

**Final Scoping Document
Copake Green**

**Town of Copake
Columbia County, New York**

Lead Agency:
**Town of Copake
Planning Board**
Copake, New York

Applicant:
**Housing Resources
of Columbia County**
Hudson, New York

December 7, 2006



Fuss & O'Neill of New York, PC
80 Washington Street, Suite 301
Poughkeepsie, NY 12601

**FINAL SCOPING DOCUMENT
COPAKE GREEN
TOWN OF COPAKE, NEW YORK**

Housing Resources of Columbia County

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
1.0 INTRODUCTION	1
2.0 PROJECT DESCRIPTION	2
3.0 GENERAL GUIDELINES FOR THE DEIS	3
4.0 DEIS SCOPE AND CONTENT.....	3
4.1 Cover Sheet	3
4.2 Table of Contents.....	3
4.3 Executive Summary.....	3
4.4 Description of the Proposed Action	4
4.5 Purpose, Need, and Public Benefit.....	4
4.6 Description of Timing and Schedule for the Proposed Action.....	4
4.7 Required Project Approvals.....	4
4.8 Existing Conditions, Potential Impacts, and Mitigation Measures	5
4.8.1 Soils and Geology	5
4.8.2 Wetlands.....	6
4.8.3 Stormwater.....	6
4.8.4 Surface Water Resources	6
4.8.5 Groundwater Resources	7
4.8.6 Vegetation	7
4.8.7 Fauna	7
4.8.8 Cultural Resources	7
4.8.9 Visual	8
4.8.10 Transportation.....	9
4.8.11 Land Use and Zoning	10
4.8.12 Police, Fire, and Ambulance Services	10
4.8.13 Community Services.....	11
4.8.14 Demographics, Fiscal Impacts, and School District Impacts	11
4.8.15 Wastewater.....	11
4.8.16 Water Supply	12
4.8.17 Solid Waste	14
4.8.18 Recreation and Open Space	14
4.8.19 Agricultural Resources	14
4.8.20 Noise.....	15
4.8.21 Air Quality.....	15
4.8.22 Summary of Impacts and Mitigation	15



**FINAL SCOPING DOCUMENT
COPAKE GREEN
TOWN OF COPAKE, NEW YORK**

Housing Resources of Columbia County

TABLE OF CONTENTS (continued)

<u>SECTION</u>	<u>PAGE</u>
4.9 Cumulative Impacts	15
4.10 Significant Adverse Unavoidable Impacts	15
4.11 Alternatives	16
4.12 Irreversible and Irretrievable Commitment of Resources	16
4.13 Growth Inducing Aspects	16
4.14 Impacts on Energy Use and Conservation	16
4.15 Appendices	16

FIGURES

Figure 1	Site Location
Sheet C1.1A & C1.1B	Existing Conditions
Sheet C1.3	Zoning Map with Orthophoto
Sheet C2.1	Proposed Development Plan

APPENDICES

Appendix A – Involved and Interested Agencies



1.0 INTRODUCTION

The applicant, Housing Resources of Columbia County, proposes to construct a residential development on a 122-acre site located in the Town of Copake, Columbia County, New York. The proposed development, to be known as “Copake Green,” consists of 139 senior and family residential dwelling units, including a community green, land preserved for dedicated agricultural use, and open space to be donated to the Town of Copake for use as recreational parkland (the “Proposed Action”).

The proposed project is a Type 1 Action pursuant to 6 NYCRR 617 and Article 8 of the State Environmental Quality Review Act (“SEQRA”). The Town of Copake Planning Board has established itself as “Lead Agency” by resolution on September 25, 2006 pursuant to the requirements of SEQRA, and on June 15, 2006 adopted a Positive Declaration requiring the applicant to prepare a Draft Environmental Impact Statement (“DEIS”) for the Action.

The Planning Board, as Lead Agency, initiated a public scoping process for the DEIS, including a request for comment on the Draft Scoping Document, which was made available for review starting on October 5, 2006. A public scoping meeting for input and comment on the Draft Scoping Document was held on October 19, 2006. Written comments on the document were accepted until 5:00 p.m. on November 6, 2006. This document was then revised based on verbal and written comments received by the Planning Board, as summarized in a letter from the Planning Board dated November 16, 2006, and is being re-submitted for acceptance by the Planning Board as its Final Scoping Document.

This document defines the scope that will be used as the basis for preparing the DEIS and includes the following elements required by the SEQRA regulations:

- A brief description of the Proposed Action;
- Potentially significant adverse impacts, including an identification of those particular aspects of the environmental setting that may be impacted;
- The extent and quality of information needed for the preparer to adequately address each impact, including identification of relevant existing information, and required new information, including the required methodologies for obtaining new information;
- Initial identification of mitigation measures;
- Reasonable alternatives to be considered.

A list of Involved and Interested Agencies is included in [Appendix A](#).



2.0 PROJECT DESCRIPTION

The Proposed Action consists of the development of approximately 70 acres of the eastern portion of the project site with 139 single- and multi-family residential units on 118 lots (“Copake Green”). A proposed road, extending north to south, will be constructed to subdivide the site. The residential development will be located on the eastern side of the proposed road, while the land on the western side of the road will be preserved for dedicated agricultural land and open space to be donated to the Town of Copake for use as recreational parkland. A community-based public water supply and on-site wastewater treatment facilities are also proposed as part of the project.

The existing site consists of approximately 122 acres of land located in the Village of Copake ([Figure 1](#)). It is a broad triangular parcel bordered on the west, south and east by County Route 7A and on the north by Mountain View Road, except for a parcel that extends south into the site from Mountain View Road. The site consists of mostly open agricultural land. There are residential and commercial properties located along Route 7A that abut much of the perimeter of the site. The site is currently zoned as R-2 residential. There are currently no structures on the project site. Site plans showing the existing conditions are included as [Sheet C1.1A](#) and [Sheet C1.1B](#). A zoning map and digital orthophotograph of the site are included as [Sheet C1.3](#).

The proposed residential development includes a senior living area located at the southern end of the development. Fifty-nine (59) senior units are proposed; thirty-five (35) of these units will be owner-occupied, and the remaining twenty-four (24) units will be comprised of twelve (12) two-family senior rental buildings. The proposed senior units are situated around a community green with a street outlet connecting to the existing terminus of Taconic Street. The highest housing density of the development is proposed within this area. Lot sizes of 50 feet by 85 feet (4,250 square feet) are proposed for the owner-occupied senior units, while lot sizes of 85 feet by 100 feet (8,500 square feet) are proposed for the two-family rental senior units.

The remaining proposed development consists of eighty (80) family units; sixty-eight (68) of these units will be owner-occupied family single family homes, and the remaining twelve (12) units will be comprised of three (3) 4-family rental buildings. The proposed site plan for the development is shown on [Sheet C2.1](#).

Approximately 6.27 acres of the 122± acre site contains wetland and other waters of the U.S. Approximately 3.06 acres of the total wetland identified on-site are isolated and, therefore, not under jurisdiction of the U.S. Army Corps of Engineers. No wetlands mapped by the New York State Department of Environmental Conservation (“NYSDEC”) are present on or directly adjacent to the site.

The project site is located in an agricultural district certified pursuant to the Agriculture and Markets Law and primarily consists of active agricultural land. The soils on site are primarily silt loams, including areas of prime farmland soils. Other land cover types at the site include farmed wetland, emergent/scrub-shrub wetland, and forested wetland.



3.0 GENERAL GUIDELINES FOR THE DEIS

The content of the DEIS will satisfy the requirements of 6 NYCRR 617.9(b) and the provisions of the Final Scoping Document. The DEIS will discuss potential significant adverse environmental impacts associated with the Action and its reasonable alternatives, identify and consider mitigation measures to reduce or eliminate potential adverse impacts, and develop and analyze alternatives if there are potential unmitigated effects. After its publication, the DEIS will be available for review and comment for a minimum 30-day period. Comments may be provided to the Lead Agency in writing during the DEIS comment period, and a public hearing will be held to receive comments on the DEIS.

The DEIS will be clearly and concisely written in plain language that can be easily read and understood by the public. Highly technical material will be summarized and referenced in the DEIS and included in its entirety in an appendix, if necessary. Narrative discussions will be accompanied by illustrative tables, charts, graphs, and figures.

4.0 DEIS SCOPE AND CONTENT

4.1 Cover Sheet

The Cover sheet will include the title of the project, project location (streets, town, county, and state), contact persons, list of preparers and project consultants, name and address of Lead Agency, and telephone number of Lead Agency.

4.2 Table of Contents

The table of contents will include a list of all appendices, tables, figures, maps, charts, and any items that may be submitted under a separate cover (and identified as such). All pertinent SEQR documentation shall be included as appendices to the DEIS, including, but not limited to, the Full EAF, Positive Declaration/Circulation Notice, Final Scoping Document, and technical letters from Involved and Interested Agencies. All correspondence relating to the issues addressed in the DEIS such as technical studies and reports will also be included in the appendices.

4.3 Executive Summary

The Executive Summary of the DEIS will include the brief summaries of the following items based on relevant portions of the document:

- Description of the Proposed Action,
- Environmental Setting,
- Existing Conditions,
- Future Baseline and Proposed Conditions,
- Impacts of the Proposed Action,
- Proposed Mitigation Measures,
- Unavoidable Adverse Impacts,
- Alternatives to the Proposed Action.



4.4 Description of the Proposed Action

This section will include a description including location (streets, town, county, state), parcel identification numbers, acreage, site history, existing zoning, existing site access, existing site character, and a description of the applicant’s proposed activities to take place on the site or on any abutting parcels. The following elements of the proposed project will be described in this section:

- Project layout including a conceptual site plan showing the layout of the various elements of the proposed development, including buildings (location, footprints, and size of structures), parking, access points, utility easements, open space and agricultural preservation areas, stormwater management facilities, locations of wastewater and water supply facilities.
- Subdivision configuration.
- Buildings and parking.
- Site access.
- Utilities and drainage, including proposed water supply system and wastewater treatment facility.
- Proposed agricultural preservation area and open space parkland.

4.5 Purpose, Need, and Public Benefit

The purpose or objective of the Proposed Action will be described as well as the public need for and public benefit(s) from the implementation of the Proposed Action.

4.6 Description of Timing and Schedule for the Proposed Action

This section will describe the timing and scheduling of the adoption and implementation of the Proposed Action, including the proposed project phasing, construction schedules, and anticipated year of completion.

4.7 Required Project Approvals

Various Federal, State, and Local approvals and permits needed to implement the Proposed Action will be identified. An assessment of current zoning requirements and conditions will also be included. This section will also list the Interested and Involved Agencies that will participate in the SEQR process.

At this time, it is anticipated that the following approvals and permits to authorize the proposed project will be required:

<u>Type of Approval</u>	<u>Agency</u>
Subdivision/Site Plan Approval	Town Planning Board
Special Use Permit	Town Zoning Board
New Water Supply District	County Health Department, Town Board
Wastewater Treatment Plant and Collection System	County Health Department, Town Board, NYSDEC



<u>Type of Approval</u>	<u>Agency</u>
Water Supply Permit	NYSDEC
SPDES Permit for Wastewater Discharge	NYSDEC
SPDES Stormwater Permit for Construction Activities	NYSDEC
U.S. Army Corps of Engineers Programmatic General Permit	U.S. Army Corps of Engineers
Road Acceptance	Town Board

4.8 Existing Conditions, Potential Impacts, and Mitigation Measures

This section of the document will describe the existing environmental conditions on the site, potential impacts due to the proposed project, and relevant mitigation measures. Sufficient detail will be provided so that reviewers are able to gain an understanding of current conditions and the context in which potential impacts will be assessed. For each issue, existing site conditions will be defined, potential impacts will be characterized and on-site and off-site mitigation measures, designed to avoid or minimize potential impacts, will be proposed.

4.8.1 Soils and Geology

This section will include an identification and evaluation of existing soils and geologic conditions at the site based on USDA/NRCS soils mapping and an on-site subsurface investigation focusing on the proposed development areas in the eastern and southern portions of the site. Potential constraints imposed by existing soils, geology, and topographic conditions, including the limitations of and suitability for construction of structures, driveways, plantings, and stormwater management structures, will be discussed. A description of soils that will be disturbed by the proposed project will be discussed. This section will also include a proposed grading plan for the site, potential soil erosion impacts, and a brief summary of the preliminary Storm Water Pollution Prevention Plan (“SWPPP”) prepared in accordance with the NYSDEC regulations. The preliminary SWPPP will be included in an appendix of the DEIS.

This section of the DEIS will also summarize the findings of a Phase I Environmental Site Assessment to evaluate potential environmental concerns and potential impacts associated with previous agricultural use of the site. The soil sampling program will consist of thirteen soil samples collected from the top two inches of soils in locations for the proposed development. Soil samples will be collected in accordance with NYSDOH protocols for sampling at agricultural properties proposed for residential subdivisions. Soil samples will be collected with clean, contaminant free sampling trowels. The soil samples will be placed directly into pre-cleaned laboratory grade glass containers. To the extent practical and feasible, the soil will be free of roots and other organic debris. Samples will be preserved as warranted by analytical method and forwarded to NYSDOH ELAP certified laboratory and analyzed for mercury, arsenic, lead, and pesticides in accordance with NYSDOH recommendations. The analytical methods used will be EPA methods 8081 for the organo-chlorine pesticides, EPA method 3050 for metals, and EPA methods 6010 and 7471, as applicable. Laboratory analytical results data will be compared to the soil cleanup values listed in the New York State Department of



Environmental Conservation (NYSDEC) Technical and Administrative Guidance
Memorandum (TAGM) #4046 - Recommended Soil Clean-Up Values.

The results of a limited soil sampling program for residual concentrations of pesticides, herbicides, and associated agricultural constituents will also be discussed relative to potential environmental and human health impacts. Appropriate mitigation measures will be proposed, as necessary.

4.8.2 Wetlands

A wetlands delineation report of Federal and NYSDEC wetlands will be prepared and discussed within this section, including delineation of the extent of on-site wetlands as well as contiguous and hydrologically connected wetlands beyond the site boundaries following the U.S. Army Corps of Engineers method (i.e., three-parameter approach - hydrophytic vegetation, hydric soils, and wetland hydrology). Potential impacts to wetlands and buffers will be discussed within this section, including the extent of filling any designated wetlands, if applicable, as well as discussion of the potential impacts (if any) to wetlands due to recharging and change in runoff conditions. Proposed mitigation measures for wetlands impacts will also be discussed.

4.8.3 Stormwater

This section will describe pre-development conditions including on-site and off-site watershed mapping, hydrologic characteristics of the watershed, drainage patterns, and the location, size and capacity of existing storm drainage facilities. The stormwater collection and treatment system will be a completely separate system from the proposed sewage treatment collection and treatment system, preventing potential stormwater overflow issues. Stormwater patterns and runoff quantities (i.e., peak flows and volumes corresponding to the Water Quality Volume, Stream Channel Protection, Overbank Flood, and Extreme Storm precipitation events in accordance with the hydrologic sizing criteria contained in the New York State Stormwater Management Design Manual) will be evaluated using NRCS hydrologic analysis methods for pre- and post-development site conditions. Potential impacts associated with anticipated changes in runoff quantity and quality will be discussed, including a description of the proposed stormwater management system and preliminary SWPPP to address potential stormwater quantity and quality impacts both during construction and after the development is completed. Mitigation measures to attain a zero increase in the peak rate of runoff from the project site after development will be identified (i.e., stormwater detention), as well as stormwater management measures (including treatment and source control measures) to mitigate potential water quality impacts from stormwater discharges in accordance with SPDES General Permit requirements and the New York State Stormwater Management Design Manual.

4.8.4 Surface Water Resources

This section will describe the existing surface water resources on the site, including a small pond and tributary of the Roeliff Jansen Kill, as well as the site's regional hydrologic setting. The existing NYSDEC and New York State Department of Health ("NYSDOH") surface water quality designations, including designated uses and attainment status, of the on-site water resources and off-site receiving waters will be discussed. This section will include a discussion of potential impacts to surface water resources as a result of the proposed development and the



ability of the on-site and off-site receiving surface water bodies to assimilate discharges of treated wastewater effluent, construction site runoff, and post-construction stormwater runoff. Proposed mitigation measures will be discussed, including the preliminary SWPPP, compliance with NYSDEC SPDES regulations, and engineered site controls. The site is not located within a regulatory floodplain.

4.8.5 Groundwater Resources

This section will describe the existing groundwater conditions at the site including the presence, quality, quantity, extent, and present use and rate of withdrawal of groundwater resources in the area. The locations of groundwater resources including any aquifers and recharge areas will be discussed. The site is not located within a primary, principal, or sole source aquifer. This section will discuss potential impacts of the proposed development on groundwater recharge, groundwater quality, and groundwater availability; including the results of a water supply evaluation and pumping test (see [Section 4.8.15](#)). Potential mitigation measures will be identified as required.

Groundwater impacts due to the proposed water supply system will be analyzed in the water supply evaluation and reviewed by the CCDOH concurrent with the public water supply system application process.

4.8.6 Vegetation

Vegetative communities (both wetland and upland) on the site will be discussed including location, extent, acreage, dominant species, and estimated age. Particular emphasis will be given to those communities in the areas of the proposed development. Findings and pertinent information will be presented from a site evaluation, review of the NYSDEC Natural Heritage Program files, and correspondence with the U.S. Fish and Wildlife Service. This section will also include a discussion of the amount of existing vegetative cover likely to be removed or modified and the nature of that modification (e.g. pavement, landscaping, etc.) due to the Proposed Action and potential impacts on existing habitats, soil erosion, and site hydrology. The proposed change in site impervious cover will be quantified and evaluated. Applicable mitigation measures identified as necessary or required by the NYSDEC, U.S. Fish and Wildlife Service, or U.S. Army Corps of Engineers will be identified.

4.8.7 Fauna

This section will include a discussion and identification of known on-site animal species based on coordination with the NYSDEC Natural Heritage Program and the U.S. Fish and Wildlife Service, as well as field surveys for currently listed rare, threatened, endangered, or special concerns species. The nature and extent of existing terrestrial and aquatic wildlife habitat will be evaluated, potential impacts of the project identified, and mitigation measures proposed, as necessary.

4.8.8 Cultural Resources

In recent correspondence with the Town of Copake Planning Board dated August 29, 2006, the OPRHP has requested additional mapping showing the boundaries of the project area in order



to complete their evaluation of the cultural sensitivity of the proposed project. Cultural resources mapping prepared by the OPRHP identifies the potential for cultural sensitivity of the project site. Therefore, a Phase 1A Cultural Resources Survey will be performed for the project site.

The Phase IA Survey will include a review of files held by OPRHP to determine if any reported archaeological sites lie within or adjacent to the project. All sites within one mile will be documented as is required by the agency. State and National Registers will be examined for properties or sites that are within or adjacent to your project area. Historic maps that indicate the development of the project vicinity will be included in order to determine if former structural remains may lie within or adjacent to the project. A review of local histories and previous cultural resources conducted in the vicinity of the project area.

A site inspection will be conducted to assess existing conditions, prior disturbance, areas of archaeological sensitivity, and standing structures. All buildings more than 50 years in age within and adjacent will be photo-documented. The data will provide an archaeological sensitivity assessment for the project's area of impact (APE) and document previously reported cultural resources.

Additionally, the DEIS will consider potential visual and noise impacts of the proposed project on the adjacent church and cemetery, including appropriate mitigation such as a vegetative buffer and/or other screening mechanisms.

4.8.9 Visual

This section will summarize the visual impacts of the proposed development based upon a viewshed analysis. The viewshed analysis will consist of preparation of a viewshed map for a five mile radius of the site illustrating areas from which the site may be visible based on existing topography. A narrative accompanied by photographs will describe the visual character of the surrounding area and the visual relationship between the project site and the surrounding area, including critical receptors. Critical receptors are areas where the visual environment is an important aspect of the enjoyment or appreciation of the site and typically include public parks, historic sites, nature preserves, scenic roads, and other local receptors deemed to be significant. Analysis will be performed at the following four (4) critical receptor points.

1. At the northerly street entrance across from Parkside drive looking south toward the development.
2. Looking east as traveling south on route 7A from the intersection of Mountain View Road
3. At the southerly street entrance looking east northeast toward the development.
4. Looking west from the end of Taconic Street.

The visual analysis will also include site renderings, elevation renderings, the sample materials and architectural styles selected for the buildings (e.g. color, texture, etc.), and photo-visualizations.

A visual impact analysis of the proposed development, as seen from critical receptors, will be performed based on the viewshed map. The analysis will include photographs of the existing



conditions during leaf-off conditions and photovisualizations of the built conditions for each critical receptor. The visual relationship between the project site and the surrounding area will be discussed using narrative text, photographs, and photovisualizations.

This section will also include a narrative description of the new buildings and facilities and their impact on the visual environment, including the design and layout of the proposed buildings and the proposed lighting plan, and photometric analysis and signage for the development. Mitigation measures will be proposed, as necessary, based on the results of the visual impact analysis.

The proposed project will be designed in accordance with applicable lighting standards under local jurisdiction, as well as the NYSDEC policy on Assessing and Mitigating Visual Impacts. Lighting will be designed to not exceed the functional requirements of the project, by employing best engineering practices (e.g., the use of full-cutoff lighting, high-pressure sodium lighting, shielded fixtures for externally lit signs, energy efficient fixtures). Consideration will be given to minimize off-site light migration, glare and “sky glow” light pollution.

4.8.10 Transportation

A traffic impact study will be conducted in accordance with standard practice and Section 5.2 of the NYSDOT Highway Design Manual. Automatic traffic recorders will be placed on Route 7A and Mountain View Road to continuously record directional 15-minute traffic volumes and vehicle speeds for a minimum period of 48 hours. Weekday morning and afternoon peak period turning movement counts of traffic will be manually taken at six existing intersections:

- Mountain View Road / Parkside Drive
- Mountain View Road / Farm Road
- Farm Road / Main Street
- Main Street / Taconic Street
- Main Street / Empire Road / Church Street
- Church Street / Route 7A
- East Main Street / SR 22
- CR 7A / SR 22

Count data will be reduced and summarized to reflect annual average and seasonal peak weekday and weekend peak hour conditions. Field measurements and inspection of traffic conditions in the vicinity of the site will be conducted including dimensions of signal timing, roadway widths, grades, sight distance, and operating speeds. Accident data will be obtained from New York State Department of Transportation (“NYSDOT”) to determine whether there is a history of accidents in the vicinity of the site.

Peak hour traffic volumes for the intersections in the study area will be projected to the design year of 2009 using growth factors from available traffic volume data. Site traffic volumes will be distributed to the various turning movements at the intersections and added to the projected traffic volumes for analysis of the traffic conditions after development. Comparison of traffic conditions as they exist and in the future with and without the proposed development will delineate the traffic impacts of the project and indicate existing and future deficiencies



warranting mitigation. Traffic volume increases due to the proposed development will be calculated, and changes in the quality of the operational condition of the intersections will be estimated by capacity analysis, consistent with the methodology of the Transportation Research Board Highway Capacity Manual, of the existing, future “No-Build,” and future “Build” traffic volumes. Results of the capacity analysis will be summarized and tabulated.

The proposed site access points and internal roadway design and circulation will be reviewed and evaluated in terms of the traffic and pedestrian safety and efficiency of projected traffic operations. Any expected deficiencies will be noted and alternative means for site access, if necessary.

Results of the traffic impact study will be documented in a traffic impact study report, which will be summarized in this section and included in its entirety as an appendix of the DEIS. All data and analysis will be presented in the report. Peak hour traffic volumes for the conditions evaluated will be shown graphically. Discussion of existing traffic conditions, future projections, site traffic generation, and impacts of added traffic will be included. Measures to improve existing and projected operational deficiencies and mitigate the effects of added site traffic will be recommended, if necessary.

Other transportation-related topics that will be addressed in the DEIS include:

- Description of existing public transportation systems that serve the project site and proposed plans to extend bus and/or pedestrian/bicycle paths through the project site.
- Proposed traffic signage.
- Emergency vehicle access.
- Discussion of the proposed internal road network including the amount of impervious surfaces generated from the roadways and the proposed type of ownership.
- Proposed parking (quantity, design, etc.) relative to Town standards.
- School bus activity and the adequacy of the proposed development to accommodate school buses during peak hours.

4.8.11 Land Use and Zoning

The proposed development is consistent with the zoning of the project site and the surrounding parcels, which are predominantly zoned for residential use (R-1, R-2, and Business Residential). This section will include a discussion of the existing zoning, subdivision regulations, master plan, and land uses associated with the project site and the surrounding area. The project's consistency with zoning, subdivision and other local laws, master plan, land use policies, and compatibility with the surrounding neighborhood and land uses (i.e., “community character”) will be discussed. Applicable mitigation measures will be identified.

4.8.12 Police, Fire, and Ambulance Services

This section will include a discussion of the applicable county, state, and local facilities, station locations, and schedule of patrol activities in the project area. Information will be based on personal communications with service providers and/or review and confirmation of available pertinent literature. Current staffing, number and type of apparatus, average response time to



the site, existing water supply, and capacity for fire flow will be discussed. This section will also include a discussion of the project's impact to county, state, and local services including impact on staffing, facilities and response time, and a general discussion of any applicable and appropriate mitigation measures.

4.8.13 Community Services

In addition to the emergency services discussed in the previous section, this section of the DEIS will describe other community services in the Town of Copake, including medical services, recreation and entertainment, shopping, and schools. Potential impacts of the proposed project on these services will be discussed and mitigation measures identified, as necessary. A more detailed evaluation of school impacts will be included in the following section.

4.8.14 Demographics, Fiscal Impacts, and School District Impacts

The proposed development addresses the need for additional senior and family housing in the project market area, where median household incomes have generally lagged behind housing costs in the community, creating an affordability gap for families who work in the vicinity. The DEIS will summarize the existing demographics of the Town of Copake and the region relative to target market demands for the proposed housing units. Population projections will be provided as the basis for future demands on housing. A description of local and area-wide housing conditions will be presented. The proposed project population (numbers of residents, age, demographics, where they will come from, etc.) and their affect on existing demographics and housing markets will be evaluated in terms of changes in the income levels, age composition, and other characteristics of the population of the Town of Copake.

The potential fiscal impacts of the new development on the Town of Copake and the Taconic Hills Central School District will be evaluated. The evaluation will forecast change in population anticipated from the proposed development, using commonly accepted standards and local sources, including the number of school-age children. This will also include analysis of anticipated revenues generated by the development and its residents from property and personal taxes, changes in intergovernmental transfers, permit fees, licenses, etc. Expected costs of community services to service the development will be analyzed, including per capita and marginal changes in departmental operating budgets and staffing, versus estimated local tax revenues.

Using information regarding the estimated cost and timing of the construction, along with the data gathered and analyzed in the previous tasks, the economic impact analysis will estimate the increase in direct employment during the construction period, along with the indirect employment and spending benefits that will accrue to the businesses in the local village, surrounding community and county region as a result of the project, including long-term spending patterns in the local community from the increase in population and incomes.

4.8.15 Wastewater

The Town of Copake is not currently served by a municipal wastewater system. Properties are served by individual septic systems. An on-site wastewater treatment facility will be designed to



handle wastewater flows from the proposed development and discharge to the unnamed intermittent stream which ultimately discharges to the Roeliff Jansen Kill River. The project sewer system will flow by gravity to several collection and transfer pump locations and will connect into the proposed on-site Wastewater Treatment Facility (WWTF).

The treatment system will be a packaged Sequencing Batch Reactor (SBR) system with an aerated sludge holding tank and tertiary filter designed to meet intermittent stream standards. Wet sludge from the system will be disposed of off-site on a periodic basis. Sanitary flows from the proposed development will be domestic in nature and void of any industrial, solid, or hazardous waste contamination.

The WWTF will be designed to discharge to the unnamed intermittent stream which ultimately discharges to the Roeliff Jansen Kill River. The WWTF will be designed to treat the wastewater to the standards of the intermittent stream.

Design flows will be calculated based upon Table 3 “Expected Hydraulic Loading Rates” of the New York State Department of Environmental Conservation (NYSDEC) “*Design Standards for Wastewater Treatment Works - Intermediate Sized Sewerage Facilities*” 1988 edition. A Peak Hourly Flow for design purposes will be established using Ten State Standards. The sewage treatment system will be a completely separate system from the stormwater collection system, preventing potential stormwater overflow issues. An application for a NYSDEC State Pollutant Discharge Elimination System (SPDES) for the wastewater treatment for the proposed development system will be completed and submitted. The effluent limits that will be imposed by the NYSDEC will be consistent with intermittent stream standards.

The wastewater treatment system will be designed consistent with NYSDEC, NYSDOH, Columbia County Department of Health, and the Town of Copake requirements. This section of the DEIS will describe the estimated wastewater generation quantity (average, maximum, and design flow rate) by the proposed development, and the discharge water quality (including appearance of treated effluent), as well as the design basis of the proposed wastewater treatment facility and on-site collection system, the proposed form of ownership, system maintenance, and provisions to address potential system upsets and malfunction. Potential impacts of the discharge of treated wastewater effluent on the receiving waters will be evaluated and applicable wastewater mitigation measures will be identified, as necessary, including compliance with the facility’s wastewater discharge permit and associated regulatory requirements.

This section will also describe the proximity of the proposed wastewater treatment plant to the hamlet of Copake, potential odor impacts, the anticipated failure rate based on actual operating experience of similar systems in the area, and emergency backup provisions.

4.8.16 Water Supply

The Town of Copake is not served by a public water supply system. Properties are served by individual groundwater wells. A community-based public water supply system consisting of on-site groundwater supply wells and water treatment, pumping, and storage facilities are proposed to serve the Copake Green development. Several new on-site fire ponds are also proposed to serve the development. A water supply evaluation for the subject site, including pumping test and water quality sampling, has been performed and will be submitted to the NYSDEC for



review and approval. This section of the DEIS will describe the results of the water supply evaluation and the technical basis for the design of the proposed water supply systems (summary of the average daily demand and peak hourly demand for the project and estimated well yield). The need for booster pumps, pressure reducers, storage tanks and other facilities will be discussed. Potential impacts of the proposed development on local and regional groundwater supplies will be evaluated and discussed, and appropriate mitigation measures will be identified, as necessary.

Two eight-inch bedrock wells have been installed and the required 72-hour pumping test has been conducted to determine the actual yield of the wells. The water treatment system design will be based on the results of the pumping test and the New York State Regulations pertaining to public water supply systems. The water supply system will be designed to serve the peak water supply demand of the proposed subdivision and will include on-site water storage.

Fuss & O'Neill supervised the installation of the wells. A field engineer or geologist has carefully logged geologic and hydrogeologic conditions encountered during well installation. This included soil and rock type, relative grain size, estimate available yield to the extent physically possible, and any other pertinent factors (such as drilling rate) that could potentially affect final well selection and installation.

Two observation wells were installed in the same aquifer as the completed production wells (bedrock wells). The observation wells were drilled using air rotary drilling methods and, when used in combination with the spare production well, provide a network of three observation wells to measure drawdown. One of the observation wells was located approximately 500 feet from the main production well and the other well was located approximately 700 to 1,100 feet away from the main production well.

Records indicate that the properties surrounding the site have shallow groundwater wells. In addition to the primary observation wells, four secondary shallow observation wells were installed at or near the boundary of the property to determine whether pumping from the proposed production well will impact these neighboring wells. The shallow observation wells consisted of one-inch diameter PVC wells, with screen installed approximately 30 feet into the saturated zone.

The 72-hour pumping test was performed in accordance with the "Recommended Pump Test Procedures for Water Supply Applications" published by the NYSDEC (August 31, 2005). Since it is anticipated that one 8-inch production well will be sufficient to meet the needs of the proposed subdivision (~30 gpm), one of the two 8-inch production wells was designated to serve as a back up well for the water supply system. The well that was the most productive during drilling was designated to serve as the main production well. The other well has been designated as the back up well and was used as an observation well during the pumping test. The two production wells were installed within approximately 50 feet of each other and installed in the same geologic formation.

The drinking water wells were sampled for the NYSDOH's comprehensive list of potential contaminants as applicable to a community water supply. The samples were collected in the last hour of testing.



The aquifer is likely to be confined and aerially extensive. Analysis will be completed using appropriate analytical methods for confined or semi-confined aquifer systems. Distance drawdown and time drawdown curves will be generated as applicable. The analysis will account for the effects of well penetration into the aquifer (if applicable), leakage from the confining layer, the effects of boundary conditions, if any, and other hydrogeologically significant factors that will impact the analysis of this resource. Recovery data will also be analyzed.

Theoretical 180-day time and distance drawdown curves will be generated based on the results of the analysis.

A report will be provided that includes the following:

- Raw data for each measurement point
- Well construction logs
- Geologic logs
- Analytical results including methods
- Site plan graphically depicting the results of the pumping test and the radius of influence, as warranted
- Site plan showing the well locations
- Site plan showing the wellhead protection zones, potential threats to the water supply, and other features of interest
- Interpretation and discussion of the results

Discharge of water during the pumping test will comply with the applicable sediment and erosion control measures and the provision of the General Construction Permit (GP-01-02).

4.8.17 Solid Waste

This section will include a discussion of the existing solid waste services, including current generation, collection, and removal processes in the Town. The potential impacts associated with the anticipated solid waste generated from the project site and method of removal will be discussed. Appropriate mitigation measures will be identified, as necessary.

4.8.18 Recreation and Open Space

The Town's current parks and other recreational resources will be identified. This section will include a description of the proposed recreational and open space amenities that the project will provide, including a community green and open space to be donated to the Town of Copake for use as recreational parkland. The proposed recreational and open space amenities will be discussed in the context of the Town's existing open space and recreational facilities.

4.8.19 Agricultural Resources

The project site is located in an agricultural district certified pursuant to the Agriculture and Markets Law and primarily consists of active agricultural land. The project site also contains approximately 106 acres of prime farmland soils, of which approximately 60 acres will be converted to non-agricultural use under the Proposed Action. This section will summarize the existing land in active agricultural use or containing prime farmland soils that will be converted



to residential use under the proposed development. This section will also describe the proposed preservation of approximately 40 acres of the site that will remain in active agriculture use as mitigation, including form of ownership and maintenance provisions.

4.8.20 Noise

The DEIS will provide a qualitative evaluation of potential noise impacts associated with the construction and operation of the proposed development. Field measurements of background noise levels in the vicinity of the project site are not proposed since the site is zoned for the intended use and appropriate noise Best Management Practices will be implemented. Expected noise levels produced by typical earth moving equipment will be reviewed against estimated ambient noise levels, as well as applicable Town Code thresholds. Potential impacts from proposed noise producing facilities upon project completion will also be discussed.

4.8.21 Air Quality

Existing air quality at the site and key intersections will be summarized based on NYSDEC monitoring data for the most recent five year period. The study intersections identified in Section 4.8.10 will be screened for carbon monoxide using traffic data obtained from the traffic impact study in accordance with NYSDOT and EPA screening procedures. It is assumed that a detailed microscale air quality analysis will not be required for the DEIS; the intersections in the vicinity of the site are assumed to be at Level of Service (LOS) C or better and are assumed to remain at LOS C or better with the construction of the proposed development and any associated traffic mitigation. It is also assumed that a mesoscale air quality analysis will not be required for the development project based on criteria contained in the NYSDOT Environmental Procedures Manual (EPM). This section will include a statement indicating that the criteria for detailed microscale and mesoscale air quality analyses were reviewed and the project does not meet these criteria.

4.8.22 Summary of Impacts and Mitigation

This section will summarize the potential impacts and mitigation measures identified for each of the topic areas in the preceding sections through the use of a tabular summary, including brief descriptions of the nature and degree of the anticipated impacts and the proposed mitigation.

4.9 Cumulative Impacts

During the preparation of the DEIS and through consultation with the Town of Copake, a list of proposed projects in the Town and in the surrounding area (for which applications have been filed or already approved but not yet complete) will be developed for consideration in the analysis of cumulative impacts. The cumulative potential impacts of the proposed project and projects identified above will be evaluated relative to the applicable resources identified in Section 4.8. Mitigation measures will be identified, as necessary.

4.10 Significant Adverse Unavoidable Impacts

This section will summarize the adverse environmental impacts identified in Section 4.8 that cannot be avoided or adequately mitigated if the Proposed Action is implemented.



4.11 Alternatives

This section of the DEIS will discuss alternatives to the proposed density or alternate site configurations of the proposed buildings and facilities, including a “No Action” alternative, as required under 6 NYCRR 617.9. In addition to the No Action alternative, the following alternative site plans will be evaluated:

- Alternative 1 – Conventional Development: A conventional development that conforms to Copake Zoning, Chapter 232, § 232-4, R-2 zone requirements including a 30,000 SF minimum lot size, resulting in approximately 152 lots, a road network, and negligible dedicated open space.
- Alternative 2 – Cluster Development, Option A: A cluster development that conforms to Copake Zoning, Chapter 232, § 232-17A, Residential Cluster Development requirements, and is built out to the average population density, resulting in approximately 176 lots, with 50± acres set aside as open space.
- Alternative 3 – Cluster Development, Option B: A cluster development that conforms to Copake Zoning, Chapter 232, § 232-17A, Residential Cluster Development requirements, but with a minimum lot area of 20,000 SF, which is the minimum lot area required to support both on-site septic and drinking water wells. The resulting development would consist of approximately 70 lots.

A comparison of impacts will be discussed for each alternative and will be included in the DEIS. The level of detail of each alternative may be conceptual in nature and sufficient to provide an adequate comparison of relative impacts in evaluating the positive and negative effects of each as compared to the preferred development plan.

4.12 Irreversible and Irrecoverable Commitment of Resources

The natural and human resources listed in Section 4.8 that will be consumed, converted, or made unavailable for future use as a result of the Proposed Action will be described in this section.

4.13 Growth Inducing Aspects

This section will include a discussion of potential growth inducing aspects as a result of the proposed project.

4.14 Impacts on Energy Use and Conservation

This section will include a discussion of the energy sources to be used, anticipated levels of energy consumption, and any applicable energy conservation measures proposed.

4.15 Appendices

As necessary, supportive studies or data upon which the DEIS is based will be appended to the DEIS document.



FIGURES



APPENDIX A
INVOLVED AND INTERESTED AGENCIES



Involved and Interested Agencies

Town Supervisor
Town of Copake
230 Mountain View Road
Copake, NY 12516

Town of Copake
Highway Department
230 Mountain View Road
Copake, NY 12516
Attention: Lawrence Proper

Town of Copake
Zoning Board of Appeals
230 Mountain View Road
Copake, NY 12516

Town of Copake
Planning Board
230 Mountain View Road
Copake, NY 12516
Attention: Edgar Masters

Roland Vosburgh
Columbia County Planning Department
401 State Street
Hudson NY 12534

Nancy A. Winch
Columbia County Public Health Department
325 Columbia Street
Hudson, NY 12534

Bernie Kelleher
Columbia County Public Works
Highway & Engineering Divisions
PO Box 324
Hudson, NY 12534

Charles Barrow, P.E.
Town Engineer
Town of Copake
587 County Route 25
Stuyvesant Falls, NY 12174

Lawrence E. Howard, Esq.
P.O. Box 1000
Averill Park, NY 12018

Michael J. Moore, Esq.
Young, Sommer, LLC
Executive Woods
5 Palisades Drive
Albany, NY 12205

Friends of Copake
P.O. Box 452
Copake, New York, 12516

Environmental Notice Bulletin
625 Broadway
4th Floor
Albany, NY 12233

New York State Office of Parks, Recreation and
Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island – PO Box 189
Waterford, NY 12188-0189

New York State Department of Environmental
Conservation
1150 North Westcott Road
Schenectady, NY 12306
Attention: Permits

New York State Department of Environmental
Conservation
625 Broadway
Albany, NY 12233

New York State Department of Health
Flannigan Square
547 River Street
Troy, NY 12180
Attention: Ben Pierson, BPWSP

State of New York
Department of Agriculture and Markets
10B Airline Drive
Albany, NY 12235

US Army Corps of Engineers
One Bond Street
Troy, NY 12180
Attention: Andy Dangler

