

New York State Environmental Quality Review Act (SEQR)

FINAL SCOPING DOCUMENT

For a Draft Environmental Impact Statement (DEIS)

HUDSON RIVER VALLEY RESORT

Town of Rosendale, Ulster County, NY

SEQR CLASSIFICATION: TYPE 1

LEAD AGENCY: New York State Department of Environmental Conservation (NYSDEC)
Region 3
21 South Putt Corners Road
New Paltz, NY 12561-1620

LIST OF INVOLVED AGENCIES

- Town of Rosendale Planning Board
- Town of Rosendale Town Board
- Ulster County Public Health Department
- Ulster County Planning Department
- Ulster County Department of Highways & Bridges
- New York State Department of Environmental Conservation
- NYS Public Service Commission

LIST OF INTERESTED AGENCIES

- NYS Office of Parks, Recreation and Historic Preservation
- U.S. Army Corps of Engineers
- U.S. Fish & Wildlife Service
- Town of Rosendale Highway Department
- Town of Rosendale Environmental Commission
- Ulster County Area Transit

Introduction

This Scoping Document is adopted by the New York Department of Environmental Conservation (hereinafter "DEC"), as Lead Agency for the SEQR review of the proposed Hudson River Valley Resort. This document is intended to serve as the foundation for the identification and evaluation of all potentially significant adverse impacts that are pertinent to the proposed action, and to identify

appropriate mitigation measures including available alternatives. It is also intended to eliminate consideration of any impacts that are irrelevant or non-significant.

Description of the Proposed Action

The applicant, Hudson River Valley Resorts, LLC, proposes to develop a resort community to be located on land totaling approximately 779 acres in the Town of Rosendale, Ulster County, New York. The property is located generally west of the New York State Thruway and north of County Route 26 (Breezy Hill Road) and is part of the former Rosendale Cement Company site and the location of the former Williams Lake Hotel resort. It has frontage on County Route 7 (Binnewater Road), County Route 26, and Hickory Bush Road. The development plan proposes construction of up to 160 for sale residential units, including a mix of single family residences and townhouses, lodging facilities, and a spa facility with related amenities. The proposed lodging facilities include a 94-room lodge, 22 lakefront suites, and 14 villas for stand alone cabins. A new wastewater treatment plant and water supply system will be constructed to serve the site. The development will affect approximately 50 acres contained within an area of approximately 300-325 acres located in the southern portion of the site. The northern portion of the property, which is approximately 400 acres, is located within a conservation easement and will remain undeveloped. The subject property comprises the following four tax lots (Section – Block – Lot): 62.4-1-9.100, 62.11-1-13.1, 62.4-2-39, 62.4-1-13.100. The proposed action also includes a zoning amendment to create a new Planned Resort Special Permit.

General Scoping Considerations

The applicant shall prepare a site-specific, project-specific Draft Environmental Impact Statement (DEIS) addressing all items identified in this Scoping Document. The applicant shall incorporate information from other developments underway or proposed in the local area and include, where appropriate, discussions on cumulative adverse impacts.

The applicant shall follow the SEQRA regulations (6 NYCRR Part 617) for direction on the required content of a DEIS. The DEIS shall assemble relevant and material facts and evaluate reasonable alternatives. It shall be clearly and concisely written in plain language that can be easily read and understood by the public. Unless otherwise specified, all measurement units in the DEIS shall be English units (e.g., feet, acres, miles etc.) Highly technical material shall be summarized and, if it must be included in its entirety, it shall be referenced in the DEIS and included as an appendix. In addition, all project correspondence from involved and interested agencies shall be included in an appendix to the DEIS.

The DEIS shall be written in the third person without use of the terms I, we, and our. Narrative discussions shall be accompanied to the greatest extent possible by illustrative tables and graphics. All graphics shall clearly identify the project area. The DEIS shall group each issue identified into one section describing existing setting, impacts, and mitigation to permit more efficient review.

Concept Level Site Development Plans shall accompany the DEIS as an attachment and reduced copies of pertinent plan sheets shall be included in the text of the DEIS. The document shall contain, as attachments, all plans, reports, and studies meeting prevailing Federal, State and Town criteria with respect to all disciplines of study including, but not limited to, land use and planning as well as the site plan, special permit, subdivision, and zoning amendment requirements as set forth in all applicable Town of Rosendale Codes. The attachments shall include, but not be limited to:

- a proposed bulk requirements table
- architectural renderings
- lot layout and coverage
- proposed infrastructure with related engineering plans
- anticipated phasing and construction/demolition periods with expected year of completion relative to commencement of project
- all natural resource inventories excluding confidential information related to state or federally listed Threatened/Endangered species
- descriptions and maps of environmentally sensitive lands within a 1 mile radius of the property boundaries including, but not limited to, steep slopes, floodplains, all wetlands including any regulatory buffers, vernal pools, and soils prone to subsidence
- existing land use patterns within a 2 mile radius of Williams Lake; included any proposed land uses currently under review
- full geological survey of the project area including but not limited soils, geological features, previously mined areas, and depth to water table within the proposed area of disturbance
- an existing conditions map of all structures, wells, sewage disposal systems, roads, previously-maintained trails, and water bodies on the site and within a 1 mile radius of Williams Lake
- a description of propose resort facilities including any proposed retail, commercial, and office uses including the public versus private nature of such facilities
- projected staff and types of employees
- proposed days and hours of operation during construction
- proposed days and hours of operation post-construction for all commercial/retail activities
- types and frequencies of deliveries during each phase of construction and post-construction
- maintenance programs for grounds, buildings and infrastructure, including any proposals for Integrated Pest Management, rainwater collection, etc.
- on-site circulation, parking, and loading
- proposed locations and providers of utility services
- copy of the current Town of Rosendale Comprehensive Plan

The full DEIS shall be made available to the lead agency in both hard copy and electronic formats. The electronic format shall be in Adobe® Acrobat® (*.pdf) file and submitted on CD-ROM. When the DEIS is accepted for public review by the lead agency, sufficient hard copies shall be provided to allow placement of a copy at the local library and Town office for public review during normal business hours. In addition, the full DEIS shall be posted on a public website for public review, in accordance with 2005 amendments to the SEQRL law.

Contents of the DEIS

Cover Sheet listing title of project, location, identification as a DEIS, Lead Agency, applicant, preparer, and relevant dates (i.e. date of document preparation and spaces for dates of DEIS acceptance, public hearing, final date for acceptance of comments). A list of preparers shall include the firm name, contact name, address, and phone number for all consultants who helped prepare the document. The Lead Agency, the applicant, and owner if different from applicant, shall be identified with a contact name and a phone number.

Table of Contents including listings of primary DEIS sections and subsections, tables, figures, drawings, appendices, and any items that may be submitted under a separate cover sheet (and identified as such), with page numbers listed for each.

I) **EXECUTIVE SUMMARY**

The Executive Summary shall include a brief description of the proposed action and a listing of all potential environmental impacts and proposed mitigation measures. A summary shall be provided of the approvals and permits required, and of the alternatives to the proposed action that are evaluated in the DEIS. The Executive Summary shall only include information that is found elsewhere in the main body of the DEIS.

II) **DESCRIPTION OF THE PROPOSED ACTION**

This chapter of the DEIS shall describe the project site and its location within the region, the proposed project, the public need and objectives of the project sponsor, and will list required approvals, reviews, and permits.

A. Site Location and Description

1. A written and graphic description of the location of the project site in the context of the County of Ulster, the Town of Rosendale, including tax map numbers and list of abutting properties tax map numbers. The site shall be described relative to surrounding land uses, main transportation corridors, streams, water bodies, wetlands and other prominent natural and man-made features on and in the immediate vicinity of the project site. This description shall include an illustration of the school district boundary.
2. A brief description of the environmental setting of the site, and the natural resources identified thereon and in the adjoining areas. This description shall include a brief history of site use, current uses of the site and/or past activities and man-made facilities thereon.
3. Identification of any easements, rights-of-way, restrictions, special district boundaries or other legal devices affecting the subject properties' development potential; include a discussion of the potential impact of the project on these easements, rights-of-way, restrictions, special district boundaries or other legal devices.
4. Description of the existing infrastructure serving the project site and/or its immediate environs, including existing site access and road network as well as central water and sewer facilities.

B. Description of the Proposed Action

1. Written and detailed description of the proposed action, including the proposed use, design, layout, phasing and construction schedule. Indicate whether the plan would preserve any of the cement company structures or former Williams Lake Hotel facilities, any of the existing trail system or other existing remnants on the site.

2. Identify zoning and describe existing land uses for the project site and adjoining properties. This description shall include, but is not limited to, the conservation easement on the northern portion of the site, managed by the Rondout-Esopus Land Conservancy, the Central Hudson fee-owned utility corridor, the deeded right-of-way of Edward Williams dated February 23, 1993, the “Agreement Restricting Land Use” with respect to the North Shore of Williams Lake, between Edward Williams and the Binnewater Realty Corporation dated February 4, 1993, as well as any other any legal encumbrances per Section II.A.3.
3. Discuss compliance with all Zoning and Subdivision Approval standards and other criteria set forth in the Town of Rosendale Code. The DEIS shall indicate the extent to which any modifications or waivers of such standards and other criteria, any variances from such regulations, or any zone text changes that would be required to carry out the project as proposed and an evaluation of why such deviation is needed and would be appropriate.
4. Describe all forms of individual ownership, shared ownership and private self-governance that would apply to the residential resort community including but not limited to Common Interest Developments (CIDs), Planned Unit Developments (PUDs), and Time Shares.
5. Identify alternatives to the proposed action under consideration, along with a reference to detailed evaluation contained in latter portions of the DEIS.

C. Project Purpose and Need

1. Discuss the purpose or objective of the project.
2. Identify the public need for the proposed action, including consideration of consistency with adopted policies and/or plans as set forth within adopted local and regional land use and community development plans, including but not limited to the Town of Rosendale Comprehensive Plan, Town of Rosendale Groundwater Protection Plan, NYS Open Space Plan, and Ulster Tomorrow.
3. This discussion shall include an examination of whether the proposed action achieves the local objectives of the Town of Rosendale as laid out in the adopted plans such as the preservation of open space and links between natural habitats, construction of pedestrian-oriented projects, minimization of impervious surfaces, protection of environmental, historic and scenic resources, the clustering of development in already altered or developed areas, creation of a balanced tax base and living wage jobs, and the provision of recreational and civic amenities. This discussion shall also include justification of the need for the proposed zoning law amendment rather than utilization of the existing special use permit process.

D. Approvals, Reviews and Permits

1. List and describe all required local, state, and federal approvals, reviews, and permits required, by each involved agency, to implement the proposed action together with the status of each application, including the creation or expansion of water, sewer, drainage or other municipal districts as required by the project.
2. List all Involved and Interested Agencies for DEIS distribution.

III) ENVIRONMENTAL SETTING, IMPACTS, MITIGATION

This section of the DEIS shall identify the existing environmental conditions, potential impacts of the action, and proposed mitigation measures as appropriate for each of the major issues identified in this Scoping Document. Sufficient detail shall be provided so that reviewers are able to gain an understanding of current conditions and impacts. Special effort shall be made to explain technical information in lay language with supporting tables and maps.

Proposed and potential mitigation measures for identified adverse environmental impacts shall indicate which mitigation measures have been incorporated into the plans as well as those which have not, and the reasons therefore. Unavoidable adverse environmental impacts shall also be identified.

The format or organization of this section shall include the following subsection headings for each topic or impact issue to provide a meaningful presentation of the environmental issues that allows the reader to focus on individual impact issues:

Environmental Setting
Potential Impacts
Mitigation Measures

A. Soils and Topography

1. Bedrock Geology

- a The existing surficial geology and bedrock of the site shall be described. A complete analysis of the onsite conditions shall be included. This is essential given the steep slopes and potential for blasting or other forms of rock removal. A map of bedrock underlying the site shall be provided with any annotations of rock type, mineral composition, structural geology configuration (strike, dip, folds, faults, etc.) as shown on the NYS Geological Survey's Geologic map (Hudson River sheet), and as determined by any on-site data collected as part of geotechnical or hydrological site analysis.
- b The applicant shall locate and identify all abandoned caves, mines, mine quarries, mine shafts, air shafts, sink holes and any other such feature from the historical mining on the proposed development site. Discuss how safety concerns of these features will be addressed and/or mitigated, and how this mitigation may impact hydrogeology (the aquifer, groundwater) and wildlife (in particular the Indiana bat population). The applicant shall demonstrate that any filling of such caves, shafts, etc, is necessary and consistent with recommendations of the Department of Environmental Conservation's Division of Mineral Resources.
- c If prominent and/or unique features, including rock outcroppings are present at the site, these features shall be identified on a map. The map shall also show the proposed structures and roadways. The design of the project shall be accomplished to avoid, to the extent practicable, and minimize impacts to bedrock, ledges and disturbance of substantial rock outcroppings whenever and wherever possible.

- d If rock material is proposed to be removed to complete the grading process for this project, the estimated quantity, location, and nature of the rock material likely to be encountered shall be described, and the method of rock removal shall be identified (i.e., ripping, blasting), with the impacts and mitigation measures discussed. The characterization of rock material shall include a site-specific seismic assessment to determine the sensitivity of proximate mines or caves to construction disturbance, including blasting, rock sawing, use of vibratory equipment (e.g., vibratory rollers or compactors), and any other construction methods that may affect the stability of nearby caves and mines that have not yet been identified.
 - e Any permits and authorizations required prior to blasting shall be clearly identified, along with their related industry standards or best management practices for mitigating blasting impacts. Blasting shall be consistent with the US Bureau of Mines guidelines for airblast and vibration.
 - f The location(s) for any excess rock disposal shall be identified and potential impacts and mitigation measures discussed.
2. Soils shall be mapped in accordance with the Soil and Water Conservation District Soil Survey for Ulster County, New York, and additional on-site investigations as noted below. Evaluation of site soils shall include the following:
- a Identification and mapping of soils groups and description of limitations on the use of soil groups as per the Town of Rosendale subdivision regulations.
 - b Identification and evaluation of hydric and non-hydric soils. The relationship of any hydric soils shall be considered with respect to onsite and off-site delineated Federal, State Protected, and/or Town of Rosendale Regulated Wetlands.
 - c Soil characteristics relating to soil texture, depth to water table; depth to groundwater; depth to bedrock; drainage characteristics; septic system suitability; erodibility factor; and structural stability. Where individual subsurface septic systems are proposed, their locations shall be identified and percolation tests shall be performed and depth to bedrock determined to demonstrate soil suitability. The results of percolation tests shall be provided in an appendix to the DEIS.
 - d The soils shall be characterized within the area of proposed lake excavation to determine the composition of the material, approximate quantity of material to be excavated, presence or absence of chemical contamination, and depth to historic lake bed sediments. Based on soil sampling results an appropriate method and location for use or disposal of the excavated material shall be identified. Drawings or maps showing the limits of testing, proposed excavation, and the disposal location(s) shall be provided. Boring logs and chemical sampling results shall be made available as an appendix to the DEIS.
 - e Available site information concerning known sources of soil or groundwater contamination shall be gathered and discussed. This information shall include, for example, agency records on spills and tank locations, as well as information gathered by

the property owner during due diligence investigations. Soils surrounding structures that shall be demolished, or soils known to be impacted by waste or debris disposal, shall be investigated for the presence of underground or above-ground fuel storage tanks, or other potential sources of contamination. If present or former tank locations are identified, the soils shall be sampled to determine the presence and levels of contamination present. If contaminated soils are determined to be present, the limits and quantity of contaminated soils shall be determined and the potential impacts of the project on the soils shall be evaluated. Potential cleanup and disposal methods shall be identified and discussed. The supporting sampling and analytical reports shall be included in the DEIS as an appendix.

3. A topographic survey based on a a minimum 5-foot contour interval, with two-foot contours within the area of disturbance, shall be prepared. Existing and proposed topography shall be mapped based on the following slope categories: 0–10%, 10-20%, 20-25%, and 25% or greater. Slope descriptions shall include a listing of these slope categories as a percentage of the total site area. A comparison of existing and proposed topography shall be evaluated. The following shall be described:
 - a Prominent and/or unique features including mapped and identified rock outcroppings if present on the site.
 - b A preliminary cut and fill analysis, including an analysis of the disposal of excess cut or the import fill materials, if fill is required, as well as identification of areas where cut will reach the water table and contingency plans to deal with discharge of groundwater to the surface. The preliminary cut and fill analysis shall be based on bulk grading at 10-foot contours, or less where more precise topographic site information is available.
 - c In areas identified for stormwater infiltration, test pits and percolation tests shall be conducted to confirm the adequacy of the soils.
 - d Any impacts on soils and slope stability resulting from the proposed land clearing.

B. Surface Water Resources

1. Surface water features shall be mapped and described; including but not limited to all DEC-protected streams and waterbodies, federally-regulated wetlands, state-regulated freshwater wetlands, vernal pools and the 100-year floodplain. The description shall include the classification of all DEC-regulated waterbodies, streams, and wetlands. These features shall be shown on a map of surface water resources. The direction of surface water flow within and between surface water bodies shall also be described and mapped. The function of the wetlands and other water bodies, such as points of recharge, discharge, entrapped, low flow, etc., shall be defined with respect to surface water and groundwater flow. For additional information concerning the identification of vernal pools, federally-regulated wetlands, and state-regulated freshwater wetlands, see Section III.G.3 of this scope.
2. A description of the project's permanent and temporary direct impacts to surface waters by waterbody type shall be provided. The total area of temporary and permanent impacts in acres shall be provided for each alternative under consideration. Potential impacts associated

with the dredging of 4 acres of Williams Lake and the excavation of the stormwater lagoons including impacts on water quality shall be included. Potential impacts resulting from the disposal of the dredge spoils shall also be provided.

3. Stormwater Management. The DEIS shall summarize a stormwater pollution prevention plan (SWPPP) for the development, prepared in accordance with the DEC SPDES General Permit for Stormwater Discharges from Construction Activities (GP-0-08-001), and other applicable requirements imposed by the Town of Rosedale as a regulated Municipal Separate Storm Sewer System (MS4) community. The full, preliminary SWPPP shall be included as an appendix to the DEIS, but the summary within the DEIS shall address the following:
 - a A drainage study, defining existing and post-development peak rates and flow volume of stormwater runoff and stormwater quality treatment during the statistical 1-, 10-, and 100-year, 24-hour Type II storm events, shall be submitted. The results of this study shall be summarized in the DEIS text and all supporting calculations shall be presented in an appendix to the DEIS.
 - b Pre- and post-development stormwater runoff quality shall be discussed and summarized.
 - c A description of the proposed stormwater detention and treatment methods per current NYSDEC Design Standards and local regulations shall be provided and the conceptual locations of all stormwater management design measures shall be shown on a drawing. The access to, ownership of, and responsibility for long-term maintenance of any stormwater management facilities shall also be discussed.
 - d A description of the proposed soil erosion and sediment control methods that shall be implemented during and post-construction per current NYSDEC Design Standards and local regulations shall be provided.
4. The project's potential indirect impacts on surface water bodies related to water use shall also be provided. An evaluation of the project's proposed use of a surface water supply source (Williams Lake) for potable and irrigation purposes, and its potential impacts on surface water bodies within and near the project site shall be provided. This shall include a summary of the water budget assessment provided in more detail under "Water Supply", which is described further in Section III.D of the scope. Additional detailed information about the proposed water supply system and its components shall also be provided under "Water Supply" (see Section III.D of the scope).

C. Ground Water Resources

1. The groundwater resources of the site shall be described using available literature regarding the geology and hydrology of the region and site; all on-site information collected during subsurface investigations, including geotechnical and soil borings, well drilling activities, and mine and cave investigations; and observations and mapping of surface water resources. Given that much of the area is karst terrain with underlying karst aquifer, a concerted effort must be made to detail the presence of these features and how they influence the movement of surface and ground water.

2. The relative elevations of groundwater present in bat hibernacula and surface waters in proximity to the hibernacula and project development, including Williams Lake and Fourth Lake, shall be determined.
3. Potential areas of direct groundwater recharge shall be described and identified on a site map.
4. Assessment of potential impacts on adjoining properties and regional hydrology from proposed water supply system, including potential changes in hydrologic function and potential impacts on groundwater supply for neighboring residents.
5. Discuss and document the karstic characteristics of the aquifer on and adjacent to the site. Document groundwater flow and pathways in the project area using well information and dye tracer tests. If aquifer (pump) tests are conducted for potential water supply wells, they must be designed to demonstrate the lack or presence of hydraulic connection with Williams Lake.
6. Discuss potential impacts of the project on groundwater quality that may result from stormwater runoff discharges, wastewater treatment plant discharges, water treatment plant discharges, and disposal of excess fill within mine or cave areas. Discuss the movement of surface water into in the karst aquifer via sinkholes and the ultimate fate of that infiltrated water. Other sources of potential impacts to groundwater quality shall also be included, as identified.
7. An assessment of the potential for changes in groundwater elevations within bat hibernacula due to construction impacts (e.g., blasting, excavation etc.) and proposed water uses shall be provided.
8. Measures to mitigate potential impacts to groundwater quantity, quality, or elevations that are identified shall be described and evaluated.

D. Water Supply

1. The former Williams Lake Hotel water supply and distribution system shall be described. The description shall include the average daily demand, infrastructure components (e.g., intake structure, treatment equipment, distribution system, and storage, if any), and general history of operation, including current use.
2. Regardless of proposed source, the applicant shall provide the following water supply information:
 - a. An estimate of the water demand including a separate listing of the requirements for residential and commercial sections, as well as for the proposed spa facility, and for fire suppression, and irrigation requirements. Any restrictions to be implemented must also be detailed.
 - b. Discussion of the possibility of achieving net zero water (i.e. water captured, treated and reused on site).

- c The analysis of water supply impacts shall include an identification of mitigation measures to be implemented, if necessary, including, but not limited to, providing for additional central water system capacity to allow for central water service beyond the boundaries of the Property to any resident whose supply is impacted. This discussion should include the alternative of expanding the Town's system to provide service to the Property and other residents and/or businesses in the Town.
 - d Proposed management structure for the water supply district, including, but not limited to, the formation of a corporation pursuant to Article 10 of the NYS Transportation Corporations Law or an Article 12 Special District.
3. A central water supply system utilizing the existing surface water source (Williams Lake) is proposed. An evaluation of the proposed source of water shall be completed and the results summarized in the DEIS text. The evaluation shall identify the following:
- a Permit requirements for water supply, including ownership/control of any controlled area as required by regulatory agencies.
 - b An updated evaluation of the potability of the proposed water source, in accordance with NYS Department of Health and Ulster County Department of Health water quality standards for community water supplies including the current DEC classification of Williams Lake.
 - c An estimate of the existing supply capacity based on available information sources and its general physical extent. The study must include a water budget (recharge analysis) of the study parcel and its watershed. Recharge must be estimated under normal and drought conditions and compared to estimated water demands of the project. If the sewer district(s) shall be disposing of sewage effluent off site, include the removal of that water in the water budget analysis. .
4. Central Water Supply System Using Groundwater Sources: If the water supply source will be groundwater, proposed well(s) and the supporting aquifer shall be described. The hydrogeological evaluation shall identify the following:
- a Submission of applicable geologic maps.
 - b Permit requirements for wells, including compliance of radius of ownership and sanitary control required by regulatory agencies.
 - c The location and characteristics (e.g. well type, depth, pumping capacity, etc.) of the proposed supply well(s), including geologic logs and well completion reports. Proposed test well locations must be approved by the Ulster County Health Department (UCHD) prior to drilling.
 - d A minimum 72-hour pump test shall be performed in accordance with DEC protocol (available at <http://www.dec.ny.gov/lands/5003.html>) and demonstrate 6-hour stabilized yield and drawdown of the proposed supply wells(s). Aquifer testing shall be conducted in

conformance with New York State and Ulster County Health Department standards and guidelines. A summary of well water quantity and quality testing results shall be included.

- e An estimate of the existing supply capacity of the aquifer based on available information sources and its general physical extent. The study must include a water budget (recharge analysis) of the study parcel and watershed. Recharge must be estimated under normal and drought conditions and compared to estimated water demands of the project. If the sewer district(s) shall be disposing of sewage effluent off site, include the removal of that water in the water budget analysis.
 - f The analysis of ground water impacts shall include an identification of mitigation measures to be implemented if necessary. Discuss water supply and adequacy to supply adjoining properties and/or properties impacted by withdrawals from the proposed wells (if any).
5. Water Supply System Design:
- a The preliminary design for the proposed water supply system (water storage tank, delivery issues, pressure zones, distribution around the site, and any ongoing upgrades planned by the water supplier) shall be clearly explained with provision for both domestic and fire flow capacities.
 - b The preliminary design shall be provided on a drawing that shows the proposed water supply infrastructure, including the locations of the water supply source(s), treatment facility, likely water main routes, and proposed storage structure(s).
 - c Treatment methods shall be identified based on the results of water quality tests. If necessary, the locations and means of discharging treatment process wastes (e.g., filter backwash) shall be identified and impacts discussed.
 - d Administrative issues relating to the water supply system and water district shall be addressed, such as property ownership, service area boundaries, facility ownership and maintenance, A map of the proposed service area shall be provided.
6. Individual Water Supply Wells: Where individual water supply wells are proposed for potable purposes serving detached single family units, or other uses (e.g. irrigation, geothermal climate control, etc.), the locations shall be shown on the development plans and described in the DEIS. The estimated quantity of water required by each new well shall be identified and any potential interconnections between individual wells and the community water supply system shall be identified.

E. Wastewater / Sewage Disposal

- 1. The features and location of the existing sewage disposal system(s) on the property shall be described. The description shall include the design capacity, location, system design, and infrastructure components. The current state of the system and its future use, if any, shall also be described.

2. Estimate the potential sewage generation from the proposed project. The estimate shall provide the flow estimates by unit type and structure. Identify the sewer district(s) which include(s) the site and the location where the sewage shall be treated and discharged.
3. Describe the infrastructure components necessary to construct and operate the proposed wastewater collection and treatment system, including the treatment plant, likely routes of proposed sewer mains, pump station location(s), and power supply lines. A drawing shall be provided of the likely wastewater collection and treatment system.
4. Administrative issues relating to the wastewater collection and treatment system shall be addressed, such as property ownership, service area boundaries, facility ownership and maintenance. A map of the proposed service area shall be provided. The requirement to form a Sewage Works Corporation pursuant to Article 10 of the NYS Transportation Corporations Law for the collection and treatment of sewage from more than one separately owned parcel of land shall also be explained.
5. Address any potential sewerage limitations that may apply to the project. These include the following:
 - a DEC designated stream class and related effluent limitations that would apply to the receiving stream.
 - b The characteristics of the receiving stream shall be described and shall include flow volumes with seasonal low-flow;
 - c The proximity of nearby residences (existing and proposed) and potential noise and odor impacts. Relevant portions of the NYSDEC Program Policy on Assessing and Mitigating Noise Impacts (#DEP-00-1) shall be used to assess the potential noise impacts of the proposed wastewater treatment plant.
 - d Discussion of potential for flooding related to backup at the dam just south of the proposed treatment plant and discharge area.
6. Assess potential direct and indirect impacts of wastewater treatment and discharges on:
 - a Natural resources: wetlands, streams and ecological communities;
 - b Nearby residences (existing and proposed).
 - c Impacts related to construction of the collection and treatment system.
7. Discuss mitigation measures to address identified potential impacts which may include, among others, water conservation to reduce sewage flows; relocation of components to address siting constraints (including wetlands); and alternative technologies or structures. The potential mitigation measures discussed shall also include potential interconnection to, and expansion of, the Town of Rosendale municipal plant.

F. Solid Waste Disposal

1. Identify the anticipated amount and proposed disposal location of waste from each phase of construction, including demolition of existing structures and removal of existing waste dumps on-site. Describe the environmental conditions of all structures to be demolished so that sources of potential contamination with products such as asbestos, lead paint, etc are appropriately identified. For any potential contamination identified, a proposed removal and waste management plan shall be included.
2. There shall be a description of methods of recycling waste and natural materials on site during construction.
3. The DEIS must include an estimation of the breakdown of waste generated by residential (house, townhouse, condos, etc) and commercial (resort, retail, etc).
4. Since the Rosendale Transfer Station is registered to receive household waste only, describe the volume of commercial waste and identify the facility which is proposed to receive it. Include the capacity of the facility to accommodate this waste.
5. Describe the existing permitted limit at the Rosendale Transfer Station and the actual amount of waste currently processed. Include documentation on the capacity of the facility to accommodate the residential portion of the waste generated.

G. Terrestrial and Aquatic Ecology

1. Vegetation
 - a Contact the NYSDEC and Federal Fish and Wildlife Service to identify and evaluate the possible presence of State- or federally-listed exploitably vulnerable, rare, threatened, or endangered species, or species proposed for listing. Provide copies of all correspondence from NYSDEC and USFWS as an appendix to the DEIS.
 - b Conduct a primary field survey (natural resources inventory) by trained professionals to determine existing vegetation and ecological communities and provide a description of the findings. The field survey shall cover, where appropriate, the full growing seasons of the year. Mapping of all significant areas of vegetation and specimen vegetation in areas of disturbance shall be provided. Discuss any differences between the survey findings and the Town of Rosendale study "The Binnewater Lakes Region: Ecological Assessment of Habitats and Species".
 - c Evaluate the potential impacts on the resources identified, including a quantitative assessment of potential loss and/or reduction of function, and necessary mitigation measures designed to offset, reduce, or eliminate such losses. This shall include a drawing showing the clearing limits for the proposed project (including anticipated infrastructure installations) that includes the limits of all clearing, grading, construction, and landscaping activities.

2. Fish and Wildlife

- a Conduct a primary field survey (natural resource inventory) by trained professionals to identify existing species that may utilize the site and provide a description of the findings. Address habitat suitability for unique, rare, and/or endangered, threatened, and special concern species and assess likelihood of their presence if not observed. The field survey shall cover, where appropriate, the active seasons of the year and, where available, utilize survey protocols established by the USFWS or DEC appropriate to the species and season. For all non-listed species, the DEC shall approve survey methods and plans where there are proposed deviations from established survey protocols, or where survey protocols are not available. For species listed by NYS as threatened, endangered, or special concern, DEC shall approve all survey protocols. Prior DEC approval of survey protocols shall be a requirement of DEIS acceptance. Applicant shall identify the presence or likelihood of any wildlife movement patterns, potential wildlife corridors (known as dispersal corridors) or other potentially critical connections to open spaces beyond the project site. The relative elevations of groundwater present in bat hibernacula and nearby surface water bodies shall also be identified.
- b Identify and evaluate the possible presence of State- and federally-listed endangered, threatened or species of special concern, or species proposed for listing in accordance with a DEC-approved protocol as specified above. This section shall include an evaluation of the presence of and potential impacts to such species, including Indiana bat, Eastern small-footed Bat, Northern cricket frog, Jefferson's salamander, Allegheny woodrat, pied-billed grebe, timber rattlesnake, and red shouldered hawk. In addition to listed species above, this evaluation shall include all other bat species including but not limited to big brown bat, northern bat, little brown bat, and tricolored bat. This section shall also contain specific reference to any potential impacts on bat hibernacula and the white-nose syndrome disease crisis affecting various bat species. In addition to endangered or threatened species, this section shall also address Species of Special Responsibility (Responsibility Species) as per the Audubon Society's publication "Important Bird Areas of New York".
- c Evaluate the potential impacts of the project on the continued viability and potential recovery of all state-listed threatened or endangered species associated with the subject property and develop proposed mitigation measures which, if implemented, would result in a net conservation benefit to such species.
- d Evaluate the potential short-term and long-term impacts on the resources identified, including, among others, a quantitative assessment of potential removal or disturbance of existing wildlife and habitat areas, potential destabilization of bat hibernacula during construction, potential lighting impacts on bat behavior, potential fragmentation of habitat from project construction, and construction-related impacts to seasonal migrations or movements of species due to equipment movements, staging areas etc. Also address potentially harmful or nuisance interactions between future residents and wildlife species
- e Discuss necessary mitigation measures designed to offset, reduce, or eliminate potential impacts to wildlife and wildlife habitat identified above. Such mitigation measures would include, among others, changes in project component design, project site layout, project

component locations, site lighting levels and locations, construction schedules, locations of staging areas, etc. Also discuss measures to minimize or avoid potentially harmful or nuisance interactions between future residents and wildlife species.

3. Wetlands and Waterbodies

- a Delineate and flag the boundary of all on-site State and Federal Jurisdictional Wetlands in accordance with New York State Department of Environmental Conservation criteria (1995 Delineation Manual) and the methodology provided in the 1987 Army Corps of Engineers Wetlands Delineation Manual. Describe on-site wetlands and waters, listing codes and classifications for state regulated wetlands, streams and waterbodies. ACOE Jurisdictional Determination shall be provided and State wetland delineation shall be validated by DEC staff. A drawing shall be provided that includes the labeled wetland boundaries shown in accordance with the ACOE Jurisdictional Determination and the State wetland validation by DEC field staff. The drawing shall also show the regulated 100-foot adjacent area of all State-designated freshwater wetlands on the site and the location of all non-jurisdictional vernal pools and wetlands.
- b Calculate the area of proposed wetland or vernal pool disturbance based on grading plans, utility plans, and other available project information, and identify any proposed surface water discharges to wetlands. All proposed disturbance of any wetland or vernal pool shall be clearly noted on the plans and described in the DEIS. The disturbances shall be categorized as temporary or permanent and the acreages tabulated accordingly.
- c Assess wetland functions and values and potential impacts at the project and watershed scale. The function of the wetlands, such as points of recharge, discharge, entrapped, low flow, etc., shall be defined with respect to surface water and groundwater flow.
- d Develop a survey protocol, to be approved by DEC, to assess functions and values of all vernal pools. This protocol shall also establish a ranking system to determine the relative value of each pool within the proposed area of disturbance. Prior DEC approval of the survey protocol shall be a requirement of DEIS acceptance. The value of each identified pool shall be ranked according to this protocol and all potential impacts to each pool present within the area of disturbance shall be identified. The management guidance set forth in “Best Development Practices: Conserving Pool-Breeding Amphibians in Residential and Commercial Developments in the Northeastern United States” (Calhoun and Klemens 2002) provides useful information to guide the development of a protocol and assessment of impacts.
- e Describe proposed measures that would be implemented to avoid and minimize wetland impacts. Discuss any special mitigation measures that shall be implemented to prevent soil erosion and sedimentation of wetlands during construction. Where unavoidable wetland impacts are identified, a compensatory wetland mitigation plan shall be provided that provides a rationale for the proposed mitigation. The plan shall include drawings for the proposed compensatory wetland mitigation showing its location and conceptual grading and landscaping plans.

H. Land Use and Zoning

1. Land Use

- a Describe existing land uses of the subject property and adjoining properties.
- b Discuss the proposed action's consistency with the current Town of Rosendale Comprehensive Plan ("Plan"), the Town Zoning Law, and any pending plans if applicable, including, but not limited to,
 - proposed extension of residential and related infrastructure into currently vegetated areas rather than maintenance of existing clustering, ecological corridor preservation, and retention/restoration of water body and wetlands buffers, as envisioned by the Plan,
 - proposed development in areas described as constrained under the Plan such as steep slopes, limestone, soils prone to subsidence, wetlands and their buffers, mined-out areas of land and floodplains,
 - project's proposed development density related to the ability of the underlying natural and physical features of the property to support that density,
 - proposed development in close proximity to the water table,
 - character of the proposed action compared to the existing character of the Town of Rosendale, which is rural and small in scale
 - variety of housing in the proposed action compared to the Plan's vision of providing a variety of housing types including housing that is affordable,
 - current and future ability of the Town to supply water and sewer services
- c Describe the impacts of non-conformance with the Plan and proposed mitigation measures including, but not limited to, avoidance of constrained lands, working with the Town and its Zoning Review Committee to allow the proposed zoning amendments to become part of the ongoing Town Zoning Law review process, the construction of workforce/affordable housing and a proposal for the ownership, maintenance and management responsibilities, deed restrictions and/or easements for all open space, recreational areas, and all utilities and infrastructure.
- d Discuss proposed uses of land under Conservation Easement and additional measures to create Open Space and/or land under permanent conservation, including criteria for selecting such land. This discussion shall include an evaluation of potential rail trail routes through the property that would provide a connection with existing and potential rail trail access north and south of the site. Drawings shall be provided showing potential rail trail locations. Include projections of the intensity of use (average and peak usage) of these lands by type of use – hiking, biking, skiing, etc. This discussion shall also compare

proposed patterns of land use to historic patterns during the operation of William Lake Hotel and Resort

- e Describe the construction schedule. Discuss impacts on adjacent land uses associated with proposed construction activities, including access to the site for construction vehicles, effects of construction traffic on adjacent roadways, construction staging and material stock piling, erosion and sedimentation control. Discuss mitigation measures to minimize transportation of demolition material off-site.

2. Zoning

- a Describe existing zoning of the project site and adjoining properties.
- b Discuss conformance of the proposed action with the most recent comprehensive plan for the Town of Rosendale, and pending Plans where applicable.
- c Demonstrate the necessity of the proposed zoning amendment rather than compliance with current zoning requirements and subdivision approval standards and other applicable criteria set forth in the Town Code. Include an evaluation of why such deviation from current standards would be appropriate and an evaluation of other properties in the Town which could be developed under the proposed zoning Special Permit.

I. Transportation

1. A Traffic Study shall be conducted which shall evaluate existing traffic conditions, including bicycle and pedestrian traffic, compared to conditions that would be anticipated from implementation of the proposed action as well as impacts on traffic during each phase of construction. Provide a qualitative description of historic traffic conditions related to the former Williams Lake Hotel and hosted events. The study shall describe the existing available public transit modes nearest to the site and include a map showing the location(s). The study shall address potential impacts associated with implementation of the proposed action, and shall identify proposed traffic and safety improvements or other mitigation measures designed to lessen the impact of the project on the adjacent road network. The study shall also analyze the interaction of such mitigation measures with existing or planned public transportation options in the municipality or region. Such study shall include ability of existing roadway structures (i.e., pavement section, width, geometry, etc.) to accept additional traffic and consideration of traffic calming designs to reduce speeding within the project and adjacent area roadways. Methodologies from the latest version of the Highway Capacity Manual shall be used to conduct intersection analyses. All of the data collected and analyzed shall be summarized in maps or tables.
 - a Study Area Intersections. Data collection shall include counts and turning movements at the following existing intersection locations:
 - Binnewater Road (County Route 7) / Breezy Hill Road (County Route 26)
 - Binnewater Road (County Route 7) / Main Street (NYS Route 213)
 - Binnewater Road (County Route 7 / Lucas Avenue (County Route 1)
 - Main Street (NYS Route 213) and NYS Route 32

- NYS Route 32 and Tillson Road
 - Keator Ave. (County Route 7) and NYS Route 213
 - US Route 209 and Cottekill Road (County Route 26)
 - Cottekill Road (County Route 26) and Lucas Avenue Extension (County Route 1)
 - Cottekill/Sawdust Roads (County Route 26) and Cottekill Road (County Route 26A)
- b Peak Hours. The traffic volume counts shall be determined for typical weekday and Saturday peak hours (both AM and PM) as well as separate typical PM peak hours for Friday and Sunday. Analysis of intersections and turning movements shall be conducted on a Tuesday, Wednesday or Thursday to accurately measure the existing traffic. Weekend traffic analysis is also to be conducted during the Saturday midday peak hour period only for those intersections determined, based on Automatic Traffic Recorder (ATR) data, to be within 20 percent of the highest weekday counts, or higher. Data shall be collected when public schools are in session, and ATR's placed for one continuous week shall be used to verify the peak hour periods.
- c Roadway analysis. The following existing streets shall be inventoried to determine street widths, shoulder conditions, speed limits, prevailing speeds, number of travel lanes, sight distance measurements at intersections with restrictive conditions, traffic control devices, signs, and markings. Sight distance and intersection conditions of the study area intersections shall be included.
- Binnewater Road (County Route 7)
 - Breezy Hill Road, from the intersection with Binnewater Road to the intersection with Whiteport Road.
 - Main Steet (NYS Route 213) from the intersection with NY Route 32 to the intersection with Binnewater Road.
 - Elting Ave/Keator Ave. (County Route 7) from the intersection with Tillson Road to the intersection with NYS Route 213
- d Analysis of Impacts. The analysis shall include evaluation of other known area projects at the time that the traffic study is undertaken. The study shall include applicable development projects under construction, and development projects approved and not yet under construction, and shall consider traffic volumes and turning movements as well as road alignment, existing and proposed intersections and other considerations. The build year at which time the project shall be completed shall be analyzed. The capacity of each intersection for the existing, no-build, and build conditions shall be calculated. The potential traffic generation resulting from the proposed use shall be estimated based on the Institute of Transportation Engineer's most recent Trip Generation Manual and shall include the trips generated from the potential park uses on the site. Weekend traffic analyses are to be included. Trip distribution assignments used for impact analysis are to be made based on existing travel patterns.
- e Mitigation. Mitigation in the form of recommendations for roadway and intersection improvements, traffic controls, signal modification, timing revision, future monitoring shall be discussed. The need for adequate parking, bicycle facilities, and sidewalks within the proposed development necessary to minimize internal traffic trips shall be discussed.

In addition, means to reduce the overall number of vehicle trips generated by the project shall be considered, such as links to available public transportation and provision of energy-efficient shuttles to highly-frequented, nearby destinations.

2. Description of the all proposed access and internal roads, including whether they are to be private or public and, if private, the proposed form of management for such roads. Plans must include bike paths, pedestrian crossings, on-street parking, and traffic calming methods proposed within the project site. Discuss the Project's ability to comply with the relevant Town Code requirements concerning road construction and set forth its calculation of total impervious surface to be created.
3. Identify possible increase in air traffic as a result of the proposed action, including any proposal for a helipad or other such facility.

J. Aesthetic Resources

1. Describe the visual character of the project site environs through the use of narrative text and one or more of the following: aerial photographs, plans, sections, visual sight line profiles. Provide a viewshed map showing important points from which this site can be viewed using the NYSDEC Program Policy, Assessing and Mitigating Visual Impacts, DEP-00-2 as a guideline. The analysis shall describe:
 - a The existing visual character as viewed from public roads or properties, including main structures on the site. Attention shall be given to potential impacts on the Shawangunk Ridge and Joppenberg Mountain, and impacts resulting from light pollution from the proposed action.
 - b The change in visual character resulting from implementation of the proposed action, including components related to wastewater treatment, water supply storage and other visible infrastructure.
 - c Mitigation measures proposed to lessen the visual impact of the proposed action including but not limited to such matters as architectural design, landscaping, preservation of existing vegetation and woodlands, and preservation of existing topography.
 - d If mitigation is necessary, describe the landscaping/revegetation elements to be integrated into the plan to mitigate potential visual impacts.
 - e Specific attention shall be paid to visual effects during both day and night time conditions. Site lighting, including street lighting and parking area shall be considered, and a lighting plan provided if proposed. Mitigation measures related to site lighting shall be identified.

K. Historic and Archaeological Resources

1. Provide clearly labeled maps of all historic districts as well as all structures on and substantially contiguous to the Property which are either listed or eligible for listing on the State and National Registers of Historic Places. These shall include, but are not limited to, the

Binnewater Historic District, the Snyder Estate and the historic rail bed from 19th century cement mining operations.

2. Contact the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) to determine the presence of and potential impact on historic and archaeological resources that may be located on the project site, as well as the Century House Historical Society of Rosendale. Provide copies of all correspondence from OPRHP in an appendix to the DEIS.
3. Describe the findings of any cultural resource investigation if same is required by OPRHP. Provide copies of any cultural resource survey performed on the site as an appendix to the DEIS.
4. Discuss mitigation measures proposed or alternatives considered as deemed advisable by OPRHP in consultation with the professional archaeologist.
5. Provide a history of the project site. Provide a mitigation plan for protecting remaining historical features of the Rosendale cement industry as applies specifically to this site. Discuss potential adverse impacts on historic structures, including cement kilns, as a result of the proposed project, including but not limited to blasting, construction, and modification for use of historic structures

L. Community Facilities and Services

1. The proposed project may create the need for additional community services including police protection, fire protection, emergency medical services, education, public utilities (excluding water and sewer described elsewhere), and public recreation/open space facilities. Each existing service area shall be described as to its existing capacity. (Water and sewer services and distribution are addressed separately in other sections.)
2. The impact of the proposed project on each service area shall be estimated, according to generally accepted multipliers.
3. Mitigation measures shall be discussed including increasing the capacity of affected community service areas as a result of the proposed action.
4. Mitigation measures shall be discussed including increasing the capacity of the affordable housing resources within the region as a result of the proposed action.
5. Utilities: Address how the public utilities (electric, gas, telephone and cable) are proposed to be distributed within the site, both physically and administratively. Discuss potential impacts of utility installation and proposed mitigation measures. Include any service upgrades or expansions necessary to serve the proposed facility.
6. Address intermunicipal services (for example police or fire response), if any, and any administrative concerns related to the project site.
7. Recreation/open space: Describe the existing facilities that are presently (in 2007) available to the public for recreational use at the Williams Lake Hotel resort and at other portions of the

project site, including the type and intensity of use. Describe the existing recreational facilities that are presently available to the public in the Town of Rosendale and nearby areas. Identify any on-site facilities and open space areas that are proposed to remain available to public use. This discussion shall include an evaluation of potential rail trail routes through the property that would provide a connection with existing and potential rail trail access north and south of the site. Drawings shall be provided showing potential rail trail locations. Also discuss potential for public access to be provided to Fourth Lake. Finally, the DEIS shall also include a discussion of the site's potential for designation and use as permanent, publicly-accessible open space or parkland.

8. A feasibility study for the project shall be provided and shall include but not be limited to a discussion of the feasibility of each successive phase independent of future phases.

M. Fiscal Impact Analysis

1. A fiscal impact analysis shall be undertaken to ascertain the potential fiscal impacts associated with the all potential increased service demand generated by the project.
2. The fiscal impact analysis shall be on the cost and revenue implications of the project for each service taxing district affected by the proposed action. The fiscal impact analysis shall be based on generally accepted methods and their application. The market value for proposed homes shall be described, as it is the basis for property tax revenues. Projected income from the hotel/spa facilities shall be utilized for projecting future sales tax revenues. Analysis of the no-action alternative shall also be provided.
3. Potential impacts on Town of Rosendale businesses from proposed retail and commercial development onsite shall be discussed. A description shall be provided of the types of jobs to be created by the proposed action, both during construction and post construction, including a description of the position, whether the position is full or part-time, and its pay scale. To the extent possible, the applicant shall describe whether these employees will likely come from the Hudson Valley region, New York state, or out-of-state.
4. Mitigation measures that minimize any adverse fiscal impact, both immediate and long-term, of the proposed action on the Town of Rosendale and the County of Ulster shall be presented if they are necessary, and such measures shall include a discussion of whether the applicant plans to apply to the Ulster County IDA for a PILOT agreement or to New York State for new development or redevelopment tax benefits. Any and all impacts on Rosendale and Ulster County residents associated with such programs shall be discussed and the applicant shall assess the difference in taxes it would pay if it did not participate in the PILOT or State programs. The applicant shall also specify the form of ownership for proposed residential units on the Property and state whether ownership will be held in fee simple or whether it is proposing condominium ownership. The impacts caused by the potential unequal tax burden on fee simple owners created by condominium ownership shall be discussed in setting forth mitigation measures and fee simple ownership for all proposed residential units should be considered as a mitigation measure.

N. Noise and Air Resources

1. The DEIS shall evaluate the potential construction-related impacts to noise levels and air resources and shall identify appropriate mitigations to reduce it, including the noise to be generated by site clearing, truck traffic, blasting and rock excavation, and the potential post-development noise from environmental impacts to the surrounding neighborhood, if any.
2. Potential environmental impacts anticipated due to the construction of the proposed project, hours of construction operations, including noise and traffic, air quality, dust blasting, chipping and its impact on the surrounding area shall be described, including the potential damage (and remedial measures to be taken to correct damage) to Town roads from construction traffic, and the prevention of mud and gravel from being tracked onto Town roads. Estimates of the tons and truck trips necessary to carry out construction of the development shall be set forth.
3. If blasting will likely occur, the discussion shall not only include mitigation measures that address ways in which blasting shall be controlled, it shall also address ways of reducing and avoiding the need for blasting.
4. Relevant portions of the NYSDEC Program Policy on Assessing and Mitigating Noise Impacts (#DEP-00-1) shall be used to assess the potential noise impacts of the proposed wastewater treatment plant.
5. Discussion shall include any potential for adverse odors related to specified wastewater treatment sites and present mitigation measures.

O. Green House Gas Emissions (GHG)

1. The DEIS shall include a section regarding the quantification, assessment, and mitigation of Greenhouse Gas Emissions (GHG), including the following sources of GHG: direct emissions from stationary sources; direct emissions from non-stationary sources; indirect emissions from stationary sources; indirect emissions from mobile sources; emissions from waste generation; and total GHG emissions and mitigation measures.
2. A recommended model for the GHG analysis, shall include appropriate elements of the following:
 - a For all Emissions Types and Sources
 - Greenhouse Gas (GHG) emissions should be quantified in the EIS. For those cases where quantification is not possible, a *qualitative* discussion of the GHG emissions should be included. Qualitative discussions should compare emissions of different design choices and activities without quantifying the emissions. Useful resources for this comparison include the National Institute of Buildings and Technology's software **B**uilding for **E**nvironmental and **E**conomic Sustainability (BEES) (<http://www.bfrl.nist.gov/oa/software/bees/>) and the Buildings Energy Data Book published by the U.S. Department of Energy

(<http://buildingsdatabook.eren.doe.gov>) which is searchable for a variety of topics, including GHG/CO₂ emissions.

- If it is determined that total emissions from the construction phase are likely to be a significant fraction of total project emissions, then these emissions should be separately addressed on a phase by phase basis.
- Emission estimates should not include the emissions that will result from the use of products that will be produced or sold at the project site, (either qualitatively or quantitatively) except where those products are fuels.
- GHG emissions from waste generation should be considered separately as these include both stationary and non-stationary sources.

b Direct Emissions from Stationary Sources

- Post-construction direct emissions from stationary sources typically result from combustion of fossil fuels for heat, hot water, steam generation, on-site generation of electricity, or industrial processes. This category can include (but is not limited to) boilers, heaters, furnaces, incinerators, ovens, internal combustion engines (including emergency generators), combustion turbines, and any other equipment or machinery that combusts carbon-containing fuels or waste streams, including any GHG generation associated with spa procedures.
- To quantify energy use and direct emissions from stationary sources, the applicant should reasonably estimate fuel usage from the proposed stationary sources included in project design. In the process of projecting fuel usage, project applicant should consult with energy modeling software.
- Expected fuel usage should be used to estimate CO₂ emissions using published emission factors. For most fuel types, the Energy Information Administration (EIA) publishes appropriate emission factors in Fuel and Energy Source Codes and Coefficients (<http://www.eia.doe.gov/oiaf/1605/coefficients.html>). This document provides emission coefficients in pounds of CO₂ per unit volume or mass, as well as in pounds of CO₂ per million Btu. For fuel types not included in this document, the applicant should identify another reliable and relevant information source.

c Direct Emissions from Non-Stationary Sources

- Direct emissions from non-stationary sources should include fleet vehicles owned and operated by the applicant and associated with the project. Fleet vehicles should be widely defined to include freight trucks, delivery trucks, on-site mobile equipment such as fork lifts, tractors, maintenance and security vehicles, any shuttle systems proposed within the project area, and other non-stationary equipment used on-site which involves combustion of carbon containing fuels.

- To quantify direct emissions from non-stationary sources, the applicant should first estimate fuel usage, and then estimate CO₂ emissions based on coefficients published by the EIA, as above.

d Indirect Emissions from Stationary Sources

- The applicant should quantify the GHG emissions from the off-site production of electricity, heating, or cooling which will be used on-site. The applicant should estimate projected electricity demand for the project. Energy modeling software may be used in this regard. The applicant should multiply total projected purchased electricity by an emissions factor to calculate the CO₂ emitted through the generation of electricity. Based on 2005-06 data, the statewide average emission factor is 850 pounds CO₂ per MWhr. Through the Environmental Disclosure Program administered by the New York State Public Service Commission, the emission factor of each load serving entity (LSE), which can be an investor-owned utility or an alternative power provider, is published as a percentage of the statewide average. The applicant should consult with the most recent disclosure under this program, (which can be found at <http://www3.dps.state.ny.us/e/energylabel.nsf/>) and multiply the statewide average emission factor by the percentage published for the relevant LSE.
- To estimate projected energy usage, the applicant should use energy modeling software, examples of which include EQUEST, Energy-1 0, Visual DOE, and DOE2. The applicant should use these or other comparable energy modeling tools that can appropriately estimate projected fuel usage and electricity demand. Modeling should be used to compare potential design options and their resulting energy use implications. Whatever modeling tool is used, the DEIS should clearly identify both the tool utilized and the data input into the modeling tool. This data may include the building size, building location, type of heating, cooling, or ventilation, projected use patterns, and other design features.
- For any commercial space to be leased, where final demand is beyond the applicant's control, the applicant should quantify as much as practicable the projected emissions (or a range of likely emission levels), and describe those elements of building design that are inside and outside of the applicant's control.

e Indirect Emissions from Mobile Sources

- Indirect emissions from non-stationary sources include trips generated by vehicles that are associated with the proposed project but are not owned and operated by the applicant. This would include trips of commuting employees, residents, suppliers/vendors, and customers/users of the project. The most recent addition of Trip Generation, published by the Institute of Transportation Engineers, may be used to calculate the number of trips generated by the proposed project.
- For quantification, the applicant should estimate net new trips to be generated by the proposed project, with a breakdown for each of various relevant categories, including but not limited to commuting employees, residents, suppliers/vendors,

customers/users, and waste transportation. A separate category should be included for any possible increase in air traffic to and from the site. New net trips should be expressed as the annual vehicle-miles traveled (VMT) for each category, using reasonable assumptions about distances traveled, based on existing community patterns.

- To convert annual VMT to CO₂ emissions, the applicant should utilize the appropriate CO₂ emissions factor in EPA MOBILE 6.2 (which is expressed as grams/mile) and convert it to tons per year by dividing by 907,185 grams/ton. This model does not take vehicle speeds into account at this time, although speed does influence total GHG emissions from VMT. If an EPA model that does account for speed is finalized and available, the applicant should use that instead.

f Estimating Emissions from Waste Generation

- Emissions from waste generation are considered to be indirect GHG emissions but can be both stationary and non-stationary. To present GHG emissions resulting from waste generation, the applicant should refer to the U.S. EPA's Waste Reduction Model (WARM) web-based calculator and Excel spreadsheet, available at http://www.epa.gov/climatechange/wycd/waste/calculators/Warm_home.html. This model will enable the applicant to derive the GHG emissions implications of different levels of solid waste generation and differing solid waste management practices. If another model is used, justification should be presented.

g Total GHG Emissions and Mitigation Measures

- The applicant should present total projected GHG emissions as the sum of emissions from direct stationary sources, direct mobile sources, indirect stationary sources, indirect mobile sources, and waste generation. For the proposed action, the DEIS should include a review and assessment of mitigation measures, with calculations of the projected reduction in GHG emissions that will result from mitigation measures. Where practicable, the DEIS should also include a quantification of reductions in GHG emissions that would result from mitigation measures that were considered and rejected (i.e. not incorporated into the proposed action.) Where models do not allow reasonable quantitative analyses, the EIS should still provide qualitative comparisons of GHG emissions of various measures.
- Priority and preference should be given to consideration of on-site measures to reduce GHG emissions, in the interest of sustainable project design and maximizing the energy efficiency of new facilities. If the applicant suggests off-site mitigation measures, these should be considered only after the full implementation of proposed on-site mitigation measures has been demonstrated. Mitigation measures should also be identified in relation to the level of LEED certification sought by the applicant. Examples of mitigation measures acceptable to DEC can be found in the Department's "Guide for Assessing Energy Use and Greenhouse Gas Emissions in Environmental Impact Statements".

IV) UNAVOIDABLE ADVERSE IMPACTS

This section of the DEIS shall list the long-term, permanent impacts that are likely to occur despite mitigation measures, and shall compare in summary form the beneficial and adverse implications of these unavoidable impacts. Discussion shall also include short term, temporary construction impacts.

V) ALTERNATIVES

This section of the DEIS shall evaluate and compare alternatives to the proposed action, which are listed below. The evaluation and comparison shall include a conceptual subdivision plan and a tabular comparison of quantified impacts in addition to text. The tabular quantification shall include, at a minimum, impacts on vegetation by type, wetlands, vernal pools, surface waters, groundwater resources, water demand by type, wastewater flows including stormwater, total area of disturbance, acreage of required blasting, and estimated traffic trips generated. An analysis of the relative consistency of the plan and all alternatives with the current Town of Rosendale Comprehensive Plan shall also be included along with a comparison of GHG emissions for the plan and each alternative. The following alternatives shall be studied:

- A. The “No Action” Alternative as required under 6 NYCRR Part 617.9.b.5. In consideration of the no-action alternative, a discussion shall be provided that evaluates the potential designation and use of the site as permanent and publicly-accessible open space or parkland.
- B. A Resort Rehabilitation Alternative that evaluates the restoration or improvement of the existing lodging facilities, amenities, and trails, within the existing development footprint.
- C. A Conceptual Subdivision Alternative designed in accordance with existing zoning requirements, and to the maximum allowable density(ies).
- D. A Conservation Resort and/or Subdivision Development Alternative designed to avoid direct and indirect impacts to cultural resources and natural resources, including regulated wetlands, regulated wetland 100-foot adjacent areas, vernal pools, other water bodies, and listed wildlife species and their critical habitats, as identified during site evaluations. This plan shall include discussion and analysis of permanent restrictions on any future alteration of the site and facility conditions (including, but not limited to, grading, tree clearing, and lawn installation).

V) IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Identification of those natural and man-made resources consumed, converted or otherwise made unavailable for future use as a consequence of the proposed action.

VI) GROWTH INDUCING ASPECTS AND CUMULATIVE IMPACTS

Potential growth-inducing aspects, including short long term, primary and secondary/indirect impacts, generated by the project shall be described and mitigation measures discussed, if necessary. Projects under review by the Town of Rosendale within proximity to the Hudson River Valley Resort development proposed, under review, or approved since 2006 shall be identified and described. A map showing the locations of such projects and their distances to the Hudson River Valley Resort site shall be provided. Potential cumulative impacts shall be identified and evaluated.

VII) EFFECTS ON THE USE AND CONSERVATION OF ENERGY RESOURCES

A description of the effect of the proposed action on the short and long term use and conservation of energy resources shall be provided including ways to reduce inefficient or unnecessary consumption during construction and long term operation. The discussion shall include applicable building codes and definition of the level of Leadership in Energy and Environmental Design (LEED) Green Building Rating System certification to be sought in developing building plans for this project. Measures identified within the transportation analysis above to minimize vehicle traffic trips within and from/to the site shall also be summarized. An analysis of the ability of the proposed action to meet the goal of zero net energy shall be provided.

VIII) APPENDICES

The appendices shall include a list of all underlying studies and reports relied upon in preparing the DEIS, technical exhibits and studies background information relevant to the proposed action such as the adopted Scoping Document and other relevant SEQR documents, and relevant correspondence.