres	19,850 lf 7 acres	N/A	N/A	850 lf 0 acres	N/A N/A
Milan	0 lf	5,253 lf 2 acres	10,850 lf 4 acres	5,800 lf 2 acres	6,900 lf 3 acres	N/A	N/A	1550 lf 1 acres	3,640 lf 2 acres
Commercial	Sand and gravel mining operation, antique wood retailer	Sand and gravel mining operation, antique wood retailer uses to remain	Same Uses as Proposed Action	Same Uses as Proposed Action	Same Uses as Proposed Action	Same Uses as Proposed Action	Same Uses as Proposed Action	Same Uses as Proposed Action	Same Uses as Proposed Action
Total	157 Acres	25 Acres	21 Acres	20 Acres	25 Acres	25 Acres	25 Acres	17 Acres	25 Acres
Pine Plains	157 Acres	25 Acres	21 Acres	20 Acres	25 Acres	25 Acres	25 Acres	17 Acres	25 Acres
Milan	0 Acres	0 Acres	0	0	0	0	0	0	0
Agriculture Resources	No existing agricultural resource	No existing agricultural resources	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action
Total Protected Open Space									
Total	43 acres 2%	1,197 acres 54%	601 acres 27%	479 acres 22%	529 acres 24%	1,679 acres 76%	1,679 acres 76%	455 acres 21%	441 acres 20%
Protected Golf, Golf Buffers and HOA Recreation	43 acres 2%	324 acres	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	43 (existing no longer golf)	Same as Proposed Action
Open Space Parcels	0	455 acres (CCA parcels only) 16 acres Utility Buffers 47 acres storm basins	277 acres (includes storm basins)	155 acres (includes storm basins)	205 acres (includes storm basins)	1,355 acres (includes storm basins)	1,355 acres (includes storm basins)	412 acres (includes storm basins)	117 acres (includes storm basins)
Other Open Space Buffers	0	355 acres	undetermined	undetermined	undetermined	0	0	0	undetermined
Preservation of OPRHP potential eligible structures									
Total	17	10	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action

**TABLE 1.8  
ALTERNATIVE COMPARISON MATRIX**

IMPACT ISSUE	ALT 1 NO ACTION / EXISTING CONDITIONS	ALT 4 CONSERVATION SUBDIVISION PROPOSED ACTION	ALT 2A 5-ACRE/ 20,000 SF CONVENTIONAL SUBDIVISION	ALT 2B 5-ACRE CONVENTIONAL SUBDIVISION	ALT 2C 5-ACRE / 3-ACRE CONVENTIONAL SUBDIVISION	ALT 5 CLUSTER SUBDIVISION	ALT 6 ALTERNATIVE USE	ALT 7 DEVELOPMENT NOT BY PROJECT SPONSOR	ALT 9 VERY LARGE STATE LOTS ALTERNATIVE
<b>NATURAL RESOURCE CONSIDERATIONS</b>									
Total Disturbed Area	No New Development	Roads, Buildings, Utilities, Building Envelopes	Roads, Buildings, Utilities, Building Envelopes	Roads, Buildings, Utilities, Building Envelopes	Roads, Buildings, Utilities, Building Envelopes	Roads, Buildings, Utilities, Building Envelopes	Roads, Buildings, Utilities, Building Envelopes	Roads, Buildings, Utilities, Building Envelopes	Roads, Buildings, Utilities, Building Envelopes
Total	None	534 acres 24%	857 acres 39%	486 acres 22%	507 acres 23%	590 acres 27%	590 acres 27%	785 acres 36%	407 acres 19%
Pine Plains	None	415 acres 23%	670 acres 38%	290 acres 16%	325 acres 18%	411 acres 23%	411 acres 23%	754 acres 43%	236 acres 13%
Milan	None	119 acres 28%	187 acres 44%	196 acres 46%	182 acres 43%	179 acres 42%	179 acres 42%	31 acres 7%	171 acres 40%
		Direct Wetland Impacts	Direct Wetland Impacts	Direct Wetland Impacts	Direct Wetland Impacts	Direct Wetland Impacts	Direct Wetland Impacts	Direct Wetland Impacts	Direct Wetland Impacts
NYSDEC Wetlands	115 existing acres	0.18 acres 0.16% disturbed	0.10 acres 0.09% disturbed	0.20 acres 0.17% disturbed	0.20 acres 0.17% disturbed	0.10 acres 0.09% disturbed	0.10 acres 0.09% disturbed	0.12 acres 0.10% disturbed	0.18 acres 0.16% disturbed
NYSDEC 100-FT Adjacent Areas	144 existing acres	7.40 acres 5.14% disturbed	19.40 acres 13.47% disturbed	8.70 acres 6.04% disturbed	10.40 acres 7.22% disturbed	3.20 acres 2.22% disturbed	3.20 acres 2.22% disturbed	19.50 acres 17.23% disturbed	2.40 acres 2.36% disturbed
Federal Wetlands	216 existing acres	1.30 acres 0.60% disturbed	2.20 acres 1.02% disturbed	1.50 acres 0.69% disturbed	1.60 acres 0.74% disturbed	1.20 acres 0.56% disturbed	1.20 acres 0.56% disturbed	2.20 acres 1.02% disturbed	1.20 acres 0.56% disturbed
<b>TRAFFIC CONSIDERATIONS</b>									
Estimated Vehicle Trips Per Peak Hour	Sat. – 173 trips Sun. – 90 Weekday AM – 112 Weekday PM – 146	Sat. – 965 trips Sun. – 784 Weekday AM – 728 Weekday PM – 978	Sat. – 1621 trips Sun. – 1376 Weekday AM – 1226 Weekday PM – 1677	Sat. – 519 trips Sun. – 369 Weekday AM – 347 Weekday PM – 494	Sat. – 630 trips Sun. – 469 Weekday AM – 435 Weekday PM – 612	Sat. – 966 trips Sun. – 785 Weekday AM – 729 Weekday PM – 980	Sat. – 966 trips Sun. – 785 Weekday AM – 729 Weekday PM – 980	Sat. – 1581 trips Sun. – 1447 Weekday AM – 1262 Weekday PM – 1698	Sat. – 359 trips Sun. – 223 Weekday AM – 220 Weekday PM – 322
Estimated Annual Trip Generation	578,091 trips	3,628,440 trips	5,891,875 trips	1,831,311 trips	2,238,238 trips	3,628,440 trips	3,628,440 trips	5,803,927 trips	1,253,666 trips
<b>INFRASTRUCTURE CONSIDERATIONS</b>									
Type of Water System	Wells, 6" & 8" Distribution System	Central Water District	Central Water District	Central Water District	Central Water District	Central Water District	Central Water District	Central Water District, possible individual wells	Central Water District
Water System Usage (gpd) (approved use)	150,000 GPD	397,878 GPD Full Build	570,800 GPD Full Build	162,350 GPD Full Build	203,300 GPD Full Build	397,900 GPD Full Build	397,900 GPD Full Build	591,150 GPD Full Build	104,250 GPD Full Build
Type of Wastewater System	Central system & Individual septic	Central Sewer District	Central Sewer District	Central Sewer District	Central Sewer District	Central Sewer District	Central Sewer District	Central Sewer District, possible individual septic	Central Sewer District
Wastewater System Usage (gpd)	68,868 GPD	417,078 GPD Full Build	589,978 GPD Full Build	181,528 GPD Full Build	224,478 GPD Full Build	417,078 GPD Full Build	417,078 GPD Full Build	610,350 GPD Full Build	123,428 GPD Full Build
Type of Stormwater System	Overland flow, road ditches	Conventional	Conventional	Conventional	Conventional	Conventional	Conventional	Conventional	Conventional

TABLE 1.8  
ALTERNATIVE COMPARISON MATRIX

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<b>ECONOMIC AND FISCAL CONSIDERATIONS</b>																	
Primary versus Secondary Home Analysis	Existing Conditions	Secondary Homes	Primary Homes	Secondary Homes	Primary Homes	Secondary Homes	Primary Homes	Secondary Homes	Primary Homes	Secondary Homes	Primary Homes	Secondary Homes	Primary Homes	Secondary Homes	Primary Homes	Secondary Homes	Primary Homes
Municipal Tax Revenues																	
Total	\$60,185	\$2,940,031	Same	\$4,692,461	Same	\$1,344,066	Same	\$1,705,257	Same	\$2,725,871	Same	\$2,725,871	Same	\$4,985,182	Same	\$622,805	Same
Pine Plains	\$46,914	\$2,811,298	Same	\$4,605,500	Same	\$1,261,825	Same	\$1,620,656	Same	\$2,653,070	Same	\$2,653,070	Same	\$4,853,022	Same	\$571,244	Same
Milan	\$13,271	\$128,733	Same	\$86,961	Same	\$82,241	Same	\$84,601	Same	\$72,801	Same	\$72,801	Same	\$132,160	Same	\$51,561	Same
PPCSD Tax Revenues	\$175,051	\$7,400,975	Same	\$11,630,149	Same	\$3,435,142	Same	\$4,314,626	Same	\$6,758,941	Same	\$6,758,941	Same	\$12,358,855	Same	\$1,621,497	Same
County Tax Revenues	\$45,653	\$1,930,336	Same	\$3,033,438	Same	\$895,952	Same	\$1,125,345	Same	\$1,762,895	Same	\$1,762,895	Same	\$3,223,490	Same	\$422,913	Same
Construction Related Expenditures	N/A	\$462,450,441	Same	\$640,184,116	Same	\$194,504,116	Same	\$242,804,116	Same	\$377,044,516	Same	\$377,044,516	Same	\$678,720,000	Same	\$94,904,116	Same
Household Spending Related Growth	N/A	\$38,658,150	\$30,767,520	\$58,739,250	\$48,998,400	\$11,300,700	\$13,344,000	\$16,056,750	\$17,208,000	\$38,658,150	\$27,947,232	\$38,658,150	\$27,947,232	\$64,714,800	\$54,297,600	\$4,552,800	\$5,376,000
Estimated Municipal Costs																	
Total	\$39,172	\$1,347,015	\$2,825,168	\$2,264,885	\$2,762,359	\$485,142	\$2,758,250	\$684,470	\$2,760,598	\$1,324,788	\$2,772,925	\$1,324,788	\$2,772,925	\$2,508,247	\$2,815,776	\$197,258	\$2,730,661
Pine Plains	\$30,954	\$1,218,462	\$2,696,615	\$2,199,141	\$2,696,615	\$423,507	\$2,696,615	\$620,487	\$2,696,615	\$1,248,478	\$2,696,615	\$1,248,478	\$2,696,615	\$2,389,086	\$2,696,615	\$163,212	\$2,696,615
Milan	\$8,218	\$128,553	\$128,553	\$65,744	\$65,744	\$61,635	\$61,635	\$63,983	\$63,983	\$76,310	\$76,310	\$76,310	\$76,310	\$119,161	\$119,161	\$34,046	\$34,046
Net Fiscal Impact	\$135,887-\$146,470	\$9,208,004 <sup>(1)</sup>	\$3,861,884 <sup>(1)</sup>	\$16,083,118- \$16,465,114	\$7,365,313- \$10,529,630	\$4,977,798- \$5,062,686	\$927,306- \$1,742,197	\$6,142,428- \$6,290,982	\$1,537,803- \$2,723,099	\$9,445,424- \$9,509,090	\$4,484,991- \$4,686,068	\$9,445,424- \$9,509,090	\$4,484,991- \$4,686,068	\$16,923,903- \$17,358,954	\$7,570,905- \$11,073,878	\$2,374,458- \$2,416,902	(\$539,681)- (\$867,754)
Estimated Population																	
Total	66-78	2,638-2,817	2,599-2,817	4,004-4,801	3,966-4,801	759-1,008	764-1,008	1,095-1,432	1,079-1,432	2,635-2,792	2,599-2,792	2,635-2,792	2,599-2,792	4,406-5,297	4,368-5,297	289-406	305-406
Pine Plains	55-66	2,453-2,598	2,417-2,598	3,920-4,689	3,883-4,689	680-903	685-903	1,012-1,323	997-1,323	2,519-2,662	2,485-2,662	2,519-2,662	2,485-2,662	4,252-5,094	4,215-5,094	248-348	261-348
Milan	10-14	185-219	182-219	84-112	83-112	79-105	79-105	83-109	82-109	116-130	114-130	116-130	114-130	154-203	153-203	41-58	44-58
Estimated School- Age Children	11-13	462-538	489-538	704-1,129	742-1,129	135-243	142-243	192-345	203-345	463-530	488-530	463-530	488-530	775-1,246	818-1,246	55-98	58-98
Estimated Children Per Unit	0.423-0.513	0.487-0.566	0.513-0.566	0.487-0.781	0.513-0.781	0.487-0.874	0.513-0.874	0.487-0.873	0.513-0.873	0.487-0.557	0.513-0.557	0.487-0.557	0.513-0.557	0.487-0.783	0.513-0.783	0.487-0.875	0.513-0.875
Estimated Enrollment																	
PPCSD	9-10	39-46	378-415	59-95	573-872	12-20	111-188	16-30	157-269	39-45	358-377	39-45	358-377	66-107	631-962	5-9	45-76
Private	1-2	7-8	62-69	11-18	95-144	2-4	18-31	3-5	26-42	7-8	59-62	7-8	59-62	12-18	105-159	1	7-12
Estimated School Costs	\$95,247-\$105,830	\$1,716,323	\$5,584,290	\$626,049- \$1,008,045	\$6,064,059- \$9,228,376	\$127,332- \$212,220	\$1,174,713- \$1,989,604	\$169,776- \$318,330	\$1,661,531- \$2,846,827	\$413,829- \$477,495	\$3,788,714- \$3,989,791	\$413,829- \$477,495	\$3,788,714- \$3,989,791	\$700,326- \$1,135,377	\$6,677,873- \$10,180,846	\$53,055- \$95,499	\$476,235- \$804,308

**Note:**  
All numbers are approximate.  
(1) The proposed action is based on the higher range of projected "estimated population, estimated school-age children, estimated children per unit, estimated school enrollment and estimated school costs."

Another key factor is providing a range of residential product types and choices to promote various lifestyles within the community. The proposed action has been designed around three product types designed to capture three distinct market segments. These product types include:

- **Single-family attached and semi-attached units:** Designed for the active vacation and second home users who primarily visit for weekend and holiday getaways, these units are located closest to the central core of community amenities and include a higher level of maintenance by a Homeowners' Association.
- **Single-family lots for pre-retirees:** Designed for working individuals and families who visit on a more extended basis for summer and holiday use, but who typically still maintain a permanent residence closer to their places of work, this product would include one to two acre lots.
- **Single-family estate lots for retirees:** These lots are designed for pre-retirees and retirees in the second and third home market as their warm weather residence. These lots would range from two to five acres or larger.

The inclusion of all three product types creates the lifestyle necessary to guarantee the ultimate success of the proposed action. Creating an attractive vacation environment for families with children, leading to a summer home where parents can gather their families for extended visits, and ultimately creating a home for grandparents in an atmosphere that encourages visits from children and grandchildren is the vision that drives the community design. Eliminating any portion of this vision would significantly detract from this natural progression and limit the marketability of the project.

The detailed discussion of each studied alternative offered in *Chapter 17, Alternatives to Proposed Action* of this DEIS is briefly summarized below:

#### 1.17.1 ALTERNATIVE 1

Alternative 1, the “no action” alternative, would obviously not meet the goals of the project sponsor, in that it would not provide any of the development components necessary to create or support an environmentally sensitive master planned community. Note that the existing approved subdivision lots would likely be developed and sold over an unpredictable time period. Continuation of the existing golf course facility is unlikely under this alternative, given that it is heavily subsidized by the project sponsor.

#### 1.17.2 ALTERNATIVE 2(A)

Alternative 2 (A) would result in 1,445 units, 494 more than the proposed action, with a corresponding reduction in preserved open space and increase in environmental impacts and demand for municipal services. The higher density and lack of product mix, reduction in open space and passive recreation facilities, and the less environmentally sensitive site design of this alternative would likely not make the development attractive to second home buyers. As such, more of the homes of this alternative would likely become primary residences. The net fiscal

impact would still be positive, but would compare poorly to that of the proposed action, mostly due to the resulting large increase in school enrollment. This option would not meet the goals of the project sponsor because it would not result in an environmentally sensitive vacation community; and without a range of residential product types and choices like that of the proposed action, a critical key factor to a successful planned community would be missing.

#### **1.17.3 ALTERNATIVE 2(B)**

Alternative 2(b) would result in the construction of 278 single-family residences (a reduction of approximately 71% from the proposed action). However, due to bigger lot sizes which would prohibit clustering, it would disturb only 2% less of the overall project site. The market for this alternative would be much smaller and of a higher socioeconomic level than that associated with the proposed action target market, because the price point for fewer and larger lots as well as membership in the golf club would be considerably higher than the per unit average cost associated with the proposed action. This alternative would not meet the goals of the project sponsor because the low residential density, lack of any product mix, and resulting capital costs to construct and operate, would not support the proposed golf and recreation facilities. It is doubtful that a market exists for a development of this type in the Northeast.

#### **1.17.4 ALTERNATIVE 2(C)**

Alternative 2(c) would result in the construction of 395 single-family residences (a reduction of approximately 58% from the proposed action). Like Alternative 2(b), lot sizes would be bigger, the product mix would be more uniform, and there would be no clustering, resulting in the preservation of much less open space. This alternative would result in a level of site disturbance similar to the proposed action even though 556 fewer residences would be provided, and would generate approximately 32% or \$2,917,022 less in net fiscal benefits than the proposed action, assuming both were developed as second home communities. It fails to meet the goals of the project sponsor because of the lack of product mix and environmental sensitivity. The viability of a generally uniform product type as set forth in this alternative is highly limited, and not responsive to the second home consumer market in the New York Metropolitan area.

#### **1.17.5 ALTERNATIVE 3**

Alternative 3 is no longer relevant for comparison purposes, as was confirmed on March 17, 2006 with Milan officials as part of the Lead Agency DEIS completeness review.

#### **1.17.6 ALTERNATIVE 4**

Alternative 4 is the proposed action.

### 1.17.7 ALTERNATIVE 5

Alternative 5, the “cluster subdivision” alternative, involves greater use of clustering in distributing the same number of residential dwellings as in the proposed action. This alternative would result in a larger contiguous area of open space due to a greater number of smaller, evenly sized clustered lots than the proposed action. However, due to the spread out nature of the clusters and the associated infrastructure, this alternative would result in a site disturbance of approximately 590 acres, or approximately 3% greater than the proposed action. Thus, even with the greater preservation of open space, there would still be greater impacts to site forests, oldfields, and ecological communities, and the visual impact from public roads would be greater than with the proposed action. This alternative fails to meet the goals of the project sponsor because its smaller lot areas and limited product variety, scale and location limit the prospective marketing of the project and would not financially support the proposed golf and recreation community. In addition, the remote separation of the different clustered areas fails to integrate the residential units into the community facilities and amenities. It is doubtful whether a market exists for small, tightly clustered lots located at an inconvenient distance from the community and recreational resources which are the heart of the proposed action.

### 1.17.8 ALTERNATIVE 6

Alternative 6 contemplates the use of the project site for an alternative development comprising clustered condominiums, townhouses, luxury rentals, a small resort hotel and timeshares. As in Alternative 5, the number of total units and the ratio of attached and detached units has been assumed consistent with that of the proposed action. This alternative does not meet any of the project sponsor’s objectives of providing a second home golf and recreation community for an existing market segment. Additionally, the transient ownership and greater traffic impacts associated with this alternative make it generally less sensitive to the surrounding environment and rural community, even with large contiguous open space areas left undisturbed. The seasonality of the golf and other recreational amenities would also render aspects of this alternative, such as a year-round hotel, economically infeasible.

### 1.17.9 ALTERNATIVE 7

Alternative 7 explores a piecemeal development scenario, in which individual parcels of the property are sold and developed separately. Under this alternative, there would be no golf course, recreation or open space areas. All land on the site would be fully residentially developed according to the current conventional subdivision regulations of each Town. This would result in approximately 1,592 new single-family residences or approximately 67% more units than the proposed action. Maximized development would result in a high degree of resource impact and fragmentation. There would be approximately 59 acres covered by public roads (an approximate 105% increase over the proposed action), with 785 total acres of site disturbance (47% more than the proposed action). Impacts to wetlands, wetland buffers, forests, oldfields, and other ecological communities would also increase. Without the golf, recreation and open space components it is unclear what market segment such a development would attract. This alternative does not meet any of the project sponsor’s objectives, nor does it appear to be an environmentally sensitive or fiscally sound alternative to the proposed action.

**1.17.10 ALTERNATIVE 8**

Alternative 8 contemplates the development of affordable housing stock. However, affordable housing would not blend well into the proposed vacation and second home recreation community, where paid membership in the Homeowners' Association and related Homeowners' Club are requisites.

Currently, there is no local affordable housing program in Pine Plains or Milan, and there are no mandated affordable housing programs in either town affecting the project site. The County's Planning Department has yet to develop an affordable housing model. Furthermore, the project site is not developable as affordable housing at the densities presently being discussed by the Pine Plains Zoning Commission or Milan Town Board. Neither town currently allows the residential densities that would be necessary to make the development of affordable housing possible without significant subsidy.

**1.17.11 ALTERNATIVE 9**

Alternative 9 evaluates the impacts of a layout consisting of large estate lots ranging from 10 to 20 acres. This would result in approximately 112 new single-family residences on lots covering approximately 77% of the project site. This alternative could substantially avoid natural features such as steep slopes, wetlands, and ecological communities and as a result, generate fewer environmental impacts. However, if developed as primary homes, this alternative would actually cost more in infrastructure and services than it would contribute in tax revenues and growth-related spending. Reasons for this include less initial construction activity, fewer projected residents, and less direct and indirect economic benefits for the local and regional economy. This alternative does not meet the project sponsor's objectives in that it would not include a varied product type and density, nor generate the number of residents and members necessary to financially support the golf course and other recreational facilities.

In addition to the evaluation of the alternatives as required by the Lead Agency Scoping Document, the project sponsor has also evaluated alternative approaches and design measures, which avoid and/or minimize potential environmental impacts. Through this process, the design of the proposed action has been adjusted and reconfigured in response to the site's environmental constraints and natural features, resulting in the proposed "conservation subdivision" design (Alternative 4). While these alternative approaches were not specifically identified as project alternatives in the Lead Agency's Scoping Document, they are nonetheless reflected in the current proposed action.

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**1.18 CHAPTER 18: IRREVERSIBLE AND IRRETRIEVABLE  
COMMITMENT OF RESOURCES**

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*Chapter 18, Irreversible and Irretrievable Commitment of Resources* evaluates the extent to which the proposed action may cause a loss of environmental resources, both in the immediate future and in the long term. This includes both natural and man-made resources that are consumed, converted or made unavailable for further use. The extent to which the proposed action involves trade-offs between short-term environmental gains and long-term losses, and the extent to which the proposed action forecloses future options is also addressed. Consistent with the SEQRA regulations as summarized in §5.15 of Environmental Impact Review in New York (Gerrard, Esq., et al, Rel. 16-7/2006), the “section on irretrievable commitments of resources is usually a very brief summary of material presented elsewhere in the EIS.”

For the proposed action, the irreversible commitment of resources is related to the conversion of undeveloped lands to developed lands and the related irretrievable use of non-renewable natural resources, as well as the human effort (time and labor) required to develop, construct, and operate the various components of the proposed action.

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## ***1.19 CHAPTER 19: UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS***

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As discussed in detail in *DEIS Chapters 3 through 14*, certain adverse environmental impacts can be expected to occur regardless of the mitigation measures employed, as some impacts are simply unavoidable. As such, *Chapter 19, Unavoidable Adverse Environmental Impacts* summarizes anticipated and previously identified adverse environmental effects that cannot be avoided, or adequately mitigated if the proposed action is implemented. This chapter also identifies the possible long-term consequences of such unavoidable adverse effects.

Consistent with the SEQRA regulations (as summarized in §5.15 of Environmental Impact Review In New York; Gerrard, Esq., et al, Rel. 16-7/2006), “Unavoidable adverse impacts may be defined as those impacts which remain after the application of all mitigation measures. The unavoidable adverse effects of a proposed action; however, should already have been discussed in detail in the EIS’s section on impacts...and should also contain cross-references to where the detailed treatment of the unavoidable adverse effects may be found in the EIS. Normally this section seldom exceeds one or two pages.” It is these unavoidable adverse impacts that must be balanced against the proposed action’s benefits when SEQRA findings are made.

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