

**FINAL SCOPING DOCUMENT
BELLEAYRE MOUNTAIN SKI CENTER
UNIT MANAGEMENT PLAN - DEIS**

**AND
MODIFIED BELLEAYRE RESORT AT CATSKILL PARK
SUPPLEMENTAL DEIS
Dated: February 28, 2008**

BACKGROUND

This final scoping document relates to two proposed projects which, for the purpose of the environmental review, are being considered in a single process. The first project is the proposed expansion of the Belleayre Mountain Ski Center (Ski Center) pursuant to the issuance of an amendment to the Unit Management Plan (UMP) for the Ski Center. The Department of Environmental Conservation (Department) will be preparing a Draft Environmental Impact Statement (UMP-DEIS) relating to the Unit Management Plan. The scoping for the Draft Environmental Impact Statement with respect to the Unit Management Plan is set forth in Part A of this Document (See footer: "Scope for Part A: Ski Center UMP-DEIS").

The second project being reviewed is the proposed modified Belleayre Resort at Catskill Park (Belleayre Resort), which is as an alternative to the originally proposed project set forth in the Draft Environmental Impact Statement which was accepted as complete in December 2003 (Crossroads' DEIS). Crossroads Ventures LLC (Crossroads), the sponsor of the Belleayre Resort proposal, will be preparing a Supplemental Draft Environmental Impact Statement (Supplemental DEIS) relating to the Belleayre Resort proposal. The scoping for the Belleayre Resort Supplemental DEIS with respect to the Belleayre Resort proposal is set forth in Part B of this document. (See footer: "Scope for Part B: Belleayre Resort at Catskill Park Supplemental DEIS").

A cumulative impacts discussion, which draws upon elements of both the Ski Center's Unit Management Plan and the Belleayre Resort proposal, is contained in Part C of this document (See Footer "Scope for Part C: Cumulative Impact Analysis of Ski Center's UMP-DEIS and Belleayre Resort SDEIS").

This final scope is an integral part of the State Environmental Quality Review (SEQR) process and is intended to identify the relevant environmental effects of both projects and the combined effects of the Ski Center UMP-DEIS and the Belleayre Resort Supplemental DEIS. The purpose of scoping is to narrow issues and to ensure that respective Draft Environmental Impact Statements will be concise, accurate and complete and adequate for public review. The main objectives of scoping include an identification of the relevant environmental issues; an elimination of irrelevant issues and a de-emphasis of non-significant issues; identification of the extent and quality of information

needed; identification of the range of reasonable alternatives; and identification of potential areas of mitigation.

Public comment was an integral part of the scoping for these proposed projects. The next step in this process is the preparation of the documents addressing the issues set forth in this Scope. Once accepted by the Lead Agency as complete, these draft documents will be available for public review. For general information on the SEQR process, please refer to the SEQR web pages on the Department's web site, located at: <http://www.dec.ny.gov/public/357.html>.

The two proposed projects were described in the "Agreement in Principle" dated September 5, 2007 (the Agreement). The Agreement set forth a conceptual plan consisting of several generally concurrent components, which are all subject to the outcome of this SEQR process, including:

- *Crossroads Ventures LLC's proposed development of a resort complex consisting of 2 facilities. One is a resort and spa complex generally west of and adjoining the Ski Center and the other is a resort and golf course complex west of the Ski Center; and*
- *New York State Department of Environmental Conservation's (the Department) proposed expansion by the Ski Center, including improvements to the core area and the creation of "ski-in ski-out" access to the Belleayre Resort; and;*
- *The Department's proposed acquisition by the State of New York (the State) of a 1,200 acre +/- parcel referred to as the Big Indian Plateau and a Conservation Easement on the Brisbane Mansion parcel, which is a 30 acre +/- parcel within the Big Indian Plateau parcel; and*
- *The Department's proposed acquisition by the State of a 78 acre +/- parcel referred to as the Former Highmount Ski Center and related 21 +/- acre Highmount Spa Easement.*

The Big Indian Resort and golf course and related Belleayre Highlands lodging complex previously proposed by Crossroads for lands to the east of the Ski Center are no longer being considered for development by Crossroads. The expansion of the Ski Center has been modified from the proposed expansion set forth in Exhibit M of the Agreement. The proposed Belleayre East trails and lift are not being advanced for development by the Department at this time, and so are not being addressed in this document. Should consideration of any new Belleayre East lift or trails be considered in the future, it would be the subject of an amended Unit Management Plan with supplemental draft environmental impact statement, which would include specific reference to this SEQR process, including extension of any analysis of cumulative impacts within the Final

Environmental Impact Statement and compatibility of any East lift or trails with findings adopted based on the current UMP-DIES review.

By way of background, Crossroads had submitted applications in 1999 for a proposed resort development to be known as “The Belleayre Resort at Catskill Park” which had been proposed to be located on a total of 1,960 acres in the Towns of Shandaken and Middletown, New York, adjacent to the Ski Center. Those applications and an accompanying Draft Environmental Impact Statement (Crossroads’ DEIS) were the subject of a Department legislative public hearing and issues conference. On September 7, 2005, the Department Administrative Law Judge (ALJ) issued Rulings regarding party status and issues to be adjudicated pursuant to Department regulation, 6 NYCRR Part 624. These Rulings were the subject of appeals to the Department Commissioner, and an Interim Decision was issued on December 29, 2006. That Interim Decision identified which issues were to be adjudicated, and directed that the Crossroads’ DEIS record be supplemented with additional information, including consideration of an alternative development scenario.

On September 5, 2007, Crossroads and certain parties to the adjudicatory proceeding entered into the above referenced Agreement describing the proposal for the modified Resort project. This modified alternative project requires the preparation of a Supplemental DEIS and the filing of new or modified Department permit applications, all of which are subject to full public review. Crossroads moved to suspend the adjudicatory hearing in order to pursue the alternative project. The adjudicatory hearing was “held in abeyance... pending supplementation of the administrative record” as stated by the ALJ, in his Ruling dated October 19, 2007.

The Department, as the designated lead agency for the Belleayre Resort proposal and the sponsor of the Ski Center UMP, is obligated to review the proposed projects pursuant to SEQR. The Agreement does not change the Department’s legal obligations to create an environmental record in support of its own and other agencies’ permitting decisions, as well as its own facility development or land acquisition decisions. In providing for the preparation of a Supplemental DEIS, it was clearly anticipated that the Department staff would be reviewing the impacts associated with the Belleayre Resort project just as it would any other such action. Within the SEQR process, the Agreement represents the project proposal and the project sponsor’s preferred alternative. The Department staff is under no obligation to accept that alternative, in whole or in part, but must evaluate potential impacts of that alternative as part of the Department’s environmental review under SEQR.

PROJECTS PROPOSED UNDER THIS SEQR REVIEW

The expansion of the Ski Center will be developed as part of an amended Unit Management Plan, as required by The Catskill Park State Land Master Plan. The Department is proposing to expand the Ski Center, consistent with state constitutional limitations on the total miles of ski trail that can be developed at the Ski Center. In the core area, trail, lift and lodge improvements are being proposed. On the west, the

Department proposes to acquire portions of the former Highmount Ski Center (78 acres+/-), plus a permanent easement over other lands on the Highmount Spa facility (approximately 21 acres +/-) in close proximity to Crossroads' proposed resort facilities, and to develop new ski lifts and ski trails, with snowmaking capacity on the acquired parcels, configured to provide ski-in ski-out public access to the resorts.

The modified Belleayre Resort project consists of two resort complexes, both located west of the Ski Center along Ulster County Route 49A and south of NYS Route 28. The first resort, Wildacres, will include a 250-room hotel plus 139 lodging units in townhouse-style units surrounding an 18-hole golf course. The second resort, the Highmount Spa, consists of a 120 room hotel, spa facility, 60 lodging units in two multi-unit buildings and 60 detached lodging units in up to 52 buildings. Both resorts are being designed as ski-in, ski-out resorts connecting with the Ski Center.

This final scope establishes a structure for the Ski Center UMP-DEIS and the Belleayre Resort Supplemental DEIS which will describe the shared geographical location and general setting for the development proposals; provide additional descriptions and analysis of likely site-specific impacts of the individual project components; and address potential cumulative impacts of the development proposals. Site-specific analysis of the proposed expansion of the Ski Center, including both fee and easement acquisitions on the former Highmount property, as well as facility developments on existing and newly-acquired Ski Center properties, will be included as Part A. Likely site-specific impacts of the proposed private development of the Belleayre Resorts, namely the Wildacres Resort and The Highmount Spa Resort, will be addressed in Part B. Elements of both Part A and Part B will also contribute to the cumulative impacts discussion included in Part C. Anticipated cumulative impacts of the modified private development plan in relation to the expansion of the Ski Center include, but are not limited to: water quality, water supply, aesthetics, noise, transportation, and community character.

COVER SHEET

The cover sheet shall state that the document is a combined action for the Draft Environmental Impact Statement for the Belleayre Mountain Ski Center Unit Management Plan and the Supplemental Draft Environmental Impact Statement for the modified project for the Belleayre Resort at Catskill Park, and shall also include the title of the action, the project location, the name and address of the Lead Agency, the names of the authors, a list of the Involved Agencies, and the date of completion and date by which comments must be submitted.

EXECUTIVE SUMMARY

In addition to the separate executive summaries provided for in the respective Part A of this Scope, the Draft Environmental Impact Statement for the Belleayre Mountain Ski Center Unit Management Plan, and the Part B of this Scope, the Supplemental Draft Environmental Impact Statement for the modified project for the Belleayre Resort at

Catskill Park, an executive summary shall be provided for the combined projects. The executive summary shall include summaries of the environmental setting, proposed actions, cumulative impacts of and proposed mitigation measures for the combined projects, and alternatives to the proposed actions. A description of all likely permits and approvals required for completion of the combined proposed projects shall also be included.

PART A
BELLEAYRE SKI CENTER
UNIT MANAGEMENT PLAN-DEIS

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PART A
BELLEAYRE MOUNTAIN SKI CENTER
UNIT MANAGEMENT PLAN - DEIS

BACKGROUND

This draft Environmental Impact Statement (DEIS) scope is for the expansion of the Belleayre Mountain Ski Center (Ski Center). The Ski Center expansion, described in this Part A of the complete Scope for the modified project for the Belleayre Supplemental DEIS and Ski Center’s Unit Management Plan DEIS, consists of improvements to the facility, the creation of “ski-in-ski-out” access to the Belleayre Resorts; acquisition by Department on behalf of the People of the State of New York of a 1200 acre +/- parcel referred to as the Big Indian Plateau and a Conservation Easement on the Brisbane Mansion parcel (+/-30 acres) within the Big Indian Plateau parcel; and acquisition by Department on behalf of the People of the State of New York of a 78 acre +/- parcel referred to as the Former Highmount Ski Center and related easement (+/- 21 acres) within the Belleayre Resort property.

PROJECT DESCRIPTION

The expansion of the Ski Center will be developed as part of an amended Unit Management Plan, as required by The Catskill Park State Land Master Plan. Consistent with state constitutional limitations on total miles of ski trail that can be developed at the Ski Center, the Department is proposing to expand the Ski Center in the core area and to the west. On the west, the Department proposes to acquire portions of the former Highmount Ski Center (78 acres+/-), plus permanent easements over other lands (21 acres +/-) in close proximity to Crossroads’ proposed resort facilities, and to develop new ski lifts and ski trails, with snowmaking capacity on the acquired parcels, configured to provide ski-in-ski-out public access to the resorts. Department also proposes upgrading several existing trails, lifts and the Discovery Lodge in the core area of the Ski Center. This final scope establishes a structure for the Unit Management Plan-DEIS which will describe the location and general setting for the Ski Center expansion proposal; address potential cumulative impacts of the Ski Center expansion proposal; and provide additional descriptions and analysis of likely site-specific impacts of the individual project components. Site-specific analysis of the proposed expansion of Ski Center, including the acquisition of the former Highmount property as well as facility developments on existing and newly-acquired Ski Center properties, will be included as Part A.

EXECUTIVE SUMMARY

The executive summary shall provide a synopsis of the Ski Center's Unit Management Plan-DEIS including summaries of the environmental setting, proposed actions, identified impacts, proposed mitigation measures and alternatives to the proposed actions. A description of the permits and approvals required for completion of the proposed project shall also be included.

**PART A:
BELLEAYRE MOUNTAIN SKI CENTER
2008 UNIT MANAGEMENT PLAN-DEIS**

SECTION 1.0 INTRODUCTION

1.1 PROJECT LOCATION

Describe the project location on a regional and local scale. A site location map (USGS base) and a regional location map shall be included in the Unit Management Plan-DEIS. The local scale map shall show the proposed project site in relation to Wildacres and Highmount Spa to aid in orientation. The local scale map shall also clearly indicate county, town and village boundaries.

1.2 GENERAL PROJECT DESCRIPTION

1.3 PROJECT PURPOSE, NEEDS, AND BENEFITS

1.3.1. Background and History of Belleayre Mountain Ski Center including reference to the constitutional enablement

1.3.2. 2008 Unit Management Plan and Management Goals and Objectives

Manage the ski center in a manner which ensures protection of the natural resource in accordance with Environmental Conservation Law, New York State Constitution Article XIV, and the Catskill State Land Master Plan.

Allow Belleayre Mountain Ski Center to accommodate increasing public demand in a well-balanced manner.

Provide year-round recreational opportunities to the public.

Ensure the health and safety of the public who visit the facility.

Enhance the opportunity for economic benefit to the local community, region, and the state.

Serve as a model for future growth of other ski areas by incorporating the principles of the NSAA Sustainable Slopes Environmental Charter 2005 to the extent practical. The Unit Management Plan shall provide a narrative description of how the facility is addressing all of the Environmental Principles in the Sustainable Slopes Charter.

1.3.3. 1998 Approved Unit Management Plan

Provide the status of the 1998 Unit Management Plan as amended and the actions proposed therein. List uncompleted actions that are still planned to be completed including but not limited to:

a. New Tomahawk Base Lodge

The Unit Management Plan-DEIS shall describe the purpose, location, floor plan (with basic dimensions), and the desired rustic architectural style of the proposed Tomahawk Base Lodge. A site plan shall indicate the location of the building. A drawing shall be included with the proposed approximate floor plan, and an isometric rendering shall show an external view of the building giving an idea of the desired rustic architectural style of the building.

b. Sunset Lodge Expansion

The Unit Management Plan-DEIS shall describe the purpose, location, floor plan (with basic dimensions), and the desired rustic architectural style of the proposed expanded Sunset Lodge. Photos of the existing Sunset Lodge shall be included. A site plan shall indicate the location of the existing building. A drawing shall be included with the existing and proposed approximate floor plans, and an isometric rendering shall show an external view of the building giving an idea of the desired rustic architectural style of the building.

c. Discovery Lodge Expansion

The Unit Management Plan-DEIS shall describe the purpose, location, floor plan (with basic dimensions), and the desired rustic architectural style of the proposed expanded Discovery Lodge. Photos of the existing Discovery Lodge shall be included. A site plan shall indicate the location of the existing building. A drawing shall be included with the existing and proposed approximate floor plans, and an isometric rendering shall show an external view of the building giving an idea of the desired rustic architectural style of the building. Explain the operational efficiencies proposed with this expansion.

1.3.4. Public Need, Objectives and Benefits are set out in Part A, Section 3.

1.4 REGULATORY FRAMEWORK, PERMITS, AND APPROVALS

This section of the Unit Management Plan-DEIS will list applicable regulatory requirements and anticipated permits and approvals required from Federal, State, and local authorities, including a description of the approval being sought, the current status of the application and, if applicable, the date obtained and the date of expiration. In addition, compliance with laws or regulations with specific relevance to the Ski Center will be described.

1.4.1. Local

This section shall list applicable local requirements:

- A. Shandaken
- B. Middletown
- C. Local Special Purpose Districts

1.4.2. County

- A. Ulster County Highway Access Permits
- B. Delaware County Highway Access Permits
- C. Ulster County Department of Health (as applicable for potable water alternatives)
- D. Ulster County Planning Department

1.4.3. Regional

- A. New York City Department of Environmental Protection (NYDEP)
- B. Delaware River Basin Commission (DRBC)
- C. Compliance with NYC Executive Order No. 51 (May 20, 1997)

1.4.4. State

- A. New York State Department of Environmental Conservation: Water Quality, SWPPP, Dam Safety
- B. NYS Department of Transportation (NYSDOT)
- C. NYS Department of Health (NYSDOH)
- D. NYS Office of Parks, Recreation and Historic Preservation (OPRHP)
- E. NYS Department of State – Building Code of New York State
- F. NYS Energy Research and Development Authority (NYSERDA) – Executive Order No. 111 – Green and Clean State Buildings and Vehicles Guidelines
- G. Compliance with Article 14, Section 1 of the NYS Constitution

1.4.5. Federal

- A. United States Army Corps of Engineers (USACOE)

- B. Clean Water Act provisions regarding interbasin transfers of surface waters.
- C. Americans with Disabilities Act of 1990 (ADA)

1.5 INVENTORY OF PHYSICAL FACILITIES, SYSTEMS, AND RESOURCES

1.5.1. Buildings

Provide a narrative description of all the buildings at Ski Center. Provide a table including Building Name, Location, Size (sf), and Heated/Unheated and approximate construction date.

1.5.2. Ski Trails

Provide a narrative description of the trail system. Include an existing trail map with trails labeled, and an associated spreadsheet listing the trails, lengths, areas, and average widths.

1.5.3. Lifts

Provide a narrative description of the lifts and associated standards. Include a lift spreadsheet with lift name, number, installation date, length, vertical rise, uphill capacity.

1.5.4. Snowmaking

Provide a narrative description of the existing snowmaking system including an inventory of snowmaking equipment. Include a map showing the location of snowmaking reservoirs, pump houses, water transmission lines, water and air distribution lines.

1.5.5. Cross Country Ski Trails

Provide a narrative description of the cross country ski trail system, including bridges and other trail improvements, current conditions, and parking. Include an existing cross country ski trail map with trails labeled, and an associated spreadsheet listing the trails and lengths.

1.5.6. Parking

Provide a narrative description of the existing parking facilities. Include a map showing the location and capacity of the existing parking lots.

1.5.7. Roads

Provide a narrative description of the existing roads at the facility and of access routes for visitors to the facility from the NYS Thruway.

1.5.8. Energy Consumption

Provide a narrative description of the existing energy consumption at the facility, including: electricity, fuel oil, diesel fuel, gasoline, and LP gas.

1.5.9. Potable Water

Provide a narrative description of the existing potable water system. Include a map showing the location of the water supply wells, chlorine stations, storage reservoirs, transmission and distribution piping.

1.5.10. Sanitary Sewage

Provide a narrative description of the existing sanitary sewage system. Include a map showing the location of existing septic tanks, collection lines, lift station, “forcemain,” metering station, and connection manhole to municipal sewer system.

1.5.11. Solid Waste

Provide a narrative description of the quantity and disposal of solid waste, and recyclables generated at the facility. Provide a narrative description of the use, treatment and disposal of cut trees and stumps at the facility.

1.5.12. Hiking Trails

Provide a narrative description of the hiking trail system. Include an existing hiking trail map with trails labeled, and an associated spreadsheet listing the trail names and lengths.

1.5.13. Shale Pit

Provide a narrative description of the shale pit, purpose, and the procedures used to excavate material for on-site use and reclaim the site. Provide description of the requirements for the permanent closure and reclamation of the shale pit area.

1.5.14. Summer Music Program

Provide a description of the summer Belleayre Music Festival program, and the Ski Center relationship with the Belleayre Conservatory.

1.5.15. Project Location Overview Map

Provide a map that spatially depicts all the resources associated with the project.

1.6 INVENTORY OF HUMAN RESOURCES & SYSTEMS

1.6.1. Belleayre Staff - Organization and Functions

Describe how Belleayre fits organizationally into the Department Division of Operations. Provide a narrative description of the Belleayre Staff and its organization and functions. Include an organizational chart of the Belleayre Staff.

1.6.2. Contractual Services – Concessions

Provide a narrative description of the Concessions provided at Ski Center including Food & Beverages, and the Retail Ski Shop, and the Photography contract.

1.6.3. Fiscal Information

Provide a narrative description of the budgeting process, revenue and expenditures at the Ski Center. Provide a spreadsheet indicating a 10 year history of attendance, revenues, and operating costs at Ski Center. Include the geographical origin of visitors.

Demonstrate the economic feasibility of the proposed Ski Center project, including an analysis of projected use, construction costs, and costs for operations and maintenance.

SECTION 2.0 PROPOSED LAND ACQUISITIONS

A. Below in Sections 2.1 to 2.4 are four identified parcels proposed for State land acquisition at this time. Provide a general description of each of the proposed land acquisitions, including, if possible, maps and descriptions of the physical characteristics and natural resources located on the subject parcels.

- 2.1 Site of Former Highmount Ski Center
- 2.2 Highmount Spa Easement
- 2.3 Big Indian Plateau
- 2.4 Brisbane Mansion Conservation Easement

B. For each subject parcel, address the following:

1. Describe the proposed uses for each of the proposed land acquisition parcels and the relevant resources available on each parcel.
2. Explain the potential impacts of the proposed Ski Center expansions and changes in operations and the modified project with the resources and likely uses of the lands proposed for acquisition.
3. Explain generally the 2006 Open Space Conservation Plan and any relevant priority project category applicable to any of the proposed land acquisitions identified above. If any of the proposed land acquisitions fall within one of the Priority Projects in the Open Space Conservation Plan, identify the Priority Project number and include an explanation for same.
4. Identify the extent to which any of the above referenced proposed land acquisitions have previously been evaluated under SEQR with specific reference to the Generic DEIS for the State Open Space Conservation Plan, and if so, explain if the proposed land acquisitions are satisfactorily addressed by the 2006 Open Space Conservation Plan's Generic DEIS, specifically addressing if any issues of segmentation from this SEQR review are present.
5. Is any development planned on any of the proposed land acquisition parcels? Explain the environmental impacts associated with the proposed State's acquisition where future development may occur. Identify the alternatives.
6. Discuss the process for the State land classification for the proposed land acquisitions.
7. Discuss the proposed recreational uses available to the public on the proposed land acquisition parcels. Include a discussion regarding the

environmental impacts associated with the possible public recreational uses including, but not limited to, hunting, snowmobile use and other motorized use, mountain biking, horse back riding, skiing, hiking.

8. Discuss the possible impacts of any necessary tree cutting on the proposed land acquisition parcels.

9. Identify the alternatives of the proposed uses and activities associated with the proposed land acquisitions.

SECTION 3.0 PROPOSED MANAGEMENT ACTIONS AND PROJECTED USE

3.1 ASSESSMENT OF PUBLIC NEED, OBJECTIVES AND BENEFITS OF PROPOSED ACTIONS

- A. Document the public use of the facility with a ten (10) year summary of annual attendance, revenue, and operating costs. Document the overuse of the facility in its current state. Define the term “Comfortable Carrying Capacity”. Provide a justification of the proposed expansion of the facility including a determination of the proposed Comfortable Carrying Capacity of the expanded facility. With respect to justification, separately indicate the public need for each aspect of the expansion or major capital expenditure, or both, and how each aspect of the expansion or major capital expenditures primarily serves the overall plan and goals for the facility and the needs of the general public.
- B. Objectives. This section may contain an overall description of objectives regarding the proposed ski area expansion. Also, the objectives of each aspect of the proposed expansion should be delineated with respect to each component and how that component fits into the overall objectives of the ski area expansion.
- C. Benefits – Provide an explanation of the public benefits of the proposed expansion and specify the benefit with respect to each major component of the expansion.
- D. Assess the needs related to the proposed expansion on the water supply system and capacity, waste water treatment analyses, and stormwater assessments. All studies shall be conducted by qualified professionals.

3.2 TRAIL AND LIFT IMPROVEMENTS

3.2.1. General

The Unit Management Plan-DEIS shall include an updated detailed topographic map, with 5’ contours, encompassing the entire ski area, showing all of the existing and proposed ski trails and lifts. Provide a Downhill Ski Trail Inventory spreadsheet including all existing and proposed trails indicating trail length, vertical drop, area, average width, and ability level for downhill ski trails.

New trail groups are as follows:

- Core Ski Area – Trail and Lift Improvements
- Highmount/Belleayre West – Trails and Lifts
- Highmount Spa – Trails and Lifts
- Proposed Comfortable Carrying Capacity and

“Skiers at One Time” (SOAT) analysis
-Cross Country (XC) Ski Trail Relocation and
Mountain Bike Trail Designation.

The planning of the proposed improvements to the trail and lift system at the mountain shall be done by a Professional Engineer experienced in ski area planning. The proposed trails shall be designed and laid out in the field so as to consider the avoidance of outstanding natural features of the land. Typical lift support upright/lift pole construction should be described with the approximate number of proposed poles. The proposed trails shall avoid wetlands or stream crossings to the extent practical. Ski trails with minimal or no cut and fill are preferable. Constructed Ski Trails (cross slope) shall be constructed to the minimum width required, and shall minimize cut and fill by carefully locating the trail in the field, allowing downhill cross-slope on the trail surface, and by consideration of log cribbing or retaining walls. Consideration shall be given in the field layout of the trails to avoid or protect specimen trees and unique tree islands, thereby providing a more natural ski experience. Skier Bridge locations shall be identified, and a general description of the style of bridge shall be provided. Any Skier Bridges shall have a rustic appearance so as to fit in with the nature of the Catskill Forest Preserve.

3.3 PARKING AND VEHICULAR CIRCULATION

Perform an analysis of the existing and required additional parking space required to meet the demands of the expanded facility. Maps shall be included showing the location, size, capacity, and vehicular flow of new parking lots and connections. Approximate proposed grades, drainage patterns, culvert locations and cover materials shall be included. Consider alternative parking lot surfaces with an analysis of impervious vs. pervious surfaces, reduction of parking lot footprint and site plan design improvements to minimize surface area and improve visual impacts.

3.4 BUILDINGS

Perform a Building Space Analysis to inventory existing buildings, and determine proposed space requirements to meet the demands of the expanded facility. Building functions to be considered shall include; Indoor Circulation, Food Service Seating, Food Preparation, Bar & Lounge, Nursery/Day Care, Rest Rooms, Retail Sales, Rental/Repairs, Public Lockers, Ski School, First Aid/Patrol, Employee Lockers, Ticket Sales, Administration, Storage/Mechanical, and Maintenance Shop.

3.4.1 Discovery Lodge Expansion

Provide a narrative discussion of the need for the expansion of this facility as related to the projected space requirements indicated in the Building Space Analysis. Describe the proposed building components, type of construction, square footages etc. Discuss the requirements for a rustic architectural style design which will fit in with the nature of the Catskill Forest Preserve. Provide Architect's Conceptual Plans, Elevations, Site Plan, and Artistic Renderings of the building which will show the rustic nature of the building. Discuss the requirement of this building being, at a minimum, a LEED Silver Certified building. Consider the use of on site materials, or materials taken from approved state forest lands as part of the LEED process. Provide a discussion of all potential applicable LEED elements for this project.

3.4.2 Information Booth

Describe the purpose, location, floor plan (with basic dimensions), and the desired rustic architectural style of the proposed information booth. A site plan shall indicate the location of the building. A drawing shall be included with the proposed approximate floor plan, and an isometric rendering shall show an external view of the building giving an idea of the desired rustic architectural style of the building.

3.5 MISCELLANEOUS APPURTENANCES

3.5.1. Snowmaking Upgrades

A. The Unit Management Plan-DEIS shall include a detailed Snowmaking System Upgrade Report and Conceptual Design prepared by a Licensed Professional Engineer experienced in all aspects of the design of snowmaking systems. The report shall:

- Provide a detailed analysis of the existing water supply sources utilized in the existing snowmaking system.
- Include an analysis of the existing water demand, pump capacities, compressed air facilities capacity, annual fuel consumption, and energy management.
- Determine the anticipated increase in water demand based on the expanded trail system.
- Identify the proposed source of additional water and additional storage required for the expanded system.
- Evaluate the proposed operation scenarios including early mid and late season.
- Include an evaluation and recommendation of optimal snow gun selection for the various operating scenarios on the proposed trail system.

- Determine the required peak on mountain water and air flow capacities based on the snow gun selections and operating scenarios.
 - Evaluate and recommend the fuel source for the proposed water and air system components considering issues such as fuel cost, and Green House Gas (GHG) emissions, and the requirements of petroleum bulk storage requirements.
 - Evaluate the potential use of micro-hydro generation in the snowmaking transfer lines.
 - Evaluate the use of diesel powered generators to reduce peak electric demand and provide emergency backup power, with consideration given to GHG emissions, and the requirements of petroleum bulk storage requirements.
 - Provide system Energy Management recommendations.
- B. Consideration shall be given to replacing existing equipment with more efficient and environmentally friendly equipment.
- C. The Unit Management Plan-DEIS shall include a conceptual snowmaking system plan indicating the location and capacities of the proposed reservoir, pumphouse and air facilities, as well as the modification to existing pumphouses and compressed air facilities.

3.5.2. Primary Electric Upgrades

The Unit Management Plan-DEIS shall provide a discussion of the necessity for replacing existing primary electric lines and equipment, and requirement for installation of new lines and equipment for proposed new electrical loads as part of this Unit Management Plan-DEIS.

3.5.3. Sand/Salt Storage

The Unit Management Plan-DEIS shall provide an analysis of the use rate of the materials to properly size the facility. The Unit Management Plan-DEIS shall include a description of the proposed design features of the proposed sand/salt storage shed including size, storage capacity, location, proximity to wetlands, surface waters, rainproof enclosure, impermeable floor, stormwater treatment. Structural and operational Best Management Practices (BMPs) to prevent the sand and salt from entering surface waters will be described and assessed for effectiveness.

3.5.4. Potable Water Supply

Propose modifications to the existing water supply system, if necessary. Alternative water supply sources shall be identified, if necessary, and

their impacts assessed in the surface and groundwater impact sections of this Unit Management Plan-DEIS.

3.5.5. Lighting, Landscaping, and Signage

The Unit Management Plan-DEIS shall:

A. Discuss and illustrate the location and type of lighting that will occur within the project. The discussion shall include measures such as project component locations, structure heights, use of earth tone colors, non-reflective glass, cut off light fixtures, use of outdoor lighting that meets the standards of the International Dark Sky Association and limiting or banning night skiing. Discuss how night lighting will be minimized to an extent practical while maintaining security, safety and operational requirements

B. Discuss and illustrate through planting plans how the base area in and around the proposed parking lots, connecting roads, stormwater management facilities, and existing base lodge buildings will be landscaped, including locations of vegetative screening. Include in the discussion of maintenance efforts that will be made to manage the grass, shrubs, flowers, trees and all other plantings and greenery on the project site.

C. Discuss the use of native versus non-native plant materials.

D. Include BMPs for the prevention of invasive species during construction and operation of the project. This program shall be developed in consultation with the Department and the Catskill Regional Invasive Species Project.

E. Describe signage, on-site and off site. Include a description of the existing Interpretive Material posted at the site, and any proposed improvements or additions to the Interpretive Signs. Explain compliance with the NYS Department of Labor Industrial Code Rule 54.

3.5.6. Energy and Materials Management

A. The Unit Management Plan-DEIS shall include a description of energy and materials management including guidelines for energy use and conservation, water use and conservation, recycling and composting, and product purchasing during construction and post-construction operations.

B. The Unit Management Plan-DEIS shall include a description of green building design elements that will be incorporated into the project,

including how buildings will be designed and constructed to green building specifications set forth by the United States Green Building Council in order to obtain certification under the Leadership in Energy and Environmental Design (LEED) program.

3.6 PHASING AND SCHEDULING

The Unit Management Plan-DEIS shall include an anticipated project phasing plan/schedule based on funding availability.

SECTION 4.0 ENVIRONMENTAL SETTING, POTENTIAL IMPACTS AND MITIGATION MEASURES

- A. In this section the Unit Management Plan-DEIS shall assemble the relevant data as it applies to the various biological, physical, social, and cultural resources on the site or within the community. On-site data shall be collected for the entire site, but shall focus more on areas proposed to be developed or likely to be affected by development. The data for the community may rely upon prior studies and other sources. Information from local municipal authorities such as fire and police shall also be collected.
- B. Mapping shall be provided at the scale specified or, if not specified, at a scale to clearly illustrate existing environmental conditions.
- C. Describe the anticipated impacts and meaningful mitigation measures as applicable to the resources. Mitigation may include, but shall not be limited to, use of innovative construction techniques, phased construction and relocation of facilities. Positive impacts shall be identified as well.

4.1 LAND USE AND PLANNING

4.1.1. Current Land Uses

- A. Describe types, locations, and acreages of existing land uses and zoning for the site, for adjacent properties, and for the general vicinity, defined by the NY Route 28 corridor between Boiceville and Margaretville, and the towns and villages therein, including State lands.
- B. Discuss past use of the properties and local communities.

4.1.2. Land Use Planning and Zoning

- A. Describe adopted comprehensive plans and other adopted land use plans, and compliance of the proposed project where applicable. Land use plans to be addressed include local, county, and Department management plans. Describe or reference relevant portions of the Town of Shandaken's comprehensive plan and the Town of Middletown's comprehensive plan, if one has been adopted. Any data and analysis compiled by municipal committees, if available, shall also be considered.
- B. Compliance with Catskill Park State Land Master Plan (CPSLMP). Provide a narrative description of the CPSLMP, including related Department Policies, how it applies to the facility, and discuss any related issues.

4.1.3. Compatibility with Land Use Plans and Effects on Future Developments

- A. Assess the compatibility of the proposed project with the existing character of the surrounding lands and communities
- B. Assess the effect of the proposed project on future land use of other property in the vicinity, and to other development projects in the area, either under construction or under review.
- C. Review the impact on land use development, regional real estate sales, and work force demands.

4.2 GEOLOGIC AND TOPOGRAPHIC RESOURCES

- A. The geology of the proposed project site shall be described, including such things as the depth to bedrock, type of bedrock and bedrock outcropping. If necessary, any geologic conditions that could affect site planning shall be illustrated on an appropriate figure.
- B. The topography of the site shall be illustrated on an appropriate topographic map produced from survey. Areas proposed for development shall have a two-foot contour interval and areas outside the project site shall have a contour interval of five feet.
- C. Site topography and its influence on drainage patterns shall be discussed.
- D. Steep slopes and their impact on site planning shall also be discussed. Maps identifying the percentage slopes of areas to be disturbed and the nature of the proposed disturbance shall be provided.
- E. Planned alteration of existing site elevations shall be analyzed to assess the potential impact on site topography. Consideration shall be given to changes in slope conditions and grading that will affect natural drainage patterns.
- F. Areas where imported fill will be required shall be clearly identified and an estimate of the fill quantities shall be provided.

4.2.1. Soils

- A. The Ski Center UMP-DEIS shall contain a detailed soils maps with an accuracy of 0.5 to 1.0 acre for the portions of the property with proposed intensive base area development such as new parking lots, connecting roads, stormwater facilities, and buildings.

- B. Areas outside of development envelopes shall be mapped using published Natural Resources Conservation Service (NRCS) data.
- C. Classification of soils on the site shall be based on field identification (classification) by a qualified soil scientist/soil classifier and incorporate the proper temperature regime when assigning soil series names.
- D. Deep hole test pit and percolation test data shall be provided for those soils and areas where infiltration is being proposed for stormwater control.
- E. Areas outside of the intensive base area development envelopes such as ski slopes and surrounding forest shall be mapped using published (NRCS) sources.
- F. The Unit Management Plan-DEIS shall discuss the properties and constraints of each of the mapped soil types as they pertain to development. Characteristics that shall be considered, include for example, clay contents, slope, hydrologic group, seasonal high and low groundwater, erosion potential and shallow bedrock. These characteristics shall then be evaluated for development potential for roadways and parking areas, stormwater management facilities, buildings, and ski trails including NRCS soil interpretation-rating guides. Tabulated presentation of information shall be provided as appropriate.
- G. Any areas where blasting is required shall be identified. The Unit Management Plan-DEIS shall describe the need for blasting, the type of blasting to be employed and the timing of blasting.
- H. The Unit Management Plan-DEIS shall assess potential impacts from blasting including, but not limited to impacts to nearby water supplies, surficial and bedrock geology and hydrology, local noise environment, wildlife and other resources. Suitable measures to mitigate potential impacts, including conducting pre-blast surveys of neighboring properties, shall be identified and analyzed for their suitability.
- I. The Unit Management Plan-DEIS shall contain conceptual earthwork calculations for the cuts and fills included in the project.

4.3 SURFACE WATERS INCLUDING AQUATIC HABITATS

4.3.1. General

A. Locations of site surface water resources including Pine Hill Lake and the Birch Creek shall be illustrated on an appropriately scaled base map and any “impaired” waters identified on the New York State Section 303(d) List of Impaired/TMDL Waters as required under the Federal Clean Water Act Section 303(d). Tributaries, sub-tributaries and intermittent drainage to Birch Creek that exist at the Ski Center shall be located and described. Surface waters shall be classified for their ability to provide habitat for trout, and trout spawning, based on the Department fisheries surveys.

B. Identify if any stream monitoring is done on Birch Creek. If so, provide any available baseline information and data. Explain if a system of stream monitoring should be developed to record parameters such as temperature and turbidity. If additional monitoring is necessary, the monitoring of parameters shall be initiated well in advance of construction in order to obtain any relevant additional baseline data.

C. A program of fish population monitoring shall be proposed by Department Fisheries as part of the Unit Management Plan-DEIS.

4.3.2. Snowmaking Water Supply

A. This Unit Management Plan-DEIS shall assess the potential impacts to surface waters (Birch Creek and associated tributaries) and the associated aquatic populations including trout due to the anticipated increase in overall annual volume of water pumped from the existing Pine Hill Lake for use in snowmaking, and the construction of an additional snowmaking water storage reservoir. Birch Creek shall be investigated for potential thermal releases from the existing Pine Hill Lake and mitigation measures shall be developed. Potential thermal releases from any new storage reservoir must also be analyzed, and if required, mitigation measures proposed. Published flow data for Birch Creek in Big Indian shall be summarized, and shall be prorated based on the relative watershed areas to provide estimated historic flow rates at the existing Pine Hill Lake diversion structure, where excess flow is currently diverted into the Pine Hill Lake for use as snowmaking water. A study shall be included to determine if an increased minimum stream bypass flow limitation is required, in accordance with the updated Department Fisheries standards, in order to improve the trout habitat in Birch Creek downstream of the diversion structure.

B. Assess consistency of the snowmaking plan with a new minimum stream flow for Birch Creek (8 cfs at the diversion weir for the Pine Hill Lake from October 15 through April 15 and 5 cfs during the remainder of the year).

C. Assess the impact of diverting surface water from the Ashokan Basin to the Pepacton Basin as a result of using water from Pine Hill Lake to make snow on the western side of the mountain (Highmount).

D. An analysis shall assess the potential impacts to surface water due to the anticipated melting and runoff of the man-made snow on the mountain. Cumulative Impacts of the Combined project shall be assessed in PART C: Cumulative Impacts Unit Management Plan-DEIS

4.3.3. Stream Crossings

A. Impacts to the physical qualities of the on-site streams, as well as off-site surface waters, such as Birch Creek, shall be discussed. Impacts from bridging, installation of culverts, stream bank disturbance, diversion, pipe crossings, impoundments and other structures, on hydrology and water quality, shall be assessed and suitable mitigation measures proposed for any potentially significant impacts that are identified.

B. Mitigation shall include avoidance of stream crossings to the extent practicable.

C. Mitigation shall include the use of open bottom culverts for stream crossings.

D. Consideration shall be given to the utilization of a timber “Tucker” style bridge for trail stream crossings. Use of onsite cut timber for the construction of the bridges shall be considered.

E. Mitigation shall include construction scheduling as required by the Department’s Fisheries Unit to avoid critical fish spawning seasons and, if possible, to be done during no-flow dry conditions.

4.3.4. Stormwater

A. This section of the Unit Management Plan-DEIS will assess the potential impacts from stormwater on surface waters due to changes in drainage patterns, changes in land use including loss of forest cover and increased impervious surface, and impact of construction of the proposed project including the proposed new parking lots and connecting roads. Impacts will be assessed for both the construction and operations phases

and will include the impact on Birch Creek and intermittent streams adjacent to the project site. The results of the foregoing analysis shall be used to generally assess the impact on the New York City (NYC) water supply. The calculations shall include the volume and timing of run-off due to increased snowmaking on the mountain. Impacts to be assessed include water quality, water quantity, flood control, and pollutant loading including sediment, road salt, pesticides, pathogens, temperature and phosphorus.

B. The impacts of stormwater runoff will be mitigated by design features included in a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP shall include erosion and sediment control practices and where required, post-construction stormwater management practices that will be used to mitigate the water quality, water quantity, flood control and pollutant loading effects resulting from the proposed construction. In addition the SWPPP shall consider the retrofitting of permanent stormwater management practices for existing elements such as parking lots to further mitigate any potential impacts to surface waters from stormwater runoff.

C. See Attachment A-1 of this scoping document for a comprehensive description of the requirements for the SWPPP. Detailed information shall be provided for the following:

Operational Phase Water Quantity

1. Model Used
2. Model Calibration Using Stream Monitoring Data
3. Storms Analyzed
4. Identification of Design Points
5. Pre-Development Subcatchment Mapping
6. Proposed Flow Paths
7. Proposed Management System
8. Conformance with Design Standards Including Flow Attenuation
9. Maintenance of Management System

Prior to completing the analyses and modeling that will support the studies in the Ski Center UMP-DEIS concerning stormwater management (including, but not limited to, pre- and post-development pollutant loadings, and pre- and post-development stormwater quantities, and peak rates of runoff), the Department's Division of Operation's representative will meet with technical representatives of New York City Department of Environmental Protection and the Department's Division of Water staff to review and seek to agree upon the model assumptions and inputs. Specify qualifications of designer of stormwater management system.

Operational Phase Water Quality

1. Changes in Nutrient and Solids Loadings
2. Changes in Thermal Loadings

Discuss the potential use of an alternative to Salt for De-Icing shall be evaluated as a potential mitigation measure.

4.4 GROUNDWATER RESOURCES

4.4.1. General

Groundwater resources on and around the project site shall be described. Depth to groundwater, seasonal high groundwater, groundwater quality, directions of groundwater flow and locations of springs shall be covered.

4.4.2. Potable Water Supply

The Unit Management Plan-DEIS shall include a description of the existing potable water supply wells and system. Include a map showing the location of the wells and system components on the site. Include the well drillers logs and pump test results for each active water supply well. A report prepared by a qualified professional shall evaluate the anticipated increase in potable water system demands due to the proposed facility expansion as well as the capacity of the existing system to handle these increased system demands. Identify potential impact on groundwater supply, on adjoining off-site potable water wells, on volume and flow rates in Birch Creek, Crystal Spring Brook, and Emory Brook, including drought year conditions. Identify and assess any recommended mitigation measures. Mitigation measures may include alternative supplies.

4.4.3. Wastewater Collection, Treatment and Disposal

A. The Unit Management Plan-DEIS shall include a detailed Engineer's Report prepared by a Licensed Professional Engineer for the project wastewater disposal. The Report shall include a description of the existing sanitary sewage collection and disposal system, The report shall evaluate the anticipated increase in sanitary sewer system flows due to the proposed facility expansion as well as the capacity of the existing collection and transmission system to handle these increased flows. Any necessary expansion, upgrade, or alternative to the existing system shall be described and assessed. The report shall provide the conceptual design and budgetary estimate of an 180,000-gallon equalization tank and include detail specifications of the proposed equalization tank.

B. Identify if any agreements exist between the Department and the

NYCDEP regarding acceptance of sanitary sewage at the NYCDEP Pine Hill Treatment Plant. If so, explain if any proposed agreements, or amendments to an existing agreement between the Department and NYCDEP for acceptance of sanitary sewage. Verify that sanitary sewage flows from Ski Center will not exceed the 60,000 gallons per day (gpd) limit.

4.5 TERRESTRIAL AND AQUATIC ECOLOGY

4.5.1. Vegetation

- A. A survey of the vegetation on the project site shall be performed with particular attention paid to areas that have potential to be developed.
- B. Provide a map of the vegetation communities on the project site consistent with community types as defined in Ecological Communities of New York State (Reschke 1990).
- C. Provide a description of each of the plant communities including dominant species and relative age, including identification of unusually mature vegetation.
- D. Provide a comprehensive list of plant species found on the project site including the identification of any rare, threatened or endangered species found on the project site.
- E. Provide a comparison of the amount of the different vegetation community types on the property with and without the proposed project.
- F. The impacts of the loss and conversion of native vegetation shall be assessed from the standpoint of soil erosion, evapotranspiration, precipitation recharge, and provision of food and cover for wildlife.
- G. Identify and discuss all New York Natural Heritage Program listed "Significant Habitats" occurring on or near the site and their Statewide rarity designation as described in Ecological Communities of New York State (Reschke 1990) This will include all New York State listed plant species identified as Endangered, Threatened, Rare, and Exploitably Vulnerable. Unique or locally rare plants will also be identified and described. If it is determined that any endangered or threatened species or species of special concern exist at the site or surrounding area, the essential habitat requirements and the potential impacts of the proposed project on the species will be discussed. If any such species are identified, use existing records to identify known population levels and provide an

interim report to be used to determine if further population assessment work is warranted.

H. Evaluate potential impacts to aquatic systems (wetlands, ponds and streams) and those that are ecologically or hydrologically connected off site. Include an evaluation of any potential impacts of the project on Birch Creek or any other identified water body resulting from the proposed site development.

I. Measures to mitigate the potential impact to vegetation include the development of a Forest and Vegetative Management Plan, which shall include BMP's for the control of invasive species, minimization of tree cutting through careful on-site design of ski trails, trimming of branches in lieu of tree cutting where possible, restoration of un-used roads or ski trails, signage and interpretive material educating the public about the forest preserve and areas of sensitive vegetation. Utilization of the timber from cut trees to the extent practical for rustic style on-site improvements such as terracing retaining walls, cribbing, stream bridging, fencing, signs, benches, picnic tables etc. Utilization of smaller chipped material for use in erosion and sediment control measures.

4.5.2. Wetlands

A. A figure illustrating the delineated wetland boundaries on the project site shall be included as part of the Ski Center UMP-DEIS. Both state and federal wetland boundaries shall be shown as will any state wetland adjacent areas.

B. The Ski Center UMP-DEIS shall include a brief description of the delineation methodology. The federal wetland delineation report shall be appended to the Ski Center UMP-DEIS.

C. The Ski Center UMP-DEIS shall also include a description of the different wetlands including location, size, hydrological relationship to the rest of the property, and type and value of wetland plant communities. Site planning consideration given to wetlands shall be discussed in the Ski Center UMP-DEIS.

D. All activities in Federal and State wetlands shall be quantified in the Ski Center UMP-DEIS, including filling, excavating, or otherwise disturbing as a result of the proposed project.

E. The Ski Center UMP-DEIS shall also discuss what measures were taken to avoid or minimize wetland impacts.

F. In addition to quantifying wetland impacts, the Ski Center UMP-DEIS shall provide an analysis of the loss of the functions and benefits of the impacted wetlands. Impacts to wetland hydrology as a result of changes in vegetation cover, erosion and sedimentation, irrigation and other factors shall be addressed in the Ski Center UMP-DEIS.

G. The Ski Center UMP-DEIS shall include a wetland mitigation plan to compensate for any losses in wetland function and value. The mitigation plan shall specify the areas and location of any proposed wetland mitigation.

H. Methods of creation, development of wetland hydrology and planting of wetland vegetation shall be described in the Ski Center UMP-DEIS and illustrated on appropriate plans.

4.5.3. Wildlife

A. The Ski Center UMP-DEIS shall contain a description of the fauna of the project site based upon field investigations, file searches of regulatory agencies, and document research.

B. The Ski Center UMP-DEIS Attachment A-2 of this document details the methodologies that will be used to identify the wildlife using the project site.

C. Fish, birds, amphibians, reptiles, and mammals shall all be considered. The fauna description shall include discussion of any rare, threatened, endangered, or special concern wildlife species known to occur on the project site as well as significant habitats on the property such as deer wintering areas.

D. A list shall be compiled of all species observed on the site and those species likely to occur on the site based on habitat requirements and geographical distribution. The inventory of fauna on the site shall be correlated with the plant community mapping described in Part A Section 4.5.1 above.

E. On-site investigations shall be made at more than one time during the year so as to attempt to identify summer resident species as opposed to transient species that may only occur on the project site during migration.

F. The Ski Center UMP-DEIS shall address impacts to wildlife as a result of loss and changes of habitat types provided by the different plant communities, habitat fragmentation, potential increases in invasive species populations and increased traffic.

G. Assess the impact of the proposed project on human-wildlife interactions and potential conflicts, including the impacts on the bear population that may result due to an increase in the availability of food, garbage and other attractants.

H. A qualitative analysis shall be provided to determine the post-construction carrying capacity for the site for various wildlife species including forest interior species, edge species, human tolerant species, and human intolerant species. Particular attention shall be paid to any habitats previously identified as sensitive or high value habitats.

I. Identify and discuss all New York Natural Heritage Program listed "Significant Habitats" occurring on or near the site and their statewide rarity designation as described in Ecological Communities of New York State (Reschke 1990). This will include all animal species listed by the Department as Endangered, Threatened or of Special Concern. Unique or locally rare animals will also be identified and described. If it is determined that any endangered or threatened species or species of special concern exist at the site or surrounding area, the essential habitat requirements and the potential impacts of the proposed project on the species will be discussed. If any such species are identified, use existing records to identify known population levels and provide an interim report to be used to determine if further population assessment work is warranted.

J. Impacts to aquatic and semi-aquatic species as a result of surface water and wetland impacts, sediment and erosion control, hydrological changes, and construction of ponds shall be addressed in the Ski Center UMP-DEIS.

K. Mitigation measures shall be provided in the Ski Center UMP-DEIS for impacts identified as potentially significant. Potential mitigation measures may include creation of mitigation wetlands, conservation of wildlife corridors and protection of habitats during the operational phase. Include Best Management Practices (BMPs) for managing or avoiding conflicts between humans and black bears and/or other wildlife that may arise from increased human/wildlife interaction.

4.6 TRAFFIC

4.6.1 Assessment Methodology

Based on current usage, the expected worst case traffic impact is anticipated to occur during the ski season on a holiday weekend. Peak traffic impact during the day is anticipated to occur in the afternoon as the

ski center closes. Accordingly, the UMP DEIS will assess traffic impacts as follows:

- A. Turning movement counts shall be conducted at the following nine study area intersections during peak winter weekends:
 - a. NY Route 28/NY Route 214
 - b. NY Route 28/NY Route 42
 - c. NY Route 28/County Road 47
 - d. NY Route 28/Main Street
 - e. NY Route 28/County Road 49A
 - f. County Road 49A/Gunnison Road/Belleayre Lower Driveway
 - g. County Road 49A/Belleayre Upper Driveway
 - h. Route 28 and Route 212
 - i. Route 28 and CR 38 in Arkville
- B. This information shall be supplemented by traffic turning movement counts taken in previous studies if available.
- C. Hourly automatic traffic recorder data shall be obtained for at least one week (including a winter weekend) on:
 - a. NY Route 28 west of NY 209
 - b. Between Route 212 and Route 214
 - c. Between County Road 38 and Route 30
 - d. County Road 49A, south of the access to the Ski Center
 - e. The right turn ramp from NYS Thruway Exit 19.

4.6.2 Impact Analysis

- A. Estimate area-wide background growth in traffic and increased traffic count volumes projected to the peak capacity upon the completion of the necessary expansion to the Ski Center, which is estimated to accommodate up to 9,000 skiers.
- B. The additional trips to the ski center will be estimated as follows:
 - a. From the Belleayre Mountain Ski Center, obtain the number of skiers for the day the traffic counts were collected
 - b. Compare the number of skiers to ski center driveway traffic volumes
 - c. Determine the percentage of skiers that arrive by bus
 - d. Factor these volumes to determine the number of additional trips to the ski center that will result from a peak capacity of 9,000 skiers

- e. Forecast the number of skiers that will remain overnight in the area
 - f. Forecast the travel routes that the additional vehicles will use to enter and exit the area during the peak travel period(s).
- C. Analyze traffic operations at the nine (9) intersections listed above (a-i) to determine existing (2008 pre-expansion) base volume traffic, in accordance with the procedures set forth in the Highway Capacity Manual (HCM).
- D. Conduct an accident analysis to determine prevalent accident types in the roadway network adjacent to the project sites. Identify prevalent accident types and appropriate mitigation measures.
- E. Identify the potential impacts of the additional traffic at these nine (9) intersections, and along the Route 28 corridor. Make recommendations regarding the provision or maintenance of acceptable operating conditions in the study area as a result of this additional traffic.
- F. If the proposed private development is not constructed, identify any potential change in the Ski Center traffic.
- G. Assess potential construction traffic due to the Ski Center's proposed expansion on County Route 49A south of the access to the Ski Center. Include the potential number of heavy vehicles per day, routes that vehicles may travel, and duration of construction. Obtain information from the County regarding the structural integrity of CR 49A south of the access to the Ski Center. Evaluate the impact of a potential increase in construction traffic due to the Ski Center expansion on CR 49A south of the access to the Ski Center.

4.6.3 Mitigation

Based on the results of the impact analysis, and in consultation with the NYS Department of Transportation, describe and analyze appropriate mitigation measures for any potential impacts identified

4.6.4 Public Transportation Improvements

The UMP-DEIS will assess the impact of any proposed public transportation improvements on traffic to and from the Belleayre Mountain Ski Center, including the use and impact of expanded bus operations and expected use of shuttle buses.

4.7 VISUAL RESOURCES

4.7.1 Assessment Methodology

The methodology for the assessment of potential visual and aesthetic impacts will be consistent with the NYSDEC Program Policy “Assessing and Mitigating Visual Impacts”, July 31, 2000.

- A. Digital terrain modeling shall be utilized to create viewshed mapping within a five mile radius of the proposed overall development. Viewshed mapping will represent the digital terrain modeling both with vegetation, and without vegetation.
- B. Determine the zone of visibility based on topography and identify potentially sensitive receptors within a five mile radius of the proposed development.
- C. Receptor locations should be specifically chosen to include worst case scenarios, including viewpoints indicating potential project visibility at an aesthetically significant place. Consequently, visibility will be assessed from the prescribed aesthetic state and federal resources listed in the department’s policy “Assessing and Mitigating Visual Impacts”. Receptor location should also include locally significant aesthetic resources when identified in local or regional land use plans. Receptor locations should also include public roads (Route 28, etc.), hiking trails, public recreation areas and areas of historical significance that have potential views into the project development areas.
- D. Use the digital terrain modeling to identify the potential viewshed areas for each of the proposed expansion areas. The areas that are blocked from view by landforms, vegetation, or both, shall then be plotted to produce zones of visibility maps for the areas proposed to be developed.
- E. Within each viewshed identify receptor locations listed in the aforementioned Department program policy as well as public roads (Route 28, etc.) and hiking trails, public recreation areas and areas of historical significance that have potential views into the project development areas.
- F. Potential vista views from peaks, including any operational fire towers, and overlooks on public hiking trails outside of the five mile radius will also be examined including the following locations:
 - 1. Tremper Mountain
 - 2. Panther Mountain
 - 3. Cornell Mountain
 - 4. Slide Mountain

5. Table Mountain
6. Overlook Mountain
7. Twin Mountain
8. Sugarloaf Mountain
9. Plateau Mountain
10. Hunter Mountain
11. Westkill Mountain
12. North Dome Mountain
13. Bearpen Mountain
14. Fir Mountain
15. Giant Ledge
16. Halcott Mountain
17. Balsam Lake Mountain
18. Mill Brook Ridge Trail
19. Dry Brook Ridge
20. Vly Mountain
21. German Hollow Trail
22. Cathedral Glen
23. Two trails located along the hiking trail known as Devil's Path near the summit of the Westkill Mountain within the Westkill Wilderness Area.

\ G. Field verify the zone of visibility for the proposed development footprints from all identified receptors including public roads and trails within a five mile radius as well as potential vista views from public areas outside of the five mile radius.

H. Existing structures and features on and around the property including the Brisbane Mansion, Wildacres Hotel, Highmount Ski Area and Belleayre Ski Mountain Ski Center shall be used for orientation.

I. Four (4)+/- foot diameter colored balloons (red and blue) shall be flown along proposed lift lines and/or ski trails or location of proposed building expansions to provide orientation when assessing visibility within the 5 mile radius. Balloons shall be flown at a measured height sufficient to be above the existing tree line. In addition, GPS will be used to determine the positions in the field.

J. On a clear day with good visibility examine each area identified as having the potential for views into the project. Examinations shall take place during both leaf on conditions and leaf off conditions. Examinations shall consist of driving roads, walking hiking trails, and visiting sensitive receptors identified as having potential views. Evaluate the amount of screening provided by forest cover as it may reduce the duration of views or obscure views.

K. On viewshed maps identify where views do exist and photograph the view into the project. Photographs shall be taken using 50mm lenses which best simulates the perception of the human eye.

L. Prepare and include in the UMP DEIS the actual zone of visibility map for the project components both with and without considering vegetation.

M. Include in the UMP DEIS representative views of visual conditions with and without the development of the project. The number and location of representative views shall be approved by the Lead Agency upon completion of tasks described above. Paired photographs shall include visualization of all project components including (when visible) structures and site improvements, clearing and grading, and any proposed visual mitigation measures during “leaf off” and “leaf on” conditions. The selection of representative views to be simulated shall be based on the relative importance of public viewing points, level of viewer exposure and geographic distribution. Representative views shall include the most significantly affected near views as well as affected vista views. The number and location of representative views shall be approved by the Lead Agency upon completion of tasks described in Paragraphs A-L of this Section described above.

N. Prepare photograph-based representative views simulating night lighting for the Belleayre Ski Resort expansion and Highmount Ski Center under both full cloud cover and clear sky conditions over a winter snow-covered landscape. The selection of representative views to be simulated shall be based on the relative importance of public viewing points, level of viewer exposure and geographic distribution. The number and location of representative views shall be approved by the Lead Agency upon completion of tasks described above.

O. Illustrations of developed conditions shall consist of existing view photographs enhanced with suitable computer software. (AutoDesk Land Desktop, AutoCAD software, Autodesk Max 9, Adobe Photoshop, GIS referencing, etc.)

4.7.2 Assessment of Viewshed and Photosimulation

The UMP DEIS shall include a discussion of the numbers and types of people (i.e., hikers, motorists, existing land uses) to be affected, the durations of views that can be expected, and how views may vary between leaf on and leaf off conditions. This shall include a brief discussion concerning the nature of the visual change and the public’s probable

reaction to such change. The discussion will focus on the existing landscape and to what extent the proposed project components are obviously different from, or in sharp contrast to, current surrounding land use patterns. It will also consider the extent to which the proposed land use changes, visible to users of aesthetic resources, will eliminate or significantly reduce the public's enjoyment of the aesthetic qualities of that resource.

4.7.3 Preservation of the Night Sky

The UMP DEIS shall assess the impact of proposed illumination on views of the night sky for local residents.

4.7.4 Mitigation of Visual Impacts

The UMP DEIS shall discuss suitable measures to mitigate potential impacts. The discussion shall include measures such as project component locations, structure heights, use of earth tone colors, non-reflective glass, cut off light fixtures, use of outdoor lighting that meets the standards of the International Dark Sky Association and limiting or banning night skiing. Discuss how night lighting will be minimized to an extent practical while maintaining security, safety and operational requirements.

4.8 AIR QUALITY

- A. Assess the impact on air quality of operation of construction machinery, increased traffic to the expanded ski center, and operation of additional snowmaking equipment and lifts.
- B. Existing ambient air quality compliance of the project and resultant air quality in accordance with the National Ambient Air Quality Standards (NAAQS) shall be discussed
- C. Conduct screening analysis based upon maximum potential carbon monoxide concentrations in accordance with NEW York State Department of Transportation (NYSDOT) Air Quality Analysis Procedure: Project Environmental Guidelines for identified intersections exceeding 20% increase over existing traffic volumes and operating at level of service C or lower
- D. Conduct a microscale air quality analysis to determine carbon monoxide (CO) concentrations in the Belleayre Mountain Ski Center parking lot during the worst case operating conditions. The analysis will be conducted using the latest version of the CAL3QHC (or similar) computer based air quality dispersion model.

- E. Conduct a particulate matter analysis based on the procedures included in NYSDOT's Environmental Procedures Manual.

4.9 GLOBAL CLIMATE CHANGE AND CARBON FOOTPRINT

4.9.1 Global Climate Change

The July 2007 Northeast Climate Impacts Assessment (NECIA), *Confronting Climate Change in the U.S. Northeast*, discusses how climate change may impact the New York region. This climate modeling analysis represents the best science to date on climate change impacts for New York State. Based on this science, and other updated materials as necessary, the UMP DEIS should provide a qualitative discussion of how potential climate change will affect both the construction and operational component of the Belleayre Mountain Ski Center with reference to:

- The potential increase in winter surface air temperatures in relation to:
 - o increase in melt rate for snow cover
 - o decrease in the length of the snowmaking season
 - o earlier periods of peak runoff and stream flow due to earlier snow melt
 - o changes in total amounts, timing or patterns of precipitation falling as snow
 - o overall decrease in the number of snow-covered days available for winter recreation
- The potential increase in summer surface air temperatures in relation to:
 - o change in composition of native plant and animal species
 - o increase in the prevalence of invasive species and pests
- The potential decrease in summer and fall soil moisture in relation to:
 - o Increased water requirements for maintaining turf grass and other landscaped areas
 - o increased stress on native vegetation
 - o increased surface water runoff from areas with stressed vegetation
- To the extent surface waters and its related watershed are effected , the potential increase of water temperatures of surface water, including ponds and stream systems, in relation to:
 - o physiological stress and resultant population impacts to heat sensitive aquatic biota, especially coldwater fisheries
 - o decrease in dissolved oxygen levels and in the assimilative capacity of the aquatic system.

All analysis should assume a lifespan of at least 50 years.

The UMP DEIS should include a discussion of existing Ski Centers located in the Southeastern United States as a comparison to demonstrate viability of BMSC in light of future potential climate change.

4.9.2 Carbon Footprint: Assessing GHG Emissions

A. The UMP DEIS should include both a quantitative (where practicable) and qualitative discussion of the GHG emissions resulting from construction activities, including the manufacture or transport of the construction materials, specifically including the following:

1. A qualitative analysis of how the building products will be environmentally-preferable. An evaluation of the building materials shall use readily available software tools, such as BEES 4.0 developed by the National Institute of Standards and Technology (see <http://www.bfrl.nist.gov/oae/software/bees>).
2. A quantitative analysis of GHG emissions resulting from construction activities and the transport of building supplies from the supplier to the work site.

B. A quantitative estimate of both direct and indirect GHG sources during the post-construction operation of the project should be included:

1. Direct GHG emissions will include emissions from combustion processes or industrial processes conducted on-site, including but not limited to the heating and cooling systems and boilers, snow making guns and from fleet vehicles owned (or leased) and operated by the project proponent and associated with the project.
2. Indirect GHG emissions will include emissions generated by energy generating plants (off-site) supplying energy to the proposed project during its operation, and from vehicle trips generated by the project where vehicles are not owned or operated by the project proponents (i.e. freight deliveries, employee commuting, customer visits). A potential source of indirect emissions is the generation, transportation, and treatment or disposal of wastes. Waste generation should also be expressed as GHG emissions and included in the quantification of total annual emissions.

4.9.3 Changes in Carbon Sinks

Site build-out will result in loss of forested area and therefore some loss of CO₂ sequestration capacity. The UMP DEIS must include a quantitative and qualitative assessment of that loss. Refer to the USDA publication

“Methods for Calculating Forest Ecosystem and Harvested Carbon with Standard Estimates for Forest Types of the United States”
(<http://www.fs.fed.us/ecosystems/services/pdf/estimates-forest-types.pdf>)

4.9.4 Alternatives

Quantitative analysis, or where impracticable, a qualitative analysis, of the relative increase or decrease of GHG emissions resulting from each of the alternatives identified in Section 6.0 below.

4.9.5 Potential Mitigation Measures

A. The Supplemental DEIS must include a description and evaluation of the range of reasonable and relevant potential mitigation measures which would reduce GHG emissions with respect to technology, scale, design, or use and their implications on GHG emissions. For reference, Attachment A-4 contains an illustrative list of potential mitigation measures for consideration only.

1. Identify a list of reasonable and relevant mitigation measures.
2. Where practicable, provide a quantitative analysis of the identified potential mitigation measures. Where a mitigation measure is deemed as impracticable for quantitative analysis purposes, the SDEIS shall include a qualitative analysis.

B. Building energy efficiency design measures should be assessed, using EPA’s Energy Star program and/or other energy efficient design standards as a basis for comparison.

C. For transportation emissions, transportation demand management (TDM) measures should be identified and assessed. There are also models useful in estimating the potential emissions reductions for TDM measures, such as the US Environmental Protection Agency COMMUTER model and the Work Trip Reduction Model. Consideration shall include, though not be limited to, an anticipated improvement to public transportation services along the Route 28 Corridor.

4.10 NOISE

A. Analysis of noise impacts shall conform with “Department Policy DEP-001: Assessing and Mitigating Noise Impacts”. The Unit Management Plan-DEIS will address mechanisms by which noise will be generated during construction (short-term) and operation (long-term), as well as the factors that can increase or decrease perceived noise levels. The most likely sources of sounds from the Ski Center are sounds produced during construction of the expanded ski center from heavy-duty vehicles and construction equipment and sounds produced

by blasting. The most likely sources of sounds during operation are sounds produced by the snow making equipment; sounds produced by maintenance and operations vehicles (possibly including snowmobiles); and traffic-related sounds.

B. Sound pressure levels shall be described in a-weighted decibels (dBA) and the sound environment shall be characterized using the time equivalent level (Leq).

C. Construction and operation sound levels associated with the project shall be determined taking into consideration both mobile and stationary sources. This shall be accomplished by identifying sensitive receptor locations in relation to proposed new noise sources, calculating noise source levels, and determining noise levels at various distances from the sources and at sensitive receptor locations.

4.10.1 Assessment of Existing Ambient Sound Levels

Ambient noise conditions will be measured, and a baseline established for calculating noise due to the proposed Ski Center, according to the following procedure:

1. An experienced noise expert will tour the Project Area, identify the local land uses and sensitive noise receptor locations within one mile of the new ski trails and snow making equipment, observe the existing noise sources and acoustic environments in the project vicinity, and select potential locations for the ambient sound monitoring program.
2. An ambient sound survey will be performed to characterize the existing sound environment in the vicinity of the Ski Center. The ambient sound survey will produce typical sound levels from the operation of the existing Ski Center at various distances from the noise sources and sensitive receptors.
3. All sound measurements will be made with instruments that meet the Type 1 provisions in ANSI S1.4 or IEC 651 and the provisions in ANSI S1.11 or IEC 225.

4.10.2 Assessment of Noise During Construction

The Unit Management Plan-DEIS will characterize sources of noise during construction, including:

- A. The numbers, types, models, size and rated noise levels of construction equipment required during each phase of construction and their duration of operation;

B. Expected noise levels due to any blasting, including the duration and magnitude of noise impacts and how far the effects of blasting would carry; and

C. Noise levels at nearest receptors or adjacent property lines associated with construction traffic on access roads.

D. Expected noise levels at the “to be acquired” Big Indian parcel will be analyzed. Determine whether or not the Wilderness or Wild Forest noise thresholds can be met during the construction phase.

4.10.3 Assessment of Noise During Operation

A. An experienced noise consultant will build a computer model using Cadna/A software (or similar) to estimate the sound to be produced by the proposed project equipment at locations within one mile of the proposed project. The widely-used Cadna/A program employs ray-tracing technology that accounts for various factors, including geometric spreading, atmospheric absorption, wind conditions, ground absorption, and terrain features;

B. The Unit Management Plan-DEIS will include a report summarizing the pertinent results of the ambient sound survey and sound modeling tasks. The report will document the ambient measurements, present the estimated sound levels for the proposed project in tabular and graphical format and, as indicated, identify potential noise mitigation methods for the project. Map(s) of the proposed project area showing contour lines of expected sound levels due to operation, based on results of computer modeling will be provided. Sound contour maps shall include locations of project elements and sensitive receptors. Predicted sound level increases above the ambient level shall be presented in tabular format for each Project noise-sensitive receptor.

C. The Ski Center UMP-DEIS shall include and evaluation and, as necessary, mitigation for any potential significant adverse noise impacts to neighboring residences and sensitive receptors from project-related traffic.

1. Noise measurements shall be conducted to obtain reference noise levels utilized to calibrate a traffic noise model and to supplement data obtained under previous DEIS studies. Measurements shall be conducted using the equipment and the methods specified in the New York State Department of Transportation (NYSDOT) Environmental Procedures Manual, and the New York State Department of Environmental Conservation Program Policy Assessing and Mitigating Noise Impacts.

Each measurement shall be at least 20 minutes in duration and shall be performed during either the peak am or peak pm traffic noise period. Ambient measurements shall be conducted during periods of little or no traffic.

2. A traffic noise model of the project area shall be developed using the latest version of the Federal Highway Administrations (FHWA) Traffic Noise Model computer program (TNM). Using the measurement data obtained at and near the site, the TNM model shall be calibrated to represent the existing noise environment and terrain. Once the model is calibrated, predicted traffic noise levels can be determined.

3. From the measurements and subsequent evaluation/analysis, traffic noise levels within the affected project area shall be determined for the build conditions by incorporating the expected traffic changes into the noise model. The results of the analysis will be compared to the guidelines presented in the Department's Program Policy and the NYSDOT Noise Policy.

4. Noise impacts to the New York State Forest Preserve areas classified as wilderness and wild forest shall be considered.

4.10.4 Potential Mitigation Measures

The UMP DEIS will discuss potential mitigation measures that may include:

- Working with contractors to minimize the construction noise generated. Best management practices will be implemented such as turning off engines when not in use, maintaining equipment in good working order and using adequate engine covers and mufflers in order to minimize noise, scheduling simultaneous operation of heavy equipment to limit the total duration of noise exposure (noise levels are logarithmically rather than arithmetically additive);
- Consideration shall be given to restriction of hours of operation to reasonable daytime hours.
- Use of lower noise snow guns shall be considered for certain ski trails.

4.11 SOCIO-ECONOMICS, COMMUNITY SERVICES AND RESOURCES

4.11.1 Socio-economic Explanatory Note

As an explanatory note to this socio-economic section and its scope, SEQR's definition of environment protects the socio-economic elements reflected in existing population patterns and neighborhood and community character. Pure economic or competitive interests, however, fall outside the scope of SEQR and the purview of SEQR review. Economic information or studies are accordingly included or described herein for the purpose of evaluating socio-economic elements as distinct from competitive impacts.

4.11.2 Existing Community Profile

- A. Compile a demographic and economic profile (based on local, regional, state, and federal sources) of the communities within the study area, defined generally by the NY Route 28 corridor between Boiceville and Margaretville, and the towns, and villages, directly therein. A map shall be provided, at an appropriate scale, indicating the town and village boundaries of the study area. The study area for the workforce and labor analysis will additionally comprise the area from which an estimated 80 percent of the current Ski Center employees originate or reside, or both.
- B. Describe population and employment patterns, including total population, population by age cohort (including school age children and seniors), number of households, average household size, and household/per capita income. Summarize and describe economic baseline information and employment data by key industries, including potential new commercial development projects identified through discussions with local and county government representatives. Discuss projections of population growth and economic activity. Describe the existing housing patterns, including availability and affordability.

4.11.3 Community Services

- A. Identify and characterize providers of the following community services:
 - Emergency Medical Services including trauma services
 - Ambulance
 - Hospital and Urgent Care services
 - Fire Protection
 - Police Protection
 - Solid Waste/Recycling
 - Schools
 - Potable Water
 - Wastewater

- Electricity and other Utilities

- B. Furnish the project description to identified providers and request an assessment of their ability to serve the proposed project, including the increase in numbers of both patrons and employees. Assess whether the proposed development will require that volunteers be replaced by full-time or paid staff. Discuss feasibility of providing emergency services to the facility, including evacuation of skiers, in the event of road closures and loss of power. Discuss feasibility of providing severe trauma care under emergency conditions (power loss and road closures).
- C. Develop mitigation measures to address identified shortfalls and estimated costs.

4.11.3 Recreational and Educational/Social Resources

- A. Describe community recreation and educational resources, including hunting, fishing, and hiking opportunities; local parks; libraries; museums; and other municipal or community recreational/educational facilities.
- B. Provide an inventory of existing community social and cultural events as well as their locations
- C. Assess the impact of the proposed project on the above recreational and educational/social resources, including increased demand upon or elimination of specific resources such as hiking trails or hunting opportunities as well as additional resources that will be made available.
- D. Assess the impact of the proposed expansion on the price of lift tickets and use of Ski Center by local residents.
- E. Develop mitigation measures to address any identified shortfalls including associated financial costs. Include a discussion of the Central Catskill Mountains Smart Growth Program and Public Lands Enhancements to be implemented pursuant to the Agreement.

4.11.4 Socioeconomic Impacts

- A. Summarize the estimated number and types of jobs to be generated, anticipated wages and salaries, and the adequacy of existing workforce, taking into account commute times as well as distances to surrounding communities. Identify the anticipated source communities for new workers.

- B. New employment expected to be generated by the project shall be estimated and described, including description of types of jobs, number of positions, and mean wages for each type of job.
- C. Describe the demand for retail/commercial services that will result from the proposed project.
- D. Describe any anticipated secondary impacts due to new residential development if workforce demands exceed the available supply of workers.
- E. Summarize potential increases in the cost of providing additional municipal services and infrastructure improvements as a result of the project as well as to any projected secondary growth. Compare the cost to the increase in tax revenues from the proposed project.
- F. Assess the impact on availability of housing and property values of the increased staffing needs during construction and operation. The assessment shall take into account the anticipated demographics of employees (e.g. number, income level, family size) as well as current available housing within a reasonable commute distance and time. Commuting time should be analyzed by time, not straight line distance.

4.12 CULTURAL RESOURCES

- A. The methodologies that will be used to conduct cultural resources investigations are included in Attachment A-3 of this report.
- B. The results of these reports shall be summarized in this section of the Unit Management Plan-DEIS and include a discussion of potential presence and significance of any historic or prehistoric cultural resources that would influence site planning.
- C. The Unit Management Plan-DEIS shall discuss potential impacts to historic or prehistoric resources identified during the investigations of the property. Details of sites identified may be restricted to a limited audience, and not made public, if it is deemed necessary to protect and preserve significant historic and archaeological resources.
- D. Any conflict of the proposed plan with potentially significant resources shall be identified along with the nature of the conflict (i.e. grading, filling).

- E. A description of any necessary mitigation measures, including avoidance or on-site archeological monitoring during construction, shall also be included.

4.13 CATSKILL FOREST PRESERVE

Discuss potential impacts of the proposed project on the Forest Preserve. Reference should be made to the existing recreational facilities, character and usage levels of the Catskill State Park and Forest Preserve. Estimate the potential for increased use of Forest Preserve facilities nearest to the combined project area, including the capacity of those Forest Preserve areas to absorb any such additional use.

SECTION 5.0 UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS

A description of the unavoidable adverse environmental impacts shall include necessary information on the extent, likelihood and long term consequences of the identified impacts. The following topics shall be addressed.

5.1 WATER SUPPLY

5.2 WATER QUALITY

5.3 VEGETATION

5.4 WILDLIFE

5.5 EROSION

5.6 AIR QUALITY AND FUGITIVE DUST

5.7 NOISE

5.8 VISUAL

5.9 TRAFFIC

5.10 CLIMATE CHANGE AND CARBON FOOTPRINT

SECTION 6.0 ALTERNATIVES

This section shall evaluate and compare reasonable alternatives to the proposed Belleayre Mountain Ski Center UMP expansion that are feasible considering the goals and objectives of the ski center.

Trail and Lift Alternatives

1. UMP draft plan without Highmount Spa Lift and Trails
2. UMP draft plan with only Highmount Spa Lift and single ski trail connecting to Highmount lift.
3. UMP draft plan with only one trail constructed running from the Highmount Lift terminal to the Highmount Spa Resort.
4. Expansion to the former site of the Former Highmount Ski Center only.
5. Expansion to the Belleayre West area only.
6. Expansion and Improvements to the Core ski area only.
7. No Action Alternative

Snowmaking/Water Supply Alternatives

1. No new Storage Reservoir Alternative with upgraded Pine Hill Pumping Capacity and new Transmission Line
2. Expansion of Mountain Distribution System only Alternative
3. No Action Alternative

Buildings

1. Pursue the expansion of the Discovery Lodge only.
2. UMP draft plan without the information booth

SECTION 7.0 IRREVERSIBLE AND IRRETRIVABLE COMMITMENTS OF RESOURCES

This section shall identify and evaluate the irreversible and irretrievable commitment of resources including:

- The capacity of surface waters to accept sewage effluents;
- Commitment of energy and materials to construction;
- Loss of certain public recreational opportunities on acquired State land; and
- Loss of old-growth forest.

SECTION 8.0 GROWTH INDUCING AND SECONDARY IMPACTS

A. This section will evaluate the effects of the expansion to Ski Center as it relates to the potential increase in development of additional properties and the potential increase in permanent residential population, specifically to the towns of Shandaken, Middletown and on other lands associated with Ski Center. This section will describe and evaluate any potential that the proposed expansion may have for inducing further development in terms of significant increases in local population, increasing demand for support facilities, and increasing the commercial and residential development potential for the local area.

B. This section shall present secondary impacts to housing, commercial economic development, additional traffic, visual impact of development along the 49A corridor, water and wastewater needs.

C. The area to be analyzed shall include the Route 28 corridor between Boiceville and Margaretville, as well as the area from which 80% of current employees of Ski Center commute (see Socioeconomic Section for detailed study area).

SECTION 9.0 EFFECTS ON THE USE AND CONSERVATION OF ENERGY

This section will evaluate the effects and aspects of the proposed action pertaining to the use and conservation of energy resources

Identify and evaluate potential impacts on utility distribution and services

Discuss the extent to which the project will use energy efficient technologies, solar space and water heating.

UNIT MANAGEMENT PLAN-DEIS

ATTACHMENT A-1

STORMWATER PROTOCOL

A. GENERAL

This Stormwater Protocol is provided to establish the design guidelines, methodologies, and site specific parameters to be used in the development of a comprehensive Stormwater Pollution Prevention Plan (SWPPP) for the Belleayre Mountain Ski Center 2008 Unit Management Plan project.

B. DESIGN GUIDELINES, REGULATIONS, and REFERENCES

- New York State Stormwater Management Design Manual 2003
- New York State Standards and Specifications for Erosion & Sediment Control 2005
- Draft NYS Department SPDES General Permit for Stormwater Discharges GP-0-08-001 or the final version issued by the Department
- Rules and Regulations for the Protection from Contamination, Degradation and Pollution of the New York City Water Supply and its Sources

C. STORMWATER METHODOLOGIES & PARAMETERS

Model Used

The Stormwater Model that will be used is the HydroCAD Stormwater Modeling System, Version 8.5 or higher, by Applied Microcomputer Systems. The SCS TR-20 method will be utilized.

Storms Analyzed

- Water Quality Volume (WQv) 90% rainfall event per Figure 4.1 of the Manual = 1.3”
- Channel Protection Volume (CPv) 1-year, Type II design storm having a 24-hour rainfall event per Figure 4.4 of the Manual = 3.5”
- Conveyance Criteria, 2-Year, Type II design storm having a 24-hour rainfall event per Figure 4.7 of the Manual = 4.0”
- Overbank Flood Control Volume (Qp) 10-year, Type II design storm having a 24-hour rainfall event per Figure 4.5 of the Manual = 6.0”
- Extreme Storm (Qf) 100-year, Type II design storm having a 24-hour rainfall event per Figure 4.6 of the Manual = 8.0”
- The 25-year design storm having a 24-hour rainfall total of 6.5” shall also be included as a local and DEP requirement and will be required.

D. SWPPP CONTENTS

1. General SWPPP Requirements

- a. Provide background information, and a general project description, describing existing and proposed conditions.
- b. The SWPPP shall describe the erosion and sediment control practices and post-construction stormwater management practices that will be used and/or constructed to reduce the pollutants in stormwater discharges and to assure compliance with the terms and conditions of the SPDES permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater discharges.
- c. Permanent stormwater management practice components shall be prepared by a qualified professional that is knowledgeable in the principals and practices of stormwater management and treatment.
- d. The SWPPP must be kept current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site.
- e. Prior to the commencement of construction activity, the owner or operator must identify the contractor(s) and subcontractor(s) that will disturb soils; be responsible for installing, constructing, repairing, and maintaining the erosion and sediment control practices included in the SWPPP; and be responsible for the construction of all post-construction stormwater management practices included in the SWPPP. Each contractor or subcontractor identified must have at least one employee on site that has received four (4) hours of training, endorsed by the Department, from a Soil and Water Conservation District, CPESC, Inc. or other Department endorsed entity in proper erosion and sediment control principals in the last three (3) years. The owner or operator shall have each of these contractors and subcontractors sign a copy of the certification statement below before they commence any construction activity. The owner or operator shall attach the certification statements to the copy of the SWPPP that is maintained at the construction site. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the contractor certification statement and the SWPPP must be amended to identify the new contractor's area of responsibility.
- f. Include Contractor Certification Statement:

"I certify under penalty of perjury that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the qualified inspector during a site inspection. I also understand that the owner or operator must comply with

the terms and conditions of the New York State Pollutant Discharge Elimination System ("SPDES") permit for stormwater discharge from the construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and is a crime in the State of New York and could subject me to criminal, civil and/or administrative proceedings."

g. In addition to the statement in Paragraph 6 above, the SWPPP must identify the soil disturbing activities that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed.

2. Erosion and Sediment Control during Construction

a. The SWPPP shall include erosion and sediment control practices designed in conformance with the New York State Standards and Specifications for Erosion and Sediment Control dated August 2005, or the most current version or its successor. The erosion and sediment control component of the SWPPP shall include the following:

1. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s), wetlands and drainage patterns that could be affected by the construction activity; existing and final slopes; locations of different soil types with boundaries; locations of off-site material, waste, borrow or equipment storage areas; and location(s) of the stormwater discharge(s).
2. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG).
3. A construction phasing plan and sequence of operations describing the intended order of construction activities, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance.
4. A description of the erosion and sediment control practices to be installed or implemented for each construction activity that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented.

5. A temporary and permanent soil stabilization plan that meets the requirements of Section 2 “Erosion Control Planning and Site
6. Management of the New York Standards and Specifications for Erosion and Sediment Control dated August 2005, or the most current version or its successor, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of final stabilization.
7. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice.
8. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils.
9. An inspection schedule to ensure continuous and effective operation of the erosion and sediment control practices.
10. The BMP’s that will be used to control litter, construction chemicals and construction debris from becoming a pollutant source in the storm water discharges shall be described.

3. Permanent Stormwater Management

The SWPPP shall include post-construction stormwater management practices designed in conformance with the New York State Stormwater Management Design Manual (“Design Manual”) dated August 2003, or the most current version or its successor. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include the following:

1. Identification of all post-construction stormwater management practices to be constructed as part of the project.
2. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice.
3. The dimensions, material specifications and installation details for each post-construction stormwater management practice.
4. Identify any elements of the design that are not in conformance with the Design Manual. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is equivalent or exceeds the technical standards.

4. Inspection Requirements

The SWPPP shall include the requirements for Construction Inspection of the Stormwater Pollution Prevention measures to be implemented. The Construction Inspection requirements shall include the following;

1. Inspectors Qualifications

The qualified inspector shall be a person that is knowledgeable in the principles and practices of erosion and sediment control, such as licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), licensed Landscape Architect, or qualified Soil Scientist. It also may be someone working under the direct supervision of the licensed Professional Engineer, or licensed Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Knowledgeable in the principles and practices of erosion and sediment control means that an individual performing a site inspection has received eight (8) hours of training, endorsed by the Department, from a Soil and Water Conservation District, CPESC, Inc. or other the Department endorsed entity in proper erosion and sediment control principals in the last three (3) years. Inspections of any post-construction stormwater management practices that require structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

2. Inspection Timetable

a. For construction sites where soil disturbance activities are on going, the qualified inspector shall conduct a site inspection at least once every seven (7) calendar days and within 24 hours of the end of a rain event of 0.5 inches or greater. If the rain event occurs on a weekend day, the inspection shall be performed by or on the next business day.

b. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the qualified inspector shall conduct a site inspection at least once every thirty (30) calendar days.

c. The owner or operator shall notify the stormwater contact person in writing prior to reducing the frequency of inspections.

d. For construction sites where soil disturbance activities have been shut down with partial project completion, the qualified inspector can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved

final stabilization and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The owner or operator shall notify the stormwater contact person in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the qualified inspector shall perform a final inspection and certify that all disturbed areas have achieved final stabilization and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP.

3. Inspection Reports

a. The qualified inspector shall inspect all erosion and sediment control practices to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved final stabilization, and all stormwater discharge locations, including receiving waters.

b. The qualified inspector shall prepare an inspection report subsequent to each and every inspection. The inspection report shall include and/or address the following:

- a. Date and time of inspection
- b. Name and title of person(s) performing inspection
- c. A description of the weather and soil conditions (i.e. dry, wet, saturated) at the time of the inspection
- d. A description of the condition of the receiving waters at all points of discharge from the construction site. This shall include identification of any discharges of sediment from the construction site. Include discharges from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow
- e. Identification of all erosion and sediment control practices that need repair or maintenance
- f. Identification of all erosion and sediment control practices that were not installed properly or are not functioning as designed and need to be reinstalled or replaced
- g. Location(s) and description of any petroleum or construction chemical spills
- h. Description and sketch of areas that are disturbed at the time of the inspection and areas that have been stabilized (temporary and/or final) since the last inspection
- i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards

- j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s).
- k. Within 24 hours of the completion of an inspection, the qualified inspector shall notify the owner or operator and appropriate contractor (or subcontractor) of any corrective actions that need to be taken. The contractor (or subcontractor) shall begin implementing the corrective actions within 24 hours of this notification and shall complete the corrective actions in a reasonable time frame.
- l. All inspection reports shall be signed by the qualified inspector, and the inspection reports shall be maintained on site with the SWPPP.

5. Operation and Maintenance Requirements

The SWPPP shall require the completion of As-Built Drawings and an Operation and Maintenance (O&M) Manual for all of the permanent stormwater pollution prevention measures installed as part of this project. The O&M Manual shall spell out the frequency and scope of routine inspections and maintenance items to be completed to ensure that the measures continue to function as designed.

6. SWPPP Review and Approval

A. Interim Review

Prior to completion of the SWPPP, the SWPPP Design Engineer shall meet with technical stormwater representatives of the New York City Department of Environmental Protection (NYCDEP), and the Department to agree on modeling assumptions, inputs, and the conceptual treatment measures to be implemented.

B. Final Review and Approval

Final review and approval of the SWPPP shall be completed by NYCDEP.

UNIT MANAGEMENT PLAN-DEIS

ATTACHMENT A-2

RARE, THREATENED AND ENDANGERED SPECIES

- A. File searches of the New York Natural Heritage Program and United States Fish and Wildlife Service databases will be requested. File searches will be performed for known occurrences of listed rare, threatened, endangered or special concern animals, plants and natural communities, and/or significant wildlife habitats within the project site and surroundings.
- B. Any New York Natural Heritage Program or USFWS reported occurrences on the site will be investigated for that particular occurrence. Regardless of occurrences being reported for the project site, flora and fauna surveys will be conducted on the project site where adequate sampling has not already occurred.
- C. Vegetation studies to inventory species and identify natural plant communities and habitats consistent with community types defined by Reschke (1990) will be performed. Limits of plant community occurrences will be determined first from interpretation of aerial photographs. Final mapping of plant communities will be produced from on site investigations
- D. A comprehensive list of plant species found on the project site including the identification of any rare threatened or endangered species found on the project site will be developed from a survey of the different plant community types identified in paragraph C.
- E. Rare or unique habitats/natural communities that could support rare, threatened, or endangered species will also be identified when performing the task in paragraph C. This shall include, but not be limited to, the following: timber rattlesnakes, bald eagles, red-shouldered hawk, peregrine falcon, Cooper's hawk, Indiana bat and species of wild orchids and ladies slippers.
- F. Wildlife species consisting of mammals, birds, reptiles and amphibians observed directly in the various on-site communities in the field will be documented. Wildlife signs (e.g. song, nests, tracks, scat, burrows, markings, etc.) will also be recorded as observed.
- G. Bird census work will be performed for resident and migratory species. The bird census work will be performed in the spring (migratory species) and summer (resident/breeding species) months. Census work will occur on four days in the spring and summer, and each day will include early morning hours. Census work

will include all of the habitat types present on the project site. All birds seen or heard will be recorded to the lowest possible classification.

- H. Potential habitats for reptiles and amphibians (frogs, salamanders, turtles and snakes) will be specifically searched. These habitats primarily include wetlands and stream areas, adjacent uplands, sunning spots, loose logs, rocks and soil. For amphibian and reptile survey work, perform a reconnaissance survey of the site to identify reptile and amphibian breeding habitat. Focusing on the aquatic and semi-aquatic habitats identified, conduct two one-day amphibian and reptile surveys with a two person crew, one in late March/early April (depending on weather), and a second in late May. Data on mammalian and bird occurrences made during the amphibian and reptile surveys will also be collected.
- I. The field observations of wildlife species and habitat made during the studies listed above will be used along with existing data sources (e.g. Breeding Bird Atlas and range maps) to develop a list of wildlife species likely to occur on the project site.

UNIT MANAGEMENT PLAN-DEIS

ATTACHMENT A-3

CULTURAL RESOURCES

- A. The methodology for assessing cultural resources will follow the procedures outlined in the Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State (New York Archaeological Council, 1994 (NYAC)) as adopted by the Office of Parks Recreation and Historic Preservation (OPRHP). The purpose of this work is to assure that the Ski Center UMP-DEIS and the project satisfy the Lead Agency under the New York State Historic Preservation Act of 1980 (SHPA) and SEQR.

The project's cultural resource investigation will be conducted by a professional archaeologist, qualified according to the standards of the New York State Archaeological Council, and the National Park Service 36 CFR 61 guidelines (hereinafter "the archaeologist").

- B. The methodology to be followed for each of these studies is presented below:
1. The archaeologist shall conduct Phase IA and Phase IB cultural resource investigations to identify archaeological resources, cultural/sacred areas, and standing structures that are at least 50 years old that may be affected by the project, and to locate prehistoric and historic cultural/archaeological resources that may exist within the proposed project area.
 - a. The Phase IA investigation will gather information concerning the environmental/ physical and cultural settings of the project area through a literature search. The Phase IA investigation will consist of the following elements:
 - (1) Preliminary review of historic maps and literature relating to the project area.
 - (2) Review of OPRHP archaeological site inventories. A list of prior surveys and investigations completed in the immediate area of the Project and a summary of the results of those studies will be developed.
 - (3) A list of the State and/or National Register of Historic Places eligible and listed properties within one mile of the project area.
 - (4) An on-site field reconnaissance of the project area, with photographic documentation of existing conditions.

- (5) Assessment of archaeological sensitivity based upon the environmental/physical characteristics of the Project Area and the types and density of cultural sites identified within one mile of the Project Area. Site types likely to be identified and the anticipated condition of these sites will be described.
- b. The Phase IB field investigation will be conducted in areas considered to be sensitive for the location of significant cultural resources. The Phase IB investigation will be conducted as follows:
- (1) The Phase IB field survey will be limited to potentially sensitive areas identified in the Phase IA survey, within areas of proposed Project alteration.
 - (2) The most efficient means of investigation is through subsurface shovel testing of all areas where construction or staging that involve ground disturbance will take place.
 - (3) In order to document the presence or absence of cultural resources in the project impact area, an intensive walkover of the project area will be conducted. Based on the results of that walkover, shovel tests will be excavated to verify and mark the extent of resources identified during the walkover. The walkover will focus on the areas which are characterized by less than 15% slope and are thus considered more sensitive to the presence of intact precontact remains. The walkover will extend into areas of greater than 15% slope to identify the presence or absence of map documented structures and/or identify areas such as rockshelters or overhangs or shelves that might warrant subsurface investigation
 - (4) Shovel tests shall be conducted in accordance with the NYAC Standards. Shovel tests will be 40cm in diameter. The soil from each test will be passed through 0.25 inch hardware cloth and carefully examined for historic and prehistoric cultural materials. The stratigraphy of each test will be recorded including the soil type and depth of each stratum. Artifacts will be assigned to the soil stratum from which they are retrieved. Notations about the surrounding landscape will also be recorded if the archeologists feel that the field conditions have affected the results of the tests. Photographs characterizing the project area will be recorded. The locations of the tests will be recorded on project maps of appropriate scale.
 - (5) All prehistoric cultural material observed will be collected. Historic artifacts such as glass, ceramics, food remains, and the like will also be collected. Coal, ash, cinder, and brick will be noted, but only samples of these will be retained. Arrangements

for curation of any recovered artifacts will be made with an institution in New York State that meets the federal 36 CFR 79 standards.

- (6) Cataloging and accessioning tasks will be completed as specified by the curating institution.
- (7) A report detailing the results of the Phase 1B investigations will be prepared and will include a discussion of field methodology, results and will include test excavation records and an artifact inventory. The report shall be completed in accordance with the NYAC Standards and shall be submitted to the Lead Agency for transmittal to other reviewing agencies.

- C. The scope and scale of any Phase 2 work will be determined once the results of Phase 1 are available.

UNIT MANAGEMENT PLAN-DEIS

ATTACHMENT A-4

List of Illustrative Mitigation Measures For Consideration

The following list includes examples of mitigation measures which may or may not be relevant to the project. This list is for consideration only in identifying potential mitigation measures:

Building Design and Operation Measures

- o Energy efficient building design to reduce cooling/heating requirements
- o Install high-efficiency HVAC systems
- o Construct green roofs
- o Eliminate or reduce use of refrigerants in HVAC systems
- o Use high-albedo roofing materials
- o Maximize interior daylighting
- o Reduce energy demand using peak shaving or load shifting strategies
- o Incorporate window glazing to optimize daylighting, while minimizing heat loss and solar heat gain
- o Incorporate super insulation to minimize heat loss
- o Incorporate motion sensors and lighting and climate control
- o Use efficient, directed exterior lighting
- o Use water conserving fixtures that exceed building code requirements
- o Re-use gray water and/or collect and re-use rainwater
- o Provide for storage and collection of recyclables (including paper, corrugated cardboard, glass, plastic and metals) in building design
- o Re-use building materials and products
- o Use building materials with recycled content
- o Use building materials that are extracted and/or manufactured within the region
- o Use rapidly renewable building materials
- o Use wood that is certified in accordance with the Sustainable Forestry Initiative or the Forestry Stewardship Council's Principles and Criteria
- o Conduct 3rd party building commissioning to ensure energy performance (e.g. LEED)
- o Track energy performance of building and develop strategy to maintain efficiency
- o Provide construction and design guidelines to facilitate sustainable design for build-out by tenants

Efficiency or Mitigation Measures for On-site GHG Sources

- o Use energy efficient boilers, heaters, furnaces, incinerators, or generators
- o Incorporate co-firing of low carbon intensity biomass or use of bio-fuels
- o Collect biogas and use for energy generation
- o Use biodiesel or bioheat for heating fuel or in vehicles/equipment

- o Assess feasibility of incorporation of on-site renewable energy sources into project
- o Incorporate combined heat and power (CHP) technologies

Site Selection and Design Measures

- o Provide access to public transportation
- o Minimize energy use through building orientation
- o Provide permanent protection for open space on the project site
- o Manage forested areas for carbon sequestration
- o Conserve and restore natural areas on-site
- o Minimize building footprint
- o Design project to support alternative transportation (walking and bicycling)
- o Use low impact development for stormwater design
- o Design water efficient landscaping

Transportation Measures

- o Incorporate Transit-Oriented Development (TOD) principles in establishing employee and customer activity patterns
- o Provide new transit service or support extension/expansion of existing transit (buses, trains, shuttles, water transportation), where feasible
- o Purchase alternative fuel and/or fuel efficient vehicles for fleet, including the range of maintenance and operation vehicles used on-site.
- o Incorporate idling reduction policies
- o Support expansion of parking at Park-n-Ride Lots and/or transit stations
- o Develop or support multi-use paths to and through site
- o Size parking capacity to meet, but not exceed, local parking requirements and, where possible, seek reductions in parking supply through special permits or waivers
- o Pursue opportunities to minimize parking supply through shared parking or banked parking
- o Develop a parking management program to minimize parking requirements such as parking cash-out, parking charges, preferential carpool or vanpool parking, limiting parking available to employees
- o Develop and implement a marketing/information program that includes posting and distribution of ride sharing or transit information
- o Provide or subsidize transit options including coach or jitney services
- o Reduce employee trips during peak periods through alternative work schedules, telecommuting and/or flex-time
- o Provide a guaranteed ride home program
- o Roadway improvements to improve traffic flow
- o Traffic signalization and coordination to improve traffic flow and support pedestrian and bicycle safety measures.

**PART B
SCOPING OUTLINE
FOR
MODIFIED BELLEAYRE RESORT AT CATSKILL PARK
SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT**

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EXECUTIVE SUMMARY

The modified project alternative for the Belleayre Resort at Catskill Park (Belleayre Resort) project that will be the subject of this Supplemental DEIS seeks to eliminate or reduce project related environmental impacts identified in the 2003 Draft Environmental Impact Statement (Crossroads' DEIS) and in public comments thereon. The modified project is based upon a conceptual project detailed in the Agreement in Principle (Agreement) dated September 5, 2007. The modified project alternative assessed in this Supplemental DEIS advances an alternative project which was designed to address the potentially significant adverse environmental impacts previously identified in regard to the originally proposed Belleayre Resort. This supplement to the Crossroads' DEIS, which was accepted as complete in December 2003, is intended to analyze the environmental effects of the modified Project and provide for public review and comment as required by SEQR.

The eventual product of the private-side scoping document (which follows) is a supplement to the Crossroads' DEIS, the applicant may rely on that document to the extent the Crossroads' DEIS analysis is still relevant. Where the applicant is relying on the earlier document it should specifically identify the Crossroads' DEIS sections and analyses relied upon.

EXECUTIVE SUMMARY FOR SCOPE

The executive summary shall provide a synopsis of the Crossroads' DEIS and the Supplemental DEIS. The Executive Summary shall include summaries of the environmental setting, proposed actions, potential impacts and proposed mitigation measures, and alternatives to the proposed actions. A description of the permits and approvals required for completion of the proposed project shall also be included. Also include:

Table of Contents
List of Figures
List of Tables
List of Appendices
List of Acronyms

SECTION 1.0 INTRODUCTION

1.1 Project Site Location

Describe the project location on a regional and local scale. A site location map (USGS base) and a regional location map shall be included in the Supplemental DEIS. The local scale map shall show the proposed project site in relation to Belleayre Mountain Ski Center to aid in orientation. The local scale map shall also clearly indicate county, town and village boundaries.

1.2 General Project Descriptions

- A. Describe the areas to be developed and include information on land acreage and general environmental conditions.
- B. Describe the type of development proposed for different areas, including proposed land uses, golf course, buildings, roads, water supply and wastewater disposal.
- C. Provide a master plan level figure illustrating the project and its surroundings.

1.3 Project Purpose, Need and Benefits

- A. Describe historical background of the area as a resort destination.
- B. Describe Belleayre Mountain Ski Center in terms of history of operation, improvements, and visitation trends. Describe the history of operations of the Highmount Ski Center.
- C. Provide a description of the background and history of local land use regulations and regional land use plans, comprehensive plans and regional land use plans.
- D. Describe the need for the type of resort facilities to be provided by the project including information from any marketing studies performed for the project.
- E. Specific information that shall be included to address viability concerns include marketing analyses, investor protection, details of a proposed build out, management options, job categories, employment aspects, training programs, etc. Pertinent documentation will be included in the Appendix "Fiscal and Marketing Information."
- F. Discuss the relationship of this project to the current economic development strategy for the region.
- G. Discuss the potential benefits of the project.

1.4 Environmental Review, Permits, Approvals, Public Grants and Funding Sources

Identify the permits required for the project and the types of information necessary for the permits. Describe the time frame for the review process. Discuss the overall regulatory scheme of the individual agencies. Include a list of all permitting/approving agencies.

1.4.1 Local

A. Identify any permits or approvals required from the Town Boards, Planning Boards and Zoning Boards of Appeals in both the Town of Shandaken and the Town of Middletown.

B. Discuss construction bonding requirements of the local municipalities' financial assurance requirements.

1.4.2 County

Identify the permits and approvals required from Ulster County and Delaware County including Health Department, Planning Department, Highway Department and Industrial Development Agency. Identify any funding available from the identified Counties or their agencies.

1.4.3 Regional

Identify the permits and approvals required from regional agencies including NYCDEP and the Delaware River Basin Commission. Identify any funding available from the regional agencies.

1.4.4 State

Identify the permits and approvals required from State agencies including the Department, New York State Department of Transportation (NYSDOT), New York State Office of Parks, Recreation and Historic Preservation (OPRHP) and the New York State Department of Health (NYSDOH). Identify any funding available from the State or its agencies.

1.4.5 Federal

Identify the permits and approvals required from federal agencies including amending the previously issued US Army Corps of Engineers permit. Identify any funding available from the Federal Government.

SECTION 2.0 DESCRIPTION OF THE PROPOSED ACTION

2.1 Overall Project Design and Layout

This section of the Supplemental DEIS shall describe the project in more general terms and in its totality. Proposed land uses and their locations shall be described.

2.2 Highmount Spa Resort

A. Provide an overall description of this project component including location, proposed uses, numbers, types and sizes of buildings, roads and driveways, parking, stormwater management, water supply and wastewater. More detailed descriptions of these components and others shall be provided in Section 2.8 below.

B. The Supplemental DEIS shall discuss the siting of detached lodging units along the Highmount Spa Resort access road, including up to ten individual lodging units to be built along this road (1) in areas where slopes are less than 20%, (2) after the road and stormwater controls have been designed and sited, and (3) only after stormwater practices have been functioning for one year and the Department and NYCDEP determine that the constructed stormwater practices are providing the detention and treatment that they were designed to achieve, and will continue to do so if such additional lodging units are built. If it is not possible to build some or all of these 10 detached units along the access road so that they meet these conditions, the Supplemental DEIS shall describe the suitable alternative locations on the site where these 10 units are proposed to be built.

C. The Supplemental DEIS shall also include site plans at sufficient level of detail to illustrate the project components listed above. The plans shall be of sufficient detail to evaluate the proposed actions for which permits and approvals are being sought. Grading plans, sediment and erosion control plans and stormwater management (drainage) plans shall be produced at a scale of 1 inch = 50 feet and utilize a 2-foot contour interval.

D. The Supplemental DEIS shall include project plans overlaid on slope mapping.

E. The Supplemental DEIS shall contain building plans including building elevations, sections, and floorplans that show building exterior character and allocation of space to the uses within the buildings.

2.3 Revised Wildacres Layout Including Highmount Golf Club

A. Provide an overall description of this project component including location, proposed uses, numbers, types and sizes of buildings, roads and driveways, parking, golf course, stormwater management and water and sewer. This shall include a description of how the previous Crossroads' DEIS plan for Wildacres was changed to minimize disturbance of steep slopes, freshwater wetlands, watercourses, and buffer areas, as well as efforts that were made to limit cuts and fills, allocating sufficient and suitable areas for stormwater management, and designing practices to reduce stormwater runoff. More detailed descriptions of these components and others shall be provided in Section 2.8 below.

B. The Supplemental DEIS shall also include plans at sufficient level of detail to illustrate the project components listed below. The plans shall be of sufficient detail to evaluate the proposed actions for which permits and approvals are being sought. Grading plans, sediment and erosion control plans and stormwater management (drainage) plans shall be produced at a scale of 1 inch = 50 feet and utilize a 2-foot contour interval.

C. The Supplemental DEIS shall include project plans overlaid on slope mapping.

D. The Supplemental DEIS shall contain building plans including building elevations, sections, and floorplans that show building exterior character and allocation of space to the uses within the buildings.

2.4 Wastewater Collection and Treatment – Pine Hill Wastewater Treatment Plant

A. Provide an overall description of how project wastewater will be collected and conveyed to the Pine Hill wastewater treatment plant.

B. Provide an overall description of the ability of the Pine Hill wastewater treatment plant to accommodate the project's wastewater flows.

C. Describe other connections to the Pine Hill wastewater treatment plant from inside and from outside the former Village of Pine Hill.

2.5 Substituted Lands Comprising the Project Site

Through narrative and mapping describe the lands that comprise the project site. This shall include the Wildacres Resort site, the Highmount Spa and Resort site and the lands for which a conservation easement will be conveyed to New York City.

2.6 Disposition of Former Big Indian Plateau Lands

A. Through narrative and mapping describe the lands previously proposed to be developed on the Big Indian Plateau.

B. Describe the project sponsor's plans for this land as part of this project.

2.7 Relationship to Belleayre Mountain Ski Center

A. Through narrative and mapping describe the current layout of the facilities at the Ski Center as they relate to the lands that comprise the project site.

B. Through narrative and mapping describe the proposed layout of the facilities at the Ski Center as they relate to the layout of the resort project, including the conveyance of a portion of the former Highmount Ski Area lands.

2.8 Project Details

Details for project components shall be provided as follows.

2.8.1 Buildings

Describe the location, number, sizes, and architectural style of buildings being proposed. Typical exterior character of proposed buildings shall be illustrated in elevation drawings. The Supplemental DEIS shall set forth certain proposed limitations regarding building footprints and clustering and shall demonstrate compliance to these stated conditions.

2.8.2 Roads and Parking

A. Describe the location and length of proposed project roads and their relationship to the existing public road network as shown on the site plan drawings that are part of the Supplemental DEIS.

B. Describe the location and capacity of proposed parking areas as shown on the site plan drawings that are part of the Supplemental DEIS.

C. Road maintenance activities, particularly winter maintenance, shall be discussed.

D. For the Highmount Spa and Resort access roadway, describe how the following parameters were addressed.

1. limiting construction and associated land disturbance to areas with slopes of 20% or less to the greatest possible extent, while balancing this attribute with the goals of minimizing the overall length of the access roadway and providing adequate space and appropriate locations for stormwater management practices;
2. designing and constructing the Access Roadway to meet safety considerations and maintaining a final access roadway grade not to exceed 15%
3. designing and implementing the roadway so as to incorporate slope stabilization techniques, in both up-slope and down-slope areas, to limiting the overall scope of necessary construction excavation and grading, focusing extensively on retaining walls (e.g., gabion walls, small or large block modular walls, bedrock retaining walls, and sta-walls) and to a lesser extent slope re-vegetation;

4. locating and designing the roadway so as to minimize the extent of cuts and fills;

5. designing and implementing stormwater and erosion and sediment controls so as to optimize the retention and treatment of stormwater at its source on the higher and flatter portions of the Highmount Spa site, without regard to the location of detached lodging units and so as to minimize the size and number of stormwater management facilities adjacent to the more steeply sloped portions of the roadway; and

6. conservatively allocating sufficient space on benches along the slope for stormwater management practices to treat runoff from all disturbed areas.

2.8.3 Vehicular and Pedestrian Access and Circulation

A. In the context of existing conditions discuss the proposed project-generated traffic, access to the project, internal vehicular circulation and pedestrian access provided within the project.

B. Discuss plans for resort shuttle services, including the use of hybrid or similar clean air vehicles.

C. The Supplemental DEIS shall confirm that ATV and snowmobile use on the site will be prohibited as per the Crossroads' DEIS.

2.8.4 Golf Course and Golf Course Management

A. Describe the location and types of golf facilities including course (length, par, etc.), practice facilities, buildings (clubhouse, maintenance), and irrigation ponds.

B. Describe the organic management of the golf course.

C. Include as an appendix to the Supplemental DEIS the proposed Organic Golf Course Management Plan.

2.8.5 Areas of Disturbance, Impervious Areas and Lands to Remain Undeveloped

A. Provide the amount of land to be disturbed for the development areas as illustrated on the grading plans that are part of the Supplemental DEIS.

B. Provide estimates of the size of proposed impervious surfaces as illustrated on the layout plans that are part of the Supplemental DEIS. Provide a tabular

summary of impervious areas differentiating between such components as buildings, roads, parking, etc.

C. Provide the amount of lands to remain undeveloped and their location on the site as per the grading plans that are part of the Supplemental DEIS. Provide a discussion of the mechanisms to be put in place to limit vegetation clearing to only those areas shown on the project plans.

2.8.6 Water Supply, Potable and Irrigation

A. Identify the sources of potable water supply and discuss their capacity to serve the proposed project as well as any interrelationships with other existing water supply systems.

B. The methodologies that will be used to identify and quantify potable water supply are discussed in detail in Attachment B-1 of this document.

C. Identify the sources of irrigation water supply and discuss their capacity to meet demand. Discuss plans for utilizing stormwater for irrigation water.

D. The Supplemental DEIS shall include water supply infrastructure plans as well as a preliminary design report for the water supply system.

E. Discuss the reduction in water consumption that could result from including green building design elements into the project.

2.8.7 Wastewater

Identify the methods proposed for wastewater disposal and the locations where wastewater disposal is proposed. The Supplemental DEIS shall include wastewater utility plans as well as a preliminary design report for the wastewater infrastructure.

2.8.8 Grading, Drainage and Earthwork

A. Discuss the general drainage characteristics of the site and also identify subcatchments within the project site.

B. Provide grading plans for the development areas (1 inch = 50 feet, 2 foot contour interval) and discuss how development will affect subcatchment boundaries and stormwater runoff patterns.

C. Provide cut and fill estimates for the development areas.

D. Discuss and illustrate proposed stormwater control measures.

E. The methodologies that will be used to analyze stormwater generation and stormwater control are discussed in more detail in Attachment B-2 of this scoping document.

2.8.9 Construction Activities and Phasing

A. This section of the Supplemental DEIS shall provide more detail regarding activities such as clearing and grubbing, blasting, installation of erosion control measures, rough grading, final grading, installation of infrastructure and utilities, building construction, landscaping and golf course grow-in. Any on-site processing of materials that may take place on the site, i.e. rock crushing, a concrete batch plant, etc., should also be discussed in terms of locations on the site and timing of operations.

B. Blasting shall be discussed with attention given to effects on such things as traffic, noise, air quality, erosion and sedimentation, wildlife, nearby structures and nearby water supplies. Details on the effects on these parameters shall be provided in relevant subsections of section 3 herein.

C. The Supplemental DEIS shall also contain a Blasting Management Plan describing BMP's to be employed.

D. This section of the Supplemental DEIS shall also discuss construction inspection methods and procedures for the local municipalities and other regulatory agencies.

E. The Supplemental DEIS shall provide a description of the envisioned sequence of construction activities, including the amount of area that will be disturbed at given times as construction progresses.

F. An overall construction schedule shall be provided including the sequencing of construction activities, and approximate duration of each construction event.

G. Where possible, the effects of the proposed construction schedule on such things as land disturbance, exposed soils, traffic generation, water use, wastewater disposal, and solid waste management shall be quantified.

H. Routing of construction vehicles shall be described as well as routes and parking sites for construction workers. Estimates of daily truck traffic shall be provided plus the duration of such traffic.

I. If excess material from site grading (cut) will result in off-site removal, truck routes and disposal sites shall be identified and corresponding data provided if fill

is to be imported. All permitting requirements for any mining activities shall be discussed in the Supplemental DEIS.

J. Methods of handling and storing construction materials shall be described.

2.8.10 General Erosion Control Activities

A. This section shall provide an overview of the approach to sediment and erosion control, including but not limited to construction phasing and limitations on disturbance at one time, structural and vegetation controls including sediment basins, perimeter erosion controls and diversion of drainage around construction areas, personnel for implementation of the plans, independent monitoring, and regulatory agency reporting. Details will be provided elsewhere in the Supplemental DEIS, including the specifics described in Attachment B-2 of this scoping document.

B. Describe how prior to the commencement of any construction, and as security for the observance and performance by the applicant of its obligations under the erosion and sediment control plans and stormwater control plans prepared for the project in conformance with the applicable provisions of the Department and NYCDEP permits issued for the modified project alternative, the applicant will deliver to the Department and NYCDEP a performance bond, letter of credit, or other form of security acceptable to the Department and NYCDEP, issued by a bonding or surety company, bank, or other financial institution located and authorized to do business in the State of New York and otherwise approved by the Department and NYCDEP, in a principal amount equal to the estimated cost of implementing and complying with the SWPPP prepared for the project and the applicable provisions of the Department and NYCDEP permits during the period of construction of the project.

2.8.11 Lighting, Landscaping and Signage

A. Discuss and illustrate the location and type of lighting that will occur within the project, including motion-sensitive lighting, cutoff light fixtures and recessed light fixtures.

B. Discuss and illustrate through planting plans how open space within the development will be landscaped and how existing vegetation will be maintained. Include in the discussion of maintenance the efforts that will be made to manage the grass, shrubs, flowers, trees and all other plantings and greenery on the project site, including both the Wildacres Resort and Highmount Spa Resort, without the use of synthetic chemicals (i.e. Organic Management). Describe how records

documenting the application of synthetic chemicals on the project site will be created and maintained for review by the Department.

C. The Supplemental DEIS shall discuss the use of native versus non-native plant materials.

D. The Supplemental DEIS shall include a description of a program for the prevention of invasive species during construction and operation of the project. This program shall be developed in consultation with the Department and the Catskill Regional Invasive Species Project.

E. Signage, on-site and off site, shall be described and located, and illustrated on the site plans that are part of the Supplemental DEIS.

2.8.12 Energy and Materials Management

A. The Supplemental DEIS shall include a description of energy and materials management including guidelines for energy use and conservation, water use and conservation, recycling and composting, and product purchasing during construction and during post-construction operations.

B. The Supplemental DEIS shall include a description of green building design elements that have been incorporated into the project, including how buildings will be designed and constructed to green building specifications set forth by the United States Green Building Council in order to obtain certification under the Leadership in Energy and Environmental Design (LEED) program, specifying design elements included to obtain a LEED Silver or higher rating for the Wildacres Resort, Highmount Spa and two Highmount multi-unit lodge buildings.

SECTION 3.0 ENVIRONMENTAL SETTING, POTENTIAL IMPACTS AND MITIGATION MEASURES

A. In this section the Supplemental DEIS shall assemble the relevant data as it applies to the various biological, physical, social, and cultural resources on the site or in the area. The onsite data shall be based on site-specific research completed by the applicant's consultants. On-site data shall be collected for the entire site, but shall focus more on areas proposed to be developed or likely to be affected by development. Water supply system and capacity studies, waste waters treatment analyses, and stormwater assessments shall be conducted by qualified professionals. The data for the community shall rely upon prior studies and other sources. Information from local municipal authorities such as fire and police shall be collected by the applicant.

B. Mapping shall be provided to clearly illustrate existing environmental conditions. Maps identifying the percentage slopes of areas to be disturbed and the nature of the proposed disturbance shall be provided.

C. Describe the anticipated impacts and meaningful mitigation measures as it is applicable to the resources. Without limitation, mitigation may include use of innovative construction techniques, construction and project phasing and relocation of facilities. Positive impacts shall be identified as well.

3.1 Surface Waters Including Aquatic Habitats

The Supplemental DEIS shall include an updated description of surface water resources in proximity to project components, including any intermittent and perennial streams in vicinity to the new K-wells that are proposed to be used for potable water supply. The location of surface waters on and around the project site will be shown on appropriate mapping as well as on the site plans that are part of the Supplemental DEIS. Information on baseline surface water quality in local surface waters shall be updated in the Supplemental DEIS. The Supplemental DEIS shall evaluate potential impacts to surface water quality and surface water quantity as a result of the modified Resort project, in particular from the following project components identified in this section 3.1.

3.1.1 Stormwater Management

See Attachment B-2 of this scoping document for a comprehensive description of the requirements for the analyses, reports and plans required for this Supplemental DEIS topic. Detailed information shall be provided for the following:

A. Operational Phase Water Quantity

Model Used
Model Calibration Using Stream Monitoring Data
Storms Analyzed
Identification of Design Points
Pre-Development Subcatchment Mapping
Proposed Flow Paths
Proposed Management System
Conformance with Design Standards Including Flow Attenuation
Maintenance of Management System

Prior to completing the analyses and modeling that will support the studies in the Supplemental DEIS concerning stormwater management (including, but not limited to, pre- and post-development pollutant loadings, and pre- and post-development stormwater quantities, and peak rates of runoff), the applicant's consultant will meet with technical representatives of NYC DEP and the Department to review and seek to agree upon the model assumptions and inputs. Specify qualifications of designer of stormwater management system.

- B. Operational Phase Water Quality
 - 1. Changes in Nutrient and Solids Loadings.
 - 2. Discuss mitigation alternative of organic management of the green landscaping areas, applying the same criteria as required of the golf course.
 - 3. Changes in Thermal Loadings
- C. The Supplemental DEIS shall include a draft stormwater pollution prevention plan (SWPPP) for phase 1 construction that addresses construction phase stormwater management.

3.1.2 Sediment and Erosion Control

See Attachment B-2 of this scoping document for a comprehensive description of the requirements for the analyses, reports and plans required for the Supplemental DEIS topic. Detailed information shall be provided for the following:

- A. Construction Phasing and Sequencing Including Limitations on Disturbance
- B. Perimeter Controls
- C. Structural Control
- D. Vegetative Controls
- E. Temporary Stabilization
- F. Sediment Basins
- G. Implementation of the Erosion Control Superintendent and Independent Stormwater Monitor.

- H. A draft SWPPP for phase 1 construction, including detailed phasing plans and sediment and erosion control plans shall be included in the Supplemental DEIS. Specify qualifications of designer.
- I. Discuss purpose and requirements for the Independent Storm Water Monitor.

3.1.3 Water Supply

See Attachment B-1 of this scoping document for a comprehensive description of the requirements for the methodologies, analyses, reports and plans required for this Supplemental DEIS topic. Detailed information shall be provided for the following:

- A. Impacts associated with potable water use shall be identified, including any potential impacts to existing sources of potable water supply. Suitable measures directed towards mitigating potential impacts to surface waters and drinking water supply from project potable water use shall be identified.
- B. Potable water use and the methodologies used to determine potential impacts associated thereto are discussed in more detail in Attachment B-1 of this document, including requirements for monitoring nearby stream hydrology and stream water quality parameters during pump tests of the potable water wells.
- C. The Supplemental DEIS shall evaluate any inter-basin transfer of water as it pertains to regulatory limitations, surface water hydrology, chemistry and aquatic habitats.
- D. Describe the role of the proposed Water Supply Technical Advisory Committee.

3.1.4 Wastewater Collection, Treatment and Discharge

In addition to the information listed below, the Supplemental DEIS shall include revised preliminary engineering drawings and a revised design report for the wastewater collection system.

- A. The Supplemental DEIS shall include an estimate of the volume and quality of wastewater generated by determining anticipated number of wastewater generating units (i.e. lodging and residential units, clubhouse dining seats, etc.) and multiplying by anticipated per unit usage based on New York State Department of Environmental Conservation Design Standards for Wastewater Works and New York City Department of Environmental Protection (NYCDEP),

Rules and Regulations for the Protection from Contamination, Degradation and Pollution of the New York City Water Supply and its Sources.

B. The Supplemental DEIS shall evaluate the current State Pollutant Discharge Elimination System (SPDES) permit for the Pine Hill Wastewater Treatment Plant (WWTP) and the plant's ability to accept the additional hydraulic loading from the project. This discussion shall include the ability of the plant to accommodate project flows when the plant experiences higher flows due to existing inflow and infiltration conditions, as well as what measures are being implemented to address this issue.

C. The Supplemental DEIS shall evaluate the likelihood that the additional flows from the project could necessitate the use of chlorine in the treatment process at the Pine Hill WWTP and the potential for impacts to aquatic habitats as the result of chlorine use.

D. The Supplemental DEIS shall evaluate any potential hydraulic or water quality impacts to Birch Creek as a result of increased discharges from the Pine Hill WWTP and discuss measures that will be implemented to mitigate any potential impacts identified.

E. The Supplemental DEIS shall describe the private operation and maintenance requirements for the project system to make sure the system continues to function as designed.

3.1.5 Golf Course Management

See Attachment B-6 of this scoping document for a comprehensive description of the requirements for the methodologies, analyses, reports and plans required for this Supplemental DEIS topic. Detailed information shall be provided for the following:

A. The Supplemental DEIS shall assess potential impacts to aquatic biota as a result of golf course management practices, including organic pest controls and fertilizers. The Supplemental DEIS shall discuss integrated pest management as presented in the Crossroads' DEIS, including the pesticides that were previously proposed for use.

B. The Supplemental DEIS shall identify the source of irrigation water for the golf course and assess any potential impacts to surface water and aquatic habitat resources as a result of the use of the irrigation water source. Reference to Attachment B-6.

C. The Supplemental DEIS shall provide a complete description of a program of integrated pest management (IPM) and nutrient management to limit the

application of pesticides and fertilizers in the event organic management is discontinued. This shall also apply to green landscaping areas if organic management is not used thereon. Reference to Attachment B-6.

3.1.6 Stream Crossings

Impacts from any proposed bridging, culverting, stream bank disturbance, diversion, impoundment, etc. on hydrology and water quality shall be assessed and suitable mitigation measures proposed for any potentially significant impacts that are identified. Design measures that were taken to avoid or minimize disturbance to on-site streams as well as lands adjacent to on-site streams shall be discussed.

3.2 Groundwater Resources

A. Groundwater resources on and around the project site shall be described. Depth to groundwater, general groundwater quality, directions of groundwater flow, and types, locations, and yields of wells in the area shall be covered in the Supplemental DEIS.

B. The location and characteristics of the existing Fleischmanns and Pine Hill water supply systems shall be described in relation to the proposed project.

C. Seasonal high and low groundwater levels on the proposed project site shall also be discussed in terms of locations, depths, time of year, and its affect on site planning. The location of springs and wells within and around the project site shall be identified and their relationship to other groundwater resources shall be described.

D. The Supplemental DEIS shall contain the well log(s) as well as the results of pump test for any wells proposed for use as part of the project. If possible, a nearby well or wells shall be monitored during the pump test to try to determine the zone of influence of the well(s).

E. Attachment B-1 of this document includes a description of the methodologies to be used to assess the project's potential impacts to groundwater as result of project water use, including the methodologies for well pump testing and the methods to be employed to perform a water budget analysis.

3.2.1 Water Supply

A. See Attachment B-1 for a detailed description of the analyses to be undertaken to evaluate the potential impacts of the project's use of groundwater as the source of potable water supply.

3.2.2 Wastewater Collection, Treatment and Disposal

- A. The Supplemental DEIS shall evaluate the withdrawal of groundwater from the Pepacton watershed for project potable water supply and the discharge of this water as treated wastewater effluent in the Ashokan basin.
- B. The Supplemental DEIS shall evaluate this interbasin transfer of water from the standpoint of the groundwater aquifer's ability to serve as a long term water supply source for the resort.
- C. The water budget analysis performed for the project in the Supplemental DEIS shall include the interbasin transfer.

3.2.3 Golf Course Management

- A. The Supplemental DEIS shall assess potential impacts to groundwater quality as a result of golf course management practices, including organic pest controls and fertilizers.
- B. The Supplemental DEIS shall identify the source of irrigation water for the golf course and assess any potential impacts to groundwater resources as a result of the use of the irrigation water source.

3.3 Soils

- A. The Supplemental DEIS shall contain a detailed soils map with an accuracy of 0.5 to 1.0 acre for the portions of the property proposed to be developed based on an on-site evaluation.
- B. Areas outside of development envelopes shall be mapped using published Natural Resources Conservation Service (NRCS) data.
- C. As per clarification provided in the Crossroads' DEIS, classification of soils on the site shall be based on field identification (classification) by a qualified soil scientist/soil classifier and incorporate the proper temperature regime when assigning soil series names.
- D. Supplemental DEIS text shall discuss the properties and constraints of each of the mapped soil types as they pertain to development. Characteristics that shall be considered include clay contents, slope, hydrologic group, seasonal high and low groundwater, erosion potential, shallow bedrock, etc. These characteristics shall then be evaluated for development potential for golf course fairways, building locations, roadways and parking areas, and underground utilities, including NRCS

soil interpretation-rating guides. Tabulated presentation of information shall be provided as appropriate.

E. Deep hole test pit and percolation test data shall be provided for those soils and/or areas where infiltration is being proposed for stormwater control.

F. Any areas where blasting is required shall be identified. The Supplemental DEIS shall describe the need for blasting, the type of blasting to be employed and the timing of blasting.

G. The Supplemental DEIS shall assess potential impacts from blasting including, but not limited to impacts to nearby water supplies, surficial and bedrock geology and hydrology, local noise environment, wildlife and other resources. Suitable measures to mitigate potential impacts, including conducting pre-blast surveys of neighboring properties, shall be identified and analyzed for their suitability and complying with U.S. Bureau of Mine (USBM) guidelines for blasting.

H. The Supplemental DEIS shall contain earthwork calculations for the cuts and fills included on the project grading plans that will be part of the Supplemental DEIS.

3.3.1 Stormwater Management

A. Soils information and how it should be incorporated into the stormwater management plan design is included in Attachment B-2 of this scoping document.

B. The Supplemental DEIS shall include a detailed Stormwater Pollution Prevention Plan (SWPPP) for one “typical” phase. Additionally, the Supplemental DEIS shall include a conceptual plan for the remaining phases. The conceptual plan for the remaining phases must identify the types of stormwater practices that are to be proposed and an assessment of their suitability to function as required.

3.3.2 Sediment and Erosion Control

A. Soils information and how it should be incorporated into the sediment and erosion control planning is included in Attachment B-2 of this scoping document.

B. Measures to mitigate potential impacts from soil erosion and sedimentation shall be fully described in the Supplemental DEIS. Mitigation measures which may be proposed include the use of structural erosion control devices such as silt fences and hay bales, sediment basins, flocculants, a phasing plan for soil disturbance, and other similar best management practices (BMPs).

C. The phasing plan shall take into account site specific characteristics including slopes, soil types, results of soil testing described above, as well as the measures proposed to mitigate potential impacts.

3.4 Terrestrial and Aquatic Ecology

3.4.1 Vegetation

A. An updated file search of the New York Natural Heritage Program shall be requested. File searches will be performed for known occurrences of threatened or endangered plants and unique natural communities within the project site and surroundings.

B. Any New York Natural Heritage Program reported occurrences of threatened or endangered plants and unique natural communities within the project site and surroundings will be investigated for that particular occurrence.

C. Using the vegetation survey of the project site prepared for the Crossroads' DEIS along with the map of the vegetation communities on the project site consistent with community types defined by Reschke (1990) contained in the Crossroads' DEIS, the Supplemental DEIS shall contain a description of the areas and amount of vegetation that will be impacted that corresponds to the grading (clearing) plans that will be part of the Supplemental DEIS.

D. Impacts to any rare, threatened, endangered plant species shall be discussed in the Supplemental DEIS. Mitigation measures such as restricting clearing in particular areas, maintenance of specimen trees, replanting native vegetation, transplanting or other possible measures shall be considered as mitigation measures based on the analysis for potentially significant impacts to plant communities.

E. Grading (clearing) plans shall contain notations for areas where vegetation removal will be prohibited in order to provide visual screening or for any other purposes.

F. Grading (clearing) plans for the golf course shall include identification of areas where different construction techniques relating to clearing and grading will be implemented in order to reduce the potential for erosion during construction.

G. The Supplemental DEIS shall include a program for the prevention of invasive species during project construction and operation that is prepared in consultation with the Department and the Catskill Regional Invasive Species Project.

3.4.2 Wetlands / Waters of the US

A. A figure illustrating the delineated wetland boundaries on the project site as confirmed by appropriate regulatory agency personnel shall be included as part of the Supplemental DEIS and wetlands shall be included on the site grading plans, sediment and erosion control plans and stormwater management plans that are part of the Supplemental DEIS.

B. The Supplemental DEIS shall include a revised wetland delineation report for the project site that shall be appended to the Supplemental DEIS.

C. All activities in wetlands shall be described and quantified in the Supplemental DEIS, including filling, excavating, or otherwise disturbing wetlands as a result of the proposed project.

D. The Supplemental DEIS shall also discuss what measures were taken to avoid or minimize wetland impacts.

E. In addition to quantifying wetland impacts, the Supplemental DEIS shall provide an analysis of the loss of the functions and benefits of the impacted wetlands. Impacts to wetland hydrology as a result of changes in vegetation cover, erosion and sedimentation, irrigation and other factors shall be addressed in the Supplemental DEIS.

F. Permitting requirements for any wetland activities shall be discussed in the Supplemental DEIS.

G. The Supplemental DEIS shall include a wetland mitigation plan to compensate for any losses in wetland function and value. The mitigation plan shall specify the areas and location of any proposed wetland mitigation.

H. Methods of creation, development of wetland hydrology and planting of wetland vegetation shall be described in the Supplemental DEIS and illustrated on appropriate plans.

3.4.3 Wildlife

A. The Supplemental DEIS shall contain a description of the fauna on the project site based upon field investigations, file searches of regulatory agencies, and document research.

B. An updated file search of the New York Natural Heritage Program shall be requested. File searches will be performed for known occurrences of listed Rare, Threatened, Endangered or Special Concern animals, plants and natural

communities, and/or significant wildlife habitats (including deer wintering areas) within the project site and surroundings areas.

C. Any New York Natural Heritage Program reported occurrences on the site shall be investigated for that particular occurrence. Regardless of occurrences being reported for the project site, fauna surveys will be conducted on the project site. Wildlife species consisting of mammals, birds, reptiles and amphibians observed directly in the various on-site communities in the field will be documented. Wildlife signs (e.g. song, nests, tracks, scat, burrows, markings, etc.) will also be recorded as observed.

D. Supplement the wildlife observations included in the Crossroads' DEIS and supplemented during the issues conference. For breeding bird census work, re-establish the survey points established on the project site in 2004 and establish two or more additional GPS-located bird survey points including at least one site on or near the proposed location of the Highmount Spa Hotel and one site on or near the site of the proposed 19 detached houses at the higher elevation levels. Bird census work will be performed for resident and migratory species. The bird census work will be performed to capture the migratory species and resident/breeding species. Census work will occur on four days in the spring/summer months, for example, as follows: 2 days in late May and two days in June. Each day will include early morning hours. Census work will include all of the habitat types present on the project site. All birds seen or heard will be recorded to the lowest possible classification.

E. Data on mammal, amphibian, reptile and other wildlife occurrences shall also be recorded.

F. For amphibian and reptile survey work, perform a reconnaissance survey of the site to identify reptile and amphibian breeding habitat. Focusing on the aquatic and semi-aquatic habitats identified, conduct two one-day amphibian and reptile surveys with a two person crew, one in late March/early April (depending on weather), and a second in late May. Data on mammalian and bird occurrences made during the amphibian and reptile surveys will also be collected.

G. A list shall be compiled of all species observed on the site and those species likely to occur on the site based on habitat requirements, geographical distribution and other published information (i.e. breeding bird atlas). New data collected shall be compared to data previously collected on the site.

H. The Supplemental DEIS shall address impacts to wildlife as a result of construction activities, including blasting, loss and changes of habitat types provided by the different plant communities, habitat fragmentation, and golf course maintenance practices.

I. A qualitative analysis shall be provided to determine the post-construction carrying capacity for the site for various wildlife species including forest interior species, edge species, human tolerant species, and human intolerant species. Particular attention shall be paid to any habitats previously identified as sensitive or high value habitats.

J. Impacts to aquatic and semi-aquatic species as a result of surface water and wetland impacts, sediment and erosion control, hydrological changes, construction of ponds, and water quality impacts from golf course management activities shall be addressed in the Supplemental DEIS.

K. Mitigation measures shall be provided in the Supplemental DEIS for impacts identified as potentially significant. Potential mitigation measures may include creation of mitigation wetlands, conservation of wildlife corridors and protection of habitats during the operational phase.

L. Assess the impact of the proposed project on human-wildlife interactions and potential conflicts including conflicts that may result when wildlife such as black bears, skunks and raccoons are attracted to bird feeders, garbage receptacles, barbeques and other sources of food for wildlife. Mitigation measures shall be provided in the Supplemental DEIS to reduce human/wildlife conflicts, such as bear-proof dumpsters.

3.5 Traffic

A. See Attachment B-3 of this scoping document for a comprehensive description of the requirements for the analyses, reports and plans required for this Supplemental DEIS topic. Detailed information shall be provided in a revised Traffic Impact Study that will be an appendix in the Supplemental DEIS. Information shall include updated traffic counts, analysis of roadway geometries, projection of project rip generation, analysis of intersection levels of service with and without the project, a sight distance evaluation for proposed access roads, an accident history analysis, and measures proposed to mitigate any potential impacts identified.

B. The structural integrity and capacity of CR 49A shall be assessed relative to the projected increase in traffic.

C. The Crossroads' DEIS air quality study shall be updated based on the revised traffic impact study included in the Supplemental DEIS. In addition, based on more recent procedures included in New York State Department of Transportation's Environmental Procedures Manual, a particulate matter analysis shall be required for the study. It is assumed that a detailed analysis shall be required at the future signalized intersection of Route 28/CR 49A.

D. The Supplemental DEIS will assess the impact of any proposed public transportation improvements on traffic to and from the project, including the use and impact of expanded bus operations and expected use of shuttle buses.

E. The impacts of re-constructing portions of County Route 49A will be addressed with respect to traffic management.

F. Assess the impact associated with the proposed development. of potential construction traffic on County Route 49A. Include the potential number of heavy vehicles per day, routes that vehicles may travel, and duration of construction. Obtain information from the County regarding the structural integrity of CR 49A. Evaluate the impact of a potential increase in construction traffic associated with the proposed development on CR 49A.

3.6 Visual Resources

A. The Supplemental DEIS shall characterize the existing visual environment focusing primarily on the visibility of the project from surrounding lands.

B. A visual impact study will be performed to determine the visibility of the project from surrounding lands, including visibility at night and the issues of nighttime “sky glow” and direct glare.

C. The methodology that will be used to perform the visual impact study is described in Attachment B-4 of this document and shall be consistent with the July 31, 2000 NYSDEC Program Policy “Assessing and Mitigating Visual Impacts”.

D. The visual impact study will determine the zone of visibility and identify potentially sensitive receptors for the proposed development footprints. Sensitive receptors shall include those listed in the aforementioned NYSDEC Program Policy as well as all public roads, public parking areas, public gathering areas, public recreational areas, and public hiking trails within a five-mile radius. Potential vista views from peaks on public hiking trails outside of the five-mile radius shall also be examined.

E. On a clear day with good visibility examine each area identified as having the potential for views into the project. Examinations shall take place during both leaf-on conditions and leaf-off conditions. Examinations shall consist of driving roads, walking/hiking trails, and visiting sensitive receptors identified as having potential views.

F. Include in the Supplemental DEIS paired photograph-based representative views of visual conditions with and without the development of the project. The number and location of representative views shall be approved by the Lead

Agency upon completion of tasks described above. These views shall include those most significantly affected near views as well as affected vista views and shall include both leaf-on and leaf-off conditions. Views shall include foreground, middleground, and background views and be based on most unobstructed views, public vantage points, particularly those with high user levels, and geographic distribution.

G. The Supplemental DEIS shall discuss suitable measures to mitigate potential impacts. The discussion shall include the following:

1. Describe the measures proposed to be taken so that the project will not be visible from wilderness areas in the New York State Forest Preserve.
2. Describe the measures to be taken so that the project visibility from wild forest areas in the New York State Forest Preserve will be limited due to vegetation, topography, distance, and limitations on the height of detached lodging units under the existing Town of Shandaken zoning law.
3. Describe mitigation through site design considerations, including the following: siting of individual detached housing units to limit visibility from wild forest areas; architectural design considerations; site design considerations; and preservation of existing vegetative buffers to the maximum extent practicable and as designated as no cut areas on the site plans that are part of the Supplemental DEIS.
4. Describe how off site glare from lighting and buildings will be minimized through the use of lighting fixtures, and construction materials that visually blend with the natural surroundings, to reduce the Belleayre visibility and related impacts. Specifically, how roofing, siding and windows, which have the greatest potential for off-site impacts, will be constructed in a manner that minimizes off-site visibility to the greatest extent practicable, how non-reflective glass will be installed in buildings, and to the extent practicable, how exterior building materials will consist of materials such as wood, stone, stucco and concrete and exterior finishes, such as paint or stain, where used, will be earth tones (e.g. shades of browns, greens, tans, grays and reds).
5. Describe other mitigation measures included in the project design such as project component locations, structure heights, cut-off light fixtures, and other similar type measures.
6. Assess visual impacts of the Belleayre Resort at Catskill Park from the Belleayre Mountain Ski Center, including the areas being proposed for development under the UMP.
7. Describe how night lighting of the Belleayre Resort at Catskill Park will be minimized to the maximum extent practicable consistent with security, safety and operational considerations.

3.7 Noise

- A. The Supplemental DEIS shall include an evaluation and, as necessary, mitigation for any potential significant adverse daytime and nighttime construction and operational noise impacts to neighboring residences and sensitive receptors.
- B. In addition to application of the Department Policy DEP 00-1, including best management practices, describe how the project design provided consideration to sound reduction through the following:
 - 1. Site layout;
 - 2. Architectural design considerations, such as the use of construction materials that lessen sound emitted from structures;
 - 3. Building layout; and
 - 4. Preservation of existing vegetative buffers.
- C. More specifically, the construction and operational noise impact assessment in the Supplemental DEIS should include the following:
 - 1. Noise sensitive receptors will consist of those receptors in the vicinity of Wildacres and Highmount previously defined for the construction noise assessment in the Crossroads' DEIS. An additional receptor shall be located in the State Forest Preserve (outside the Intensive Use Area) lands in proximity to the Highmount portion of the project. Ambient sound level data (measured in A-weighted decibels) from the Crossroads' DEIS shall be used for those receptor locations and ambient data shall be collected for the new Forest Preserve location.
 - 2. Acoustical modeling methodology for the construction noise will follow the same general methodology used in the Crossroads' DEIS, but using the new Project construction locations, equipment, schedule and receptor orientation/distances based on Supplemental DEIS site plans.
 - 3. Acoustic modeling for Project operation noise shall be conducted using either a spreadsheet-based acoustical model or CadnaA noise modeling and prediction software. Project noise impact assessment criteria for both construction and operation will be based on guidelines in the New York State Department of Environmental Conservation Program Policy Dep-001 Assessing and Mitigating Noise Impacts.
 - 4. Construction noise from the Project shall be assessed using the same methodology used in the Crossroads' DEIS construction noise assessment using A-weighted reference sound levels for

construction equipment under normal/typical construction, standard day meteorological conditions, and shielding from obstacles including terrain and wooded areas. Construction noise shall be assessed for construction truck traffic on access roads and Route 49A, access road construction, golf course construction and buildings construction/renovation, and will include assessment for sound from blasting and/or rock crushing if proposed. Construction noise modeling results shall predict sound levels at the nearest noise receptors, including Forest Preserve lands in terms of the average A-weighted construction sound level.

5. The operation noise assessment shall be conducted using the spreadsheet-based or CadnaA acoustical prediction software using either octave band and/or A-weighted reference noise source data, as available. The acoustical model shall consider sound propagation of operational noise sources under typical operations and standard day meteorological conditions and include attenuation due to distance, ground absorption, obstructions from wooded areas, screening from topography, and reflections from nearby surfaces. Reference sound levels for operational noise sources shall be based on manufacturer's equipment sound level data or published reference data, or both, for the operation of equipment of similar type or size. Operational noise sources to be considered shall consist of on-site stationary noise sources (i.e. motors, HVAC compressors), quasi-mobile noise sources (i.e., golf course lawn mowers) and on-site traffic (i.e., vehicles in parking lots and access roads). Operational noise modeling results will predict sound levels at the nearest noise receptor and Forest Preserve lands.
 6. Potential community noise impacts from project construction, including any anticipated blasting, and operation shall be assessed using evaluation procedures in the Department's Program Policy DEP-00-1. Impacts shall be based on the incremental increase of the A-weighted ambient sound level at the nearest receptors and Forest Preserve lands due to the predicted project sound from construction and operation. As part of the analysis, noise impacts due to the presence of impact or tonal noises from Project operation shall also be qualitatively assessed, and noise mitigation measures will be recommended as feasible to control Project noise.
- D. The Supplemental DEIS shall include an evaluation and, as necessary, mitigation for any potential significant adverse noise impacts to neighboring residences and sensitive receptors from project-related traffic. The Crossroads' DEIS noise study related to automobile and truck traffic

on affected roadways shall be updated in the Supplemental DEIS based on the Supplemental DEIS revised traffic impact study.

1. Noise measurements shall be conducted to obtain reference noise levels utilized to calibrate a traffic noise model and to supplement data obtained under previous Crossroads' DEIS studies. Measurements shall be conducted using the equipment and the methods specified in the New York State Department of Transportation (NYSDOT) Environmental Procedures Manual, and the New York State Department of Environmental Conservation's Program Policy Assessing and Mitigating Noise Impacts. Each measurement shall be at least 20 minutes in duration and shall be performed during either the peak am or peak pm traffic noise period. Ambient measurements shall be conducted during periods of little or no traffic.

2. A traffic noise model of the project area shall be developed using the latest version of the Federal Highway Administrations (FHWA) Traffic Noise Model computer program (TNM). Using the measurement data obtained at and near the site, the TNM model shall be calibrated to represent the existing noise environment and terrain. Once the model is calibrated, predicted traffic noise levels can be determined.

3. From the measurements and subsequent evaluation/analysis, traffic noise levels within the affected project area shall be determined for the build conditions by incorporating the expected traffic changes into the noise model. The results of the analysis will be compared to the guidelines presented in the Department's Program Policy and the NYSDOT Noise Policy.

4. Noise impacts to the New York State Forest Preserve areas classified as wilderness and wild forest shall be considered.

E. In addition to the requirements listed above, the discussion of mitigation measure shall include the following:

1. Describe the measures taken to limit to the maximum extent practicable the audibility of new sources of noise from the operation of the project in wilderness areas in the New York State Forest Preserve with the goal of preserving the qualities of wilderness areas set forth in the Catskill Park State Land Master Plan.

2. Describe the measures taken to limit to the maximum extent practicable the noise impacts of new sources of noise from the operation of the project in wild forest areas in the New York State Forest Preserve with the goal of preserving the qualities of wild forest areas set forth in the Catskill Park State Land Master Plan.

3. Describe the measures taken to avoid or minimize to the maximum extent practicable construction noise in wilderness and wild forest areas in the New York State Forest Preserve by using the appropriate best management practices such as those set forth in Department's Policy DEP 00-1, entitled "Assessing and Mitigating Noise Impacts."

4. Map(s) of the Project area showing contour lines of the expected dominant operational noise source sound levels (e.g. ski lifts, snow making equipment, motors, HVAC compressors, golf course lawn mowers, vehicles in parking lots and access roads), based on results of the computer models for the proposed Project layout shall be provided. The sound contour maps shall include locations of the various noise sources along with the noise receptor locations and Forest Preserve lands. Predicted sound level increases above the ambient level shall be presented in tabular format for each Project noise-sensitive receptor.

3.8 Land Use and Planning

3.8.1 Current Land Uses

A. Describe types, locations, and acreages of existing land uses and zoning for the site, for adjacent properties, and for the general vicinity, defined by the NY Route 28 corridor between Boiceville and Margaretville, and the towns, and villages therein, including State lands.

B. Include assessments of aerial photographs and land use maps of the site and surrounding areas, generally the Route 28 corridor from Boiceville to Margaretville.

C. Discuss past use of the properties and local communities.

3.8.2 Land Use Planning and Zoning

A. Describe adopted comprehensive plans and adopted land use plans, and compliance of the proposed project with these plans. Land use plans to be addressed include, without limitation, adopted local, county, and Department management plans. Indicate what, if any, local approvals, variances or zoning changes are required. Any data and analysis compiled by municipal committees, if available, shall also be considered.

B. Compliance with Catskill Park State Land Master Plan (CPSLMP). Provide a narrative description of the CPSLMP, including related Department Policies, how it applies to the facility, and discuss any related issues.

3.8.3 Compatibility with Land Use Plans and Effects on Future Developments

A. Assess the compatibility of the proposed project with the existing character of the surrounding lands and communities. As set forth in the Executive Summary to this scope, the applicant may rely on the Crossroads' DEIS, or incorporate from the Crossroads' DEIS by reference, if it believes the analysis contained in the Crossroads' DEIS is still relevant. Additionally, identify and assess how changes in the project would effect the analysis contained in the Crossroads' DEIS. Without limitation, the applicant should refer to existing adopted comprehensive plans and Rt. 28 corridor plans and studies.

B. Assess the effect of the proposed project on future land use of other property in the vicinity, and to other development projects in the area, either under construction or under review.

C. Review the impact on land use development, regional real estate sales, and work force demands.

D. Analysis of future effects may be supported by data from comparable regional communities with like ski facilities and community demographics.

3.9 Socio-economics

3.9.1 Socio-economics

As an explanatory note to this socio-economic section and its scope, SEQR's definition of environment protects the socio-economic elements reflected in existing population patterns and neighborhood and community character. Pure economic or competitive interests, however, fall outside the scope of SEQR and the purview of SEQR review. Economic information or studies are accordingly included or described herein for the purpose of evaluating socio-economic elements as distinct from competitive impacts.

A. The Supplemental DEIS shall provide a demographic and economic profile of the communities comprising the socioeconomic study area, which will be defined generally by the NY Route 28 corridor between Boiceville and Margaretville, and the towns, and villages therein. A map shall be provided, at an appropriate scale, indicating the town and village boundaries of the study area. The study area for the workforce and labor analysis will additionally comprise the area from which an estimated 80 percent of the potential Resort employees originate and/or reside. A map shall be provided, at an appropriate scale, indicating the geographical limits of the work force and labor geographical area, superimposed on the aforementioned towns and villages of the NY Route 28 corridor. Data on

population and employment patterns will be summarized and described utilizing data available from local, county, state, and federal sources. Where current data are not available, the study will present current data as generated by ESRI or other generally accepted non-governmental sources of demographic and economic data.

B. Describe population and employment patterns, including total population, population by age cohort (including school age children and seniors), number of households, average household size, and household/per capita income. Summarize and describe economic baseline information and employment data by key industries, including potential new commercial development projects identified through discussions with local and county government representatives. Discuss projections of population growth and economic activity. Describe the existing housing patterns, including availability and affordability.

3.9.2 Employment and Workforce

A. New employment expected to be generated by the project shall be estimated and described, including a description of types of jobs and mean wages for each type of job.

B. Based on information available from local, county, state, and federal sources existing employment and workforce conditions in the affected study area will be described and summarized according to key industry sectors (i.e., mining, agriculture, tourism)

C. Unrelated commercial development projects within the study area for which applications are pending before public agencies that could affect local employment patterns in the affected region shall be identified through discussions with local and county government representatives.

D. The Supplemental DEIS shall evaluate whether the existing workforce in the study area can meet the expected demand for employees directly generated by the project upon completion, or, if not, approximately what, if any, additional workforce from outside the study area would be required, to satisfy the project demands.

E. The new employment directly generated by the proposed project shall then be compared against the existing workforce for the region from which employees would likely be drawn, considering reasonable and established commute time in addition to distance, to determine any potential effects the proposed project may have on the workforce.

F. Where project-generated demand for employees exceeds the local and regional supply from within the reasonable and established commute distances, the Supplemental DEIS shall estimate the potential in-migration of workers to

supplement the available workforce, and, as provided under Section 7.4, the Supplemental DEIS shall estimate the potential for new residential development resulting from or demand from the in-migration of resort employees and the effect on the cost and supply of housing. Section 7.4 analysis also looks at combined impact as a result of secondary growth and the resulting cost and supply of housing.

3.9.3 Economic and Fiscal Benefits

A. The Supplemental DEIS shall estimate direct and indirect economic activity resulting from the construction and operation of the resort project. To do so, the Supplemental DEIS analysis shall utilize the economic model, Regional Input-Output Modeling System (RIMS II), developed by the US Department of Commerce and customized for the project area. In utilizing the model, the Supplemental DEIS shall disclose the model's assumptions (which may be provided in an appendix). The Supplemental DEIS shall also estimate the direct economic effects of visitors to and residents of the proposed resort in terms of potential spending in the local economy. In addition, the Supplemental DEIS shall estimate the property tax revenues generated by the project site and its improvements upon completion. Net tax revenues (after abatement including abatements that the applicant intends to seek) for each affected jurisdiction will be estimated.

B. The Supplemental DEIS shall estimate construction-generated economic activity based on the estimated total construction cost to complete the project. The analysis shall summarize the key economic benefits associated with the construction phase of the project. These benefits would include direct economic activity associated with construction wages and salaries, as well as the purchase of goods and materials. The analysis shall estimate the ripple- or multiplier-effect generated as this economic activity affects the larger regional economy of the affected counties and New York State. The Supplemental DEIS shall also estimate tax revenues generated by the construction project in terms of income and sales tax.

C. The Supplemental DEIS shall estimate the potential economic benefits resulting from the completed project during its operations phase. Based on anticipated employment generated by the project once it is completed and operational, an evaluation of the total economic effects shall be prepared also using the RIMS II model, as discussed above. This analysis shall summarize the estimated number of jobs to be generated on-site during operation of the project, and a summary of job types and anticipated wages and salaries will be provided. The analysis shall estimate the effect of the expenditures by new employees in the local economy. The Supplemental DEIS shall estimate the number of visitors to and residents of the proposed resort, and will estimate the potential spending by these parties in the local economy. Future property taxes generated by the Resort

project shall be calculated based on current tax rates and assessment practices within each of the affected taxing jurisdictions. To the extent that tax abatements for the proposed resort project are anticipated, the Supplemental DEIS shall describe and consider the effects of such abatements on affected taxing jurisdictions (what affected taxing jurisdictions can expect to receive after abatements).

D. The Supplemental DEIS analysis shall evaluate the project's effect on municipal service providers, e.g., police, fire, and emergency services, and estimate potential increased municipal costs associated with providing services to the project. Changes in property tax revenues generated by the Resort project shall be summarized and evaluated in comparison with any identified potential increases in the cost of providing municipal services to the project upon completion. In coordination with Section 3.10 below, the projected demand for police, fire, and ambulance services and any public infrastructure shall be used to estimate new potential costs to municipal governments based on the project and any projected new population within the residential communities.

3.10 Community Services

A. This section shall identify the entities within the towns of Shandaken and Middletown that would provide the services listed below:

- Emergency Services (police, fire, ambulance and medical)
- Potable Water
- Wastewater
- Schools
- Solid Waste (including discussion of potential use of Delaware County Landfill)

B. Identified entities shall be provided with a project description and plans and asked to provide an assessment of their ability to serve the proposed project considering the projected increases in visitor, employee, and resident populations.

C. Measures shall be developed to mitigate any entity shortcomings to allow an entity to serve the project. Address each of the following Community Resources:

- Recycling
- Electricity and other utilities
- Recreational and Educational Resources – including:
 - hunting, fishing, hiking opportunities
 - Belleayre Mountain Ski Center
 - libraries, museums, and other cultural resources

Specifically assess each service provider or resource in terms of adequacy of staffing, equipment, supplies, facility space to serve the proposed project.

D. In addition, the Supplemental DEIS shall include a discussion of the requirements of municipal land use regulations, how the project complies with these requirements, and any waivers or variances that could be required.

3.11 Global Climate Change and Carbon Footprint

3.11.1 Global Climate Change

The July 2007 Northeast Climate Impacts Assessment (NECIA), *Confronting Climate Change in the U.S. Northeast*, discusses how climate change may impact the New York region. This climate modeling analysis represents the best science to date on climate change impacts for New York State. Based on this science, and other updated materials as necessary, the Supplemental DEIS should provide a quantitative estimate and qualitative discussion of how potential climate change will affect both the construction and operational component of the Belleayre Resort development with reference to:

- A. The potential decrease in summer and fall soil moisture in relation to:
 - 1. Increased water requirements for maintaining turf grass and other landscaped areas
 - 2. Increased stress on native vegetation
 - 3. Increased surface water runoff from areas with stressed vegetation

- B. To the extent surface waters and its related watershed are affected, the potential increase of water temperatures of surface water, including ponds and stream systems, in relation to:
 - physiological stress and resultant population impacts to heat sensitive aquatic biota, especially coldwater fisheries
 - decrease in dissolved oxygen levels and in the assimilative capacity of the aquatic system.

- C. All analysis should assume a lifespan of at least 50 years.

3.11.2 Carbon Footprint: Assessing GHG Emissions

The Supplemental DEIS should include both a quantitative (where practicable) and qualitative discussion of the GHG emissions resulting from construction activities, including the manufacture or transport of the construction materials, specifically including the following:

- 1. A qualitative analysis of how the building products will be environmentally-preferable. An evaluation of the building materials shall use readily available software tools, such as BEES 4.0 developed by the National Institute of Standards and Technology (see <http://www.bfrl.nist.gov/oa/software/bees>).

2. A quantitative analysis of GHG emissions resulting from construction activities and the transport of building supplies from the supplier to the work site.
3. A quantitative estimate of both direct and indirect GHG sources during the post-construction operation of the project should be included:
4. Direct GHG emissions will include emissions from combustion processes or industrial processes conducted on-site, including but not limited to the heating and cooling systems and boilers, snow making guns and from fleet vehicles owned (or leased) and operated by the project proponent and associated with the project.
5. Indirect GHG emissions will include emissions generated by energy generating plants (off-site) supplying energy to the proposed project during its operation, and from vehicle trips generated by the project where vehicles are not owned or operated by the project proponents (i.e. freight deliveries, employee commuting, customer visits). A potential source of indirect emissions is the generation, transportation, and treatment or disposal of wastes. Waste generation should also be expressed as GHG emissions and included in the quantification of total annual emissions.

3.11.3 Changes in Carbon Sinks

Site build-out will result in loss of forested area and therefore some loss of CO₂ sequestration capacity. The Supplemental DEIS must include a quantitative and qualitative assessment of that loss. Refer to the USDA publication “Methods for Calculating Forest Ecosystem and Harvested Carbon with Standard Estimates for Forest Types of the United States” (<http://www.fs.fed.us/ecosystems-services/pdf/estimates-forest-types.pdf>)

3.11.4 Alternatives

A. Provide a quantitative analysis of the relative increase or decrease of GHG emissions resulting from the Alternative set forth in Part B Section 5.2: Alternative Layout for Highmount Spa Resort.

B. Provide a qualitative analysis of the relative increase or decrease of GHG emissions resulting from each of the following alternatives set forth in Part B Section 5.0:

- 5.1 *Comparison of Proposed Action with Previously Proposed Project*
- 5.3 *Alternative Golf Course Layout*
- 5.4 *Alternative Water Supply*
- 5.5 *Alternative Wastewater Disposal*
- 5.6 *Alternative Golf Course Management Practices*

- 5.7 *Alternative Stormwater Management Practices*
- 5.8 *Alternative Construction Phasing*
- 5.9 *No-Action Alternative*

3.11.5 Potential Mitigation Measures

A. The Supplemental DEIS must include a description and evaluation of the range of reasonable and relevant potential mitigation measures which would reduce GHG emissions with respect to technology, scale, design, or use and their implications on GHG emissions. For reference, Attachment B-7 contains an illustrative list of potential mitigation measures for consideration only.

Identify a list of reasonable and relevant mitigation measures.

1. Where practicable, provide a quantitative analysis of the identified potential mitigation measures.
2. Where a mitigation measure is deemed as impracticable for quantitative analysis purposes, the Supplemental DEIS shall include a qualitative analysis.

B. Building energy efficiency design measures should be assessed, using EPA's Energy Star program and/or other energy efficient design standards as a basis for comparison.

C. For transportation emissions, transportation demand management (TDM) measures should be identified and assessed. There are also models useful in estimating the potential emissions reductions for TDM measures, such as the US Environmental Protection Agency COMMUTER model and the Work Trip Reduction Model. Consideration shall include, though not be limited to, an anticipated improvement to public transportation services along the Route 28 Corridor.

3.12 Air Quality

A. Assess the impact on air quality of operation of construction machinery, increased traffic to the expanded ski center, and operation of additional snowmaking equipment and lifts.

B. Existing ambient air quality compliance of the project and resultant air quality in accordance with the National Ambient Air Quality Standards (NAAQS) shall be discussed

C. Conduct screening analysis based upon maximum potential carbon monoxide concentrations in accordance with NYSDOT Air Quality Analysis Procedure:

Project Environmental Guidelines for identified intersections exceeding 20% increase over existing traffic volumes and operating at level of service C or lower.

3.13 Cultural Resources

See Attachment B-5 of this scoping document for a description of the requirements for the analyses, reports and plans required for this Supplemental DEIS topic.

A. The Supplemental DEIS shall contain, as an appendix, additional Cultural Resources Investigation Reports completed for the portions of the project site not previously investigated as part of the Crossroads' DEIS. By letter dated January 6, 2003, SHPO has concluded that there will be No Adverse Effect upon properties in or eligible for inclusion in the State and National Registries of Historic places for all previously evaluated properties and studies. (See Crossroads' DEIS Appendix 23, page1)

B. The methodologies that will be used to conduct cultural resources investigations for the new properties are included in Attachment B-5 of this report.

C. The results of these reports shall be summarized in this section of the Supplemental DEIS and include a discussion of potential presence and significance of any historic or prehistoric cultural resources that would influence site planning.

D. The Supplemental DEIS shall discuss potential impacts to historic or prehistoric resources identified during the investigations of the new property, including the Crossroads' DEIS investigations and the changes in the Wildacres layout since the Crossroads' DEIS.

E. Any conflict of the development plan with potentially significant resources shall be identified along with the nature of the conflict (i.e. grading, filling).

F. A description of any necessary mitigation measures, including avoidance or on-site archeological monitoring during construction, shall also be included.

3.14 Catskill Park Forest Preserve

In consideration of the modified Belleayre Resort project, discuss potential impacts of the proposed Belleayre Resort projects on the Forest Preserve which were not addressed in the Crossroads' DEIS. Reference should be made to the existing recreational facilities, character and usage levels of the Catskill State Park and Forest Preserve. Estimate the potential for increased use of Forest Preserve facilities nearest to the combined project area, including the capacity of those Forest Preserve areas to absorb any such additional use.

SECTION 4.0 UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS

A description of the unavoidable adverse environmental impacts shall include necessary information on the extent, likelihood and long term consequences of the identified impacts. The following topics shall be addressed.

- 4.1 Vegetation
- 4.2 Wildlife
- 4.3 Erosion and Water Quality
- 4.4 Fugitive Dust
- 4.5 Sound
- 4.6 Visual
- 4.7 Traffic
- 4.8 Water Supply
- 4.9 Air Quality including issues regarding Fugitive Dust
- 4.10 Global Warming and Carbon Footprint

SECTION 5.0 ALTERNATIVES

SEQR requires consideration of alternatives to the proposed actions. The Supplemental DEIS shall discuss the alternatives presented below. Alternatives shall be prepared in sufficient detail so that impacts can be compared to those of the proposed action. A detailed explanation shall be provided of why a particular alternative may not be feasible.

5.1 Comparison of Proposed Action with Previously Proposed Project

The Supplemental DEIS should provide a comparison of the previously proposed project and the action proposed in the Supplemental DEIS, including but not limited to the following parameters; total project site size, acreage to be developed, conservation easement lands, numbers and types of lodging units, overall density, total length of roads and length of roads on 20% or greater slopes, amount of impervious area, potable water use, wastewater disposal methods and traffic trip generation.

5.2 Alternative Layout for Highmount Spa Resort

A. The Supplemental DEIS shall address possible alternative layouts for the Highmount Spa Resort, in particular the feasibility of eliminating the uppermost 19 units in the preferred alternative and the road leading up to these units. This discussion should include alternative locations both on and off the site within lands owned by, or under the control of the project sponsor. Describe the alternative sites and feasibility of alternative relocations for the 19 units. The Supplemental DEIS shall address alternative routing for the access road to the entire site, including access to the upper 19 units including the total length and amount of impervious area for alternative routes as well as the length of road on slopes of 20 percent or greater under alternative routes. The length of road on slopes of 20 percent or greater for the different Highmount alternatives should be compared with the amount of road on slopes of 20 percent or greater for the previously proposed access road on Big Indian.

B. The Supplemental DEIS shall also address the alternative of eliminating the Highmount Spa Resort in its entirety from the project.

5.3 Alternative Golf Course Layout

The Supplemental DEIS shall address alternative golf course layouts that were considered leading up to the proposed design and why these layouts are not

proposed, including changes that were made to avoid steep slopes, wetlands and watercourses, etc. The Supplemental DEIS shall compare the currently proposed golf course layout to the layout proposed in the Crossroads' DEIS and explain the reasons for changes.

5.4 Alternative Water Supply

This Supplemental DEIS section shall identify different sources considered for water supply, including, but not limited to the K-wells, the Rosenthal wells, crystal spring, and the potential to connect to the Fleischmanns' municipal services.

5.5 Alternative Wastewater Disposal

A. This Supplemental DEIS section shall identify different technologies considered for sewage disposal including the on-site wastewater treatment plant at Wildacres included in the Crossroads' DEIS.

B. Alternative technologies and designs to reduce wastewater loadings of various pollutants to receiving waters shall be examined and the level of these reductions quantified.

5.6 Alternative Golf Course Management Practices

The Supplemental DEIS shall assess alternative golf course management practices that could eliminate or reduce the need for pesticide and fertilizer use should the applicant seek permission to discontinue the proposed organic golf course management plan.. This shall include an assessment of the integrated turf grass management (ITM) plan proposed in the Crossroads' DEIS.

5.7 Alternative Stormwater Management Practices

The Supplemental DEIS shall assess innovative methods of design for the project as a whole to reduce stormwater runoff from the sponsor's development plan. Emphasis shall be on the reduction of impervious surfaces and examine changes that would be needed to achieve substantial reductions. The potential benefits to surface water quality shall be determined for a range of reductions that shall be analyzed for comparison to the sponsor's development plan. Alternative practices should also focus on alternative design practices prescribed in the NYS Stormwater Management Design Manual.

5.8 Alternative Construction Phasing

The Supplemental DEIS shall assess alternative construction phasing approaches, including approaches that involve decreased amounts of land that can be disturbed at any one time and impacts on traffic and the community from numbers of

construction vehicles. Limitations that should be evaluated, including an evaluation of construction duration, include limiting disturbance to 1 acre, 3 acres and 5 acres at a time.

5.9 No-Action Alternative

The no action alternative shall describe impacts of leaving the lands in their present state. The no action alternative shall also discuss potential impacts of continuing to pursue the previously proposed project.

**SECTION 6.0 IRREVERSIBLE AND IRRETRIEVABLE
COMMITMENTS OF RESOURCES**

This section shall identify or evaluate the irreversible and irretrievable commitment of resources including consumption of capacity of surface waters to accept sewage effluents. Include commitments of energy and materials, any loss of old-growth forest, any loss of public recreational opportunities on lands to be developed.

SECTION 7.0 GROWTH INDUCING AND SECONDARY IMPACTS OF THE PROPOSED ACTION

7.1 Introduction

This section of the Supplemental DEIS shall discuss the anticipated off-site impacts of the Belleayre Resort at Catskill Park project. Secondary impacts, such as new commercial development in the project vicinity that is attributable to resort project-generated economic activity, shall be discussed. The analysis shall focus on the hamlet areas on the geographic area defined in Part B, section 3.9.

7.2 Commercial Development Demand

A. This section of the Supplemental DEIS shall qualitatively characterize and describe commercial business conditions and trends within the study area based on field surveys and publicly available data, including data from US Census Bureau Economic Census, the New York State Department of Labor, and other public sources.

B. The Supplemental DEIS shall generally describe the businesses conditions in the study area according to key industry sectors, and identify major employers in the study area.

C. Based on the RIMS II analysis of the operational phase conducted under Section 3.8, the analysis shall estimate the potential commercial demands resulting from new spending in the local economy generated by the resort project.

7.3 Potential Induced Development

A. Based on the analysis of the anticipated effect the resort project employment may have on the existing labor pool in the study area as provided under Section 3.8, the study shall estimate the extent to which a deficit exists within the labor pool that may result in in-migration of new residents into the study area for resort project jobs. To the extent that the analysis concludes that such in-migration may occur, the Supplemental DEIS will assess the availability of housing for these employees, and estimate the potential for new residential development resulting from the in-migration of resort project employees.

B. Utilizing the results of the analysis of potential new commercial demand as provided in Section 7.2, above, the Supplemental DEIS shall estimate the potential effects of the proposed resort project on the business environment,

including changes that may result from the introduction of project employees, residents of, and visitors to the proposed resort facilities.

C. The Supplemental DEIS shall consider the capacity of the existing commercial base to accommodate potential increases in demand, and will identify those business sectors where potential new growth opportunities may induce new development to occur.

D. To the extent that data is available to the public, the Supplemental DEIS shall summarize existing commercial vacancy rates in the potentially affected study area and discuss the potential for the existing real estate stock to accommodate new business development demands.

7.4 Potential Impacts from Induced Growth

A. The Supplemental DEIS will summarize induced growth effects as estimated in Section 7.3, above, and discuss the potential impacts. The Supplemental DEIS shall evaluate additional traffic, stormwater and wastewater that could accompany potential development outside of the project site, and potentially affect water quality in the NYC watershed.

B. The Crossroads' DEIS concluded that there would be no significant impact on the cost and supply of area housing as a result of the private side development; specifically, it stated that housing within commuting distance of the resort would supply virtually all workforce and secondary growth housing and lodging needs. The Supplemental DEIS shall identify and assess any changes to this conclusion as a result of the modified project. Also, to the extent that project-generated housing demand and secondary growth impacts has the potential to significantly constrain housing supply and increase housing cost, conduct a housing affordability study within potentially affected municipalities. This shall include but may not be limited to analysis and calculation of the rental index; affordability index (ratio between median value of a single family house and median household income); purchase price multiplier; and analysis and calculation of an affordability index for each income group of persons earning below the median household income. Further, if a significant impact is predicted, discuss potential impacts on future rental rates and future values of single family homes resulting from implementation of this project, and analyze potential future affordability in each municipality related to project impacts. The applicant may refer to case examples from other resort areas in analyzing future impacts.

SECTION 8.0 EFFECT OF THE PROPOSED ACTION ON THE USE AND CONSERVATION OF ENERGY

This section of the Supplemental DEIS shall discuss the effects that the proposed project would have on energy consumption, including the benefits of including Leadership in Energy and Environmental Design (LEED) standards into the project design.

SECTION 9.0 CONSULTATION AND COORDINATION

This section shall provide documentation regarding involvement of various regulatory agencies, service providers, and others consulted during the preparation of the Supplemental DEIS.

References

Provide a list of citations for those publications referenced in the Supplemental DEIS.

Figures

Where appropriate, the Supplemental DEIS shall include presentation of information in maps, drawings, diagrams, etc. to facilitate understanding of the information being presented. Appropriate references to graphics shall be included in the text of the Supplemental DEIS.

Tables

Where appropriate, Supplemental DEIS quantitative and qualitative information shall be presented in a tabular format to facilitate understanding of the information being presented. Appropriate references to tabulated information shall be included in the text of the Supplemental DEIS.

Plan Sheets

The Supplemental DEIS shall include plans for site design and utilities for the project. Plans shall be presented at an appropriate level of detail to facilitate a full understanding of the component(s) of the project they depict. In particular, site grading plans, drainage/stormwater management plans, and sediment and erosion control plans shall be presented at a scale of 1 inch = 50 feet and utilize a topography interval of 2 feet. The following is a list of drawings that shall be part of the Supplemental DEIS.

Site Plan Sheets

- Cover Sheet
- Master Plans
- Grading Plans
- Drainage/Stormwater Management Plans
- Construction Phasing and Sediment and Erosion Control Plans

- Proposed Grade Slope Analysis
- Landscaping and Lighting Plans

Engineering Plan Sheets

- Water Supply, Treatment and Distribution
- Wastewater Treatment and Disposal

APPENDICES

This section shall contain a compilation of the technical reports prepared for the project in their entirety. Information from these studies shall be summarized and discussed in the main body of the Supplemental DEIS. Specific content requirements and/or methodologies to be utilized in the preparation of some of these Appendices are contained in the Attachments that follow.

Appendix ___	SEQR Documentation
Appendix ___	Letters of Record
Appendix ___	Water Supply Report
Appendix ___	Conceptual Design Report for Wastewater Treatment and Disposal
Appendix ___	Construction Phase Stormwater Quantity Management Plan
Appendix ___	Construction Phase Stormwater Quality Management Plan
Appendix ___	Operational Phase Stormwater Quantity Management Plan
Appendix ___	Operational Phase Stormwater Quality Management Plan
Appendix ___	Draft Stormwater Pollution Prevention Plan
Appendix ___	Wetlands Delineation Report Addendum
Appendix ___	Visual Impact Assessment
Appendix ___	Water Budget Analysis
Appendix ___	Sound Impact Study
Appendix ___	Cultural Resources Study Addendum
Appendix ___	Traffic Impact Study
Appendix ___	Economic Benefit and Growth Inducing Effects
Appendix ___	Fiscal and Marketing Information

RESORT SDEIS ATTACHMENT B-1 - POTABLE WATER SUPPLY

The Supplemental DEIS shall evaluate potential sources of supply, determine the anticipated capacity of each supply, determine the water quality of each supply, evaluate the potential impacts to surface waters, and evaluate the potential impacts to local residential and public water supplies. In addition, methods to determine treatment, storage and distribution shall also be evaluated.

- A. Potential sources of potable water known as Rosenthal Wells Nos. 1 and 2 were previously identified and tested for in the 2003 Crossroads' DEIS. The wells were subsequently tested further in 2004 prior to the Issues Conference. Due to concerns over impacts to the local surface waters and existing water supplies, Special Permit Conditions for these two wells will be included in the permit applications. The proposed Special Permit Conditions detailed below include:

Proposed Water Supply Special Permit Conditions for Rosenthal Wells Nos. 1 and 2.

In addition to any other conditions that may be required by the Department and NYSDOH, the following special conditions will be incorporated into any water supply permit that may ultimately be issued by the Department, pursuant to ECL Article 15, Title 15, for the proposed Belleayre Resort at Catskill Park:

1. Use of Rosenthal Well Nos. 1 and 2 (R1 and R2) shall be limited as follows based upon the measured flow of Birch Creek at the United States Geological Survey (USGS) gauge No. 013621955: Birch Creek at Big Indian, NY:

<u>Maximum Withdrawal Rates (gpm)</u>		<u>USGS Gauge Flow</u>
<u>R1</u>	<u>R2</u>	
57	71	greater than 14.6 cfs (50% Tennant flow)
28	78	8.7 to 14.6 cfs
None	78	less than 8.7 cfs (30% Tennant flow)

Withdrawal rates of 57 and 28 gallons per minute (gpm) for R1 shall not be resumed until flows in the creek return to 14.8 (14.6+ 0.2) and 8.8 (8.7+ 0.1) cubic feet per second (cfs) respectively for a continuous period of at least one week. When the higher R1 rates are resumed, R2 rates must also be reduced as per the above table.

2. The permittee may submit a plan for review and approval by the Department and NYSDOH prior to any additional testing of Rosenthal

Wells No. 1 and 2 it may decide to undertake, for such purposes as evaluating any potential impact on Birch Creek that might result from a higher withdrawal rate from Rosenthal Wells No. 1 and 2 than is provided for under the table in special condition No. 1.

3. The permittee shall make provisions to restore the quality or quantity of the Village of Fleischmanns' existing sources of supply should the approved project have any significant adverse effects on them.
 4. The permittee shall assure the provision of an adequate supply of water to those residents whose public or private potable water supply wells are significantly diminished or rendered non-productive by the permittee's use of any sources of water supply approved by this permit.
- B. New sources of water other than the Rosenthal Wells will be subject to the pumping test protocol detailed as follows:

Pump Test Protocol Applicable to All Potable Wells for Belleayre Resort at Catskill Park other than Rosenthal Wells Nos. 1 and 2.

The pump test protocols applicable to all newly developed and permitted wells, other than Rosenthal Wells Nos. 1 and 2, serving as a source of potable water to the Belleayre Resort at Catskill Park will include all applicable requirements contained in the following:

1. Department TOGS 3.2.1., Appendix 10 ('Public Water Supply Permit Program Application Processing') eff. Aug. 31, 2005.
2. NYSDOH Appendix 5-B ("Standards for Water Wells") to the NYS Sanitary Code, 10 NYCRR Parts I to 24, eff. Nov. 23, 2005.
3. NYSDOH Appendix 5-D) ("Special Requirements for Wells Serving Public Water Systems") to the NYS Sanitary Code, 10 NYCRR Parts 1 to 24, eff. Nov. 23, 2005).
4. In addition to the above requirements, the following additional conditions will apply:
 - a. Crossroads will conduct the 72 hour Department pump test pursuant to item No. 1 of paragraph B above.
 - b. If hydrogeologic requirements of both the Department and NYSDOH protocols identified in item Nos. 1, 2, and 3 of paragraph B above are achieved (i.e., stabilized water level during the last six hours of the test), then pumping may cease and recovery must be monitored for at least 24 hours or, if 90% recovery has not been achieved, until 90% recovery has been achieved.
 - c. In the event that the hydrogeologic requirements of the above-referenced Department protocol are achieved, but those of NYSDOH referenced in items Nos. 2 and 3 of paragraph B above

are not achieved, then Crossroads will follow a modified NYSDOH stabilized drawdown test as follows.

- i). The test pumping rate will be lowered by some amount up to 10%, as determined by NYSDOH staff, in consultation with the technical consultant for Crossroads. The aquifer must be allowed to equilibrate for 6 hours prior to a second 6 hour period during which stabilized drawdown in the manner required by NYSDOH must be observed.
- ii). If at any time NYSDOH or the technical consultant for Crossroads determines that another pumping rate decrease is necessary (i.e., a maximum additional 10% lowering of the pump rate, as determined by NYSDOH staff in consultation with the technical consultant for Crossroads), the minimum 6 hour equilibration period starts anew followed by another 6 hour stabilized drawdown observation period. This process may be repeated as necessary until it is determined that a suitable pumping rate has been established and that a 6 hour stabilized drawdown observation period has been achieved

Prior to testing any new potential potable water supply well for the project, the Applicant shall prepare and submit to the Department and NYSDOH for their review and approval, specific pumping test protocols. A testing protocol for the wells known as the “K wells” was prepared (dated September 14, 2007), submitted and approved. The contents of this report included the following, and any other testing protocols that are prepared for any other potable well(s) shall contain similar elements regarding testing procedures and monitoring of surface water and ground water resources:

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11.0 RECOVERY MONITORING

12.0 ELEVATION SURVEY

Figure 1: Monitoring Locations

Figure 2: Pumping Discharge Route

Appendix A: Drillers Logs

C. Test Protocols For Irrigation Wells

Each of the wells proposed for irrigation use will be subjected to either an 8-hr step-rate pumping test, or an 8-hr constant rate pumping test. The objective of the testing is to provide suitable evaluation of well yield and water quality for the irrigation wells. Wells expected to be of higher yield (i.e, greater than 20 gpm) will be subjected to step-rate testing. Irrigation wells that are expected to be of relatively low-yield (i.e, 10-20 gpm), based on the driller's initial blow test results, may be subjected to an 8-hr constant rate test in lieu of step-rate testing.

The step-rate testing will entail pumping the well at successively higher pumping rates for periods of approximately 100 minutes each. Target pumping rates for the initial step will stem from the driller's blow test results. The pumping rates for the subsequent steps will be determined in the field based on analysis of the data from the first step. If it appears that the final step (highest pumping rate) will result in excessive drawdown, the prior step will be extended until the eight hours is complete.

Water quality (pH, temperature, specific conductivity, TDS) of the well discharge will be monitored in the field, approximately every 20 minutes during the step-rate testing. Water quality samples will be collected from the wells near the end of testing and submitted for laboratory analysis of pH, TDS, alkalinity, iron, manganese, calcium, sulfate, chloride, sodium, corrosivity, and nitrate. This general water quality data will serve as a baseline data set for the irrigation wells.

Constant rate pumping tests (rather than step-rate pumping tests) of approximately eight hours duration may be conducted on irrigation wells which have lower expected yields based on the driller's initial blow tests conducted at the time of well installation. The water quality sampling will be conducted as with the step-rate testing, except that the field parameters would be measured at approximately 30-minute intervals.

D. A water budget analysis shall be performed and included in the Supplemental DEIS that evaluates the potential impact that changes in the land surface, caused by construction of the proposed Resort, will have on aquifer recharge and runoff on an annualized basis.

The water budget analysis shall rely upon the following methods and data sources:

1. The widely accepted techniques developed by Thornthwaite and Mather (1955, 1957) will be applied to perform the water budget analyses. These techniques incorporate many different soil, vegetative cover, slope and runoff factors; allow for estimation of adjusted potential evapotranspiration (PET); and consider the effects of exportation of roadway drainage off site, re-direction and recharge of driveway and building runoff, and the use of infiltrated water to make up soil moisture. These techniques are covered in the following sources, as well as many others:
 - a. Thornthwaite, C.W. and Mather, J.R., 1955, *The Water Balance*, Laboratory of Climatology, Publication No. 8, Centerton, NJ.
 - b. Thornthwaite, C.W. and Mather, J.R., 1957, *Instructions and Tables for Computing Potential Evapotranspiration and the Water Balance*, Laboratory of Climatology, Publication No. 8, Centerton, NJ.
 - c. Mather, J.R., 1978, *The Climatic Water Budget in Environmental Analysis*, D.C. Heath and Company, Lexington, MA, 230 p.
 - d. Dunne, T. and Leopold, L.B., 1978, *Water in Environmental Planning*, W.H. Freeman and Company, San Francisco, 818 p.
 2. Precipitation data recorded at the Ski Center as part of the Department's atmospheric deposition monitoring network shall be used in the water budget analyses.
 3. Monthly temperature data, if unavailable from the Ski Center records, will be obtained from the Slide Mountain station, which is the closest NOAA weather station to have temperature records.
 4. Soil classifications will need to be based on recent soil mapping that reflects soil classifications in accordance with the proper temperature regime for the site. Soil moisture capacities and rooting depths (solum depths) used in the water budget analyses will need to reflect these soil classifications.
- E. Estimate potable water demand by determining anticipated number of water consuming units and multiplying by the anticipated per unit usage based on USEPA guidance documents and Green Building design standards as set forth by the United States Green Buildings Council.
- F. Requirements for water treatment will be assessed as mandated by the USEPA *Guidance for Compliance with Filtration and Disinfection Requirements for Public Water Systems, Recommended Standards for Water Works* (Ten States Standards) 2003 edition, NYSDOH guidance as well as Ulster and Delaware county health department requirements.
- G. Outline the components of a proposed water conservation program which will ensure the efficient use of potable water and minimize demand to the extent possible.

RESORT SDEIS
ATTACHMENT B-2
STORMWATER
AND
SEDIMENT AND EROSION CONTROL

The following provides the proposed methodologies to be employed and assumptions that will be used for advancing stormwater management design for Wildacres Resort and the Highmount Resort and Spa.

Prior to completing the analyses and modeling that will support the conclusions in the Supplemental DEIS concerning stormwater management (including, but not limited to, pre- and post-development pollutant loadings, and pre- and post-development stormwater quantities and peak rates of runoff), Crossroads' consultant will meet with technical representatives of the NYCDEP and the Department to review and seek to agree upon the model assumptions and inputs. Additionally, it is the sole responsibility of the project applicant to comply with any requirements imposed upon it by the terms of the Agreement.

A. Model Used

The Stormwater Model that will be used is the HydroCAD Stormwater Modeling System, Version 7.1 or higher, by Applied Microcomputer Systems. The SCS TR-20 method will be utilized.

B. Storms Analyzed

The intensity of rainfall varies considerably during a storm as well as over geographic regions. To represent various regions of the United States, SCS developed four rainfall distributions (I, IA, II, and III) from available National Weather Service duration-frequency data. Type II is the type of storm that SCS has mapped for the Crossroads assemblage. Type II represents the most intense, short duration rainfall of the four different distributions.

The storms that will be analyzed are those specified in the August 2003 New York State Stormwater Management Design Manual (the Manual). Those storms are:

1. The Water Quality volume, the 90% rainfall event totaling 1.3 inches as per Figure 4.1 of the Manual.

2. The Channel Protection Volume, 1-Year, Type II Design Storm having a 24-hour rainfall total of 3.5 inches as per Figure 4.4 of the Manual.
3. The Overbank Flood Control Volume, 10-Year, Type II Design Storm having a 24-hour rainfall total of 6.0 inches, as per Figure 4.5 of the Manual.
4. The Extreme Storm, 100-Year, Type II Design Storm having a 24-hour rainfall total of 8.0 inches as per Figure 4.6 of the Manual.
5. The 25-Year Design Storm having a 24-hour rainfall total of 6.5 inches. The inclusion of this storm is a local and DEP requirement and will be required as the project moves through the respective reviews.

C. Identification of Design Points

A revised pre-development model will be created for use in predicting stormwater runoff at the proposed Design Points. Revised Design Points have been identified at points of interest where flows can be easily determined, locations that are down gradient of proposed development, and as close as possible to the areas of proposed development. Revised Design Points were identified during fall of 2006 field investigations and inspected again in the spring of 2007.

Design Point	Structure Type	Location
1	Drop inlet with 24" Smooth Steel Pipe	± 380' upgradient from mountain stream in village
2	Drop inlet with 24" Smooth Steel Pipe	± 720' upgradient (east) from Design Point 1
3	Drop inlet with 24" Smooth Steel Pipe	± 1920' upgradient (east) from Design Point 2
4	Drop inlet with 24" Smooth Steel Pipe	± 1040' upgradient (east) from Design Point 3
5	Drop inlet with 24" Smooth Steel Pipe	± 1100' upgradient (southeast) from Design Point 4
6	Drop inlet with 24" Smooth Steel Pipe	± 420' upgradient (southeast) from Design Point 5
7	4' x 3' Stone Culvert	± 70' downgradient (north) from Gunnison Road
8	(2) 18" Smooth Steel Pipes	± 190' downgradient (north) from Gunnison Road
9	2' x 3' Stone Culvert	± 890' downgradient (north) from Gunnison Road
10	5' x 8' Stone Culvert	± 1405' downgradient (north) of Gunnison Road
11	2' x 3' Stone Culvert	± 2105' downgradient (north) of Gunnison Road
12	CB w/ 24" CMP	At Intersection of Van Loan Road & Rte. 49A
13	12" Smooth Steel Pipe	Along Rte. 49A (below Highmount)
14	12" Smooth Steel Pipe	Along Rte. 49A (below Highmount)
15	12" Smooth Steel Pipe	Along Rte. 49A (below Highmount)

D. Pre-Development Subcatchment Mapping

Once the Design Points are chosen, individual subcatchments will be derived from field observation and mapped survey data. The individual subcatchments include:

1. Areas of cover type taken from air photos and field observation, and vegetation community type mapping derived from field observation.

2. Soils types compiled from on-site high intensity soils mapping.
3. Time of concentration flow paths based on existing conditions and mapping. These will begin with a sheet flow segment, transitioning to shallow concentrated flow and channel flow where these conditions exist. Channel conditions were determined by field observation, and the position and orientation of channels was established using GPS data.

E. Proposed Flow Paths

The flow paths within each subcatchment have been field verified to include existing culvert sizes and pitches, the geometry, cover type and slope of existing swales or ditches and the condition of cover types for sheet flow and shallow concentrated flow components. Reach segments will be included to link individual subcatchments together to create a path to the individual design points. Reaches will be described in a similar fashion as the time of concentration segments. A separate reach will be described for every significant change in cover type, slope or geometry.

These factors will combine to create a pre-development HydroCAD Model that will accurately predict the existing hydrology.

F. Proposed Methodology

The proposed stormwater management plan for the sites will be developed in accordance with the guidelines established in the Manual and the Rules and Regulations for the Protection from Contamination, Degradation, and Pollution of the New York City Water Supply and its sources, 10 NYCRR §128-3.9. The primary design goal is to meet the water quality objectives as discussed in the Manual. In order to achieve the primary goal of meeting water quality objectives, while at the same time mitigating potential impacts associated with increased stormwater runoff, the design of the stormwater management system will follow the guidelines presented in the Manual and 10 NYCRR §128-3.9.

The proposed ponds will be located in close proximity to the golf course and other proposed facilities and in locations that provide the best opportunity for treatment and flow attenuation. Subcatchments will be created around areas that contribute to the individual basins or proposed points such as catch basins or culverts. The subcatchments will be linked by reaches, which will be modeled, including pipes, culverts, swales and any facilities that will transmit runoff. The proposed flows associated with the five design storms will be treated and attenuated at or below the pre-development rates at each design point.

G. Construction Phasing

This project is being administered under an individual industrial permit for construction stormwater discharges. The permit will be issued following a

detailed evaluation by the Department. Specific discharge points will be identified for water quality monitoring. An annual report will be prepared to report on any necessary maintenance or repairs.

The individual stormwater permit process incorporates a control program for both construction and operational phases of the project. During construction, temporary basins will be sized for the 10-year event and clean water will be diverted or protected during construction. A rigorous phasing and subphasing program is being implemented that incorporates rapid revegetation. Enhanced stormwater controls, including reinforced silt fence, extensive use of rolled erosion control products, temporary tarps to cover soil, wood cellulose bonded fiber matrix products (Eco Aegis, Eco Fibre, Soil Guard), along with an independent work force to repair temporary stormwater facilities will be implemented. These types of construction phase measures are conceptually presented in materials prepared by Charles Silver (see Footnote 1 on page 1).

The stormwater modeling is making use of extensive site-specific soils data and regional information on runoff quality and quantity.

The following goals will be met by the construction phasing and erosion control/sediment control program:

1. Land disturbance will be divided into small compartments that can be rapidly constructed and stabilized.
2. Where possible, water flowing from areas up-slope of construction will be diverted away or around exposed construction areas to limit erosion and pollutant loading into relatively clean water.
3. Construction will be sequenced to maximize immediate permanent stabilization and utilize effective temporary stabilization where and when necessary.
4. The extent of areas of unstabilized soils are reflected in the phasing plans attached as an exhibit to the Agreement in Principle. Unstabilized areas will always be protected with enhanced erosion control measures in place. Construction phasing will attempt to disturb only 15 to 18 acres per phase.
5. The erosion control program will dictate the construction sequencing.

The construction phasing and erosion control plans will protect local surface water resources and the New York City drinking water supply, while at the same time allowing for the construction of the project to occur in a logical and controlled manner in a timeframe that does not make the construction of the project economically unfeasible.

The golf course at Wildacres is proposed to be built in a two-year period. A substantial amount of sod is proposed to be used. If enough sod is available and the timing is correct, 9 holes are proposed to be opened in the second year of development.

Central to the understanding of the overall process is the hierarchy of project phases, subphases or stages, and subcatchments.

- a. Phases – Phases represent various components of the Wildacres project.
- b. Subphases or Stages – All subphases will have balanced cuts and fills. Some subphases will include the “transition areas” that tie together some contiguous golf holes (i.e., tee/green complexes, tee complexes, green complexes). It is important that these areas be graded at the same time in order to accurately create the golf course the way it was designed by the golf course architect.
- c. Subcatchments – Each subphase includes subcatchments (which relate to the HydroCAD model). The subcatchments form the basis for designing the permanent and temporary, construction phase retention basins.

The phasing below describes a sequence for typical golf course construction. Simultaneously, work will continue at the hotel site.

Temporary sediment basins and other sediment controls will be installed in accordance with the construction details, stabilized and functional prior to mass earthwork.

- d. General Construction Phases
 - 1). Construction stakeout and golf course centerline stakeout for entire phase.
 - 2). Centerline clearing for Subphase 1.
 - 3). Construction access and perimeter control for Subphase 1.
 - 4). Temporary basins rough grade and stabilized in Subphase 1.
 - 5). Tree harvest without grubbing in Subphase 1.
 - 6). Stump grub, fine grade stormwater basins and stormwater swales, stabilizing swales with rock or geotextile in Subphase 1.
 - 7). Rough and final grade Subphase 1.
 - 8). Install permanent irrigation lines in Subphase 1.
 - 9A). Stabilize Subphase 1 with temporary measures as specified,
 - 9B). Perform Steps 2, 3 and 4 in the Subphase 2.
 - 10). Upon completion of temporary stabilization of Subphase 1, repeat Steps 5-8 in Subphase 2.
 - 11). After permanent irrigation lines are installed in Subphase 2 immediately topsoil, install irrigation heads and install permanent stabilization (sod/seed) in Subphase 2.
 - 12). Continue topsoiling and permanently stabilize into Subphase 1 which was previously temporarily stabilized.

and

- 13). Perform Steps 2 and 3 in the Subphase 3.
- 14). When a portion of Subphase 1 requires topsoiling and final stabilization, clear, but don't grub, a portion of Subphase 3.
- 15). After Subphase 1 is completely permanently stabilized, construct Subphase 3 through temporary stabilization (Steps 4 through 9A).
- 16). Continue construction through Subphases 4 then 5 and 6 using the same sequence described above for Subphases 1, 2 and 3.
- 17). Upon establishment of permanent cover, remove temporary drainage swales and basins. Convert appropriate temporary basins to be utilized during operations to their permanent condition (by Subphase).
- 18). Stabilize all remaining disturbed areas (by Subphase).
- 19). Remove perimeter erosion control after vegetation stabilization is established (by Subphase).

Whenever disturbed soil in an area in excess of 5 acres is to be left open for more than 7 days, temporary surface stabilization measures, including rapid mulching will be applied. In areas of disturbed soil less than 5 acres in size, the 14-day requirement would apply. If irrigation water is not yet available near the completion of any subphase, apply temporary stabilization measures such as high tack wood fiber bonded matrix (tackifier) and move to next Subphase. Minimal areas will be disturbed, and by phasing the project in this manner, the construction sequence can limit exposed soils yet progress in a logical fashion.

It is anticipated that construction work will occur six days a week and many activities will occur 10-12 hours daily especially during June and July in order to accomplish this segmented construction process within the construction season.

H. Sediment and Erosion Control Protocol

Central to the construction phasing and erosion control plan are a number of factors designed to mitigate potential impacts commonly associated with construction projects that involve large amounts of earthwork activities. These include:

1. Perimeter erosion control will be installed at the current work area prior to site disturbance.
2. All of the relatively small compartments of construction and soil disturbance will have temporary sediment basins designed to capture and hold all runoff from a storm with the volume and intensity that can be expected to occur from a 10-year, 24-hour, type II storm.
3. The runoff water captured in the temporary stormwater basins will be treated with Chitosan® flocculent to reduce stormwater turbidity prior to dewatering the stormwater basins when deemed necessary by the Erosion Control Superintendent. The Erosion Control Superintendent will notify

the Independent Stormwater Monitor (Independent Monitor) that Chitosan® is being used. Use of Chitosan® will conform to the following requirements:

4. Analyze if flocculants should be utilized only when standard sediment control practices, including temporary basins, silt fence, stabilization measures and clean water diversions have proven ineffective or under extreme storm scenarios.
5. Site soil investigations have indicated that conventional sediment control measures may not effectively mitigate suspended solids at this site. Since it is likely that stormwater collected in the sediment basins will have to be properly treated prior to discharge, the use of low flow orifices may not be appropriate. The object is to contain as much as practicable, treat with a flocculent, and discharge in a non-erosive manner, or pump to an irrigation pond. Demonstrate compliance with these objectives.

Water Treatment Chemical (WTC) Authorization

(Draft SPDES Permit NY 027 0661)

The permittee is authorized to use Storm Klear Liqui-Floc (chitosan acetate) during construction periods only, for the treatment of stormwater which accumulates in any stormwater management pond, provided the following conditions are met.

Dosage – Runoff water collected in ponds shall be treated with chitosan based on the turbidity level and quantity of water being treated, at doses which result in a maximum concentration for the appropriate turbidity range, as follows:

<u>Pond Turbidity</u>	<u>Maximum Pond Concentration (mg/l)</u>
50-400	1.0
400-1400	1.1
1400-2400	1.2
2400-3400	1.3
3400-4400	1.4
4400-5000	1.5

Discharge – Stormwater treated with Storm Klear Liqui-Floc shall be discharged in accordance with the following requirements:

- No treated stormwater may be directly discharged to any surface water under any conditions.
- No treated stormwater may be discharged which exceeds a 50 NTU turbidity value, in any manner.

- Whenever possible, treated stormwater must be transferred from a stormwater management pond to an Irrigation Pond for future irrigation purposes.
- Stormwater which cannot be transferred to an Irrigation Pond, due to insufficient capacity or for any other reason, must be discharged to the ground (overland flow) at a location which is at least 300 feet from the nearest surface water, including intermittent streams, in an area which is fully vegetated at the disposal location and over the entire pathway to the surface water.
- Discharge of the treated stormwater to land must be performed in a manner which results in even and controlled distribution of the stormwater, and which will not result in scouring, channelization, or erosive velocities.

No other WTC may be used by the permittee without prior authorization, on a case-by-case basis, by the Department.

4. Temporary stabilization will be widely implemented during the construction process so that the amount of active construction and unstabilized soil never aggregates more than that presented in the construction phasing plans attached as an exhibit to the Agreement in Principle.
5. Erosion control measures and practices will be kept in place until the areas that they serve are permanently stabilized.

The following provides a description of how these plans will be implemented.

- a. There will be a dedicated erosion control team of 4 to 6 people plus supervisory personnel (Erosion Control Superintendent), whose primary role will be repairing, maintaining and upgrading erosion control devices such as silt fence, construction fence and wattles. These crews will be equipped with all the necessary equipment and supplies necessary to effectively maintain the erosion control devices. The site work contractor will install all erosion controls and will also be responsible for maintaining the temporary sediment basins under the direction of the Erosion Control Superintendent.
- b. These crews will be directed by the Erosion Control Superintendent who will be a Certified Professional in Erosion and Sediment Control. The Independent Monitor will have the authority to issue a stop-work order..
- c. The Erosion Control Superintendent and the crew under their direction will not be employed by the site work contractor, but will be under independent contract to the developer and report directly to the developer's on-site representative.

- d. The site work contractor, as directed by the Erosion Control Superintendent will be responsible for constructing and structurally maintaining the construction phase sediment retention basins that will be constructed site-wide.
- e. The Erosion Control Superintendent will be the single point of contact for all issues related to on-site erosion and sediment control. This individual will be responsible for implementation of the construction pollution prevention plan, monitoring of the local watercourses during the construction process, and oversight on the progress of the construction project.

Given the complexity of the plan to construct the site it will be necessary to have a comprehensive process to share information on the construction process. A constant update of the construction process will be necessary. The contractors will have to closely monitor daily progress as it relates to all the construction tasks from site clearing to final grading. A common set of electronic plans will have to be maintained at a central location that is updated on a frequent basis in order to maintain accurate and up-to-date stormwater control reports.

Along with the administrative staff it can be anticipated that a significant amount of personnel time will have to be expended to carry out the monitoring requirements on the watercourses and of the stormwater control facilities including the retention basins along with the perimeter controls. Status reports on erosion control facilities as well as the water quality monitoring data will have to be compiled at a central location.

- f. All contractors and subcontractors are required to sign the SWPPP and adhere to its protocol. This ensures deliberate implementation of stormwater controls as the SWPPP is a contractual agreement.

Overall project phasing designed to control erosion by limiting the amount of construction at any given time.

The following are measures proposed to mitigate potential erosion.

- 1). Construction will be phased over a multi-year time period so as to reduce the amount of disturbed soil at any given time. Work on subsequent Phases will not begin until the area in the previous Phase is stabilized. Likewise, work on a subsequent subphase or stage will not begin until the area in the previous stage is nearly all stabilized (last 5 acres being stabilized).
- 2). Temporary sediment basins will be located throughout the proposed development. These basins will be sized to capture and hold the runoff from a 10-year storm of 6 inches in 24 hours falling on bare soil.

- 3). Fairway drains will be installed during construction, and during construction these drains will consist of a perforated standpipe surrounded by a gravel/rock jacket all surrounded by perimeter silt fence. These fairway drains will be piped to temporary sediment basins that will be converted to operational phase basins. During final stabilization the silt fence and stone/gravel jacket will be removed, the standpipe cut flush with finished grade and a grate placed over the inlet to the drain pipe. Define how the fairway drains serve the intended purposes. Explain if the design should be modified to more closely approximate that a temporary sediment basin outlet as detailed in the NYS Standards cannot be utilized.
- 4). Any areas of disturbed soils or soil stockpiles that will not be worked on for a period of fourteen (14) consecutive days will be temporarily stabilized by hydroseeding with ryegrass and mulch. Preferred mulch materials are Eco Aegis® and Soil Guard®.
- 5). Sod will be used in many areas to provide more rapid stabilization. Approximately 50 acres of sod will be used for golf course construction.
- 6). Erosion control products will be chosen based on their suitability for the different slopes. Temporary stabilization will be widely utilized during the construction process to limit exposed soils in accordance with the phasing plan.
- 7). The permanent irrigation system will be used where and when necessary to supplement precipitation and promote rapid germination and rooting of seeded and sodded areas. If irrigation water is not yet available, apply temporary stabilization measures as specified and move to next stage.
- 8). NYCDEP will continue to monitor surface water on and around the Crossroads assemblage during and after construction. Any decreases in water quality that can be attributed to the proposed project will result in changes in construction or operations of the project in order to immediately restore local water quality.
- 9). All erosion control measures will be maintained in good working order; if repair is necessary, it will be initiated within 24 hours of report.
- 10). Built up sediment will be removed from silt fence when it has reached one-third the height of the fence.
- 11). Silt fence will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in ground.
- 12). All temporary sediment basins will be inspected for stability and integrity once a week or after a storm event of

0.5 inch or more. Any structural failure in sediment basins or trenches that serve them will be repaired within 24 hours after detection.

- 13). All temporary sediment basins or trenches shall be cleaned out when one foot of sediment or half the design depth of the trap has accumulated. All spoils shall be removed to a stabilized upland area.
- 14). Seeded and planted areas will be inspected for bare spots, washouts, and healthy growth. If necessary, spot reseeded or sodding will be implemented.

A maintenance inspection report will be made after each inspection. Reports will be compiled and maintained on-site.

I. Pollutant loading protocol

1. Sedimentation Basins

Temporary stormwater detention basins will be constructed throughout the area of construction and will be large enough to capture and hold all of the runoff from the 10-year design storm.

Where necessary as approved by the Independent Monitor, basins will be pumped out to the irrigation ponds. Where this is not feasible due to distance and/or topography, the method to empty these basins will be to discharge the water to a spreader pipe laid out in the undisturbed wooded areas below the basins. The spreader pipe will be a four to six inch perforated coil drain pipe with a filter fabric sock around the pipe. The filter fabric sock will reduce spray from the pipe and reduce the potential for undermining the pipe or creating erosion. The sock will also allow the system to act as a soaker hose. The wooded area will polish the stormwater to assure that effluent quality will meet the ambient conditions of the local watercourses. A plan has been developed that allows for the basin dewatering to occur at rates that are the same or less than runoff rates that occur under existing conditions. Dewatering the basins at these rates will prevent erosion in the forested areas from which dewatering discharges will be made.

2. Water Quality

The project is located within the watershed of one of New York City's water supply reservoirs, the Pepacton Reservoir, therefore the impacts that may result from increased nutrient loading to this Reservoir will be evaluated. Two sources are considered to cumulatively contribute to the overall nutrient export that may be expected from the project development, golf course fertilization and stormwater runoff.

The goal of the project's stormwater management program is to manage runoff water quality to minimize nutrient or contaminant export or closely match pre-development stormwater quality. This will be accomplished by locating stormwater management facilities throughout the project site and by maintaining a low density of development.

The stormwater management system will be composed of appropriate practices for water quality maintenance such as ponds, filtering practices, infiltration practices, and channels. Open channels on slopes over 15% will be rock lined to better manage the velocity of the runoff by providing rough channels.

The proposed pond designs will provide for settling while at the same time minimizing standing water to avoid thermal impacts. The ponds tend to be narrow so that the water is shaded as much as possible. Each pond will have multiple outlets to allow for dispersion of the stormwater events accumulated runoff as well as allowing for infiltration of stormwater captured in the detention ponds. It is necessary to release the stormwater in order to avoid thermal loading associated with standing water and to avoid adverse impacts to local coldwater stream life.

3. Phosphorus Loading

To estimate phosphorus loading at Wildacres a direct calculation method was created using site-specific data collected by NYCDEP. The NYCDEP has operated a stream water quality gauging station on the Big Indian site since 2001. Data sets of stream flow and water quality data have been assembled and approved for use up through 2003. In August 2004, the last evaluation of phosphorus loading was complete.

To create the direct calculation, forest runoff characteristics from Big Indian in the undeveloped condition were utilized. To estimate the runoff quality for a developed site, NYCDEP 1997 (Guidance for Phosphorus Offset Pilot Program, March 1997) was consulted to obtain runoff values for developed areas.

The direct calculation found in the attached document "Total Phosphorus Loading Calculations and Comparisons," August 24, 2004 was determined to be the method with the greatest level of consensus among commenting parties.

This direct method calculation incorporates site specific and regional data. A comparison with the NYCDEP 1997 simple method was completed (see Table B, and pages 9 of 36, 13 of 36, 21 of 36, 25 of 36, 29 of 36, Table 3 and Figure 2).

The phosphorus loading analysis for the Supplemental DEIS should include baseline phosphorus levels measured at the NYCDEP monitoring locations at Wildacres and Highmount, Belle5 and BelleTod.

5. DEP Pollutant Analysis

Pollutant loading analyses will also be performed in accordance with 10 NYCRR §128-3.9.

J. Post Construction Stormwater Controls

In general, stormwater control consisting of a series of road side swales, cross culverts, stormwater micro-pool extended detention basins and bio-retention will be used to capture, convey and detain stormwater runoff from the developed portions of the project site. By creating positive drainage through site grading within each of the subcatchments, the proposed stormwater control systems are capable of reducing post-development runoff rates from a 1, 10, 25 and 100-year storm.

No existing surface waterbodies will be impounded. The ponds used to store irrigation water will be isolated dug ponds and not associated with any of the streams or brooks on the project site. Water levels in the ponds can be controlled by irrigation withdrawals and the amount of replenishment provided so that there is always reserve capacity in the ponds to accept runoff from storm events without the ponds discharging to surface water resources. Sufficient freeboard will be maintained in the irrigation ponds so that they can contain the runoff from the 100-year storm from the areas that drain to them.

The stormwater system for the proposed site will utilize on-site storage with outlet devices to regulate the stormwater discharge. The system is designed to discharge from the storage basins to the existing drainage ways. The proposed peak runoff for the project is designed to not exceed the pre-development peak runoff conditions for the 1, 10, 25 and 100-year design storm event.

The majority of the stormwater will be directed through proposed detention basins which will control the release rate from the basins. The detention basins will also serve to capture stormwater contaminants and treat the water quality volume.

The objectives of the stormwater management plan will be to:

- Prevent increased runoff from developed land to reduce potential flooding and flood damage.
- Minimize the erosion potential from new construction.
- Increase water recharge.
- Enhance the quality of stormwater runoff to prevent water quality degradation and preserve water quality in receiving water bodies, including City water supply reservoirs.

These objectives will be accomplished through the implementation of the following:

1. Stormwater impacts associated with clearing and grading, along with the development of golf holes, roads and buildings will be mitigated. This will be achieved through the use of devices such as swales, roadside ditches, catch basins, pipes and micro-pool extended detention basins. The stormwater facilities will control the 25-year, Type II storm event while withstanding the discharge from a 100-year event.
2. The stormwater system for the proposed project will utilize on-site storage with outlet devices to regulate the stormwater discharge. The system will be designed to discharge from the storage basins to the existing drainage ways. The proposed peak runoff for the project is designed to not exceed the pre-development peak runoff conditions for 1, 10, 25 and 100-year design event.
3. The stormwater management system for the project will be designed in accordance with the Manual and 10 NYCRR §128-3.9. This includes peak flow attenuation and water quality treatment through control of the water quality volume.
4. The majority of the stormwater will be directed through proposed ponds. These ponds will also serve to capture and treat water quality volume contaminants.
5. The drainage system will be designed so that it will not adversely affect downstream or adjacent properties.
6. A detailed site re-vegetation and stabilization plan will be developed that will re-establish vegetation quickly after final grade is achieved.
7. Implementation of the operational phase Stormwater Management Plan will result in no net increase in runoff volume to existing drainage ways.
8. All operational phase stormwater ponds and bio-retention will be maintained in accordance with Section 6.16 and 6.46 of the Department's Stormwater Design Manual and the maintenance requirements included with the stormwater management design report. This includes such things as sediment removal, trash racks, and pond drains.

Materials removed as part of detention basin maintenance will be used on site. As part of golf course maintenance, the application of very thin layers of coarse topdressing to the golf course turf is typical. Much of the materials that will accumulate in the detention basins will be sand from road sanding. Therefore this material will be suitable for topdressing material on the golf course.

Two annual inspections will be conducted after completion of the project. They will take place in April and September of each year. Any necessary repairs will occur during the growing season. An annual report will be prepared to report on any maintenance or required repairs.

RESORT SDEIS ATTACHMENT B-3 - TRAFFIC

- A. The potential impacts from traffic generated by the construction and operation of the Belleayre Resort at the Catskill Park will be based on data and procedures provided in the following documents:
- Transportation Research Board, National Transportation Resources Council. 2000, Highway Capacity Manual.
 - Institute of Transportation Engineers, Trip Generation 7th Edition.
 - American Association of State Highway and Transportation Officials, Fourth Edition 2001, A Policy on Geometric Design of Highways and Streets.
 - Federal Manual on Uniform Traffic Control Devices for Streets and Highways, 2003 Edition.
- B. Existing data on vehicle traffic and use levels will be obtained from the New York State Department of Transportation, County Highway Departments, and traffic data collected by Creighton Manning Engineering. Historical attendance records and trends will be obtained from Belleayre Mountain Ski Center.
- C. The existing data will be used as the basis for a traffic impact study. The traffic study will consist of the following components:
- Turning movement counts will be conducted at the following nine study area intersections from 3:30 to 5:30 PM on the Saturday of Martin Luther King holiday weekend in January 2008:
 - a. NY Route 28/NY Route 214
 - b. NY Route 28/NY Route 42
 - c. NY Route 28/County Road 47
 - d. NY Route 28/Main Street
 - e. NY Route 28/County Road 49A
 - f. County Road 49A/Gunnison Road/Belleayre Lower Driveway
 - g. County Road 49A/Belleayre Upper Driveway
- D. Previously conducted traffic counts and data received from the Belleayre Mountain Ski Center will be used to develop existing base volume conditions for use in the traffic study. Based on previous studies conducted, the traffic impact study will be based on a peak winter ski season weekend. The expected traffic conditions during other seasons will be discussed qualitatively.
- The previously analyzed NY Route 28/Friendship Road intersection and Main Street/Bonnieview Avenue/Academy Street intersections will not be recounted since modifications to the project have eliminated or reduced impacts to these intersections. These two intersections will be discussed qualitatively using available traffic volume data and project related traffic data.

- Roadway geometries will be examined to determine the number of approach lanes, lane and shoulder widths, traffic control by approaches, and sight distance at proposed access locations.
 - Trip generation for the proposed project will be based on data contained in ITE's, Trip Generation, 7th Edition. The trip estimate will include an estimate of patrons and employees. Based upon a review of the proposed connections to the Belleayre Mountain Ski Center, appropriate credits will be taken for shared trips between the two facilities. The number of shared trips and/or trip credits will be coordinated with the Department for consistency. Further investigations into transit and other modes of transportation will be conducted and incorporated into the traffic study.
 - Future design year traffic volumes will be estimated for one design year at the study area intersections and all proposed site access locations. Traffic analysis will be conducted according to the procedures set forth in the Highway Capacity Manual (HCM) for the existing, no-build, and build conditions. The build conditions analysis will include the impact of both the project site and the Belleayre Mountain Ski Center expansion.
 - The results of the sight distance evaluation at the proposed access driveways will be compared to the applicable industry standards.
 - An accident analysis will be conducted to determine prevalent accident types in the roadway network adjacent to the project sites. Any prevalent accident types will be identified and mitigation measures will be presented as applicable.
 - Recommendations will be made to provide acceptable operating conditions at the study area intersections. Concept plans will be provided to illustrate proposed improvements recommended in the traffic study.
- F. A revised technical report will be prepared that will summarize the results of the updated traffic analysis and will be included as a Supplemental DEIS appendix.

RESORT SDEIS ATTACHMENT B-4 - VISUAL RESOURCES AND AESTHETICS

The methodology for the assessment of potential visual and aesthetic impacts will be consistent with the following guidelines.

- NYS Department Program Policy “Assessing and Mitigating Visual Impacts”, July 31, 2000
 - Visual Analysis Methodology. Adirondack Park Agency. Undated
 - The SEQR Handbook. New York State Department of Environmental Conservation. November 1992.
- A. Digital elevation (terrain) modeling (DEM) shall be utilized to create viewshed (zone of visibility) mapping within a five-mile radius of the site. The DEM shall be derived from survey ground topography, geo-referenced site plan building locations, architectural building plans (building height), geo-referenced site grading plans (finished elevations and clearing limits) and tree heights in the areas of development. Viewshed mapping will represent both vegetation present and vegetation absent conditions.
- B. Determine the zone of visibility based on topography and identify potentially sensitive receptors within a five mile radius of the proposed development.
- C. Receptor locations should be specifically chosen to include worst case scenarios, including viewpoints indicating potential project visibility at an aesthetically significant place. Consequently, visibility will be assessed from the prescribed aesthetic state and federal resources listed in the department’s policy “Assessing and Mitigating Visual Impacts”. Receptor location should also include locally significant aesthetic resources when identified in local or regional land use plans. Receptor location should also include public roads (Route 28, etc.), hiking trails, public recreation areas and areas of historical significance that have potential views into the project development areas.
- D. Use the digital elevation modeling to identify the potential viewshed areas for the development areas. The areas that are blocked from view by landforms and/or vegetation shall then be plotted to produce zones of visibility maps for the areas proposed to be developed.
- E. Within each viewshed identify potentially sensitive receptor locations listed in the Department’s Program Policy Assessing and Mitigating Visual Impacts as well as public roads and hiking trails, public gathering areas, public recreation areas, and areas of historical significance within a five-mile radius that have potential views into the project development areas.
- F. Verification that the proposed expansion areas are not visible from the Wilderness area through the use of viewshed analysis.

- G. Potential vista views from peaks, including any operational fire towers, and overlooks on public hiking trails outside of the five-mile radius will also be examined including the following locations:
1. Balsam Lake Mountain
 2. Dry Brook Ridge
 3. Mill Brook Ridge Trail
 4. German Hollow Trail
 5. Halcott Mountain
 6. Tremper Mountain
 7. Panther Mountain
 8. Cornell Mountain
 9. Slide Mountain
 10. Overlook Mountain
 11. Twin Mountain
 12. Sugarloaf Mountain
 13. Plateau Mountain
 14. Hunter Mountain
 15. North Dome
 16. Vly Mountain
 17. Bearpen
 18. Table Mountain
 19. Westkill Mountain
 20. Fire Mountain
 21. Cathedral Glen
 22. Two vistas located along the hiking path known as the Devil's Path near the summit of the West Kill Mountain within the West Kill Wilderness.

Photographs of existing conditions from locations that were examined previously in the Crossroads' DEIS can be used for the Supplemental DEIS.

- H. Field verify the zone of visibility for the proposed development footprints from all identified receptors including public roads and trails within a five-mile radius, as well as potential vista views from public areas outside of the five-mile radius.
- I. Existing structures and features on and around the property, including the Marlowe Mansion, Wildacres Hotel, the cellular phone tower in Highmount, Highmount Ski Area and Belleayre Ski Mountain Ski Center shall be used for orientation.
- J. ±4 foot diameter colored balloons shall be flown at key locations within the development at the location of proposed buildings to provide orientation when assessing visibility within the 5-mile radius. At each location, balloons shall be flown at the height of the proposed building and a second balloon should be flown well above the tree canopy to serve as a locator balloon. Locations of flown balloons shall be recorded with GPS.

- K. On a clear day with good visibility examine each area identified as having the potential for views into the project. Examinations shall take place during leaf-on and leaf-off conditions. Examinations shall consist of driving roads, walking hiking trails, and visiting sensitive receptors identified as having potential views. Evaluate the amount of screening provided by forest cover as it may reduce the duration of views or obscure views.
- L. On viewshed maps identify where views do exist and photograph the view into the project. Photographs shall be taken using 50 mm lenses which best simulates the perception of the human eye. Where necessary for orientation purposes due to marginal visibility of the site, additional photographs should be taken at higher lens settings. Photograph locations shall be GPS located.
- M. Prepare and include in the Supplemental DEIS the potential zone of visibility map created from the DEM and also the actual zone of visibility mapping based on field observations for the project components based upon leaf-on and leaf-off investigations.
- N. Include in the Supplemental DEIS paired photograph-based representative views of visual conditions with and without the development of the project. The number and location of representative views shall be approved by the Lead Agency upon completion of tasks described above. Paired photographs shall include visualization (simulations) of all project components including (when visible) structures and site improvements, clearing and grading, and any proposed visual mitigation measures, including exterior building colors during leaf-on and leaf-off conditions. The selection of representative views to be simulated shall be based on the relative importance of public viewing points, level of viewer exposure and geographic distribution. Representative views shall include the most significantly affected near views as well as affected vista views. The number and location of representative views shall be approved by the Lead Agency upon completion of tasks identified in Paragraphs A- M of this Attachment described above and prior to preparing the visual simulations.
- O. Utilizing AutoDesk Land Desktop and AutoCAD software, create a 3-D wire frame model by taking all 2-dimensionally accurate site plan information included in the site plan drawings such as existing and proposed contours, locations of tree clearings, locations of buildings etc. and incorporate known and given elevations to each component to generate an accurate 3-dimensional model that can be viewed from any angle and location.
 - a. Utilize surveyed 3-dimensionally accurate topographic information to create a model of the existing 3-dimensional landform.
 - b. Incorporate the proposed grading into the existing landform model by assigning elevations to all proposed contours, then tying them into the existing landform to create the proposed landform model, or ground plane surface.
 - c. To represent the proposed tree clearing and vegetation to remain, isolate the 2-dimensional polygon on the proposed site plan that represents all vegetation to remain. Copy the part of the 3-dimensional landform model that is within the vegetation polygon,

to create a surface that will represent the tops of the trees and relates to the existing topography. This surface is given an elevation above the ground plane based on existing tree heights, then vertical faces are created that connect the tree top surface to the ground plane. This creates a 3-dimensional polygon that represents trees to remain.

- P. Transform proposed buildings located in 2-dimensions on the site plans into 3-D models. The 3-D building models are then given an elevation that corresponds to the proposed finish floor elevation indicated on the grading plans.
- Q. Take GPS coordinates at the locations of the photographs that capture the views to be simulated. Import these coordinates into the AutoCAD file that contains the site plan and the 3-D model, so the photo locations are horizontally and vertically accurate within the context of the site plan and the AutoCAD file.
- R. Create and save as a digital image of the proposed condition using AutoCAD, a “snapshot” of the 3-D model from each specific photo location.
- S. Use computer graphic software titled Adobe Photoshop, to transpose the digital snapshot of the proposed condition over the Existing Condition photograph of the same view. Align features and/or landform within the digital snapshots with the features and/or landform within the existing condition photograph to position the overlay as accurately as possible. Then remove from the view elements of the proposed condition shown in the digital snapshot that are anticipated to be screened from view due to intervening foreground vegetation or topography. Then render the model of the proposed condition as needed with appropriate colors and textures. The final result shall be a simulation that represents a view of the proposed condition, while maintaining the context of the existing surroundings.
- T. The Supplemental DEIS shall include a discussion of the numbers and types (hiking, driving, existing land uses, etc.) of people to be affected and the durations of views that can be expected. This shall include a brief discussion concerning the nature of the visual change and the public’s probable reaction to such change. The discussion will focus on the existing landscape and to what extent the proposed project components are obviously different from, or in sharp contrast to, current surrounding land use patterns. It will also consider the extent to which the proposed land use changes, visible to users of aesthetic resources, will eliminate or significantly reduce the public’s enjoyment of the aesthetic qualities of that resource. Discussions shall include how views may vary between leaf off and leaf on conditions.
- U. The Supplemental DEIS shall discuss suitable measures to mitigate potential impacts. The discussion shall include measures such as project component locations, structure heights, use of earth tone colors, non-reflective glass, cut-off light fixtures, and other similar type measures.
- V. A consultant specializing in lighting shall review the Supplemental DEIS project lighting plans, narratives, and other relevant documents prepared for the project as well as subsequent briefs, testimony and findings on the issues of lighting impacts on the night sky, sky glow, and light pollution. At the same time, this consultant shall also review recommended practices, International Dark Sky Association

Recommendations, outdoor lighting guidelines, as well as State and national standards on outdoor lighting to develop a baseline comparison for the designs developed for the project site.

- W. The lighting consultant shall visit the area around the Belleayre Mountain Ski Center to assess current local conditions. Three nighttime conditions shall be evaluated – one on a clear winter night; one on a cloudy winter night; and a third, if possible, without snow cover and without the ski resort operating (i.e., an off-season visit). Arrangements will be made with the Belleayre Mountain Ski Center to have snow making equipment running at certain times during the two winter visits, and off during a portion of each winter visit so that the consultant can assess lighting and night sky conditions with and without snowmaking. During each visit, the lighting consultant will take a variety of photometric measurements under each condition including luminance and illuminance measurements at and adjacent to the Ski Center. The consultant shall also document the conditions photographically using a high resolution camera system.
- X. Using a variety of computer software and simulation tools, including AGi32 by Lighting Analysts, Inc, a visualization and quantitative calculation tool widely accepted in the lighting industry, as well as outdoor site performance evaluation techniques, the lighting consultant shall evaluate the project lighting’s impact on light pollution including light trespass, glare, and sky glow. These techniques, published in The Lighting Journal, will run on the AGi32 platform. The qualitative evaluations shall be documented in renderings prepared by using Photoshop modifications to actual photographs and/or AGI output. The lighting consultant will prepare simulations of the site with and without the lighting on the project lighting plans. The simulations will be prepared for up to five viewing locations. The simulations will approximate the appearance of the site from a distance and estimate the effect of the lighting on average nighttime sky condition.
- Y. If the evaluation described above identifies potentially significant impacts, the lighting consultant shall develop a lighting plan design alternatives to reduce the impacts of the original lighting plan. This could include recommendations for changes in fixture locations, heights, lamp types, fixture types, and/or lighting design approaches.
- Z. The lighting consultant shall prepare graphic representations of the site with the new lighting designs from “O” above using the methodologies described in “N”, above, including preparing simulations from the same locations.

RESORT SDEIS ATTACHMENT B-5

CULTURAL RESOURCES

- A. The methodology for assessing cultural resources will follow the procedures outlined in the Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York (New York Archaeological Council, 1994 (hereafter NYAC) as adopted by the Office of Parks Recreation and Historic Preservation (OPRHP). The purpose of this work is to assure that the UMP and the Project satisfy the Lead Agency under the New York State Historic Preservation Act of 1980 (hereafter SHPA) and SEQR.

The Project cultural resource investigation will be conducted by a professional archaeologist, qualified according to the standards of the New York State Archaeological Council, and the National Park Service 36 CFR 61 guidelines (hereinafter “the archaeologist”). Any direct communications between the archaeologist consultant and New York State Office of Parks, Recreation and Historic Preservation (OPRHP) shall be copied to the applicant and the Department in its role as lead agency under SEQR. No agreements shall be reached between the archaeologist consultant and OPRHP without the knowledge of the applicant (project sponsor) and approval by reviewing agencies / lead agency under SEQR.

- B. The methodology to be followed for each of these studies is presented below.

1. The archaeologist shall conduct Phase IA and Phase IB cultural resource investigations to identify archaeological resources, cultural/sacred areas, and standing structures that are at least 50 years old that may be affected by the Project, and to locate prehistoric and historic cultural/archaeological resources that may exist within the proposed Project Area.

a. The Phase IA investigation will gather information concerning the environmental/ physical and cultural settings of the Project Area through a literature search. The Phase IA investigation will consist of the following elements:

(1) Preliminary review of historic maps and literature relating to the Project Area.

(2) Review of OPRHP archaeological site inventories. A list of prior surveys and investigations completed in the immediate area of the Project and a summary of the results of those studies will be developed.

(3) A list of the State and/or National Register of Historic Places eligible and listed properties within one mile of the Project Area.

(4) An on-site field reconnaissance of the Project Area, with photographic documentation of existing conditions.

(5) Assessment of archaeological sensitivity based upon the environmental/physical characteristics of the Project Area and the types and density of cultural sites identified within one mile of the Project Area. Site types likely to be identified and the anticipated condition of these sites will be described.

2. The Phase IB field investigation will be conducted in areas considered to be sensitive for the location of significant cultural resources. The Phase IB investigation will be conducted as follows:

(1) The Phase IB field survey will be limited to potentially sensitive areas identified in the Phase IA survey, within areas of proposed Project alteration and not previously surveyed.

(2) The most efficient means of investigation is through subsurface shovel testing of all areas where construction or staging that involve ground disturbance will take place.

(3) In order to document the presence or absence of cultural resources in the project impact area, an intensive walkover of the project area will be conducted. Based on the results of that walkover, shovel tests will be excavated to verify and mark the extent of resources identified during the walkover. The walkover will focus on the areas which are characterized by less than 15% slope and are thus considered more sensitive to the presence of intact precontact remains. The walkover will extend into areas of greater than 15% slope to identify the presence or absence of map documented structures and/or identify areas such as rockshelters or overhangs or shelves that might warrant subsurface investigation.

(4) Shovel tests shall be conducted in accordance with the NYAC Standards. Shovel tests will be 40cm in diameter. The soil from each test will be passed through 0.25 inch hardware cloth and carefully examined for historic and prehistoric cultural materials. The stratigraphy of each test will be recorded including the soil type and depth of each stratum. Artifacts will be assigned to the soil stratum from which they are retrieved. Notations about the surrounding landscape will also be recorded if the archeologists feel that the field conditions have affected the results of the tests. Photographs characterizing the project area will be recorded. The locations of the tests will be recorded on project maps of appropriate scale.

(5) All prehistoric cultural material observed will be collected. Historic artifacts such as glass, ceramics, food remains, and the like will also be collected. Coal, ash, cinder, and brick will be noted, but only samples of these will be retained. Arrangements for curation of any recovered artifacts will be made with an institution in New York State that meets the federal 36 CFR 79 standards.

(6) Cataloging and accessioning tasks will be completed as specified by the curating institution.

(7) A report detailing the results of the Phase 1B investigations will be prepared and will include a discussion of field methodology, results and will include test excavation records and an artifact inventory. The report shall be completed in accordance with the NYAC Standards and shall be submitted to the Lead Agency for transmittal to other reviewing agencies.

- C. The scope and scale of any Phase 2 work will be determined once the results of Phase 1 are available. If the Phase IA and IB investigations identify cultural resources within the areas of Project alteration, a Phase II investigation will be designed to obtain detailed information on the integrity, limits, structure, function, and cultural/historical context of an archeological site, sufficient to evaluate its potential National Register eligibility. Phase II field methods and procedures will be developed in consultation with OPRHP and conducted by the archaeologist in general accordance with the standards previously cited. The scope of work for the Phase II will be reviewed with NYSDPS and OPRHP prior to implementation. Any Phase II investigation will be designed to obtain detailed information on the integrity, limits, structure, function, and cultural/historical context of an archeological site, sufficient to evaluate its potential National Register eligibility. Phase II field methods and procedures will be developed in consultation with OPRHP and conducted by the archaeologist in general accordance with the standards previously cited. The scope of work for the Phase II will be reviewed with NYSDPS and OPRHP prior to implementation. Any required artifact processing will be performed by the archaeologist in accordance with OPRHP standards. Data will be analyzed for specific stylistic and chronological indicators pertaining to the Northeast region. The type and period of occupation will be described, based on analysis of the artifacts recovered. Analysis of recovered lithic materials may involve microscopic wear analysis, when appropriate.

RESORT SDEIS ATTACHMENT B-6 - ORGANIC GOLF COURSE MANAGEMENT PLAN

The Organic Golf Course Management (OGCM) Plan shall contain the following:

- A. The terms and conditions of the Agreement pertaining to golf course management, including the members and responsibilities of the Organic Golf Course Technical Review Committee.
- B. A discussion of the status of existing definitions or standards for organic golf course management.
- C. OGCM in the planning phase including grass species selection, grading and erosion control plans, a discussion of irrigation water supply, and the identification of types of fertilizers and pest control products that can be considered for possible use on the golf course, watershed best management practices, wildlife and habitat considerations, and golfer outreach and education.
- D. A description of the proper cultural practices that would serve to maximize turf health while at the same time minimizing the suitability of the environment for potential turf pests. Included shall be a discussion of cultural practices such as mowing, fertilization, irrigation, cultivation, topdressing, etc.
- E. The OGCM Plan shall provide specifics pertaining to a proposed pest-scouting program. Included shall be such things as the frequency of pest scouting and the responsibility for pest scouting. Also included shall be specific scouting methods for different weed, insect and fungal turf pests, and a discussion of pest treatment thresholds. Also included shall be a discussion of proper record keeping of pest monitoring with sample monitoring forms provided.
- F. The OGCM plan shall discuss the role of preventative and curative pest controls as they relate to other factors including pest monitoring and thresholds and implementation of cultural practices.
- G. The OGCM plan shall discuss each of the potential diseases, insect pests and weeds that are likely to occur on the proposed golf course. Each pest shall be discussed from the standpoint of monitoring and thresholds, specific cultural practices to control specific pests, and available controls, including biological controls.
- H. The OGCM plan shall discuss the schedule and procedures for regularly updating the plan.
- I. The OGCM shall provide a list of possible pesticides that could be considered for use under a Special Use Exemption after approval by the Organic Golf Course Technical Review Committee followed by approval by the Department.
- J. The OGCM plan shall discuss the procedures that must be followed in the event that after 5 years an application for a revised SPDES permit is submitted for a state-of-the-art Integrated Pest Management system, including the opportunity for public review and comment of the SPDES permit application.

RESORT SDEIS - ATTACHMENT B-7

LIST OF ILLUSTRATIVE MITIGATION MEASURES

FOR CONSIDERATION

The following list includes examples of mitigation measures which may or may not be relevant to the project. This list is for consideration only in identifying potential mitigation measures:

Building Design and Operation Measures

- o Energy efficient building design to reduce cooling/heating requirements
- o Install high-efficiency HVAC systems
- o Construct green roofs
- o Eliminate or reduce use of refrigerants in HVAC systems
- o Use high-albedo roofing materials
- o Maximize interior daylighting
- o Reduce energy demand using peak shaving or load shifting strategies
- o Incorporate window glazing to optimize daylighting, while minimizing heat loss and solar heat gain
- o Incorporate super insulation to minimize heat loss
- o Incorporate motion sensors and lighting and climate control
- o Use efficient, directed exterior lighting
- o Use water conserving fixtures that exceed building code requirements
- o Re-use gray water and/or collect and re-use rainwater
- o Provide for storage and collection of recyclables (including paper, corrugated cardboard, glass, plastic and metals) in building design
- o Re-use building materials and products
- o Use building materials with recycled content
- o Use building materials that are extracted and/or manufactured within the region
- o Use rapidly renewable building materials
- o Use wood that is certified in accordance with the Sustainable Forestry Initiative or the Forestry Stewardship Council's Principles and Criteria
- o Conduct 3rd party building commissioning to ensure energy performance (e.g. LEED)
- o Track energy performance of building and develop strategy to maintain efficiency
- o Provide construction and design guidelines to facilitate sustainable design for build-out by tenants

Efficiency or Mitigation Measures for On-site GHG Sources

- o Use energy efficient boilers, heaters, furnaces, incinerators, or generators
- o Incorporate co-firing of low carbon intensity biomass or use of bio-fuels
- o Collect biogas and use for energy generation
- o Use biodiesel or bioheat for heating fuel or in vehicles/equipment
- o Assess feasibility of incorporation of on-site renewable energy sources into project

- o Incorporate combined heat and power (CHP) technologies

Site Selection and Design Measures

- o Provide access to public transportation
- o Minimize energy use through building orientation
- o Provide permanent protection for open space on the project site
- o Manage forested areas for carbon sequestration
- o Conserve and restore natural areas on-site
- o Minimize building footprint
- o Design project to support alternative transportation (walking and bicycling)
- o Use low impact development for stormwater design
- o Design water efficient landscaping

Transportation Measures

- o Incorporate Transit-Oriented Development (TOD) principles in establishing employee and customer activity patterns
- o Provide new transit service or support extension/expansion of existing transit (buses, trains, shuttles, water transportation), where feasible
- o Purchase alternative fuel and/or fuel efficient vehicles for fleet, including the range of maintenance and operation vehicles used on-site.
- o Incorporate idling reduction policies
- o Support expansion of parking at Park-n-Ride Lots and/or transit stations
- o Develop or support multi-use paths to and through site
- o Size parking capacity to meet, but not exceed, local parking requirements and, where possible, seek reductions in parking supply through special permits or waivers
- o Pursue opportunities to minimize parking supply through shared parking or banked parking
- o Develop a parking management program to minimize parking requirements such as parking cash-out, parking charges, preferential carpool or vanpool parking, limiting parking available to employees
- o Develop and implement a marketing/information program that includes posting and distribution of ride sharing or transit information
- o Provide or subsidize transit options including coach or jitney services
- o Reduce employee trips during peak periods through alternative work schedules, telecommuting and/or flex-time
- o Provide a guaranteed ride home program
- o Roadway improvements to improve traffic flow
- o Traffic signalization and coordination to improve traffic flow and support pedestrian and bicycle safety measures.

PART C

CUMULATIVE IMPACT ANALYSIS

CUMULATIVE IMPACT ANALYSIS FOR:

**BELLEAYRE MOUNTAIN SKI CENTER UMP DEIS AND
BELLEAYRE RESORT AT CATSKILL PARK SUPPLEMENTAL DEIS**

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**SECTION 1.0 ANTICIPATED CUMULATIVE IMPACTS OF
COMBINED DEVELOPMENTS**

This section of the UMP DEIS and the Supplemental DEIS shall analyze the potential combined impacts of the Belleayre Resort at Catskill Park project plus the Belleayre Mountain Ski Center Expansion project. Where analyses identify that potential for significant cumulative impacts exists, suitable design alternatives and management measures to avoid or mitigate the identified impacts shall be proposed, and their probable effectiveness compared.

1.1 STORMWATER MANAGEMENT

Analyze the potential for impacts to receiving waters, from both quality and quantity standpoints, as a result of stormwater generated from both projects. Confirm that the stormwater management design for the Belleayre Resort project takes into

account any changes in land use and cover types that will occur in uphill subcatchments on the Ski Center property. Additionally, the BRCP project should take into account the 19 detached homes and access road located at a higher elevation than the former Highmount ski center, on the proposed ski area expansions. Ensure that the storm water systems in both BMSC and resort are sufficient to protect Rt. 49A from erosive flow in extreme spring runoff or summer storm conditions.

1.2 WATER SUPPLY AND WASTEWATER

Analyze potential impacts to groundwater and surface water resources as a result of the plans for water supply for both projects. This shall include potable water, snowmaking water and golf course irrigation water. This section shall specifically examine potential impacts on Birch Creek under scenario of resort use of the Rosenthal wells plus maximum potential withdrawals for snowmaking.

Analyze the cumulative inter-basin transfer of water that will occur for both projects, considering all possible combinations of alternative supplies for each component.

Analyze the ability of the Pine Hill wastewater treatment plant to accommodate flows from both projects, including characterization of existing infiltration and inflow (I&I) along with alternatives to manage the I&I while accommodating the additional flows. Analyze the potential for the need to use chlorine for treatment at the plant and potential negative impacts to biota in Birch Creek should the need for chlorine treatment arise. Analyze the ability of the Pine Hill wastewater treatment plant to accommodate wastewater flows from residences in Highmount which currently use individual on-site septic systems for wastewater disposal.

Alternatives should address potential secondary demands for water supply and wastewater treatment capacity as well as opportunities to reduce total water supply demand, wastewater generation, or both.

1.3 SURFACE WATER AND GROUNDWATER RESOURCES

In addition to the potential impacts to groundwater and surface water analyzed in Part A and Part B above, analyze potential impacts to surface waters as a result of stream crossings, vegetation removal, impoundments, and any other physical disturbances. A combined water balance analysis shall be performed for both projects together in order to determine if potential impacts to groundwater may occur. If possible impacts are identified, likely triggering mechanisms or events shall be identified, and alternatives or management measures to avoid or mitigate the impacts shall be identified and their effectiveness compared.

1.4 AQUATIC RESOURCES

Potential impacts to surface water and groundwater resources shall be analyzed for their potential impacts to aquatic resources including, but not limited to cold water fisheries, aquatic invertebrates, and any other sensitive aquatic resources. Strategies should be identified to avoid, minimize or mitigate the potential impacts.

1.5 TERRESTRIAL WILDLIFE

Analyze potential impacts to terrestrial wildlife as a result of both projects together. Potential impacts during both the construction phase and the operation phase shall be analyzed. Include net total decrease in forested habitats, and net cover type changes across both projects. Identify design modifications, such as landscaping with native species, which could minimize loss of productive habitat areas.

Identify potential for changes in movement patterns of major species, including the potential for increased interactions of nuisance species or individuals with humans as a result of the combined developments. Identify best management practices that both developments could take to avoid or minimize any nuisance interactions.

1.6 TRANSPORTATION AND TRAFFIC

A. The combined impacts of both projects considered together shall be analyzed. The section should include an analysis of how the availability of new lodging units in the resort might affect current and projected future traffic patterns associated with the ski center expansion.

B. Assess the possibility that increased skier traffic to the mountain may also prompt more development (i.e. restaurants, hotels, gas stations, etc.) along the access routes, which would impact the system as a result of vehicles entering or exiting additional driveways. Based on that estimation, evaluate the need for an Access Management Plan along NYS Route 28.

C. Identify transit or other alternative transportation measures that could reduce the numbers of single-vehicle trips for patrons and employees of both facilities. Assess potential viability of each option and, when possible, identify support or intervention that might improve that viability.

D. Discuss the conceptual possibility of construction of an airport to serve the resort including potential locations and general impacts associated with each.

1.7 VISUAL

- A. The combined potential visual impact of both developments shall be analyzed.
- B. Use digital terrain modeling to identify the potential viewshed areas for the combined development. The areas that are blocked from view by landforms and/or vegetation shall then be plotted to produce zones of visibility maps for the areas proposed to be developed. Viewshed mapping will represent conditions with vegetation and without vegetation.
- C. Determine the zone of visibility based on topography and identify potentially sensitive receptors within a five mile radius of the proposed development
- D. Receptor locations should be specifically chosen to include worst case scenarios, including viewpoints indicating potential project visibility at an aesthetically significant place. Consequently, visibility will be assessed from the prescribed aesthetic state and federal resources listed in the department's policy "Assessing and Mitigating Visual Impacts". Receptor location should also include all locally significant aesthetic resources that have been officially identified in local or regional land use plans. Receptor location should also include public roads (including but not limited to NYS Route 28), hiking trails, public recreation areas and areas of historical significance that have potential views into the project development areas.
- E. Field verify the zone of visibility for the proposed development footprints from all identified receptors including public roads and trails within a five mile radius as well as potential vista views from publicly-accessible viewing points outside of the five mile radius.
- F. Prepare and include the actual zone of visibility map for the project components based upon both leaf on and leaf off investigations.
- G. Prepare visual simulations from receptor locations from which both proposed developments will be visible. The selection of representative views to be simulated shall be based on the relative importance of public viewing points, level of viewer exposure and geographic distribution. The number and location of representative views shall be approved by the Lead Agency upon completion of tasks described above. Paired photographs shall include visualization of all project components including (when visible) structures and site improvements, clearing and grading, and any proposed visual mitigation measures during "leaf off" and "leaf on" conditions.
- H. Prepare photograph-based representative views simulating night lighting for the combined development under both full cloud cover and clear sky conditions over a winter snow-covered landscape. The selection of representative views to be simulated shall be based on the relative importance of public viewing points, level of viewer

exposure and geographic distribution. The number and location of representative views shall be approved by the Lead Agency upon completion of tasks described above.

I. Where analyses identify the potential for significant visual impacts of the combined developments, outline suitable measures to avoid or mitigate those impacts and generally compare effectiveness of the identified measures.

1.8 NOISE

A. Both construction phase noise and operation phase noise from the two projects together shall be analyzed. Construction phase noise assessment should include, among other things, blasting. The operational phase assessment should include, among other things, noise from snowmaking.

B. The combined noise level impacts (construction phase and operational phase) from both the Belleayre UMP and Modified projects will be analyzed using the same CadnaA acoustical prediction software used for each respective noise analysis. Ambient and predicted noise levels from the various “noise source” locations from the Belleayre Mountain Ski Center UMP will be analyzed along with the private sector noise levels. A “cumulative” noise contour map of both project areas showing noise contour lines of the expected sound levels due to both project operations, as well as increases above ambient levels will be provided.

1.9 SOCIOECONOMICS

A. The combined socioeconomic impacts of the two projects together shall be analyzed, including but not limited to potential shifts in:

- employment patterns, including geographic origins and transportation routes;
- usage among and between regional ski areas and related hospitality facilities;
- impacts on housing; and
- implications of any such shifts on ability of affected communities to maintain essential local services.

B. The analysis should pay particular attention to potential impacts such as changes in frequency or complexity of demands on local service providers, including fire, EMS, police and local school districts. Alternatives to avoid or manage any identified changes shall be identified and compared as to likely efficacy as well as capability of local providers to implement each alternative.

C. In addition, the ability of the local labor pool to meet the operational employment requirements of both projects as well as existing facilities shall be analyzed. Should expected aggregate employment needs exceed the local labor pool, alternative labor sources shall be generally identified, and limitations to those alternative labor

sources identified. Means to eliminate or reduce any identified limitations shall also be discussed.

1.10 COMMUNITY CHARACTER

A. The cumulative impacts of both projects together, including visual, noise, traffic, air quality, and socioeconomic impacts shall be analyzed, with an emphasis on describing the overall impacts of these separate elements. Among other attributes, the ability of affected communities to continue to support community social and cultural facilities and programs shall be considered. The extent to which individual mitigation measures will reduce one or more overall impacts shall be discussed.

B. Discuss the impact on future developments in the Catskills in terms of the precedent set by construction of the projects. Particular reference should be made to the visual impact of any proposed developments over 2500 feet; to general availability of water supply and wastewater treatment capacity in nearby hamlets; and to general compatibility of the combined developments with designated hamlet areas surrounding the project area.

C. Discuss potential impacts of the proposed projects on the Forest Preserve. Reference should be made to the existing recreational facilities, character and usage levels of the Catskill State Park and Forest Preserve. Estimate the potential for increased use of Forest Preserve facilities nearest to the combined project area, including the capacity of those Forest Preserve areas to absorb any such additional use.

1.11 AIR QUALITY

Potential air quality impacts as a result of both projects together shall be analyzed. The analysis should at a minimum address:

- fugitive dust during construction;
- increased vehicle trips as a result of both projects;
- increased energy needs for functioning of both projects, including but not limited to structural heating/cooling; snowmaking and grooming; utilities and support (such as pumping potable water or treating wastewater); on-site vehicle use; and general facility power demand (lighting, cooking, etc).

Identify and compare alternatives to avoid, minimize or mitigate some or all identified impacts.

1.12 CLIMATE CHANGE

The potential impacts of both projects shall be analyzed in reference to climate change and GHG emissions. The analysis shall include a quantitative estimate, where

practicable, and a qualitative discussion of how potential climate change will affect both the construction and operational components of both projects, including identification and comparison of alternatives to adapt the proposed facilities to predicted effects of global climate change in mountain areas, including changes in winter seasons, increased frequency of severe rain events, and warmer summers.

Also include a quantitative estimate, where practicable, of both direct and indirect GHG emissions across mobile and stationary sources in both facilities. The analysis should take into account increased vehicle trips as a result of the projects plus increased energy needs for facility functions such as heating, snowmaking, and utilities (i.e. pumping potable water, treating additional wastewater, etc.). Potential measures to avoid, minimize or mitigate some or all GHG emissions shall be qualitatively described and their likely viability and effectiveness described or estimated. These measures shall include but not be limited to provision of transit for employees; transportation alternatives for guests; architectural and operational measures to conserve electricity, fuel and water; and design accommodations to encourage internal walking circulation.

The potential impacts of a loss of forested area shall be analyzed. The analysis must include both a quantitative and qualitative assessment of lost carbon sequestration capacity.