



CARVEL PROPERTY DEVELOPMENT

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

APPENDIX 1.5 – FINAL SCOPING DOCUMENT

January 11, 2008

Prepared for:

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&
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Towns of Pine Plains and Milan, Dutchess County, New York

FINAL SCOPING DOCUMENT

PREPARED FOR

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MARCH 11, 2004

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**THE HUDSON VALLEY CLUB (HVC)
FINAL SCOPING DOCUMENT
FOR DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)
CONCEPTUAL DEVELOPMENT PLAN APPROVAL WITH
SPECIFIC ANALYSIS OF INFRASTRUCTURE AND AMENITIES
PROPOSED FOR SUBDIVISION AND SITE DEVELOPMENT PLAN APPROVAL**

**TYPE I ACTION – COORDINATED REVIEW
IN THE TOWNS OF PINE PLAINS AND MILAN**

TOWN OF PINE PLAINS PLANNING BOARD – LEAD AGENCY

INTRODUCTION

A Draft Environmental Impact Statement (DEIS) will be prepared by the applicant and project sponsor (1133 Taconic, LLC / Landmark National) regarding the proposed development of approximately 2,025 acres of land located primarily on the easterly side of the Taconic State Parkway, on the northerly and southerly side of NYS Route 199, and on the northerly and southerly side of Ferris Road/Woodward Hill Road within the municipal boundaries of both the Town of Milan (400 acres, 20%) and the Town of Pine Plains (1,625 acres, 80%), Dutchess County, New York hereinafter referred to as the proposed action.

The proposed action, The Hudson Valley Club (HVC), consists of the phased development of a primary and second home community, including approximately 975 single family housing units (which could in part reconfigure a partially developed existing 230 lot subdivision) on varying lot sizes and configurations, various amenities including the upgrading of an existing 18 hole golf course, construction of an additional 9 holes of golf, Clubhouse, Members Club including pool and tennis, Equestrian Center and riding trails, summer camp, lake beachfront and clubhouse, and an array of related hiking trails, passive recreational opportunities such as spa, health and fitness center, arts and crafts studios, and related infrastructure.

The project will be phased as described below. All Phases components will be evaluated in the DEIS on a site-specific basis which will enable consideration of required

PURPOSE OF THE DEIS

The DEIS will describe the proposed project and its phasing, describe the existing project site, surroundings and existing environmental resources, evaluate the environmental suitability and capacity of the subject property for the proposed action, identify and assess the potential impacts of developing the proposed site as identified in the Lead Agency's Environmental Assessment Part 2 (EAF Part 2) and through the public scoping process, identify and describe the means by which those impacts can be mitigated, and identify and evaluate alternatives. The DEIS is the core document from which the Lead Agency makes SEQR Findings and upon which the Lead Agency and the Involved Agencies will base their permit decision making.

Because site specific plans for all phases of the project have not been submitted, all potential impact issues and mitigation measures identified in this Final Scoping Document are not intended to represent an exhaustive list of the possible environmental effects and the DEIS is not to be limited to only those impacts or mitigation measures specifically mentioned in this Scope. The DEIS will explore all areas of potential impacts, mitigation measures, or alternatives identified during the preparation of the DEIS and in the development of the site specific plan.

DEIS PREPARATION REQUIREMENTS

The following shall apply to the preparation of the DEIS:

1. Information will be presented in a manner that can be readily understood by a lay person. Use of technical terminology will be avoided or clarified and defined when used.
2. Any assumptions incorporated into the assessment of potential project impacts will be clearly identified and described.
3. The DEIS will be written in the third person (i.e., the terms “we” and “our” will not be used). The DEIS will focus on the issues and potential impacts in an objective fact finding manner.
4. Project changes and/or mitigation measures, whose intent is to avoid, reduce or otherwise lessen the scope and extent of those impacts, are to be identified and incorporated into the proposed action where practicable.
5. Narrative discussions are to be accompanied by appropriate tables, charts, graphs and figures whenever possible and work shall be at a level of detail as described in this Final Scoping Document or otherwise appropriate to the issue.
6. The DEIS will evaluate alternatives to the proposed action, and to the extent that such alternatives avoid, reduce or otherwise lessen project related impacts, the alternatives or portions thereof are to be incorporated into the proposed action where practicable.
7. Maps and plans will be at a scale of 1” = 200’ to provide adequate detail. The plans should be prepared and certified by a New York State licensed Landscape Architect, Architect, Professional Engineer, or Land Surveyor, as appropriate. Full-scale plans should be included as an appendix to the DEIS and reductions of these plans should be included in the body of the DEIS as appropriate. These plans should graphically detail all aspects of the proposed action (including all proposed lot lines), the environmental setting of the site and surrounding areas, and the natural and cultural resources identified thereon. All site plans should be coordinated into a single set with a cover sheet listing each plan. Each Site Plan should be numbered sequentially and should include a common title block, a graphic scale, and a common north arrow. Sheet size should not exceed 36” by 48”.
8. All assertions must be supported by evidence in the record. Opinions of the applicant that are unsupported by evidence should be identified as such.
9. An examination of the cumulative effects of the Hudson Valley Club proposal with other currently proposed projects and projects that are proposed during the course of the DEIS in the two Towns should be undertaken for all relevant areas of environmental analysis.

10. All pertinent SEQR documentation and material related to possible environmental impact issues which have been previously submitted to the Lead Agency should be included as part of the DEIS document in impact issue chapters or as appendices as appropriate.

PHASING AND SEQR

Phase 1:

The action is proposed to include the development of approximately 700 single family home lots on varying lot sizes and 275 single family attached structures in conservation cluster configurations. The number of structures to be constructed during Phase 1 and during subsequent project phases will be determined during the DEIS preparation process including the exploration of alternatives.

In addition to the residential development, the Phase 1 of the action is proposed to consist of the 18 hole golf course renovation and the addition of 9 new holes, site infrastructure including water, sewer, roads, stormwater facilities, lighting, entry way, landscaping, and Phase 1 amenities including Phase 1 golf members clubhouse, Phase 1 home owners club and Phase 1 paths and trail system, lake and wetland restoration activities. Most of the proposed activities are located in the Town of Pine Plains. Proposed construction activities in the Town of Milan will require zone changes to be proposed.

The DEIS will define and evaluate the environmental impact of all phases on a site specific basis sufficiently detailed as per this Scoping Document to enable Lead Agency and Involved Agencies decision making in both the Towns of Pine Plains and Milan on the applications and approvals required to implement the project. The evaluation of Phase 1 activities will incorporate the cumulative impacts of the components of the proposed action to be implemented in subsequent phases.

Subsequent Phases:

The review component for subsequent phases will include the proposed residential development, site infrastructure expansions as required of water, sewer, roads, stormwater facilities, lighting, landscaping, and expansions of the amenities including golf clubhouse, home owners club and paths and trail system, lake recreation facilities, and the development of the equestrian center and related riding trails.

The DEIS will address the cumulative impacts and secondary effects of the entire HVC project and set forth criteria or thresholds under which future site specific actions may be undertaken. Mitigation measures will be discussed so as to minimize environmental impacts to the greatest degree practicable.

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A. COVER SHEET

COVER SHEET

The DEIS will be preceded by a Cover Sheet that will include the following information:

1. Title and name of proposed action; the DEIS document will be titled:

**Draft Environmental Impact Statement (DEIS)
Taconic 1133, LLC – Landmark National
The Hudson Valley Club
Ferris Road/Woodward Hill Road
Town of Milan, Dutchess County, New York
Town of Pine Plains, Dutchess County, New York**

2. Reference to the following will be included:

- < Town of Pine Plains, Dutchess County, New York;
- < Town of Milan, Dutchess County, New York.
- < Precise location of subject property.
- < Name and address of the lead agency as follows:

**Town of Pine Plains Planning Board
Town of Pine Plains
Town Hall 199 East, PO Box 955
Pine Plains, New York, 12567**

- < Name and telephone number of the person at the lead agency who can provide further information will be listed as follows:

**Constance Young, Planning Board Secretary
Telephone: (518) 398-6339
Fax: (518) 398-6444**

- < Name and address of the owner(s) of the subject property.
- < Name and address of the applicant.
- < Date of DEIS submittal.
- < Provision for the following:
 - Date of completeness acceptance of the DEIS by the lead agency.
 - Date of SEQR Public Hearing.
 - Last date by which written comments will be accepted by the lead agency.

3. The Cover Sheet will be followed by a list of the names, addresses, and contact numbers of each of the companies, individuals and/or organizations that prepared and/or contributed in the preparation of the DEIS.
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B. TABLE OF CONTENTS

This Scoping Document will serve as the DEIS Table of Contents (refer below under Section C for specific DEIS Chapters).

All technical studies, reports and assessments, charts, tables, maps, figures and other supporting materials are to be listed at the beginning of the DEIS, referenced and summarized in layman terms in the body of the DEIS, and included in their entirety as Appendices to the DEIS.

All pertinent related SEQR documentation will be included as part of the DEIS document as appendices, including, but not limited to, the following:

- < Full Environmental Assessment Form.
- < Positive Declaration / Circulation Notice.
- < Final Scoping Outline.
- < Technical Letters from involved and interested agencies.
- < All correspondence relating to issues which are addressed in the DEIS.
- < Technical reports and studies prepared, or required to be prepared.
- < Full-scale development plans showing both the conceptual development plan and site-specific development components.

- < Qualifications/ Resumes for all preparers of Technical Studies and of the DEIS.

C. DEIS CHAPTERS

The DEIS Chapters are to be divided into Introductory Chapters, Potential Impact Issue Chapters, and Supplementary Chapters, as follows:

INTRODUCTORY CHAPTERS

- | | |
|-----------|---------------------------------------|
| Chapter 1 | <u>Executive Summary</u> |
| Chapter 2 | <u>Description of Proposed Action</u> |

POTENTIAL IMPACT ISSUE CHAPTERS

- | | |
|------------|--|
| Chapter 3 | <u>Land Use and Zoning</u> |
| Chapter 4 | <u>Agricultural Resources</u> |
| Chapter 5 | <u>Open Space</u> |
| Chapter 6 | <u>Cultural, Recreational, Historical and Archaeological Resources</u> |
| Chapter 7 | <u>Visual Resources and Community Character</u> |
| Chapter 8 | <u>Ecological Communities, Flora, and Fauna</u> |
| Chapter 9 | <u>Surface and Subsurface Water Resources</u> |
| Chapter 10 | <u>Geology, Soils and Topography</u> |
| Chapter 11 | <u>Transportation and Traffic</u> |
| Chapter 12 | <u>Noise and Air Resources</u> |
| Chapter 13 | <u>Water, Solid Waste, Sewage and Utility Infrastructure, Lighting</u> |
| Chapter 14 | <u>Community Facilities, Services and Fiscal Impact</u> |

SUPPLEMENTARY CHAPTERS

Chapter 15	<u>Use and Conservation of Energy</u>
Chapter 16	<u>Growth Inducing Aspects</u>
Chapter 17	<u>Alternatives to Proposed Action</u>
Chapter 18	<u>Irreversible and Irretrievable Commitment of Resources</u>
Chapter 19	<u>Unavoidable Adverse Environmental Impacts</u>
Chapter 20	<u>Appendices</u>

INTRODUCTORY CHAPTERS

Chapter 1 Executive Summary

Chapter 1 will consist of an executive summary (*abstract*) which *briefly* describes the proposed action, the proposed action's purpose, phasing schedule, need and public benefit, needed approvals and permits, detailed assessment studies conducted, existing conditions and environmental setting, potential impacts, proposed mitigation measures, alternatives to the proposed action and the approach utilized in the analyses. This chapter will also summarize issues and potential controversy related to the project and list all involved agencies. The information presented in this Chapter will be repeated in greater detail and substance in the *Potential Impact Issue Chapters* (Chapters 3 through 13) and *Supplementary Chapters* (Chapters 14 through 18), as appropriate. The executive summary shall include a table that assesses and compares each alternative relative to the various impact issues. (See Alternatives chapter.)

Chapter 1 will be presented in a simple and concise manner.

Chapter 2 Description of Proposed Action

Proposed Action

Chapter 2 will describe the approach to the structure of the DEIS.

Chapter 2 of the DEIS will provide a description of the proposed action and its component parts, and will set the context in which potential impacts will be assessed. Chapter 2 will document and identify the site's location, and provide site description outlining information such as the general location, existing conditions, and road frontages. It will also include a historical summary and background of the proposed action.

Chapter 2 will describe the project layout to include:

1. Clubhouse, health and recreation, equestrian center and golf course operations including planned facilities, capacity, and maintenance programs for grounds and golf courses, including golf course turfgrass management program, including irrigation needs and water sources.
2. Solid waste (including horse manure) removal methods.
3. Parking and on-site pedestrian and vehicular circulation including identification of proposed primary and secondary access from existing public roadways. Describe access to the site, including any special features unique to the site. Include internal and through street, emergency vehicle access, and traffic calming measures, if applicable.
4. Utilities other than water and sewer.
5. Ownership and proposed management of the golf course and other on-site recreational amenities and open space areas, including trails.

6. The size, and scaled portrayal of elevation, massing and architectural character shall be included in the DEIS.
7. Describe proposed water and wastewater infrastructure.
8. Residential development. Describe, and show on a site map, the potential lot layouts, range of lot sizes to be proposed, potential locations of dedicated open spaces, site amenities (including but not limited to typical details pertaining to pedestrian amenities such as sidewalks and streetscape elements such as street trees), trails and trail connections, etc. Indicate how many and location of dwelling units and other site facilities are proposed to be located in Milan and Pine Plains. Discuss planned separation distances between horse barns/stables and WWTP and existing and proposed housing.
9. General construction process and needs including, but not limited to hours of operation, construction monitoring, plans for construction traffic on local streets, dust suppression, and housing for construction workers, schedule (and map) of construction (sequencing), erosion and sedimentation control to be utilized during construction and construction equipment and staging areas. The description of proposed construction sequencing will include a flowchart for the maximum anticipated duration, including start and completion for key milestone tasks such as site clearing, grading and fill placement, infrastructure, foundations, off-site improvements, and site amenities. Describe whether any construction activities will be on going after any part of the project is in use. If so, provide sequencing and safety plans to accommodate this situation. Identify staging areas for material handling and storage, including access and egress during construction. Discuss whether the project will comply with the New York State Department of Environmental Conservation's (DEC) SPDES General Permit thresholds for the limits of disturbance by construction activity at any one time.
10. Discuss the roles and relationship between the developer, homeowners, management of the development and how these roles may change over time. Describe any plans for use of homeowner associations and their areas of responsibility in monitoring, and mitigation, if any. Discuss how the undertakings, agreements, or representations of the applicant will be binding upon successor owners or developers should the project site be sold or conveyed to others.
11. Describe, and show on a site map, any planned commercial land uses within the project (convenience store, food service, gas station, etc.), if any.
12. Stormwater management plans (including plans related to quantity and quality issues).
13. Describe proposed open spaces, buffers, and recreational areas.
14. Identify the site's position relative to adjacent roadways, adjacent land uses, and significant landmark features. Significant landmark features include, but are not limited to historic road markers, stone walls, historic buildings, and natural features such as Stissing Mountain.
15. Types of construction, including:

- a. Type of various building construction, parking provisions, basement, garage, storage.
 - b. Fuel and energy sources to be used.
 - c. Architectural style, sizes, and special features.
16. Landscaping plan for Phase 1 and typical landscape treatments for subsequent phases, including using landscaping for screening and buffering to minimize visual impacts, noise transmission, and protection of natural features such as streams, wetlands, and wildlife habitats. Provide a copy of any proposed Home Owners Association covenants and restrictions related to landscaping.
17. Proposed lighting, including images or typical styles and proposed fixtures.
18. Proposed signage. Any proposed signage identifying the site should be depicted in graphic form, and its size, materials, colors, etc. should be described.
19. Typical streetscape rendering.
20. Purpose, Need and Public Benefit. The purpose and objectives of the proposed action will be described from a regional, local, neighborhood and site perspective. Also, the public need for and/or public benefits from implementation of the proposed action are to be identified and described for both Milan and Pine Plains. For needs and benefits not supported by either approved and proposed community's comprehensive plans, justification with sources should be provided.

Project Phasing

A summary of the anticipated proposed project phasing schedule and details on activities to be included in each phase will be included.

Needed Approvals

An identification and description of the various approvals and permits (and associated requirements and compliance thereto) needed to implement the proposed action including Federal, State, regional, and local (Town of Pine Plains and Town of Milan) will be enumerated in table format. Include a description of the status of each application.

POTENTIAL IMPACT ISSUE CHAPTERS

Chapters 3 through 12 of the DEIS will evaluate the natural and human resource impact issues identified herein. These chapters reflect issues identified from the Positive Declaration and the public scoping process.

Land based resources and impacts resulting from implementation of the proposed action are to be presented in map and graphic format, as well as evaluated in the DEIS text. The format or organization of each of these chapters will include the following subchapters and section headings:

- < Existing Conditions and Environmental Setting
- < Potential Impacts
- < Mitigation Measures

For example, each *Potential Impact Issue Chapter* will be organized and divided into subchapters (subsections) that include an initial description of the *Existing Conditions and Environmental Setting* of the particular impact issue, followed by a quantification and evaluation of *Potential Impacts*, and ending with a description of needed and proposed *Mitigation Measures*. Each impact issue Chapter and Subchapter will identify mitigation measures.

Existing Conditions and Environmental Setting

Each *Potential Impact Issue Chapter* of the DEIS will include an assessment of the existing environmental setting of the subject property pertaining to the area of concern and the surrounding environment of influence (the geographic area impacted due to implementation of the proposed action).

Potential Impacts

Each *Potential Impact Issue Chapter* of the DEIS will analyze and evaluate potential impacts associated with implementation of the proposed Phase 1 and subsequent phases upon the existing setting of the specific area of concern and upon the surrounding area of influence. The evaluation of potential impacts will identify the magnitude of impacts in terms of short and long term effects and cumulative impacts. Each impact chapter will also

- a) Provide a comparison evaluation of impacts based on a scenario where all proposed units are primary homes and a scenario where the project will be oriented toward vacation and/or pre-retirement second homes.
- b) Define the area of impact through written description and maps. This section of each impact chapter should identify and describe any off-site areas that may be affected by the proposed project (including but not limited to area wide aquifers, downstream surface waters, viewsheds, noise resources, air quality, wildlife and biodiversity resources, or area intersections). The extent of off-site areas studied (i.e. radius from the site) should be defined for each issue so that a determination can be made as to whether: 1) the area of impact or influence is adequately defined and acceptable, 2) potential impacts can be mitigated to the greatest extent practicable; 3) there are unavoidable adverse impacts that cannot be mitigated; or 4) the extent of the impact can be identified as inconsequential.

Mitigation Measures

Each *Potential Impact Issue Chapter* of the DEIS will identify and describe the proposed and needed mitigation measures, which are to be designed and provided in order to avoid, lessen, offset or reduce potential adverse environmental impacts. This section of each chapter will

identify and discuss the measures that can be used by the towns of Milan and Pine Plains to enforce the proposed mitigation measures through the life of the construction phase as well as continuing compliance with operational procedures. In addition to specific mitigation measures, this chapter will discuss use of inspections, performance bonds, use of a designated environmental monitor, and other measures.

Chapter 3 Land Use and Zoning

Chapter 3 of the DEIS will evaluate the existing conditions and anticipated impacts related to the proposed action's compatibility with the Town's existing and proposed comprehensive plans, character of the community and development trends in the area. It will describe surrounding land uses, community resources, open spaces and recreational opportunities.

The DEIS will evaluate the relationship of the proposed action to existing land use laws applicable to the subject property and its surrounding environment and comprehensive plans in both towns, including zoning in the Town of Milan

LAND USE

1. Describe existing and proposed land uses on the subject property and on properties within one mile of the project boundary. Include a description of any restrictions, easements or other covenants placed on this property over the years and/or those that may be planned in this proposed project.
2. Describe surrounding land uses within one mile of the project boundary including residential, agriculture, open space, recreation, nature preserves, and the regional and local road system, especially detailing those uses located along Route 199, Ferris/Woodward Road, Sherwood Road, Hicks Hill Road, and the Taconic State Parkway. Evaluate the compatibility of the proposed project to surrounding land uses.
3. Population density of the proposed action at buildout should be compared with that of the Towns of Milan and Pine Plains and the estimated density in the hamlet of Pine Plains, using 2000 Census data.
4. Describe the relationship and evaluate the compatibility of this project with local, county, regional, and State land use studies and plans including the Town of Milan Master Plan, the draft Town of Pine Plains Updated Comprehensive Plan, Greenway Plan, Dutchess County's Master Plan, Direction, the Smart Growth Housing Task Force Report, and conformance with other existing plans. The discussion of the Milan Master Plan and the draft Pine Plains Updated Comprehensive Plan should include an evaluation of the project's relationship to each of the community values and land use goals.
5. Describe how the project complies with local land use regulations. Describe areas of non-compliance. Discuss how the project incorporates applicable requirements of both Town's including individual subdivision lot layout, driveway conformance, road standards, zoning, density requirements, and site plan standards.

In Milan, specifically discuss:

- a. The Town of Milan's zoning of the property.

- b. Impacts associated with the proposed non-conforming development within the Town of Milan should include a discussion of the purpose of the A5A Zoning District, the mandatory cluster requirements of the Town's Zoning Law, the need to subdivide the golf course to ensure the proposal meets the requirement that only one permitted principal use is allowed on each lot, compliance with the design guidelines, and compliance with the Town's Land Subdivision Regulations, including but not limited to the requirements for cluster development.
- c. Population increases in the Town of Milan resulting from the proposed action compared with population increases that would occur if the subject property were developed in conformance with the Milan Zoning Law.
6. Compare the character and density of the proposed "Village planned as a vernacular Hudson Valley styled farm center" to the character and density of existing villages in Northern Dutchess County and to Hudson Valley farm centers.
 7. Describe potential impacts associated with use of the proposed conservation subdivision on existing neighborhood character. This description will also include methods to provide for visual privacy in the proposed clustered areas.
 8. Describe mitigation measures including, but not limited to methods such as subdivision configuration and designs (such as conservation subdivisions or clustering¹), use of buffers and screening, building design changes to reduce impacts on the surrounding community. Mitigation measures should consider cumulative impacts as well.

Chapter 4 Agricultural Resources

Chapter 4 of the DEIS will evaluate the existing agricultural conditions and anticipated impacts of the proposed action on agricultural resources on the project site and adjacent areas. These analyses will include agricultural lands within Milan and Pine Plains as well as other locations included in the defined area of potential impact. The area of potential impact will be specifically defined. The Lead Agency will receive, review and accept an interim scope of work for these studies defining this impact area.

1. Identify and describe the current farming operations on the project site, on lands adjacent to the project site, and generally, to the extent information is available from farm organizations and agencies, those within the Agricultural District 20 and 21. Specifically describe those lands within 500 feet of the project site's boundary included in Agricultural District 20 and 21.

¹ A conservation subdivision is defined as a subdivision layout that preserves at least 50% of open space on the parcel. It allows for a similar overall density of development on a piece of land as a conventional subdivision, but places the buildings on lots in one area, in specific areas, or on smaller lots so as to preserve important environmental and cultural features on the site. The remaining undeveloped portion of the property is dedicated to permanent open space. It could result in clustered homes, but doesn't necessarily require that. A conservation subdivision places the most emphasis on preserving critical environmental and cultural resources (such as important views) and de-emphasizes lot size. A clustered subdivision also allows for a similar overall density of development and preserves open space on the parcel but requires homes to be placed on smaller lots in a cluster. **See also Greenway Connections Guide A1.**

2. Analyze soil potential for agricultural use and identify any soils classified as prime farmland and as statewide important as defined by the Dutchess County Soils Survey within the project site.
3. Identify impacts associated with the proposed action to existing agriculture in the towns of Pine Plains and Milan. The evaluation should include, but not be limited to impacts related to effects of golf course pesticide management on beneficial insect populations (especially bees) that area farm operations depend on, limiting access to existing farm fields, ability for continued transportation of farm machinery along local roads, pollution of surface or ground water supplies used by farm animals, right to farm issues (noise, odor and use of acceptable agricultural practices), and changes to property assessments on agricultural lands included in the area of impact resulting from this project.
4. Discuss the relationship of the proposed action to the existing Agricultural District and evaluate impacts to continuing agriculture in the district.
5. Prepare an Agricultural Data Statement according to Article 25 AA, 305-a of the Agriculture and Markets Law.
6. Evaluate the project's impacts on the viability of potential new agricultural operations feasible in the Towns of Pine Plains and Milan.
7. Describe the relationship and evaluate the compatibility of this project with the Dutchess County Agriculture and Farmland Protection Plan.
8. Describe mitigation measures including, but not limited to use of buffers, easements, stormwater control and other pollution prevention measures, transfer of development rights programs, and implementing a "no net loss of farmland" policy, and avoidance of development of prime agricultural soils and soils of statewide importance. Mitigation measures should consider cumulative impacts as well.

Chapter 5 Open Space

Chapter 5 will evaluate the site's contribution to open space and the potential impact thereon. These analyses will include agricultural lands within Milan and Pine Plains as well as other locations included in the defined area of potential impact. The area of potential impact will be specifically defined. The Lead Agency will receive, review and accept an interim scope of work for these studies defining this impact area.

1. Discuss the open space plan for the proposed development.
2. Discuss how proposed open space areas are to be protected and maintained. If restrictions such as deed restrictions, conservation easements or other prohibitions on future development are proposed, discuss what legal mechanisms will be put into place to ensure perpetual preservation of open space.
3. Discuss the potential for connections of on-site open space to off-site open spaces and how this could be implemented and maintained.

Chapter 6 Cultural, Recreational, Historical and Archaeological Resources

Chapter 6 will evaluate the site's potential for cultural, recreational, historical and archeological resources, and the potential impact thereon.

1. Conduct a site inspection to identify resources that may have cultural and historical significance on the subject site. Include as recommended by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) in a letter dated April 18, 2003, an inventory of all structures over 50 years old within one-half mile adjacent to the project area. The OPRHP response dated August 8, 2003 identified an old school house (located on NYS Route 199) and several structures on the Hedge Farm (located on NYS Route 199) and Hicks Hill Road Farm (located on Hicks Hill Road) as structures that meet the criteria for listing on the State and National Register of Historic Places. Identify any other features such as stone walls, cemeteries, etc. that adds to the cultural or historical significance of the site and that might be impacted by the proposed development.
2. Describe the relationship and evaluate the compatibility of this project with the Taconic State Scenic Byway Corridor Management Plan.
3. Discuss the projects impact on the status of the Taconic State Parkway eligibility for listing on the State/National Registers of Historic Places and on the recent approval for nomination by the State Board for Historic Preservation. Discuss how the project impacts on the cultural, tourism, and recreational quality of the Taconic Parkway.
4. Evaluate the potential for archaeological and cultural resources on the site. The methodology for assessing cultural resources will follow the procedures outlined in the Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State (New York Archaeological Council, 1994). A professional archaeologist, qualified according to the standards of the New York State Archaeological Council and the National Park Service (36 CFR 61 and 36 CFR 800 Section 14.09) will conduct these studies. Prepare a Phase 1A investigation for cultural and archaeological resources and higher levels of study if warranted by results of the 1A study. The Phase 1A investigation will include review of historic maps and literature, and research with local historical society(s), review of OPRHP and NYS Museum archaeological site file inventories and lists of sites registered and nominated for inclusion in the State and/or National Register of Historic Places, on-site field reconnaissance of the project site, and assessment of areas of archaeological sensitivity.
5. Discuss impacts of the project to identified historic or archaeological resources, including removal of buildings.
6. Describe recreational issues. This discussion will include the relationship and potential impact upon the adjacent Lafayette and Roeliff Jansen Kill State Multiple Use Areas, the nearby Stissing Mountain Multiple Use Area, on-site trails and trail connections. Discuss potential impacts related to use of firearms within the SMUA's and discuss potential impacts on fishing and hunting opportunities. Describe the current recreational and educational role the existing golf course site plays in the region and discuss the potential impacts related to loss of this recreational amenity. Specifically discuss the impact of removal of the golf course as a

facility used by the Pine Plains Central School District's golf program. Address the following questions related to recreation:

- a. Will there be additional recreational areas in addition to the golf course?
 - b. If there are to be walking, equestrian and biking trails, will they be public and how will they be maintained?
 - c. Will there be gates or other pedestrian control features?
 - d. How will the proposed open space benefit the general public?
7. Discuss potential impacts on trout fishing in affected streams, including the Roeliff Jansen.
8. Discuss any increased demand for recreational facilities elsewhere in the towns expected to be generated by the proposed residential development. Discuss any potential impacts on Wilcox Park, the Town of Pine Plains Beach and the Town of Milan Recreation Park.
9. Describe mitigation measures including, but not limited to reuse of existing buildings, protection of archaeological or other locally significant resources such as stone walls, allowing public and school use of golf courses, and creation of access to and connections between the project site, hiking trails and the multiple use areas. For recreational mitigation, describe methods including, but not limited to use of conservation easements to ensure preservation of open space, and establishment of new trails and linkages.

Chapter 7 Visual Resources and Community Character

Chapter 7 will provide a visual resource identification and impact assessment through the use of narrative text, photographs, GIS viewshed analyses, photosimulations and landscape architectural drawings. This chapter will address both viewshed and character issues. Visual resource assessment and mitigation will follow guidelines established by the NYS DEC Policy on Assessing and Mitigating Visual Impacts (DEC Policy System, dated 7/31/00). The analysis will address existing site conditions and natural features contributing to the visual quality of the site and its surrounding environment; the visual character of the larger neighborhood area; and the visual relationship between the project site and the surrounding area. Chapter 6 will also evaluate the changes to and impact on existing visual and character and quality as a result of the proposed project.

1. The existing visual character will be evaluated from within the site as well as from other locations looking toward the site. Visual resources will be fully described in the narrative and supplemented with graphic illustrations. Include one or more viewshed maps. Through use of a GIS, an area of visual influence (called a viewshed) will be defined and described, detailing locations that can see, and be seen from the project site. The Applicant will provide an inventory of aesthetic resources of local and statewide significance and concern in accordance with DEC protocol. The analysis will specifically identify locations in the surrounding road network and hill areas that are part of the viewshed. Visual analysis will include:
 - < Identification and mapping of viewsheds, high points, visibility range, ridgelines, and site features which contribute to the site's visual and aesthetic image and town character. Include the view from, but not limited to, Route 199 when approaching Milan from Pine

Plains and the view from Ferris Road west of the Taconic State Parkway looking east to the project site.

< Significant views from and to the site and ridgelines, including those from Stissing Mountain.

2. Provide analysis through use of drawings, photographs, digital imagery, sight line diagrams, cross sections and photosimulations, the visual character of the site after development as viewed from those roads and locations identified as being within the viewshed of the project.
3. Provide analysis through drawings, photographs, digital imagery, sight line diagrams, cross sections and photosimulations, the visual character of the site after development as viewed from within the site. Discuss anticipated changes to existing visual resources.
4. Discuss, as recommended by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) in a letter dated April 18, 2003, potential visual impacts to the Taconic Parkway's scenic quality.
5. Discuss potential visual impacts on Stissing Mountain. Illustrate the viewshed looking to the project site from Stissing Mountain and provide a photosimulation of the site viewed from the fire lookout tower on Stissing Mountain.
6. Discuss and show consistency between this project and its expected visual outcome with the **town rural** character goals established in local town and regional plans.
7. Visual analysis shall evaluate site infrastructure components, including but not limited to water plant, wastewater plant, water storage tower, and fencing or landscaping of such facilities.
8. Describe the changes in visual character of the site and surrounding areas expected to occur. The visual impact assessment will include:
 - <Potential impacts to high points, ridgelines, trees and vegetation resources.
 - <Potential impacts associated with road construction on sloping terrain.
 - <Potential for increased nighttime light emissions (See also Chapter 13).
9. Potential impacts and changes to community character will be evaluated for Milan, Pine Plains, and other locations included in the area of visual impact. Discuss the existing ~~rural~~ character of the two towns and probable changes to that character as a result of full buildout, assuming all dwellings are primary residences. The community character changes should be described in terms of: 1) existing residential and commercial development patterns; 2) shopping and service opportunities; 3) availability of community resources and services; 4) population distribution by age, education and so on; 5) household size, income, and so on; 6) employment.
 - a. Provide a scaled portrayal of elevation, massing and architectural character ~~elevations~~ of the proposed Home Owners Club Complex, the Clubhouse, the Riding Academy, and the Maintenance Facility along with a description of materials, color and design elements, including color samples.
 - b. Typical elevations and layouts of the conservation clustered subdivisions should be provided, and the same should be provided for the "Village" to illustrate how it is "planned as a vernacular Hudson Valley styled farm center."

- c. Visual impacts of the Home Owners Club Complex and the Maintenance Facility on the Taconic State Parkway should be discussed.
 - d. Discuss potential impacts to the existing relatively undeveloped character of the site.
 - e. Discuss potential impacts to affordable housing opportunities. Evaluate methods to achieve a jobs/housing balance and provide affordable housing, an estimation of construction period employment as well as possible permanent employment and relate that to provision of or need for affordable housing resulting from the project, estimate household incomes of employees together with an evaluation of the home prices or rents they can afford.
10. Describe mitigation measures including, but not limited to those measures recommended in the NYS DEC Policy on Assessment and Mitigation of Visual Impacts, maintenance of open space in key viewshed locations, use of clearing limit lines, landscaping, use of vegetative screening and natural materials to minimize visually incompatible effects, careful placement of buildings below ridgelines, use of conservation subdivisions where lower housing density is used for locations on the project site within the viewshed of Route 199, Taconic Parkway and Stissing Mountain, use of longer front setbacks of homes in the viewshed, no rear facing buildings on roads in these viewsheds, and incorporation of lighting standards endorsed by the Illuminating Engineering Society of North America (IESNA) and the New England Light Pollution Advisory Group. Also use Greenway Guides as appropriate (especially Guide A1: Fitting into the Landscape) and other site and building design and layout techniques to reduce visual impacts. Fencing of the Maintenance Facility should be addressed. Include mitigation measures to provide for needed affordable housing. Mitigation measures should consider cumulative impacts as well.

Chapter 8 Ecological Communities, Flora and Fauna

Chapter 8 will describe the existing ecological conditions and identify ecological communities, flora, wildlife present on the site. In addition, this chapter will evaluate the impacts of the project both on site and to nearby rare species, significant natural communities and other significant habitats that have been identified by the New York State Natural Heritage Program and through on-site assessment. A Site Natural Resource Survey and Assessment will be conducted by a qualified field biologist and will identify and evaluate the characteristics and functions of the sites' terrestrial and aquatic communities including wetlands and an inventory of the flora and fauna of all site ecological communities. Field surveys shall be conducted in the optimum season for each ecological community. Evaluation of potential impacts of proposed short-term and long-term development on the resources identified above will be provided with regard to potential disturbance, loss or removal and reduction of function of existing plants, animals and site ecological communities.

1. Identify woody and non-woody plant species, including trees, shrubs and herbaceous plants and characterize their approximate size, density, distribution and cover within each ecological community on the site. Prepare a map identifying and showing the extent of site vegetation types (e.g. forests, shrub lands and meadows). Place particular emphasis on unique, rare threatened, endangered or protected species.

2. Inventory and describe wildlife on site, including an assessment of habitat types and any critical habitats for rare species. This inventory will include resident and migratory wildlife, including reptiles, amphibians, mammals and birds. Identify, map and describe existing aquatic habitats on the site and characterize them as to their general capacity to support fish life. Field surveys shall be conducted in the optimum season for resident and migratory species by a qualified habitat and field biology expert. This will include identification and evaluation of unusual, locally rare, or exemplary plant and animal species or natural communities. Identify all riparian areas, wildlife movement patterns, potential wildlife travel corridors, or other potentially critical connections to open spaces beyond the project site accessible to site wildlife. Identify the role this site holds for raptors (hawks, owls, eagles) populations. Prepare a map identifying and showing the extent of critical wildlife habitats identified through this analysis. Discuss essential habitat requirements.
 - a. An assessment of the potential impact of project development on raptor habitats on and in the vicinity of the site and nearby areas, including potential changes in existing raptor population levels as a result of project development, will be provided. The raptor assessment will include a description of the essential habitat requirements of each raptor species, the extent of these habitat features on and near the site, and an assessment of the potential impacts of the project on the local raptor population. The project sponsor will utilize on-site and available data on raptor populations and will consult with the Hudson Valley Raptor Center in conducting this assessment.
3. Identify and discuss all NYS Natural Heritage Program listed Significant Habitats occurring on or near the site (Stissing and Thompson Ponds) and their Statewide rarity designation as described in *Ecological Communities of New York State (Reschke 1990)*. This will include all NYS DEC listed plant species (Endangered, Threatened, Rare, and Exploitably Vulnerable) and all animal species listed by the NYS DEC as Endangered, Threatened, Special Concern. Unique or locally rare plants and animals will also be identified and described. If it is determined that any endangered or threatened species or species of special concern exist on the site or the surrounding area, the essential habitat requirements and the potential impacts of the proposed project on the species will be discussed. If any such species are identified, use existing records to identify known population levels and provide an interim report to be used to determine if further population assessment work is warranted.
4. Related to #3, above, evaluate the potential for impact of this project on Stissing and Thompson Ponds. This includes but is not limited to an evaluation of the potential for changes to water quality or quantity, pollutant levels, and habitat/vegetation changes to these water bodies.
5. Evaluate the potential impact on wildlife, plants, and habitat functioning resulting from the proposed project, including the expansion of a golf course environment, including use of fertilizers, pesticides and other potential pollutants. Specifically address issues related to habitat and forest fragmentation (removal of forested vegetation), loss of potential wildlife travel corridors, and any potential impacts related to displacement of wildlife from the subject site. Discuss the potential for impacts on biodiversity, and on dispersal and change of wildlife and plant species. Discuss potential impacts on aquatic communities that may result from removal of riparian vegetation, stream crossings by equestrian trails, and potential impacts of horse manure in and adjacent to streams.
6. Evaluate the potential for increased numbers of Canada geese on and near the golf course.

7. Evaluate potential impacts to aquatic systems (wetlands, ponds and streams) and those that are ecologically or hydrologically connected off site. Include an evaluation of any potential impacts of the project on the Roeliff Jansen Kill resulting from the proposed site development.
8. Discuss the potential for increased incidences of Lyme disease on and near the project that may occur as a result of any proposed alterations of site ecological communities.
9. Discuss the potential for an increase in deer population on and in the vicinity of the site as a result of this project. An assessment of potential changes in deer-vehicle incidents; potential changes in the structure and floristic composition of site ecological communities and the impact of a potential change in the size of the deer population on site flora and fauna as a result of project construction will be discussed.
9. Describe mitigation measures including, but not limited to preservation of identified critical habitats and potential wildlife travel corridors in the form of permanent open space designation, use of integrated pest management for golf course, use of plantings suitable for local wildlife, buffering streams and wetlands appropriate to the site ecology, constructing the golf course to accommodate or enhance its use by area wildlife, establishing enhancements for wildlife such as brush piles, nesting boxes, water plantings, etc., and measures to control Canada geese.

Chapter 9 Surface and Subsurface Water Resources

Chapter 9 will provide assessment of existing characteristics and functions of groundwater, wetlands and surface water resources. Potential impacts on groundwater, floodplain, wetlands and surface water resources located in the proximity of or potentially affected by the proposed action will be evaluated. This chapter will also examine the dam on Lake Carvel.

The following reference resources will be consulted where appropriate:

- < NYSDEC Manual: Reducing the Impacts of Stormwater Runoff from New Development; April 1992.
- < NYSDEC Technical Operations and Guidance Series document (5.1.8): Stormwater Management Guidelines for New Development.
- < New York Guidelines for Urban Erosion and Sediment Control.
- < Dutchess County Best Management Practices.
- < Compliance with water quality mandates and guidelines promulgated by NYSDEC pursuant to EPA Phase II Stormwater Regulations.

SURFACE WATERS

Surface Waters conditions will be summarized as follows:

1. Location and description of existing surface water bodies, streams, drainage patterns and wetland areas of the site and within the watershed area pertaining to the site. Include pipe and drainage pipe and drainage networks to the extent information is available. Describe Lake Carvel and its dam, including the lake volume and dam height, and the NYSDEC risk category for the dam. Included what is known about the dam construction.

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2. Delineate, survey, and map existing NYSDEC, and Federally regulated wetlands, along with appropriate buffer setbacks. Each wetland shall be identified as to its location, type, size, vegetative composition, hydrology, and area with buffer. Include classification of site wetlands and watercourses, as applicable, including function and habitat assessment. Discuss NYS DEC and ACOE requirements. Prior to submission of the DEIS to the Lead Agency, the applicant will submit a detailed project site plan, a map overlay showing all identified wetlands, and the wetland assessments (described in this paragraph) at which time the Lead Agency will evaluate and determine which State and Federal wetland delineations shall be required.
 3. Describe and discuss potential impacts on the physical and chemical water quality (including but not limited to clarity, temperature, pH, dissolved oxygen, nitrates, orthophosphates, and dissolved solids) and biological conditions (aquatic fauna, vascular plants, fish, amphibians, reptiles and aquatic macro-invertebrates) of site surface waters and streams and hydrogeologically connected water bodies, utilizing existing data sources and from a water quality testing program from which a testing protocol will be submitted to the Lead Agency for approval prior to testing. Discuss potential impacts on trout health.
 4. Identify and describe regional watershed and on-site drainage patterns, drainage areas, paths, watersheds, drainage structures and discharge points. The drainage analysis shall be made for each drainage area using TR-20 or TR-55 per Town Planning Board and Town Engineer requirements.
 5. Identify 100-year floodplain resources including BFE computations for unnumbered A zones using the NYS DEC regression equations to determine the watershed runoff and HEC-RAS or similar method to determine the base flood elevations. Also examine the Lake Carvel dam safety, including any NYSDEC dam safety inspection reports and recommendations.
 6. Describe potential stormwater runoff quality impacts as follows:
 - a. Increased pollutant runoff from roads, parking areas, and other impervious surfaces.
 - b. Increase pollutant runoff from herbicide, pesticide, and fertilizer usage related to the golf course and the proposed development. Including identification of fertilizers and pesticides to be used on the course.
 - c. Sedimentation of water bodies resulting from construction and operation of the project.
 - d. Discuss impact on water quality of the Hamm Brook, Lake Carvel, Roeliff Jansen Kill tributaries, and NYSDEC Wetlands.
 - e. Description of any permits required from state agencies.
 - f. Changes in drainage patterns.
 - g. Potential impacts to onsite and offsite floodplain, floodways, and low-lying areas.
 - h. Effects of new SPDES rules on drainage mitigation layouts.
 - i. Discuss potential impacts to wetlands including effected area of direct and indirect disturbances as regulated by the NYSDEC and Army Corps of Engineers, short term and long-term effects on wetlands functions. Include a qualitative analysis of construction related impacts and description of any permits required.

- j. Identify the classification of all surface water bodies that will receive stormwater runoff and discuss the potential effects on said water bodies and downstream users of surface water affected by the project.
7. Discuss the potential for a dam failure at Lake Carvel and how the proposed development will be designed to minimize the risk of dam failure. Include a discussion of who now owns and who will own the dam, and who is now responsible for and who will be responsible for maintenance of the dam.
8. Prepare a conceptual stormwater management report.
 - a. Pre- and post-development stormwater characteristics for each drainage basin impacts and mitigation measures. The volume of off-site and site contributed stormwater runoff and stormwater routed through the site, and peak discharge rates for the two (2), ten (10), twenty-five (25), and 100 year, 24 hour Type III storm events (SCS model).
 - b. Depict proposed structures such as drainage swales, stormwater management basins, and retention basins for irrigation purposes will be shown using symbols.
 - c. The conceptual plans will not identify the locations of the underground stormwater conveyance system (i.e. catch basins, storm water manholes, culverts, irrigation line layout) and grading of these structures and specification of invert and outlet elevations will not be included. The stormwater management plan shall include appropriate mitigation measures that will result in no net increase in peak runoff flow rates.
 - d. Discuss maintenance of the stormwater control system including type, frequency, and responsibility of parties for short and long term.
9. Prepare conceptual erosion and sediment control plans depicting control structures to be implemented including limits of disturbance and areas to be cleared, graded, and preserved. Grading of structures (i.e. sediment trap) and specification of invert and outlet elevations will not be included.
10. A draft plan for long-term environmental monitoring in identified locations surrounding the proposed golf facilities will be prepared. The environmental monitoring program will include pre-construction baseline testing of soils, surface water and groundwater and will include semi-annual (spring and fall) testing of soil, surface water, and groundwater to monitor the use of chemicals, herbicides and pesticides proposed for use at the golf facility.
11. Discuss mitigation measures including, but not limited to, erosion and sedimentation control measures, stormwater management plans, stormwater collection system including temporary and permanent detention or retention facilities, changes in construction sequence schematics, fertilizer and chemical application to golf course, and wetland avoidance as impact minimization.
12. Create a wetland mitigation plan discussing replacement and enhancement of wetlands for any loss of state and federal wetland areas, and/or functions or intrusion into wetland buffer areas. This plan will include
 - a. Size and location of proposed on-site treatments, if applicable.
 - b. Effectiveness.
 - c. Capacity and capabilities.

- d. Proposed maintenance.
- e. Proposed method of marking wetlands and buffers and protecting them once homes are sold.
- f. SPDES permit for stormwater runoff quality and quantity.

SUBSURFACE WATER

A complete hydrogeologic report shall be prepared.

1. Describe existing conditions including the presence, extent, and present use and rate of withdrawal of groundwater resources, including seasonal variations and fluctuations.
2. Show locations and provide description of groundwater resources, including aquifers and recharge areas including
 - a. Depth of water table.
 - b. Seasonal variations.
 - c. Water quality and quantity. Include estimate of available supply capacity of the aquifer.
 - d. Location, type and amount of current water withdrawal from aquifer. Including all existing wells within 1 mile of the project site. The hydrological study should assess whether all the wells are drawing from the same aquifer that would serve the site water (and irrigation) system. Data regarding existing off-site wells shall be based on existing data sources as well as actual interviews and testing and monitoring. Formal proof of notification regarding the attempt to gain access and interviews with property owners shall be provided to the lead agency.
3. Analyze the project's water supply including
 - a. Identify type, depth and yield based on well pump yield tests, water quality test results and new testing per NYSDEC guidelines and surface water rules.
 - b. Permits required for wells, including radius of ownership and control.
 - c. Analytical testing as required by 10NYCRR Part 5-1 for community water systems including volatile organic chemicals, synthetic organic chemicals, inorganic contaminants, and radioactive contaminants.
4. Analyze the project's water demand including
 - a. Existing needs of the site. Proposed needs of the site including domestic, commercial, fire protection and irrigation needs. Define if the irrigation water system will be part of or separate from the domestic/potable water supply.
 - b. Identify adjacent areas of development and status within one-mile from the project boundary that may also impact aquifer and water quantity.
5. Identify potential impacts on groundwater recharge and to groundwater quality and quantity. Conduct the following tests and discuss results:

- a. Anticipated needs for domestic, commercial, fire protection, and irrigation use, both average and peak.
 - b. 72 hour pump tests on proposed groundwater supply source. Include off-site well monitoring program to determine potential water level interference on neighboring wells. Determine region of impact and monitor wells within this region where accessible and provide the Lead Agency with an interim report for their review and approval indicating the region of impact and wells proposed to be monitored. Include monitoring and testing of surface waters to identify if proposed production wells are under the influence of surface waters. Analysis of supply well(s) drawdown, and cone of depression and influence on neighboring wells in normal and drought conditions (1, 5, 10, and 20 year events). The proposed well monitoring program shall be approved by the Town of Pine Plains prior to any testing. All pump tests shall be conducted in accordance with NYSDEC Recommended Pump Test Procedures for Water Supply Applications.
 - c. Aquifer impact and surface water drawdown/infiltration. Compute water budget, comparing aquifer recharge data with the projected withdrawals from the aquifer.
 - d. Discuss existing and proposed land uses within a 200 feet radius of proposed wellheads, and potential surface contaminants.
 - e. Loss of groundwater recharge areas and impacts on streams, and wetlands and well drawdown.
 - f. Potential impact of the storage of petroleum products over 1,000 gallons or chemical products shall be discussed.
6. Discuss development design aspects intended to maximize groundwater recharge, water conservation methods, and potential stormwater infiltration practices and control measures, including modifications to system to minimize any off-site impacts.

Chapter 10 Geology, Soils, and Topography

Surface and subsurface rock conditions and overlaying soils on the site will be evaluated. Constraints imposed by topographic conditions and topographic grades (steep slopes), surficial bedrock and site soils will be evaluated, including their limitations and suitability for construction of roadways, structures, subsurface sewage treatment facilities, and stormwater control systems.

GEOLOGY

Geological conditions will be summarized as follows:

1. Consolidated materials (underlying bedrock). The DEIS will identify and evaluate the underlying bedrock formation type(s), including their depth, composition, and thickness. The following references will be used to describe and discuss site geology: *Fisher, D.W., Y.W. Isachsen and L. Rickard. 1971. Geologic Map of New York 1970, New York State*

Museum and Science Service, Albany, New York and other site relevant geological references.

2. Unconsolidated materials (subsurface material positioned between surface soils and bedrock). The DEIS will identify and evaluate geologic origin and formation, compositions thickness and suitability /limitations to construction. The following references will be used to describe and discuss site unconsolidated materials: *Cadwell, D.H. (Ed). 1989. Surficial Geologic Map of New York, New York State Museum and Science Service. Albany, New York.* and other site relevant geological references.
3. Discuss project activities in areas with slopes in excess of 15% and related pertinent design and construction methods considered if these areas are proposed to be affected.
4. Discuss mitigation measures including, but not limited to avoiding and/or minimizing impacts to bedrock, ledge and rock outcropping. In the event that blasting is envisioned a rock blasting plan and mitigation measures to control rock blasting will be provided.

SOILS

Soils will be mapped in accordance with the *Soil and Water Conservation District 1994 Soil Survey of Dutchess County, New York*. Evaluation of site soils will include the following:

1. Identify and evaluate hydric and non-hydric soils and soils containing potential hydric inclusions that occur on-site and are contiguous with similar off-site soils.
2. Identify and evaluate Prime Farmland, Prime Farmland Where Drained and Statewide Important Farmland soils that occur on-site or within 500 feet of the project boundary.
3. Discuss history of land, including site modifications and assess the need for testing for herbicides, pesticides, and heavy metal residuals. Include soil testing in accordance with NYSDOH and DCDOH guidelines. Discuss mitigation measures and present a soils remediation plan for areas containing contaminated soils.
4. Analyze the period and extent of flooding or saturation to the surface of on-site and adjacent area soils.
5. Characterize soils including, but not limited to soil texture, drainage characteristics, soil bearing capacity, depth to bedrock, suitability for various aspects of development and depth to water table.
6. Discuss potential erosion impacts.
7. Discuss the potential impact of proposed types and methods of construction on soils, and mitigation measures proposed to minimize soil erosion and to contain sediments.
8. Identify construction methods and best management practices that will be employed, including erosion and sedimentation control measures.

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9. General outline for preparation of a pollution prevention plan, construction sequence plans, concept and principles for control of erosion and sedimentation, temporary sediment basins and other appropriate Best Management Practices.
 - a. Follow “New York Guidelines for Urban Erosion and Sediment Control”
 - b. Specifically provide soil erosion plan to protect areas of steep slopes greater than 15%.
 10. If applicable, impacts from development on soils contaminated by past agricultural practices.
 11. Discuss surface water, groundwater and soil monitoring for checking compliance with Integrated Pest Management (IPM). Prepare a risk assessment of proposed fertilizer and pesticide usage and release. The IPM plan shall include cultural, physical, and biological controls in addition to chemical controls. Discuss mitigation measures that will be taken to ensure that chemical compounds applied to the golf course will not be leached to groundwater or discharged to surface waters at concentrations that would exceed background concentration levels. Discuss goals and enforcement, monitoring, and remedial action impact measures. Enforcement shall include notification to the Town of Pine Plains and the Town of Milan of monitoring results.
 12. Discuss a comprehensive monitoring program of soils, groundwater and surface water for pre-construction (baseline), construction and post construction phases. The monitoring program shall include on-site and off-site locations and shall specify the analytical testing that shall take place.
 13. Discuss mitigation areas of proposed blasting and associated mitigation measures for blasting operations.

TOPOGRAPHY

This chapter will describe prominent and/or unique topographic features and assess potential impacts on existing site topography and the project’s relationship to surrounding topography. Methods of construction designed to minimize the impacts on existing topography will be discussed. This section will include the following:

1. Slope data, including chart slopes in following groups (0-15%, 15-25%, and greater than 25%)
2. Areas of proposed disturbance relative to steep slopes (i.e. greater than 15%), erosion potential, and any rock removal.
3. Quantitative estimate of cut and fill requirements, and a description and analysis of impacts if cuts and fills are not balanced.
4. Discuss mitigation measures including the following:
 - a. General outline of grading plan.

- b. Discuss mitigation measures including erosion and sediment control measures, temporary access control, and functions, duties and limitations of inspections by the Town's representative. If applicable, discuss any blasting plans and controls. Other methods to be evaluated include use of topsoil stockpiled during construction for restoration and landscaping, methods to minimize disturbance of non-construction areas, and slopes over 15% and if applicable, mitigation measures for disturbance of contaminated soils.

Chapter 11 Transportation and Traffic

Chapter 11 will include a Traffic Impact Analysis (TIA) that evaluates existing traffic conditions and compares them to conditions that would be anticipated from implementation of the project.

1. The TIA shall consider a matrix of all of the following scenarios, or discuss and identify the single worst-case scenario and analyze and discuss only that proposal. It is expected that an all-primary housing project and the closing of the Taconic State Parkway grade crossing would have the potential for the greatest impacts to the surrounding roadway network.
 - Proposed project, with a mix of seasonal/vacation homes, primary homes and age-restricted housing, and private golf course and equestrian center
 - An alternative, using all primary housing of which some may be age-restricted, and a private golf course and equestrian center
 - Full access at the Ferris Lane / Taconic State Parkway (TSP) intersection
 - Closing off the Ferris Lane crossing of the TSP.

The TIA will compute roadway segment levels of service (LOS), analyze the impacts from the project and propose mitigation for impacts associated with implementation of the project. The TIA will also compute intersection levels of service, analyze the impacts from the project and propose mitigation for impacts associated with implementation of the project. The TIA will also review the roadway LOS with the new intersections from the project included in each affected roadway segment, and discuss the need for any further mitigation.

a. The TIA will examine the roadway segments listed below:

1. The existing conditions will be based on machine traffic counts for the typical weekday 24-hour count and the AM and PM peak hour counts. Similar counts will be made for both Saturday and Sunday. The data shall be specifically gathered for the TIA, or it may be taken from existing records if available.
 - Ferris Lane between Woods Road and the TSP
 - Ferris Lane between the TSP and Lake Carvel
 - Ferris Road between Lake Carvel and NYS Route 199
 - Hicks Hill Road between NYS Route 199 and Cold Spring Road (CR 53)
 - NYS Route 199 between the TSP and NYS Route 82 / CR83A
 - NYS Routes 199/82 between CR83A and CR 70 intersections
 - NYS Route 199 between NYS Route 82 /CR 70 and NYS Route 22
 - NYS Route 82 between Cold Spring Road (CR 53) and NYS Route 199
 - NYS Route 82 between NYS Route 199 and Columbia CR 3 and 8

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- Dutchess CR 50 between NYS Route 199 and Columbia CR 2 / 7.
 - Columbia CR 2 between Dutchess CR 50 and the TSP
 - Dutchess CR 56 between the TSP and CR 51
 - CR 56 between CR 51 and US 9
 - CR 51 between CR 56 and Woods Road
 - CR 51 between Woods Road and Ferris Lane
 - CR 51 between Ferris Lane and NYS 199
 - NYS Route 199 between the TSP and CR 51
 - NYS Route 199 between CR 51 and NYS 308
 - NYS Route 199 between NYS 308 and US 9
 - NYS Route 308 between NYS 199 and US 9
2. The project generated traffic shall be computed for the design year, using information published by the ITE, in combination with any other available data, for the 24-hour and AM and PM peak hour volumes. Using existing and projected travel patterns and based on the development plan, a trip distribution diagram will be prepared.
 3. The pre-development / existing traffic counts will be grown to a “No-Build” volume for the design year, using an annual growth factor of 2% plus any specific known or proposed projects within one mile of the project boundary. Existing pre-development traffic counts shall include data regarding seasonal special event traffic such as the Dutchess County Fair.
 4. The site-generated traffic will be added to the volumes on the roadway network using the assumed arrival and departure distribution.
 5. For each roadway segment listed above, the TIA will tabulate for the AM and PM peak hours the design year “No-Build” and the “Build” traffic volume and compute the increase. Any roadway segment with a 5% or greater increase in peak hour traffic in the design year “Build” condition shall be considered impacted and a full analysis as described below shall be prepared. The other identified roadway segments may be omitted from the TIA.
 6. Each impacted roadway segment shall be described and evaluated, including road surface and condition, number of lanes, posted speed limits, type of roadway, parking, traffic control, condition and site distances of minor town road intersections, and impacts taking into consideration unique traffic generators such as religious facilities. The report will include available information on accidents, future improvements projects, etc. from NYSDOT, Columbia County, Dutchess County and the Towns of Milan and Pine Plains.
 7. The volume to capacity (v/c) ratios and levels of service will be computed using the Highway Capacity Manual (HCM) version 2.4e or more recent, for the peak hour volumes weekday and weekend, for the Existing condition, No-Build condition, and for the Build condition.
 8. Impacts and mitigation will be described.
 9. The TIA will examine the intersections listed below as follows:

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- a. The intersection listed below shall be included in the TIA, except that any intersection on a roadway segment that was determined in (a) (1) above to be not impacted does not have to be analyzed.
- Every new development roadway, driveway (except single family), pedestrian or equestrian or golf cart crossing, or access point
 - All existing development roads within the tract and Ferris Lane/Road
 - CR 56 and CR 51
 - CR 2/7 and CR 50
 - CR 50 and NYS 199
 - Ferris Road and CR 51
 - Ferris Road and Woods Road
 - Ferris Road and TSP southbound
 - Ferris Road and TSP northbound
 - Ferris Road and NYS 199
 - NYS 199 and NYS 308
 - NYS 199 and CR 54
 - NYS 199 and Milan Hollow Road
 - NYS 199 and CR 51
 - NYS 199 and all TSP ramps (north and south)
 - NYS 199 and North and South Roads
 - NYS 199 and Hicks Hill Road
 - NYS 199 and Sherwood Road
 - NYS 199 and Stissing Lake Road (west)
 - NYS 199 and Stissing Lake Road (east)
 - NYS 199 and CR83A / NYS 82
 - NYS 199 and CR 70 /82
 - NYS 199 and NYS 22
 - CR2 and TSP ramps (north and south)
- b. Each intersection shall be described, including road surface and condition, number of lanes, posted speed limits, type of roadway, parking, traffic control, geometry, sight distance, queue length and storage capacity, etc. The report will include available information on accidents, future improvements projects, etc from NYSDOT, Columbia County, Dutchess County and the Towns of Milan and Pine Plains.
- c. The TIA will include detailed data collection at the intersections for typical weekday AM and PM peak hours, and for Saturday and Sunday. The TIA will determine the peak hours, expected to occur on a weekday between 600 AM and 800 AM, and 400 PM and 700 PM; and Saturday between 1100 AM and 200 PM; and Sunday between 700 AM and 1100 AM or between 400 PM and 800 PM.
- d. The pre-development / existing traffic counts will be grown to a “No-Build” volume for the design year, using a annual growth factor of 2% plus any specific known or proposed projects within one mile of the project boundary.

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- e. The project generated traffic shall be computed for the design year, using information published by the ITE, in combination with any other available data, for the ~~24-hour~~ and AM and PM peak hour volumes.
 - f. Using existing and projected travel patterns and based on the development plan, a trip distribution diagram will be prepared.
 - g. The site-generated traffic will be added to the volumes at each intersection using the assumed arrival and departure distribution.
 - h. The volume to capacity (v/c) ratios and levels of service will be computed using the Highway Capacity Manual (HCM) version 2.4e or more recent, for the peak hour volumes weekday and weekend, for the Existing condition, No-Build condition, and for the Build condition.
 - i. Impacts and mitigation will be described.
 - j. The TIA will re-examine the roadway levels of service in conjunction with the proposed project intersections. The need for further mitigation will be discussed based on LOS impacts and an analysis of roadway geometry including sight distance constraints.
2. In addition to the Traffic Impact Analysis described above, this chapter will also include discussion on the following:
- a. Provide a description of existing public transportation availability and usage.
 - b. Evaluate the impact of construction vehicle traffic on local roads, including the ability of the roads to withstand the truck loads, if two-way traffic will be possible, and any potential impact of noise and dust from these vehicles. Include type and size of vehicles, truck routing and access, and estimated daily trips.
 - c. Discuss if the project roads are proposed to be private or public, and who will be responsible for maintenance (including paying for the maintenance) if the roads will be private.
 - d. Discuss compliance of existing and proposed roadways with the present Town of Milan Highway Specifications and the existing and proposed Town of Pine Plains Roadway Specifications. Discuss new roadway design geometry and construction specifications in relation to the Towns' specifications and subdivision standards.
 - e. Discuss lighting along community roads, both existing and proposed roads.
 - f. Discuss the potential for air transportation (helicopter, airplane) associated with the project. Include locations of landing areas if on site and describe mitigation measures.

- g. Discuss the potential for tournaments and mass gathering that would result in large traffic increases. Include appropriate traffic control management mitigation measures for such events.

Chapter 12 Noise and Air Resources

Chapter 12 will provide a general description of existing air quality and noise levels in the areas proximate to the subject property will be provided. The discussion on potential impacts to noise and air resources will also discuss short-term impacts related to construction and on-going activities related to use of the site and facility operating noise. This analysis will follow the DEC Policy DEP-00-1: Assessing and Mitigating Noise Impacts.

1. Existing ambient air quality and compliance of the project and resultant air quality in accordance with the National Ambient Air Quality Standards (NAAQS) shall be discussed.
2. Discuss potential short term and long term impacts due to noise generated by ongoing project construction, blasting, vehicular traffic and the future golf maintenance facility, including hours of operation, days of operation, and types of activities.
3. Conduct screening analysis based on maximum potential carbon monoxide concentrations in accordance with NYSDOT Air Quality Analysis Procedure: Project Environmental Guidelines for identified intersections exceeding 20% increase over existing traffic volumes and operating at a level of service C or lower. Discuss mitigation measures for reducing impact to air quality based on increase traffic volumes.
4. Identify and evaluate potential noise pollutants before, during and after construction.
5. Discuss use of and potential noise impacts of motorized recreational off-road vehicles such as dirt bikes, snowmobiles, and four-wheelers.
6. Evaluate potential use and noise impacts related to helicopters.

Chapter 13 Water, Solid Waste, Sewage and Utility Infrastructure and Lighting

Chapter 13 will evaluate potential impacts regarding wastewater treatment and disposal, water supply facilities, stormwater management, road maintenance, lighting, solid waste, electricity, and other needed utilities. Specifically, the DIES will address the following:

1. Domestic Water Service
 - a. Discuss existing conditions and water system.
 - b. Discuss proposed water service
 - i. Anticipated source, treatment, storage, extents of proposed service area and distribution system
 - ii. Anticipated water usage
 - iii. Discuss the transition from the existing water system to the proposed system.

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- iv. Transportation corporation for new system
 - c. See Chapter 9 for discussion of proposed source impacts including well logs and pumping test reports describing developed sources of potable water supply for the project will be provided along with a site-wide groundwater recharge budget.
 - d. Discuss need for expanding of existing well source if expanding the existing system is feasible or describe new, replacement system.
 - e. Quantify costs of the transportation corporation to identify per household expenditures to fund central water system construction, operation and maintenance.
 - f. Quantify costs to adjoining/nearby neighbors who might be adversely affected by the new well and explain who pays costs to extend water to such affected homes.
 - g. Discuss methods of providing potable water to larger building lots including feasibility of drilling individual water well supplies, potential impacts to neighbors and anticipated yields based on test wells. Include a discussion on the likelihood that DCHD would approve individual systems in a project that provides central services, including if possible, a letter from the DCHD.
 - h. Discuss required permits and approvals.
2. Sewage Disposal
- a. Preparation of wastewater treatment and discharge feasibility report and plan, description of impacts, evaluation of alternatives and mitigation measures where necessary.
 - b. Discuss existing conditions and existing sewage disposal collection and treatment system.
 - c. Discuss proposed sewage service
 - i. Anticipated extents of service area, collection system, level of treatment, plant location, and effluent discharge location
 - ii. Anticipated treatment capacity
 - iii. Expansion of existing systems.
 - iv. Transportation Corporation for new system
 - v. Method of disinfection (chlorine or non-chlorine)
 - vi. Effluent limits based on WAC analysis and/or NYSDEC recommendations.
 - vii. Discuss measures to be taken to prevent untreated sewage from entering surface waters.
 - viii. Discuss potential for odors and mitigation measures to reduce the same.
 - d. See Chapter 9 for discussion of proposed effluent impacts to existing surface waters.
 - e. Discuss need for expanding of existing treatment facility and distribution system, if expanding the existing system.

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- f. Quantify costs of the transportation corporation to identify per household expenditures to fund central sewage system, construction, operation and maintenance.
 - g. Identify a site for the wastewater treatment facility and discharge with respect to water quality, flooding, flora, fauna that represents the least offending discharge point.
 - h. Discuss impact from WWTP outfall on surface water quality, quantity, fish, wildlife, and vegetation at the discharge point and points downstream, including potential impact to recreational users of down stream surface water users.
 - i. Discuss method of sewage disposal on larger building lots, including ability of existing soils to sustain individual subsurface septic systems. Include a discussion on the likelihood that DCHD would approve individual systems in a project that provides central services, including if possible a letter from the DCHD.
 - j. Discuss required permits and approvals
3. Telephone, Electricity, Utilities
 - a. An evaluation of the capacity of existing electrical and communication service transmission facilities in the vicinity will be undertaken, including the following:
 - b. Existing conditions, including description of facilities and current number of users.
 - c. Potential impacts
 - d. Mitigation Measures
4. Solid Waste
 - a. Existing conditions
 - b. Potential impacts
 - i. Compactors and storage relative to surrounding land uses.
 - ii. Capacity of local and regional transfer and refuse facilities.
 - iii. Proposed plans to manage manure from horses on site.
 - c. Mitigation measures. Including screening, buffering, pest management
5. Lighting. This chapter will also discuss the potential of light pollution.
 - a. Identify lighting sources (type, wattage, height, etc.) to be used throughout the project site and discuss levels of light pollution and glare resulting.
 - b. Describe mitigation measures including, but not limited to use of timers, fully shielded light fixtures, low level ground lighting, and light bulbs to reduce glare,

light pollution and to provide more natural type light (as recommended by the New England Light Pollution Advisory Group and in the Greenway Guides).

Chapter 14 Community Services and Fiscal Impact

Chapter 14 will evaluate potential fiscal impacts of the project on the local economy and on existing community services including police, fire, emergency services, schools, library and recreational facilities, and other social service provider organizations in the Towns of Milan and Pine Plains and within the project vicinity. These analyses will include Milan and Pine Plains as well as other locations included in the defined area of potential impact. The area of potential impact will be specifically defined by the applicant. The Lead Agency will receive and review an interim scope of work for these studies outlining this impact area.

The analysis will address the following:

1. Fiscal analyses will utilize a demographic profile of Pine Plains, Milan, and other locations defined as part of the area of impact and will include 2000 Census categories, including but not limited to household size distribution, household composition, population age composition, per capita income distribution and household income distribution.
2. Project the resident population by age categories and users to be generated by the proposed development both directly and indirectly using recognized projection methodology and numerical factors. Conduct all analyses as if proposed dwelling units were primary, full time, permanent residences. Require projections based on the following: Regional and National Multipliers for Total Household Size and School-Age Children from the American Housing Survey, 1997. Compare and contrast these projections with local multipliers, which can be generated by examining data from the school district as to how many school children are picked up by the bus at various local subdivisions. Additionally, this local multiplier can be obtained by utilizing census data to calculate the number of school-aged children per household that currently exists and apply this.
3. Project the school-age population and the impact of the proposed development under two scenarios: a seasonal home configuration and a primary, permanent resident population with school-aged children based upon the typical mix of the housing types in Dutchess County. Evaluate existing enrollments, trends and capacities of school districts serving Pine Plains and Milan. Describe existing school bus capabilities and fiscal impacts related to increased demands on bus service that may occur as a result of this project. Discuss how this proposed development will affect state aid to the school district(s).
4. Evaluate the impacts of projected enrollment increases on the school district(s), school facilities and budgets. Evaluate the need for school bus service to serve the site and its fiscal impact. For this analysis, consider long term cumulative impacts of enrollment increases within the district(s). When discussing impacts on school budgets, take into consideration potential changes in state aid to the school resulting from this project (described above in 2). Communicate with the school districts and evaluate the potential for the need for new buildings, fields or other facilities. Impacts on property tax revenues to the School District(s) and other taxing jurisdictions should take into consideration the need for capital

improvements resulting from the proposed project at full buildout. When discussing overall impacts on school budgets, discuss potential impacts of seasonal Hudson Valley Club residents voting on school budgets from existing published data or studies.

5. Project employment generation for the construction phase, operational phases (golf course, clubhouse restaurant, riding academy, pool/tennis and club facilities, HOA repairs and maintenance) and indirect or induced employment generation in the area. Evaluate potential changes to employment and income levels in the area.
6. Evaluate the respective capacity of service facilities and organizations including day care, library facilities, fire protection, ambulance and medical services, public works (including road construction and maintenance) and police, as follows:
 - a. Staff or volunteer capacity
 - b. Equipment capacity
 - c. Emergency response times to project site
 - d. Access to and ability of local medical institutions to handle medical needs and emergencies
 - e. Current and projected service ratio (staff or volunteer per resident)
7. Provide an assessment of the project impacts on existing service facilities and organizations in light of potential demand changes as the project is developed over its 10 year projected build-out. Evaluate projected increased demands on these services, equipment and staffing needs to meet that demand, and infrastructure needs to meet that demand. Evaluate the potential need for and impact of changing from volunteer based emergency services to paid, professional staff.
8. Evaluate the capacity of and potential impacts to the administrative work load of the towns including tax and other bill paying administrative work, building inspector(s), Highway Department, the town clerk, and others. Prior to full implementation of this study, the applicant will provide the Lead Agency a list of town staff and/or officials (for Milan and Pine Plains) to be included in the analysis. This list will be subject to review and approval by the Lead Agency.
9. Discuss potential fiscal impacts to the community should the golf course be closed sometime in the future. Discuss whether a conservation easement is proposed for the golf course, and if so, the fiscal impacts on tax revenues from this easement.
10. Evaluate the economic implications resulting from impacts to agriculture (from Chapter 4.)
11. Prepare a fiscal impact analysis identifying any increase in costs to be incurred by the provider of each community service described above in meeting the potential demand for said services from the projects by units of labor/person hours or other appropriate factors. An accepted methodology such as the Burchell's per capita Fiscal Impact Analysis (*The Practitioner's Guide to Fiscal Impact Analysis by Burchell and Listokin, 1980*) should be referenced and used. This analysis will be done at Year 5 and Year 10 at buildout. The fiscal impact analysis will include the following elements:

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- Changes in state aid to these services that may result from the project.
 - Revenue projection identifying the development-induced revenues for all of the relevant taxing jurisdictions for each Town, other fee based or earned income from other service providing organizations, and increased revenues from State and Federal transfer income (e.g., school aid) or other assistance as a result of the proposed development.
 - A comparison of development-induced costs to revenues by utilizing a compatible methodology which compares and evaluates changes in revenues to changes in operating and other costs and which incorporates pertinent changes in operating efficiencies and other factors as appropriate.
 - Evaluate the existing current level of taxes generated from the project site and anticipated post development taxes generated, including property taxes (County, Town, Fire, School and Special Districts). Analyze whether the anticipated impacts will cause there to be an increase or reduction in net tax revenue from the project due to an increase in the demand for services.
 - Expand the fiscal impact analysis to include a cost of community service study. Analyze the local revenues and expenditures data and calculate revenue to expenditure ratios for the following land use categories: residential, commercial, industrial, farm and forest land. Calculate how these ratios will change upon buildout of the proposed project.
12. Regarding the economic impact of the project on the local economy, evaluate the degree to which the project would induce economic activity or growth which would result in impacts on existing local businesses or the growth of new businesses in the local economy through the construction of the project, the project's resident homeowner population, user population, employees, or project operation's purchases of goods and services. Identify and discuss how this may positively and negatively affect existing local businesses and potential growth of new businesses. Examine how impacts will be distributed throughout the region. Utilize examples or models of other similar golf course communities to show positive and negative changes that may be expected. Evaluate the potential of the project to impact to other existing golf clubs and other local and regional recreational facilities.
13. Discuss impacts to the hamlets and villages of Pine Plains, Milan, Red Hook, Millerton and Rhinebeck, focusing on the economic impact to retail and other hamlet land uses and the potential for the project to stimulate strip development along major corridors between hamlets.
14. Divide the analysis into construction and operational phases. Discuss existing and project related employment conditions, including short-term construction jobs, and long-term employment potential for the new local work force. Explain the likely commuter pattern and how this will influence local economic opportunities including in Pine Plains, Milan and other locations within the defined area of impact. Evaluate direct and indirect economic impacts associated with the project including, but not limited to economic activity related to construction wages, purchase of goods and materials. Take into account the multiplier effect, if any, on the regional economy. Use a model such as the Regional Input-Output Modeling System. Conduct a similar evaluation for the operational phase of the project. Evaluate

number of jobs expected to be created, anticipated wages and salaries, demand for goods and services and labor and describe the impact of the project on future employment, annual payroll and tax revenues. For tax revenues, base calculations on current tax rates and assessment practices.

SUPPLEMENTARY CHAPTERS

Chapter 15 Use and Conservation of Energy

Chapter 15 will evaluate the effects and aspects of the proposed action pertaining to the use and conservation of energy resources.

1. Identify and evaluate potential impacts on utility distribution and services.
2. Discuss the extent to which the project will use energy efficient technologies, solar space and water heating, and use of renewable energy including but not limited to geothermal heating and cooling.

Chapter 16 Growth Inducing Aspects

Chapter 16 will evaluate the effects of the proposed action as it relates to the potential increase in development of additional properties and the potential increase in permanent residential population specifically in the Towns of Milan and Pine Plains, and on other lands associated with the project sponsor or its affiliates. The growth inducing aspect of the proposed action will describe and evaluate any potential that the proposed action may have for triggering further development in terms of attracting similar, additional, or ancillary uses, significant increases in local population, increasing the demand for support facilities, and increasing the commercial and residential development potential for the local area. This section will refer and use information in the Fiscal Impact Analysis described above.

This chapter shall present secondary and cumulative impacts to housing, commercial economic development, additional traffic, water and wastewater needs. Specifically analyze potential new commercial activity. Include an inventory of likely development locations for residential and commercial development and project likely secondary development at Year 5 and Year 10 of the project.

Chapter 17 Alternatives to Proposed Action

Chapter 17 will evaluate and compare reasonable alternatives to the proposed action **that are feasible, considering the objectives and capabilities of the project sponsor, and** which are listed below. This chapter shall be sufficiently detailed to allow a meaningful comparison between the proposal and the alternatives. Include a comparison chart showing the different development alternatives identified below. This comparison will show figures such as the number of residential lots/units, affordable units, percent of parcel developed (or total floor area), estimated total taxes generated, estimated students per unit, total number of students estimated to be enrolled in local school district(s), estimated total costs for those students, population increase, projected municipal costs, net fiscal impact, peak hour trips (off season and golf season), and annual trip generation for each alternative.

The following alternatives are to be studied:

1. No Action Alternative

This alternative will study the effects of not implementing the proposed action.

2. Alternative densities. This alternative will study the effects of a project that proposes different densities of development and that take into account the previously subdivided lands on the project site as follows:

- a. A conventional residential subdivision that complies with the density consistent with existing land use regulations in the Town of Milan and Pine Plains.
- b. A conventional residential subdivision that complies with the density currently allowed in the Town of Milan (five acres per lot) and that estimates use of a similar development density (five acre lots) in Pine Plains.
- c. A conventional residential subdivision that complies with the density currently allowed in the Town of Milan (five acres per lot) and that estimates use of a development density of three acre lots in Pine Plains.

3. Development of golf and related components in Pine Plains only. This alternative will evaluate the impacts of locating and developing all of the proposed golf course, homeowner's club and other related facilities only within the Town of Pine Plains.

4. Conservation Subdivision Alternative

This alternative will study the effects of more comprehensive site layout by conservation design as outlined in the Town of Pine Plains Updated Comprehensive Plan (rather than the one proposed area) and as discussed in the Dutchess County Department of Planning publications "Greenway Connection Guides." Conservation subdivision should avoid to the greatest extent possible building on steep slopes and prime and statewide significant soils, and should take into consideration preservation of visual resources and other natural features identified in this DEIS. This alternative should include a lot layout that does not place structures visible from important viewsheds as determined in the viewshed analysis.

5. Clustered Subdivision Alternative

This alternative will study the effects of a fully clustered residential development alternative. This alternative will examine use of clustering dense residential dwellings clustered around village green(s), around certain locations of the golf course, and/or in “pods”.

6. Alternative Use

This alternative will evaluate the impacts from a different site development configuration of the proposed Conceptual Development Plan component parts and with a different mix of private development uses. Evaluate use of condominiums, townhouses, and luxury rentals, small resort hotel and time shares or other uses that result in fewer single family residences.

7. Development of the project site not by the project sponsor. This alternative will address the future development of the property and its related impacts based on a scenario in which the property is sold and developed as separate parcels to various purchasers who would then seek subdivision individually.

8. Affordable Housing Alternative. This alternative will evaluate a project design which incorporates affordable housing units within and outside the project site.

9. Very Large Estate Lot Alternative. This alternative will evaluate the impacts of a project where the site is subdivided into very large estate lots larger than 5 acres each.

Chapter 18 Irreversible and Irretrievable Commitment of Resources

Chapter 18 will identify and evaluate the extent to which the proposed action may cause a loss of environmental resources, both in the immediate future and in the long term. Natural and human resources that would be consumed, converted, or made unavailable for further uses are to be identified. The DEIS will evaluate the extent to which the proposed action involves trade-offs between short-term environmental gains and long-term losses and to the extent that the proposed action forecloses future options. Adverse impacts are to be classified and detailed as to the extent that they are *Unavoidable Adverse Environmental Impacts* or *Unmitigatable Adverse Environmental Impacts*.

Chapter 19 Unavoidable Adverse Environmental Impacts

Chapter 19 will provide a description of the unavoidable adverse environmental impacts and shall include necessary information on the extent, likelihood and long term consequences of the identified unavoidable adverse impacts. This chapter will summarize information related to unavoidable adverse impacts provided in each impact chapter.

Chapter 20 Appendices

All technical studies, reports, assessments, full size maps and plans, and supporting materials are to be summarized in layman’s terms in the body of the DEIS text with appropriate references and to be included in their entirety in an Appendix under Chapter 18. A complete list of involved and interested agencies shall be included along with their addresses. All SEQR material referenced should be included.