Supplemental Draft Environmental Impact Statement

For the Modified Belleayre Resort at Catskill Park

Towns of Shandaken and Middletown Ulster and Delaware Counties New York

Volume 1 SDEIS

Applicant: Crossroads Ventures, LLC PO Box 466 (6 Galli Curci Road) Highmount, NY 12441

April 2013



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> Applicant: Crossroads Ventures, LLC PO Box 466 Highmount, NY 12441

Lead Agency: New York State Department of Environmental Conservation 21 South Putt Corners Road New Paltz, NY 12561 Contact: Mr. Daniel Whitehead (845) 256-3801

> Involved Agencies: NYSDOH NYSDOT NYSOPRHP NYCDEP Shandaken Planning Board Middletown Planning Board Ulster County Department of Health Ulster County Bridges and Highways

Interested Agencies: Ulster County Planning Board Delaware County Planning Board US Army Corps of Engineers

Prepared By:

The LA Group Landscape Architecture and Engineering, P.C. 40 Long Alley Saratoga Springs, NY 12866 Attn. Mr. Kevin Franke

> C.T. Male Associates, P.C. 50 Century Hill Drive Latham, NY 12110 Attn. Mr. Robert Flores

Love Enterprises and Associates 215 Anguilla Street St. Simons Island Georgia 31522 Attn. Mr. Paul Cowley

Whiteman Osterman & Hanna LLP One Commerce Plaza Albany, NY 12260 Attn. Daniel A. Ruzow, Esq.

Creighton Manning Engineering, P.C. 2 Winners Circle Albany, NY 12205 Attn. Ms. Wendy Holsberger

> AKRF, Inc. 440 Park Avenue South New York, NY 10016 Attn. Mr. John Feingold

HVS Consulting Services 372 Willis Avenue Mineola, NY 11501 Attn. Mr. Stephen Rushmore

> Alpha Geoscience 679 Plank Road Clifton Park, NY 12065 Attn. Mr. Sam Gowan

Birchwood Archeological Services 2948 County Highway 35 Sidney Center, NY 13839 Attn. Ms. Rebecca Moyer Catskill Mountain Surveying Services, PC (formerly Rettew Engineering and Surveying) PO Box 803 Fleischmanns, NY 12430 Attn. Mr. Robert Allison

> O'Brien & Gere 5000 Brittonfield Parkway East Syracuse, NY 13057 Attn. Mr. Scott C. Manchester

Emilio Ambasz & Associates, Inc. 200 West 90th Street New York, NY 10024 Attn. Mr. Emilio Ambasz

Hart Howerton/Robert Lamb-Hart 10 East 40th Street New York, NY 10016 Attn. Mr. Doug Balsley

RPI Lighting Research Center 21 Union Street Troy, NY 12180 Attn. Ms. Jennifer Brons

Date of Acceptance of SDEIS as Complete:

Close of Comment Period of SDEIS:

Address Comments to: New York State Department of Environmental Conservation 21 South Putt Corners Road New Paltz, NY 12561 Contact: Mr. Daniel Whitehead (845) 256-3801

EXECUTIVE SUMMARY

1.0 Introduction

This Supplemental Draft Environmental Impact Statement (SDEIS) has been prepared on a Modified Project proposal for the Belleayre Resort at Catskill Park (the "Project' of "Modified Project"). The New York State Department of Environmental Conservation (NYS DEC), as the lead agency for the SEQRA review of the Belleayre Resort at Catskill Park has required the preparation of this SDEIS in accordance with the SEQRA regulations. The Agreement in Principle (AIP) entered into on September 5, 2007 by the majority of the parties to the NYSDEC permit hearing on applications filed for the Project (see below and Appendix 1) also indicated that an SDEIS would be prepared to address the project changes set forth in the AIP. The SEQRA regulations provide that an SDEIS is "limited to the specific significant adverse environmental impacts not addressed or inadequately addressed in the EIS that arise from: (a) changes proposed for the project." 6 NYCRR Section 617.9(a)(7)(i). The SDEIS is subject to the "full procedures" that apply to any DEIS. 6 NYCRR Section 617.9 (a)(7)(iii).

1.1 Background

The Modified Project assessed in this SDEIS represents the Applicant's preferred alternative that has been shaped by the AIP and the environmental studies undertaken as part of this SDEIS. The goal of the design of the Modified Project is to avoid steep slopes and to consolidate project facilities to avoid and mitigate potential environmental impacts. The Modified Project has incorporated in its design all of the mitigation measures set forth in the AIP and additional measures developed in this SDEIS. The Modified Project design that minimizes or avoids potentially significant adverse environmental impacts previously identified in regard to the original proposed Belleayre Resort project. The Modified Project will continue to provide significant economic and social benefits. This supplement to the Belleayre Resort DEIS which was accepted as complete in December 2003, analyzes the environmental effects of the Modified Project and provides for additional public review and comment as required by SEQRA.

The history of this project is lengthy and dates back to 1999 when the initial SEQRA documentation and permit applications for the Belleayre Resort were submitted to the NYSDEC. Initially, the Towns of Shandaken and Middletown proposed to be co-lead agencies for the SEQRA review of the project because both municipalities had land use approval authority over the Resort. The New York City Department of Environmental Protection (NYC DEP), an agency with jurisdiction over the project due to its stormwater regulations, proposed that it be lead agency. The resulting lead agency dispute was decided by the NYSDEC Commissioner on March 20, 2000 in favor of the NYSDEC being lead agency due to the scope of the necessary NYSDEC permits and approvals for the project, the regional impacts of the project, and the proximity of the Project to the Belleayre Mountain Ski Center (BMSC) operated by NYSDEC.

NYSDEC as lead agency issued a determination of positive significance, requiring that a Draft Environmental Impact Statement (DEIS) be prepared for the Project. The NYSDEC conducted a public scoping of the project giving the public and other involved and interested agencies the opportunity to submit comments orally at a number of public scoping meetings, as well as an extended period of time to submit written comments. The scope was approved by the NYSDEC on November 3, 2000. The preparation of the DEIS, as well as its review by the NYSDEC staff and other involved agencies such as the Towns and NYCDEP, resulted in numerous resubmissions of the DEIS. A determination of completion of the DEIS was issued by NYSDEC on December 10, 2003. The Notice of Legislative hearing, dated December 5, 2003 was issued by NYSDEC and public hearings were held on January 14, January 20, February 3, and February 19, 2004. The written public comment period closed on April 23, 2004.

An issues conference was convened on May 25, 2004 before Administrative Law Judge Richard Wissler and it was continued on seventeen subsequent days concluding on August 26, 2004. The parties to the hearing included the applicant; NYSDEC staff; NYCDEP staff; the Catskill Preservation Coalition (comprised of the Catskill Center for Conservation and Development, Riverkeeper, Inc., Natural Resources Defense Council, Inc., Trout Unlimited, Friends of Catskill Park, Zen Environmental Studies Institute, Pine Hill Water District Coalition, Catskill Heritage Alliance, Theodore Gordon Flyfishers and N.Y.P.I.R.G.) and the Sierra Club; the Coalition of Watershed Towns, Delaware County and the Towns of Middletown and Shandaken. The Town of Shandaken Town Planning Board filed a petition for party status but did not participate in the issues conference. The Watershed Inspector General was granted Amicus Status. The transcript of the issues conference proceedings and the exhibits were extensive. After the close of the issues conference various motions were made to reopen the proceedings to add additional information. Briefs and reply briefs were submitted by the participants.

The Administrative Law Judge (ALJ) issued his ruling on party status and issues to be adjudicated on September 7, 2005. The ALJ's ruling was thereafter appealed to the Commissioner of the NYSDEC and the Commissioner's Interim Decision of December 29, 2006 found that the following issues met the "substantive and significant" standard set forth in 6 NYCRR 624.4(c) and should be adjudicated:

- 1.) Whether the water supply permit application for Big Indian Plateau satisfies the regulatory requirements for a such a permit;
- 2.) Whether at the pumping rates proposed in the draft water supply permit for Big Indian Plateau the risk exists that dewatering would occur to the detriment of aquatic habitats;
- 3.) Storm water issues related to (a) the adequacy of the HydroCAD model and its assumed inputs and design points, (b)the adequacy of the Big Indian SWPPP and the design of its various storm water management controls, (c) the identification of the storm water flow paths on the project site, (d) the level of pre- and post-development storm water flows, and (e) the basis for the waiver of the requirement to have no more than five-acres exposed during construction at any one time;
- 4.) A study of operational noise impacts on users of Wilderness and Wild Forest areas of the Catskill Forest Preserve arising from onsite activities at Big Indian Plateau;

- 5.) Visual impacts caused by Big Indian Plateau in wintertime conditions and the extent to which the area in the vicinity of Big Indian Plateau would be impacted by visible lights and "night glow", particularly from higher elevations and during winter months; and
- 6.) A supplemental evaluation of a reasonable range of alternative project designs/layouts with sufficient information to undertake a comparative environmental assessment of such alternatives. See the NYSDEC website for a copy of the NYSDEC Commissioner's Interim Decision at www.dec.dec.ny.gov/hearings/26553.html.

While a small number of the issues for adjudication related to both Big Indian Plateau and Wildacres elements of the Belleayre Resort, the majority of the issues related only to the Big Indian Plateau portion of the project.

The hearing parties received encouragement to meet and attempt to narrow the issues for adjudication and potentially agree upon an alternative project design that would address the issues identified for adjudication. In the spirit of cooperation and through the mediation efforts of the Governor's office over a period of several months, the Project Sponsor, the NYCDEP, the State of New York, the Watershed Inspector General and all of the groups that had requested and been awarded party status participated in the development of the revised project design contained in the AIP. Ultimately, all but four of the intervening parties executed the AIP and endorsed this modified project design concept with the understanding that the Modified Project would be the subject of a SDEIS. The Modified Project cannot be approved by any involved agency until a SFEIS has been completed and a Statement of Findings issued.

Most importantly the AIP's revised project design eliminated the Big Indian Plateau portion of the Project which was the primary source of environmental concern. The AIP provided for the acquisition of the property on which Big Indian Plateau was to have been built by New York State. The State of New York completed its acquisition at the end of 2011.

To preserve the economic viability of the overall project, 240 out of 333 (72%) of the lodging units and related amenities that were to have been built on the Big Indian Plateau were reassigned to the western portion of the project, and some units there were eliminated altogether. Moreover, the AIP also provided for an evaluation of the ways in which the redesigned project could further enhance tourism and economic development in the region and further improve the likelihood of success of the redesigned project. The AIP also acknowledged the need for the preparation of a SDEIS on the revised project. The AIP also discussed potential improvements to the BMSC by NYSDEC. These improvements are being addressed in a unit management plan (UMP) amendment and EIS, and the cumulative impacts of any such improvements to the BMSC and of this project are being considered in Part C of the SDEIS. NYSDEC, as lead agency, has approved the scope for this SDEIS.

1.2 Modified Project Site Location

The Modified Belleavre Resort at Catskill Park project (the Modified Project or the Project) is located in the Central Catskill region of New York State near the intersection of the boundaries of Delaware County, Ulster County and Greene County. The site is located approximately 35 miles west of the City of Kingston, accessed from Exit 19 of the New York State Thruway.

The project site includes lands in the Town of Shandaken in Ulster County and lands in the Town of Middletown in Delaware County, which are located west of the adjacent BMSC. The 739 acres that comprise the Modified Project site are located on either side of Ulster County Route 49A just south and west of the hamlet of Highmount.

1.3 Modified Project General Description

The Project contains a mix of resort land uses that include recreational, lodging, lodging-related commercial, spa, and areas to remain undeveloped. The project also includes the Adelstein property which is subject to a NYCDEP conservation easement.

Wildacres Resort (Wildacres) is located on approximately 254 acres on the eastern side of the Project site with access from County Route 49A south of the Alpine Osteria and near the upper driveway to BMSC as well as access from Gunnison/Kraft Road. The old Wildacres Motel and the former Marlowe Mansion are currently located on this part of the site. Most of the Wildacres site is currently wooded with second and third growth trees, and there is evidence of past agricultural use of the property in many locations. Development proposed for Wildacres includes a hotel building with 250 units and ancillary hotel uses (dining, spa and limited hotel-related commercial), 163 lodging units in multi-unit buildings operated by but detached from the hotel, and an 18-hole golf course. The existing buildings at the base of the former Highmount Ski Area will be adaptively reused as the Resort's Wilderness Activity Center.

Highmount Spa Resort (Highmount) is located on a portion of the approximately 237 acres that includes the old Highmount Ski Area and additional land to the west of the ski area. Development is proposed to the west of the old ski area with access proposed off County Route 49A. The land proposed for development was previously used for agriculture (the old Leach farm), and much of this portion of the project site is also currently wooded. Development proposed for Highmount includes a 120 unit hotel with spa facilities. Also located in the hotel/spa building are 53 fractional ownership units previously proposed as detached lodging units under the AIP. A multi-level lodge building is proposed near the hotel/spa and will contain 27 fractional ownership units also previously proposed.¹ A portion of Highmount, approximately 105 acres, may be leased or sold to New York and could be used to locate public ski lifts and trails.

The Scoping Document for this SDEIS includes the requirement that it shall address possible alternative layouts for the Highmount Spa resort, in particular the relocation of the uppermost units and the road leading up to these units. The evaluation of the alternative plan that relocates the upper 24 detached units at Highmount was included in the April 2011 SDEIS submitted to the Lead Agency for review and comment. As a result of this evaluation, the Applicant

¹ The AIP allowed for 120 hotel rooms and 120 detached units at Highmount. In order to further cluster the development on the site and to develop vertically rather than horizontally, two important goals achieved in the AIP, 80 of the 120 AIP-allowed Highmount detached units were placed inside larger buildings, 53 were placed into the Hotel building and 27 were placed into the Lodge building, and 24 were relocated to Wildacres as third-story units in already proposed buildings.

determined that this alternative plan that eliminates the upper portion of the access road and removed the upper 24 units from the top of Highmount and placed them as third-floor units at detached lodging units already proposed at Wildacres was its preferred alternative. This preferred alternative is the proposed action, or the Modified Project that is the subject of this SDEIS.

The part of the Modified Project site furthest to the west, known as the Adelstein parcel, is approximately 203 acres in size and in accordance with the AIP is under a Conservation Easement to the City of New York. The Conservation Easement allows for passive recreational uses associated with Highmount and Wildacres, such as cross country skiing, snowshoe trails, hiking, horse riding, and accessory structures, and/or an outdoor amphitheater, but provides that there will be no residential, overnight lodging, or industrial uses.

The Modified Project will have its own central water supply system and the source of potable water will be wells ("K" and "Q") that are located in the valley along NY Route 28 further west of the project site. The K-well property is located off Todd Mountain Road and the Q-well or Quarry parcel is located off Moran Road.

The Modified Project will have its own central wastewater collection system and wastewater is proposed to be sent to the NYCDEP Pine Hill Wastewater Treatment Plant (Pine Hill WWTP).

See Section 2 of the Executive Summary below for a more detailed description of the Modified Project.

1.4 Comparison of the Modified Project with the Previously Proposed DEIS Project

The original project evaluated in the DEIS was described in the AIP as "one economically integrated resort, impacting two non-contiguous assemblages of parcels, Big Indian Plateau and Wildacres, situated on approximately 1,960 acres of land owned by Crossroads. The project, as revised in the AIP, was described as

"a new, lower impact, alternative which minimizes or avoids the potential for significant adverse environmental impacts identified by several of the Parties and others during the public comment period and Issues Conference, and which the State has determined will provide significant economic benefits to the Central Catskills region." (See AIP at pages 2-3.) The Modified Project that is evaluated in this SDEIS reduces even further potential environmental effects than the project concept that was the subject of the AIP which provided for units at the top of Highmount and a roadway to the units.

The following table provides comparative statistics for the DEIS project and the Modified Project evaluated in this SDEIS.

Project Component	DEIS Project	SDEIS Braisat	Difforence	Difference
Project Component	Project	Project	Difference	(70)
total project site size (ac.)	1,960	739	-1,221	-62%
acreage to be developed	573	218	-355	-62%
acreage added to Forest Preserve	0	1,189	1,189	N/A
conservation easement lands (ac.)	0	203	203	N/A
number of lodging structures	121	34	-87	-72%
hotel lodging units (#)	400	370	-30	-8%
single family home lots	21	0	-21	-100%
overall density (units and rooms/acre)	0.38	0.85	0.47	124%
total length of roads (mi.)	8.2	1.5	-6.7	-82%
length of roads on >20% (mi.)	5.1	0.1	-5.0	-98%
impervious surfaces (ac.)	85	21	-64	-67%
golf courses	2	1	-1	-50%

Table ES-1 Comparison of DEIS and Modified Projects

- The size of the project, in terms of its total size as well as the area to be developed, has been reduced by over 60%.
- The size of the project, in terms of its number of lodging structures, has been reduced by over 70%.
- The size of the project, in terms of its total number of lodging units, has been reduced by 143 units or 19%.
- The size of the project in terms of its single family homes has been reduced by 100%.
- The length of proposed roads and the total amount of proposed impervious surfaces have been reduced by 82% and 67%, respectively.
- Roads on lands with slopes greater than 20% have essentially been eliminated..
- Nearly 1,200 acres of land formerly proposed for development are now in State ownership to become New York State Forest Preserve lands.

• 203 acres of land (the Adelstein parcel) have been placed in a Conservation Easement held by the City of New York.

In addition to the positive aspects of the proposed Modified Project as compared to the DEIS Project quantified above, the following qualitative improvements are also accomplished by the proposed Modified Project.

- With the exception of a very small portion of the Wildacres site (+/- 12 acres), stormwater discharges to the sensitive Ashokan Reservoir and Watershed Basin have been eliminated.
- Detached lodging units proposed to be built only on slopes less than or equal to 20% will provide significant stormwater management benefits for this project. "This commitment by Crossroads is an enhancement beyond current NYSDEC and NYCDEP regulatory standards for steep slope construction" (AIP).
- Impacts to views from the Wilderness Area lands in the Forest Preserve have been eliminated.
- Two previously proposed private wastewater treatment plants have been eliminated, and treatment is now consolidated at NYCDEP's Pine Hill WWTP.
- Revised plans for water supply for the Project no longer include the Rosenthal wells eliminating potential impacts to Birch Creek.
- The Big Indian Golf Course has been eliminated and the remaining Highmount Golf Club Golf Course was reconfigured to minimize and avoid wetland and stream impacts. Moreover, it will be managed in accordance with an Organic Golf Course Management Plan developed in concert with representatives of the environmental parties to the AIP.
- The Wildacres Resort, Highmount Spa Resort and detached lodging units will be designed and constructed with green building design elements set forth by the United States Green Buildings Council. Crossroads is committed to obtaining Silver or higher rating under the Leadership in Energy and Environmental Design ("LEED") program, for the Wildacres Hotel, Highmount Hotel and Highmount Lodge building.
- The design of the stormwater facilities at the Wildacres Resort maximizes the use of stormwater runoff for irrigation of the golf course,
- Performance bonds or some other form of security will be posted to ensure that construction stormwater and sediment and erosion control are carried out in conformance with NYSDEC and NYCDEP permits.

1.5 Modified Project Need and Benefits

For almost fifty years, the economic decline of the Central Catskills and the potential for a revitalized tourist economy has been subject of studies by a variety of consultants and commissions. Crossroads Ventures, LLC was formed to address the recommendations these studies have made, and believes that the Modified Belleayre Resort Project is the ideal fulfillment of the needs identified by these studies.

Section 1.3.2 of the original DEIS previously established the BMSC as the primary economic engine of the Catskill High Peaks area at the nexus of the three major Catskill counties: Ulster, Greene and Delaware.

BMSC is the major attraction, the key destination, the focus of activity for outsiders and the major generator of information for the world outside the region. When its annual visitation is down – as it was for the middle years of the 1990's – all of the region's businesses suffer. When annual visitation is up, as it was between 2010 and 2011, virtually all local businesses benefit. Improvements to the BMSC are discussed in the updated UMP/DEIS (Part A).In the opinion of the Project sponsor and its economic advisors, the economic success of the Modified Project depends, among other things, on the continued operation and improvement of the BMSC. Any cumulative effects of the amendment to the BMSC UMP and the Modified Project are addressed in Part C.

The overwhelming majority of the BMSC's current visitors drive to and from the area in a single day. In order for the BMSC to have the most beneficial effect on the local economy, a major portion of these day-trips need to be converted into overnight stays. Only then will the local shops, restaurants, and lodging facilities see a significant economic improvement. One of the primary barriers to this transition is the number and character of available hotel rooms. Of the limited available rooms in the region many of them are quite fine, but many more offer only very basic and outdated accommodations. If BMSC is to achieve its potential, it needs a major increase in the number and quality of hotel rooms on the order of 500 additional hotel rooms.

With this need in mind Crossroads Ventures also recognizes that Resort areas – whether based on skiing or other activities – require a rounded menu of high-end and moderately priced rooms, together with an exciting array of shopping, *après-ski* and other entertainments and these for a variety of family age-groups. The Belleayre Resort at Catskill Park has been conceived and planned to serve as a major contributor to the ambient circumstances which will enable BMSC – and the region – to reach its full potential. As proposed it will become an unrivaled upscale, four-season resort directly serving the New York metropolitan area. With ski-in, ski-out privileges, $\pm 15,000$ -square-foot conference facilities, 18 holes of championship golf, and two separate full-service spa operations, the resort features a full array of year-round demand generators. For example, the conference facilities alone address a core need of the region for space with attached lodging where one can hold conferences, weddings, proms, banquets and the like. This feature in turn would generate an increase in the need for local florists, photographers, entertainers and other ancillary services. In addition, the projected annual expenditures of \$12.8 million by resort guest and employees outside the resort would provide a major stimulus to the local economy as well as support local and regional cultural events.

Recently, both Delaware County and Ulster County recognized the need for the modified project and its importance for economic development in the region. In April of 2010 both the Ulster County Legislature and the Delaware Board of Supervisors passed resolutions supporting the construction of the project.

Both Counties expressed their commitment to and strong support for economic development and the tourism industry. Over the past 10 years Ulster County alone has spent almost \$10 million to improve economic development with over two-thirds of that total spent on efforts to improve and encourage tourism.

Both Counties reported declining economic conditions including recent job losses, reductions in household income, and flat or decreasing tax revenues. The job creation, wages and tax revenues to be generated by the project were cited to in both Counties' resolution of support.

In the summer of 2000, a Business Community Survey was conducted, and the results of this study were discussed in Section 7 and Appendix 26 of the DEIS. Of the 153 survey returns, 17 demanded anonymity, while 136 or nearly 89% were comfortable revealing who they were. As of February 09, 2011, of the 136 businesses who participated in the survey and identified themselves by name, 44 businesses, or nearly 1/3, have since closed and have not been replaced by a similar or another business. Of the 44 closed, the breakdown is as follows: 9 restaurants; 3 hotels; 4 automotive; 1 amusement/recreation; 1 real estate agency; 6 building construction/materials; 13 miscellaneous retail; and 7 personal services.

The proposed project will provide significant employment opportunities.

During the construction phase the project will generate an estimated total of 2,176 person years of direct employment and an additional 1,812 person years of indirect employment. The construction phase will produce direct wages and salaries of \$112.7 million and indirect wages and salaries of \$191.34 million.

The operation phase of the project at full buildout will generate approximately 541 full-time jobs and 230 seasonal and part-time positions, or a total of 771 jobs, with an annual payroll of \$24.85 million. The operation phase of the project at full buildout will also produce 264 indirect off-site jobs in the region with indirect wages and salaries of \$12.96 million.

During the operational phase when the proposed project is in full operations, the Resort would provide annual sales tax revenues to Ulster County and New York State. On an annual basis, these taxes are estimated to include \$2.69 million in sales taxes for Ulster County, and \$2.69 million to New York State.²

² The 2003 Draft Environmental Impact Statement (DEIS) estimated sales tax revenues generated by a hotel use that would be located within Delaware County. The revised program being advanced in this SDEIS does not include uses that would generate sales tax revenues within Delaware County.

Upon full development of the proposed project, the taxable assessed value is estimated to be nearly \$60 million. By 2031, when all construction is completed, and when all business investment tax exemptions have expired, there will be an estimated annual property tax revenue increase of \$3.49 million in Shandaken and Ulster County. These future property tax amounts are estimated to be allocated as follows:

Ulster County General	\$	715,205
Shandaken Town General	\$	395,111
Shandaken Highway	\$	374,378
Highmount Fire	\$	167,154
Pine Hill Fire	\$	11,871
Pine Hill Light	\$	4,841
Pine Hill Water	\$	5,412
Onteora Library	\$	323
Onteora Central School	\$	419,306
Margaretville School	\$1	,400,446

At that point in the future, there would also be an annual property tax revenue increase of an estimated \$324,649 in Middletown and Delaware County allocated as follows:

Delaware County General	\$ 114,621
Middletown Town	\$ 51,182
Highway Outside Village	\$ 31,843
General Outside Village	\$ 2,119
Middletown FD #1	\$ 7,878
Margaretville School	\$ 117,006

In addition to the employment and tax benefits provided by the project, it is projected that at full buildout annual off-site Resort patron spending of \$10.64 million will occur, and that this will occur mostly in businesses located in local village and hamlet centers. These visitor-generated expenditures would result in additional sales tax generation accruing to the Counties and State.

2.0 **Proposed Actions**

The following is a summary description of the major components of the Modified Project. Section 2 of the SDEIS contains the project description.

2.1 Modified Project Design and Layout

Project master plan drawings are included in the Site Plans that are part of this SDEIS.

Overall

The project consists of two development areas; Wildacres Resort (Wildacres) and Highmount Spa Resort (Highmount). Wildacres is planned to be a 3.5-4 star, 4-season resort with a focus on outdoor recreation such as golf, skiing, tennis, swimming and hiking. The Wildacres Hotel is proposed across from the upper entrance to the Ski Center and the proposed new Belleayre West lift. Highmount is planned to be a 5-star, 4-season resort focused on spa and wellness center facilities and providing ski-in/ski-out access to BMSC trails. The western portion of the project site, known as the Adelstein parcel, has been put under a Conservation Easement granted to the City of New York.

The following table, "Project Development Summary", provides a general description of the different areas of the project site and the development proposed for the different areas.

PROJECT AREA	Hotel/ units	Detached Units	Other Improvements	Golf or Ski
Wildacres				
NE Corner, Front 9 Village	0/0	94	Clubhouse, Pool, Tennis (2)	6 Holes
North of Gunnison	0/0	0	Golf Maintenance	2 Holes
Main Parcel	1/250	69	Golf Clubhouse with Hotel, Parking Garage,	10 Holes,
			Marlowe Clubhouse, Tennis (2)	Lift nearby
Wilderness Activity Center	0/0	0	Wilderness Activity Center in Existing Buildings	Lift Nearby
Highmount				
Main Parcel	1/120	96*		3 Trails,
				Lift
North of CR 49A	0/0	0	None	None
West of CR 49A	0/0	0	Conference/Additional Space	None
Adelstein Cons. Easement.	0/0	0	None	None

Table ES-2 Project Development Summary

* 80 of the 120 detached units at Highmount allowed under the AIP are fractional units that are housed within the multi-level hotel/spa and lodge buildings. Only 16 units are truly detached, duplex units.

Highmount Spa Resort

The following are the development components proposed at Highmount.

- 1. Main Hotel/Spa Building located in the northwest portion of the parcel this building has a footprint of 299,117 square feet and has 6 horseshoe-shaped levels intersecting with the upward slope of the ground topography.
 - a. 120 hotel rooms
 - b. 53 fractional lodging units within the building (formerly East and West Lodge in the AIP)
 - c. Café and sundry shop

- d. 125-seat restaurant
- e. 50-seat lounge
- f. Spa-30 treatment rooms, lap pool, cafe
- g. Fitness facilities
- h. Executive conference center with 3 conference rooms, one board room and one large meeting room
- 2. Adjacent Lodge Building located to the southwest of the hotel/spa building and across the entrance driveway this building has a footprint of 51,887 square feet and has 4 levels.
 - a. 27 fractional lodging units within one building (formerly individual detached units in the AIP)
 - b. 1 common room for owners (card room, library or the like)
 - c. Detached Lodging Units The Agreement in Principle allows for up to 120 detached lodging units. Eighty (80) of these are no longer detached, but instead are now proposed as fractional units located within the hotel/spa and lodge buildings, and there are now only 16 detached units located below the hotel/spa in 8 duplexes (2,500 sf). The remaining 24 detached lodging units allowed at Highmount under the AIP have been relocated to the Wildacres Resort as part of the Modified Project which represents the Applicant's preferred layout.
- 3. 12,000 square feet Auxiliary Conference/Clubhouse functions west of County Route 49A. This will be an adaptive reuse of the Leach Farm buildings within an overall footprint of approximately 7,300 square feet.
- 4. Skiing
 - a. Lift from hotel/spa building to the top of old Highmount
 - b. Trails two down from the top of old Highmount, and one from the hotel/spa down to the bottom of old Highmount.
- 5. Driveway access off of County Route 49A to hotel/spa, lodge and detached units 1,580 feet (0.3 miles) long.
- 6. Parking
 - a. 310 covered spaces within hotel/spa building
 - b. 31 covered spaces within the Lodge building
 - c. 1-car garage and 1 surface parking space per unit at each detached duplex unit (total spaces = 32)

Wildacres Resort

The following are the development components proposed at Wildacres.

- 1. 250 unit hotel with a footprint of 4.0 acres and has 8 levels that step down the hillside across County Route 49A from the upper Ski Center entrance. See subsection D for building information.
 - a. Resort-related shops up to a total of 13,000 square feet

- b. Two restaurants one with 150 seats and one with 300 seats
- c. 100-seat beverage lounge
- d. Indoor Pool
- e. Two Tennis Courts
- f. Full Service Spa with 15 treatment rooms and a grotto pool
- g. Fitness Center
- h. Conference Center with 500-seat ballroom/auditorium
- i. 200-seat ballroom
- j. Eight meeting rooms
- 2. Existing Marlowe Mansion to be adaptively reused as a social club for detached lodging unit guests, and resort operational offices.
 - a. Library
 - b. Meeting Rooms
 - c. Game Rooms
 - d. Reception, sales and operations office space
- 3. Highmount Golf Club located on two areas north of Gunnison Road and on the main parcel south of Gunnison Road.
 - a. 18-hole championship organic managed golf course
 - b. Practice range and practice green
 - c. Clubhouse connected to the Hotel (footprint size included with hotel size provided above)
 - (1) 40-seat snack bar
 - (2) Pro shop
 - (3) Cart storage
 - (4) Locker rooms with steam and sauna
 - d. Maintenance Facility
 - (1) +/-1,500 sf offices, restrooms, lockers, break room
 - (2) +/- 4,800 sf maintenance area garage bays, mechanic space, storage, etc.
 - (3) +/- 1,000 sf organic fertilizer and pesticide storage area
 - (4) covered wash down, rinse/recovery area
 - (5) $2 \pm 1,000$ gallons above ground fuel storage tanks
 - e. Two on-course restroom buildings
- 4. 163 detached lodging units (2 and 3-bedrooms) in multiple-unit buildings clustered in the northeast portion of the site and near the hotel. In the northeast corner of Wildacres is the area known as the Front-9 Village that has a total of 94 units contained in 11 buildings. Ten (10) of these 11 buildings contain a third floor unit that was added in after the units were removed from the upper part of Highmount. Around the Wildacres Hotel are the other 69 detached units at Wildacres. Collectively these consist of 7 buildings and are referred to as the West Village. Each of the 7 buildings in the West Village contains two third-floor units. Originally these units were proposed for the upper portion of Highmount; this is no longer the preferred alternative. One of the units in the building closest to the driving range will be for non-residential, Resort-operations use.

- 5. Clubhouse and recreation amenities for detached lodging unit occupants in the Front-9 Village. Footprint is 4,720 square feet.
 - a. 40-seat snack bar
 - b. Outdoor swimming pool
 - c. Health club
 - d. Game rooms
 - e. Reception, sales and operations office
 - f. Two tennis courts
- 6. Wilderness Activity Center adaptive re-use of former Highmount Ski Area buildings along County Route 49A.
 - a. Existing main lodge building of Highmount Ski Area
 - (1) Café with lounge and library
 - (2) Locker rooms and weight training room
 - (3) Jacuzzi, sauna and steam room
 - b. 20-feet addition to existing main lodge
 - (1) inside rock climbing wall
 - (2) outdoor rock/ice climbing wall
 - (3) enlarged outdoor deck
 - c. Existing ski rental shop outdoor products sales and rental shop
 - d. Staff to include guides to direct Resort guests to other off-site recreational uses including hiking, fishing, mountain biking, etc.
 - e. Shuttle access for Resort guests (Wildacres and Highmount)
- 7. Roads (all roads are internal and will be privately maintained)
 - a. Access connecting County Route 49A and Gunnison Road 4,511 feet
 - b. Connector to detached lodging units near 16th Fairway 1,029 feet
 - c. Front 9 Village Access off County Route 49A 1,889 feet
- 8. Driveways
 - a. Hotel driveway off of County Route 49A across from upper entrance to Ski Center
 - b. Connection between hotel and parking garage
 - c. Golf maintenance access off of Gunnison Road
 - d. Wilderness Activity Center shuttle access off County Route 49A
 - e. Driveways to detached lodging units.
- 9. Parking
 - a. Under hotel-250 covered spaces
 - b. Parking garage 208 covered spaces
 - c. Golf clubhouse 72 surface spaces
 - d. Golf maintenance-18 surface spaces
 - e. Front-9 Village-45 surface spaces

2.2 Modified Project Land Disturbance and Impervious Surfaces

Measurements of the grading plans for Modified Project show that over 70% of the project site will remain undisturbed as per the statistics below.

```
Entire Site
    Total = 739 ac.
    Disturbed = 218 (29\%)
    Undisturbed = 521(71\%)
Wildacres
    Total = 254 ac.
    Disturbed = 175 \text{ ac.} (69\%)
    Undisturbed = 79 \text{ ac.} (31\%)
Highmount
    Total = 237 ac.
    Disturbed = 42 \text{ ac.} (18\%)
    Undisturbed = 195 \text{ ac} (82\%)
Adelstein
    Total = 203 ac.
    Disturbed = 0(0\%)
    Undisturbed = 203 \text{ ac.} (100\%)
K-Well
    Total = 35 ac
    Disturbed = <1 ac. (3%)
    Undisturbed = 34 + ac. (97\%)
Q-Well
    Total = 10
    Disturbed = <0.1 ac. (1%)
    Undisturbed = 10(99\%)
```

The amount of impervious area in the Modified Project puts the Project in the categories of the least impervious percentages as per the criteria for stormwater management design in New York State. Project-wide, proposed impervious surfaces are less than 3%.

A total of 18 acres of impervious surfaces is proposed at Wildacres. The percentage of proposed impervious area at Wildacres is 7.3%, which, according to Table 4.2 of the New York State Stormwater Management Design Manual, falls somewhere between the impervious cover for agricultural lands and open urban land (i.e. park land, recreation areas and cemeteries). Approximately 30% of the impervious area at Wildacres is associated with the hotel and parking garage.

A total of 3 acres of impervious surfaces is proposed at Highmount, with nearly all impervious coming from the detached units and roadways. The green roofs proposed for the hotel and lodge buildings at Highmount, as well as the provision of underground parking significantly reduces

impervious surfaces at Highmount. The 1.2% impervious cover at Highmount is less than the 2% mean impervious cover listed for agriculture in the Stormwater Management Design Manual.

2.3 Modified Project Phasing

The site plan drawings that are part of this SDEIS include a phasing plan for the Modified Project. It is estimated that project buildout will take approximately 9 years. The overall phasing plan for Modified Project is as follows.

Phase 1

- Wildacres hotel
- Highmount Golf Club³
- One detached West Village 10-unit "model" building.
- Highmount Spa Hotel
- Highmount ski lift and ski trails

Phase 2

- Wildacres Front-9 Village Amenities and 94 detached units
- Wildacres remaining 59 West Village detached lodging units
- The Lodge building at Highmount
- Wilderness Activities Center at old Highmount Ski Center buildings

Phase 3

- 16 Highmount detached units.
- Conference/clubhouse facilities at the Leach Farm

2.4 Modified Project Water Supply

Pumping tests on new wells were performed in 2007 and 2008 as part of developing a potable water supply for the Modified Project. The impetus for installing and testing the new wells was to avoid the use of the Rosenthal wells, which are located in the Birch Creek valley in Pine Hill. Concerns had been raised regarding the use of the Rosenthal wells and the potential effect on the flow in Birch Creek. The preference of the environmental parties, which were signatories to the AIP, was to prioritize the use of other potable water sources rather than the Rosenthal wells. In keeping with this preference, the new wells are located outside of the Birch Creek drainage system and near the Village of Fleischmanns (the Village). The pumping and water quality tests demonstrate that these wells will provide sufficient potable water for the resort without the use of the Rosenthal wells and without adversely affecting the Village of Fleischmanns' water supply.

 $^{^{3}}$ For the purposes of construction sequencing and stormwater permitting, including stormwater pollution prevention plans, construction of Highmount Golf Club is broken up into Phase 1(A) and Phase 1(B). Phase 1(A) includes holes 3-8, 10, 18 and the practice range, and Phase 1(B) includes the remainder of the golf course.

2.5 Modified Project Wastewater Collection and Treatment

As per the AIP, wastewater from the Modified Project is proposed to be collected and conveyed to the Pine Hill WWTP for treatment. The wastewater at Highmount is proposed to be collected and pumped to Wildacres. The combined flow is proposed to be collected at Wildacres and pumped to the Pine Hill sewer system. After flowing by gravity through the Pine Hill sewer system, the wastewater is proposed to be treated at the Pine Hill WWTP that is owned and operated by NYCDEP. The WWTP discharges all its treated wastewater to Birch Creek pursuant to an existing SPDES permit.

The proposed project could more than double the average day flow (130,000 gpd to 290,000 gpd), however this higher flow rate would only be 58% of the design and permitted capacity of the WWTP. Since the Pine Hill WWTP has sufficient treatment capacity and the loadings from the Resort are similar to conventional residential wastewater, the proposed project will not adversely affect the treatment capacity of the WWTP, nor its ability to meet its SPDES discharge permit. The Project Sponsor and its wastewater engineers do not believe that the existing SPDES permit held by NYCDEP will require any amendments to accept the effluent from the Resort. The SDEIS evaluates the proposed use of the Pine Hill WWTP for the Resort wastewater.

The Pine Hill WWTP currently experiences high flows during wet weather events due to inflow and infiltration issues with the existing Pine Hill sewer system. To assist the WWTP in dealing with the high flows, Crossroads has proposed to pay for its fair share amount of a flow equalization tank at the WWTP. In recent discussions between the Applicant and NYCDEP, NYCDEP expressed a preference for locating a storage tank on the project site instead of at the Pine Hill WWTP. In accordance with NYCDEP's preference, the design for the project wastewater infrastructure was adjusted to include a storage tank on the project site that will be built by the Applicant and operated and maintained by NYCDEP. The tank will be sized to meet the Modified Project needs only.

2.6 Modified Project Golf Course Management

The golf course at Wildacres is very similar to that proposed in the DEIS however, important changes to the design were made to avoid and minimize potential impacts on adjacent wetlands and streams. One significant change is that as agreed upon in the AIP, the golf course will be managed as an organic golf course. This represents a major departure for typical golf course facilities in New York State. Although the integrated pest management plan proposed in the DEIS will continue to be relevant in the event that issues arise with respect to organic management, the Project Sponsor fully intends that the golf course will be a model facility in terms of its management as an organic course and its quality of play. The quality of the golf course is of paramount importance to enable the Modified Belleayre Resort to achieve its goal of bringing tourism and recreational amenities to the region in spring, summer and fall months.

3.0 Environmental Setting, Potential Impacts and Proposed Mitigation Measures

See Section 3 of the SDEIS for more detailed information.

3.1 Surface Waters

The project site is within the Delaware Watershed draining to the East Branch Delaware River and the Pepacton Reservoir. The Delaware Watershed consists of $648,320\pm$ acres. The 739 acre total project site represents 0.1% of the Delaware Watershed, while the 234.5 acres to be developed represents 0.04% of the Delaware Watershed. The project site is located approximately 14 miles upstream of the Pepacton Reservoir.

There are three mapped streams on the project site that are part of the Delaware Watershed. Todd Mountain Brook (WIN D-70-80-10) originates on the Adelstein parcel and flows north, parallel to Todd Mountain Road, before entering the Bush Kill south of NY Route 28 in the Village of Fleischmanns. An unnamed tributary to Emory Brook (WIN D-70-80-12-2) originates on State lands east of the former Highmount Ski Area, flows north through the Wildacres Resort and eventually enters Emory Brook in Thompson Hollow, north of NY Route 28. The last mapped stream on the Crossroads assemblage is another intermittent tributary of Emory Brook (WIN D-70-80-12-3) that originates south of Gunnison Road, flows north onto and through the Crossroads assemblage and then under NY Route 28 and into Emory Brook. To the east of the existing Wildacres Hotel (Marlowe Mansion) there is a drainage that originates in a seepy area to the south. In the vicinity of the existing Hotel driveway seasonal or storm flow becomes channelized, then passes under the driveway and continues north and down the slope.

It was determined that the following components of the project would not impact surface water resources: potable water use; wastewater collection, treatment and discharge, organic golf course management; irrigation water use; and utility installations. No streams will be impounded. No culverted stream crossings are proposed. Stream golf cart path crossings will be on bridges elevated over the streams.

Extensive and detailed sediment and erosion control measures have been developed for the project and these have been incorporated into the plans that accompany the SDEIS and the Stormwater Pollution Prevention Plan developed for project construction. Measures include a detailed phasing and sequencing plan that dictates the construction schedule, perimeter controls, structural controls, temporary and permanent stabilization, and sediment basins. In addition to the technical design of enhanced sediment and erosion controls, the following measures have been adopted to assure the proper implementation of the enhanced controls.

As described in the AIP, Exhibit F and #15, and consistent with the original project, it is Crossroads' understanding that NYSDEC intends to require for the project that an individual industrial permit for construction stormwater discharges rather than reliance on a general stormwater permit. Such a permit would only be issued following a detailed evaluation by NYSDEC and NYCDEP. The individual stormwater permit is proposed to address both construction and operation of the project. Although the NYSDEC and NYCDEP requirements do not currently limit construction on steep slopes, the Applicant has agreed, and the Modified Project Design shows, that none of the detached lodging units (exclusive of any access ways) will be constructed on slopes greater than 20%. This limitation on construction on such slopes will provide significant stormwater management benefits for this project.

In accordance with AIP paragraph 21 Crossroads will select an independent stormwater monitor or monitors ("Independent Monitor"), subject to the approval of NYSDEC and NYCDEP, to review and supervise all aspects of the implementation and maintenance of management plans and controls with respect to stormwater and erosion and sediment control programs during construction of the modified project/lower impact alternative. The role of the Independent Monitor will be to assure the effective implementation of all erosion and sediment control practices, all storm water control practices, all construction phasing practices, as well as related measures, pursuant to the Stormwater Pollution Prevention Plan ("SWPPP"), permits issued by NYSDEC and NYCDEP,

There will also be a Project Erosion Control Superintendent who will be a main point of contact for the Independent Monitor. There will be a dedicated erosion control team of 4 to 6 people whose primary role will be repairing, maintaining and upgrading structural 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 and supervision of the Independent Monitor.

In accordance with AIP paragraph 37, prior to the commencement of any construction, and as security for the observance and performance by Crossroads of its obligations under the erosion and sediment control plans and stormwater control plans prepared for the Modified Project alternative and the applicable provisions of NYSDEC and NYCDEP permits to be issued, Crossroads will deliver to NYSDEC and NYCDEP a performance bond, letter of credit, or other form of security acceptable to NYSDEC and NYCDEP, in a principal amount equal to the estimated cost of implementing and complying with the SWPPP prepared for the Modified Project, and the applicable provisions of NYSDEC and NYCDEP permits, during the period of construction.

Stormwater management has been re-designed for the Modified Project in order to ensure that the Project meets the latest updates to the NYSDEC and NYCDEP stormwater regulations. The overall goal of the revised stormwater management plan was to incorporate stormwater management as part of the overall project design. This includes protecting the site's natural resources and environmentally sensitive areas, minimizing development impacts and impervious areas by using effective site planning principles, and incorporating design features that effectively manage stormwater runoff such as green roofs, bioretention areas and an irrigation pond that captures water for re-use. The plan utilizes these elements 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. Specifically, the objectives of the stormwater management plan are to enhance the quality of stormwater runoff to prevent water quality degradation, and preserve water quality in receiving water bodies including New York City water supply reservoirs, promote infiltration and evapotranspiration, and to prevent increased runoff from developed land to reduce the potential for flooding, erosion and flood damage.

Phosphorus loadings in runoff were recalculated for the Modified Project. Under existing conditions it is estimated that the site produces 89.4 kg of phosphorus per year. Under the developed conditions, including the proposed stormwater management practices, phosphorus export is in runoff estimated to be 148.9 kg, or an increase of 59.5 kg per year. In any case, the total phosphorus export in runoff for the DEIS project was 346 kg per year. To put these numbers in perspective, during the Issues Conference it was established that the annual production of phosphorus in excrement from a single dairy cow is approximately 34 kg. Thus, the Modified project's increase in phosphorus loading is approximately equivalent to the waste of 2 dairy cows as opposed to the DEIS project and its 10 cow equivalent increase in phosphorus loading.

The vast majority of additional phosphorus in project runoff occurs in the Pepacton watershed. Phosphorus from project wastewater is discharged from the Pine Hill WWTP in the Ashokan watershed. Phosphorus loading from the Modified Project wastewater has been estimated to be 111 kg per year.

3.2 Groundwater Resources

Section 2.4 of the Executive Summary above discussed how new wells were developed to provide water to the Modified Project, how the use of these wells avoids having to use the Rosenthal wells developed for the original project, and how these wells will meet the needs of the Modified Project without impacting groundwater resources.

Section 2.5 of the Executive Summary above describes how project wastewater will be conveyed to the Pine Hill WWTP. This involves transfer of potable water taken from wells in the Pepacton basin into treated wastewater discharged in the Ashokan basin. An analysis of this interbasin transfer of water concluded that baseflow conditions in the various streams that flow through and into the Delaware River Basin will not be impacted.

A water budget was developed for the project. One component of the water budget was a comparison of groundwater recharge rates between the existing, pre-development condition and the post-development condition. The water budget analyses determined that there will be no significant changes in groundwater recharge rates as a result of the Project.

Impacts to groundwater as a result of golf course management have been mitigated through an organic golf course maintenance plan in accordance with the AIP.

Blasting will be required to build certain buildings and sections of road. The majority of the blasting will occur in the earliest phases of project construction. Site preparation for the hotel buildings begin early in Phase 1, as does most of the access road construction. Some of the smaller areas that require blasting at Wildacres will occur in Phase 2 construction. Mitigation measures relating to blasting and groundwater include performing a pre-blast survey of any

homeowner's well within ¼ mile who would like to have a survey performed, and establishment of an arbitration process whereby any complaints of well damage that could have arisen as a result of site blasting will be examined by one or more independent professional hydrogeologist and resolved at the Applicant's expense (See SDEIS Section 3.2.4 for details).

3.3 Soils

The lands on and around the project site are mostly areas of shallow and moderately deep, very stony soils formed in glacial till soils derived from red shale and sandstone. There are some areas of deep glacial till soils that have a very firm fragipan. At the base of slopes along the outlet of small streams coming off the slopes there are some broad areas of very gravelly (actually channery and flaggy) glacial outwash. A few areas of the deep till do not have a fragipan. The soils on and around the site have a relatively high content of fine, colloidal material that does not settle out readily when in solution.

Potential impacts relating to soils are primarily related to sediment and erosion control that was discussed previously in section 3.1 of the Executive Summary above. An additional mitigation measure related to soils and sediment and erosion control is how water captured in the proposed sediment basins during construction will be "cleaned" prior to the basins being emptied. The DEIS describes in detail how a food grade organic flocculant, chitosan or Liqui-floc®, will be used to reduce turbidity in the sediment basins. This same approach will be used for the Modified Project discussed in this SDEIS. The rigorous review of chitosan during the issues conference led to NYSDEC staff permitting its use for the Project as per its draft permit.

Earthwork for the project is balanced – there will not be a need to import additional fill material, nor will there be a need to export net cut material. There will no need to transport material between Wildacres and Highmount.

3.4 Vegetation

Vegetation on the 739 acre project site is primarily beech-maple mesic forest that is present on approximately 588 acres, or nearly ³/₄ of the project site. The next most prevalent vegetation covertype is Hemlock-northern hardwoods forest at 72 acres, followed by ski slope (old Highmount Ski Area) at 41 acres. No rare, threatened or endangered plant species occur on the site nor are there any unique plant communities on the site.

A total of 218 acres of existing vegetation on the project site will be affected by project construction, leaving over 70% of the site vegetation unaffected. Only 21 of the 218 acres affected will be converted to impervious areas. The remaining 197 acres will be revegetated as golf course and landscaped areas.

At the Big Indian portion of the site nearly 1,189 acres of vegetation will remain undisturbed under the Modified Project. This land is owned by New York State and will not be developed in the future. Similarly, 203 acres on the Adelstein parcel has been placed into a Conservation Easement that will also protect vegetation on this part of the project site.

3.5 Wetlands

There are no State-jurisdictional wetlands on or around the project site.

Federal wetlands on the site and along the off-site water and sewer are limited in their number and extent, and generally exist along the streams and drainages discussed in 3.1, above.

No wetland filling or excavation is proposed. No other type of physical disturbance of wetlands is proposed except for removal by hand of woody vegetation for golf course playovers.

On August 15, 2011 the US Army Corps of Engineers issued a letter stating that the Modified Project will not require a Department of the Army permit. A copy of this letter is included in Appendix 14.

3.6 Wildlife

Wildlife surveys were undertaken for the DEIS in 2000 and supplemented in 2004 for the issues conference. The December 29, 2006 Interim Decision by the NYSDEC Deputy Commissioner finds that "based upon my review of applicant's surveys, the qualifications of the consultants that performed those surveys, and the materials presented in the DEIS, I conclude that the information submitted by the applicant is sufficient for the requirements of SEQRA. In the light of the survey work that has been performed and the Department staff's evaluation, I am not persuaded by CPC's arguments that more surveys are necessary." The decision can be found on the NYSDEC website at www.dec.ny.gov/hearings/26553.html.

For this SDEIS additional wildlife surveys at Wildacres and Highmount were conducted in 2008.No rare, threatened or endangered species were encountered during the most recent survey work. This confirms a February 2011 letter from New York Natural Heritage Program that no such occurrences are known for the site or its surroundings.

Analysis of potential Project impacts found that construction activities, loss and change of habitat types, habitat fragmentation, and golf course maintenance practices would not have any significant adverse impacts on local wildlife, including terrestrial, semi-aquatic and aquatic wildlife. Permanently protecting the 1,189 +/- acres at Big Indian through New York State ownership of the land, and 203 acres of Adelstein property in a Conservation Easement is a substantial benefit to wildlife under the Modified Project.

3.7 Traffic

An updated traffic impact study was completed for the SDEIS. The traffic impact study assessed the project's effects during the worst case condition: recent winter peak hour for existing traffic which is Saturday afternoons when skiers are leaving BMSC.

Approximately 60% of the trips generated by the resort during the peak hour will be trips between the resort and BMSC. Of these trips, it is estimated that 90% will use the resort's

shuttle system or utilize ski-in/ski-out facilities. Approximately 168 cars would be added to the road system from the resort during the Saturday afternoon peak.

The analysis of traffic levels indicates that some roadway improvements should be installed in order to improve traffic movements. These include constructing a right turn lane on County Route 49A to facilitate right turns onto NY Route 28 eastbound towards Kingston. A left turn lane would be constructed on NY Route 28 to facilitate left hand turns off of NY Route 28 and onto County Route 49A towards the resort and BMSC. A three-phase traffic signal would also be installed at the NY Route 28/County Route 49A intersection.

The entrance to Wildacres Hotel is proposed to be located along County Route 49A across the road from the BMSC upper driveway. Because of existing sight distance problems in this location, this section of County Route 49A will be improved with reconstructed vertical and horizontal curves. As part of this reconstruction a center left turn lane from County Route 49A into the BMSC upper driveway and into the Wildacres Hotel will be added to County Route 49A.

The section of County Route 49A above the BMSC upper driveway will also be improved in order to widen the road and to alleviate some existing limitations due to horizontal and vertical curves. The vast majority of the proposed improvements are necessary under the existing baseline conditions.

3.8 Visual Resources

A visual impact assessment was undertaken for a study area that encompassed lands within 5 miles of the project site. Project visibility was evaluated during daylight hours and at night, and during leaf-on conditions and leaf-off conditions. Project visibility was also evaluated for a number of mountain peaks (including fire towers) and hiking trails outside the 5-mile study area.

The daytime assessment analyzed the changes in views that could be expected as a result of the project from 10 locations representative of the viewshed in the five-mile study area as determined by NYSDEC as the Lead Agency. These views included local roadways, Forest Preserve lands, a Town Park, and a building on the National Register of Historic Places. None of the 10 locations identified will experience a significant change in visual resources.

This lack of change is a result of two main factors, first the context of the existing views, and second, the mitigation measures integrated into the project design that are intended to reduce the potential for visual impacts.

The project will not be visible from any Forest Preserve lands classified as Wilderness.

There are no other significant resources of statewide significance located in the study area that could be affected by the project.

The SDEIS also assesses the effect of the project outdoor lighting on project visibility at night by analyzing Outdoor Site-Lighting Performance (OSP) or "Glow". The OSP analysis showed that the proposed outdoor lighting at the Resort will likely produce more outdoor light leaving the boundaries of the site in winter compared to summer, due to reflective snow on the ground. The new outdoor lighting at the Resort will probably emit more light than the adjacent old lighting at BMSC. However, when comparing the ratios of light delivered to the ground plane and that leaving the site, the proposed resort lighting is expected to perform better than the existing ski facility because light is controlled better within the site, rather than being aimed off-site.

While glow will be greater at the Resort than the BMSC, these levels are all very low, at least one-third lower than the recommended limit for the most rural locations after a curfew time. While the calculations showed that many lumens would be emitted, the flux density is not excessive in any of these conditions because the sizes of the sites are large, and many areas have no outdoor lighting at all.

All the conditions assessed for the Resort compare favorably to the recommended limit (0.09 fc) that Lighting Research Center proposed in their 2008 OSP publication, for the most rural locations after a curfew time.

A curfew time of one hour after sunset has been established for the lighting at the project tennis courts. An automatic timer will shut off the tennis court lights in order to mitigate potential impacts.

A total of 22 locations from mountain peaks, hiking trails and/or overlooks outside the 5-mile study are were identified by NYSDEC for evaluation. Of these 22, 19 had no views in to the site because views were blocked by intervening topography and/or vegetation. Three locations Halcott Mountain (a trail-less peak that is actually within the 5-mile study area), the Hunter Mountain fire tower located 13 miles to the north, and Bearpen Mountain located 9 miles to the northwest, were identified as having potential views towards the project. There were no significant impacts to views from these 3 locations as a result of the Project.

3.9 Noise

Noise impact assessments were performed for project construction and project operations.

Project construction sound levels were estimated and noise impacts were assessed for construction of the following: access roads, golf course, buildings/facilities and construction of detached lodging units. Rock crushing to support construction was also assessed. Construction noise impact assessment results and proposed mitigation are summarized as follows:

• Access Road –Unmitigated sound for a limited time period would likely impact three receptors under worst-case conditions when construction is within 500 feet of receptors only. Proposed mitigation consists of minimizing on-site equipment usage when within 500 feet of residences. Additional mitigation of access road construction, such as the construction of barriers, was not deemed practical due to the local topography and the additional construction sound that would result during barrier construction compared with the limited duration of the noise impacts.

- *Highmount Golf Club* Unmitigated sound was, at times, expected to impact residences at three receptors. These impacts are only anticipated under the worst-case condition when golf course construction activities are near receptors, and not predicted under more typical construction distances. Mitigation of noise can be accomplished within 500 feet of receptors by minimizing equipment use. Mitigation of noise when over 500 feet of receptors can be accomplished by maintaining vegetative buffers between the construction and the receptor, as feasible.
- Building and Facility Construction and Renovation Unmitigated sound from construction of Golf Maintenance Facility, Highmount Hotel and Highmount Lodge may at times result in noise impact at 2 receptors. Proposed mitigation consisted of minimizing on-site equipment during excavation and finishing aspects of construction. In addition, added control of sound from Highmount Lodge construction can be accomplished by placing a temporary barrier line-of-sight between the construction equipment and receptor W-1.
- *Rock Crushing at Highmount* Unmitigated sound from rock crushing near the Highmount Hotel during construction Year 1 was predicted to result in potential noise impacts at one receptor. As a result, mitigation was proposed consisting of constructing a barrier between the rock crusher and the receptor which is predicted to control the temporary rock crushing noise to below significance.

Potential noise generated by the proposed Project's operation was estimated and extrapolated to the nearest potential receptor locations using CadnaA noise prediction software. Similar to the construction noise assessment, resultant total sound levels at the receptors were estimated and used to predict potential Project noise impacts at each receptor including the State Forest Preserve. Project operation was assessed for the following three conditions:

- Nighttime Continuous Compared continuous steady-state Project sound to the nighttime residual ambient sound level (L₉₀).
- Nighttime Compared Project nighttime sound to the average nighttime ambient sound level (L_d), and
- Daytime Compared Project daytime sound to the average daytime ambient sound levels (L_d),

Operational sound levels after proposed mitigation measures are incorporated indicate that increases in ambient sound levels will be 4 dBA or less at all nearby receptors (primarily the residences closest to the project) that were evaluated. In addition, estimated sound levels from Project operation at the State Forest Preserve will result in no increase to the ambient sound level.

Noise from blasting will be relatively brief and infrequent. Prior to construction all property owners within 1/4 mile will be contacted by mail and receive notice of their right to be notified in advance of blasting events. Residents within a ¹/₄ mile that wish to receive notification will be phoned one hour prior to the blast.

During the period of active construction Crossroads will maintain a phone noise complaint line. All complaints received will be logged, and complaints will be investigated within 2 hours and response provided to the person who complained. If warranted, corrective actions will be taken to reduce noise levels, and actions will be logged as well. If the offending noise source(s) cannot be identified, the person making the complaint will be allowed to inspect the site with a company escort. The complaint log will be kept on site and will be available for inspection by NYSDEC.

Noise from project-related vehicular traffic was also analyzed in accordance with NYSDEC's Noise Program Policy. Traffic related noise levels are expected to increase to a maximum of three (3) dBA along County Route 49A during the ski season Saturday afternoon peak hour of traffic. These predicted noise level increases will be gradual and slowly increase until full buildout. They also fall into the range of barely noticeable to most people and remain below the FHWA noise abatement criteria for existing land uses. The increased traffic levels will not cause a noise impact, so no mitigation measures are necessary.

3.10 Land Use and Planning

The project is an allowed use requiring special use permit approvals from the Shandaken and Middletown Planning Boards in accordance with the current zoning regulations of both Towns. No variances from local land use regulations are required.

Subsequent to the DEIS, the Town of Shandaken adopted a Comprehensive Plan in 2005. Of the 6 goals and objectives that are contained in the Comprehensive Plan, goals 1, 2, and 3 are applicable to planning and development projects, while goals 4, 5 and 6 are more applicable to municipal actions to be taken to implement the Comprehensive Plan.

1.) Protect and preserve the environmental, historical and cultural features and resources within the Town of Shandaken from harm, physical degradation and visual impacts.

The Belleayre Resort project, in its original form and now in its modified form, has received the highest level of environmental scrutiny at the local, regional and State levels. Environmental planning for the project began in 1999 and is continuing some 12 years later. It is fair to say that the environmental review of the project has set precedent for environmental reviews of other projects, as has also been responsible for modifications of some regulations that have resulted in greater environmental protections.

In terms of being protective of historical and cultural features, the project, in its original form and its current modified form, has received confirmation from the New State Office of Parks Recreation and Historic Preservation, the agency that reviewed the project under the New York State Historic Preservation Act, that the project will have no adverse impacts. This includes the adaptive re-use of the historical Marlowe Mansion and Leach Farm complex as part of the currently proposed project.

The project is also protective of the visual environment as discussed and illustrated the Visual Impact Assessment in the SDEIS.

2.) Promote the economic development of the Town of Shandaken to ensure an acceptable standard of living for its residents.

The socioeconomic analyses in the SDEIS assesses in great detail the economic benefits that the project will produce, including but not limited to, much-needed employment opportunities and the generation of revenues at not only the local level, but also at the county and State levels.

3.) Provide programs and laws to guide future development toward desired patterns within the Town of Shandaken.

As discussed previously, the proposed project is consistent with the current zoning regulations in the Town of Shandaken.

When addressing development of new tourist destinations in the Route 28 corridor the Comprehensive Plan states that "unless the nature of the specific use requires a site with unique features, tourist destination uses should be located in or adjacent to the hamlets." Shandaken includes 12 hamlets (six delineated). The modified project site is located in/adjacent to the hamlet of Highmount, the westernmost hamlet in Shandaken.

On December 13, 2011the Town of Middletown adopted its Comprehensive Plan. The following sets forth *the 10 goals* from that plan. Following each of the 10 goals are bulleted items that are recommendations from the Comprehensive Plan. Following the bulleted items are descriptions on how the project meets the goals and recommendations in the new Middletown Comprehensive Plan.

1. To preserve and extend the enjoyment of peace and tranquility of residents on their land and to provide an improved quality of life for the Town.

• Effectively use SEQRA to evaluate and mitigate impacts.

This SDEIS has been prepared under SEQRA, and the subsequent SEQRA process will provide opportunities for public review and comment on the project.

- Promote sustainable land use practices and energy efficient development.
- Encourage LEED standards for new development.

The Wildacres Resort, Highmount Spa Resort and detached lodging units will be designed and constructed with green building design elements set forth by the United States Green Buildings Council. Crossroads is committed to obtaining Silver or higher rating under the Leadership in Energy and Environmental Design ("LEED") program, for the Wildacres Hotel, Highmount Hotel and Highmount Lodge building.

2. To conserve the land, water, forest, mineral, historic and scenic resources of the Town for the use and enjoyment of all its residents.

• Promote land uses that are consistent with the capacity of the land and other resources.

- Promote the protection of environmentally sensitive resources (wetlands, steep slopes, streams, stream corridors, floodplains, critical habitats, unfragmented forests and open spaces.
- Work to protect critical wildlife habitats when planning for future development.

The 203 acre conservation easement on the Adelstein parcel is located in the Town of Middletown. The Adelstein parcel contains wetlands, steep slopes, streams and forested lands.

Additional wildlife studies were prepared for this SDEIS. The findings of these studies were the same as those presented in the DEIS in that the project site does not contain any critical wildlife habitat.

• Minimize crossing of steep slopes with roads and driveways.

Access roads on slopes greater than 20% have essentially been eliminated under the Modified Project.

- Promote the protection of cultural and historic resources that contribute to the character and environment of Middletown, including scenic and historic resources.
- Evaluate new development impacts on historic resources within the Town during local reviews request NYSOPRHP review.

NYSOPRHP has been consulted throughout the process leading up to the issuance of this SDEIS, and has made a determination that the project will not have any adverse effects on historical or cultural resources. NYOPRHP will continue to be consulted as plans are advanced for the adaptive re-use of the historic Marlowe Mansion and the Leach Farm buildings.

• Site buildings below ridgelines so that they do not protrude above treetops and crest lines of hills as seen from public places and roads.

The Modified Project does not include the upper detached units at Highmount that were included in earlier versions of the project plans.

3. To prevent degradation of the quality of the surface and groundwater supply.

- Minimize impacts of stormwater runoff when land is developed.
- Reduce parking lot size and maintain pervious surfaces.
- Use low impact design stormwater control practices.

The project's stormwater management system has been designed in compliance with the 2010 update of the NYSDEC Stormwater Management Design Manual.

The amounts of impervious surfaces for the project are comparable to the lowest categories of imperviousness in the NYSDEC Stormwater Management Design Manual. Wildacres is 7% impervious and Highmount is 1% impervious. By comparison, agricultural lands are listed by

NYSDEC as having an average of 2% impervious cover. (Note: these percent impervious values don't even take into account the 203 acre Adelstein parcel in a Conservation Easement.)

The project includes the use of green roofs, underground parking and other LID stormwater practices

4. To encourage the properly regulated development of housing, business, industry and community facilities according to a master plan of balanced use.

• Diversify commerce and industries in the area by promoting Middletown as an attractive destination for visitors, home occupations and new businesses.

The Resort will provide needed overnight and extended stay opportunities for skiers who otherwise might only make day trips to the area. The Resort will also attract golfers and conference attendees who may not otherwise travel to the area.

It is projected that annual off-site Resort patron spending of \$10.64 million will occur at full project buildout, and this will occur mostly in businesses located in the local village and hamlet centers.

5. To assure that every dwelling and place of work is supported by an adequate supply of potable water, sewage treatment and disposal, solid waste disposal, energy and access.

The Resort will have its own central water supply system and central wastewater collection system that will connect with the Pine Hill wastewater treatment plant. Providers of solid waste disposal service and energy supply have confirmed that they have the capacity to serve the needs of the project. The project is readily accessible from NY Route 28 and County Route 49A.

6. To promote safe, efficient, and well-maintained and designed pedestrian and vehicular traffic.

- Limit curb cuts and promote shared access.
- Separate curb cuts and intersections.

Curb cuts on CR 49are limited to 3 locations for Wildacres and a single curb cut for Highmount. All of these curb cuts have been adequately spaced out to produce smooth traffic flow.

• Align driveways so that they are opposite each other.

The main entrance to the Wildacres Resort is on Country Route 49A directly across from the upper entrance to the BMSC.

• Implement proper speed limits, signs and road markings.

The project involved making improvements to County Route 49A that will improve current substandard conditions related to horizontal and vertical curves. Crosswalks and additional signage will also be provided along County Route 49A as a result of the project.

• Incorporate public access and trails.

7. To provide adequate land and resources for recreation and preservation of the Town's rural character.

- Build on the many recreational resources in Middletown to promote tourism and recreational business growth.
- Access to ski areas and other outdoor recreation, along with tourism are major strengths of Middletown which should be preserved.
- Consider allowing conservation and clustered subdivisions on a voluntary basis.

The project capitalizes on the recreational opportunities that currently exist at BMSC and expands upon theses existing opportunities by providing four-season recreational opportunities.

The Resort will be available for use by the general public including the Highmount Golf Club and the new ski trails and lift proposed near the Highmount Hotel and the old former Highmount Ski Area.

Development in the Resort has been clustered in the Front-9 Village and around the hotel at Wildacres as well as around the hotel/spa at Highmount. Over 70% of the project site will be open space.

8. To maintain a balanced and equitable tax base.

• Work to attract, develop or expand retail businesses which will serve as a "draw" for people to visit Middletown. Concentrate on businesses oriented to the outdoor resources, tourism, agri-tourism and recreational opportunities in the Town.

The off-site spending by Resort visitors cited in number 6 above will have secondary effects that will include increased economic activity where commerce is now centered, and where existing buildings and commercial space are available for business expansions and new business starts. Existing businesses are also expected to increase their sales within their existing building locations.

9. To protect buildings and people from the harm of flood, fire, detrimental land use, and impairment of their natural resources.

• See goals 1, 2 and 3 above.

10. To ensure that this area is a place where you can live, work and thrive economically ones' entire life.

• Provide training and jobs for young people.

To further ensure the availability of personnel to qualify for employment at the Belleayre Resort complex, resort developers will establish on-going relationships with various state and regional education institutions, such as Cornell, NYU, SUNY Delhi, SUNY New Paltz, Culinary Institute of America, etc., which offer degree and advanced course programs in various hospitality disciplines. By working closely with these institutions to support the employment needs of the resort, the resort developers hope to help staunch the outflow of post-secondary school graduates from the region, looking for career opportunities beyond the Catskills, as well as provide job opportunities for local residents with skills needed to successfully operate the resort.

- Encourage businesses and recreational facilities to keep young people here.
- Promote economic development, including development of the tourism industry, particularly year-round tourism.

See goals 4 and 8 above.

3.11 Socioeconomics

Employment

The proposed project is estimated to generate approximately 541 full-time jobs and 230 part-time jobs, a 5.0 percent increase from the number of employees in the workforce study area in 2007. It was assumed that the part-time positions would be filled by workers in the area that work part-time but are looking for additional work, unemployed persons who are searching for part-time employment, and others who are not technically in the labor force. Because part-time employment generally does not offer a salary that would support moving from one area to another, it was assumed that they would not adversely affect the housing market in the study area.

Of the full-time jobs, it was assumed that about 20 percent would live outside of the workforce study area. Also, not counting people whose qualifications do not match up with the jobs being offered for positions at the proposed project, it was assumed that approximately 183 unemployed persons from within the workforce study area would be qualified to fill positions at the proposed project. Thus, it was determined that there would be an additional demand for as many as 250 employees from outside the study area. Based on an online search conducted in June 2008, there were 259 single family homes for sale and 93 rental units available in the study area, indicating that the existing housing stock could accommodate the employment generated at the proposed project.⁴

Construction Period Benefits

Construction of the proposed project would create an estimated 2,176 person-years of direct construction employment (a person-year is the equivalent of one person working full-time for a

⁴ Based on an updated inquiry conducted in February 2012, there were 396 single family homes for sale and 60 rental units available in the study area, indicating that the existing housing stock could accommodate the employment generated at the proposed project. This updates a 2008 search which found 259 single family homes for sale and 93 rental units available.

year). This would represent an average of 218 full-time jobs during the ten-year construction period. Total direct and indirect employment (from secondary or induced expenditures) is estimated at 3,988 person-years, or an average of 399 jobs during the construction period. Total wages and salaries are estimated at \$191.34 million (all dollar amounts in 2008 dollars). The total economic effect from construction of the project is estimated at \$703.07 million. Total local and state tax revenues generated by the project, exclusive of real estate taxes, are estimated at \$16.85 million.

Operating Period Benefits

Upon completion, the project would create total direct and indirect employment estimated at 1,035 permanent jobs in the Delaware-Ulster-Greene tri-county region and a total of 1,184 jobs in the wider New York State economy. Total wages and salaries are estimated at \$47.17 million in New York State. The total recurring effect from operating the project is estimated at \$210.49 million annually in New York State. The annual operation of the project would have associated with it substantial sales tax, person income tax, corporate and business taxes, and other tax revenue.

Future Property Tax Revenues with the Proposed Project

The proposed project would generate significant future tax revenues for Delaware and Ulster Counties, Onteora and Margaretville school districts, and other taxing districts. The properties on which the proposed project would be located generated about \$87,300 in annual tax revenues in 2007. With the proposed project, the properties could generate over \$2.16 million annually, representing a 2,474 percent increase over the fiscal year 2007 tax revenue of approximately \$87,300.

3.12 Community Services

All service providers contacted indicated they had the ability to serve the project, some with mitigation measures in place.

Service providers contacted included police (State, counties and local), fire, ambulance, hospitals, schools, solid waste, electric and telephone. The Applicant will provide funding for manpower and/or equipment to the Shandaken Police Department, the Pine Hill Fire Department and the Shandaken Ambulance Squad to mitigate the effects of increased demands for the services of these providers as a result of the Project that are not addressed by the significant increase in local tax revenues. No mitigation measures are required for any of the other service providers.

3.13 Global Climate Change and Carbon Footprint

The Project carbon footprint is the sum of all GHG emissions and is calculated as metric tons per year carbon dioxide equivalent (CO_2). GHG emissions from the Project primarily would result from fossil fuel combustion during construction and operation of the Project. The GHG emissions have been evaluated in accordance with NYSDEC Program Policy and the AIP.
The anticipated potential Project GHG emissions are estimated to be less than 25,000 metric tons per year of CO2, indicating the Project's projected emissions are minor in nature.

3.14 Air Quality

Microscale and mesoscale air quality screening analyses were performed for project-related traffic. The air quality assessments conducted conform to the procedures followed by the NYSDEC. Currently, the NYSDEC follows the procedures outlined in the New York State Department of Transportation (NYSDOT) Environmental Procedures Manual (EPM), Chapter 1.1, Air Quality, last updated January 2001. These procedures address the Clean Air Act Amendments of 1990 and guidance from the Environmental Protection Agency (EPA).

Based on the site screening analysis conducted for the intersections analyzed for full build out conditions the 2015 Build Volumes are lower than the criteria shown in the EPM Table 3C. Therefore, a microscale air quality analysis is not necessary. Based on procedures outlined in the Particulate Matter (PM) Final Policy the PM microscale air quality analysis was performed using CAL3QHC, Version 2.0. The predicted particulate matter concentration differences for the receptors were calculated to be less than the maximum allowable potential significant impact thresholds. The criteria for a mesoscale air analysis found in Chapter 1.1 of the EPM are not met with the development of the project; therefore, a mesoscale analysis is not required and no particulate matter mesoscale analysis is required.

3.15 Cultural Resources

NYS Office of Parks, Recreation and Historic Recreation (OPRHP) has determined that the Modified Project will not have any adverse impacts on cultural resources. OPRHP will be consulted when more detailed plans for the adaptive reuse of the Marlowe Mansion and the Leach Farm buildings are available.

3.16 Catskill Forest Preserve

Under the DEIS plan the Big Indian portion of the project abutted the Big Indian Wilderness Area and there were existing hiking trails connecting the proposed resort to the Big Indian Wilderness Area. Under the current Modified Plan, the project no longer abuts any designated Wilderness area (or Wild Forest area either) nor are there any proposed direct connections between the resort and Wilderness or Wild Forest areas.

Local and regional trails are expected to receive an incremental increase in use from the Project. There is no accurate way to estimate how many residents of the Project will actually utilize the trails in the area, however the SDEIS attempts to quantify the potential additional hikers generated by the Project relying on State documentation and studies.

Applying participation data from the Statewide Comprehensive Outdoor Recreation Plan to the numbers of people staying at the Project it is possible that 209 people per day could be engaged in hiking. However, many of these people will choose to participate in some other form of

recreation such as golf, tennis, fishing, swimming, etc. Others may choose not to participate in a recreational activity on a given day, opting instead to participate in activities such as spa treatments, off-site shopping or sightseeing, etc. A more reasonable figure would be 105 hikers per day when the Resort is at average occupancy.

To mitigate potential Forest Preserve impacts the Applicant is willing to accept permit conditions from NYSDEC to assist NYSDEC collect data that could be used to update future Unit Management Plans for the area. These conditions were raised during the Issues Conference and state as follows.

• "Prior to the start of resort construction, Crossroads Ventures LLC shall develop a plan to be submitted to NYS DEC for its approval to implement a program to educate and guide resort guests in the use of the trails in the Forest Preserve. In developing the plan, the applicant shall consult with the NYS DEC and other appropriate groups, including the NY/NJ Trail Conference, to identify area trails, in particular, those which may be the subject of over use, in order to redirect guests to less intensively used trails. The plan shall include a method of keeping track of resort guest usage of Forest Preserve trails and for seeking feedback from resort guests on trail conditions. The information on guest usage and trail conditions shall be compiled into an annual report and submitted to NYS DEC. In addition, Crossroads Ventures, LLC shall provide a monthly report to NYS DEC of usage of Forest Preserve trails."

4.0 Alternatives

Section 5 of the SDEIS includes assessments of various alternatives in accordance with the Final Scoping Document. This included a comparison with the DEIS project discussed in section 1.4, above.

4.1 The AIP Plan

One alternative design that was examined and which was included in the AIP is referenced as the AIP Plan.

See SDEIS section 5.2 and Figure 5-1. Figure 5-1 shows the access road for Highmount extending beyond the hotel and lodge and switching back a number of times before reaching the top of the old Highmount Ski Center. Five (5) single units are located along the roadway as it climbs the hill, and 19 single units are located on the plateau at the top of the hill above the ski trails and lifts. Under this plan the proposed lift line from the Highmount Spa Hotel would be shortened and the observatory/warming hut is not proposed near the top of the lift.

The 24 detached units included in the upper part of Highmount under the AIP plan are proposed to be relocated under the Modified Project plan by adding a third floor to the detached lodging unit buildings at Wildacres. The new third floor units would encompass, and be within, the footprint of the detached lodging buildings. Parking for all units in the buildings, including these upper floor units, would be provided under the buildings. Elevators would be added to connect the underground parking and the third floor units. Driveways and surface parking for the lower

level detached units have been rearranged to accommodate the underground parking and the layout of the detached units in the Front-9 Village would be reconfigured slightly. The reconfiguration provides for a slightly tighter cluster in this area with units remaining off slopes greater than 20%.

Under the AIP alternative plan, the following environmental effects would have occurred.

- An additional 5,580 feet (1.1 miles) of roadway, the majority of which is located on slopes >20%.
- Additional impervious surfaces from roads, buildings and driveways totaling approximately 6 acres.
- Increasing the number of detached unit buildings by 24 (as opposed to having the units relocated to already proposed buildings at Wildacres).
- Approximately 17 additional acres of site disturbance.
- Increasing the highest elevation proposed for development (buildings and roads) from 2620 feet to 3080 feet.

The AIP plan had the potential to increase the overall visibility of the project, including the very limited daytime visibility of the project from Forest Preserve Wild Forest lands on the Dry Brook Ridge Trail and the Balsam Lake Mountain Fire Tower. Nighttime visibility may also have been slightly increased with the higher elevation detached unit on Highmount.

The following table provides a comparison of the DEIS Project plan, the Modified Project plan and the AIP plan.

Table ES-3 Comparison of DEIS Plan, SDEIS Modified Project Plan and AIP Project Alternative Plan

		<u>SDEIS</u> Modified	
Project Component	DEIS <u>Project Plan</u>	<u>Project</u> <u>Plan</u>	AIP <u>Plan</u> <u>Alternative</u>
total project site size (ac.)	1,960	739	739
acreage to be developed	573	218	235
acreage added to Forest Preserve	0	1,189	1,189
conservation easement lands (ac.)	0	203	203
number of lodging structures	121	34	58
hotel lodging units (#)	400	370	370
detached lodging units (#)	351	259	259

Project Component	DEIS Project Plan	<u>SDEIS</u> <u>Modified</u> <u>Project</u> <u>Plan</u>	AIP <u>Plan</u> <u>Alternative</u>
overall density (units/acre)	0.38	0.85	0.85
total length of roads (mi.)	8.2	1.5	2.6
length of roads on >20% (mi.)	5.1	0.1	1.1
impervious surfaces (ac.)	85	21	27
golf courses	2	1	1

4.2 Eliminating Entire Highmount Development

The proposed Modified Belleayre Resort at Catskill Park is an integrated singular development project. Although its major components (Highmount Golf Club, Wildacres Resort and Highmount Spa Resort) are physically separated to the north and west of BMSC they are connected by County Route 49A.

This Scoping Document prescribed alternative involves reducing the size of the project by pursuing development of the Wildacres component of the project only. The intended purpose of such an alternative would be to eliminate the physical disturbance in total to one tract of land and thereby avoid the potential environmental impacts associated with site development. This alternative would result in the following:

- approximately 42 acres less project site disturbance;
- approximately 3 acres less project site impervious area; and
- approximately 328,000 cubic yard less of project site earthwork.

However, as examined in detail for the proposed action, it is noted that the extensive investment in terms of site design and construction planning already minimize or avoid environmental impacts associated with the full construction of the site, especially with the Modified Project having removed the upper portion of the access road on steep slopes and the elimination of the higher elevation units, i.e. the AIP Plan Alternative.

From a market demand standpoint the proposed project cannot consist of either portion of the project standing alone individually. The project must make an approach to the broadest segment of the market. The project must be of sufficient scale and quality to make a recognizable impact of the target market's impression of the area. The project must offer a variety of activities and facilities to accommodate all members of the family and all levels of proficiency at the various activities. These statements have been consistently supported by various land use and economic analyses of the proposed project performed by various experts in resort development, particularly resorts that involve golf.

HVS is the leading national consulting firm providing appraisal and financial consulting services to the hotel industry. HVS examined the potential development of the Belleayre Resort by examining detailed estimates of initial project costs and future revenues and expenses once the Resort was operational. By relating the financial performance of the Resort (i.e., net income after expenses) and then relating this performance to the initial cost of the development, the project's return on initial investment can be measured.

The HVS study provides detailed projection of income based on all revenue producing components of the project (i.e., room charges, food, golf, spa, retail sales, conference fees) applying regionally adjusted industry benchmarks in terms of rates, occupancy, and golf rounds played. Expenses, also benchmarked to industry standards, included fixed costs (i.e., property taxes, insurance, operating reserves) and variable operating costs (including labor, supplies, marketing, administrative, fees, and others). Income and expense streams over the 10 year analysis period were adjusted based on historical inflation trends as calculated by the Consumer Price Index and an average rate of 3 percent per year was utilized.

The marketability and demand-based viability of the proposed project requires the full breadth of project components, including both hotels to fully cover the marketplace from a 3 to 5 star hotel, a golf course, fractional interest and time share units. As analyzed by HVS Consulting Services, this market-driven need for all components to be considered as an integrated whole, is also reflected in the financial performance of the proposed project

Based on this financial analysis as well as their in-house market data and review of other documents prepared for the Belleayre Resort project, the HVS Consulting study concludes that the proposed project – namely, full development of all project components – is the only feasible and viable approach. This is based on the following findings:

- Critical mass is essential to attracting sufficient patron demand and market awareness for the Resort. This is critical to overcome the current limitations of the surrounding area.
- Economies of scale generated by the operating efficiencies of co-operatively operating the two facilities is important to providing enough expense sharing contributing to the overall feasibility of the project.
- Elimination of market segmentation, thereby allowing for both middle and top elements of the target marketplace to create customer base.

The *No Build Highmount Alternative* is not considered a reasonable or feasible alternative based on the information on market and financial viability presented in the SDEIS. It is unlikely that this alternative would ever attract sufficient equity investment or financing or, if built, would be marginally performing or scaled back to a substantially lower quality development without the integration of well-designed and high performance environmental standards. The findings further enforce that the proposed Resort represents an attractive investment opportunity only when considered collectively, in its entirety. The Applicant would not pursue the Wildacres potion of the Project without the ability to develop the Highmount Spa and related facilities as presently conceived.

4.3 No-Action Alternative

Under the no-action alternative, the proposed 218 acres of project disturbance would not occur, views into the project site would not be affected by the Project, and the additional traffic associated with the Project would not occur.

Under the no-action alternative, the socioeconomic benefits of the project described previously in section 1.5 would not be realized. These benefits included employment and generation of tax revenues.

In the event the Belleayre Resort was not to be developed as presently conceived under the AIP, and as proposed under the Modified Project plan, the lands controlled by Crossroads Ventures would likely be sold. Prospective purchasers may include residential or recreational developers, a public entity such as NYCDEP, or perhaps a land trust. In the event of a sale to a developer, the Wildacres and Highmount parcels, given their proximity to Belleayre Mountain Ski Center would likely be developed with a mix of residential and commercial uses. These alternative development scenarios would occur without the substantial, heightened environmental controls associated with the proposed project as established and agreed to in the AIP.

5.0 Permits and Approvals Required

The following permits and approvals are required for the Modified Project.

Local

Town of Shandaken Planning Board Special Use Permit Site Plan Approval Town of Shandaken Town Board Approval to Form Transportation Corporation(s)

Town of Middletown Planning Board Special Use Permit Site Plan Approval

Town of Middletown Town Board Approval to Form Transportation Corporation(s)

Ulster and Delaware County

Health Department (Ulster only) Water Supply Infrastructure Wastewater Disposal Infrastructure Food service Hotels Swimming Pools Department of Public Works Bridges and Highways Division Road Improvements and Driveways

Regional

NYCDEP

Wastewater Treatment Plant Connection Stormwater Pollution Prevention and Impervious Surfaces

Delaware River Basin Committee Groundwater Withdrawal Approval

State

NYSDEC

Streambank Disturbance (golf cart bridge crossings) Water Supply Application Individual SPDES Permits for Stormwater Discharges associated with Construction and Operations Petroleum Bulk Storage Registration Chemical Bulk Storage Registration Sewer and Water System Infrastructure Signoffs

NYSDOH (Delaware County Facilities)

Water Supply Sewer System Infrastructure Signoffs Food Service for Delaware County Portion Hotels Swimming Pools

NYSDOT

NY Route 28 Improvements Speed Signage Approvals

Federal

None required.

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SECTION 1 INTRODUCTION

1.1 Project Site Location

The Modified Belleayre Resort at Catskill Park project (the Project) is located in the Central Catskill region of New York State near the intersection of the boundaries of Delaware County, Ulster County and Greene County. The site is located approximately 35 miles west of the City of Kingston, accessed from Exit 19 of the New York State Thruway. Figure 1-1, "Regional Location Map", illustrates the project location on a regional scale, and shows the project site south of NY Route 28 and to the west of Belleayre Mountain Ski Center (BMSC).

The project site includes lands in the Town of Shandaken in Ulster County and lands in the Town of Middletown in Delaware County, and the location of the site in relation to these boundaries is illustrated on Figure 1-2, "USGS Site Location Map". The 739 acres that comprise the site are located on either side of Ulster County Route 49A south and west of the hamlet of Highmount and include the following.

- Wildacres Resort Property-254 acres
- Highmount Spa Resort Property 237 acres
- Adelstein Property 203 acres
- K-well Property 35 acres
- Q-well (Quarry) Property 10 acres

1.2 General Project Description

1.2.A Project Regulatory History

The initial SEQRA documentation and permit applications for the Belleayre Resort were submitted to the NYSDEC in 1999. These applications included the following permits: individual water supply permits (ECL title 15, article 15); State Pollutant Discharge Elimination System permits (ECL titles 7 and 8, Article 17); Use and Protection of Waters permits (ECL title 5, article 15); and a Water Quality Certification (Section 401 of the Clean Water Act). Initially, the Towns of Shandaken and Middletown proposed to be co-lead agencies for the SEQRA review of the project because both municipalities had land use approval authority over the Resort. The NYC DEP, an agency with jurisdiction over the project due to its storm water regulations, proposed that it be lead agency. The resulting lead agency dispute was decided by the NYSDEC Commissioner on March 20, 2000 in favor of the NYSDEC being lead agency due to the scope of the necessary NYSDEC permits and approvals for the project and the regional impacts of the project, as well as its proximity to the Belleayre Mountain Ski Center operated by NYSDEC.

NYSDEC as lead agency issued a determination of positive significance, requiring that a Draft Environmental Impact Statement (DEIS) be prepared for the Project. The NYSDEC conducted a public scoping of the project giving the public and other involved and interested agencies the opportunity to submit comments orally at a number of public scoping meetings, as well as an extended period of time to submit written comments. The scope was approved by the NYSDEC on November 3, 2000 and the approved scoping document is the basis for this SDEIS. The preparation of the DEIS, as well as its review by the NYSDEC staff and other involved agencies such as the Towns and NYCDEP, resulted in numerous resubmissions of the DEIS. A determination of completion of the DEIS and the above referenced permit applications was issued by NYSDEC on December 10, 2003. The Notice of Legislative hearing, dated December 5, 2003 was issued by NYSDEC and public hearings were held on January 14, January 20, February 3, and February 19, 2004. The written public comment period closed on April 23, 2004.

An issues conference was convened on May 25, 2004 before Administrative Law Judge Richard Wissler and it was continued on seventeen subsequent days concluding on August 26, 2004. The parties to the hearing included the applicant; NYSDEC staff; NYCDEP staff; the Catskill Preservation Coalition (comprised of the Catskill Center for Conservation and Development, Riverkeeper, Inc., Natural Resources Defense Council, Inc., Trout Unlimited, Friends of Catskill Park, Zen Environmental Studies Institute, Pine Hill Water District Coalition, Catskill Heritage alliance, Theodore Gordon Flyfishers, and N.Y.P.I.R.G.) and the Sierra Club; the Coalition of Watershed Towns, Delaware County and the Towns of Middletown and Shandaken. The Town of Shandaken Town Planning Board filed a petition for party status but did not participate in the issues conference. The Watershed Inspector General was granted Amicus Status. The transcript of the issues conference various motions were made to reopen the proceedings to add additional information and briefs and reply briefs were submitted by the participants.

The Administrative Law Judge (ALJ) issued his ruling on party status and issues to be adjudicated on September 7, 2005. The ALJ's ruling was thereafter appealed to the Commissioner of the NYSDEC and the Commissioner's Interim Decision of December 29, 2006 found that the following issues met the "substantive and significant" standard set forth in 6 NYCRR 624.4(c) and should be adjudicated:

1) whether the water supply permit application for Big Indian Plateau satisfies the regulatory requirements for such a permit;

2) whether at the pumping rates proposed in the draft water supply permit for Big Indian Plateau the risk exists that dewatering would occur to the detriment of aquatic habitats;

3) storm water issues related to (a)the adequacy of the HydroCAD model and its assumed inputs and design points, (b)the adequacy of the Big Indian SWPPP and the design of its various storm water management controls, (c) the identification of the storm water flow paths on the project site, (d) the level of pre- and post-development storm water flows, and (e)the basis for the waiver of the requirement to have no more than five-acres exposed during construction at any one time;

4) a study of operational noise impacts on users of wilderness and wild forest areas of the Catskill Forest Preserve arising from onsite activities at Big Indian Plateau;

5) visual impacts caused by Big Indian Plateau in wintertime conditions and the extent to which the area in the vicinity of Big Indian Plateau would be impacted by visible lights and "night glow", particularly from higher elevations and during winter months; and

6) a supplemental evaluation of a reasonable range of alternative project designs/ layouts with sufficient information to undertake a comparative environmental assessment of such alternatives. While a small number of the issues for adjudication related to both Big Indian Plateau and Wildacres elements of the Belleayre Resort, the majority of the issues related only to the Big Indian Plateau portion of the project.

While a small number of issues for adjudication related to both Big Indian Plateau and Wildacres elements of the Belleayre Resort, the majority of the issues related only to the Big Indian Plateau portion of the project. The NYSDEC Commissioner's Interim Decision can be found on the NYSDEC website at www.dec.ny.gov/hearings/26553.html.

The hearing parties received encouragement to meet and attempt to narrow the issues for adjudication and potentially agree upon an alternative project design that would address the issues identified for adjudication. In the spirit of cooperation and through the mediation efforts of the Governor's office over a period of several months, the project sponsor, the NYCDEP, the State of New York, the Watershed Inspector General and all of the groups that had requested and been awarded party status participated in the development of the Modified Project design. Ultimately, all but four of the intervening parties executed the AIP and endorsed the revised project design concept contained in the AIP. The AIP provided that the changes to the project design would be evaluated in a SDEIS. The Modified Project cannot be approved by any involved agency until a SFEIS has been completed and a Statement of Findings issued.

Most importantly, AIP's revised project design eliminated the Big Indian Plateau portion of the Project which was the primary source of environmental concern The AIP provided for the acquisition of the property on which Big Indian Plateau was to have been built by for eventual acquisition by New York State. The acquisition of this land by the State of New York was completed at the end of 2011. To preserve the economic viability of the overall project, 240 out of 330 (72%) of the lodging units and related amenities that were to have been built on the Big Indian Plateau were reassigned to the western portion of the project, and some units there were eliminated altogether. Moreover, the AIP also provided for an evaluation of the ways in which the redesigned project, along with a potential expansion of the BMSC, could further enhance tourism and economic development in the region. It is Crossroads' position that improvements to the BMSC are critically important to the success of the redesigned project and of the efforts to improve tourism in Ulster and Delaware counties. As stated above, the AIP also acknowledged the need for preparation of a SDEIS on the revised project, as well as any proposed amendments to the unit management plan (UMP) for the BMSC. NYSDEC, as lead agency, has approved the scope of this SDEIS.

1.2.B General Description of the Modified Project

Figure 1-3, "Project Master Plan", illustrates the location and general types of development being proposed as part of the Project. Also see the Master Plan drawings in the Site Plan set that is part of this SDEIS which shows the project layout on a larger scale.

The Project contains a mix of resort land uses that include recreational, lodging, lodging-related commercial, spa, a conservation easement area and other areas to remain undeveloped. Each

component of the proposed development is summarized below. Section 2 of this SDEIS provides a more detailed project description.

Wildacres Resort (Wildacres) is located on approximately 254 acres on the eastern side of the Project site with access from County Route 49A south of the Alpine Osteria and near the upper driveway to BMSC as well as access from Gunnison/Kraft Road. The old Wildacres Motel and the former Marlowe Mansion are currently located on this part of the site. Most of the Wildacres site is currently wooded with second and third growth trees, and there is evidence of past agricultural use of the property in many locations. Development proposed for Wildacres includes a hotel building with 250 units and ancillary hotel uses (dining, spa and limited hotel-related commercial), 163 lodging units in multi-unit buildings operated by but detached from the hotel, and an 18-hole golf course. The existing buildings at the base of the former Highmount Ski Area will be adaptively reused as the Resort's Wilderness Activity Center.

Highmount Spa Resort (Highmount) is located on a portion of the approximately 237 acres that includes the old Highmount Ski Area and additional lands to the west of the ski area. Development is proposed to the west of the old ski area with access proposed off Route 49A. The land proposed for development was previously used for agriculture (the old Leach farm) and much of this portion of the project site is also currently wooded. Development proposed for Highmount includes a 120 unit hotel with spa facilities. Also located in the hotel/spa building are 53 fractional ownership units previously proposed as detached lodging units under the AIP A multi-level lodge building is proposed near the hotel/spa and will contain 27 fractional ownership units also previously proposed.⁵ A portion of Highmount, approximately 105 acres, comprising in part the former Highmount Ski Area may be offered for lease or sale to New York or another public entity and could be used to locate a public ski lift and trails.

There is a 17acre wooded parcel north of Highmount Spa Resort and north of County Route 49A that will remain undeveloped.

The Scoping Document for this SDEIS includes the requirement that it shall address possible alternative layouts for the Highmount Spa resort, in particular the relocation of the uppermost units and the road leading up to these units. The evaluation of the alternative plan that relocates the upper 24 detached units at Highmount was included in the April 2011 SDEIS submitted to the Lead Agency for review and comment. As a result of this evaluation, the Applicant determined that this alternative plan which eliminates the upper portion of the access road and removes the upper 24 units from the top of Highmount and places them as third-floor units at detached lodging unit buildings already proposed at Wildacres was its preferred alternative. This preferred alternative is the proposed action, or the Modified Project that is the subject of this SDEIS.

⁵ The AIP allowed for 120 hotel rooms and 120 detached lodging units at Highmount. In order to further cluster the development on the site and to develop vertically instead of horizontally, two important goals achieved in the AIP, 80 of the 120 AIP-allowed Highmount detached units were placed inside larger buildings, 53 were placed into the hotel building and 27 were placed into the lodge building, and 24 were relocated to Wildacres as third-story units in already proposed buildings.

The part of the Project site furthest to the west, known as the Adelstein parcel, is approximately 203 acres in size and is under a Conservation Easement held by the City of New York. The Conservation Easement allows for passive recreational uses associated with Highmount and Wildacres, such as cross country skiing, snowshoe trails, hiking, horse riding, and accessory structures, and/or an outdoor amphitheater, but provides that there will be no residential, overnight lodging, or industrial uses. See a copy of the recorded Conservation Easement attached in Appendix 2.

The Modified Project will have its own central water supply system and the source of potable water will be wells ("K" and "Q") that are located in the valley along NY Route 28 further west of the project site. Figures 1-2 and 1-3 show the location of the K-well property off Todd Mountain Road as well the Q-well or Quarry parcel off of Moran Road.

The Modified Project will have its own central wastewater collection system and wastewater is proposed to be sent to the NYCDEP Pine Hill Wastewater Treatment Plant (Pine Hill WWTP).

All internal project roads are proposed to be privately owned and maintained.

Figure 1-4, Phasing Plan, shows how the resort project will be built out over time. Construction will start with the two hotel buildings and the golf course⁶ in Phase 1. At Wildacres, the detached lodging units would be built in Phase 2, with the exception of one model building of 10 units that would be built in Phase 1. The Lodge building at Highmount would be built in Phase 2, and the 16 detached lodging units at Highmount would be built in Phase 3 as would the conference center at the old Leach Farm. The time period for the buildout of the project is dependent on market factors which makes estimating the duration of this phase of the Project difficult. For the purpose of the analyses in the SDEIS, a9-year buildout was used. More details on project phasing can be found in sections 2.8.7 and 2.8.9.

1.3 Project Purpose, Need and Benefits

1.3.A. Area's History as a Resort Destination

The DEIS (Section 1.3.1(A)) describes the period from the mid 1800's through the mid 1900's and how resort hotels and golf courses flourished in the area.

Subsequent to the DEIS, the Vision Statement of the Comprehensive Plan for Shandaken, which was adopted in 2005, recognizes the importance of tourism in the area.

"Overall we seek to build our region as one with bustling hamlets, interesting shops, successful restaurants and attractive overnight accommodations, surrounded by open spaces and unspoiled natural beauty – one with a prosperous economy centered around tourism, historically our most enduring business. We seek to protect the existing family businesses which have been the backbone of our economy for generations."

 $^{^{6}}$ For the purposes of construction sequencing and stormwater permitting, including stormwater pollution prevention plans, construction of Highmount Golf Club is broken up into Phase 1(A) and Phase 1(B). Phase 1(A) includes holes 3-8, 10, 18 and the practice range, and Phase 1(B) includes the remainder of the golf course.

"Above all, we want to preserve the artistic, cultural, educational and historical assets of our town. We recognize that The Catskill Park and Forest Preserve, the Belleayre Ski Center and the scenic value of Route 28 and 42 are our centerpiece assets. We want to preserve the character of these corridors as clusters of commercial enterprises separated by open spaces and with a minimum of roadside advertisements and with non-intrusive signage. We also want to encourage the development of the Belleayre Ski Center into an all-seasons attraction." Similarly, the Middletown Comprehensive Plan adopted in December 2011 describes the Town's defined character as follows.

"The Town of Middletown recognizes the importance of a positive community image and maintenance of community character to assist the Town in instilling a sense of pride and wellbeing in the community, assuring quality employment, and improving tourism. A quality built environment contributes to the overall economic, environmental, and social well-being of Middletown. Community character contributes to the quality of life and community livability into the future."

1.3.B. History of Belleayre and Highmount Ski Centers

There is a description of the history of BMSC in DEIS Section 1.3.1.

Skier attendance for the period 1987 to 2002 were presented in the DEIS, and SDEIS Figure 1-5, below is an update to show how total ski season attendance has increased over the period 1987-1988 to 2009-2010.

Figure 1-5 BMSC Ski Season Attendance

In the period following the DEIS, the peak daily attendance at BMSC occurred over the Martin Luther King holiday weekend in 2008 when Saturday attendance was 5,890 people.

As of February 2011, it was thought that the 2010-2011 ski season may set records for annual attendance at BMSC. "With the spring skiing season just around the corner, the state-owned Belleayre Mountain center is hoping to break its 2007-2008 season total of more than 181,000 skiers. Through this past Presidents' Day weekend, more than 125,000 people hit the slopes so far this winter. More skiers mean more tourists, said Ulster County Tourism Director Rick Remsnyder. 'Belleayre has such a great economic impact on Ulster County,' he said. 'You can see the ripple effect of the Mountain in the number of people in the streets and shops of Ulster'". (http://www.midhudsonnews.com/News/2011/February/23/Belle_record-23Feb11.html)

Additional information regarding BMSC can be found in the UMP/DEIS in Part A of this document.

Highmount Ski Area was opened in 1946 by the Davenport family. Highmount was one of the earliest ski areas in New York State, following the Pine Hill Tow behind the Colonial Inn and then Simpson Memorial Ski Slope in Phoenicia which opened in January 1936. Through the mid 1970's Highmount was serviced by a tow rope and in 1983 it installed its first chairlift, the Friend's Double Chair which was obtained from Jiminy Peak. A Poma lift was installed shortly thereafter. Prior to its closing, Highmount was listed as having a vertical drop of 1,050 feet with 8 trails, a longest run of 1.5 miles, and a lift capacity (at that time 3 t-bars, 1 tow and 1 chair) of 5,000 per hour. Highmount ceased operations in 1993. Below is a photograph of the trail map at Highmount.



Figure 1-6 Trail map at old Highmount Ski Area

- 1.3.C. Background and History of Local and Regional Land Use Regulations
 - 1.3.C.1 Local Level

The Towns of Shandaken and Middletown have zoning ordinances and subdivision regulations in place. See the DEIS for a description of the chronology of the adoption and updating of these regulations. Shandaken and Middletown land use regulations have not changed since the preparation of the DEIS. It should be noted that the importance of tourism to the Town of Shandaken is demonstrated by the provision in the Zoning Ordinance which allows resorts, by special permit, in any zone in Shandaken.

Subsequent to the DEIS, the Town of Shandaken adopted a Comprehensive Plan in 2005. The following 6 goals and objectives are contained in the Comprehensive Plan.

- Protect and preserve the environmental, historical and cultural features and resources within the Town of Shandaken from harm, physical degradation and visual impacts.
- Promote the economic development of the Town of Shandaken to ensure an acceptable standard of living for its residents.
- Provide programs and laws to guide future development toward desired patterns within the Town of Shandaken.
- Provide the infrastructure necessary to meet the other Comprehensive Plan goals and to meet the health safety and quality of life needs of the residents of Shandaken.
- Be proactive in establishing regional partnerships to address issues that transcend the Town boundaries.
- Develop community education and outreach programs to foster an understanding of key issues facing the Town and encourage public participation in developing effective solutions.

The Town of Middletown adopted a Comprehensive Plan in December 2011. The newly adopted comprehensive plan includes the following 10 goals.

- 1. To preserve and extend the enjoyment of peace and tranquility of residents on their land and to provide an improved quality of life for the Town.
- 2. To conserve the land, water, forest, mineral, historic and scenic resources of the Town for the use and enjoyment of all its residents.
- 3. To prevent degradation of the quality of the surface and groundwater supply.
- 4. To encourage the properly regulated development of housing, business, industry and community facilities according to a master plan of balanced use.
- 5. To assure that every dwelling and place of work is supported by an adequate supply of potable water, sewage treatment and disposal, solid waste disposal, energy and access.
- 6. To promote safe, efficient, and well-maintained and designed pedestrian and vehicular traffic.
- 7. To provide adequate land and resources for recreation and preservation of the Town's rural character.
- 8. To maintain a balanced and equitable tax base.
- 9. To protect buildings and people from the harm of flood, fire, detrimental land use, and impairment of their natural resources.

10. To ensure that this area is a place where you can live, work and thrive economically ones' entire life.

Section 3.8 of this SDEIS, Land Use and Planning, provides an assessment of the proposed project's consistency with the pertinent goals and objectives of the Comprehensive Plans of Shandaken and Middletown.

1.3.C.2 County Level

The DEIS (see page 1-8) also discussed any pertinent County-level (Ulster and Delaware) planning documents that were in place at the time.

Subsequent to the DEIS the following County-level documents have been prepared.

- Ulster County Open Space Plan (Ulster County Environmental Management Council and Ulster County Planning Board),
- Ulster Tomorrow, a Sustainable Economic Development Plan for Ulster County (Ulster County Development Corporation, Ulster County Industrial Development Agency and Ulster County Planning Board),
- Priority Strategies to Support Housing Development in Ulster County (Economic and Policy Resources, Crane Associates, Cope Associates, and Ulster County Planning Board) and
- East Branch Delaware River Stream Corridor Management Plan (Delaware County Soil and Water Conservation District and Delaware County Planning Department in cooperation with NYCDEP).

1.3.C.2.a. Ulster County Open Space Plan

The December 2007 Ulster County Open Space Plan lists 7 resource strategies that form the basis of the Plan.

- Identify, permanently protect and manage critical open space resources and systems
- Protect and manage water resources
- Enhance the viability and protection of working landscapes
- Protect the County's valuable landforms and natural features
- Develop priority biodiversity areas and ensure that land use decisions incorporate habitat protection and species diversity
- Promote stewardship of historic and cultural resources
- Create, preserve, enhance and provide managed access to parks, hiking trails, active and passive recreation facilities, and historic resources.

Section 3.8 of this SDEIS, Land Use and Planning, provides an assessment of the proposed project's consistency with the pertinent goals and objectives of the Ulster County's Open Space Plan.

1.3.C.2.b Ulster Tomorrow, A Sustainable Economic Development Plan for Ulster County

This March 2007 Plan states 4 goals and provides a number of strategies to achieve these goals.

Goal 1: Focus the economic development process

- Cultivate a community of economic development leaders
- Create a culture of change and collaboration
- Develop measured accountability
- Redesign the economic development services network
- Streamline local and permit review process

Goal 2: Improve economic development capacity

- Develop appropriate infrastructure
- Preserve and enhance quality of life
- Create a labor force capability in line with business needs

Goal 3: Energize economic development services

- Target assistance to emerging businesses
- Recruit a diverse business base
- Retain and expand existing businesses

Goal 4: Strengthen key industries

- Enhance travel and tourism
- Maintain viability of agriculture
- Develop "green" and renewable energy technologies
- Nurture creative economy, including knowledge-based industries

The project will assist the County in strengthening its key travel and tourism industry.

1.3.C.2.c Priority Strategies to Support Housing Development in Ulster County

In this July 2005 document recommendations on housing issues were developed as suggested approaches for the Ulster County Housing Consortium to consider. As per language in this document, these recommendations are advisory unless or until they are adopted-implemented by the Consortium in its on-going efforts, and/or are codified in municipal ordinances, and in state and county statute for those tools-policies that require ordinance changes and enabling legislation.

These advisory recommendations are aimed at County and municipal-level efforts and are not particularly pertinent to the resort project. No changes to the local land use regulations in either Shandaken or Middletown have been made as a result of this document, and the local land use regulations remain in place as they were at the time of the DEIS.

1.3.C.3 Regional Level

The DEIS discussed a number of pertinent plans and studies including the following.

- Catskill Park State Land Master Plan (CPSLMP)
- Big Indian-Beaverkill Wilderness Area Unit Management Plan
- Shandaken Wild Forest Unit Management Plan
- Watershed Memorandum of Agreement
- Route 28 Corridor Committee Study
- Tourism Development Plan for the Central Catskills
- West of Hudson Economic Development Study
- Catskill Forest Preserve Access Plan
- Vollmer Associates 1963 Evaluation of Belleayre Mountain Ski Center
- Sno-engineering 1988 Evaluation of Belleayre Mountain Ski Center.

The DEIS discussed how the DEIS-project was consistent with many of the goals and objectives of these numerous plans and studies.

Since the time the DEIS was completed changes were made to NYSDEC's August 2003 Draft Revision to the CPSLMP, and the 1985 Master Plan was officially updated with the issuance of the September 2008 Catskill Park State Land Master Plan.

Specific changes from the original plan include the following:

- Create a new land classification-Primitive Bicycle Corridor-to encompass approximately 156 acres. The Master Plan reclassifies four trail corridors (100 feet wide) through existing or proposed new wilderness areas, mostly in Greene County, that will allow the public to use a bicycle but will otherwise be managed according to wilderness guidelines. These corridors are along old roads and have had historic bicycle use:
 - a. Indian Head Wilderness: Mink Hollow Road-its entire length through the Indian Head Wilderness (3.2 miles)
 - b. Indian Head Wilderness: Overlook Turnpike from the Overlook Mountain Wild Forest boundary to Platte Clove and Prediger Road (4.5 miles)
 - c. Hunter-Westkill Wilderness: Diamond Notch Road-its entire length through the Hunter-Westkill Wilderness (3.2 miles)

- d. Blackhead Range Wilderness: Colgate Lake -Dutcher Notch Trail, an old road including Colgate Lake Wild Forest to Stork's Nest (2.4 miles)
- In Wild Forests, allow for bicycle use on roads open to the public, state truck trails, old wood roads, foot trails, snowmobile trails, and horse trails, unless such use is deemed unsuitable through the Unit Management Planning process.
- Increase the size of the Colgate Wild Forest from 600 acres to 1,495 acres, utilizing the 2,400-foot contour as the boundary. This will provide increased opportunities for recreation appropriate in Wild Forests, including bicycle use.
- Include invasive species management, as the original Master Plan did not contain any reference to this emerging threat. DEC and its new Office of Invasive Species will work with the Catskill Region Invasive Species Partnership to help identify and educate the public about invasive species. In addition, DEC may take necessary actions to control exotic invasive species where there is potential for significant degradation to the native ecosystem.

Section 3.8 of this SDEIS, Land Use and Planning, provides an assessment of the proposed project's consistency with the pertinent goals and objectives of the new CPSLMP.

1.3.D & E. Project Need

For almost fifty years, the economic decline of the Central Catskills and the potential for a revitalized tourist economy has been subject of studies by a variety of consultants and commissions. Crossroads Ventures, LLC was formed to address the recommendations these studies have made, and believes that the Belleayre Resort Project is the ideal fulfillment of the needs stressed by these studies.

Section 1.3.2 of the original DEIS previously noted that the BMSC was the primary economic engine of the Catskill High Peaks area at the nexus of the three major Catskill counties: Ulster, Greene and Delaware.

BMSC is the major attraction, the key destination, the focus of activity for outsiders and the major generator of information for the world outside the region. When its annual visitation is down – as it was for the middle years of the 1990's – all of the region's businesses suffer. When annual visitation is up, as it was between 2010 and 2011-, virtually all local businesses benefit. It is the project sponsor's belief that improvements to the BMSC could substantially increase the BMSC's present visitation even more.

The overwhelming majority of its current visitors drive to and from the area in a single day. In order for the BMSC to have the most salutary effect on the local economy, a major portion of these day-trips need to be converted into overnight stays. Only then will the local shops, restaurants, and lodging facilities see a significant improvement in their fortunes. One of the primary barriers to this transition is the number and character of available hotel rooms. Of the limited available rooms in the region many of them are quite fine, but many more offering only

very basic and outdated accommodations. If BMSC is to achieve its potential, it needs a major increase in the number and caliber of hotel rooms on the order of 500 additional hotel rooms.

With this need in mind Crossroads Ventures also recognizes that Resort areas – whether based on skiing or other activities – require a rounded menu of high-end and moderately priced rooms, together with an exciting array of shopping, après-ski and other entertainments and these for a variety of family age-groups. The Belleavre Resort at Catskill Park has been conceived and planned to serve as a major contributor to the ambient circumstances which will enable BMSC and the region – to reach its full potential. As proposed it will become an unrivaled upscale, four-season resort directly serving the New York metropolitan area. It will also be the most environmentally advanced and responsible lodging development project the region has ever seen. With ski-in, ski-out privileges, ±15,000-square-foot conference facilities, 18 holes of championship golf, and two separate full-service spa operations, the resort features a full array of year-round demand generators. For example, the conference facilities alone address a core need of the region for space with attached lodging where one can hold conferences, weddings, proms, banquets and the like. This feature in turn would generate an increase in the need for local florists, photographers, entertainers and other ancillary services. In addition, the projected annual expenditures of \$10.64 million by resort guest and employees outside the resort would provide a major stimulus to the local economy as well as support local and regional cultural events.

As more fully detailed in Appendix 5 "Fiscal and Marketing Information" a market study and feasibility analysis on the viability of the Belleayre Resort at Catskill Park was prepared by two internationally acclaimed hotel and lodging consultants, HVS International of New York, preeminent specialists in hotel consulting and appraisal worldwide, and Ragatz Associates of Eugene, Oregon, perhaps the country's leading authorities on time-share and factional interest developments. These studies evaluated the project site, physical improvements to the site together with proposed amenities, resort visitation and occupancy, projections of income and expense for the various resort lodging units and a review of the competitive resort lodging facilities that could compete with the Belleayre Resort.

Their conclusion was as follows:

"The Belleayre Resort at Catskill Park represents a development with no regional parallel. The resort will offer an exceptional combination of natural features and architectural integrity, convenience to a large population base with high levels of disposable income, and world-class facilities. The project developer will seek to affiliate the hotels with separate but complementary brands, which will greatly enhance the marketability of the vacation ownership units. The characteristics and operating advantages detailed here amount to an extraordinary asset that can reasonably be expected to gain recognition as one of the premier destinations and vacation ownership unites in the world, and the top-quality facility of this sort in the Northeastern United States" (HVS).

"The Belleayre Resort at Catskill Park as currently proposed, will become the only upscale, four season resort directly serving the New York metropolitan area. It will also be the most environmentally advanced and responsible large-scale development project the region has ever seen" (Ragatz).

While these conclusions alone do not guarantee the financial success of the proposed Belleavre Resort, they do point to the underlying facts that:

- The Belleayre Resort will be located within a 150 minute drive of over 23 million potential customers.
- The resort's customer base is one of the most affluent in the country.
- There is no competition in the Northeast like it closer to the greater NYC metropolitan area. To reach the nearest equivalent, visitors from there would have to drive more than four or five hours to the vacation areas of the Adirondacks or Vermont.
- The resort is able to appeal to and attract both mid and high income resort guests.
- The resort intends to set a new standard for environmental sensitivity in terms of architectural design, operation and resort programming.
- The resort, being situated next to the Belleayre Ski Center, close to hundreds of miles of hiking and bike trails, offering a wide variety of outdoor and in-door recreational activities from skiing, golf, tennis and swimming to fly fishing and bird watching, provides resort guests an opportunity to experience the region in any season.
- The resort adds to Belleayre Mountain's year round activities to balance skiing.

Based upon the projected sales pace of the time-share and fractional interest units being offered at the Resort, as detailed in the Ragatz marketing and feasibility analysis, it is anticipated that the various elements of the Project will be built out in four distinct stages as outlined below and as further detailed in Section 2.8.9.F, "Overall Construction Schedule". It is the intention of the developer to construct the detached lodging units in Stages 2-4 on an "as sold" basis, over a projected period of eight to nine years after construction of each hotel. Depending on market demand this timeline could be shortened or extended. The dates indicated here are subject to the timely issuance of permits necessary to begin construction and the projected sales pace:

Wildacres Resort

_Stage 1 (Years 1-3)

Golf Course and Club Facilities 208 Hotel Units 42 Hotel Fractional Units Detached Parking Garage (1) 10-Unit "Model" Building

Sub-Total: 260 Units

Highmount Spa Resort	<u>Stage 1 (Years 1-3)</u>		
120 Hotel Units 53 Sami datashad Fractional Units			
Ski Lift and Trails			
	Sub-Total:	173 Units	
Wildacres Resort	Stag	ge 2 (Years 3-8)	
Front 9 Village Community Club House			
94 Detached Time Share Units			
59 Detached Fractional Units			
Marlowe Mansion Adaptive Reuse			
Wilderness Activity Center	Sub-Total:	153 Units	
Highmount Spa Resort	Stag	ge 2 (Years 4 & 5)	
27 Semi-detached Fractional Unit Lodge I	Building	27 1 1	
	Sub-Total:	27 Units	
16 Datashad Erectional Units	Sta	ge 3 (Years 5-9)	
Leach Farm Conference Center Adaptive	Reuse		
	Sub-Total:	16 Units	
Grand Total at Wi Grand Total at Hi	ildacres: ghmount:	413 Units 216 Units	
1.3.F. Current Economic Development S	trategy for the H	Region	
Section 1.3.2 of the DEIS discussed a number of s the following.	studies and strat	tegies for the region including	

- 1963 Vollmer Associates, BMSC Assessment
- 1988 Sno-engineering BMSC Comprehensive Management Study
- 1994 Route 28 Corridor Committee Study
- 1998 Tourism Development Plan for the Central Catskills
- 1998 & 1999 West of Hudson Economic Development Study

The proposed project is consistent with the goals of all of these studies.

Recently, both Delaware County and Ulster County recognized the need for the Modified Project and its importance for economic development in the region. In April of 2010 both the Ulster County Legislature and the Delaware Board of Supervisors passed resolutions supporting the construction of the Project. Copies of these resolutions can be found in Appendix 6. Both Counties expressed their commitment to and strong support for economic development and the tourism industry. Over the past 10 years Ulster County alone has spent almost \$10 million to improve economic development with over two-thirds of that total spent on efforts to improve and encourage tourism.

Both Counties reported declining economic conditions including recent job losses, reductions in household income, and flat or decreasing tax revenues. The job creation, wages and tax revenues projected for the Project were cited to in both Counties' resolution of support.

In the summer of 2000, a Business Community Survey was conducted, and the results of this study were discussed in Section 7 and Appendix 26 of the DEIS. Of the 153 survey returns, 17 demanded anonymity, while 136 or nearly 89% were comfortable revealing who they were. As of February 9, 2011, of the 136 businesses who participated in the survey and identified themselves by name, 44 businesses, or nearly 1/3, have since closed and have not been replaced by a similar or another business. Of the 44 closed, the breakdown is as follows: 9 restaurants; 3 hotels; 4 automotive; 1 amusement/recreation; 1 real estate agency; 6 building construction/materials; 13 miscellaneous retail; and 7 personal services.

- 1.3.G. Project Benefits
- 1. Employment

The proposed project will provide significant employment opportunities.

During the construction phase the project will generate a total of 2,176 person years of direct employment and an additional 1,812 person years of indirect employment. The construction phase will produce direct wages and salaries of \$112.7 million and indirect wages and salaries of \$191.34 million.

The operation phase of the project will generate approximately 541 full-time jobs and 230 seasonal and part-time positions, or a total of 771 jobs, with an annual payroll of \$24.85 million. The operation phase of the project will also produce 264 indirect off-site jobs in the region with indirect wages and salaries of \$12.96 million.

A breakdown of the full-time salaried and hourly staff positions in each hotel by their title and anticipated pay (not including fringe benefits and gratuity income) is detailed below:

Highmount Spa Resort # HIRED SALARIED PAY POSITIONS

Wildacres Resort# HIRED SALARIED PAYPOSITIONS

1	\$130,000.00	General Manager	1	\$130,000.00	General Manager
1	\$ 61,600.00	Director of Operations	1	\$ 61,600.00	Director of Operations
1	\$ 63,500.00	Revenue Manager	1	\$ 63,500.00	Revenue Manager
1	\$ 35,000.00	Executive Secretary	1	\$ 35,000.00	Executive Secretary
1	\$ 40,000.00	Laundry Manager	1	\$ 40,000.00	Laundry Manager
1	\$ 97,400.00	Director of Sales	1	\$ 97,400.00	Director of Sales
1	\$ 85,300.00	Senior Sales Manager	1	\$ 85,300.00	Senior Sales Manager
1	\$ 45,000.00	Executive Meeting Manager	1	\$ 45,000.00	Executive Meeting Mgr.
1	\$ 55,600.00	Conference Services Manager	1	\$ 55,600.00	Conference Service Mgr.
1	\$ 62,300.00	Director of Catering	1	\$ 62,300.00	Director of Catering
1	\$ 35,000.00	Catering Sales Manager	1	\$ 35,000.00	Catering Sales Manager
4	\$ 45,000.00	Sales	4	\$ 45,000.00	Sales
1	\$ 40,000.00	Reservations Manager	1	\$ 40,000.00	Reservations Manager
1	\$ 44,300.00	Front Office Manager	1	\$ 44,300.00	Front Office Manager
1	\$ 44,300.00	Guest Services Manager	1	\$ 44,300.00	Guest Services Manager
1	\$ 30,000.00	Asst. Front Office Manager	1	\$ 30,000.00	Asst. Front Office Mgr.
1	\$ 50,000.00	Executive Housekeeper	1	\$ 50,000.00	Executive Housekeeper
1	\$ 38,700.00	Asst. Executive Housekeeper	1	\$ 38,700.00	Asst. Exec. Housekeeper
1	\$100,000.00	Spa Manager	1	\$ 80,000.00	Spa Manager
1	\$ 70,000.00	Director of Rooms	1	\$ 70,000.00	Director of Rooms
1	\$ 86,200.00	F & B Operations Manager	1	\$ 86,200.00	F & B Operations Mgr.
3	\$ 42,200.00	Dining Room Manager	2	\$ 42,200.00	Dining Room Manager
1	\$ 81,400.00	Executive Chef	1	\$ 81,400.00	Executive Chef
3	\$ 50,600.00	Dining Room Chef	3	\$ 50,600.00	Dining Room Chef
1	\$ 51,800.00	Banquet Chef	1	\$ 51,800.00	Banquet Chef
1	\$ 51,800.00	Pastry Chef	1	\$ 51,800.00	Pastry Chef
1	\$ 62,300.00	Banquet Manager	1	\$ 62,300.00	Banquet Manager
1	\$ 49,000.00	Director of Security	1	\$ 49,000.00	Director of Security
1	\$ 75,300.00	Human Resources Director	1	\$ 75,300.00	Human Resources Dir.
1	\$ 51,000.00	Training Coordinator	1	\$ 51,000.00	Training Coordinator
1	\$ 55,000.00	Fractional Share Manager	1	\$ 55,000.00	Time Share Manager
1	\$ 81,600.00	Hotel Controller	1	\$ 81,600.00	Hotel Controller
1	\$ 44,300.00	Night Manager	1	\$ 44,300.00	Night Manager
1	\$ 35,000.00	Purchasing Manager	1	\$ 35,000.00	Purchasing Manager
1	\$ 65,000.00	IT Manager	1	\$ 65,000.00	IT Manager
1	\$ 60,000.00	Chief Engineer	1	\$ 60,000.00	Chief Engineer
1	\$ 48,300.00	Asst. Chief Engineer	1	\$ 48,300.00	Asst. Chief Engineer
			1	\$ 50,000.00	Retail Manager
			1	\$ 90,000.00	Golf Manager
			1	\$ 45,000.00	Asst. Golf Manager
44	\$ 56,463.64	Avg. Salary for 44 Positions	46	\$ 56,678.26 Av	g. Salary for 46 Positions

# HIRED	HOURLY	<u>RATE FULL TIME STAFF</u>	# HIRED HOURLY RATE FULL TIME STAFE		
29	\$13.00	Front Office/Reservations/Valet	29	\$13.00	Front Office/Reservations/Valet
44	\$12.00	Housekeeping	41	\$12.00	Housekeeping
20	\$25.00	Engineering / Security	12	\$25.00	Engineering / Security
27	\$17.00	Restaurant	28	\$17.00	Restaurant
8	\$17.00	Bar	5	\$17.00	Bar
6	\$17.00	Room Service	5	\$17.00	Room Service
5	\$17.00	Banquets	12	\$17.00	Banquets
24	\$15.00	Kitchen / Steward	23	\$15.00	Kitchen / Steward
4	\$15.00	Accounting	4	\$15.00	Accounting
7	\$13.00	PBX	7	\$13.00	PBX
3	\$15.00	Administration	3	\$15.00	Administration
4	\$15.00	Laundry	4	\$15.00	Laundry
4	\$10.00	Life Guards	4	\$10.00	Life Guards
			9	\$11.00	Retail
			4	\$12.00	Wilderness Center
			4	\$12.00	Children's Center
			5	\$15.00	Time Share Admin.
185	\$14.87	Avg. Hourly Wages	199	\$14.66	Avg. Hourly Wages
			******	D	
Highmour	it Spa Resort	t	Wild	acres Reso	ort
	HOUKLY			нос	KLY

Wildacres Resort

HIRED RATE SUB-CONTRACTORS **# HIRED RATE** SUB-CONTRACTORS 45 \$30.00 Spa Therapists 22 Spa Therapists \$30.00

TOTAL: 274 employed at Highmount TOTAL: 267 employed at Wildacres

Highmount Spa Resort

HIRED HOURLY RATE FULL TIME STAFF

In addition to the need for full-time employees, the resort is expected to employ up to 230 parttime/seasonal employees with wages ranging from \$10.00-\$16.00 per hour. About 87% (190) of the part-time employees would be needed in hotel administration, guest services, food and beverage, and housekeeping, with another 17% (40) to maintain the golf course and hotel grounds.

Because the Belleavre Resort at Catskill Park is envisioned as a world class resort with a wide range of offered amenities and dining experiences it is critical to employ a well trained staff to set and maintain lodging and hospitality standards common to such resorts and the hotel brands they may be affiliated with. To ensure that the high four and five star standards are achieved for the operation of the Belleavre Resort, it is envisioned that the resort developers will seek out affiliation with nationally recognized first class and luxury hotel brand operators. (See HVS "Market Study and Feasibility Analysis" in Appendix 5.) Such operators typically conduct extensive staff training programs prior to the commencement of new a hotel as well as ongoing training programs during their tenure as resort operators. These training programs help to ensure that all employees of the resort provide a consistent level of service that meets the standards of the resort operators and the expectations of resort guests.

To further ensure the availability of personnel to qualify for employment at the Belleayre Resort complex, resort developers will establish on-going relationships with various state and regional education institutions, such as Cornell, NYU, SUNY Delhi, SUNY New Paltz, Culinary Institute of America, etc., which offer degree and advanced course programs in various hospitality disciplines. By working closely with these institutions to support the employment needs of the resort, the resort developers hope to help staunch the outflow of post-secondary school graduates from the region, looking for career opportunities beyond the Catskills, as well as provide job opportunities for local residents with skills needed to successfully operate the resort.

2. Preservation of Open Space

Crossroads proposes to preserve the vast majority of its land holdings as open space, both public and private. The Big Indian parcels containing approximately 1,189 acres of undeveloped land have been conveyed to the State of New York with the transaction closing at the end of 2011. The lands are contiguous with the Big Indian Wilderness Area and nearby the Shandaken Wild Forest. Public ownership of these lands allows for additional recreational opportunities and protection of natural resources and water quality. The protection of water quality is especially important because the property is located in the watershed of Esopus Creek and the Ashokan Reservoir watershed, both of which are in New York State's 2010 list of Section 303(d) List of Impaired Waters.

An additional 203+/- acres of Project site lands, known as the Adelstein Property located west of the former Highmount Ski Center was recently put into a Conservation Easement granted to the City of New York. See Section 2.5 for a description of the Conservation Easement and Appendix 2 for a copy of the recorded easement.

Approximately 105 acres of project site lands that include portions of the former Highmount Ski area may also be made available for sale or lease to the State of New York or another public entity for operation as a ski center, potentially by BMSC.

With respect to the remaining 739 acres currently held by Crossroads Ventures for the Project, 521 acres, or over 70%, is proposed to remain as open space..

3. Roadway Improvements

The proposed project includes some road improvement measures that are also necessary to improve access and circulation around the BMSC. These improvements are needed and will be beneficial under the current operating conditions of BMSC. Roadway improvements proposed as part of this project include realignment of a section of Ulster County Road 49A in the vicinity of the existing main (upper) driveway to the BMSC. Motorists making a right turn out of the BMSC main (upper) driveway to go towards NY Route 28 currently have to contend with limited sight distances to their left. Horizontal and vertical realignment on Ulster County Road 49A proposed as part of the project will improve sight distances and provide safer conditions. Also proposed are some improvements to County Route 49A between the upper driveway of the BMSC Center and the proposed entrance to Highmount. These improvements include road

widening and a reduction of some existing road grades (slopes). The improvements proposed for the NY Route 28 and Ulster County Road 49A intersection include a left hand turn lane off of west bound NY Route 28 onto Ulster County Road 49A and a right hand turn lane from County Road 49A to NY Route 28 eastbound. A traffic signal that will be fully operational in the winter months and on flash in other months is also proposed for this intersection. These measures will improve through traffic flow on NY Route 28 as well as improve turning movements onto and off NY Route 28.

4. Tax Revenues

During the operational phase when the proposed Project is fully built out, the Resort would provide annual sales tax revenues to Ulster County and New York State. On an annual basis, these taxes are estimated to include \$2.69 million in sales taxes for Ulster County, and \$2.69 million to New York State.⁷

Upon full development of the proposed project, the taxable assessed value is estimated to be nearly \$60 million. By 2031, when all construction is completed, and when all business investment tax exemptions have expired, there will be an estimated annual property tax revenue increase of \$3.49 million in Shandaken and Ulster County. These future property tax amounts are estimated to be allocated as follows:

Ulster County General	\$	715,205
Shandaken Town General	\$	395,111
Shandaken Highway	\$	374,378
Highmount Fire	\$	167,154
Pine Hill Fire	\$	11,871
Pine Hill Light	\$	4,841
Pine Hill Water	\$	5,412
Onteora Library	\$	323
Onteora Central School	\$	419,306
Margaretville School	\$1	,400,446

At that point in the future, there would also be an annual property tax revenue increase of an estimated \$324,649 in Middletown and Delaware County allocated as follows:

Delaware County General	\$ 114,621
Middletown Town	\$ 51,182
Highway Outside Village	\$ 31,843
General Outside Village	\$ 2,119
Middletown FD #1	\$ 7,878
Margaretville School	\$ 117,006

⁷ The 2003 Draft Environmental Impact Statement (DEIS) estimated sales tax revenues generated by a hotel use that would be located within Delaware County. The revised program being advanced in this SEIS does not include uses that would generate sales tax revenues within Delaware County.

In addition to the employment and tax benefits provided by the project, it is projected that annual off-site Resort patron spending of \$10.64 million will occur, and that this will occur mostly in businesses located in local village and hamlet centers. These visitor-generated expenditures would result in additional sales tax generation accruing to the Counties and State.

Because the construction of the project is expected to take advantage of tax-related benefits available through the Ulster County Industrial Development Agency (IDA), sales tax revenue generation would not occur as a result of the project's direct construction expenditures. However, sales taxes would be generated by indirect construction-related expenditures, and from project-related, personal income, corporate and other business related expenses, including purchases made by contractor personnel involved in the construction of the Resort. These taxes will increase at the local, county, and State levels. For the construction phase of the project, tax revenues will include (in constant 2008 dollars) approximately \$146,000 for Delaware County, \$810,600 for Ulster County, and tax revenues of approximately \$14,670,100 for New York State.

5. Recreation

The project will help increase the attendance at BMSC. One of the goals of the facility improvements that have occurred at BMSC under their current 1998 Unit Management Plan was to increase capacity to serve 4,500 skiers per day. Recent attendance figures for Belleayre indicate that this figure was reached on four occasions during the 2009-2010 ski season. Of these four days of skier attendance over 4,500, none of these occurred on weekdays. With the extended stays of Resort guests weekday use will also increase as well as weekend use. Resort guests would also utilize the expanding summer activities that occur at the BMSC, including summer lift rides, concerts, craft fairs and dining.

6. Cultural Amenities

There is a considerable variety of cultural and arts related activities and organizations active in the towns of Middletown and Shandaken. These include:

- Open-Eye Theater (Arkville)
- Community Choral of the Catskills
- Roxbury Arts Group Festival
- October Festival at Belleayre Mountain Ski Center
- Shandaken Theatrical Society
- Shandaken's Festival of the Voice
- Shandaken's Art Studio Tours

- The German Alps Oktoberfest
- Belleayre Conservatory Music Festival
- Woodstock Film Festival (many of whose events take place at the Emerson Resort in Shandaken)
- Empire State Railway Museum
- Margaretville Memorial Hospital Auxiliary Crafts Fair
- Pakatakan Farmers Market

The sponsoring organizations of these activities all operate on a not-for-profit basis and the funds generated by their activities are applied to a variety of community causes. It is expected that some proportion of Resort guests will exhibit a keen interest in some, if not all, of these activities, thus enhancing the funding streams for these organizations.

The project will provide the added benefit of serving as an educational/instructional resource regarding the Catskill Park and the New York City Watershed for Resort guests. Information and activities provided by the Resort will enhance the appreciation of Resort guests of the benefits of the Park and the Watershed.

To further ensure the availability of personnel to qualify for employment at the Belleayre Resort complex, resort developers will establish on-going relationships with various state and regional education institutions, such as Cornell, NYU, SUNY Delhi, SUNY New Paltz, Culinary Institute of America, etc., which offer degree and advanced course programs in various hospitality disciplines. By working closely with these institutions to support the employment needs of the resort, the resort developers hope to help staunch the outflow of post-secondary school graduates from the region, looking for career opportunities beyond the Catskills, as well as provide job opportunities for local residents with skills needed to successfully operate the resort.

7. Promotion of Local Businesses and Economy

One of the important benefits provided by the Resort to local businesses along the Route 28 corridor is the planned inclusion in the Wildacres Hotel of a dedicated room to house a chamber of commerce/tourist information center that will supply Resort guests with information about recreational opportunities and other services and attractions in the Catskill State Park.

These other services and attractions could include everything from medical/dental services, auto repair, real estate offerings, to the full range of restaurant and food services located throughout the region. This information center would be staffed by the Resort to assist resort guests in both booking or reserving services outside the resort as well as mapping information on how to get to such services.
Except for any promotional materials that might be supplied by individual service providers, this information center would be operated at no cost to service providers outside the Resort.

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

In addition to reviewing the project as Involved and Interested Agencies under SEQRA, those agencies from which permits and approvals are being sought will also have separate review processes for the proposed project. Below is a description of the permits and approvals being sought. These are summarized in the following Table 1-1, "Permits and Approvals."

Table 1-1Permits and Approvals

Local

Town of Shandaken Planning Board Special Use Permit Site Plan Approval Town of Shandaken Town Board Approval to Form Transportation Corporation(s)

Town of Middletown Planning Board Special Use Permit Site Plan Approval

Town of Middletown Town Board Approval to Form Transportation Corporation(s)

Ulster and Delaware County

Health Department (Ulster only) Water Supply Infrastructure Wastewater Disposal Infrastructure Food service Hotels Swimming Pools Department of Public Works Bridges and Highways Division Road Improvements and Driveways

Regional

NYCDEP

Wastewater Treatment Plant Connection Stormwater Pollution Prevention and Impervious Surfaces

Delaware River Basin Committee Groundwater Withdrawal Approval

<u>State</u>

NYSDEC

Streambank Disturbance (golf cart bridge crossings) Water Supply Application Individual SPDES Permits for Stormwater Discharges associated with Construction and Operations Petroleum Bulk Storage Registration Chemical Bulk Storage Registration Sewer and Water System Infrastructure Signoffs

NYSDOH (Delaware County Facilities)

Water Supply Sewer System Infrastructure Signoffs Food Service for Delaware County Portion Hotels Swimming Pools

NYSDOT

NY Route 28 Improvements Speed Signage Approvals

Federal

None required.

1.4.1 Local Permits and Approvals

Figure 1-3, "Project Master Plan", illustrates the location and general types of development being proposed in relation to the County/Town boundary. Also see Drawings L1.00-L1.02 in the Site Plan set that is part of this SDEIS which shows the overall project layout at a larger scale.

The modified project will require Special Use Permit/Site Plan approvals from the Planning Boards in the Towns of Shandaken and Middletown. No variances are needed. The Site Plans and Water and Sewer Infrastructure Plans that are part of this SDEIS were prepared with the knowledge that they would also serve as the submission to the Towns for their approvals. Both Town's Town Boards will need to approve applications to form or to use existing transportation corporations that will operate and maintain the project water and sewer infrastructure. Review of the project at the local level for final approvals will occur subsequent to the SEQRA review of the project. Local Boards continue to participate in the SEQRA review of the project as involved agencies. A. Local Financial Assurance Requirements

Shandaken's zoning ordinance and subdivision regulations require the posting of performance guarantees/performance bonds as a condition of project approval. The amount of the surety is established by the Planning Board after consultation with the Town Attorney, Building Inspector, other local officials or its designated private consultants. See Section 105-14(A) of the subdivision regulations and Section 116-53 of the zoning ordinance.

Section 602(C)(6) of the Middletown Zoning Ordinance states that the Planning Board may require as a condition of approval that a financial guarantee be provided by the owner to ensure that the proposed development will be built in compliance with the accepted plans.

1.4.2 County

A. Health Department

Delaware County does not have a county-level health department. The Ulster County Health Department previously had jurisdiction over the original project water supply (Rosenthal wells) and wastewater collection and disposal. Since the Rosenthal wells are not part of the modified project and the modified project's water sources are in Delaware County, Ulster County DOH's involvement during SEQRA will be to a review the project's water distribution system and wastewater collection system. Utility drawings and water and sewer preliminary design reports are part of this SDEIS. Ulster County DOH will also be involved with the permits/approvals for the project restaurants, but this involvement will occur after the SEQRA process is completed. Highway

B. Bridges and Highways

Ulster County Bridges and Highways will need to review and approve the plans for the realignment of Ulster County Road 49A to enhance sight distances and improve road safety in the vicinity of the proposed access to the Wildacres Hotel. All project entrances onto County Road 49A will need to be reviewed and approved by the County Bridges and Highways Department including proposed grading, signage, and signaling. Preliminary plans and permit applications will be submitted to the County and the review process will run concurrently with the SEQRA review of the project.

C. Industrial Development Agency (IDA)

It is anticipated that the Ulster County IDA will be approached to utilize their financing and incentive programs such as mortgage recording tax exemptions, sales tax exemption, and real property tax abatement through a PILOT agreement. The effect of any such business investment exemptions are fully discussed in the Socioeconomic and Fiscal Conditions and Effects Report as prepared by AKRF, Inc. and included in Appendix 3.

1.4.3 Regional

A. NYCDEP

NYCDEP has authority to review and approve certain elements of the proposed project under its Watershed Regulations (15 Rules of the City of New York, Sections 18-11) including the design and construction of the project wastewater connection to its Pine Hill treatment plant, the location and construction of impervious surfaces, and the preparation and implementation of a stormwater pollution prevention plan to control runoff both during and after construction. To date there has been extensive coordination of the stormwater plans for the project with NYCDEP and this coordination will occur during the SEQRA review of the project.

B. DRBC

A permit will be required from the Delaware River Basin Commission for the groundwater withdrawals to serve the Project. A copy of this completed application is in Appendix 7 of this SDEIS.

C. Regional Agency Funding

The proposed project does not presently contemplate using funding from regional agencies.

1.4.4 State

A. NYSDEC

NYSDEC permit applications have been prepared for streambank disturbance for golf cart path bridge stream crossings (see Appendix 8), water supply application (see Appendix 9), and an individual stormwater SPDES permit (see Appendix 10). The project will require future registration with NYSDEC for petroleum bulk storage for fuels associated with resort operations and for chemical bulk storage for chlorine used with the resort's water supply and swimming and spa facilities. The project will not require an air permit. See the March 15, 2012 letter from CT Male in Appendix 24.

B. NYSDOT

NYSDOT is reviewing the revised Traffic Impact Study (SDEIS Appendix11) and the NY Route 28 CR 49A intersection improvement plans. A highway work permit will be required for road improvements at the NY Route 28 CR 49A intersections as well as for installing water and sewer lines within the NY Route 28 right-of-way.

C. NYSOPRHP

NYSOPRHP has reviewed the amended Stage 1B Supplemental Cultural Resources Studies (SDEIS Appendix 12), and has issued No Adverse Impact letters that are included in SDEIS Appendix 12. The Project Sponsor will carefully coordinate the adaptive reuse of any historic structures with the staff at NYSOPRHP.

D. NYSDOH

Per 1.4.2(A) above, NYSDOH is reviewing the project water supply plans and the Water Supply Preliminary Design Report (SDEIS plan sheets PN-1 through PN-20 and SDEIS Appendix13). NYSDOH will also be responsible for permits for Delaware County components including NYSDOH approval of sewer system infrastructure, food service, hotel buildings and swimming pools.

E. State Agency Funding

The proposed project does not presently contemplate using funding from New York State or its agencies.

1.4.5 Federal

The USACOE previously issued approvals for the original project.

On July 18, 2003 the ACOE issued a letter stating that an individual permit was not required for the original project and that the jurisdictional activities proposed could be accomplished under Department of the Army Nationwide Permit Number 14. (See DEIS Appendix 14, .ACOE Materials)

The modified project does not require any regulated impacts to the waters of the United States pursuant to Section 404 of the Clean Water Act. This was documented in correspondence to the USACOE on January 11, 2011 (See Appendix 14). Appendix 14 also includes an August 15, 2011 letter from the US Army Corps of Engineers stating that the Modified Project will not require a Department of the Army permit.

The proposed project does not involve funding from the Federal Government.

SECTION 1 FIGURES

(Note: the Applicant's address on the SDEIS Figures is outdated. The correct address should be: PO Box 466 (6 Galli Curci Road), Highmount, NY, 12441.)







Iby Justin Saveroep and Singhoff Constraint Constraints Data Plaures - 41 Paris 1, SDEE Project Network Intel Constraint Constraint Constraints Data Plaures - 41 Paris 1, SDEE Project Network 2017 (2017) (2017



SECTION 2 DESCRIPTION OF THE MODIFIED PROPOSED ACTION

2.1 Overall Project Design and Layout

See Figure 2-1, Project Master Plan, as well as Drawings L1.00 through L1.02 in the Site Plans that are part of this SDEIS.

The project consists of two development areas; Wildacres Resort (Wildacres) and Highmount Spa Resort (Highmount). Wildacres is planned to be a 3.5-4 star, 4-season resort with a focus on different types of outdoor recreation including golf, skiing, tennis, hiking, etc. The Wildacres Hotel is proposed across from the upper entrance to the Ski Center and the proposed new Belleayre West lift. Highmount is planned to be a 5-star, 4-season resort focused on spa and wellness center facilities and providing ski-in/ski-out access to Belleayre Mountain Ski Center trails. The western portion of the project site, known as the Adelstein parcel, has been put under a Conservation Easement granted to the City of New York and its use will be limited to passive recreational activities such as cross country skiing, snowshoeing, hiking, and horse riding.

The following table, "Project Development Summary", in conjunction with the project Master Plan on Figure 2-1, provides a general description of the different areas of the project site and the development proposed for the different areas.

PROJECT AREA	Hotel/ units	Detached Units	Other Improvements	Golf or Ski
Wildacres				
NE Corner, Front 9 Village	0/0	94	Clubhouse, Pool, Tennis (2)	6 Holes
North of Gunnison	0/0	0	Golf Maintenance	2 Holes
Main Parcel	1/250	69	Golf Clubhouse with Hotel, Parking Garage,	10 Holes,
			Marlowe Clubhouse, Tennis (2)	Lift nearby
Wilderness Activity Center	0/0	0	Wilderness Activity Center in Existing Buildings	Lift Nearby
Highmount				
Main Parcel	1/120	96*		3 Trails,
				Lift
North of CR 49A	0/0	0	None	None
West of CR 49A	0/0	0	Conference/Additional Space	None
Adelstein Cons. Easement.	0/0	0	None	None

Table 2-1Project Development Summary

* 80 of the 96 detached units at Highmount are actually housed within the multi-level hotel/spa and lodge buildings, only 16 units are truly detached duplex units.

2.2 Highmount Spa Resort

The lands that comprise Highmount Spa Resort part of the project were previously proposed as the location for a 20-lot single family home residential subdivision. This subdivision and development of single family homes is no longer proposed.

See Figure 2-2, "Highmount Layout Plan". Subsections "C" and "D" below list the full size plan sheets that show Highmount in greater detail.

A. Overall Description

The following are the development components proposed at Highmount. As discussed later in Section 2.8.1, all proposed building footprints are consistent with the sizes allocated in the AIP.

- 1. Main Hotel/Spa Building located in the northwest portion of the parcel this building has a footprint of 299,117 square feet and has 6 horseshoe-shaped levels intersecting with the upward slope of the ground topography.
 - a. 120 hotel rooms
 - b. 53 fractional lodging units within the building (formerly East and West Lodge in the AIP)
 - c. Café and sundry shop
 - d. 125-seat restaurant
 - e. 50-seat lounge
 - f. Spa-30 treatment rooms, lap pool, cafe
 - g. Fitness facilities
 - h. Executive conference center with 3 conference rooms, one board room and one large meeting room
- 2. Adjacent Lodge Building located to the southwest of the hotel/spa building and across the entrance driveway this building has a footprint of 51,887 square feet and has 4 levels.
 - a. 27 fractional lodging units within one building (formerly individual detached units in the AIP)
 - b. 1 common room for owners (card room, library or the like)
- 3. Detached Lodging Units The Agreement in Principle allows for up to 120 detached lodging units. Clustering at Highmount included placing 53 of the allowed detached lodging units within the multi-level main hotel/spa building and placing 27 of the allowed detached lodging units within the multi-level lodge building next to the main hotel/spa building. The proposed detached units are 16 duplex units in eight (8) 2,500 square feet buildings in two clusters of 4 buildings, one cluster located just to the west of the hotel building and the other cluster located along the entrance drive coming up to the hotel building. Unlike the Highmount plan in Exhibit C of the AIP, no detached lodging units are proposed above the hotel building, on the top of the Highmount ski area, or across County Route 49A.

- 4. 12,000 square feet Auxiliary Conference/Clubhouse functions west of County Route 49A. This will be an adaptive reuse of some of the Leach Farm buildings within an overall footprint of approximately 7,300 square feet.
- 5. Skiing
 - a. Lift from hotel/spa building to the top of old Highmount
 - b. Trails two down from the top of old Highmount, and one from the hotel/spa down to the bottom of old Highmount.
- 6. Driveway access off of County Route 49A to hotel/spa, lodge and detached units 1,580 feet (0.3) miles long.
- 7. Parking
 - a. 310 covered spaces within hotel/spa building
 - b. 31 covered spaces within the Lodge building
 - c. 1-car garage and 1 surface parking space per unit at each detached duplex unit
- 8. Water Supply central system, private supply
- 9. Wastewater-sewer collection system throughout and piped to Pine Hill WWTP.
- 10. Stormwater stormwater management is achieved in a system that includes a wet extended detention pond, micropool extended detention basins, bioretention, dry swales, conveyance swales and closed pipe/catch basin conveyances.
- B. Upper Access Driveway, Units and Stormwater Design

The Scoping Document requires a specific description of these project components that were included in the AIP Project plan. Because these project components are no longer proposed under the Modified Project plan, there is no need to address this topic here. Instead, this topic is covered in the alternatives section that discusses the AIP Project plan (see Section 5.2).

The following environmental benefits would be achieved under the proposed Modified Project plan.

- Further elimination of 5,580 feet (1.1 miles) of roadway, the majority of which is located on slopes >20%.
- Further reduction of approximately 6 acres of impervious surfaces from roads, buildings and driveways.
- Further reduction in the number of detached unit buildings by 24.
- Further reduction of approximately 17 acres of site disturbance.

- Reduction of the highest elevation proposed for development (with the exception of the ski trails, lift and warming hut) from 3080 feet to 2620 feet.
- Further reduction of the overall visibility of the project, including elimination of the very limited visibility of the project from Wild Forest, Forest Preserve lands on the Dry Brook Ridge Trail and the Balsam Lake Mountain Fire Tower. (See the VIA in Appendix 25)
- C. Site Plan and Utilities Mapping

See the following drawings in the Site Plan set that are Part of this SDEIS:

Master Plans, L1.00-L1.02 Site Grading and Drainage Plans, L4.00-L4.09 Phasing and Erosion Control Plans, L3.00-3.23 Slope Mapping and Final Stabilization Plans, L2.04-L2.05 and L3.24—L3.25 Site Layout, Materials and Planting Plan L6.00-L6.09

Information on proposed water and sewer infrastructure can be found in the Sheets PN-1 through PN-20 drawings that are also part of this SDEIS.

D. Project Plans and Slope Mapping

The development plan for Highmount is shown in the context of slopes >20% in the aforementioned grading drawings in the Site Plan set.

E. Building Plans

Figure 2-3 is a photograph of a scale model of the Hotel and Lodge buildings at Highmount

For floor plans of the Hotel/Spa see Figures 2-4a through 2-4f.

For floor plans of the Lodge see Figures 2-5a through 2-5d.

For building plans of the detached duplex lodging units see Figures 2-6 through 2-8.

See Figures 2-9 and 2-10 for the current concept for the additional conference/clubhouse space. Final design will be done in consultation with NYOPRHP.

2.3 Revised Wildacres Layout Including Highmount Golf Club

Figure 2-11, "Wildacres Layout Plan" shows the proposed Wildacres layout, including the Highmount Golf Club. For more details see the site plan drawings listed in subsection B below.

A. Overall Description and Changes to DEIS Plan

Overall Description

The following are the development components proposed at Wildacres.

- 1. 250 unit hotel with a footprint of 4.0 acres with 8 levels that step down the hillside across County Route 49A from the upper Ski Center entrance. See subsection D for building information.
 - a. Resort-related shops up to a total of 13,000 square feet
 - b. Two restaurants one with 150 seats and one with 300 seats
 - c. 100-seat beverage lounge
 - d. Indoor Pool
 - e. Two Tennis Courts
 - f. Full Service Spa with 15 treatment rooms and a grotto pool
 - g. Fitness Center
 - h. Conference Center with 500-seat ballroom/auditorium
 - i. 200-seat ballroom
 - j. Eight meeting rooms
- 2. Existing Marlowe Mansion to be social club for detached lodging unit guests, and resort operational offices. The DEIS contains a photograph of the existing building.
 - a. Library
 - b. Meeting Rooms
 - c. Game Rooms
 - d. Reception, sales and operations office space
- 3. Highmount Golf Club located on two areas north of Gunnison Road and on the main parcel south of Gunnison Road.
 - a. 18-hole championship golf course
 - b. Practice range and practice green
 - c. Clubhouse connected to the Hotel (footprint size included with hotel size provided above)
 - (1) 40-seat snack bar
 - (2) Pro shop
 - (3) Cart storage
 - (4) Locker rooms with steam and sauna
 - d. Maintenance Facility (for more details see SDEIS Appendix 15, Organic Golf Course Management Plan).
 - (1) +/- 1,500 sf offices, restrooms, lockers, break room
 - (2) +/- 4,800 sf maintenance area garage bays, mechanic space, storage, etc.
 - (3) +/- 1,000 sf organic fertilizer and pesticide storage area
 - (4) covered wash down, rinse/recovery area
 - (5) $2 \pm 1,000$ gallons above ground fuel storage tanks
 - e. Two on-course restroom buildings

4. 163 detached lodging units (2 and 3-bedrooms) in multiple-unit buildings clustered in the northeast portion of the site and near the hotel. In the northeast corner of Wildacres is the area known as the Front-9 Village that has a total of 94 units contained in 11 buildings. Ten (10) of these 11 buildings contain a third floor unit that was added in after the detached units were removed from the upper part of Highmount. Around the Wildacres Hotel are the other 69 detached units at Wildacres. Collectively these consist of 7 buildings and are referred to as the West Village. Each of the 7 buildings in the West Village contain two third-floor units. Originally these units were proposed for the upper portion of Highmount; this is no longer the preferred alternative.

All of the new third floor units would encompass, and be within, the footprint of the detached lodging buildings contained in the AIP plan. Parking for all units in the buildings, including these upper floor units, would be provided under the buildings and elevators would be added to connect the underground parking and the third floor units. Driveways and surface parking for visitors have been rearranged from the AIP plan to accommodate the underground parking. Also, the detached units in the Front-9 Village have been reconfigured slightly. The reconfiguration provides for a slightly tighter cluster in this area with units still staying off of slopes greater than 20%.

One of the units in the building closest to the driving range will be for non-residential, resort-operations use.

- 5. Clubhouse and recreation amenities for detached lodging unit occupants in the Front-9 Village. Footprint is 4,720 square feet. See subsection D for building information.
 - a. 40-seat snack bar
 - b. Outdoor swimming pool
 - c. Health club
 - d. Game rooms
 - e. Reception, sales and operations office
 - f. Two tennis courts
- 6. Wilderness Activity Center adaptive re-use of old Highmount Ski Area buildings along County Route 49A.
 - a. Existing main lodge building of Highmount Ski Area
 - (1) Café with lounge and library
 - (2) Locker rooms and weight training room
 - (3) Jacuzzi, sauna and steam room
 - b. 20-feet addition to existing main lodge
 - (1) Inside rock climbing wall
 - (2) Outdoor rock/ice climbing wall
 - (3) Enlarged outdoor deck
 - c. Existing ski rental shop outdoor products sales and rental shop
 - d. Staff to include guides to direct Resort guests to other off-site recreational uses including hiking, fishing, mountain biking, etc.
 - e. Shuttle access for Resort guests (Wildacres and Highmount)

- 7. Roads (all roads are internal and will be privately maintained)
 - a. Access connecting County Route 49A and Gunnison Road 4,511 feet
 - b. Connector to detached lodging units near 16th Fairway 1,029 feet
 - c. Front 9 Village Access off County Route 49A 1,889 feet
- 8. Driveways
 - a. Hotel driveway off of County Route 49A across from upper entrance to Ski Center
 - b. Connection between hotel and parking garage
 - c. Golf maintenance access off of Gunnison Road
 - d. Wilderness Activity Center shuttle access off County Route 49A
 - e. Driveways to detached lodging units.
- 9. Parking
 - a. Under hotel-250 covered spaces
 - b. Parking garage 208 covered spaces
 - c. Golf clubhouse 72 surface spaces
 - d. Golf maintenance-18 surface spaces
 - e. Front-9 Village-45 surface spaces at clubhouse
 - f. Detached Units 10 spaces under buildings with some surface spaces for visitors
- 10. Water Supply
 - a. Potable central water throughout, private system
 - b. Irrigation on-site wells and stormwater sources
- 11. Wastewater sewer collection system throughout and piped to Pine Hill WWTP.
- 12. Stormwater- P-2 Wet Pond (irrigation pond), P-5 Pocket Ponds and O-1 Dry Swales

SDEIS Changes to DEIS Wildacres Plans

In general, the proposed layout of the Wildacres Resort has been revised from the DEIS layout in the following ways.

- 1. Modification of project layout to adjust to changes in lands that comprise the project site.
 - Figure 2-12, "Changes to Wildacres Project Site" illustrates lands that were not part of the project site for the DEIS but have been added to the site. This same figure shows lands that were under contract by the Applicant at the time of the DEIS, but are no longer part of the project site. Also shown on Figure 2-12 are lands that are part of the Wildacres/Highmount site that may be sold or leased to the State of New York.

- 2. Reduced number of detached lodging units
 - The number of proposed detached lodging units had been reduced from 168 to 139 in accordance with the AIP plan (see Section 5.2). The number subsequently increased up to 163 with the relocation of the units from upper Highmount to Wildacres. This relocation was accomplished without increasing impervious area or building on slopes over 20% at Wildacres.
- 3. Modification of building locations and golf course layout to avoid slopes >20% as provided for in the AIP
 - New site topography mapping at a 2-foot contour interval (as compared to a 5-foot interval in the DEIS) was generated for this SDEIS and was used to produce slope mapping that shows the parts of the site that are greater than 20% slope. Figure 2-13, SDEIS Wildacres Plan and Slopes >20%, shows the current grading plan relative to areas of >20% slope. (Project Grading Plans, Drawings L4.00-L4.11, shows this same information at a larger scale.) For comparison, Figure 2-14, DEIS Wildacres Plan and Slopes >20%, show the DEIS grading plan and the >20% slope mapping. In the DEIS there were 5 Wildacres detached lodging unit buildings, a total of 40 units, proposed on slopes of 20% or more. In the SDEIS plans, slopes of 20% have been avoided when siting the detached lodging units. The AIP acknowledges that building lodging units only on slopes less than or equal to 20% will provide significant stormwater benefits for the project. This commitment by Crossroads is an enhancement beyond current NYSDEC and NYCDEP regulatory standards for steep slope construction (AIP #15). Avoidance of 20% slopes when siting the detached units was accomplished without an appreciable increase in the amount of golf course sited on lands >20%. In the SDEIS there is a 1% increase in the amount of golf on lands >20% over the DEIS (24.7 vs. 24.5 acres). While the amount of golf proposed to be on lands >20% was not reduced, the SDEIS now identifies areas of golf holes on slopes >20% where no earthwork is proposed, where no grubbing will be proposed, etc. See Section 3.3.2, Sediment and Erosion Control, for additional details.
 - The applicant's Modified Project plan also exceeds the requirements of the AIP by having the building locations in the SDEIS plans for Wildacres more clustered than those shown on the concept plan that was included as Exhibit A in the AIP. The 3 octoplexes that were shown on the AIP plan along the 15th fairway have been relocated as shown on the SDEIS plans. Instead there are detached lodging units in two locations, a cluster in the Front-9 Village in the northeast corner of the site and a cluster south and southwest of the Wildacres Hotel referred to collectively as the West Village. This clustering exceeds AIP requirements and achieves the overall goal of clustering and placing buildings on slopes less than 20% to the greatest extent practicable.

- 4. Modification of golf layout to reduce stream crossings and increase buffers along stream.
 - In Figure 2- 15, "SDEIS Stream Crossings" the streams on the site and their associated riparian wetlands are shown in blue along with the current layout plan. Figure 2-16 "DEIS Stream Crossings", is the DEIS project layout plan that also includes streams/wetlands. Overall, the number of stream crossings has been reduced from 20 in the DEIS plan to 14 in the current SDEIS. The following are the stream crossings under the two plans.

Golf Hole Stream Crossings (-1)

- SDEIS: (7 total): Hole 11(2), Hole 13 (2), Hole 16, Hole 7, Hole 3
- DEIS (8 total): Hole 11 (2), Hole 13 (2), Hole 16 (2), Hole 2, Hole 8

Golf Cart Path Stream Crossings (-4)

- SDEIS (6 total): #3 tees, between #8 green and #7 tees, #11 tees, #11 green, #13 tees, #16 tees
- DEIS (10 total): Hole 11(3), Hole 13 (2) Hole 16 (2), hole 16/17, Hole 2, Hole (8)

Road Crossings (-2)

- SDEIS (none new, replace 1 existing culverted crossing with bottomless steel arch)
- DEIS (2 total), to detached units along hole 16, entrance to NE units off Gunnison
- 5. Limiting Cuts and Fills

Cuts and fills are discussed in more detail in Section 2.8.8, Grading, Drainage and Earthwork. Excavation of the hotel produces the largest amount of cut on the site. Hotel excavation will occur primarily by blasting, including that part of the hotel located on slopes >20%, and these areas of exposed rock will not be susceptible to erosion. Using the material from the hotel on-site is the great majority of the fills needed to construct the project. Spoil from the hotel excavation will be used at a number of locations on the golf course (see Section 2.8.8), the great majority of which is on lands of <20%.

6. Allocating Areas for Stormwater

Proposed stormwater management is illustrated on Drawings L5.00-L5.15 in the Site Plan set. Stormwater controls for areas that have impervious surfaces (buildings, roads, parking, driveways) include the irrigation pond (P-2) and P-5 pocket ponds located near the Front-9 Village entrance off of County Route 49A, near hole 1 green/hole 2 tees, at the entrance off Gunnison Road, next to the driving range, between holes 13 and 16 and between holes 14 and 15. With the exception of a portion of this last pond, stormwater controls were graded out of lands of <20% slope.

B. Site Plans and Utilities Mapping

For more detail see the following drawings in the Site Plan set that are Part of this SDEIS:

Master Plans, L1.00-L1.02 Site Grading and Drainage Plans, L4.00-L4.11 Phasing and Erosion Control Plans, L3.00-3.21 Slope Mapping and Final Stabilization Plans, L2.04-L2.05 and L6.00-L6.11 Site Layout, Materials and Planting Plan

Information on proposed water and sewer infrastructure can be found in the Sheets PN-1 through PN-20 drawings that are also part of this SDEIS.

C. Project Plans and Slope Mapping

The development plan for Wildacres is shown in the context of slopes >20% in the aforementioned grading drawings in the Site Plan set.

D. Building Plans

For building plans of the Wildacres Hotel Figures 2-17 through 2-20.

Figures 2-21 through 2-27 are floor plans, roof plan, elevations, and rendering of the detached lodging units at Wildacres.

2.4 Wastewater Collection and Treatment – Pine Hills Wastewater Treatment Plant

Appendix 16 of this SDEIS contains the Wastewater Preliminary Design Report for the project. See this report for additional details.

A. Collection and Conveyance

In general, the wastewater at Highmount will be collected and pumped to Wildacres. The combined flow will be collected at Wildacres and pumped to the Pine Hill sewer system. After flowing by gravity through the Pine Hill sewer system, the wastewater will be treated at the Pine Hill WWTP that is owned and operated by NYCDEP. The WWTP discharges all its treated wastewater to Birch Creek pursuant to an existing SPDES permit.

The wastewater from the Highmount Hotel, Lodge and the detached lodging units will be conveyed to a below-grade pump station with submersible pumps. With a maximum day flow rate of 42,000 gpd and a peaking factor of 4, the capacity of the pump station will be 120 gpm. The below grade pump station will have a wet well with two submersible pumps. Each pump will have a capacity of 120 gpm. The pump station will receive its power from the hotel on a circuit that is backed up with a back-up generator. The 4-inch forced main will be approximately

4,600 linear feet and will connect with the low pressure sewer system within the Wildacres Resort.

The Wildacres Hotel, Club House and detached lodging units are proposed to be served by low pressure sewers (force main) with each buildings being served with duplex grinder pumps. The wastewater flow is collected at a below-grade pump station that is north of the golf course's hole 4 Tee. This pump station will be the final point of collection for all the Resort's wastewater. The pump station is proposed to be adjacent to the proposed 420,000 gallon equalization tank. With the total flow of 145,200 gpd and a peaking factor of 4, the design pumping rate of the pump station is 400 gpm. Because buildout of the project will take place over a number of years, the pumps are proposed to have variable frequency drives (VFD) to operate at a lower flow rate initially and then adjusted as flows increase. The initial pump rate is projected to be 280 gpm. The below-grade pump station is designed with a wet well with two submersible pumps. Each pump is designed to have VFD with a capacity of 400 gpm. The pump station is proposed to have its own generator for backup power since it is not near the Wildacres Hotel. The 6-inch forced main is proposed to be approximately 11,000 linear feet and to discharge at a gravity sewer on Academy Street in Pine Hill.

The detached lodging units in the Wildacres Front 9 Village area located in the northeastern portion of the Resort are proposed to be served by grinder pumps and a low pressure sewer system, where small diameter pipe connects the grinders and conveys the flow without the use of gravity sewers and manholes. The combined discharge from the low pressure sewer system is proposed to discharge to the pump station at Wildacres.

All of the sewer infrastructure is proposed to be located on the Resort's private property with the exception of a few road crossings and the approximately 11,000 linear feet of 6-inch forced main that is proposed to carry the flow to Pine Hill. The forced main is proposed to be located within the State Highway Route 28 right-of-way. The discharge point is proposed to be an existing gravity manhole located on Academy Street in Pine Hill

The Pine Hill WWTP currently experiences high flows during wet weather events due to inflow and infiltration issues with the existing Pine Hill sewer system. To assist the WWTP in dealing with the high flows, the AIP requires Crossroads to pay for a flow equalization tank at the WWTP. In recent discussions between the Applicant and NYCDEP, NYCDEP expressed a preference for Crossroads proposing to locate a storage tank on the project site instead of at the Pine Hill WWTP. In accordance with NYCDEP's preference, the design for the project wastewater infrastructure was adjusted to include a storage tank on the project site to be built by the Applicant and operated and maintained by NYCDEP. The tank is proposed to be sized to serve the needs of the Modified Project only. See section 3.1.4 for additional information regarding the equalization tank. B. Capacity of Pine Hill Wastewater Treatment Plant

The Pine Hill WWTP has a design flow of 500,000 gallons per day (gpd) and it provides advanced wastewater treatment including microfiltration of the final effluent per NYCDEP standards. The average day flows of the Pine Hill WWTP are reported at 130,000 gpd based on current operational reports.

The proposed 145,200 gpd wastewater flow rate is expected to have traditional load characteristics of sanitary wastewater, which are:

- BOD of 200 mg/l
- TSS of 200 mg/l
- Ammonia of 40 mg/l

Because of the lodging characteristic of the Resort, the loadings are expected to follow standard diurnal loadings typically seen in municipal wastewater.

As described in Appendix 16, the flow rates in the Resort will vary based on occupancy. Flows will range from 58,000 gpd (Sundays) to 87,000 gpd (Friday-Saturday) during off-peak months and from 94,000 gpd (Sundays) to 140,000 gpd (Friday-Saturday) during peak months (nearly 100% occupancy). The wastewater loads are expected to vary proportionally with the flow rates as follows:

Off-Peak Occupancy Loads

- BOD from 98 lbs./day to 145 lbs./day
- TSS from 98 lbs./day to 145 lbs./day
- Ammonia from 19 lbs./day to 29 lbs./day

Peak Occupancy Loads

- BOD from 157 lbs./day to 234 lbs./day
- TSS from 157 lbs./day to 234 lbs./day
- Ammonia from 31 lbs./day to 47 lbs./day

The proposed project could more than double the average day flow (130,000 gpd to 275,000 gpd), however this higher flow rate would only be 55% of the design and permitted capacity of the WWTP. Since the Pine Hill WWTP has sufficient treatment capacity and the loadings from the Resort are similar to conventional residential wastewater, the proposed project will not adversely affect the treatment capacity of the WWTP, nor its ability to meet its SPDES discharge permit. The Project Sponsor and its wastewater engineers do not believe that the existing

SPDES permit held by NYCDEP will require any amendments to accept the effluent from the Resort. See Appendix 16 and section 3.1.4 for additional information.

C. Other Connections to Pine Hill Treatment Plant

The Wastewater Preliminary Design report in Appendix 16 includes a map showing the limits of the existing Pine Hill sewer system that is connected to the Pine Hill WWTP. The sewer system is limited to the former Village of Pine Hill with the exception of the connection to the Belleayre Mountain Ski Center which is the only current large user in the system (seasonally and on peak days up to 60,000 gpd).

The Resort will not connect properties outside of its property to its wastewater system, nor accept wastewater from other properties outside the former Village of Pine Hill as per AIP paragraph 23.

2.5 Substituted Lands Comprising the Project Site

Figure 1-2, "USGS Site Location Map", illustrates the boundaries of the lands that constitute the project site for the Modified Project. The project site consists of the following lands totaling approximately 739 acres.

The K well parcel is 35 acres located near the intersection of Todd Mountain Road and NY Route 28 and is the location of the project's primary water supply wells. Approximately 22 acres of the K well parcel is located in the Village of Fleischmanns, and this includes the portion of the K-well site that contains the water supply wells.

The Quarry Parcel owned by Crossroads Ventures consists of 10 acres of land off Moran Road that is the site of a project backup water supply well and water pump building.

Wildacres Resort lands are a total of 254 acres with frontage on County Route 49A and Gunnison/Kraft Road. Included in this total are the following;

- 65 acres with frontage on CR 49A and Gunnison Road
- 22 acres to the west with frontage on Gunnison Road
- 164 acres south of Gunnison Road and north of CR 49A
- 3 acres at the bottom of Highmount ski area along CR 49A

The Highmount Spa and Resort site illustrated on Figure 1-3 contains a total of 237 acres.

The westernmost portion of the site, comprised of 203 acres, is the Adelstein parcel which is subject to a Conservation Easement held by New York City. The Adelstein parcel represents over 25% of all of the lands comprising the modified Project site. See Figure 1-3 showing the location of the Adelstein parcel.

The Conservation Easement conveyed to the City of New York on November 16, 2010 is found in Appendix 3.

2.6 Disposition of Former Big Indian Plateau Lands

A. Lands Previously Proposed to Be Developed

SDEIS Figures 2-28 and 2-29 are reproductions of DEIS figures that show the location and previously proposed development plans for the former Big Indian Plateau that, in general, consisted of a hotel, spa and golf clubhouse, an 18-hole golf course and a number of detached units located on either side of Giggle Hollow.

B. Current Plans for These Lands

New York State purchased the Big Indian lands in December 2011 as contemplated by the AIP. According to NYSDEC's on-line publication Environment DEC, "The Big Indian acquisition preserves a major, undeveloped geographic feature of the scenic Route 28 corridor in the heart of the Catskill Park," [NYSDEC] Commissioner Martens said. "The property is an important natural resource for future public recreation and in protecting the New York City watershed. The completion of this acquisition protects the Catskill Park while allowing economic growth in the area." (http://www.dec.ny.gov/environmentdec/79077.html)The area acquired is shown on Figure 2-30.

Crossroads has subdivided out and sold that portion of the Big Indian Plateau property that contains the "Brisbane Mansion" and the +/- 30 acres of land around it. The property was conveyed subject to a conservation easement restricting future development rights.

The Applicant has retained that portion of the Big Indian Plateau property known as "Rosenthal Well Parcel" which is the +/- 7.5 acres parcel near the Day Use Area ," and the "Lasher Road Parcel", +/- 5.5 Acres in the east end of the property near Route on Figure 2-30. No use has been planned for this property.

2.7 Relationship to BMSC

A. Current BMSC in Relation to the Modified Belleayre Resort Project Site

As shown on Figure 2-31, "Existing Ski Center Facilities and Project Site Lands", BMSC is located southeast of the substituted lands that comprise the modified Belleayre Resort at Catskill Park site. The entrance to the Wildacres Hotel is proposed to be located along County Route 49A across the road from the BMSC upper driveway. Deer Run Trail, currently the westernmost trail at the BMSC, is very near the boundary between the upper portion of the old Highmount Ski area that will be retained by Crossroads and the lower portion of old Highmount Ski Area that may be offered for lease or sale to New York State or to another public entity to be operated as a ski area, either alone or with the BMSC. The lower BMSC parking lots and the Discovery Lodge are located south, across County Route 49A from the northeastern portion of the Wildacres property.

B. Proposed Ski Center in Relation to Proposed Project

Under the "Full Buildout Plan" and "West Alternative Plan" the proposed layout of the facilities as contained in the current draft UMP (See Part A) and shown on SDEIS Figure 2-31, "Proposed Ski Center Facilities and Modified Project Layout", a new lift, Belleayre West, is proposed to be located near the intersection of County Route 49A and the upper entrance to the BMSC, across from the Wildacres hotel. The project's Front-9 Village is located across County Route 49A from the BMSC's lower parking lot

The Highmount lift on NYSDEC's proposed UMP Full Build Out Plan has its loading terminal located near the resort's Wilderness Activity Center housed in the existing buildings at the base of Highmount. The Spa Village lift, which will be constructed by the Applicant and leased and operated by the BMSC, will connect the Highmount Hotel/Spa building with the ski trails at the top of Highmount. Trails associated with this lift provide options for resort patrons and the general public to access all of BMSC as well as the resort. See Section 2.8.3 below, Pedestrian and Vehicle Circulation.

2.8 **Project Details**

- 2.8.1 Buildings
- A. Location, Number, Sizes, and Styles

Information was provided previously for both Highmount and Wildacres in Sections 2.2.1 and 2.3.1, respectively, including the figures and drawings referenced within those sections

B. Footprints

The AIP contains limitations regarding building footprints.

The AIP also stated that the configuration (shape and placement) of the Highmount Spa Hotel and East and West Lodges as shown on Exhibit C of the AIP is conceptual and is not intended to limit the final design, provided these structures remain within the development envelope identified on Exhibit C and the total unit count for the Highmount Spa Resort does not exceed 240 units. This requirement has been met. The total number of above ground structures within the development envelope will not exceed four and the total number of structures for individual lodging units (including units in duplex structures) will not exceed 60 and the total number of individual detached lodging structures will not exceed 52. The following is a list of AIP building footprint sizes and the footprints of proposed buildings.

Wildacres Resort

- Hotel and Golf Clubhouse
 - AIP = $185,600 \pm sf$
 - \circ Proposed = 176,284 sf
- Detached Octoplex Units
 - AIP = $7,900 \pm$ sf per building
 - Proposed = 7,728 sf
- Parking Structure
 - AIP = $45,000 \pm \text{sf}$
 - Proposed = 40,800 sf (includes ramp)
- Fitness Structure/ Pool House
 - AIP = $10,000 \pm sf$
 - Proposed = 8,965 sf
- Maintenance Buildings
 - $\circ \quad \text{AIP} = 9,500 \pm \text{sf}$
 - \circ Proposed = 8,573 sf
- Driving Range Structure
 - $\circ \quad \text{AIP} = 5,500 \pm \text{sf}$
 - \circ Proposed = 5,000 sf
- Water Treatment Plant and other minor accessory structures
 - $\circ \quad \text{AIP} = 2,500 \pm \text{sf}$
 - Proposed = $\overline{2,000}$ sf

Highmount Spa Resort

Figure 2-3 is a photograph of a scale model of the Highmount Hotel/Spa building and the Lodge building. As shown in these photograph, as well as in the previously presented floor plans, the Hotel/Spa building is a series of 6 horseshoe shaped levels that are built into the existing hillside to mimic the existing topography and limit excavation. The Lodge building is four levels and its configuration in regards to topography is similar to the Hotel/Spa building. As shown in these two figures the roofs for the levels in these two buildings are green roofs.

- AIP West Lodge = $32,000 \pm$ square feet (sf)
- AIP East Lodge = $32,000 \pm \text{sf}$
- AIP Hotel = $60,000 \pm \text{ sf}$
- AIP Spa(underground) = $30,000 \pm \text{ sf}$

These four components from the AIP total 154,000 sf.

As discussed previously in section 2.2.1, the current proposal is for the Hotel/Spa building and the Lodge building to also contain a total of 80 single detached units, which, per below, are allowed to be up to 2,800 sf per unit. 80 units at 2,800 sf each is a total of 224,000 sf.

Thus the total amount of footprint based on the AIP would be the 154,000 plus the 224,000, or 378,000 sf.

The total amount proposed is 299,117 sf for the Hotel/Spa and 51,887 sf for the Lodge, or 351,004 sf, or about 27,000 sf less footprint based on the AIP.

The proposed Conference Center and Detached Duplex Units are also smaller than what was allowed under the AIP as follows.

- Conference Center
 - AIP = $12,000 \pm sf$
 - Proposed = 7,300 sf
- Detached Duplex Units
 - AIP = $4,500 \pm$ sf per building
 - Proposed = 2,500 sf
- C. Clustering

The applicant's Modified Project design also improves upon the design contemplated by the AIP by having the building locations in the SDEIS plans for Wildacres more clustered than those shown on the concept plan that was included as Exhibit A in the AIP. The 3 octoplexes that were shown on the AIP plan along the 15th fairway have been relocated as shown on the SDEIS plans. Instead there are detached lodging units in two locations, a cluster in the Front-9 Village in the northeast corner of the site and a cluster south and southwest of the Wildacres Hotel referred to collectively as the West Village. This clustering exceeds the degree contemplated in the AIP and achieves the overall goal of clustering and placing buildings on slopes less than 20% to the greatest extent practicable.

Clustering at Highmount includes placing 53 of the detached lodging units within the multi-level main hotel/spa building and placing 27 of the detached lodging units within the multi-level lodge building next to the main hotel/spa building. The 16 detached duplex units are contained in two clusters of 4 buildings each – one to the west of the hotel building and one along the entrance drive on the way up to the hotel. Unlike the design for the Highmount plan in Exhibit C of the AIP, no detached lodging units are proposed above the hotel along the upper access road, on top of the Highmount ski area or across County Route 49A. The relocation of all of the 24 units that were above the Highmount Lodge and Hotel and to existing, proposed structures at Wildacres is a significant additional step to clustering development on the project site.

2.8.2 Roads and Parking

A. Components, Length/Sizes and Locations

See Sections 2.2.1 and 2.3.1 and Figures and Drawings referenced therein.

Highmount driveway access off of County Route 49A to detached units, hotel/spa, and lodge – 1,580 feet long.

Highmount Parking

- a. 310 covered spaces within hotel/spa building
- b. 31 covered spaces within the lodge building
- c. 1-car garage and 1 surface parking spaces at each detached duplex unit

Wildacres Roads

- a. Access connecting County Route 49A and Gunnison Road 4,511 feet
- b. Connector to detached lodging units near 16th Fairway 1,029 feet
- c. Front 9 Village Access off County Route 49A 1,889 feet

Wildacres Driveways

- a. Hotel driveway off of County Route 49A across from upper entrance to Ski Center
- b. Connection between hotel and parking garage
- c. Golf maintenance access off of Gunnison Road
- d. Wilderness Activity Center shuttle access off of County Route 49A
- e. Driveways to detached lodging units.

Wildacres Parking

- a. Under hotel-250 covered spaces
- b. Parking garage 208 covered spaces
- c. Golf clubhouse 72 surface spaces
- d. Golf maintenance-18 surface spaces
- e. Front-9 Village-45 surface spaces
- f. Detached Units 10 spaces under each building with additional surface spaces for visitors.
- B. Ownership and Maintenance

All project roads will be privately owned and will be maintained by Resort staff, including plowing and sanding/salting in the winter. Road widths are designed to Town standards and will accommodate snow plowing and emergency vehicle access.

C. Highmount Access Road

As discussed in Section 5.2, the upper access road at Highmount is no longer proposed.

2.8.3 Vehicular and Pedestrian Access and Circulation

A. Traffic

Traffic is discussed in Detail in Section 3.5, Traffic, as well as in Appendix 11 that includes the entire Traffic Impact Study.

B. Access

See the Project Master Plans, sheets L1.00-L1.02 in the plan set that accompanies this SDEIS.

Access to the project will be provided by County Route 49A and Gunnison Road. Figure 2-1 illustrates the locations where project access will be provided.

Wildacres' Front-9 Village is accessed on the north side of County Route 49A approximately half way between Van Loan Road and Old Schoolhouse Road.

People coming just to play golf at the Highmount Golf Club are likely to access the parking by the golf clubhouse by turning right off County Route 49A and onto Gunnison Road and then turning left off Gunnison Road into the Resort and then continuing north to the clubhouse parking.

The main entrance to Wildacres Resort is at the hotel, across County Route 49A from the upper entrance to BMSC. A little further along County Route 49A is the other end of the internal project road that connects County Route 49A to Gunnison Road.

Resort shuttle access to the Wilderness Activity Center in the old Highmount Ski Area base buildings will make use of the existing access drive.

Access into Highmount Spa Resort will be off of County Route 49A just past the existing Leach Farm on the other side of County Route 49A.

The conference center/clubhouse facility at the adaptively reused Leach farm buildings will be accessed by resort vehicles by a "U"-shaped driveway that connects with County Route 49A at two points.

C. Internal Circulation

At Wildacres internal circulation consists of the internal roadway within the Front-9 Village, the internal roadway that connects County Route 49A with Gunnison Road, and a side road off this connection that provides access to the 30 detached lodging units located along hole 16.

D. Pedestrian Access

A cross walk will be installed across County Route 49 to allow skier pedestrians to walk back and forth between the Wildacres Hotel and the Belleayre West lift.

Resort guests from the Front-9 Village that wish to walk to the Wildacres hotel will do so via the golf cart path that runs along Hole 9 and crosses Gunnison Road. As per the DEIS this cart path crossing (and the one between holes 13 and 14) will be marked and signs warning of the crossings will be posted on Gunnison Road. It is not envisioned that Resort guests at the Front-9 Village will walk to BMSC. Resort shuttle service will be provided to bring these guests to BMSC.

Likewise, no pedestrian connection will be provided between either of the Resort Hotels and the Wilderness Activity Center, Resort guests will have shuttle service to and from the Wilderness Activity Center. Previously a pedestrian crossing of CR49A was proposed south of the tees of golf hole 11. However, because of steep slopes on both sides of CR 49A in this area, it was determined that this location was not conducive to pedestrian access.

All other pedestrian circulation at Wildacres will be internal within both the Front-9 Village and the Hotel parcel.

E. Shuttle Service

The Resort will operate a shuttle system to move guests within the Resort and back and forth from BMSC. The shuttle buses will reduce the number of vehicular trips between the Resort and BMSC. See the Traffic Impact Study in Appendix 11 for a description of the shuttle system.

Crossroads commits to utilizing hybrid vans or similar clean-air vehicles to transport guests and visitors traveling between Crossroads hotels and lodging units and nearby recreational facilities, including BMSC.⁸

F. ATVs and Snowmobiles

Use of ATV's and snowmobiles by Resort guests will be prohibited. It is anticipated that these types of vehicles may be used as part of the operations and maintenance of the ski trails and lifts at Highmount.

2.8.4 Golf Course and Golf Course Management

A. Golf Course and Facilities

Golf-related facilities are shown on the Site Plans that accompany the SDEIS, including project master plans and layout plans (Drawings L1.00-L1.02 and L6.00-L6.11) The Project includes the 18-hole, +/- 7,000yard, par 71 Highmount Golf Club located within Wildacres. A practice

⁸ AIP paragraph 40

fairway (range) with a number of target greens is also included, along with short game practice space that shares tee space with the practice fairway.

The golf course amenity is very similar to that proposed in the DEIS. One significant and environmentally beneficial change agreed upon in the AIP, the golf course will be managed as an organic golf course. This represents a major departure for typical golf course facilities in New York State. Although the integrated pest management plan proposed in the DEIS will continue to be relevant in the event that issues arise with respect to organic management, Crossroads fully intends that the golf course will be a model facility in terms of its management as an organic course and its quality of play. The quality of the golf course is of paramount importance to enable the Modified Project to achieve its goal of bringing tourism and recreational amenities to the spring, summer and fall months.

The golf clubhouse is the same as proposed in the DEIS. The clubhouse for the Highmount Golf Club will be attached to the Wildacres Resort Hotel and will include a pro shop, a 40-seat snack bar, locker rooms with steam and sauna and golf cart storage and maintenance. There will be limited public access to the clubhouse, with access being limited to members of the public with reserved tee times on the golf course or hotel guests.

The golf course maintenance facilities have been relocated from the northeast portion of the site off County Route 49A to a location off Gunnison Road near hole 15. The facility consists of employee parking, a +/- 1,500 sf staff/office space building, +/- 4,800 sf maintenance and storage garage building and components designed to protect water quality.

An equipment washdown area will include a containment system that captures rinse water, grass clippings, sand, spray residues, grease/oil, etc. Captured rinse water and clean backwash from this system (i.e. a Carbtrol® system) will be delivered to the lined irrigation pond via the irrigation water supply line that passes the maintenance facility on its way from the Z well to the lined irrigation pond.

Access to the building will be by the golf course superintendent, assistant superintendent and trained applicators under the direct supervision of the superintendent. The temperature-controlled building will contain heat detectors, fire extinguisher, first aid kit, two stage ventilation (low level at all times and three times ventilation volume increase when someone enters the building), explosion proof fixtures, emergency shower/eyewash station, and personal protection gear. Hazard communication signage will be placed inside and outside the building. Material Safety Data Sheets on all pest controls stored in the building will be readily available. All personnel using the facility will be trained in safe handling and operation of application equipment and emergency response procedures and contacts.

Any release in the building will be readily contained by dry sorbent materials and safely stored until properly disposed of. Only the amount needed will be loaded in the application equipment. All rinsate material from containers and from the spray equipment will be captured in the system, recycled and reused in the next spray. Any pest controls will be stored, handled and applied according to their label instructions. All personal protective measures will be followed.

It is anticipated that only small quantities of pest controls will be stored in the building. Any empty pest control containers will be handled and properly disposed of in accordance with label directions.

The irrigation pond continues to be proposed in the northeast portion of the Wildacres site. The pond will be excavated (no dam structure) and lined with an impervious liner, and the storage volume of the irrigation pond is approximately 3.7 million gallons. Wherever feasible, stormwater runoff is being directed to the irrigation pond. This includes site runoff from as far away as the Wildacres Resort hotel.

Two small bathroom buildings are proposed along the golf course, one near the 13th green and the second near the 7th tees. These restrooms will connect with the Resort's central sewage collection system.

B. Organic Management Plan

An organic golf coursed turfgrass management plan⁹ has been developed for the Highmount Golf Club, and a copy of the plan is included in Appendix 15 of this SDEIS. The Management Plan consists of two main parts. The first part (sections 1 through 7) contains the actual Management Plan that describes how the Highmount Golf Club will be managed without the use of synthetic pesticides. The second part (sections 8 through 14) will be used for record keeping on the Plan implementation throughout the year, as well as a year-end certification of compliant implementation of the plan by the Technical Review Committee.¹⁰ See Appendix 15 for details.

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

A. Areas of Disturbance and Lands to Remain Undisturbed

Area take-offs from the project grading plans produced the following amounts of site disturbance in acres and as percentages.

Site-wide

Total = 739 Disturbed = 218 (29%) Undisturbed = 5214 (71%)

Wildacres

Total = 254 ac. Disturbed = 175 ac. (69%) Undisturbed = 79 ac. (31%)

⁹ Per AIP paragraph 19

¹⁰ The Technical Review Committee proposed to oversee the implementation of the plan includes representatives from NYSDEC, NYCDEP and the non-governmental organizations (NGOs) that signed the AIP.

Highmount

Total = 237 ac. Disturbed = 42 ac. (18%) Undisturbed = 195 ac (82%)

Adelstein

Total = 203 ac. Disturbed = 0 (0%)Undisturbed = 203 ac. (100%)

K-Well

Total = 35 ac Disturbed = <1 ac. (3%) Undisturbed = 34+ ac. (97%)

Q-Well

Total = 10 Disturbed = <0.1 ac. (1%) Undisturbed = 10 (99%)

Conformance with the project plan limits of disturbance will be accomplished through preconstruction stake out and installation of tree protection and wetland protection fence as per notes 2 and 3 on the sediment and erosion control plans in the plan set that is part of the SDEIS.

B. Impervious Areas

See Tables 2-2 and 2-3 for an accounting of impervious areas at Wildacres and Highmount, respectively.

A total of 18 acres of impervious surfaces is proposed at Wildacres. The percentage of proposed impervious area at Wildacres is 7.3%, which, according to Table 4.2 of the New York State Stormwater Management Design Manual, falls somewhere between the impervious cover for agricultural lands and open urban land (i.e. park land, recreation areas and cemeteries). Approximately 30% of the impervious area is associated with the hotel and the parking garage.

Wildacres	Unit	Driveway (SF)	Roof (SF)	Impervious Area (SF)	Impervious Area (AC)	
Westside	33	5,450	7,320	12,770	0.29	
(1,830 SF per unit)	34	6,575	7,320	13,895	0.32	
	35	6,225	7,320	13,545	0.31	
	36	4,940	7,320	12,260	0.28	
	37	4,190	7,320	11,510	0.26	
	38	4,950	7,320	12,270	0.28	
	39	5,415	7,320	12,735	0.29	
TOTALS		37,745	51,240	88,985	2.04	
Wildacres Hotel		0	176,325	176,325	4.05	
Parking Garage		0	47,065	47,065	1.08	
TOTALS		0	223,390	223,390	5.13	
	Γ	ſ			[
Golf Maintenance		11,650	8,690	20,340	0.47	
Club House Parking Lot		39,060	0	39,060	0.90	
Road		153,970	0	153,970	3.53	
Sidewalks		18,850	0	18,850	0.43	
Tennis Courts		14,400	225	14,625	0.34	
Water Treatment		0	4,356	4,356	0.10	
Range Shed		0	2,180	2,180	0.05	
Gazebos		0	436	436	0.01	
TOTALS		237,930	15,887	253,817	5.83	
WESTSIDE TOTAL		275,675	290,517	566,192	13.00	
Eastside	40	1,615	3,660	5,275	0.12	
(1,830 SF per unit)	41	1,550	3,660	5,210	0.12	
	42	2,640	3,660	6,300	0.14	
	43	7,075	3,660	10,735	0.25	
	44	-	3,660	3,660	0.08	
	45	9,440	3,660	13,100	0.30	
	46	-	3,660	3,660	0.08	
	47	7,080	3,660	10,740	0.25	
	48	-	3,660	3,660	0.08	
	49	10,415	3,660	14,075	0.32	
	50	-	3,660	3,660	0.08	
	51	4,995	7,320	12,315	0.28	

Table 2-2. Wildacres Impervious Areas

Wildacres	Unit	Driveway (SF)	Roof (SF)	Impervious Area (SF)	Impervious Area (AC)
	52	5,300	7,320	12,620	0.29
	53	5,750	7,320	13,070	0.30
	54	5,300	7,320	12,620	0.29
	55	5,690	7,320	13,010	0.30
TOTALS		66,850	76,860	143,710	3.30
Road		46,500	0	46,500	1.07
Shared Driveway		7,400	0	7,400	0.17
Clubhouse		13,000	0	13,000	0.30
Pool		0	0	4,500	0.10
Tennis Court		14,400	0	14,400	0.33
Sidewalks		7,925	0	7,925	0.18
TOTALS		89,225	0	93,725	2.15
EASTSIDE TOTAL		156,075	76,860	237,435	5.45
WILDACRES GRAND TOTAL		431,750	367,377	803,627	18.45

A total of 3 acres of impervious surfaces is proposed at Highmount, basically the detached units and roadways. The green roofs proposed for the hotel and the lodge buildings at Highmount, as well as the provision of underground parking, significantly reduces impervious surfaces. The 0.8% impervious cover at Highmount is less than the 2% mean impervious cover listed for agricultural land uses in the Stormwater Management Design Manual.

Highmount Spa Resort	Unit	Driveway (SF)	Roof (SF)	Impervious Area (SF)	Impervious Area (AC)	
Detached Duplex Units	1	1,100	3,110	4,210	0.10	
	2	1,100	3,110	4,210	0.10	
	3	1,600	3,110	4,710	0.11	
	4	1,200	3,110	4,310	0.10	
	5	1,600	3,110	4,710	0.11	
	6	1,550	3,110	4,660	0.11	
	7	1,550	3,110	4,660	0.11	
	8	1,580	3,110	4,690	0.11	
TOTALS		11,280	24,880	36,160	0.83	
Conference Center		8,415	7,370	15,785	0.36	
TOTALS		8,415	7,370	15,785	0.36	
Roadways		70,670	0	70,670	1.62	
TOTALS		70,670	0	70,670	1.62	
Hotel		0	0	0	0.00	
Lodge		0	0	0	0.00	
Water Tank		0	2178	2,178	0.05	
TOTALS		0	2,178	2,178	0.05	
HIGHMOUNT GRAND TOTAL		90,365	34,428	124,793	2.86	

 Table 2-3. Highmount Spa Resort Impervious Areas

2.8.6 Water Supply, Potable and Irrigation

A./B. Potable Water

The preliminary engineering design report for the potable water supply and distribution system for the project is in Appendix 13. The report contains the testing report for the water supply wells for the project.

Pumping tests on new wells were performed in 2007 and 2008 as part of developing a potable water supply for the Modified Project. The impetus for installing and testing the new wells was to avoid the use of the Rosenthal wells, which are located in the Birch Creek valley in Pine Hill. Concerns had been raised regarding the use of the Rosenthal wells and the potential effect on the flow in Birch Creek. The preference of the environmental parties which were signatories to the AIP, was to prioritize the use of other potable water sources rather than the Rosenthal wells. In
keeping with this preference, Crossroads is proposing to use new wells located outside of the Birch Creek drainage system and near the Village of Fleischmanns (the Village).

Two, three-day duration, constant rate pumping tests were conducted in autumn 2007 at the K well field, which consists of three production wells (K2, K3 and K4) that are located near the west end of the Village. Another three-day constant rate pumping test was conducted in autumn 2008 at the Q1 well, which is located near the east end of the Village. The two pumping tests at the K well field were conducted according to the September 14, 2007 Pumping Test Protocol (2007 Protocol) that was submitted to, and approved by, the New York State Department of Environmental Conservation, the New York State Department of Health, and the environmental parties to the AIP. The pumping test at the Q1 well was conducted according to the October 9, 2008 Pumping Test Protocol (2008 protocol) that was submitted to, and approved by, the submitted to, and approved by, these same entities.

K Wellfield Pumping Tests

The K wells were installed to provide the primary sources of potable water for the Resort. The objectives of the two pumping tests were to determine the sustainable yield from various twowell combinations of wells K2, K3, and K4; to assess the potential effects of pumping those wells on nearby water supplies, surface waters and springs; and to evaluate the quality of the water from the wells.

The first test was a simultaneous pumping test that involved pumping wells K2 and K4 at average rates of 65 gpm each for 76 hours beginning on September 25, 2007 (130 gpm). Total drawdowns of 99.1 and 98.3 feet were measured during this test at wells K2 and K4, respectively. Long term projections based on 180 days of continuous pumping of both wells at 65 gpm each, with no aquifer recharge, resulted in projected total drawdowns of 102 and 101 feet at wells K2 and K4, respectively. The available drawdowns projected in K2 and K4 at the end of the 180-day hypothetical pumping period are 119 feet and 91 feet, respectively. The final six hours or more of water level data from the simultaneous, constant rate pumping test of wells K2 and K4 (130 gpm total) show stabilized water levels were achieved according to the NYSDOH criteria. Water levels in the two pumping wells achieved 90% recovery within 1½ hours after the test was ended.

The second test at the K well field was a simultaneous pumping test that involved pumping wells K3 and K4 at average rates of 75 gpm and 82 gpm, respectively, for 73.25 hours beginning on October 2, 2007 (157 gpm total). Total drawdowns of 132.2 feet and 125.9 feet were measured during this test at wells K3 and K4, respectively. Long term projections based on 180 days of continuous pumping of K3 at 75 gpm and K4 at 82 gpm, with no aquifer recharge, resulted in projected total drawdowns of 137 and 128 feet, respectively. The available drawdowns projected in K3 and K4 at the end of the 180-day hypothetical pumping period are 55 feet and 64 feet, respectively. The final six hours or more of water level data from the simultaneous, constant rate pumping test of wells K3 and K4 (157 gpm total) show stabilized water levels were achieved according to the NYSDOH criteria. Water levels in the two pumping wells achieved 90% recovery within 1½ hours after the tests were ended.

Water level and water quality data show that neither of the pumping tests impacted any surface water body or spring. Two residential wells (the Mansion Well and Trailer Well) experienced drawdowns resulting from the pumping tests conducted at the K well field. The Mansion Well and the Trailer Well experienced drawdowns of 19.2 and 13.5 feet, respectively, during the K2-K4 test, and 23.8 and 17.4 feet, respectively, during the K3-K4 test. These drawdowns are minimal and will not diminish the availability of water from these domestic wells. No drawdown was experienced at the Village of Fleischmanns water supply wells, which are much further away from the K well field than the Mansion Well or the Trailer Well.

The results of water quality analyses show that arsenic was the only parameter where the NYSDOH Part 5 MCL was exceeded. The arsenic levels exceeded the MCL in all three pumping wells; consequently, water from the K well field will need treatment to reduce arsenic concentrations to acceptable levels. The results of a ground water under the direct influence of surface water (GWUDI) determination, which included microscopic particulate analyses on all three wells, indicate there is a low risk (EPA risk factors = 0) of contamination by surface water.

The review and analysis of data collected during the two simultaneous, constant rate, pumping tests demonstrate that the K well field is capable of sustaining a long term, average pumping rate of 157 gpm. The well field is capable of sustaining this rate without adversely impacting existing water supplies, streams, or springs.

Q1 Well Pumping Test

The Q1 well was installed and the pumping test was conducted to seek approval to use the well as a backup source of potable water for the Resort. The objectives of the pumping test were to determine the sustainable yield from well Q1; to assess the potential effects of well Q1 pumping on nearby water supply wells, surface waters and springs; and to evaluate well Q1 water quality. Particular attention was placed on the Village's water sources, which include nearby springs and water supply wells.

The pumping test involved pumping well Q1 at an average rate of 45 gpm for 75 hours beginning on November 7, 2008. A total drawdown of approximately 124 feet was measured at well Q1 during the test. The drawdown in the well is projected to be approximately 138 feet after 180 days of continuous pumping at 45 gpm, with approximately 173 feet of available drawdown remaining. The final six hours or more of water level data from the constant rate pumping test of well Q1 show stabilized water levels were achieved according to the NYSDOH criteria. The water level in well Q1 achieved 90% recovery within 3 hours after the test was ended.

The results of laboratory water quality analysis for well Q1 indicate that none of the NYSDOH Part 5 Maximum Contaminant Levels were exceeded. The results of a GWUDI determination, which included a microscopic particulate analysis, indicate there is a low risk (EPA risk factors = 0) of contamination by surface water.

The review and analysis of data collected during the constant rate pumping test demonstrates that well Q1 is capable of sustaining a long term, average pumping rate of 45 gpm. The evaluation of well Q1 pumping influence on existing wells, and the evaluation of spring flow and water quality data during the test, indicates that the well is capable of sustaining the 45 gpm rate without adversely impacting existing water supplies, streams, or springs. The analyses further indicate that the Q1 well and Village well 2 can sustain their pumping rates together without adversely impacting each other, or the Village's backup well 4.

C. Irrigation Water

A summary of the water balance for golf course irrigation is provided in the table below. A narrative description follows the summary table. Water storage within the irrigation pond, supplemented by input from wells dedicated to irrigation water supply and input from captured stormwater, will provide adequate water to irrigate 65 acres of golf course.

(1) Supply - Stormwater to Irrigation Pond (gallons)														
	2002	2003	3	2004		Averag	e	Minimu	m					
June	337,000	207,00	00	56,000)	200,000)	56,000						
July	112,000	227,00	00	820,00	0	386,333	3	112,000)					
August	543,000	1,012,0	000	1,243,00	00	932,667	7	543,000)					
TOTAL	992,000	1,446,0	000	2,119,00	00	1,519,00	00	711,000)					
(2) Suppl	y - Wells													
	gpm	gpd	gpd		gpwk		gp13wk							
Pool	13													
Janis	11													
Ζ	13													
ТОТА														
L	37	37 53,280		372,960		4,848,480								
													\rightarrow	
(3) Suppl	y - Wells +	Stormwate	r (ga	llons)									\rightarrow	
Wells + Avg. Stormwater =			6,367,480											
Wells + Min Stormwater =		iter =	5,559,480										\rightarrow	
													\rightarrow	
(4) Dema	nd - Precipi	itation and	Pan	Evaporati	on									
Average F	Precipitation	Belleayre N	Aoun	itain - Pan I	Evap	poration Do	wn	sville (June	thro	ough A	ugust)		
Net $= 4.41$	l inches (0.3	7 feet) defie	cit fo	r June throu	ugh	August								
(5) Demand - cubic feet for June through August														
65 acres irrigated * 43560 ft2/acre * 0.37 ft. deficit					it									
1,047,618 ft3														
demand													\perp	
											1			

Table 2-4Irrigation Water Balance

(6) Demand - gallons for June through August									
1,047,618 ft3 * 7.48 gal/ft3									
7,836,183 gallons									
(7) Pond Storage (assume full F	ond on June 1)								
3,725,300 gallons									
(8) Irrigation Pond Water Bala	nce (gallons)								
					pond volume				
	supply	demand	net		remaining				
Wells + Avg. Stormwater =	6,367,480	7,836,183	-1,468,703		2,256,597	61%			
Wells + Min Stormwater =	5,559,480	7,836,183	-2,276,703		1,448,597	39%			

<u>Supply</u>

Three existing on-site wells known as "the pool well", "the Janis well" and "the Z well" together produce 37 gpm (53,280 gpd) and will be a source of irrigation water. Appendix 17 contains the testing report for the irrigation wells. In addition to irrigation water supply from these wells, stormwater runoff from a substantial portion of the site is captured and directed to the irrigation pond. Using a series of Hydro-CAD runs of different storm event amounts, the curve below was produced which correlates the amount of rainfall in a 24-hour type II storm and the amount of water reaching the irrigation pond.



Figure 2-33 Rainfall Events and Stormwater Input to the Irrigation Pond

Rainfall data collected at on-site NYCDEP monitoring station Belle 5 for the years 2002, 2003 and 2004 were used to determine how much stormwater input would occur in the months of June, July and August, the months of heaviest irrigation demand. These data are included in the preceding table.

Storage

The irrigation pond located in the Front-9 Village portion of Wildacres has a storage capacity of 3,725,300 gallons.

Demand

Irrigation demand for the months of June, July and August was calculated using average rainfall data collected at the Belleayre monitoring station and average pan evaporation data collected in Downsville for these months. For the approximately 65 acres of tees, greens and fairways to be irrigated, the total irrigation demand for the three months was calculated to be 7,836,183 gallons.

Balance

Using the 3 wells, average stormwater input, pond storage volume and projected demand, the following is a summary of irrigation water supply for the 13-week period of June through August.

Wells 4,848,480 + Avg. Storm 1,519,000 - Demand 7,836,183 = -1,468,703 gals.

The lined irrigation pond would be +/- 60% full at the end of August, and could be refilled in about 28 days with just well supply, faster with significant stormwater inputs.

Since the demand numbers used above are based on average rainfall and pan evaporation data, there will be years when demand will be higher. The golf course irrigation system will be set up so that it will be possible to reduce the area to be irrigated, for example tees and greens only (approximately 6 acres total), if and when it becomes necessary to conserve irrigation water during drier conditions.

For drier conditions, a similar assessment as above was done for irrigating the full 65 acres, but using the minimum stormwater input for the three months from the 2002-2004 rainfall data.

Wells 4,848,480 gals. + Min. Storm 711,000 gals. - Demand 7,836,183 gals = -2,276,703 gals

Under this scenario the \pm 3.7 million gallon lined irrigation pond would be approximately 40% full at the end of August, and could be refilled in about 43 days with just well supply, faster with significant stormwater inputs.

The Project's potable water supply sources could be used during the grow-in of the golf course, and prior to any of the Resort facilities opening.

D. Plans and Design Report

The plans for water supply are sheets PN-1 through PN-20 in the plan set that accompanies this SDEIS.

The preliminary water supply design report is in Appendix 13 of this SDEIS.

E. Water Saving with Green Building Design

The U.S. Green Building Council has created a set of Green Building Design Elements that cover many aspects of a project and typically emphasizes Sustainable Sites, Water Savings, Energy Efficiency, Materials and Resources, and Indoor Environmental Quality. Although not all of the elements have been defined in their final state at this time, the Project is committed to obtaining Silver status or higher in the LEED rating program and several of the elements that have been or will be incorporated into the project that would have a definite influence on reducing water consumption are as follows:

- 1. Water Efficient Landscaping,
 - Design the project site to maintain natural storm water flows by promoting infiltration where possible. Specify vegetated roofs, pervious paving, and other measures to minimize impervious surfaces. Reuse storm water volumes generated for non-potable uses such as landscape irrigation, toilet and urinal flushing and custodial uses.
 - Determine appropriate plant material and design the landscape with native or adapted plants to reduce or eliminate irrigation requirements. Where irrigation is required, use high-efficiency equipment and/or climate-based controllers.
 - Determine appropriate landscape types and design the landscape with indigenous plants to reduce or eliminate irrigation requirements. Consider using storm water, grey water, and/or condensate water for irrigation.
- 2. Innovative Wastewater Technologies
 - Reduce potable water use for building sewage conveyance by 50% through the use of water-conserving fixtures (water closets, urinals) or non-potable water (captured rainwater, recycled grey water, and on-site or municipally treated wastewater).
- 3. Water Use Reduction
 - Maximize water efficiency within buildings to reduce the burden on water supply and wastewater systems. Employ strategies that in aggregate use 20% less water than the water use baseline calculated for the building (not including irrigation) after meeting the Energy Policy Act of 1992 fixture performance requirements. Calculations are based on estimated occupant usage and shall include only the following fixtures (as applicable to the building): water closets, urinals, lavatory faucets, showers and kitchen sinks.

2.8.7 Wastewater

Wastewater generated from the project will be collected and conveyed to the wastewater treatment plant in Pine Hill. See previous section 2.4 for details. The project plan set that accompanies the SDEIS includes the plans for the project wastewater collection system and the conveyance along NYS Route 28 into Pine Hill. The preliminary design report for the wastewater infrastructure is in SDEIS Appendix 16.

2.8.8 Grading, Drainage, and Earthwork

A. General Drainage Patterns

Existing drainage patterns on the site are illustrated on the Existing Subcatchment Plans that are Drawings L5.00-L5.01 in the Site Plans that accompany this SDEIS. The watershed divide between the Ashokan and Pepacton watersheds (source: NYSDEC) is shown on Drawing L5.01 as well as Figure 2-34, "Watershed Divide". As shown on Drawing L5.01 and Figure 2-34, essentially all of the site is within the Pepacton watershed, with only a very small portion of the

Wildacres site along the lower section of County Route 49A (+/- 12 acres) being within the Ashokan watershed.

Overall, the site drains from south to north including Todd Mountain Brook that runs through the Adelstein property, and two unnamed tributaries of the Bush Kill that run through Wildacres. Another small stream runs northwest through the southwest corner of the Front-9 Village portion of Wildacres. Drainage from Highmount currently runs overland and is collected in drainage swales on the uphill side of County Route 49A. This drainage passes underneath County Route 49A via a number of culverts shown on DrawingsL5.00, including a 52-inch concrete culvert near the base of the Highmount Ski Area (culvert/design point 6 on Drawing L5.00). Drainage from Wildacres currently exits the site via a number of culverts that pass under the railroad to the north (culverts/design points 7, 8, 9, 10 & 11 on Drawing L5.01),

B. Grading Plans

Proposed grading for the project is shown on Drawings L4.00 through L4.11 (1"=50', 2' contour interval) in the Site Plans that accompany this SDEIS.

Existing and proposed drainage patterns for the project site are shown on the existing and proposed subcatchment maps Drawings L5.00 through L5.15 in the Site Plans that accompany this SDEIS. Changes in drainage patterns as a result of site grading and from the capturing and routing of stormwater under the proposed conditions can be assessed by comparing the amount of areas draining to the stormwater management design under the existing and proposed conditions.

The portion of the site that is part of the Ashokan Reservoir watershed (Subcatchments 12 and 16) decreases by 1.78 acres as a result of the proposed grading. Site grading results in 1.78 acres that previously drained east into the Ashokan watershed to now draining to the west into the Pepacton watershed. This decrease represents 0.001% of the 164,000 acre Ashokan Reservoir watershed.

C. Earthwork

Earthwork (cuts and fills) is balanced within Wildacres and earthwork is balanced within Highmount. See section 3.3(H) for details.

D. Proposed Stormwater Control Measures

The design of the proposed stormwater management for the Modified Project involved a substantial amount of consultation with NYSDEC and NYCDEP staff, among others, to reach a consensus on stormwater model assumptions and inputs.

Meetings and communications between the Applicant's consultants, NYSDEC, NYCDEP, and the NGOs were initiated in July of 2008 and have continued throughout the course of the preparation of the stormwater management plans, including communications going through

February 2012. The design effort was also undertaken in accordance with item 20[©] of the AIP. Technical issues that were discussed included the following;

- models to be used-HydroCAD and the Modified Simple Method,
- the establishment modeling protocols including the storm distribution type to be
- used and the return interval storms to be modeled,
- establishment of acceptable design points and the subcatchment areas contributing
- to the design points,
- establishment of appropriate runoff curve numbers for pre-construction and post-
- construction modeling,
- management practices pollutant removal efficiencies,
- amounts of concurrent land disturbance,
- use and sizing of sediment basins,
- basin dewatering including the continued proposal to utilize Chitosan®, and
- the use of locally-collected NYCDEP water quality data.

The consensus building that occurred as described above also served to address issues contained in the NYSDEC Deputy Commissioner's December 29, 2006 Interim Decision that included storm water issues related to the adequacy of the HydroCAD model and its assumed inputs and design points, the identification of the storm water flow paths on the project site, the level of preand post-development storm water flows, and the basis for the waiver of the requirement to have no more than five-acres exposed during construction at any one time.

The most recent discussions with the regulatory agencies have focused on plan compliance with the new NYCDEP regulations issued in April 2010 that include use of the 1-year storm for water quality volume and providing redundant treatment in areas of greater than 20% impervious surfaces, as well as the updates to the New York State Stormwater Management Design Manual (effective in March 2011) and the Manual's focus on reducing stormwater generation at its source by the inclusion of green infrastructure practices to produce acceptable runoff reduction volumes.

The proposed Stormwater Management Design Report is in Appendix 18. Also see drawings L4.00-L4.09 and L5.00-L5.13 that accompany the SDEIS. The report and drawings are offered for NYSDEC review and approval as part of the SDEIS and the permitting process.

Wildacres

For Wildacres south of Gunnison Road runoff is either directed to the design points along the railroad tracks or to the irrigation pond located in the Front-9 Village portion of Wildacres. On the western side of this part of the site sheet flow over the proposed golf course is directed to dry swales using grading and shaping of the landform. Runoff is treated in the dry swales and discharged via standard conveyance swales to existing adjacent drainage courses. In these areas, existing wooded areas, including the existing riparian corridor, are preserved to the maximum extent practicable.

Runoff from the first portion of the access road, (County Route 49A to the first lodging building), is collected in a series of catch basins and roadside swales, treated in a bioretention area adjacent to the 18th tee, and released into a proposed roadside swale leading eventually to an existing drainage channel. Runoff from the central portion of the access road (first lodging building to the clubhouse), the lodging buildings, the golf course clubhouse and a portion of the clubhouse entry drive are also collected in catch basins and pipes, and conveyed in a closed system to Micropool extended detention ponds adjacent to the driving range and the 16th fairway. Stormwater is treated and released from the ponds into conveyance swales, leading directly to an existing drainage course running through the center of the site. Golf course runoff from the central portion of the site is directed via sheet flow to dry swales using grading and shaping of the landform. Runoff is treated in the dry swales and discharged via standard conveyance swales to existing adjacent drainage courses. Runoff from the eastern portion of the access road, (clubhouse to Gunnison Road), the clubhouse parking lot and the 1st hole are also collected in catch basins and roadside swales, and primarily conveyed to a micropool extended detention pond east of the 1st green. Runoff from the rooftop terraces of the Hotel is collected and treated in a series of built in, flow-through stormwater planters, and conveyed to the drainage system leading to the same pond east of the 1st green. Treated water is then released to an existing ditch on Gunnison Road that drains off site towards one of the design points, Design Point 9. The lower portion of the access road is treated in a dry swale behind the 1st green, and released to the same ditch on Gunnison Road.

With the exception of the rooftop terraces, runoff from the Hotel roof, the adjacent parking garage, areas south and east of the Hotel and the 9th hole, is conveyed to the irrigation pond at in the Front-9 Village portion of Wildacres. Runoff is collected in piping systems and directed to a conveyance swale east of the 9th hole, then under Gunnison Rd. and the adjacent drainage course in a closed pipe, before being discharged to another surface swale that drains to the irrigation pond.

At the Front-9 village portion of Wildacres, a majority of the drainage area, along with the portions of Wildacres south of Gunnison Road noted above, are treated in the irrigation pond. Runoff from the Front-9 Village is directed via sheet flow to two bioretention areas in the boulevard of the access driveway, treated, and released through a pipe to the irrigation pond for additional treatment and attenuation. Runoff from the Front-9 Clubhouse and adjacent paved areas is collected in catch basins and also conveyed to the irrigation pond. Softscape areas adjacent to the pond and a portion of the 5^{th} , 6^{th} and 7^{th} holes also drain to the pond. Runoff collected in the pond is stored for re-use as irrigation for the golf course. The pond is designed with sufficient freeboard to treat the required WQv, and provide the necessary attenuation for the 1, 10, 25 and 100-year storm events. Overflow from the pond in severe storm events is conveyed as sheet flow and shallow concentrated flow to a conveyance swale west of the 3rd green, where is it discharged into the existing drainage channel along the railroad bed at the north end of the property, and eventually drains to Design Point 11. Golf course runoff from the 3rd hole and areas north of the irrigation pond is directed via sheet flow to dry swales using grading and shaping of the landform. Runoff is treated in the dry swales and discharged via standard conveyance swales to existing drainage courses along the northern property boundary.

The southern portion of Wildacres east, composed primarily of 7th and 8th holes is the only part of the proposed project within the Ashokan Watershed. Runoff from the golf course is directed via sheet flow to a bioretention area adjacent to the 8th tee using grading and shaping of the landform. Runoff is treated in the bioretention area and discharged in a pipe to the existing drainage ditch along Route 49A. Overflow from larger storm events will be released over a weir into an adjacent detention basin where it will be attenuated and released at a controlled rate through a pipe into the same drainage ditch along Route 49A.

<u>Highmount</u>

Any potential overflow or drainage from the green roofs constructed as part of the Hotel and Lodge buildings will be routed through the detention ponds to the north. The two detention ponds to the north are a combination of a Wet Extended Detention Pond (P-3) and a Micropool Extended Detention (P-1) pond designed in series. Runoff is directed first to the Wet Extended detention pond, which will function both as an aesthetic pond and a treatment and attenuation device. The pond is designed with a static water elevation and adequate freeboard to pass the 100-year storm event. The pond will also function as a forebay for the adjacent Micropool Extended Detention Pond. Runoff flows over a broad crested weir from the P-3 to the P-1, where additional treatment and attenuation is achieved, and discharged to the adjacent roadside ditch on County Route 49A.

The Leach Farm north of Route 49A utilizes a single bioretention area for treatment and attenuation. Flows are conveyed through a piping system from the building roof and paved areas to a stable outlet before it enters the bioretention area via surface flow. Once treated, stormwater is discharged to a drainage ditch along an existing woods road.

- 2.8.9 Construction Activities and Phasing
- A. Sequence of Activities and On-site Processing

Sequence of Activities

The overall phasing plan for project construction is illustrated on Figure 1-4 and Drawing L3.00 both entitled Phasing Plan.

The following is a synopsis of the overall construction sequence. More detailed information on sequencing of construction steps can be found in the project SWPPP in Appendix 19 and in section 3.1.2 that describes the proposed sediment and erosion control measures.

Wildacres

- 1. Wildacres Resort
 - a. Install erosion control measures, grub, bury stumps, rough grade, install irrigation and drainage, final grade, temporarily stabilize (where necessary), and final stabilize golf holes 3 through 8, 10, 11 and the driving range.
 - b. Construct main access road through site, install binder course as soon as possible.

- c. Cut 20 foot wide centerlines on internal roads and parking. Stabilize haul roads and other disturbed areas with ryegrass.
- d. Blast rock for hotel, begin construction of hotel and golf clubhouse, golf maintenance building, potable water treatment facility, and off-site water and sewer lines. These components will all be completed by the summer of the third year. Set up and operate rock crusher and concrete batch plant at the practice range. These will operate for the first 18 to 24 months of construction.
- e. Install utility infrastructure (water, wastewater, power and communications) in vicinity and along all roads.
- f. In the first winter clear, but do not grub, remaining golf hole centerlines for remaining golf course construction.
- 2. Wildacres Resort
 - a. Continue hotel construction.
 - b. Install erosion control measures grub, bury stumps, rough grade, install irrigation and drainage, final grade, temporarily stabilize (where necessary) and final stabilize remaining golf holes.
 - c. Grub and bury stumps, grade, gravel, and install binder course on all internal roads and parking except the Front-9 Village.
 - d. Install utility infrastructure in vicinity and connect to all buildings under construction.
- 3. Wildacres Resort
 - a. Install top coat of asphalt on all roads and parking with binder course, landscape all completed buildings.
 - b. Open full golf course and hotel, golf clubhouse, and all associated buildings/amenities mid to late summer.
 - c. Construct access road and recreational amenities for the Front-9 nine Village
 - d. Rehabilitate existing Highmount Ski Area buildings as Wilderness Activity Center.
- 4. Wildacres Resort
 - a. Rehabilitate Marlowe Mansion
 - b. Build detached lodging units as they are sold.

<u>Highmount</u>

- 1. Highmount Spa Resort
 - a. Install erosion control measures, begin construction of entrance drive, and construct stormwater basins near County Route 49A.
 - b. Construct haul road along proposed access road location up to Hotel location, clear approximately 1/3 acre within hotel footprint to use as stockpile area for first work area excess cut material. Install erosion control around stockpile area.
 - c. Construct main access road to the vicinity of the entrances to the Hotel building and Lodge building install binder course as soon as possible.

- d. Clear additional portion of Hotel footprint and Lodge footprint (no earthwork) for use as stockpile and staging areas, install erosion controls in stockpile areas.
- f. Commence Hotel and Lodge site preparation, including blasting. Set up and operate rock crusher near the north end of the Lodge building footprint. This will operate for the first 12 to 18 months of construction.
- g. Commence Hotel building construction and stabilize prepared Lodge site.
- h. Install utility infrastructure (water, wastewater, power and communications) in vicinity of Phase 1 and along all roads.
- i. Continue and complete Hotel building construction.
- 2. Highmount Spa Resort
 - a. Construct Lodge building.
- 3. Highmount Spa Resort
 - a. Construct the detached lodging units.
 - b. Rehabilitate Leach Farm buildings into additional conference/clubhouse space.

On-Site Processing

Like the original DEIS proposal, the modified project that is the subject of this SDEIS includes use of a portable rock crusher and a concrete batch plant in the vicinity of the Wildacres hotel. A rock crusher will also be operated in the vicinity of the Highmount lodge building. The Noise Impact Study in Appendix 20 identifies the locations of the rock crushers.

The feasibility of establishing an on-site mobile batch asphalt plant was evaluated. Consideration was given to the site's proximity to existing asphalt plants and their ability to provide suitably hot asphalt, as well as an economic feasibility assessment of producing asphalt on site. This analysis determined that an on-site plant was not necessary or economically advantageous. An on-site mobile batch asphalt plant is not proposed as part of the project. A nearby existing asphalt plant is available to meet the project's asphalt needs.

The project will require a large volume of concrete, some of which will be produced on-site using stone materials excavated on-site. Additional concrete will be brought in from outside plants. One such plant, at Wadler Brothers Home Center, exists within 3 miles of the project site on NY Route 28. Mason sand and cement will have to be brought to the site. A portable ready mix concrete plant, a mobile source, will be located near the golf clubhouse at Wildacres and will produce concrete for the Wildacres portion of the project during the first two years of construction. The concrete batch plant near the golf clubhouse will have an associated rock crusher mill. Co-locating the concrete batch plant near the crusher mill will minimize sound impacts and reduce the number of truck trips required to move the raw stone material to the batch plants. These plants will operate for the first 18 to 24 months of the project. The concrete batch plant will operate for prolonged periods of time followed by periods of shut down while concrete sets or forms are being removed and moved.

The mobile concrete batch plant and the two rock crushers will have their own mobile source air permits for these facilities.

B. Blasting

Blasting will be required to build certain buildings and sections of road. The locations where blasting is expected to be needed were identified using the project grading plans and project depth to bedrock information generated from the site soils maps. It can be expected that blasting will be needed in those location where the depth of earthwork cut exceeds the depth to bedrock.

Figure 2-35, "Blasting Locations-Wildacres" identifies where blasting is expected to be needed at Wildacres. The largest area is at the Wildacres hotel and its immediate surroundings. Other locations are smaller areas at various locations on the site including some areas on the golf course and some short sections of access road.

Figure 2-36, "Blasting Locations – Highmount", shows blasting being needed for portions of the Hotel and Lodge buildings and near the entrance off 49A for road and stormwater management.

C. Blasting Best Management Practices

Impacts and mitigation measures related to blasting are discussed in detail section 3.3, and additional discussions of potential blasting impacts and mitigation measures for other topics can be found in the following subsections in Section 3. This includes the implementation of pre-blast surveys, a well inspection program, the operation of a noise complaint telephone line, and actual blasting practices to be implemented to avoid off-site impacts.

- Nearby Structures and Water Supplies, 3.2
- Wildlife, 3.4
- Traffic, 3.5
- Noise, 3.7
- Air Quality, 3.12

D. Outside Construction Inspections

Construction inspection methods and procedures by local municipalities and other regulatory agencies will follow normal and typical inspection procedures. Construction documents will be reviewed and followed. Building construction inspections are typically performed by:

• The local building inspector or code enforcement officer.

For example, Section 116-63 of the Shandaken Zoning Ordinance states that the Zoning Enforcement Officer shall have the right to enter upon, examine, and inspect, or cause to be entered, examined and expected any building or property at any reasonable time for the purpose of carrying out his duties and to determine compliance with the provisions of this chapter. A written report of each such examination and inspection shall be prepared on an appropriate form and kept on file by the Zoning Enforcement Officer.

- County Health Department.
- The electrical underwriter.
- The insurance underwriter, at completion of the building.
- The local fire department, at completion of the building.

Building construction inspections are typically performed at critical construction stages.

Site construction inspections will likely be performed by the NYSDEC and NYCDEP at stages critical to the installation of sedimentation and erosion control systems. These inspections will be carried out in conjunction with the project Independent Monitor and Erosion Control Superintendent overseeing the proper implementation of the project SWPPPs as described in Section 3.1.2. The Project Independent Monitor and Stormwater Superintendent will be available to assist in these inspections.

Water and wastewater infrastructure installation may be inspected by the Ulster County Health Department, NYSDOH, NYSDEC and/or NYCDEP at intervals appropriate to the stage of construction.

All site facilities and infrastructure will be available for inspections at intervals as requested by the regulatory agency(s) as will be the records of the dedicated erosion control crews.

E. Construction Sequencing and Land Disturbance

Sheet 3.00 in the plan set that accompanies this SDEIS and Figure 2-37 show the progression of work for Phase 1 construction. See Section 3.1.2 for details.

The overall project is broken up into three physically separate construction projects, the main part of Wildacres south of Gunnison Road, the northeast corner of Wildacres north of Gunnison Road and Highmount. Each of these areas has a Phase 1, a Phase 2 and a Phase 3. Within each of these phases work areas have been established. Generally speaking, work areas are \pm -5 acres or less in size and one work area will be actively disturbed at any one given time in each of the 3 construction areas. The exceptions to the \pm -5 acres work area size cap are the site areas of the two hotels.

F. Schedule As It Relates To Project Effects

Projected project buildout has 70% of the units becoming available by year 3. By year 8, 99% of the units will be available, and 100% buildout is projected at year 11.

For operational phase activities such as traffic generation, water use, wastewater generation, and solid waste management, levels of these activities will increase at the same pace as the units becoming available. For example, the wastewater design report in Appendix 16 calculates maximum daily wastewater flows of 160,000 gpd at full buildout and at 100% occupancy. Using

the buildout percentages from above, maximum daily flows (assuming 100% occupancy) would be about 112,000 gpd in year 3, 158,400 gpd in year 8 and would reach the full 160,000 gpd in year 11.

G. Construction Traffic

Construction traffic is discussed in section 3.5(F).

H. Earthwork Transport

Excess cut will not be generated by construction site work, so there will be no need to truck material off of the project site. Likewise, bulk fill is not required to be imported. There are no mining activities associated with the project that would require a NYSDEC Mined Land Reclamation Permit. This was confirmed during the Issues Conference held in 2004.

I. Handling and Storing Construction Materials

Handling and storage of materials is discussed in the project stormwater pollution prevention plan (SWPPP) that is SDEIS Appendix 19. Included in the SWPPP are the following topics regarding construction materials.

- Good housekeeping and material management practices,
- Inventory of materials and substances expected to be on-site during construction,
- Practices to be used to reduce the risks associated with hazardous materials,
- General spill control practices, and
- Product-specific spill prevention practices.

2.8.10 General Erosion Control Activities

A. Approach Overview

The overall approach to enhanced erosion control during construction of the project is very similar to the approach described in the DEIS.

Project construction will be phased over many years eliminating the need to have larger areas of active construction in order to meet a shorter construction schedule. Sections 2.8.9(E) and 2.8.9(F) previously described the project phasing and extended buildout anticipated for the project. See the Phasing Plan (L3.00) and construction phasing plans for Phase 1(A) construction¹¹ (L3.01) in the plan set that is part of this SDEIS. Each phase of construction will have their own SWPPP that will require NYSDEC and NYCDEP review and approval before construction of phases can start.

¹¹ For the purposes of construction sequencing and stormwater permitting, including stormwater pollution prevention plans, construction of Highmount Golf Club is broken up into Phase 1(A) and Phase 1(B). Phase 1(A) includes holes 3-8, 10, 18 and the practice range, and Phase 1(B) includes the remainder of the golf course.

Likewise, section 2.8.9(E) previously described how each construction phase is divided into smaller work areas that are 5 acres or less in size with a few minor exceptions. The proposed construction sequencing requires that a work area must be stabilized before work can begin on the next work area in the sequence. See the erosion control plans (L3.03-L3.21) that are in the plan set that is part of this SDEIS. These sediment and erosion control plans also contain the erosion and sediment control sequencing previously provided in section 2.8.9(A) above.

The sediment and erosion control plans illustrate the sediment basins that are proposed to be constructed to serve all of the work areas. Similar to the design in the DEIS, these sediment basins have been designed to capture and hold runoff from the 10-year storm, six inches of rain in 24 hours, and assuming that all of the area contributing the sediment basins have a runoff coefficient equivalent to bare ground. The drainage area, storage volume required for the 10-year storm, and the storage volume provided is included for each of the sediment basins shown on the sediment and erosion control plans. In almost all instances, the storage volume provided is more than what is required for the 10-year storm.

The DEIS describes in detail how an organic flocculant, chitosan or liquid-floc®, will be used to reduce turbidity in the sediment basins. The use of chitosan (a food grade material) was approved by the NYSDEC staff and upheld in the NYSDEC Commissioner's Interim Decision. This same approach to chitosan flocculent use will be used for the SDEIS project. As described in the DEIS, chitosan has proven effective for the soils on the project site through bench tests performed on soil samples collected from the property. Laboratory tests were also performed at the time of the issues conference to demonstrate that chitosan is not toxic to aquatic organisms when used at the rates proposed to be used for this project.

Diversion swales have been designed where there are undisturbed (natural areas) contributing runoff towards the active work areas. These diversion swales keep the uphill runoff from reaching the exposed soils in the active work area, greatly reducing the potential for erosion.

Other erosion control practices that will be utilized during construction and that are illustrated on the EC plans include perimeter silt fencing, bio logs or wattles, catch basin inlet protection, storm pipe outlet protection, check dams, water bars, rolled erosion control products, turf reinforcement mats, stabilized construction entrances, temporary and permanent seedings, wood fiber mulch and sod. Typical details for erosion control practices are shown on sheets L8.00-L8.02 in the drawing set.

Section 3.1.2 contains details regarding sediment and erosion control, including plan implementation, site monitoring, and bonding to insure compliance with NYSDEC and NYCDEP permits.

2.8.11 Lighting, Landscaping and Signage

A. Lighting

Lighting, Landscaping and Signage are illustrated on the Site Plans that accompany this SDEIS, including Drawings L6.00-L6.11, Site Layout, Materials and Planting Plan and Drawings L8.00-L8.02, Site Details. These plans show where the following types of site lighting is proposed; bollard light (Type A) roadway light (Type E), driveway light (Type F), tennis light (Type G), sign light (Type H), and uplight (Type I).

The goal of the lighting plan is to create a cohesive and uniform lit environment throughout the Resort which focuses on safety, minimizing unwanted glare and light trespass to protect the night sky, and providing a high quality of light that creates a feeling of excitement and security in high activity areas. There are generally three different "lighting areas" within the project: Road Corridors, Resort Activity Areas and Residential Areas. Specific guidelines for each are below. In general, all light fixture colors and types shall compliment architectural and natural landscape elements, and fit within the character of the Resort.

<u>Road Corridors:</u> Road corridors include the Highmount access road between County Route 49A and the entrance to the Hotel and Lodge, the entrance to the Wildacres Hotel off of County Route 49A, the entrance to the Wildacres Hotel off Gunnison Road and the short entrance drive to the Front-9 Village recreation center off of County Route 49A. (See Landscape and Lighting plans.) These are the Type E fixtures shown on the plans, specified as the Stockholm Series by Antique Street Lamps lighting company. This fixture is a sharp cut-off fixture, with a pole height between 18' and 22'. The Light source (lamp) will be 100-200 watt pulse start Metal Halide. All fixtures will be fit with appropriate optics and shields to control the dispersion pattern and direction of light and protect against unwanted light migration.

<u>Resort Activity Areas</u>: Resort Activity Areas include most areas with recreational amenities and parking, including the Hotels, exterior gathering areas, the Rec Center and Pool, Tennis Courts and Golf Clubhouse.

Generally, indirect/concealed lighting will be used so that the light source is not visible. Whenever possible, lighting will be incorporated within architectural facades, soffit, site walls and steps. Exterior lighting such as flood lighting or other similar sources whose direct source is visible from a neighboring building or which produces excessive glare for pedestrian or vehicular traffic will not be used. Wall mounted sharp cut-off fixtures or fixtures fitted with shields and directed downward will be utilized to direct light and prevent unwanted glare and migration. All light sources will be white light, such as metal halide, LED, incandescent or halogen. In critical areas, some small ground mounted lights, (Type I), will be used to light key landscape features and provide added aesthetic. Important signage will typically be lit with fixtures mounted to the signs and directed downward (Type H). In the parking areas, the light fixtures will be the same as the fixtures used along the road corridors. Pedestrian lighting along walks and paths will be Bollard Lights, Type A. The maximum height will be 48", and the light source will be indirect/concealed, or fitted with louvers and/or a translucent lens and directed downward. The lamp will be 50-100 watt Metal Halide. At the tennis courts, the fixture utilized is a full cutoff fixture specifically designed for lighting tennis courts. It will be approximately 20' tall, with a square box top. The lamp is a 750 watt pulse start metal halide. This high wattage is standard for lighting for sporting activities. Tennis court lighting will only be used up until 30 minutes after sunset.

<u>Residential Areas:</u> Light fixtures associated with the Residential buildings will typically be post mounted driveway lights (Type F) and building mounted fixtures. All light fixture colors and types will compliment architectural and landscape elements, and fit within the character of the Resort. In these areas lighting is minimized and used only to meet the requirements of safety and easy identification of building entrances, driveways and walkways, located at key arrival or entry points. Residential lighting will be incorporated with features such as site walls, architectural facades, and soffits when possible. Light types vary, but will be white lighting such as Metalhalide, LED, incandescent, and halogen to match the rest of the Resort. All fixtures will be indirect, sharp cut-off fixtures, fitted with shields as necessary to direct light and prevent unwanted glare and migration. The maximum wattage will be 100 watts. Light posts adjacent to driveways and parking areas will be 6'-8' in height above finished grade.

B. Landscaping

See the Site Layout, Materials and Planting Plans that are in the plan set that accompanies this SDEIS. The concept for the planting plan focuses on creating a naturalistic setting for the various project components. The plant palette incorporates mostly native plant materials with some ornamental species to provide added aesthetic qualities in key areas. In the activity areas and near the hotels the planting is more dense and is used to compliment the architecture, soften the building corners and reduce the perceived scale and height of the buildings. At the edges of the developed areas, plantings will be less dense and are designed to blend the resort property with the surrounding wooded areas. Existing woodland vegetation is preserved as much as possible throughout the resort in order to further this concept and minimize disturbance.

The golf course maintenance staff under the oversight of the Organic Golf Course Technical Committee will be responsible for implementing the organic golf course maintenance plan (see Appendix 15). It is anticipated that the golf course superintendent or one of their immediate subordinates will also be responsible for managing the Resorts' grounds maintenance department. Since this manager will already be familiar with the organic requirements of the golf course, this knowledge should extend to maintenance of the other landscaped areas of the Resorts in accordance with paragraph 43 of the AIP. Should the need for pesticide applications arise, records will be maintained in accordance with NYSDEC Program Policy OGC-3 and ECL 33.1205(1). The following information will be included in the application records, USEPA registration number, project name, quantity applied, application method, target organism, and place(s) of application. Records are required to be maintained on an annual basis and retained for a minimum of three years. Annual reports derived from these records are required to be submitted to the central office of the NYSDEC. If requested, copies of annual records will also

be sent to the Regional Office in New Paltz. Access to pesticide application records can also be available to the Towns of Shandaken and Middletown personnel, such as the Code Enforcement Officer.

C. Native Versus Non-native Plant Materials

The plant palettes developed for site landscaping and the green roof plantings for the lodge/spa buildings at Highmount were developed by giving preference to native plant species. In those instances where non-native plant species are proposed for use for ornamental purposes, the species and cultivars proposed are non-invasive (non-spreading) by all propagative means. The proposed plant palettes are included in the Invasive Species Control Plan in Appendix 21 of this SDEIS.

D. Invasive Species Control Plan

The proposed Invasive Species Control Plan¹² in Appendix 21 was prepared in consultation with the NYSDEC and the Catskill Regional Invasive Species Project (CRISP). The Invasive Species Control Plan in Appendix 21 also contains specific control measures for construction and operations for the prevention and control of invasive species including purple loosestrife, common reed, garlic mustard, Japanese, giant and bohemian knotweed, Japanese honeysuckle, bush honeysuckles, yellow iris, wild chervil and Japanese barberry.

E. Signage

On-site primary entry signage is proposed at the entry road to Highmount of CR 49A, at the entrance to the Wildacres Hotel off CR 49A, at the entry to Wildacres off Gunnison Road, and at the entrance to the Front-9 Village off CR 49A. Typical entry sign design is illustrated on detail 3 on Sheet L8.03. The primary sign structure will be approximately 10 feet tall by 17 feet wide and will be constructed of wood and stone. The actual sign panel will be approximately 4.5 high by 9 feet wide hung approximately 6 feet off the ground. Entrance signs will be lit with external lighting. The location of entry signs are shown on site plan drawings L-3.4, L-3.9, L-3.8, and L-3.12.

Interior directional signage is proposed to direct Resort visitors to the different resort components. Typical interior directional signage will be of the same material as the primary entrance signs and in the same theme.

Typical, standard vehicular signage such as stop signs, no parking signs, handicapped parking stall signs, crosswalk signs, etc., will be installed as appropriate within the site.

Proposed off-site signage will include pedestrian crossing/crosswalk signs located at the crosswalk from the Wildacres Hotel to BMSC, at the golf cart crossing of Gunnison Road between holes 2 and 3, and at the golf cart crossing of Gunnison Road between holes 15 and 16. An intersection warning sign will be installed CR 49A alerting drivers to the project driveway for the Front 9 Village at Wildacres.

¹² In accordance with AIP paragraph 42

2.8.12 Energy and Materials Management

A. Energy

All buildings will, at a minimum, comply with the Energy Conservation Construction Code of New York State, USEPA and US Department of Energy Energy Star Program, or American Society of Heating Refrigeration and Air Conditioning Engineers (ASHRAE) 90.1 Energy Standard for Buildings, whichever is more stringent.

All heating, ventilation and air conditioning (HVAC) equipment will be chlorofluorocarbon (CFC) free.

Wherever possible, the energy performance of buildings will exceed the minimum standards set forth above. A variety of energy saving and optimizing steps will be studied and may be implemented such as:

- 1. Demand reduction by improving the building shell including insulation and air infiltration control, improved lighting design and fixture selection, using occupancy lighting controls, providing ventilation cooling, the selection of the most efficient HVAC equipment, etc.
- 2. Harvesting free energy such as the maximal use of day lighting, using cool outside air for ventilation / cooling loads whenever possible, geothermal / ground source heat pump heating and cooling systems, etc.
- 3. Selection of maximally efficient fixtures and equipment such as compact fluorescent lighting, exterior metal halide, LED exit signage, high performance chillers, high performance motors.
- 4. Instituting an energy management and control system for larger buildings for good energy management.
- B. Water Use and Conservation

Wherever possible the following water use and conservation measures may be implemented.

- 1. Utilizing native landscape species.
- 2. Utilizing high efficiency irrigation systems. Irrigation efficiency will be maximized through the use of a computer controlled delivery system calibrated for the varied conditions found throughout the golf courses.
- 3. Capturing roof drain water for use in irrigation.

- 4. Capturing storm-water run-off from the area around the Wildacres Hotel and associated impervious areas for irrigation use.
- 5. Utilizing high efficiency plumbing fixtures wherever possible.
- 6. Utilizing high efficiency equipment.
- 7. Utilizing dry fixtures, such as a composting toilet at the warming hut at the Wilderness Activity Center.
- C. Recycling

The following steps will be taken to maximize the efforts to recycle at the Belleayre Resort.

A Resort-wide recyclable materials management plan will be established. Facilities will be provided in each building for the collection, sorting and storage of recyclable materials.

Wherever possible, building materials which contain post-consumer or post-industrial recycled material will be specified. Wherever possible, building materials that are recyclable will be specified.

The Marlowe Mansion and Leach Farm buildings will be adaptively reused as Resort buildings.

D. Product Purchasing

Wherever possible the following systems may be implemented.

- 1. Use condiments and cleaners in bulk instead of portion controlled disposable packaging.
- 2. Utilizing dispensers instead of throwaway amenities in bathrooms.
- 3. Purchasing recycled content products wherever possible throughout Hotel and facilities operations.
- 4. Utilizing chlorine free printing paper and toilet paper.
- 5. Utilizing toxic free cleaners.
- E. Green Building Design Elements

U.S. Green Building Council created the LEED (Leadership in Energy and Environmental Design) rating program to spur the development of high-performance, sustainable buildings. A building is awarded a LEED rating of Certified, Silver, Gold or Platinum based on the number of points it accumulates for its site, design and construction. The Belleayre Resort at Catskill Park is committed to obtaining Silver Certification or higher for the Wildacres Resort Hotel, the Highmount Spa Resort Hotel and Highmount Lodge building. In doing so two eminent

Architectural Firms, Hart/Howerton and Emilio Ambasz & Associates, leaders in the field of green building design, have been employed to conceptualize and design those buildings. These designers have and will continue to take into consideration that buildings qualify for LEED Certification in part for the projects':

- Innovative design;
- Low levels of light pollution;
- Use of regionally produced construction materials;
- Use of recycled materials in the construction process;
- Use of paints, carpets, and composite building materials with low levels of chemical emissions;
- Recycling of construction debris to keep it out of landfills;
- Energy efficiency; and,
- Providing daylight and views for the vast majority of space inside the building.

Buildings are awarded points toward LEED certification on a scale that emphasizes Sustainable Site, Water Saving, Energy Efficiency, Materials and Resources, and Indoor Environmental Quality. The following are guidelines that will be used by the design professionals during the design development of the project, and the construction management team during construction, to garner the necessary points for achieving Silver Certification or higher.

SUSTAINABLE SITES

In order to obtain any credits for Sustainable Sites (SS) it is required that a Construction Activity Pollution Prevention plan be implemented which would address the following:

- Prevent loss of soil during construction by storm water runoff and/or wind erosion, including protecting topsoil by stockpiling for reuse.
- Prevent sedimentation of storm sewer or receiving streams.
- Prevent polluting the air with dust and particulate matter.
- Create an Erosion and Sedimentation Control Plan during the design phase of the project. Consider employing strategies such as temporary and permanent seeding, mulching, earth dikes, silt fencing, sediment traps and sediment basins.

Credits for Sustainable Sites are also available by addressing:

- 1. Alternative Transportation Issues in one or more of the following methods:
 - Public Transportation Access; Locate project within 1/4 mile of one or more stops for two or more public bus lines usable by building occupants / employees.
 - Low Emitting and Fuel Efficient Vehicles; Provide low-emitting and fuel-efficient vehicles for 3% of Full-Time Equivalent (FTE) occupants AND provide preferred parking for these vehicles.
 - Parking Capacity; Reduce pollution and land development impacts from single occupancy vehicle use. Size parking capacity to meet, but not exceed, minimum local zoning requirements, AND, provide preferred parking for carpools or vanpools for 5% of the total provided parking spaces.

- 2. Site Development through:
 - Protecting or Restoring Habitat: Restore or protect a minimum of 50% of the site area (excluding the building footprint) with native or adapted vegetation. Native/adapted plants are plants indigenous to a locality or cultivars of native plants that are adapted to the local climate and are not considered invasive species or noxious weeds. Projects earning SS Credit 2 and using vegetated roof surfaces may apply the vegetated roof surface to this calculation if the plants meet the definition of native/adapted. Carefully site the building to minimize disruption to existing ecosystems and design the building to minimize its footprint. Strategies include stacking the building program, tuck-under parking and sharing facilities with neighbors. Establish clearly marked construction boundaries to minimize disturbance of the existing site and restore previously degraded areas to their natural state. Prohibit plant materials listed as invasive or noxious weed species. Native/adapted plants require minimal or no irrigation following establishment, do not require active maintenance such as mowing or chemical inputs such as fertilizers, pesticides or herbicides, and provide habitat value and promote biodiversity through avoidance of monoculture plantings.
 - Maximizing Open Space: Select a suitable building location and design the building with a minimal footprint to minimize site disruption. Strategies include stacking the building program, tuck-under parking and sharing facilities with neighbors to maximize open space on the site.
- 3. Storm Water Design:
 - Quantity Control; Design the project site to maintain natural storm water flows by promoting infiltration. Specify vegetated roofs, pervious paving, and other measures to minimize impervious surfaces. Reuse storm water volumes generated for non-potable uses such as landscape irrigation, toilet and urinal flushing and custodial uses.
 - Quality Control; Use alternative surfaces (e.g., vegetated roofs, pervious pavement or grid pavers) and nonstructural techniques (e.g., rain gardens, vegetated swales, disconnection of imperviousness, rainwater recycling) to reduce imperviousness and promote infiltration thereby reducing pollutant loadings. Use sustainable design strategies (e.g., Low Impact Development, Environmentally Sensitive Design) to design integrated natural and mechanical treatment systems such as constructed wetlands, vegetated filters, and open channels to treat storm water runoff.
- 4. Heat Island Effect:
 - Non-Roof; Place a minimum of 50% of parking spaces under cover (defined as underground, under deck, under roof, or under a building). Shade constructed surfaces on the site with landscape features and utilize high-reflectance materials for hardscape. Consider replacing constructed surfaces (i.e. roof, roads, sidewalks, etc.) with vegetated surfaces such as vegetated roofs and open grid paving or specify high-albedo materials to reduce the heat absorption.
 - Roof; installing high-albedo and vegetated roofs to reduce heat absorption

- 5. Light Pollution Reduction:
 - Adopt site lighting criteria to maintain safe light levels while avoiding off-site lighting and night sky pollution. Minimize site lighting where possible and model the site lighting using a computer model. Technologies to reduce light pollution include full cutoff luminaires, low-reflectance surfaces and low-angle spotlights.

WATER EFFICIENCY

- 1. Water Efficient Landscaping,
 - Reduce by 50%; Determine appropriate plant material and design the landscape with native or adapted plants to reduce or eliminate irrigation requirements. Where irrigation is required, use high-efficiency equipment and/or climate-based controllers.
 - No Potable Use or No Irrigation; Determine appropriate landscape types and design the landscape with indigenous plants to reduce or eliminate irrigation requirements. Consider using storm water, grey water, and/or condensate water for irrigation.
- 2. Innovative Wastewater Technologies
 - Reduce potable water use for building sewage conveyance by 50% through the use of water-conserving fixtures (water closets, urinals) or non-potable water (captured rainwater, recycled grey water, and on-site or municipally treated wastewater).
- 3. Water Use Reduction, 20% Reduction
 - Maximize water efficiency within buildings to reduce the burden on municipal water supply and wastewater systems. Employ strategies that in aggregate use 20% less water than the water use baseline calculated for the building (not including irrigation) after meeting the Energy Policy Act of 1992 fixture performance requirements. Calculations are based on estimated occupant usage and shall include only the following fixtures (as applicable to the building): water closets, urinals, lavatory faucets, showers and kitchen sinks.

ENERGY AND ATMOSPHERE

In order to obtain any credits for Energy and Atmosphere (EA) it is required that the owner seek out qualified individuals to lead the Fundamental Commissioning of the Building Energy Systems. Qualified individuals are identified as those who possess a high level of experience in the following areas:

- Energy systems design, installation and operation
- Commissioning planning and process management
- Hands-on field experience with energy systems performance, interaction, start-up, balancing, testing, troubleshooting, operation, and maintenance procedures
- Energy systems automation control knowledge.

Owners are encouraged to consider including water-using systems, building envelope systems, and other systems in the scope of the commissioning plan as appropriate. The building envelope is an important component of a facility which impacts energy consumption, occupant comfort and indoor air quality. While it is not required to be commissioned by LEED, an owner can receive significant financial savings and reduced risk of poor indoor air quality by including building envelope commissioning.

Also required is a Minimum Energy Performance which means that the building envelope, HVAC, lighting, and other systems will be designed to maximize energy performance. Additional points are available for Optimize Energy Performance when it can be demonstrated that a minimum of 14 percent improvement in the proposed building performance rating compared to the baseline building performance rating per ASHRAE/IESNA Standard 90.1-2004 by a whole building project simulation using the Building Performance Rating Method in Appendix G of the Standard.

A Fundamental Refrigerant Management plan requires zero use of CFC-based refrigerants in new base building HVAC&R systems.

Points for Green Power will be investigated during the design development stage and after the energy needs of the buildings have been determined. The designers will investigate opportunities to engage in a green power contracts. Green power being derived from solar, wind, geothermal, biomass or low-impact hydro sources.

MATERIALS AND RESOURCES

In order to obtain any credits for Materials and Resources (MR) it is required that a Storage and Collection of Recyclables Plan is implemented. This would include coordinating the size and functionality of the recycling areas with the anticipated collection services for glass, plastic, office paper, newspaper, cardboard and organic wastes to maximize the effectiveness of the dedicated areas. Consider employing cardboard balers, aluminum can crushers, recycling chutes and collection bins at individual workstations to further enhance the recycling program.

Credits for Materials and Resources are also available by addressing:

- 1. Recycled Content, 10% (post-consumer + 1/2 pre-consumer)
 - Establish a project goal for recycled content materials and identify material suppliers that can achieve this goal. During construction, ensure that the specified recycled content materials are installed. Consider a range of environmental, economic and performance attributes when selecting products and materials.
- 2. Regional Materials, 10% Extracted, Processed and Manufactured Regionally
 - Use building materials or products that have been extracted, harvested or recovered, as well as manufactured, within 500 miles of the project site for a minimum of 10% (based on cost) of the total materials value. If only a fraction of a product or material is extracted/harvested/recovered and manufactured locally, then only that percentage (by weight) shall contribute to the regional value. Mechanical, electrical and plumbing components and specialty items such as elevators and equipment shall not

be included in this calculation. Only include materials permanently installed in the project. Furniture may be included, providing it is included consistently in MR Credits.

- Establish a project goal for locally sourced materials, and identify materials and material suppliers that can achieve this goal. During construction, ensure that the specified local materials are installed and quantify the total percentage of local materials installed. Consider a range of environmental, economic and performance attributes when selecting products and materials.
- 3. Rapidly Renewable Materials
 - Use rapidly renewable building materials and products (made from plants that are typically harvested within a ten-year cycle or shorter) for 2.5% of the total value of all building materials and products used in the project, based on cost.
 - Establish a project goal for rapidly renewable materials and identify products and suppliers that can support achievement of this goal. Consider materials such as bamboo, wool, cotton insulation, agrifiber, linoleum, wheatboard, strawboard and cork. During construction, ensure that the specified renewable materials are installed.
- 4. Certified Wood
 - Use a minimum of 50% of wood-based materials and products, which are certified in accordance with the Forest Stewardship Council's (FSC) Principles and Criteria, for wood building components. These components include, but are not limited to, structural framing and general dimensional framing, flooring, sub-flooring, wood doors and finishes. Only include materials permanently installed in the project. Furniture may be included, providing it is included consistently in MR Credits.
 - Establish a project goal for FSC-certified wood products and identify suppliers that can achieve this goal. During construction, ensure that the FSC-certified wood products are installed and quantify the total percentage of FSC-certified wood products installed.

INDOOR ENVIRONMENTAL QUALITY

- 1. MINIMUM INDOOR AIR QUALITY PERFORMANCE (IAQ) Required
 - Meet the minimum requirements of Sections 4 through 7 of ASHRAE 62.1-2004, Ventilation for Acceptable Indoor Air Quality. Mechanical ventilation systems shall be designed using the Ventilation Rate Procedure or the applicable local code, whichever is more stringent.
 - Naturally ventilated buildings shall comply with ASHRAE 62.1-2004, paragraph 5.1.
 - Design ventilation systems to meet or exceed the minimum outdoor air ventilation rates as described in the ASHRAE standard. Balance the impacts of ventilation rates on energy use and indoor air quality to optimize for energy efficiency and occupant health. Use the ASHRAE 62 User's Manual for detailed guidance on meeting the referenced requirements.

2. ENVIRONMENTAL TOBACCO SMOKE (ETS) CONTROL Required

- Minimize exposure of building occupants, indoor surfaces, and ventilation air distribution systems to Environmental Tobacco Smoke (ETS).
- Prohibit smoking in the building except in designated smoking areas.
- Locate any exterior designated smoking areas at least 25 feet away from entries, outdoor air intakes and operable windows.
- Locate designated smoking rooms to effectively contain, capture and remove ETS from the building. At a minimum, the smoking room must be directly exhausted to the outdoors with no re-circulation of ETS-containing air to the non-smoking area of the building, and enclosed with impermeable deck-to-deck partitions. With the doors to the smoking room closed, operate exhaust sufficient to create a negative pressure with respect to the adjacent spaces of at least an average of 5 Pa (0.02 inches of water gauge) and with a minimum of 1 Pa (0.004 inches of water gauge).
- Performance of the smoking room differential air pressures shall be verified by conducting 15 minutes of measurement, with a minimum of one measurement every 10 seconds, of the differential pressure in the smoking room with respect to each adjacent area and in each adjacent vertical chase with the doors to the smoking room closed. The testing will be conducted with each space configured for worst case conditions of transport of air from the smoking rooms to adjacent spaces with the smoking rooms' doors closed to the adjacent spaces.

3. OUTDOOR AIR DELIVERY MONITORING

Install permanent monitoring systems that provide feedback on ventilation system performance to ensure that ventilation systems maintain design minimum ventilation requirements. Configure all monitoring equipment to generate an alarm when the conditions vary by 10% or more from setpoint, via either a building automation system alarm to the building operator or via a visual or audible alert to the building occupants.

- a. For Mechanically Ventilated Spaces
 - Monitor carbon dioxide concentrations within all densely occupied spaces (those with a design occupant density greater than or equal to 25 people per 1000 sq. ft.). CO2 monitoring locations shall be between 3 feet and 6 feet above the floor.
 - For each mechanical ventilation system serving non-densely occupied spaces, provide a direct outdoor airflow measurement device capable of measuring the minimum outdoor airflow rate with an accuracy of plus or minus 15% of the design minimum outdoor air rate, as defined by ASHRAE 62.1-2004.
- b. For Naturally Ventilated Spaces
 - Monitor CO2 concentrations within all naturally ventilated spaces. CO2 monitoring shall be located within the room between 3 feet and 6 feet above the floor. One CO2 sensor may be used to represent multiple spaces if the natural ventilation design uses passive stack(s) or other means to induce airflow through those spaces equally and simultaneously without intervention by building occupants.
 - Install carbon dioxide and airflow measurement equipment and feed the information to the HVAC system and/or Building Automation System (BAS) to trigger corrective action, if applicable. If such automatic controls are not feasible with the building

systems, use the measurement equipment to trigger alarms that inform building operators or occupants of a possible deficiency in outdoor air delivery.

- 4. INCREASED VENTILATION
 - a. For Mechanically Ventilated Spaces
 - Increase breathing zone outdoor air ventilation rates to all occupied spaces by at least 30% above the minimum rates required by ASHRAE Standard 62.1-2004 as determined by EQ Prerequisite 1.
 - b. For Naturally Ventilated Spaces
 - Design natural ventilation systems for occupied spaces to meet the recommendations set forth in the Carbon Trust "Good Practice Guide 237" [1998]. Determine that natural ventilation is an effective strategy for the project by following the flow diagram process shown in Figure 1.18 of the Chartered Institution of Building Services Engineers (CIBSE) Applications Manual 10: 2005, Natural ventilation in non-domestic buildings. AND
 - Use diagrams and calculations to show that the design of the natural ventilation systems meets the recommendations set forth in the CIBSE Applications Manual 10: 2005, Natural ventilation in non-domestic buildings.
- 5. FOR MECHANICALLY VENTILATED SPACES: Use heat recovery, where appropriate, to minimize the additional energy consumption associated with higher ventilation rates.
- 6. FOR NATURALLY VENTILATED SPACES: Follow the eight design steps described in the Carbon Trust Good Practice Guide 237 1) Develop design requirements, 2) Plan airflow paths, 3) Identify building uses and features that might require special attention, 4) Determine ventilation requirements, 5) Estimate external driving pressures, 6) Select types of ventilation devices, 7) Size ventilation devices, 8) Analyze the design. Use public domain software such as NIST's CONTAM, Multizone Modeling Software, along with LoopDA, Natural Ventilation Sizing Tool, to analytically predict room-by-room airflows.

7. CONSTRUCTION IAQ MANAGEMENT PLAN

- a. During Construction; Develop and implement an Indoor Air Quality (IAQ) Management Plan for the construction and pre-occupancy phases of the building as follows:
 - During construction meet or exceed the recommended Control Measures of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guidelines for Occupied Buildings under Construction, 1995, Chapter 3.
 - Protect stored on-site or installed absorptive materials from moisture damage.
 - If permanently installed air handlers are used during construction, filtration media with a Minimum Efficiency Reporting Value (MERV) of 8 shall be used at each return air grille, as determined by ASHRAE 52.2-1999. Replace all filtration media immediately prior to occupancy.

b. Before Occupancy; prior to occupancy, perform a building flush-out or test the air contaminant levels in the building. The flush-out is often used where occupancy is not required immediately upon substantial completion of construction. IAQ testing can minimize schedule impacts but may be more costly. Coordinate with Indoor Environmental Quality Credits 3.1 and 5 to determine the appropriate specifications and schedules for filtration media.

8. LOW-EMITTING MATERIALS

- a. Adhesives and Sealants; Specify low-VOC materials in construction documents. Ensure that VOC limits are clearly stated in each section of the specifications where adhesives and sealants are addressed. Common products to evaluate include: general construction adhesives, flooring adhesives, fire-stopping sealants, caulking, duct sealants, plumbing adhesives, and cove base adhesives.
- b. Paints and Coatings; Specify low-VOC paints and coatings in construction documents. Ensure that VOC limits are clearly stated in each section of the specifications where paints and coatings are addressed. Track the VOC content of all interior paints and coatings during construction.
- c. Carpet Systems; All carpet installed in the building interior shall meet the testing and product requirements of the Carpet and Rug Institute's Green Label Plus program. All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute Green Label program. All carpet adhesive shall meet the requirements of EQ Credit 4.1: VOC limit of 50 g/L.
- d. Composite Wood and Agrifiber Products; Composite wood and agrifiber products used on the interior of the building (defined as inside of the weatherproofing system) shall contain no added urea-formaldehyde resins. Laminating adhesives used to fabricate onsite and shop-applied composite wood and agrifiber assemblies shall contain no added urea-formaldehyde resins. Composite wood and agrifiber products are defined as: particleboard, medium density fiberboard (MDF), plywood, wheatboard, strawboard, panel substrates and door cores. Materials considered fit-out, furniture, and equipment (FF&E) are not considered base building elements and are not included.

9. INDOOR CHEMICAL AND POLLUTANT SOURCE CONTROL

Design facility cleaning and maintenance areas with isolated exhaust systems for contaminants. Maintain physical isolation from the rest of the regularly occupied areas of the building. Install permanent architectural entryway systems such as grills or grates to prevent occupant-borne contaminants from entering the building. Install high level filtration systems in air handling units processing both return air and outside supply air. Ensure that air handling units can accommodate required filter sizes and pressure drops.

10. CONTROLLABILITY OF SYSTEMS

- a. Lighting
 - Provide a high level of lighting system control by individual occupants or by specific groups in multi-occupant spaces (i.e. classrooms or conference areas) to promote the productivity, comfort and well-being of building occupants.
 - Provide individual lighting controls for 90% (minimum) of the building occupants to enable adjustments to suit individual task needs and preferences.
 - Provide lighting system controllability for all shared multi-occupant spaces to enable lighting adjustment that meets group needs and preferences.
 - Design the building with occupant controls for lighting. Strategies to consider include lighting controls and task lighting. Integrate lighting systems controllability into the overall lighting design, providing ambient and task lighting while managing the overall energy use of the building.
- b. Thermal Comfort
 - Provide a high level of thermal comfort system control by individual occupants or by specific groups in multioccupant spaces (i.e. classrooms or conference areas) to promote the productivity, comfort and well-being of building occupants.
 - Provide individual comfort controls for 50% (minimum) of the building occupants to enable adjustments to suit individual task needs and preferences. Operable windows can be used in lieu of comfort controls for occupants of areas that are 20 feet inside of and 10 feet to either side of the operable part of the window. The areas of operable window must meet the requirements of ASHRAE 62.1-2004 paragraph 5.1 Natural Ventilation.

AND

- Provide comfort system controls for all shared multi-occupant spaces to enable adjustments to suit group needs and preferences. Conditions for thermal comfort are described in ASHRAE Standard 55-2004 to include the primary factors of air temperature, radiant temperature, air speed and humidity. Comfort system control for the purposes of this credit is defined as the provision of control over at least one of these primary factors in the occupant's local environment.
- Design the building and systems with comfort controls to allow adjustments to suit individual needs or those of groups in shared spaces. ASHRAE Standard 55-2004 identifies the factors of thermal comfort and a process for developing comfort criteria for building spaces that suit the needs of the occupants involved in their daily activities. Control strategies can be developed to expand on the comfort criteria to allow adjustments to suit individual needs and preferences. These may involve system designs incorporating operable windows, hybrid systems integrating operable windows and mechanical systems, or mechanical systems alone. Individual adjustments may involve individual thermostat controls, local diffusers at floor, desk or overhead levels, or control of individual radiant panels, or other means integrated into the overall building, thermal comfort systems, and energy systems design. In addition, designers should evaluate the closely tied interactions between thermal comfort (as required by ASHRAE Standard 55-2004) and acceptable indoor air

quality (as required by ASHRAE Standard 62.1-2004, whether natural or mechanical ventilation).

- c. Thermal Comfort, Design
 - Design HVAC systems and the building envelope to meet the requirements of ASHRAE Standard 55-2004, Thermal Comfort Conditions for Human Occupancy. Demonstrate design compliance in accordance with the Section 6.1.1 Documentation.
 - Establish comfort criteria per ASHRAE Standard 55-2004 that support the desired quality and occupant satisfaction with building performance. Design building envelope and systems with the capability to deliver performance to the comfort criteria under expected environmental and use conditions. Evaluate air temperature, radiant temperature, air speed, and relative humidity in an integrated fashion and coordinate these criteria with EQ Prerequisite 1, EQ Credit 1, and EQ Credit 2.
- d. Thermal Comfort, Verification
 - Agree to implement a thermal comfort survey of building occupants within a period of six to 18 months after occupancy. This survey should collect anonymous responses about thermal comfort in the building including an assessment of overall satisfaction with thermal performance and identification of thermal comfort-related problems. Agree to develop a plan for corrective action if the survey results indicate that more than 20% of occupants are dissatisfied with thermal comfort in the building. This plan should include measurement of relevant environmental variables in problem areas in accordance with ASHRAE Standard 55-2004.

11. DAYLIGHT AND VIEWS

- a. Daylight 75% of Spaces
 - Design the building to maximize interior daylighting. Strategies to consider include building orientation, shallow floor plates, increased building perimeter, exterior and interior permanent shading devices, high performance glazing and automatic photocell-based controls. Predict daylight factors via manual calculations or model daylighting strategies with a physical or computer model to assess footcandle levels and daylight factors achieved.
- b. Views for 90% of Spaces
 - Achieve direct line of sight to the outdoor environment via vision glazing between 2'6" and 7'6" above finish floor for building occupants in 90% of all regularly occupied areas. Determine the area with direct line of sight by totaling the regularly occupied square footage that meets the following criteria:
 - a. In plan view, the area is within sight lines drawn from perimeter vision glazing.
 - b. In section view, a direct sight line can be drawn from the area to perimeter vision glazing.
 - c. Line of sight may be drawn through interior glazing. For private offices, the entire square footage of the office can be counted if 75% or more of the area has direct line of sight to perimeter vision glazing. For multi-occupant spaces, the actual square footage with direct line of sight to perimeter vision glazing is counted.

INNOVATION AND DESIGN PROCESS

Points for Innovation in Design are obtained when the project substantially exceeds a LEED for New Construction performance credit such as energy performance or water efficiency. When the project applies strategies or measures that demonstrate a comprehensive approach and quantifiable environment and/or health benefits additional points can be obtained.

To receive points for LEED Accredited Professional; at least one principal participant of the project team shall be a LEED Accredited Professional (AP). Efforts must be taken to educate the project team members about green building design and construction and application of the LEED Rating System early in the life of the project. Consideration should also be taken to assigning the LEED AP as a facilitator of an integrated design and construction process.

Section 2 Figures



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Belleayre Resort at Catskill Park Detached Unit at Wildacres Resort



Front View



Rear View



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Site Boundary Parcels Not Included in Project

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3.1 Surface Waters Including Aquatic Habitats

A. Existing Conditions-General

The project site is almost entirely within the Delaware Watershed draining to the East Branch Delaware River and the Pepacton Reservoir. Approximately 12 acres at Wildacres is within the Ashokan Reservoir drainage basin.

The Delaware Watershed consists of $648,320\pm$ acres. The 727 acres of the project site represents 0.1% of the Delaware Watershed, while the 234.5 acres to be developed represents 0.04% of the Delaware Watershed. The project site is located approximately 14 miles upstream of the Pepacton Reservoir, which itself has a watershed of 237,477 acres. The approximately 234.5 acres to be developed in the Pepacton Watershed represents less than $1/10^{\text{th}}$ of one percent of the watershed that is currently 85% forested or water (NYCDEP, 2001) DEIS Figure 3-9, "Pepacton Watershed Land Use", illustrated the amount of various land uses in the watershed as of 1999. The graphic below was provided by NYCDEP, and this is the most recent data compiled for the Pepacton watershed.

Pepacton Watershed Land Use



Source: NYCDEP

According to NYCDEP mapping of these watersheds, the project site is outside of what is known as the 60-day travel time. In other words, any runoff from the project site would take more than 60 days to reach the water supply intake.

The location of surface water resources on and around the site is illustrated in DEIS Figure 3-10, "Surface Water Resources." Surface water resources consist of intermittent and perennial streams that originate in the higher elevations of the site, or above the site, and flow in a generally northerly direction in well-defined stream channels. None of the waters on the site are listed by the USEPA as "impaired" waters under Section 303(d) of the Clean Water Act.

B. Existing Conditions-Surface Waters

DEIS Table 3-2, "Surface Water Descriptions" lists the streams on and around the project site and gives the water quality standards assigned to these waters by New York State, their watersheds, flow regimes, and presence or absence of trout in Fall of 2000 NYSDEC sampling.

There are three mapped streams on the lands owned by Crossroads that are part of the Delaware Watershed. Two of the streams are tributaries of Emory Brook, which itself is tributary to the Bush Kill. The third stream on the Crossroads assemblage is directly tributary to the Bush Kill. The Bush Kill is tributary to the East Branch of the Delaware River that eventually empties into the Pepacton Reservoir.

Todd Mountain Brook (WIN D-70-80-10) originates on the Adelstein parcel and flows north, parallel to Todd Mountain Road, before entering the Bush Kill south of NY Route 28 in the Village of Fleischmanns. Only very small reaches of this stream are present on this part of the site that is now under a conservation easement held by New York City. This intermittent Class B(T) stream has an overall watershed of 880 acres, approximately 290 acres of which are within the Crossroads assemblage. Todd Mountain Brook ranges from 1 to 8 feet wide, has water depths of generally 2 to 4 inches and up to 10 inches in pools, and has a substrate comprised of a mix of rock, boulder, cobble and gravel. The stream is straight and has a slope of +/- 25 in the reaches on and near the property. No trout were found in this brook when the on-site portion of the brook was sampled in the Fall of 2000, however NYSDEC believes that trout may exist further downstream in this drainage. The lower portion of Todd Mountain Brook is located across Todd Mountain Road from the K-well property, and empties into the Bush Kill downstream of Emory Brook on the north side of Route 28 in the Village of Fleischmanns.

An unidentified section of Todd Mountain Brook was sampled again in 2010 as part of NYSDEC Region 4 Eastern Brook Trout Joint Venture project. The following information was collected:

- Surveyed July 27, 2010, Station length was 200 feet, Stream width was 4 feet.
- Collected 88 brook trout: 6 older (154-202 mm), 65 yearlings (87-143 mm), and 12 fingerlings (58-71mm). 5 brown trout: 1 older (155 mm) and 4 yearlings (96-144 mm)
- Recommended water classification upgrading from B(t) to B(ts)

NYCDEP provided benthic macroinvertebrate data collected from Todd Mountain Brook in the years 2003, 2004, 2008 and 2009. The total number of species found ranged from 25 to 30, and the EPT index value, a measure of general water quality, ranged from 9 to 17. There were no temporal trends for these 2 indices.

An unnamed tributary to Emory Brook (WIN D-70-80-12-2) originates on State lands east of the former Highmount Ski Area, flows north through the Wildacres Resort and eventually enters Emory Brook in Thompson Hollow, north of NY Route 28. This intermittent Class B stream has a total watershed of 181 acres, 80 acres of which are on the Crossroads assemblage. This is a first order stream whose slope varies as it passes through the site. In its upper reaches near County Route 49A and extending the first few hundred feet into the site the streambed is on slopes in the range of 30 to 40 percent. More towards the center of the site the streambed slopes are in the range of 15 to 20 percent, and the slope increases again towards the lower end of the site in the vicinity of Gunnison Road where the slope is approximately 25%. Because of the steep slopes the stream, overall, has very low sinuosity and could be considered straight (sinuosity index = 1 to 1.5). On a smaller scale, there are sections, particularly in the less steep sections where the streambed does meander, primarily in response to locations of exposed bedrock and large rocks. The width of the stream bed varies on the site as does the width and height of the stream banks. In the upper reaches the channel is generally 2 to 3 feet wide and with a bank width of ten feet. In the middle reaches channel width in some places widens to about 8 feet and there are some more steeply sloping banks with a width of 16 to 17 feet. In the lower end there again is a narrow stream bed approximately 2 feet wide, but near Gunnison road the stream is in a deeply incised channel with steeply sloping banks that have a width of almost 40 feet. The stream is relatively stable, but there are some localized areas of aggradation as well as degradation which influence streambed substrate compositions. Generally speaking, stable areas have substrates typically composed of stones in the range of small cobble to small boulders, while the localized, small reaches that are less stable include more material in the fine sand to fine gravel range.

This stream did not contain trout when sampled in the Fall of 2000 by NYSDEC, however NYSDEC believes that trout may exist further downstream in this drainage. An unidentified section of this stream was also sampled by NYSDEC in 2010, and the following information was collected:

- Surveyed Sept 20, 2011, Station length was 200 feet, Stream width was 3 feet
- Collected 3 fingerling brook trout (63-107 mm). 51 fingerling brown trout (51-96 mm) and 9 rainbow trout fingerlings (58-71 mm)
- Recommended water classification upgrading from B to B(ts).

NYCDEP provided benthic macroinvertebrate data collected from this stream in 2003, 2004 and 2008. The total number of species collected ranged from 18 to 21 and the EPT index value ranged from 4 to 10. There were no temporal trends for these 2 indices.

The last mapped stream on the Crossroads assemblage is another intermittent tributary of Emory Brook (WIN D-70-80-12-3) that originates south of Gunnison Road, flows north onto and through the Crossroads assemblage and then under NY Route 28 and into Emory Brook. This intermittent Class B stream has a watershed of 140 acres, 15 of which are located on the Crossroads assemblage. Only +/- 400 feet of this stream is located on the site, the slope of the streambed is 3-5%, and the width of the stream bed ranges between 1 and 4 feet with depth ranging from 2 to 4 inches and some deeper areas of 8 to 10 inches. The stream is located within a small ravine with the 8 to 15 feet tall top of banks approximately 35 feet apart. The stream can

be considered straight and the bed and banks are stable. The substrate is a mix of rock that ranges in size from very coarse gravel to small boulder.

- An unidentified section of this stream was also sampled by NYSDEC in 2010, and the following information was collected: Surveyed Sept 20, 2011. Station length was 200 feet, Stream width was 2 feet.
- Collected 7 fingerling brook trout (80-94 mm), 10 fingerling brown trout (59-100 mm), 2 older rainbow trout (150-154 mm), and 1 fingerling rainbow trout (44 mm)
- Recommended water classification upgrading from B to B(ts).

To the east of the existing Wildacres Hotel and Marlowe Mansion there is a drainage that originates in a seepy area to the north. In the vicinity of the existing hotel driveway seasonal or storm flow becomes channelized, then passes under the driveway and continues north and down the slope.

Between Galli Curci Road and Todd Mountain Road there are two seasonal/storm drainages, which, when they convey water, flow in an east to west direction and contribute water to Todd Mountain Brook. These drainages were shown on the DEIS wetland delineation maps as bounded by lines "AD" and "AF/AG."

C. Existing Conditions – Baseline Water Quality

Section 3.2.1.F of the DEIS contained a description of baseline quality data collected on and around the project site by NYCDEP for the period August 2000 through March 2003. These data were collected by NYCDEP in accordance with their "Phase I Exploratory Monitoring of Tributaries Draining Properties of the Proposed Crossroads Ventures Development on Belleayre Mountain." This is an ongoing water quality monitoring program of surface waters on and around the Crossroads assemblage instituted in response to the proposed project. NYCDEP data collection includes collection of baseline data prior to construction, and data collected during and after construction of the project. Sampling locations were established cooperatively between NYCDEP and Crossroads Ventures. Crossroads Ventures was also agreeable to the full, originally proposed ten year water quality monitoring program.

For this SDEIS NYCDEP provided the data collected under this monitoring program for the period 2000 through 2011. Data for the two streams in the vicinity of the Modified Project that were monitored by NYCDEP, Todd Mountain Brook, and tributary 2 of Emory Brook, were assessed to see if there were any trends over the monitoring period. Total phosphorus data collected from these two streams for the 11 year monitoring period show no trending increase or decrease in either stream over time. While there were outlying sampling values over the monitoring period, total phosphorus levels during baseflow conditions were consistently around 20 ug/l between 2000 and 2011.

3.1.1 Stormwater Management – Potential Impacts and Mitigation Measures

A. Operational Phase Water Quantity

See section 2.8.8 (D).

See the Stormwater Management Design Report in Appendix 18. Also see the Stormwater Modeling Diagram Plans and the Grading and Drainage Plans in the set that accompanies the SDEIS.

- B. Operational Phase Water Quality
 - 1. Nutrient and Solids Loading

Phosphorus - Stormwater

Section 6.3 of the SWPPP in Appendix 19 discusses stormwater discharge water quality. To assess the potential for new loadings of total phosphorus and total suspended solids, a calculation method was prepared based on the Washington Metropolitan Council of Governments (Schueler 1987) and NYCDEP Guidance for Phosphorus Offset Pilot Programs (1997).

This calculation protocol was submitted as a part of the Issues Conference hearing process in 2004. Values utilized in the August 2004 submittal were used to prepare the loading estimates for the Modified Project.

The predevelopment (existing condition) total phosphorus (TP) loading is estimated to be 89.4 kg/yr. Post-development, following treatment, the project loading for all drainage points is 154.7 kg/yr. The post-development discharge of 148.9 kg/yr. includes 84.8 kg/yr. in runoff from undisturbed land. To put these numbers in perspective, the annual production of phosphorus in excrement from a single dairy cow is approximately 34 kg. Thus, the Modified project's increase in phosphorus loading is approximately equivalent to the waste of 2 dairy cows as compared with the DEIS project and its 10 cow equivalent increase in phosphorus loading.

The existing loading of TP to the Pepacton basin is estimated as 37,327 kg/yr. The total Maximum Daily Load on an annual basis is 79,167 kg/yr. This load is split between wastewater treatment plant discharges or waste load allocation (WLA) of 386 kg/yr. and load allocation (LA). From the TMDL 79,167 kg/yr. a 10% margin of safety (MOS) is removed, along with wastewater treatment plant discharges, to establish the TMDL limit of 70,864 kg/yr. This leaves 70,864 kg/yr. (load allocation), which is the amount of total phosphorus that can be added to the Pepacton Reservoir and maintain existing water quality (USEPA letter to NYSDEC, Oct. 17, 2000). The true estimate of new permissible loading (unallocated load) would be obtained by subtracting the existing loading (37,327 kg/yr.) from the WLA of 70,864 kg/yr., yielding 33,537 kg/yr.

The estimated new loading from the Belleayre Resort is 148.9 kg/yr. This new load represents a 0.39% increase in the existing loading, and a 0.21% increase in the TMDL, or 0.44% of the unallocated loading. The new TP loading of 148.9 kg/yr. includes 84.8 kg/yr. from undisturbed areas. Removing the 84.8 kg/yr. of TP from the 148.9 kg/yr. total estimates the net new TP of 64.1 kg/yr. This net new TP load is 0.19% of the unallocated load.

Phosphorus –Wastewater

The annual load from the Pine Hill WWTP plant will increase by 111 kg/year as a result of the Modified Project. The estimated wastewater discharge of 111 kg/yr. is a portion of the wasteload allocation already provided to the Pine Hill wastewater treatment plant as part of the Ashokan TMDL.

TSS

As part of the development of the project, an extensive network of stormwater control devices will be constructed. These devices will treat the stormwater runoff prior to discharge. The total pre-treatment TSS discharge is 117,145.8 kg/yr., and the post-treatment discharge is 81,664 kg/yr. Included in the post-treatment loading are 72,889 kg/yr. discharged from undisturbed or minimally altered areas.

The reduction in TSS loading should benefit both Emory Brook and the Delaware River, as well as the Pepacton Reservoir. Total Suspended Solids is not subject to at TMDL guidance value at the Pepacton Reservoir.

2. Organic Landscape Management

Potential Impacts

Aquatic biota can be impacted if potentially harmful materials are applied to landscaped areas and these materials enter surface waters where aquatic biota reside. The potential for these impacts to occur depends on the toxicity of materials applied and the potential for applied materials to move from the landscaped areas to surface waters via runoff. As described below, landscaped areas will be maintained with preference given to non-toxic, organic maintenance practices.

Mitigation Measures

The golf course maintenance staff under the oversight of the Organic Golf Course Technical Committee will be responsible for implementing the organic golf course maintenance plan (see Appendix 15). It is anticipated that the golf course superintendent or one of their immediate subordinates will also be responsible for managing the Resorts' grounds maintenance department. Since this manager will already be familiar with the organic requirements of the golf course, this knowledge should extend to maintenance of the other landscaped areas of the Resorts. Should the need for pesticide applications arise, records will be maintained in accordance with NYSDEC Program Policy OGC-3 and ECL 33.1205(1). The following

information will be included in the application records, USEPA registration number, project name, quantity applied, application method, target organism, and place(s) of application. Records are required to be maintained on an annual basis and retained for a minimum of three years. Annual reports derived from these records are required to be submitted to the central office of the NYSDEC. If requested, copies of annual records will also be sent to the Regional Office in New Paltz. Access to pesticide application records can also be available to the Towns of Shandaken and Middletown personnel, such as the Code Enforcement Officer.

3. Thermal Loadings

The stormwater management system does not involve any direct discharges to trout waters. Even though there are no direct discharges to trout waters, concerns relating to thermal loading were considered in the selection of stormwater management practices. This is one of the reasons micropool extended detention ponds are primarily used throughout the plan instead of other stormwater ponds, (such as wet ponds), which could potentially result in increased stream temperatures. Only two wet extended detention ponds are utilized. The first is the irrigation pond. Because water in the irrigation pond will be used for irrigation during the warm times of the year, potential for stormwater discharges from the pond is greatly reduced. The second wet pond is at Highmount and actually functions more like a large forebay since it will discharge directly into an adjacent Micropool Extended Detention Pond. Using bioretention and dry swales also helps alleviate concerns for thermal loadings, as these practices reduce the amount of stormwater that would be required to pond, and potentially warm, prior to being discharged. Even though 24 hours of extended Detention Ponds minimize the potential for thermal loading.

C. Draft Stormwater Pollution Prevention Plan (SWPPP)

The required draft SWPPP for Phase 1(A) construction is Appendix 19 of the SDEIS.

3.1.2 Sediment and Erosion Control – Potential Impacts and Mitigation Measures

Potential Impacts

Exposure of soil during construction increases the potential for erosion and sediment deposition outside the areas of construction.

Mitigation Measures

The following mitigation measures are proposed as part of this project and for evaluation in the SDEIS. These measures can also be found in the AIP at Exhibit F and paragraph 15.

• The Applicant has applied for an individual industrial SPDES permit for construction stormwater discharges. An individual SPDES permit can only be issued following a detailed evaluation by NYSDEC. The application is in Appendix 10.

- The individual stormwater permit process will incorporate a control program for both construction and operational phases of the project.
- None of the [detached] lodging units (exclusive of their access ways) will be constructed on slopes greater than 20%. This will provide significant stormwater management benefits for this project. This design mitigation measure exceeds current NYSDEC and NYCDEP regulatory standards for steep slope construction.

The additional measures below are proposed to avoid and mitigate potential impacts from construction phase erosion and sedimentation to the maximum extent practicable.

- 1. Plan Implementation Oversight¹³
- a. An independent stormwater monitor or monitors ("Independent Monitor") is proposed to be selected by Crossroads, subject to the approval of NYSDEC and NYCDEP, to review and supervise all aspects of the implementation and maintenance of management plans and controls with respect to stormwater and erosion and sediment control programs during construction of the modified project/lower impact alternative. Crossroads is also requesting prior to approval, that the NYSDEC and NYCDEP provide the NGOs (in accordance with the AIP) with a 30-day opportunity to comment on the qualifications of the proposed Independent Monitor, including training, experience and potential conflicts of interest.¹⁴
- b. The role of the Independent Monitor is proposed to be to assure the effective implementation of all erosion and sediment control practices, all storm water control practices, all construction phasing practices, as well as related measures, pursuant to the Stormwater Pollution Prevention Plan ("SWPPP"), any permits issued by NYSDEC and NYCDEP after the conclusion of the SEQRA and permitting processes., The Independent Monitor is proposed to have the authority to direct that all work which is believed to not conform with the SWPPP or NYSDEC or NYCDEP permits cease immediately in the affected Project area and that any such portions of the Project be stabilized or properly maintained before work is allowed to proceed.
- c. The Independent Monitor services are proposed to be conducted in accordance with an Independent Monitor Service Agreement ("I.M. Agreement")¹⁵ The Independent Monitor is proposed to be either (or both) a qualified professional engineer or a Certified Professional in Erosion and Sediment Control. The Independent Monitor is proposed to be retained as an independent contractor by Crossroads pursuant to the I.M. Agreement but will not be affiliated with Crossroads, the construction contractors for the Project, or the design professionals involved with developing and implementing the stormwater pollution prevention plans for the Project. The Independent Monitor is proposed to be

¹³ In accordance with AIP paragraph 21

¹⁴ On request, the Independent Monitor will be made available to the NGO to conduct an interview during this period. The NGO may provide a recommendation to NYSDEC and NYCDEP on the proposed Independent Monitor within the 30-day period.

¹⁵ In accordance with AIP paragraph 21

responsible for conducting inspections, compiling information and drafting reports required to support the submissions which Crossroads is or may be obligated to make to NYSDEC and/or NYCDEP pursuant to any permits issued by NYSDEC and NYCDEP. Original copies of all Independent Monitor reports, and any information generated or relied upon by the Independent Monitor related to Crossroads' report, are proposed to be submitted to NYSDEC and NYCDEP, in an unaltered manner, at the same time as Crossroads' report. NYSDEC will send all Crossroads reports and all Independent Monitor reports or information to a representative designated by the NGO as soon as practicable but not later than 72 hours after such report or information is received.

- d. The Independent Monitor is proposed to have all necessary staff available that possess the requisite educational background, certifications, licenses and/or experience necessary to perform the various tasks required. The Independent Monitor is proposed to have the right to access all locations of the Project site, at any time, to fulfill its responsibilities both during any clearing, grubbing, earth work or construction, and as part of any postconstruction review or monitoring. The Independent Monitor is proposed to have access to any documents or information related to its duties that would otherwise be available to NYSDEC or NYCDEP staff in the normal course of their duties. Crossroads will provide the Independent Monitor with adequate office space at the Project site including, at a minimum lockable desks, chairs, lockable file cabinets, telephone, email and internet service, electricity, lights, heat, and air conditioning.
- e. The Independent Monitor is proposed be available to NYSDEC and NYCDEP staff at all times while on site, either by telephone, cell phone, e-mail, or other similar means. The Independent Monitor, in addition to its regular duties, will promptly inspect and submit reports on specific areas or attributes of the Project site when requested to do so by staff of NYSDEC and NYCDEP. Copies of all documentation, inspection reports, directives to construction staff, logs, photos, and records developed, collected or generated by the Independent Monitor in connection with the monitoring of the Project are proposed to be maintained in their original format and be available to NYSDEC and NYCDEP. The Independent Monitor is proposed to be responsible for retaining all monitoring materials or copies of the monitoring materials on the Project site.
- f. In the event that an Independent Monitor finds any non-conformance with the approved SWPPP or related NYSDEC and NYCDEP permit conditions, the Independent Monitor is proposed to be responsible for notifying NYSDEC and NYCDEP by email and in writing as soon as reasonably possible but no later than within 24 hours of having notice of an event of non-conformance. The Independent Monitor is proposed to provide all reasonable assistance requested by NYSDEC and NYCDEP.
- 2. Plan Implementation Oversight-SWPPP

These additional mitigation measures are also included in the draft SWPPP in Appendix 19.

A Project Erosion Control Superintendent is proposed to be the main point of contact for the Independent Monitor. The Project Erosion Control Superintendent and their staff are proposed to have the following responsibilities.

- a. There will be a dedicated erosion control team of 4 to 6 people whose primary role will be repairing, maintaining and upgrading structural 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 and supervision of the Independent Monitor.
- b. These crews will be directed by the Erosion Control Superintendent who will be a Certified Professional Erosion Control Specialist. Along with the Independent Monitor, the Erosion Control Superintendent will also have complete stop-work authority of all site earthwork contractors and will have the authority to utilize whatever construction equipment and manpower necessary to implement and repair erosion controls in a timely manner.
- c. This Erosion Control Superintendent and the crew under his 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 Independent Monitor's point of contact for all issues related to on-site erosion and sediment control.

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 water courses 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. As a control mechanism, if the water quality of a water course is degraded during construction, it may be necessary to modify the work areas, increase temporary stabilization, or in some cases suspend work until the erosion issue is remediated. Therefore, it is necessary to collect the data and immediately utilize the data.

3. Plan Implementation – Financial Security¹⁶

Prior to the commencement of any construction, and as security for the observance and performance by Crossroads of its obligations under the erosion and sediment control plans and stormwater control plans prepared for the modified project/lower impact alternative in conformance with the applicable provisions of any NYSDEC and NYCDEP permits issued for the modified project/lower impact alternative, Crossroads proposes to deliver to NYSDEC and NYCDEP the following:

- A performance bond, letter of credit, or other form of security acceptable to NYSDEC a. 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 NYSDEC and NYCDEP (such approval not to be unreasonably withheld) (the "Issuer"), in a principal amount equal to the estimated cost of implementing and complying with the SWPPP prepared for the modified project/lower impact alternative, and the applicable provisions of any NYSDEC and NYCDEP permits, during the period of construction of the modified project/lower impact alternative. Such estimated cost is to be provided by design professionals and contractors retained by Crossroads, subject to NYSDEC and NYCDEP approval which will not be unreasonably withheld. The performance bond, letter of credit or other form of security (i) will remain in full force and effect until completion of construction of the modified project/lower impact alternative, as certified by NYSDEC and NYCDEP; (ii) will provide that if NYSDEC and NYCDEP determine that Crossroads has failed to comply with the provisions of the SWPPP, and/or NYSDEC or NYCDEP permits, and deliver to the Issuer a certificate to that effect and also certifying the estimated cost of curing such failure, including compliance with such plans and/or permits, and restoration of the site as necessary, the Issuer will pay over to NYSDEC and NYCDEP such certified amount; and (iii) will otherwise be satisfactory in form and substance to NYSDEC and NYCDEP. NYSDEC and NYCDEP will, upon application by Crossroads, grant permission to reduce the principal amount of the performance bond, letter of credit or other security based upon completion of portions of the modified project/lower impact alternative and full compliance with those aspects of the SWPPP, and applicable provisions of NYSDEC and NYCDEP permits associated with such completed portions. Prior to delivering any certificate to the Issuer, certifying a failure by Crossroads to observe and perform its obligations under such plans and/or permits, NYSDEC and NYCDEP will provide Crossroads with written notice of such failure, allowing Crossroads a period of thirty (30) days from the date of such notice to cure such failure.
- b. A performance bond, letter of credit, or other form of security acceptable to NYSDEC 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 NYSDEC and NYCDEP (such approval not to be unreasonably withheld) (the "Issuer"), in a principal amount equal to the estimated cost of operating and maintaining all stormwater controls to be constructed or installed for the modified project/lower

¹⁶ From AIP, paragraph 37.

impact alternative in conformance with the SWPPP prepared for the modified project/lower impact alternative, and the applicable provisions of NYSDEC and NYCDEP permits, for a period of five (5) years following completion of construction of the modified project/lower impact alternative. Such estimated cost is to be provided by design professionals and contractors retained by Crossroads, subject to NYSDEC and NYCDEP approval which will not be unreasonably withheld. The performance bond, letter of credit or other form of security (i) will remain in full force and effect for a period of five (5) years from completion of construction of the modified project/lower impact alternative, as certified by NYSDEC and NYCDEP; (ii) will provide that if NYSDEC and NYCDEP determine that Crossroads has failed to comply with the provisions of the SWPPP or NYSDEC or NYCDEP permits with respect to the operation and maintenance of such stormwater controls, and deliver to the Issuer a certificate to that effect and also certifying the estimated cost of curing such failure, including compliance with such plans and/or permits, and restoration of the site as necessary, the Issuer will pay over to NYSDEC and NYCDEP such certified amount; and (iii) will otherwise be satisfactory in form and substance to NYSDEC and NYCDEP. NYSDEC and NYCDEP will, upon application by Crossroads, grant permission to reduce the principal amount of the performance bond, letter of credit or other security based upon completion of portions of the modified project/lower impact alternative, and Crossroads satisfactorily operating and maintaining those stormwater controls associated with such completed portions for a period of five (5) years following completion of construction, in accordance with such plans and/or permits. Prior to delivering any certificate to the Issuer, certifying a failure by Crossroads to observe and perform its obligations with respect to the operation and maintenance of stormwater controls, NYSDEC and NYCDEP will provide Crossroads with written notice of such failure, allowing Crossroads a period of thirty (30) days from the date of such notice to cure such failure.

- 4. Construction Phasing, Sequencing and Disturbance Limits
- a. Phasing

The Applicant and its design professionals believe that the overall approach to enhanced erosion control during construction of the project is in accordance with the AIP, including AIP Exhibit D.

Project construction is proposed to be phased over many years eliminating the need to have larger areas of active construction in order to meet a shorter construction schedule. Sections 2.8.9(E), 2.8.9(F) and 2.10 previously described the project phasing and extended buildout anticipated for the project. See the Phasing Plan (L3.00) and construction phasing plan (L3.01 in the plan set that is part of this SDEIS.

Likewise, section 2.8.9(E) previously described how each construction phase is divided into smaller work areas that are, for the most part, areas that are around 5 acres or less in size. The proposed construction sequencing requires that a work area must be stabilized before work can begin on the next work area in the sequence. See the erosion control (EC) plans that are in the plan set that is part of this SDEIS.

Drawing L3.01 in the plan set that accompanies this SDEIS, Construction Phasing for Phase 1(A) Development, show the progression of work for Phase 1(A) construction¹⁷. In this drawing Phase 1(A) construction in the main part of Wildacres is designated as location 1A, the northeast corner of Wildacres is designated as location 1B and Highmount is designated as location 1C. The work areas are then sequentially numbered within locations 1A, 1B and 1C. This same information is also contained on the Sediment and Erosion Control Plans, sheets L3.02-L3.23, at 50 scale. Work area 1A.1 is the 5.2 acres that comprise the entrance road into the Wildacres hotel from Gunnison Road and a construction staging area at the head of the driving range. Concurrently there is construction in the 5.5 acre area 1B.1 that includes the excavation of the irrigation pond and portions of adjacent golf holes 5 and 6. The plans then show that work areas 1A.1 and 1B.1 have been temporarily stabilized and active construction is now taking place in work areas 1A.2 for more construction staging space, and in 1B.2 for portions of golf holes 3 and 6.

Plan sheets L3.21 through L3.23 shows the construction phasing work areas at Highmount.

Location 1A Construction Wildacres Main Parcel		Location 1B Construction Northeast Wildacres		Location 1C Construction Highmount	
Area	Acreage	Area	Acreage	Area	Acreage
1A.1	5.2	1 B .1	5.5	1C.1	9.65
1A.2	5.3	1B.2	4.3	1C.2	4.64
1A.3	4.6	1 B .3	4.6	1C.3	11.25
1A.4	16.3	1 B .4	5		
1A.4a*	1.3	1B.5	3.7		
1A.5*	3.1	1B.6	4		
1A.6*	2.6	1 B .7	5.1		
1A.7*	2.9	1 B .8	5.5		
1A.8*	3.5				
1A.9*	3.6				
1A.10*	2.7				
1A.11*	2.2				

The following table lists of all Phase 1(A) work areas and their acreages.

* = other work areas in 1A that will be opened and then closed while Wildacres Hotel (1A.4) is open, total area not to exceed 20 acres at any given time.

¹⁷ For the purposes of construction sequencing and stormwater permitting, including stormwater pollution prevention plans, construction of Highmount Golf Club is broken up into Phase 1(A) and Phase 1(B). Phase 1(A) includes holes 3-8, 10, 18 and the practice range, and Phase 1(B) includes the remainder of the golf course.

b. Sequencing

The sediment and Erosion Control Plans included in the plan set that accompanies the SDEIS contains the following typical erosion and sediment control sequencing that will be implemented for each of the work areas.

PRE-CONSTRUCTION AND SITE PREPARATION

- 1. PRE CONSTRUCTION MEETING-PROTOCOL MAY BE MODIFIED BY DESIGNATED EROSION CONTROL SPECIALIST
- 2. DEFINE INSPECTION SCHEDULE, REVIEW STORMWATER POLLUTION PREVENTION PLAN.
- 3. STAKEOUT ROAD CENTERLINE, CLEARING LIMITS, WETLANDS, AND STREAMS
- 4. INSTALL TREE PROTECTION AND WETLAND PROTECTION FENCE.
- 5. INSTALL STABILIZED CONSTRUCTION ENTRANCES AS SPECIFIED.
- 6. CUT AND REMOVE EXISTING TREES AND LOGS, DO NOT GRUB STUMPS.

TEMPORARY RUNOFF AND DRAINAGE CONTROL

- 7. HYDROSEED RYE ON CLEARED AREAS NOT INCLUDED IN INITIAL EARTHWORK CONSTRUCTION.
- 8. INSTALL PERIMETER EROSION CONTROL INCLUDING SILT FENCE, BIO-LOGS, EARTH BERMS, AND INLET PROTECTION AT EXISTING CULVERTS.
- 9. INSTALL WATER BARS IN LOCATIONS AS SPECIFIED BY ON-SITE EROSION AND SEDIMENT CONTROL SPECIALIST.
- 10. INSTALL TEMPORARY CULVERTS INCLUDING INLET AND OUTLET PROTECTION, AND PERMANENT CULVERTS WHERE APPROPRIATE.

EARTHWORK AND SITE CONSTRUCTION

- 11. GRUB STUMPS IN SEDIMENT BASIN LOCATIONS, EXCAVATE SEDIMENT BASINS AND SHAPE TEMPORARY DIVERSION SWALES.
- 12. STABILIZE SEDIMENT BASINS AND DIVERSION SWALES.
- 13. INSTALL CHECKDAMS AS REQUIRED.
- 14. GRUB REMAINING STUMPS, BEGIN ROUGH GRADING.
- 15. INSTALL INFRASTRUCTURE, INCLUDING CATCH BASINS WITH INLET PROTECTION, PIPING, AND PERMANENT DRAINAGE STRUCTURES WITH INLET AND OUTLET PROTECTION, AND GOLF COURSE IRRIGATION AS REQUIRED.
- 16. BUILD ROADWAYS AND STABILIZE.
- 17. PLACE ROAD SUBGRADE, STABILIZE, AND BUILD PERMANENT STORMWATER CONVEYANCE SWALES.

TEMPORARY STABILIZATION OF WORK AREA

- 18. SEED AND MULCH ALL BARE SOIL AREAS TO REMAIN UNDISTURBED FOR MORE THAN 14 DAYS.
- 19. APPLY ROLLED EROSION CONTROL PRODUCT OR HYDROSEED A MIXTURE OF WOOD FIBER MULCH WITH TACIFYING AGENT, TO ALL SLOPES 3:1 OR GREATER.
- 20. INSPECT ALL PERIMETER EROSION CONTROL AND REPAIR AS DIRECTED.
- 21. INSTALL/REPAIR ALL INLET AND OUTLET PROTECTION, PERIMETER SWALE STABILIZATION SUCH AS TURF REINFORCEMENT MATS, RIP RAP, AND CHECKDAMS.
- 22. REMOVE SEDIMENT FROM TRAPPING DEVICES

PERMANENT STABILIZATION

- 23. REPAIR/RE-SEED ALL BARE SPOTS.
- 24. CONSTRUCT PERMANENT STORMWATER BASINS, OR CONVERT SEDIMENT BASINS. STABILIZE SIDE SLOPES.
- 25. INSTALL SOD ON ALL AREAS AS SPECIFIED.

- 26. PAVE ROADS, INSTALL PROPOSED PLANT MATERIALS.
- 27. RECEIVE CERTIFICATION OF STABILIZATION FROM EROSION AND SEDIMENT CONTROL SPECIALIST.
- 28. CLEAN ALL STORMWATER SYSTEMS OF SEDIMENT, TRASH, AND DEBRIS.
- 29. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AS APPROVED BY THE EROSION AND SEDIMENT CONTROL SPECIALIST.
- c. Disturbance Limits

Disturbance limits are depicted on the grading and drainage plans in the drawing set that is part of this SDEIS.

As described above, work areas must be stabilized, either temporarily or permanently, prior to work commencing in the next work area in the construction sequencing plans. The size of each of the work areas was presented in the table above.

Conformance with the project plan limits of disturbance will be accomplished through preconstruction stake out and installation of tree protection and wetland protection fence as per notes 2 and 3 on the sediment and erosion control plans in the plan set that is part of the SDEIS.

5. Perimeter Controls

As per the erosion control (EC) plans in the drawing set that is part of this SDEIS, perimeter silt fence is proposed on the downhill side of all work areas and soil stockpiles. Perimeter controls will be installed prior to earthwork commencing in each work area. The draft SWPPP in Appendix 19 describes how perimeter silt fences will be maintained until the areas that they serve have become permanently stabilized.

Diversion swales have been designed where there are undisturbed (natural areas) contributing runoff towards the active work areas. These diversion swales keep the uphill runoff from reaching the exposed soils in the active work area, greatly reducing the potential for erosion.

6. Structural Control

Structural controls will include the silt fences and diversion swales discussed above and the sediment basins discussed below. Other structural controls proposed to be used and shown on the EC plans and typical construction details plans include water bars, check dams, storm drain inlet protection and stabilized construction entrances. All measures will be maintained in good working order; if repair is necessary it will be initiated within 24 hours of detection. Controls will be maintained, including sediment removal when appropriate in accordance with the SWPPP.

7. Vegetative Control

Vegetative controls proposed include erection of tree protection and wetland protection fencing prior to starting earthwork, establishing trees, shrubs ground covers and grasses in landscaped areas and seeding and sodding the golf course. Approximately 50 acres of sod will be used on the Highmount Golf Club.

8. Temporary and Permanent Stabilization

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 plans.

Work areas may receive temporary stabilization until a few contiguous work areas are ready for permanent stabilization. Also, any areas of disturbed soils or soil stockpiles that will not be worked on for a period of seven (7) consecutive days will be temporarily stabilized. The vast majority of temporary stabilization will be by hydroseeding with ryegrass and mulch, with preferred mulch materials being Eco Aegis® and Soil Guard®.

Sod will be used in many areas to provide more rapid stabilization. Approximately 50 acres of sod will be used for golf course construction. 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. Seeded and planted areas will be inspected for bare spots, washouts and healthy growth. If necessary, spot reseeding or sodding will be implemented.

9. Sediment Basins

The EC plans illustrate the sediment basins that are proposed to be constructed to serve all of the work areas. Similar to the design in the DEIS, these sediment basins have been designed to capture and hold runoff from the 10-year storm, six inches of rain in 24 hours, and assuming that all of the area contributing the sediment basins have a runoff coefficient equivalent to bare ground. The drainage area, storage volume required for the 10-year storm, and the storage volume provided is included for each of the sediment basins shown on the EC plans. In almost all instances, the storage volume provided is more than what is required for the 10-year storm.

All 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. All sediment basins 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.

The DEIS describes in detail how a food grade organic flocculant, chitosan or Liqui-floc[®], will be used to reduce turbidity in the sediment basins. This same approach will be used for the SDEIS project. As described in the DEIS, chitosan has proven effective for the soils on the project site through bench tests performed on soil samples collected from the property.

Laboratory tests were also performed during the time of the issues conference to demonstrate that chitosan is not toxic to aquatic organisms when used at the rates proposed to be used for this project. The rigorous review of chitosan during the issues conference led to NYSDEC permitting its use for the Project as per its draft permit.

The following is from the draft SPDES permit issued by NYSDEC for the DEIS project.

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:

Pond Turbidity	Maximum Pond Concentration (mg/l)
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. [Per the DEIS, turbidity will be measured at a meter installed at the pump that is pumping out the sediment basins. Readings over 50 NTU on the turbidity meter will result in an automatic shutoff of the pump.]
- 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.

10. Draft SWPPP

The required draft SWPPP for phase 1(A) construction is Appendix 19 of the SDEIS.

3.1.3 Water Supply – Potential Impacts and Mitigation Measures

Potential Impacts

A. & B. Potable Water Use

Appendix 13 is the Preliminary Water Supply Design Report. Included in Appendix 13 is the Well Pumping Test Report for the K wells and the Q well. Water level data were collected in Todd Mountain Brook, Emory Brook and the Bush Kill during the pump testing of these project water supply wells. These data show that the water supply wells can be used as long term water supplies and will not impact surface water resources when pumped at the rates for which they can be used for. See sections 2.3.5 and 3.3.4 of the pump test report.

C. Inter-basin Transfer

Appendix 7 is the Project's Delaware River Basin Commission permit application. Included in that application is a water balance that analyzes the project taking of groundwater for potable water from the Delaware River basin and then conveying its wastewater out of the basin for treatment at the Pine Hill wastewater treatment plant. The analysis concludes that this interbasin transfer of water associated with the project will not negatively impact base flows in the Delaware River system. See appendix 7.

D. Water Supply Technical Committee

A Water Supply Technical Committee is proposed to be established to resolve any disagreements that may arise in regards to NYSDEC issuing a draft water supply permit in consultation with NYSDOH. The committee is proposed to be comprised of representatives of NYSDEC, NYSDOH, the USGS, Crossroads and NGOs.¹⁸

Mitigation Measures

The Modified Project involves new groundwater sources of potable water in order to avoid potential impacts to surface waters.

The original DEIS project had a group of wells located near Friendship Road and Birch Creek called the Rosenthal wells. These wells were the primary source of potable water for the DEIS project. During the Issues Conference there were differing opinions between hydrogeologists on whether or not utilizing the Rosenthal wells would impact flows in Birch Creek. As per the AIP, alternative sources of potable water were developed and evaluated for their ability to provide potable water to the Modified Project. As per the well test report included in Appendix 13, the

¹⁸ See AIP (copy in SDEIS Appendix 1) paragraph 22

K-wells and Q-well are capable of providing sufficient water to meet the needs of the Modified Project, and that using these new sources will not impact any surface water resources.

3.1.4 Wastewater Collection, Treatment and Discharge-Potential Impacts and Mitigation Measures

Revised preliminary engineering drawings for the waste collection system and connection to the Pine Hill system are in the plan set that accompanies this SDEIS. The preliminary wastewater design report is Appendix 16 of this SDEIS.

Potential Impacts

A. Project Volume

Expected wastewater flows from the project are projected to be 145,200 gpd at full project buildout (2022) and under a 100% occupancy scenario. See Appendix 16 for calculations.

B. Pine Hill WWTP and Hydraulic Loading

Wastewater from the project is proposed to be collected and conveyed to the Pine Hills wastewater treatment plant. The study performed by Crossroads shows that the Pine Hill WWTP has more than sufficient capacity to accept and treat the wastewater generated by the project. The Pine Hill WWTP has a design flow of 500,000 gallons per day (gpd) and it provides advanced wastewater treatment including microfiltration of the final effluent per NYCDEP standards. The average daily flows for the Pine Hill WWTP are reported at 130,000 gpd based on current operational reports. Expected wastewater flows from the project are projected to be 145,200 gpd at full project buildout and under a 100% occupancy scenario. Further, the study performed by Crossroads shows that because the loadings from the project are similar to conventional residential wastewater, the project will neither adversely affect the treatment capacity of the WWTP, nor the ability of the WWTP to meet its SPDES discharge permit limits. See Appendix 16 for additional details.

The Pine Hill WWTP currently experiences high flows during wet weather events due to inflow and infiltration issues with the existing Pine Hill sewer system. To assist the WWTP in dealing with the high flows, Crossroads has proposed to pay for its fair share for a flow equalization tank at the WWTP. In recent discussions between the Applicant and NYCDEP, NYCDEP expressed a preference for locating a storage tank on the project site instead of at the Pine Hill WWTP. In accordance with NYCDEP's preference, the design for the project wastewater infrastructure was adjusted to include a storage tank on the project site that will be built by the Applicant and operated and maintained by NYCDEP. The tank will be sized to meet the Modified Project needs only and is proposed to be located to the north of the golf hole #4 and accessed off of Van Loan Road. As stipulated in the AIP, the capacity of the equalization tank is proposed to be 390,000 gallons (twice the maximum average day flow allowed by the Agreement in Principle of 195,000 gpd) plus an infiltration flow for the sewer pipe in the Resort. The infiltration flow was determined to be 2,400 gpd (See Appendix 16).

Thus, the capacity of the equalization tank is proposed to be 390,000 gallons plus 2,400 gallons which is 392,400 gallons. Based on standard sizes for equalization tanks, a tank with 56-foot diameter and 24-foot high that has a capacity of 420,000 gallons with 12-inches of freeboard was selected to provide flow equalization. Appendix E of the Wastewater Design in Report in SDEIS Appendix 16 has preliminary design drawings for the equalization tank and supporting equipment. The supporting equipment includes a mechanical aerator mixer, and submersible duplex pump station. The equalization tank would normally be bypassed and the pump station would pump all of the Resort's wastewater to Pine Hill. During periods of high flow, or whenever else NYCDEP deems necessary, the wastewater would be diverted to the equalization tank operated by NYCDEP.

C. Chlorine Use

The Pine Hill WWTP uses UV light reactors instead of chlorine to disinfect the wastewater before it is discharged to the stream. The existing UV system has capacity to treat all of the wastewater flow from the Resort. Thus, the Resort's wastewater flows will not cause the Pine Hill WWTP to use chlorine in its treatment process and no impact to aquatic habitats due to the use of chlorine is expected.

D. Potential Impacts to Birch Creek Hydrology and Water Quality

Since the proposed wastewater flow rate from the Resort can be introduced to the Pine Hill WWTP without increasing its permitted flow rate or a need for its treatment capacity to be increased, the additional flow will not have any adverse impact to the Birch Creek which is the receiving stream of the WWTP.

E. Private System Operation and Maintenance

With the exception of the equalization tank that will be constructed by the Applicant on the project site, all of the proposed infrastructure including the gravity sewers, pressure sewers, pump stations, and forced mains will be owned by the Resort and operated by a transportation corporation. The equalization tank will be operated and maintained by NYCDEP.

The required operation and maintenance of the proposed wastewater system is expected to be very minimal to keep the system functioning as designed. The two pump stations are the only aspects that will require routine inspection and periodic maintenance. Both pump stations will be equipped with automatic call out alarm systems to alert the maintenance staff if something needs immediate attention. Both pump stations will also be equipped with or wired into backup generators.

Mitigation Measures

- 1. An equalization tank designed and constructed on the project site by the Applicant as part of the Project will be utilized when the Pine Hill WWTP experiences problems with inflow and infiltration to existing pipes in Pine Hill during wet weather.
- 2. The connection of the project to the Pine Hill WWTP is proposed to not allow for any other connections to the WWTP from properties, outside the former Village of Pine Hill, nor will it affect the rights of the residents of the former Village of Pine Hill under their 1925 agreement with the City of New York.¹⁹ Likewise, the equalization tank has been sized to meet the needs of the Resort project only, and no other connections to the tank will be allowed.
- 3. The Applicant is proposing to pay an annual sewage fee to NYCDEP, and the Applicant will be responsible for all infrastructure construction, operations and maintenance costs associated with the project connection to the Pine Hill WWTP²⁰, with the exception of the operation and maintenance of the equalization tank which will be the responsibility of NYCDEP.
- 4. Sending project wastewater to the Pine Hill WWTP eliminates the need for a separate project wastewater discharge. A separate project discharge would have associated monitoring and reporting requirements under an additional SPDES permit that would have to be administered by NYSDEC. The Pine Hill WWTP operates under an existing SPDES permit administered by NYSDEC, and no changes to this permit are needed to accommodate the Project.
 - 3.1.5 Golf Course Management Potential Impacts and Mitigation Measures
- A. **Aquatic Biota**

Potential Impacts

Aquatic biota can be impacted if potentially harmful materials are applied to golf course turf and these materials enter surface waters where aquatic biota reside. The potential for these impacts to occur depends on the toxicity of materials applied and the potential for applied materials to move from the golf course to surface waters via runoff.

Appendix 15 of the DEIS, Fertilizer and Pesticide Risk Assessment, documented that nutrient loading from golf course fertilization will be insignificant.

Thermal loading is not a concern, since the streams that pass through the golf course are intermittent and have been found to rarely have surface flows during the warmer summer months.

 ¹⁹ AIP paragraph 23
²⁰ AIP Exhibit H

Mitigation Measures

Potential impacts to aquatic biota will be mitigated by implementing the proposed Project organic golf course management plan.

As described in detail in Appendix 15 of this SDEIS, the Highmount Golf Club will be managed under an Organic Golf Course Management Plan. Non-chemical methods will be the focus of this management approach. Non-chemical means focus on providing healthy living conditions for golf course turf while at the same time providing for living conditions not favorable for turf pest proliferation. See Appendix 15 for a pest-by-pest description of the non-chemical management methods that will be implemented as part of the management of the proposed golf course.

As per SDEIS Appendix 15 the following products may be used under the Organic Golf Course Management Plan.

- 1. Beneficial insects
- 2. Beneficial nematodes
- 3. Bt (Bacillus thuringiensis)
- 4. Compost
- 5. Corn gluten
- 6. Fish Emulsion
- 7. Garlic oil/juice
- 8. Horticultural oils (preferably vegetable-based instead of petrochemical based)
- 9. Kelp/seaweed extracts
- 10. Lemon and vinegar formulations
- 11. Lime
- 12. Beneficial Microbes and Microbial Derivatives
- 13. Milky spore
- 14. Neem
- 15. 100% Natural organic fertilizers
- 16. Pheromone lures
- 17. Pyrethrin/pyrethrum
- 18. Rock dust minerals
- 19. Biopesticides

In addition to the approved products listed above, the operator may also use products on the National List of approved substances established under the Organic Foods Product Act of 1990, and products approved as organic by duly accredited certifying organizations such as the Northeast Organic Farming Association (NOFA) and/or the Organic Materials Review Institute (OMRI), or products or substances defined as "organic" by any future U.S. or New York State organic golf course regulatory program. Finally, the Organic Golf Course Technical Review Committee may include or exclude any product from the approved products list when such decision is supported by scientific peer-reviewed data and the site-specific needs of the operation.

The following list of products are not proposed <u>to</u> be used at Highmount Golf Club unless specifically approved under the Special Use Exemption process set forth in Organic Golf course Management plan in SDEIS Appendix 15. This list shall be updated with each annual update of this Plan.

The following list of products may not be used at Highmount Golf Club unless specifically approved under the Special Use Exemption process described Organic Golf Course Management Plan.

- 1. All synthetic, chemical pesticides (unless otherwise included on the Approved Products list)
- 2. Arsenic
- 3. Biosolids derived from sewage sludge or industrial waste (i.e. *Milorganite*®)
- 4. Genetically modified products, ingredients, or seeds (Endophytically enhanced seed and improved grass seed cultivars produced through conventional breeding programs are not GM and therefore <u>are permitted.</u>)
- 5. Piperonyl butoxide and other synthetic ingredients
- 6. Pyrethroids
- 7. Tobacco
- 8. Pesticides dispensed by automatic misting systems

As listed above, use of synthetic chemicals for golf course pest controls are generally prohibited, and will only be considered for use under very strict circumstances, and any Special Use Exemptions must be pre-approved by the Golf Course Technical Committee chaired by a representative of NYSDEC and also including representatives of NYCDEP and the non-governmental organizations party to the AIP. Should a special use exemption be contemplated by the golf course operator, then only those products that passed the stringent Pesticide Risk Assessment included in the DEIS as Appendix 15 will be considered for use. One of the criteria used to identify suitable products in the DEIS Pesticide Risk Assessment was safety of aquatic biota, including fish and aquatic invertebrates.

In order to mitigate potential impacts from thermal loading, the following mitigation from the DEIS is still proposed. Where vegetation is proposed to be disturbed in proximity to the intermittent streams, plantings are proposed to provide shading of the stream/wetland while allowing a golf shot to be played over this area. This will be accomplished by placing appropriately sized koir logs along the existing stream banks and planting the koir logs with willow cuttings. Regular hand cutting maintenance of the vertical growth of the willow sprigs will allow for the development of a more horizontal willow canopy over the stream/wetland.

B. Irrigation Water

Potential Impacts

Surface water resources and aquatic biota that reside in them could potentially be impacted by the supply of irrigation water if this supply were to involve direct surface water withdrawals or involve groundwater withdrawals that affect hydrology of nearby surface waters. Neither of these scenarios will occur as part of this project.

Section 2.8.6 previously provided a detailed description of irrigation water supply, water demand and storage volume of the proposed irrigation pond. No surface water withdrawals are proposed to supply irrigation water. Irrigation water supply will come from stormwater routed to the lined irrigation pond and water from three wells located on the Wildacres portion of the site. Pump tests performed on the three wells used to supply a portion of the irrigation water, the "Z" well, the pool well and the Janis East well indicate that using these wells will not affect surface waters. Appendix 17 contains the testing report for the irrigation wells.

Mitigation Measures

- No surface waters will be impounded in order to provide irrigation water. The proposed irrigation pond will be created out of an upland wooded area removed from any watercourses or wetlands.
- There will be no irrigation water intakes located in any surface waters.
- C. Integrated Pest Management and Nutrient Management

Potential Impacts

The DEIS contained two technical appendices pertinent to this topic – Appendix 14, Integrated Turf Management Plan and Appendix 15, Fertilizer and Pesticide Risk Assessment. The documents were prepared in order to assess potential impacts from integrated golf course management and develop specific mitigation measures. Please see these DEIS Appendices for the details of the components that included the following:

- A risk analysis of pesticide and fertilizer runoff from the steepest golf course slopes (performed on the steeper Big Indian Golf Course no longer proposed);
- Analysis of pesticide and fertilizer percolation through the thinnest soils present on either golf course;
- Elimination from consideration for use any pesticide that did not meet specific toxicity and water quality standards based on the worst case analyses above;
- Development of a fertilizer program to minimize runoff and leachate loss;
- Preference to non-chemical cultural practices to enhance turf health;
- Listing of biological pest controls on a pest-by-pest basis;
- Listing of pest thresholds below which no pesticides would be applied on a pest-by-pest basis;
- Implementation of Best Management Practices to protect water quality;
- Description of a golf course monitoring program to document pest levels over time, and
- Annual reporting requirements to regulatory agencies.

Mitigation Measures

As part of the review of the DEIS, including DEIS Appendices 14 and 15 described above, NYSDEC developed a draft SPDES permit for the original project. This draft SPDES permit contained specific monitoring requirements for nutrients and pesticides as measured in the project site streams, stormwater basins and lysimiters installed under golf course fairways to capture water percolating through the soil column. The applicant is willing to accept reasonable updated monitoring requirements in a new draft SPDES permit for the modified project.

In the event that organic management is discontinued, the following mitigation measure is proposed.

Following five years of Wildacres Golf Course operation in accordance with an approved organic management plan, Crossroads may seek approval from the NYSDEC to discontinue organic golf course operation and to remove such requirement from its SPDES permit. Should such approval be sought, the NYSDEC will solicit the advice of the proposed Organic Golf Course Technical Committee and will approve such request only if it finds that the operator has demonstrated to the NYSDEC's satisfaction that the operation of the Wildacres Golf Course as a high quality nationally recognized golf course through organic management is infeasible and that the concerns raised by the operator cannot be adequately addressed through adjustments or modifications to the approved Organic Management Plan. In the event that NYSDEC finds that the operator has satisfied the above-described conditions for discontinuance of organic golf course operation under this provision, the NYSDEC will modify its SPDES permit for the Crossroads project and include a requirement that the operator implement a state-of-the-art Integrated Pest Management system for the Wildacres Golf Course that utilizes the fewest inputs necessary to provide a sustainable, high quality, nationally recognized golf course operation.²¹

3.1.6 Stream Crossings – Potential Impacts and Mitigation Measures

A. Road Crossing

The only proposed stream road crossing associated with the project will be the replacement of the existing culvert under the driveway to the Marlowe Mansion and existing Wildacres Motel with a steel, bottomless arch culvert that will span the currently culverted crossing. This section of the driveway is being re-used as part of the Resort access road from Gunnison Road and County Route 49A that runs below the proposed Wildacres Hotel. An intermittent stream currently begins in a driveway-side ditch on the uphill (south) side and passes under the road near the Marlowe Mansion pool and then runs north through the Wildacres site. The existing driveway needs to be widened in order to construct the Resort access road to Town standards (even though the Resort access road will be privately owned and maintained). The existing culvert will be replaced by the arch culvert as part of this widening. See detail D6 on Sheet L8.02 for the design of the arch culvert. If possible, removal of the existing culvert will take place "in the dry" when this intermittent stream is not flowing. If construction timing does not allow for this work to occur in the dry, then water flow to the culvert will be blocked and water will be pumped around the work area until the culvert has been removed. As additional mitigation, a member of the stormwater inspection team will be present full time during the removal of existing culvert.

²¹ AIP paragraph 19

B. Golf Cart Path Elevated Crossings

Golf cart paths will pass over streams on elevated, boardwalk-type crossings. See detail 6 on Sheet 8.02. Helical support posts will be installed on either side of the stream so there will be no disturbance to the bed or banks. If during construction difficulty is encountered installing helical piers due to geotechnical conditions, the contractor will prepare a change order for an alternative spanning measure that does not involve disturbance of the bed or banks of the streams nor disturbance of wetlands or other waters of the US. A total of 6 crossings are proposed. Stream crossings will occur at 3 locations for hole 11, and one location for hole 13 for the stream in the western portion of Wildacres. Further down the stream proposed to be crossed by the arch culvert in the central portion of Wildacres, there will be a boardwalk cart path crossing near the tees for hole 16. The last golf cart spanned crossing is in the northeast portion of Wildacres near the tees for hole 7.

C. Utilities

Water and sewer pipes and a section of stormwater pipe will be installed underneath streams by directional drilling so that stream beds and banks are not impacted. On the project site proper underground stream crossings via directional drilling will occur at the locations of some of the cart path bridges and include near hole 11 tees near hole 16 tees and near hole 7 tees. The water supply line from the K wells will be directionally drilled under Todd Mountain brook. There are no stream crossings along the off-site sewer line route between the Wildacres site and the connection with the Pine Hills system in Pine Hills.

A member of the stormwater inspection team will make at least daily inspections of all utility directional drill stream crossings.

D. Design Changes to Reduce Impacts

Section 2.3(A) previously described the changes to the plans for Wildacres between the DEIS and this SDEIS, including reducing the number of stream crossings from 20 to 14. For the remaining stream crossings, none will affect the bed or banks of the streams. See the plans in Appendix 8.

3.2 Groundwater Resources

- A. Existing Conditions
- See DEIS sections 3.3.1(A) and 3.3.1(C)
- B. Fleischmanns and Pine Hills Water Systems

See DEIS sections 3.3.1(B) and 3.3.1(D).

C. Seasonal High Groundwater and On-Site Springs and Wells

Seasonal High Groundwater

Lewbeach soils have a seasonal high water table at 2 to 4 feet deep from March to May. Their occurrence on-site is limited primarily to the northeastern portion of Wildacres in areas that will receive fill where development is proposed.

Onteora-Suny soils have a seasonal high water table between 0 to 1.5 feet between November and April. These are wetlands soils that will not be disturbed.

Willowemoc soils have a seasonal high water table between 1.5 and 2 feet deep from October to May. Their occurrence on-site is limited primarily to the northeastern portion of Wildacres in areas that will receive fill where development is proposed.

On-Site Springs and Wells

See DEIS section 3.3.1(E).

D. Well Logs and Zones of Influence

See the potable wells pump test report in Appendix 13. The irrigation wells testing report is in Appendix 17.

3.2.1 Water Supply

The pump test report for the proposed water supply is located in the Preliminary Water Supply Design Report, Appendix 13.

The report documents how the proposed sources have the capacity to provide the project with water without impacting groundwater resources.

No significant adverse impacts were identified, so no mitigation measures are required.

3.2.2 Wastewater Collection, Treatment and Disposal

Construction of the wastewater facilities for the Modified project will be in conformance with the Recommended Standards for Wastewater Facilities, Great Lakes – Upper Mississippi River Board of Provincial Public Health and Environmental Managers, Current Edition.

A. & B Interbasin Transfer of Water

See section 3.1.3(C) above. The Project will not result in any impacts.

C. Water Budget Analysis

See Appendix 22, Water Budget Analysis.

The water budget analysis was performed to evaluate the potential impact that the Project's changes in the land surface will have on aquifer recharge and surface runoff on an annualized basis. The area covered by the water budget analysis is approximately 695 acres and includes the primary development area of the Project, which includes Wildacres Resort in the east and the Highmount Spa Resort to the west.

The water budget provides a mechanism for estimating percolation to the ground water system by balancing the amount of precipitation with runoff, percolation to the subsurface and evapotranspiration (evaporation of the ground surface and transpiration by plants). This balance is dependent on those factors such as slope, vegetation cover, soil type, land use, and climate (precipitation, temperature, and sun angle). Some of these factors will change when development occurs.

Certain modifications in the landscape within the project area will either increase or decrease the amount of surface water runoff and evapotranspiration. These modifications, such as the construction of parking lots, roadways, buildings, and golf courses, can potentially result in either positive or negative changes in surface water runoff and percolation (aquifer recharge). The analysis of the effects of these modifications was accomplished by first evaluating the amount of surface water runoff and percolation to the ground water system under existing conditions and then estimating the change in total runoff and percolation that will be brought about as the result of the post-development conditions. The modifications to the land surface were addressed through careful tracking of changed and unchanged soil areas within the project area and adjusting the runoff coefficients, soil moistures and slopes to reflect the future, developed conditions. The changes in these variables were incorporated into the water budget analysis to assess the potential impacts to aquifer recharge and runoff.

The areas to be developed were subdivided into the following six categories for water budget tracking purposes: 1) Wildacres Resort grounds 2) Highmount Spa Resort, 3) buildings and pavement, 4) stormwater swales and ponds, 5) the irrigation pond, and 6) the golf course. The golf course areas include the driving range, fairways and greens. The stormwater swales and ponds include all stormwater detention ponds, dry swales, and pocket ponds. The large golf course irrigation pond in the eastern end of the development was tracked separately. The buildings and pavement category includes all the buildings of each resort, as well as the paved areas and the parking garage. The Wildacres and Highmount development areas include all the graded areas where the landscape has been modified from wooded to non-wooded, exclusive of buildings and pavement, swales and ponds, and the golf course.

The water budget analysis for the future, post-development conditions indicates that the annualized percolation rate for the entire area will be approximately 348.9 gpm, which is equivalent to .502 gpm per acre. This represents a 19.3 gpm decrease from the existing conditions aquifer recharge rate of 368.2 gpm over the entire 695-acre water budget area. This

change in percolation is very small when compared to the normal seasonal and yearly climate fluctuations, and when compared to the basin as a whole. This decrease is primarily due to loss of percolation beneath the building footprints, paved areas, storm water features, and the irrigation pond.

The water budget analysis for the future conditions indicates that there will be a negligible increase in the surface water runoff from the project area. The annualized surface water rate of discharge to natural drainage features increases from 648.7 gpm to 656.1 gpm. This is equivalent to an increase of approximately 0.01 gpm per acre.

The runoff and recharge rate estimates determined through this water budget analysis are annualized averages. The changes in the estimated rates between existing and post-development conditions are indicative of the potential impact to aquifer recharge and the streams that receive the surface runoff. The potential impacts to both aquifer recharge and surface water runoff are minimal, with a very slight decrease in aquifer recharge over the project area, and a negligible increase in runoff.

3.2.3 Golf Course Management

A. Pesticide and Fertilizer Use

Potential impacts to groundwater as a result of pesticide use have been avoided by the development of the organic golf course management plan.

B. Irrigation Water

The sources of irrigation were previously described in section 2.8.6(C), and include "the pool well", "the Janis well", and "the Z well". The testing report for the irrigation wells in Appendix 17demonstrates that use of the irrigation wells will not negatively impact groundwater resources. The irrigation pond will be lined.

3.2.4 Blasting

Two investigations of the effects of mine blasting on water wells, water supply, and water quality were conducted by the seismological consulting firm of Philip R. Berger and Associates, Inc., in 1980 and 1982. The studies were prepared for the US Bureau of Mines, which is a research and advisory group (and not a regulatory agency). A total of five sites were studied in four states to represent a range of geologic conditions. Water supply wells were installed and designed specifically to duplicate typical domestic well construction and use.

The reports which detail well performance in relation to blasting at surface mines indicate that "no evidence of changes in water quantity or quality could be directly attributed to the blasts."
The report also concludes that it is possible the blasting actually improves well yields in wells within a few hundred feet of the active face by increasing the fractures which transmit and store water. The more open fractures improve the permeability of the rock mass and improve well yield. In laymen's terms; the removal of bedrock may cause stress relief in the rock which widens and extends water-containing fractures. This increases the storage capacity in the ground, thereby improving adjacent well yields. The ground water level will temporarily drop somewhat while the additional groundwater storage space is filled. Shallow wells exhibit substantially improved performance while deeper wells indicate improvement to a lesser degree. This decline in well static water level appears to coincide with the approach of the overburden removal to within 300 feet or less from the subject well, but this decline was temporary. Therefore, it is not anticipated that the groundwater capacity will be negatively affected.

It is also, therefore, highly unlikely that blasting, or blasting-induced changes to groundwater level will adversely affect wells in the area of the proposed project. On the contrary, studies of blasting effects on nearby wells indicate increased well yield over time. In fact, well shooting as it is known, or blasting of a drilled well, is a commonly used method in the well drilling industry to obtain increased well yield.

According to Berger's studies, no significant changes in water quality occurred which could be related to blasting. Samples were routinely collected and analyzed for a number of parameters for a year before and after blasting to monitor water quality. A long term reduction of total dissolved solids and specific conductance (a desirable change) appears to occur, but this is probably the result of the cumulative pumping of the groundwater from the numerous drawdown tests.

A review of more recent technical reports (Siskind and Kopp, 2000, "Blasting Effects of Appalachian Water Wells"; Matheson and Miller, 1997, Schnabel Engineering Associates, "Blast Vibration Damage to Water Supply Well Water Quality and Quantity") available from the United States Bureau of Mines and the International Society of Explosives Engineers was conducted. These studies confirm that complaints of well impacts from blasting are not related to blasting and can be shown to be related to either environmental factors, poor well construction, or wells whose elements required repair or replacement prior to blasting.

Mitigation Measures

While impact to local wells as a result of blasting is not expected to occur, the following measures are proposed to mitigate any impacts that may occur.

- A. Pre-Blast Well Survey
 - 1. Prior to commencing any blasting operations, Crossroads' blasting contractor will give written notice by regular mail to all residents within ¹/₄ mile of the blasting locations within the site of the opportunity to have a per-blast survey of their well at Crossroads' expense.

- 2. If the property owner does not respond in writing that they will allow a pre-blast survey to be done, Crossroads will not have any further obligations to undertake a survey.
- 3. Such property owners shall notify Crossroads of their desire for eligibility by providing Crossroads with written notice. Crossroads shall have a period of 90 days from notification to collect baseline data, which data it will share with property owners upon request.

B. Well Arbitration

Crossroads shall participate in arbitration proceeding brought by any eligible property owner located within a radius of 1/4 mile of the blasting locations who feels that his or her well, including commercial wells, has been damaged by Crossroads' blasting activity. To ensure that a proper determination of cause can be made, the arbitration proceedings would be presided over by a panel of one or more qualified hydrogeologists. The format of the arbitration remedy shall be as follows:

- Any property owner who desires to be eligible to participate in the arbitration procedure shall allow their well to be inspected by Crossroads for the collection of baseline data in accordance with the pre-blast survey procedure outlined above.
- Any aggrieved owner may initiate arbitration proceedings by serving Crossroads with a letter by registered or certified mail notifying Crossroads of their desire to arbitrate a well issue.
- Within seven days of receipt of said letter initiating arbitration, Crossroads shall inspect and test the owner's well to determine the extent and cause of the problem. If water quantity in the well has fallen below the baseline level established under paragraph "a" to a production level less than the amount necessary for existing use; or, in the case of residential use only, if water quality has fallen below the baseline level to a level no longer in compliance with Department of Health potable water quality standards, then in either event, Crossroads shall immediately provide potable water to the owner in the amount necessary for existing use until responsibility for the problem has been determined, pursuant to paragraph "h."
- Crossroads may within a period of sixty (60) days, attempt to cure the well problem by, for example drilling the owner's well deeper.
- If the problem is not cured to baseline level as determined pursuant to paragraph "a," the arbitration shall commence as soon after the initial sixty (60) day period as is possible.
- The arbitrator shall be a qualified hydrogeologist selected by mutual agreement between the owner and Crossroads.
- If the parties cannot agree on the selection of a neutral hydrogeologist, each party shall select their own hydrogeologist, who in turn will select a third neutral hydrogeologist to conduct the investigation.

- The arbitrator shall investigate and determine the cause of the well problem. Both parties shall allow access to their respective property to the arbitrator. Unless the arbitrator determines that the project is not a contributing cause to such problem, the arbitrator shall require Crossroads to cure the problem and Crossroads will provide potable water until the problem is cured.
- If Crossroads is found to be only partially at fault, it shall be required only to pay its percentage of fault.
- Crossroads will pay all costs of arbitration, unless the arbitrator determines that the Crossroads' activities is not the cause of the problem, in which case each party will pay one-half of the cost of the arbitration.
- This arbitration shall be available to owners of property, whose wells are located within ¹/₄ mile radius of the blasting location(s).

This arbitration remedy shall be available through the construction phase of the project, and shall apply to new wells developed during the construction phase, provided such wells are registered with Crossroads.

3.3 Soils

Existing Conditions

Section 3.6 of the DEIS provided descriptions of the soils on the project site.

A. & B. Mapping

Additional soils investigation work by LA Group Soil Scientists was performed for the SDEIS including more soil test pits on the Highmount parcel. More detailed soil mapping was also produced for the Highmount parcel.

Soils mapping for the project site is shown on the project Soil Inventory Plans, Sheets L2.02 through L2.03.

C. Classification

LA Group Soil Scientists classified the soils using a frigid temperature regime which is the appropriate regime for the project site (see DEIS pages 3-112 and 3-113 and Appendix 12).

D. Properties and Limitations

Characteristics of the soils present on the site are presented in Table 3-1, "Soil Characteristics."

Table 3-2, "Soil Limitations for Building and Recreation Development" provides additional information for the soil series mapped for the project site. The terms slight, moderate and severe are used in Table 3-2 consistent with how the terms are defined and used in the published soil surveys. A Slight limitation indicates soil properties are generally favorable and any limitation is easy to overcome. Moderate limitations are those indicative of unfavorable soil and site features, but that limitations can be overcome or minimized by special planning and design. Severe limitations are those where one or more soil properties or site features are so difficult to overcome that a major increase in construction effort, special design, or intensive maintenance is required.

E. Stormwater Infiltration

No infiltration stormwater management practices are proposed for the project. Native soils on the site are not suitable for infiltration practices. Proposed stormwater management practices are primarily P-1 ponds and O-1 dry swales.

Stormwater infiltration will occur at two main locations – the green roofs proposed at Highmount, and on the golf course using stormwater captured in the irrigation pond for irrigation. The green roof assessed for Highmount was the Hydrotech Garden Roof by American Hydrotech Inc. This particular roof system has a water retention capacity of 4.9 inches or 3.1 gallons per square foot. For the Highmount Golf Club, the Water Budget Analysis done for the project (Appendix 22) uses eight inches of a sandy loam topsoil over the golf course.

F. Blasting Locations, Types and Timing

Blasting locations were previously identified in section 2.8.9.

The type of blasting to be employed is typical, general commercial construction blasting using non-electric controlled blasting where rock is pre-drilled, loaded with explosives and detonated. Larger areas requiring blasting are accomplished using numerous small blasts rather than fewer large blasts.

The majority of the blasting will occur in the earliest phases of project construction. Site preparation for the hotel buildings begin early in Phase 1, as does most of the access road construction. Some of the smaller areas that require blasting at Wildacres will occur in Phase 2 construction. The duration of blasting operations depends on a number of factors. These factors include such things as the quantity of the rock that needs to be removed, the shape of the rock excavation (length, width and height), the incremental volume of rock loosened by each blast, the effort needed to prep the rock for blasting (i.e. number of drills operated concurrently), the capacity to remove the rock from the blast area, weather conditions, etc. A blasting contractor consulted for the project reported that it is not the actual blasting operations (drilling, loading, and detonating) that are the limiting factors affecting duration of operations, rather it is the ability of the earthwork contractor to remove material from the blast site so the next blast can be set up by the blasting contractor.

G. Blasting Potential Impacts and Mitigation Measures

Potential Impacts

In addition to the potential impacts to groundwater wells discussed in section 3.2, vibration and noise from blasting has the potential for impacting nearby structures and people.

Mitigation Measures

Where blasting is required, the following mitigative measures are proposed in addition to the mitigation measures discussed in section 3.2 regards to blasting and groundwater resources.

- 1. Blasting Survey
 - a) Prior to commencing any blasting operations, Crossroads, blasting contractor will give written notice by regular mail to all residents within ¹/₄ mile of the blasting locations within the site of the opportunity to have a pre-blast survey of structures of their property at Crossroads' expense.
 - b) If the property owner does not respond in writing that they will allow a pre-blast survey to be done, Crossroads will not have any further obligations to undertake a survey.
 - c) If a property owner gives such permission, they will be supplied with a copy of the report of the survey.
- 2. Blasting shall be conducted only between the hours of 9:00 a.m. to 5:00 p.m. on weekdays only. Explosives will not be detonated on weekends or the following holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day.
- 3. All blasting shall be done by a person licensed to blast in New York State.
- 4. Blasting shall be controlled so the vibrations (Peak Particle Velocity) satisfy the particle velocities v. frequency limits recommended by the U.S. Bureau of Mines Report-8507 (November 1980). If measurements are made at other than the nearest residential structure, the measurements shall be interpreted in accordance with U.S. Bureau of Mines 8507 report entitled "Structure Response and Damage Produced by Ground Vibration from Surface Mine Blasting".
- 5. Blasting Notification
 - a) Upon the issuance of this permit, Crossroads shall provide written notice to all identified owners of property within a ¹/₄ mile of the proposed blasting location of their right to be notified in advance of blasting events. Crossroads' obligation to provide notice shall be deemed satisfied if a good faith attempt is made to mail, by regular mail, notice to all persons appearing on the then-current tax rolls of the Town of Middletown and the Town of Shandaken as owners of record of lands with that radius.

- b) If a property owner does not respond, in writing, that he or she wishes to be notified, he or she shall be deemed to have waived his or her right to notice until he or she indicates otherwise in writing.
- c) Residents within a ¹/₄ mile radius of blasting locations within the site who choose to be notified in advance of blasting events will be phoned 1 hour prior to the blast.
- d) Any eligible owner or successor to an eligible owner who does not receive notice, may request in writing that he or she be put on the Blast Notice Phone List of Crossroads.
- 6. All persons who conduct blasting operations shall comply with all applicable State and federal laws governing the use of explosives.
- 7. Blasting shall be conducted in a manner that prevents injury to persons and damage to public or private property outside the project area.
- 8. A record of the blast shall be made, retained by the operator for at least three (3) years and made available for inspection by the Department on demand. The record is to be completed by the end of the work day during which the blast occurred, including the seismograph reading, if available, and shall contain the following:
 - a) Name of operator conducting the blast.
 - b) The location, date and time of the blast.
 - c) Name, signature and license number of the licensed blaster.
 - d) Type of material blasted.
 - e) Number of holes, burden and spacing.
 - f) Diameter and depth of holes.
 - g) Type of explosives used.
 - h) Total weight of explosives used.
 - i) Weight of explosives per hole.
 - j) Maximum weight of explosives detonated within any eight (8) millisecond period.
 - k) Maximum number of holes or decks detonated within any eight (8) millisecond period.
 - 1) Initiation system, including number of circuits and the time interval, if sequential timber is used.
 - m) Type and length of stemming (deck and top).
 - n) Type and detonator and delay periods used, in milliseconds.
 - o) Distance and scaled distance to the closest protected structure.
- 9. Maximum peak particle velocity shall not exceed limits as set by U.S. Bureau of Mines 8507 Report at the location of any dwelling, public building, school, church or community or institutional building outside the blast area.

- 10. All blasting will be done with small charges and with the following protective best management practices, whenever feasible:
 - a) Two to four feet of rippable material will be left over the solid material to be blasted to serve as a cover to prevent excessive fly rock. Blasting mats may be used if overburden is not available. The blasting mats must be of suitable size and material to dampen noise and contain blasted materials.
 - b) The size of the shot will be limited by sound and vibration control levels and amount of area that can be blasted with good results.
 - c) Small diameter drilling with high speed equipment will be used to reduce the amount of explosives used in each hole.
 - d) The use of delay blasting techniques will be used to reduce vibrations associated with the blast.
 - e) Material stockpiles will be placed to help block blasting and material processing noise transmission off-site.
 - f) Blasting shots will be designed to minimize ground vibration and air blast.
- 11. Blasting will not occur during adverse weather conditions such as high winds unless a loaded charge must be detonated before the end of the day for safety reasons.
- 12. Blasted and other excavated material will be used on site.
- 13. Shot design will be reevaluated if ground vibration or air blast thresholds are approached. Air blast values shall be limited to those set forth in US Bureau of Mines RI 8485 or other similar standard.
- H. Earthwork Calculations

Earthwork (cuts and fills) is balanced within Wildacres and earthwork is balanced within Highmount.

Figure 3-1, "Wildacres Earthwork" provides earthwork quantities for Wildacres. The table included on Figure 3-1 provides the earthwork quantities for different component areas of the overall project as well as for all of Wildacres. When calculating quantities of cut, allowances were made for expansion of materials after they are excavated and then put in place as fill. For just soil material, it was projected that there would be a 10% increase in volume or the 1.1 expansion factor, and for material that was more rock, a 25% expansion was assumed (1.25 expansion factor). Construction of the Wildacres hotel (area J on Figure 3-1 and accompanying table) requires an excavation (cut) of approximately 435,000 cubic yards. Material from the hotel will be used as fill on-site, primarily on nearby areas of the golf course such as the driving range (areas L, M, N, O & P), holes 10 and 18 (areas X & Y), holes 1 & 9 (areas G & H), holes 7 and 8 (areas E & F) and hole 3 (area B). Figure 3-1, which is based on the current grading plans for the site, showed the need for approximately 28,000 cubic yards of fill. This quantity can be brought into balance, or a net of 0, simply by reducing the amount of fill proposed for holes 7 and 8 by approximately one foot, which is less than the contour interval on which the current grading plans are done. Construction drawings for the golf course will be adjusted accordingly

so that cut and fill numbers balance more evenly. The sequencing of earthwork activities for project construction was discussed previously in section, 2.8.9, Construction Activities and Phasing, and in the discussion of sediment and erosion control in section 3.1.2.

Figure 3-2, "Highmount Earthwork", provided earthwork quantities for Highmount for each construction area. Cuts and fills are balanced at Highmount. There is no need to export or import bulk earthwork.

- 3.3.1 Stormwater Management
- A. Incorporation of Soils Information

The high intensity soil mapping for the project site and off-site soils mapping from the County soil surveys were used (along with land use covertypes) to develop the curve numbers (CNs) for the different subcatchment areas of the site using the soil hydrologic group (i.e. A-D) assigned to each mapped soil series. These CNs were then incorporated into the HydroCAD modeling of the site under pre-development and post-development conditions.

As discussed previously in section 3.1.2, soils taken from the project site were used in the testing of the chitosan flocculant proposed to be used to reduce turbidity in the sediment basins during construction.

B. Stormwater Pollution Prevention Plans (SWPPPs)

Appendix 19 of this SDEIS contains a draft SWPPP for the Phase 1(A) construction.

Permanent stormwater controls have been fully designed for the entire project. See the Stormwater Management Design Report in SDEIS Appendix 19 and Site Plan Drawings L4.00-L4.11 and L5.00-L5.15 for post-construction stormwater controls. Stabilization plans for the construction phase of the project have also been prepared for the entire project. SDEIS Site Plan Sheets L2.04-L2.05 and L3.22-L3.23 show the Grade Slope Analysis that was done for the project site, and these plans also specify suitable soil stabilization measures to be implemented during construction.

3.3.2 Sediment and Erosion Control

See the sediment and erosion control plans (L3.02-L3.21) in the drawing set that is part of this SDEIS. Also, see section 3.1.2 for additional information.

3.4 Terrestrial and Aquatic Ecology

3.4.1 Vegetation

A. New York Natural Heritage Program (NYNHP)

Updated correspondence from NYNHP regarding the current project site was obtained, and NYNHP's February 23, 2011 response letter is included in Appendix 23.

B. Investigations for NYNHP Reported Occurrences

No threatened or endangered plants or unique natural communities were found on the site during site investigations. Likewise, no threatened or endangered plants or unique natural communities were reported for the site or its surroundings by NYNHP in its most recent correspondence. Therefore, no additional site investigations for threatened or endangered plants or unique natural communities were necessary.

C. Vegetation Community Types and Areas of Disturbance

Project site vegetation was described in DEIS section 3.5.1 along with accompanying Figures and Tables including DEIS Figure 3-18, "Ecological Communities".

SDEIS Grading Plans (Sheets L4.00 toL4.11) illustrate the areas and limits of proposed disturbance.

Table 3-3, "Impact Acreage by Plant Community", lists the community types that occur on the project site (as per Reschke, 1990), the amount of each community present, and the amount of impact to each community. The project site is highly dominated by the Beech-Maple Mesic Forest community (comprising nearly 80% of the site), and, as expected, has the most acres of impact (179). Overall, 29% of the project site vegetation is proposed to be impacted while 68% will remain undisturbed.

Table 3-3 Impact Acreage by Plant Community

Plant Community	Existing Acreage	Impact Acreage
Beech-maple mesic forest	587.5	163.8
Hardwood swamp	2.4	0.2
Hemlock-northern hardwoods forest	71.5	36.5
Hemlock-hardwood swamp	4.3	1.4
Mowed lawn with trees	3.7	2.9
Successional old forest	5.1	3.4
Pine plantation	5.1	4.8
Intermittent rocky stream wetland	4.4	0.7
Shrub swamp	1.2	0.0

Plant Community	Existing Acreage	Impact Acreage	
Successional northern hardwoods forest	7.3	3.3	
Shallow emergent swamp	3.2	0.0	
Ski slope	40.6	1.0	
Old quarry with open successional vegetation	3.0	0.0	
Total	739.3	218.0	

D. Impacts to Rare, Threatened or Endangered Species

No such species occur on the site, so no impacts will occur.

E. Grading Plan Notations

The SDEIS Grading Plans show limits of disturbance for all areas, regardless of the purpose for maintaining vegetation (i.e. visual screening), and prohibition of clearing beyond the limits shown on approved plans will be a violation of project permits.

The grading plans are included as part of the draft SWPPP in Appendix 19, and, likewise, will be part of all SWPPPs that need to be reviewed and approved by NYSDEC as part of the required Individual Stormwater Permit. Thus, conformance with the grading (clearing) plans will be regulated by project permits.

F. Golf Course Clearing and Grading Techniques

The majority of the golf course where play will be concentrated will be constructed using the standard sequence of clearing, grubbing, rough grading, fine grading and stabilization. However, it will be possible to construct some areas on the golf course where a lower level of disturbance will be required by using other "treatments".

Figure 3-3 shows these areas and describes the lower levels of disturbance or treatments.

For example, Hole #12 is a par 3 that plays downhill from the tees to the green. On the slope between the areas that will be graded to create tees and the green/approach the trees will be cut but there will be no grubbing. The tree roots will be left in place on the slope. The area will be seeded and maintained as taller grasses, more like a meadow than a golf fairway.

A similar treatment to the one above will occur where golf holes cross fringe wetlands associated the intermittent streams that run through the site. In these areas (with hole #18 being an example) trees will be cut and removed from the wetlands by hand and there will be no removal of the herbaceous vegetation within the wetlands and the soils will remain undisturbed. For more details see Section 3.4.2, "Wetlands/Waters of the US".

Also, as per the DEIS (Section 3.5.2); for all of those reaches of the intermittent streams where upland activities could result in an increase of solar exposure, the banks of will be augmented with streamside plantings of suitable native plant materials so as to produce increased in-stream shading.

Where vegetation is proposed to be disturbed in proximity to the intermittent streams, plantings are proposed to provide shading of the stream/wetland and still allow a golf shot to be played over this area. This will be accomplished by placing appropriately sized koir logs along the existing stream banks and planting the koir logs with willow cuttings. Regular hand cutting maintenance of the vertical growth of the willow sprigs will allow for the development of a more horizontal willow canopy over the stream/wetland and still allow for a golf shot to be played over these areas.

An example of another treatment is hole #13 where an intermittent stream runs across the golf hole in between the fairway and the green/approach. Here grading is not proposed to occur within 30 feet of the stream. Instead, within this area trees will be removed, stumps will be grubbed and then the area will just be smoothed by raking and then seeded. No earthmoving will occur in this or similar areas shown on Figure 3-3.

Some areas of the golf course will be built using materials excavated from the hotel site as the bulk fill needed to construct the golf hole. For these areas (i.e. hole #10 fairway) trees will be cut and stumps will not be grubbed from the sloped area. Bulk rock will be placed over the slope then soil will be placed on top of the flatter fairway and the fairway stabilized.

G. Invasive Species

See Appendix 21 of this SDEIS which contains an invasive species control plan for the project site that was developed in cooperation with NYSDEC and the Catskill Regional Invasive Species Program (CRISP). Details are provided for control of invasive plant species prior to construction as well as post-construction.

3.4.2 Wetlands / Waters of the US

Existing Conditions

A. Wetland Mapping

Wetlands delineated on the project site and accepted by the USACOE via a jurisdictional determination issued on April 27, 2005 are shown on Figures 3-4 and 3-5.

For this SDEIS it was necessary to examine the portion of the project site that was not previously evaluated for the presence or absence of wetlands. The upper elevation area of Highmount identified as Parcel D in the AIP was not evaluated for the DEIS, but was examined by wetland scientists in July 2008. As per the memo contained in Appendix 14 no wetlands or waters of the US were identified on Parcel D.

A similar evaluation was performed for the former outparcel in the northeast corner of Wildacres that was not part of the project site for the DEIS, and no wetlands or waters of the US were identified on this parcel either.

For the SDEIS it was also necessary to delineate wetlands/waters of the US along the routes of the off-site water and sewer lines and this occurred in July 2009.

On January 26, 2010 additional materials were supplied to the USACOE with a request for a new jurisdictional determination that would include wetlands along the off-site water and sewer line routes as shown on Figures 3-6 and 3-7.

In July 2010 the USACOE did an inspection of the on-site and off-site areas not previously evaluated and agreed with the delineation results described above and illustrated in the revised wetland delineation report.

On January 11, 2011 additional correspondence was sent to the USACOE re-requesting a new jurisdictional determination and confirmation that the project requires no other approvals under Section 404 of the Clean Water Act. A copy of this most recent correspondence to the USACOE can be found in Appendix 14. The Project sponsor has carefully avoided any impacts to waters of the US by imposing stringent clearing methods for flyovers involving waters of the US, by proposing to replace an existing culvert with an arched culvert, by using directional drilling to install utilities in areas involving waters of the US, and by proposing to bridge boardwalks over such resources using helical screw in supports.

On August 15, 2011 the USACOE issued a new jurisdictional determination for the project site. A copy of the jurisdictional determination in included in Appendix 14. The USACOE also reviewed the plans for the proposed project at the same time it was issuing their jurisdictional determination. The USACOE's August 15, 2011 correspondence states, "Our review indicates that since the proposed work does not appear to include dredging or construction activities in or over any navigable waters of the United States, the placement of any dredged or fill material in any waters of the United States (including coastal or inland wetlands) or the accomplishment of any work affecting the course, location, condition or capacity of such areas, a Department of the Army permit, in accordance with 33 CFR 320-330, will not be required provided that the proposed work is executed in accordance with the referenced material".

The wetland boundaries illustrated on the figures referenced above are also included on the project plans in the plan set that is part of this SDEIS, including the grading and drainage plans and the stormwater management plans.

B. Revised Wetland Delineation Report

A copy of the wetland delineation report that was submitted to the USACOE on January 26, 2010 along with the request for a new jurisdictional determination is in Appendix 14 of the SDEIS.

C. Proposed Wetland Activities

The following description of wetland activities is from the January 11, 2011 submittal to the USACOE. Reduced versions of the referenced Wetland Activities Plans are included as Figures 3-8 through 3-12

No wetland filling is proposed.

No wetland excavation is proposed.

No other type of physical disturbance of wetlands is proposed except removal by hand of woody vegetation for golf course playovers.

All of the proposed clearing of woody vegetation will be done by hand, using chainsaws and other hand-operated power equipment. Heavy machinery, such as bulldozers and backhoes, will not be used to conduct the clearing or to pull stumps. Therefore, no disturbance of soil will take place. Detailed tree clearing protocols (see attachment) will be included on the grading and clearing plans provided to contractors.

D. Bridge Crossings

An additional activity which will take place in six of the cleared areas will be the installation of golf cart bridges. These golf cart bridges will total 148 linear feet and will cover an area of 0.03 acres of jurisdictional wetlands. Detail 6 on sheet L8.02 illustrates the boardwalk cart path crossing. Detail 1 shows how the cart path bridges will be supported by helical piers 12 feet on center (typical) which represent *de minimums* activity within the waters of the United States.

There will also be a bridge on an internal roadway east of the Marlowe Mansion (road B), which will be 24 feet long and cross over 0.009 acres of waters of the US. Detail 6 on Sheet 8.02 shows how this crossing will be made using a steel arch culvert span with the footings for the span located outside of the waters of the US.

E. Water and Sewer Lines Subsurface Crossings

Outside of the lands owned or controlled by Crossroads Ventures, LLC, the project will involve installation of water supply lines from two parcels on which wells have been drilled, and the installation of a sewer line connecting with the sewer system in the hamlet of Pine Hill. For most of their routes, both the water and sewer lines will run along the right-of-way of New York State Route 28 (see Figures 3-8 through 3-12). Crossroads Ventures has confirmed with NYSDOT personnel that installation of the water and sewer lines can occur within the NYSDOT right-of-way, and construction drawings will be provided to NYSDOT for review and approval prior to construction. The route of the water supply line intersects four streams or wetlands, and the sewer line intersects one wetland. However, both pipelines will be installed by directional drilling. All boring pits, entrance and receiving, will be located outside of waters of the US, and the pipes will lie a minimum of 5 feet below the surface, the result of which is that there will be no disturbance of waters of the US, including wetlands.

In addition to these off site water and sewer line crossings there are an additional 5 crossings associated with water distribution and sewer collection lines within the project site proper. See Figures 3-8 through 3-10. These lines will also be installed by directional drilling and thereby avoid any impacts to waters of the US.

F. Functions and Benefits

The hydrology of the wetlands will not be altered as a result of the changes that will occur on the site as part of the project. Stormwater management has been designed to maintain predevelopment discharge rates (see Appendix 18). The Water Budget analysis in Appendix 22 demonstrates that hydrology will not be affected by changes in cover type and inclusion of golf course irrigation in the project.

The sediment and erosion control plans in the site plan set that is part of this SDEIS and the SWPPP in Appendix 19 detail how potential impacts to wetlands from erosion and sedimentation will be prevented.

The function of wetlands that will be primarily impacted as a result of the project will be a change in wildlife habitat in the playovers areas only. This is described in greater detail in Section 3.4.3, Wildlife.

G. Permitting Requirements

As stated above, the USACOE has determined that the project does not require a Department of the Army permit in accordance with 33 CFR 320-330.

H. Compensatory Mitigation

Mitigation Measures

No compensatory mitigation is required because no jurisdictional activities are proposed.

The modified project, by its redesign which excludes the former Big Indian Plateau Resort and by its placement of conservation easement on the Adelstein parcel, has resulted or will result in substantial long term protection for wetlands and uplands.

I. Mitigation Wetland Design

No compensatory mitigation is required.

3.4.3 Wildlife

Background

Wildlife was previously addressed in Section 3.5.3 of the DEIS.

Additional wildlife survey work was performed on the site in 2004, the results of which were presented at the Issues Conference. The "Western Property" in the 2004 report corresponds to the current project site. The 2004 report generally does not differentiate its' results between the current project site (Western Property) and the Big Indian lands that were formerly part of the project site ("Eastern Property" in the 2004 report). Results from the 2004 investigations were significantly similar to the results from investigations performed in 2000 and reported in the 2003 DEIS. No rare, threatened or endangered species were encountered on the site during the 2000 and 2004 site surveys.

In the December 29, 2006 Commissioner's Interim Decision it was stated that the wildlife surveys conducted for the DEIS project were deemed to be sufficient by NYSDEC staff. The Deputy Commissioner stated "Based upon my review of the applicant's surveys, the qualifications of the consultants that performed those surveys, and the material presented in the DEIS, I conclude that the information submitted by the applicant is sufficient for the requirements of SEQRA." As required by the AIP, this SDEIS contains the results of similar studies for the properties that will be disturbed as part of the Modified Project, the conclusions of these studies are that no rare, threatened or endangered species occur on the project site nor will there be any significant impacts to wildlife as a result of the Project.

Existing Conditions

A. SDEIS Fauna Surveys and Background Research

Additional wildlife survey work was performed on the project site in 2008 by Terrestrial Environmental Specialists for this SDEIS. No rare, threatened or endangered species were encountered on the site during the 2008 survey. A complete copy of the results of the additional wildlife work performed for this SDEIS is included in Appendix 23, which describes the results of on-site survey work as well as background research that included the breeding bird atlas and the herp atlas. Special attention was paid to areas of the site not previously proposed for disturbance, including areas of Highmount.

B. NYNHP File Search

A file search was requested from NYNHP and NYNHP responded that no rare, threatened or endangered species or unique habitats on or in the vicinity of the site. A copy of NYNHP's February 23, 2011 letter is included in Appendix 23.

C. Investigations for NYNHP Reported Occurrences

No special concern, rare, threatened or endangered species or significant habitats were reported for the site or its surroundings by NYNHP, therefore, no site investigation for reported species was required. See Appendix 23 for a report on the results of recent site fauna studies.

D. SDEIS Supplemental Wildlife Observations

See the report in Appendix 23 for a description of the methods and results of the recent fauna studies that included surveys conducted during early mornings in May and June of 2008 and included the upper portion of Highmount.

E. Recorded Breeding Bird Data

See Appendix 23.

F. Amphibian and Reptile Surveys

See Appendix 23 for the results of the herptofauna survey worked conducted in April, May and June, 2008.

G. Collected Data and Comparison to Previous Wildlife Surveys

See Appendix 23. The data collected in 2008 for the SDEIS are very similar to the data previously collected in 2000 and 2004.

H. Potential Impacts and Mitigation Measures

Construction Activities

Impacts associated with construction activities, including blasting, would be relatively minor and short term in comparison to the permanent alteration of habitat types. Blasting will not cause any impacts to wildlife beyond those identified for the construction process as a whole (see above). Blasting is a short-term temporary activity that will cause localized episodic sound production as well as very localized ground vibration that could potentially very temporarily affect wildlife activity patterns. Blasting activities will be part of overall construction activities that will be producing sound on a more regular basis during the construction process. There are no known rare, threatened, or endangered species occurring in the area that may be affected by occasional blasting activity during construction. Likewise there are no critical habitats on or around the site that could be potentially affected by construction activities, including blasting. Blasting is not proposed in the vicinity of any surface waters where blast vibrations could potentially impact aquatic biota. Blasting has been occurring at times during construction at the adjacent BMSC without any known impacts to local wildlife.

The magnitude of construction-related impacts would vary across the spectrum of wildlife species using the site. Small-sized species that display comparably small home ranges, such as amphibians, reptiles, mice, voles, and shrews, would suffer either direct mortality or would disperse to adjacent areas where their near-term survival would be questionable. More mobile species that typically occupy larger home ranges, such as raccoons, foxes, white-tailed deer, and black bears, would leave the immediate areas of construction, either permanently, or in some cases, temporarily. Survival rates of such species would vary depending upon the suitability of nearby habitats and the capacity of such areas to accommodate increased population levels.

There are also seasonal variables that would influence the extent of construction-related impacts. The types of impacts described above would be less severe in late winter and early spring simply because population levels are at their annual low point at such times. The most obvious consequence of construction timing pertains to breeding birds, which would be affected to a much greater extent from late May into early July when breeding occurs. Construction activities conducted outside of the breeding season would simply disperse avian species to adjacent habitats with little if any related mortality.

Loss and Change of Habitat Types

Wildlife impacts would correlate primarily with the extent and nature of habitat loss. Some medium and large-sized species, such as raccoons and white-tailed deer, might successfully adjust their home ranges, thus reducing the magnitude of the impact. But smaller-sized species, including small mammals, amphibians, and reptiles, would be impacted to a degree directly commensurate with the loss of habitat. Suitable habitat for breeding birds would likewise be reduced. The reduction in suitable habitat would result in a reduction in population levels (i.e., abundance) of certain wildlife species, with some variability across the spectrum of resident and seasonally present species. Since on-site habitat conditions are similar to much of the habitat available in the immediate area, the proposed action would not result in a reduction in local or regional species richness.

The impact area is depicted on Figure 3-13. The table provided below presents the existing acreage of plant communities on the site and the acreage of each community that would be disturbed by the proposed action.

This figure and table provide a somewhat general illustration of areas that would be affected. Considerable variation exists within the designated impact area, including various degrees of habitat alteration, clearing, construction activities, etc. For example, although Figure 3-13 and the impact table indicate that 0.22 acres of wetland cover types (intermittent rocky stream wetland, hardwood swamp, and hemlock-hardwood swamp) would be impacted, in fact no wetland fill is proposed. Hand removal of woody vegetation for golf course playover areas will change the existing wetland plant communities to an open wet meadow habitat in the limited areas affected.

Plant Community	Existing Acreage	Impact Acreage
Beech-maple mesic forest	587.5	163.8
Hardwood swamp	2.4	0.2
Hemlock-northern hardwoods forest	71.5	36.5
Hemlock-hardwood swamp	4.3	1.4
Mowed lawn with trees	3.7	2.9
Successional old forest	5.1	3.4
Pine plantation	5.1	4.8
Intermittent rocky stream wetland	4.4	0.7
Shrub swamp	1.2	0.0
Successional northern hardwoods forest	7.3	3.3
Shallow emergent swamp	3.2	0.0
Ski slope	40.6	1.0
Old quarry with open successional vegetation	3.0	0.0
Total	739.3	218.0

Table 3-4 Impact Acreage by Plant Community

Of the 739 acres of existing plant communities on the site approximately 218, or about 29 percent of the site, would be impacted by the proposed action. Most of the site is forested, thus the vast majority of the habitat alteration would affect forested communities. Approximately 98 percent of the impact area is represented by various forested communities, including 178.8 acres of Beech-Maple Mesic Forest and 36.0 acres of Hemlock-Northern Hardwood Forest. Combined, these two communities represent 92% of the impact area.

Impacts on avian species would obviously focus on forest-dwelling birds. The ovenbird, blackthroated green warbler, and red-eyed vireo are three species that were among the five most abundant species in each of the two forested communities that would be most affected. These species are representative of the assortment of avian species typically found in large forested stands. The alteration of about 228 acres of forested habitat would reduce the abundance of these species in the immediate area, along with other common forest species. Vast areas of comparable forest habitat exist in the local area, as well as throughout this region of New York State, thus the overall impact on forest-dwelling birds would be minimal.

Although the alteration of large blocks of uniformly forested habitat would reduce the abundance of some avian species, newly created ecotone conditions would enhance habitat suitability for other species. For example, the most abundant species recorded in the breeding bird data collected from sampling points designated as "ski slope" and "ski slope/beech-maple mesic forest" included such species as chestnut-sided warbler, common yellowthroat, wood thrush, Baltimore oriole, mourning dove, rose-breasted grosbeak, chipping sparrow, and American goldfinch. These species were not the most common species recorded from sampling points in purely forested portions of the site.

Despite the presence of two adult sharp-shinned hawks during the breeding bird survey, on-site nesting by this species was not confirmed. Thus, there is no reason to conclude that the proposed action would have a negative impact on this species. Regardless, the availability of extensive forested habitat surrounding the site offers amble opportunities for nesting by sharp-shinned hawks.

There would be no impact on Bicknell's thrush. As explained in Appendix 23, the maximum elevation of the site is below elevations reported in the literature as being associated with breeding habitat for this species. In addition, on-site plant communities (beech-maple mesic forest/Hemlock-northern hardwoods forest) do not match the characteristics of suitable breeding habitat for Bicknell's thrush.

In summary, avian species that require extensive stands of forested habitat would be negatively impacted by the proposed action, while other species, those that prefer ecotone conditions, would be positively affected.

Impacts of the proposed action on amphibians reflect the degree to which various plant communities would be disturbed and the habitat preferences of those species documented on the site. For example, species such as the red-spotted newt, wood frog, and eastern red-backed salamander utilize a variety of community types; thus a reduction in suitable habitat commensurate with the acreage to be disturbed is expected. Stream salamanders, however, should be affected to a lesser degree because their distribution on the site is confined primarily to the Intermittent Rocky Stream Wetland community, of which only 0.8 acre will be affected only by hand removal of woody vegetation for the limited purpose of golf playovers. Moreover, amphibians could be positively affected due to removal of the existing driveway culvert near the Marlowe Mansion and replacing it with a bottomless arch crossing for the access road. No endangered, threatened, or special concern amphibian species were documented on the site, therefore there would be no impact to such species.

Although several snake species could occur on the site, only the common garter snake was actually documented. All of the potentially occurring snake species are associated with upland communities, including forested communities, thus the proposed action would alter the habitat suitability for such species, if they exist on the site. Any resulting impact, however, would probably not be totally reflective of the loss of habitat since snakes can adapt and find suitable habitat in close proximity to structures and human activity. No endangered, threatened, or special concern snake species, including the timber rattlesnake, were documented using the site or are known from the area.

Likely impacts on mammals would vary among the species known or likely to use the site. Small-sized mammals that have small home ranges, such as mice, voles, shrews, rabbits, and squirrels, would be reduced in abundance in similar proportion to the loss of suitable habitat. Larger-sized mammals, such as foxes, skunks, and raccoons, would also experience a loss of suitable habitat. But because such species range over larger areas, encompassing various community types, there is a greater potential for them to adapt to a newly created mosaic of habitat conditions by adjusting their home ranges. These species, along with white-tailed deer and black bears, have demonstrated the ability to exist in close proximity to human development. Their continued abundance in densely populated suburban areas attests to this adaptive capability. While the loss of existing plant communities will probably cause a reduction in the overall abundance of these larger mammals, viable populations will remain on the site.

The proposed action would have no negative effect on use of the site by bats. In fact, the creation of openings and forest edges can enhance foraging opportunities for bats. Such enhancements would result from the construction of roads, ski slopes and other proposed facilities. Human activity associated with such areas would have no effect on bat foraging behavior. The DEIS examined the issue of Indiana bats and found that the project site does not provide suitable habitat.

The proposed action would have no negative effect on endangered, threatened, or special concern mammalian species because no mammals listed as such were found on the site, nor is there any suitable habitat available.

Habitat Fragmentation

Because a few large blocks of forested communities would be impacted, as opposed to numerous small blocks of forested communities, the direct alteration of habitat conditions is a more important impact issue than habitat fragmentation. As noted previously, a reduction in the abundance of those species that require large, contiguous blocks of forested communities would be offset, to some degree, by the improvement in habitat suitability for those species that favor ecotone conditions. Quantifying the magnitude of such impacts is extremely difficult, if not impossible. But under these circumstances, the issue of habitat fragmentation is relatively inconsequential when compared to other impact-related issues. Furthermore, the issue of habitat fragmentation under the modified project is further inconsequential due to the mitigating factors of preserving large blocks of habitat on Big Indian Plateau, nearly 1,200 acres, and just over 200 acres at the Adelstein property.

Golf Course Maintenance Practices

No impacts to wildlife resources are anticipated as a result of golf course maintenance practices. As described in Appendix 15 of this SDEIS, the Highmount Golf Club would be managed under an Organic Golf Course Management Plan. Non-chemical methods would be the focus of this management approach. Use of synthetic chemicals for golf course pest controls are generally prohibited, and would only be considered under very strict circumstances, and Special Use Exemptions must be approved by the Golf Course Technical Committee chaired by a representative of the NYSDEC and also including a representative of the NYCDEP.

Should a Special Use Exemption be contemplated by the golf course operator, only those products that passed the stringent requirements of the Pesticide Risk Assessment included in the DEIS as Appendix 15 would be considered for use. One of the criteria used to identify suitable products in the DEIS Pesticide Risk Assessment was the safety of wildlife species. This organic approach to golf course management would serve to avoid negative impacts to resident and migratory wildlife species that make use of this area.

I. Qualitative Post-Construction Carrying Capacity

As noted in the previous discussion, there would be a reduction in the carrying capacity of smallsized mammals, some amphibian species, and avian species that require large blocks of contiguous forests. Species that utilize a variety of habitats, species that favor ecotone conditions, and those tolerant of human activity would be impacted to a lesser degree, or in some cases they would actually benefit from the proposed action. There are no particularly sensitive or high value habitats on the site, thus no negative impacts to such resources would occur.

J. Impacts to Aquatic and Semi-Aquatic Species

Because direct impacts to wetlands have been completely avoided, there would be no discernible negative effect on aquatic and semi-aquatic wildlife species (see SDEIS section 3.4.2 Wetlands/Waters of the U.S.). Indirect impacts resulting from sedimentation and erosion would be avoided by the implementation of enhanced erosion control methods (see SDEIS section 3.1.2. Sediment and Erosion Control). And, as described previously, no impacts to wildlife resources are anticipated as a result of golf course maintenance practices.

K. Mitigation Measures

No potentially significant impacts to wildlife were identified during the course of this assessment; thus no specific mitigation measures are necessary. Likewise, because no rare species, habitats of unusual value, or wildlife corridors were found associated with the site, it would not be necessary to employ habitat protective measures during the operational phase of the project. There are, however, some aspects of the project that would be of additive value insofar as wildlife habitat is concerned.

As set forth in the AIP, approximately 1,189 acres of forested land on the Big Indian parcel have been placed in public ownership to be added to the Forest Preserve thus protecting wildlife habitat from any future impacts.

Approximately 203 acres known as the Adelstein parcel located in the western part of the project site were placed in a Conservation Easement granted to New York City. This Conservation Easement protects wildlife habitat.

Overall, the SDEIS project site totals 739 acres. Of this total amount, 506 acres (which includes the 203 acre Adelstein parcel) or nearly 70% of the project site, will remain undisturbed.

Under the modified project design in the SDEIS, direct impacts to wetlands have been completely avoided.

L. Human-Wildlife Interactions

Wildlife, when they become overabundant or when they inhabit areas in close proximity to people, can become a nuisance, can cause property damage, or can cause health and safety concerns

In the Catskills black bears are the species for which there is the most concern for negative human/wildlife interaction.

NYSDEC provides a list of measures that can be taken to reduce potential for negative interactions (<u>http://www.dec.ny.gov/animals/6995.html</u>) and those that are applicable to resort operations will be adopted as mitigation measures. These include the following.

- 1. Except for winter months, bird feeders will be prohibited.
- 2. Wherever feasible garbage containers shall be stored inside.
- 3. Wherever it is unavoidable to have dumpsters located inside, dumpsters must be equipped with lids that can be "locked" to prevent unintended opening.
- 4. Clean garbage cans and other refuse containers frequently with ammonia, bleach or Lysol.
- 5. Turn off kitchen exhaust fans that vent to the outside when not in use. Make sure the vent screens are cleaned regularly.

3.5 Traffic

A. Traffic Impact Study and Bus Operations

The traffic impact study is in Appendix 11 of the SDEIS.

Based on the results of this *Traffic Impact Study* completed for the proposed *Belleayre Resort at Catskill Park*, the following conclusions and recommendations are offered:

1. Shuttle buses will play a role in reducing the trips from the development. In the winter the resort will shuttle skiers to and from the BMSC and year round shuttles will be provided between the resorts and the Wilderness Activity Center. Based on a review of the expected site operations, it is estimated that 60% of the trips generated by the resorts during the winter peak will be shared trips between the resort and the ski center. Of the shared trips it is estimated that 90% will use the shuttle system or ski-in/ski-out services. Therefore, the *Belleayre Resort at Catskill Park* project will generate approximately 168 new trips during the Saturday PM peak hour.

- 2. A review of the accident history data indicates that there are no critical accident locations in the vicinity of the project site on the study area roadways and intersections. No accident related mitigation is required for the project.
- The level of service analysis indicates that the unsignalized study area intersections on 3. NY Route 28 at NY Route 214, NY Route 42, CR 47, and Main Street and the CR 49A/Gunnison Road/Belleavre Lower Driveway intersection will operate at poor levels on the minor street approaches during No-Build conditions and will continue to operate similarly after construction of the proposed development. However, a review of the minor street v/c ratios indicate that while these approaches may experience longer delays during the Saturday PM peak hour, they still provide adequate capacity. The delay experienced during the Saturday PM peak hour is mainly reflective of the through volumes on NY Route 28 and CR 49A and is generally considered an acceptable operating condition since the traffic volumes reflect peak seasonal operating conditions. In addition, a review of the peak hour traffic signal warrant presented in the National MUTCD indicates that these intersections do not meet the traffic volume criteria for the installation of a traffic signal during peak operating conditions of the BMSC and the Belleavre Resort at Catskill Park. It is noted that the vehicle delays experienced on the side streets are expected to be much less during off-peak seasons and off-peak times of day. Therefore, no capacity related mitigation is recommended at these intersections.

The level of service analysis indicates that the unsignalized NY Route 28/CR 49A/Owl Nest Road intersection will operate at poor levels of service on the minor street approaches during No-Build conditions and will continue to operate similarly after construction of the proposed development. Due to the high turn volumes traveling to and from NY Route 28 and CR 49A, it was determined that a westbound left-turn lane on NY Route 28 and a northbound right-turn lane on CR 49A is warranted for No-Build conditions. In addition, a review of the National MUTCD indicates that the peak hour signal warrant would be met for No-Build conditions during peak winter conditions and that a three-phase traffic signal should be installed at this intersection. It is anticipated that the traffic signal would be fully operational during the winter months and may be able to operate on flash during off-peak spring/summer/fall months. This intersection will operate adequately during the Saturday PM peak hour for No-Build and Build conditions after the installation of a traffic signal. The above improvements are warranted for the No-Build condition prior to the development of the proposed project and should therefore be completed before the project opening date of 2015. Since the combination of the Belleayre Ski Center UMP and the proposed resort project will result in the volume increases that meet the warrant criteria for the installation of a traffic signal and geometric improvements, the Applicant has committed to a fair share contribution towards the improvements at this intersection as stated in the September 2007 Agreement in Principle.

- 4. The level of service analysis indicates that the Upper Access Driveway for the *Wildacres Resort* and the *Highmount Spa Resort* Driveway intersections on CR 49A will operate adequately during the peak hours as unsignalized intersections. The *Front 9 Village* driveway on CR 49A will operate with vehicle delays of approximately one minute on the driveway approach during the peak hour as an unsignalized intersection. It is recommended that these intersections consist of a single lane on each approach for shared travel movements with the site access road approaches operating under stop-sign control.
- 5. As part of the Wildacres Resort, a fourth leg will be constructed opposite the westbound Belleavre Upper Driveway approach at its intersection with CR 49A. The level of service analysis indicates that the new eastbound Wildacres Main Access Driveway approach will operate at a LOS F since movements from this intersection will mainly consist of left-turns who have to yield to through traffic on CR 49A and to the high number of westbound right-turns associated with the skiers exiting the BMSC. A review of the peak hour traffic signal warrant criteria presented in the National MUTCD indicates that this intersection does not meet the traffic volume criteria for the installation of a traffic signal during peak operating conditions. It is expected that the LOS F experienced during the winter weekend conditions would be short-term and it is therefore recommended that the intersection be controlled with stop signs on the eastbound and westbound approaches. As a result of sight distance limitations, it is recommended that CR 49A be realigned and regraded vertically at this intersection. To better accommodate the vehicles entering the ski center and resort from CR 49A, it is recommended that leftturn lanes be constructed on CR 49A at this intersection as part of the roadway improvements.
- 6. A qualitative intersection evaluation at the intersections of NY Route 28/ Friendship Road and Main Street/Bonnieview Avenue/Academy Street indicates that these intersections will operate adequately after full development of the proposed project. No mitigation is necessary.
- 7. The results of the intersection sight distance evaluation indicate that vegetation clearing and embankment grading is necessary to provide adequate sight lines for the Highmount Spa Resort Driveway intersections and at the Wildacres Upper Access Driveway. The results of the intersection sight distance evaluation also indicate that vegetation clearing, embankment grading, and the installation of an intersection warning sign is necessary for the Wildacres Front 9 Village Driveway. It is also recommended that the vertical curve on CR 49A be modified and that the road be realigned in front of the Wildacres Resort Main Access Driveway in order to provide adequate stopping sight distance and improve the intersection sight distance. This is essential since an at grade pedestrian crossing is proposed as part of the site plan on the south side of the intersection which will allow skiers from the Wildacres Resort to cross CR 49A and access a new ski lift proposed on the opposite side of the road. The results of the intersection sight distance evaluation also indicate that the existing Wilderness Activity Center Driveway should be moved to an alternative driveway located approximately 300-feet to the south or access restrictions be placed at this intersection to eliminate movements with inadequate sight distance.

The above analysis indicates that the proposed improvements for the *Belleayre Resort at Catskill Park* project will mitigate impacts to the operation of the study area intersections.

The Traffic Impact Study included in Appendix 11 supersedes the previous traffic analyses and supplemental addendums prepared and submitted into the record in 2002, 2003 and 2004. Since these initial studies, the proposal has changed in several ways as described previously in the SDEIS. The Big Indian Plateau resort located off of NY Route 28 in the vicinity of Friendship Road has been removed from the proposal. Some of the project elements previously proposed for Big Indian have been relocated to Highmount, replacing the previously proposed 21-lot subdivision. Overall, the proposed resort has been reduced in size with 82 fewer units, the removal of 21 single family homes, and removal of an 18-hole golf course.

At the time of the previous studies, the BMSC was at the end of its existing UMP timeframe. The BMSC UMP and its accompanying DEIS (see Part A) has been updated to, among other things, plan for the growing number of users at the facility. The updated BMSC UMP outlines the specific growth at the ski center. Due to the interaction of the ski center and the proposed resort, a combined scoping document for the purposes of the environmental review was prepared and followed in the updated study of the site. The Applicant has coordinated with the NYSDEC and their consultants in order to better define the growth and interaction between BMSC and the resort as it relates to traffic generation. The previous study was based on a more generic growth expected at BMSC established after review of historical traffic volume data and ski trends in the study corridor. The current study is based on site specific trip generation provided by NYSDEC for the BMSC.

An extensive study of seasonal traffic in the study area was undertaken as part of the initial analysis of the site in 2002. It is typical for seasonal factors to be utilized to factor raw traffic data up or down to represent "average" volume conditions. Due to the extreme seasonal nature of the study area, the scope of this study was defined to analyze a "worst case" condition in the study area. The analysis presented in the initial DEIS included a wintertime AM and PM hour analysis, fall Friday PM and Sunday PM peak hour analysis, and a general assessment of summer traffic volumes. Of the four seasons assessed, the wintertime Saturday afternoon peak was determined to be the worst case condition and was the basis of the detailed analysis and for the improvements recommended as part of the project. In general, a comparison of traffic volumes indicates that the January traffic volumes are approximately 1.8 times higher than October volumes. A further comparison of weekend peak hour traffic volumes on NY Route 28 from 2004 illustrates the peak conditions occur during ski season consistent to the peak analyzed in the traffic study.

Month	Peak Weekend PM Peak Hour Volumes					
	Eastbound	Westbound	Total			
January 2004	839	186	1,025			
April 2004	258	108	366			
May 2004	215	133	348			
July 2004	296	168	464			
August 2004	279	202	481			

The changes in the proposed project have resulted in traffic related mitigation consistent with the initial proposal with the exception of the removal of the proposed westbound left-turn lane on NY Route 28 at Friendship Road. This improvement is no longer required with the removal of the Big Indian Plateau resort.

B. County Route 49A Conditions and Capacity

Existing Roadway Segments

County Road 49A (CR 49A) or Galli Curci Road will serve as the main access route for Wildacres Resort, Highmount Spa Resort (together referenced as the "Resort") and the expanded Belleavre Mountain Ski Center (BMSC). The existing roadway currently serves traffic to the BMSC and private residences along the project corridor. The "lower" section of CR 49A, between New York Route 28 and the BMSC Main Access Driveway consists of two 11ft travel lanes with 2ft shoulders and is in good condition. This "lower" section currently has a higher volume of traffic, since the main traffic generator is the existing BMSC. Past this point, the "upper" section sees a drop in volume. This trend will continue with the addition of the Wildacres Resort entrance across from the current BMSC Main Access Driveway. Once you pass this intersection on CR 49A, the "upper" section of the roadway narrows noticeably with sections of poor pavement condition. Vehicles would need to be traveling as slow as 20–25mph to have adequate horizontal and vertical sight distances around the curves. Sections of the roadway are steep and some limited areas have a pavement width of only 16ft. Existing ditches and cleared areas are prevalent along 49A and help define the transportation corridor that exists. North of the proposed Highmount Resort area and the Wilderness Recreation Area, the lands east of 49A are State Forest Land.

Design Criteria

County Road 49A

New York State classifies CR 49A as a rural minor collector. In consideration of the existing terrain, topography and proposed resort style development, *A Policy on Geometric Design of Highways and Streets* (2004) published by the American Association of State Highway and Transportation Officials (AASHTO Green Book), was referenced when determining the appropriate design criteria for 49A. Specifically, the criteria outlined in the AASHTO section on special purpose roads, as defined below, was applied.

AASHTO – Special Purpose Roads; page 404: "Roads serving recreational sites and areas are unique in that they are also part of the recreational experience. Design criteria ... meets the unusual demands on roads for access to, through, and within recreational sites, areas, and facilities for the complete enjoyment of the recreationist. The criteria are intended to protect and enhance the existing aesthetic, ecological, environmental, and cultural amenities that form the basis for distinguishing each particular recreational site or area. "

This definition is consistent with the intent of the Resort and County Road 49A.

New York Route 28

New York State classifies NY Route 28 as a rural arterial and a designated qualifying and access highway. Both the New York State Highway Design Manual (HDM) and the AASHTO Green Book were referenced when determining design criteria.

Table 3-5 Design Criteria Table							
Route No. and Name: County Road 49A		- Galli Curci Road	Functional Class:		Rural Minor Collector		
Project Type:			Design Classification (AASHTO Class)		Special Purpose Roads		
% T	rucks:	1 %		Terrain:		Mountainous	
ADT	Г:	1600 vpd (in seaso	on)	Truck Access Rte .:		No	
	Element	-	Standard Criteria	HDM/AASHTO § Reference	Existing Conditions		Proposed Conditions
1	Design Speed		40 mph ²²	-	55 n	nph	40 mph
2	Lane Width	Travel lane = Turning lane =	11 ft. 10 ft.	HDM Ex 2-5	8 ft. – 11 ft. NA		11 ft. 10 ft.
3	Shoulder Width (See Not	te 1)	2 ft.	AASHTO Ex 5-18	0 f	Ìt.	1 - 2ft ²³
4	Bridge Roadway Width:	Total = Lane = Left Shoulder = Right Shoulder =	Approach NA NA NA NA	2.7.3.1 D NYS Bridge Manual Section 2	NA		NA
5	Grade		12.0 % max	AASHTO Ex 5-15	16.4 %		14 %
6	Horizontal Curvature		444 ft.	HDM Ex 2-5	154 ft.		154 ft.
7	Superelevation Rate		8.0 %	HDM 2.7.3.1 G	8%		8%
8	Stopping Sight Distance (Horizontal and Vertical)		305 ft. min	HDM Ex 2-5 AASHTO Ex 5-13	127 ft. ²⁴		127 ft ²⁵
9	Horizontal Clearance		10 ft.	HDM 2.7.3.1 I AASHTO pg. 413	2 ft.		10 ft.
10	Vertical Clearance		16 ft. min	2.7.3.1 J NYS Bridge Manual	NA	4	NA
11	Pavement Cross Slope	Travel Lanes = Parking Lanes =	1.5 % to 2.0% 1.5% to 5.0%	2.7.3.1 K	Var	ies	Match Existing

²² Local Speed Limit Galli Curci Road (CR49A) Study #811-2371; File #51.22-80: "a 40mph regulatory speed limit is reasonable and appropriate for the existing geometrics and physical conditions on and adjacent to the roadway."

²³ AASHTO pg. 411: Under adverse terrain conditions, intermittent shoulder sections or turnouts may be suitable alternatives to continuous shoulders, particularly on lower functional roadway classes.

²⁴ Sag curve condition.

12	Rollover – between lanes = at edge of traveled way =	4.0% max 8.0% max	2.7.3.1 L	Varies	Match Existing
13	Structural Capacity Replace = Rehabilitation =	NA NA	2.7.3.1 M NYS Bridge Manual	NA	NA
14	Level of Service	NA	NA	NA	NA
15	Control Access	NA	NA	NA	NA
16	Pedestrian Accommodations	Comply with ADAAG ²⁵ and HDM Chap 18	2.7.3.1 N HDM Chp. 18	None	None
17	Median Width	NA	NA	NA	NA

Table 3-6 Design Criteria Table								
Route No. and Name: New York Route 2		28	Functional Class:		Rural Arterial			
Project Type:			Design Classification (AASHTO Class)		Rural Arterial			
% T1	rucks:	9 %		Terrain:		Rolling		
ADT	ſ:	3000 vpd		Truck Access Rte.:		Yes	Yes	
	Element		Standard Criteria	HDM § Reference	Existing Conditions		Proposed Conditions	
1	Design Speed		60 mph	-	60 n	ıph	60 mph	
2	Lane Width		12 ft.	HDM Ex 2-3	12	ft.	12 ft.	
3	Shoulder Width		2 ft.	HDM Ex 2-3	8 f	t.	8 ft.	
4	Bridge Roadway Width:	Total = Lane = Left Shoulder = Right Shoulder =	Approach NA NA NA NA	2.7.3.1 D NYS Bridge Manual Section 2	NA		NA	
5	Grade		4 % max	HDM 2-3	2 %		2 %	
6	Horizontal Curvature		1200 ft.	HDM Ex 2-5	2935 ft.		2935 ft.	
7	Superelevation Rate		8.0 %	HDM 2.7.2.1 G	8%		8%	
8	Stopping Sight Distance (Horizontal and Vertical)		570 ft. min	HDM Ex 2-5	844	ft.	844 ft.	
9	Horizontal Clearance		10 ft.	HDM 2.7.2.1 I	10 ft.		10 ft.	
10	Vertical Clearance		16 ft. min	2.7.2.1 J NYS Bridge Manual	NA		NA	
11	Pavement Cross Slope	Travel Lanes = Parking Lanes =	1.5 % to 2.0% 1.5% to 5.0%	2.7.2.1 K	Var	ies	Match Existing	
12	Rollover – at edge	between lanes = e of traveled way =	4.0% max 8.0% max	2.7.2.1 L	Var	ies	Match Existing	
13	Structural Capacity	Replace = Rehabilitation =	NA NA	2.7.3.1 M NYS Bridge Manual	NA	Ą	NA	
14	Level of Service		NA	NA	NA	4	NA	
15	Control Access		NA	NA	NA	4	NA	
16	Pedestrian Accommodatio	ons	Comply with ADAAG and HDM Chap 18	2.7.2.1 N HDM Chp. 18	No	ne	None	
17	Median Width		NA	NA	NA	4	NA	

²⁵ ADAAG – American Disabilities Act Accessibility Guidelines for Buildings and Facilities

Proposed Design

See Figures 3-14 through 3-19.

County Road 49A

As noted, CR 49A is classified by New York State as a rural minor collector and the AASHTO guidance for a Special Purpose Road has been followed. Using that criteria, there are existing non-standard features along the roadway such as maximum grade, roadway width, and sight distances. To mitigate these concerns, 4,604ft of box out widening is proposed to widen the roadway to two 11ft travel lanes with 2ft shoulders (consistent with "lower" 49A) to make it safe for two larger vehicles to pass each other going opposite directions. Full depth reconstruction is proposed for 670ft at the top of the hill near the Highmount Spa Resort, where existing conditions have a non-standard horizontal curve, non-standard vertical crest stopping sight distance and a grade of 16.4%. The full depth reconstruction improves the following:

- brings the vertical crest stopping sight distance up to standard in front of the private driveway on the corner
- lowers the grade to 14%
- while it does not change the horizontal curvature, it does improve the superelevation to alleviate some of the negative side friction.

Full depth reconstruction is also proposed for 2200ft near the intersection of the BMSC Main Access Driveway and the proposed entrance to the Wildacres Resort. This section will be widened to include two left hand turn lanes. The new alignment will improve the following:

- combine two smaller horizontal curves near the intersection into one larger radius
- improve a third non-standard radius
- lower the grade from 12.9% to 8.8%
- improve the sight distance by eliminating two nonstandard vertical crest curves and a non-standard sag curve.

Existing drainage is mainly sheet flow and roadside ditches. The ditch depths vary and many are eroding. Drainage along the CR 49A corridor will be conveyed by roadside ditches and concrete gutter sections to existing cross culverts. The culverts will be extended where feasible to accommodate road widening and replaced where necessary. The horizontal and vertical alignment of 49A is adjusted where necessary to contain grading work within the limits of the existing 49A corridor and avoid impacts to Private property.

The steep grades along CR 49A require guide rail along most of the northern side of the roadway. In most places the cuts and fills to tie in the proposed grading are a 1:2 to 1:1.5, which is consistent with the existing terrain. In many places rock excavation might make it possible to steepen these grades and reduce the roadway footprint once geotechnical boring information is available.

One retaining wall is proposed on CR 49A near the Wilderness Activity Center to the east near the proposed water tower. It would be 325ft long and an average of 6ft tall wall. This wall would likely be segmental precast concrete wall systems.

The existing driveway to the Wilderness Activity Center is located near a 154ft horizontal curve that cannot feasibly be brought up to a standard value. The lack of adequate sight distance requires the driveway to be relocated approximately 300ft west, further from the curve, or limit left turn movements in and out of the driveway.

Clearing and grubbing, signing and pavement markings, topsoil and seed, driveway tie-ins and relocating utilities are also included in the proposed design.

County Road 49A/New York Route 28

The existing intersection geometry includes one lane approaches from each direction and an auxiliary right turn lane on NY Route 28 westbound. To accommodate the increased traffic volume on CR 49A, a left-turn from NY Route 28 for westbound travel and a right-turn lane from CR 49A is proposed. On NY Route 28, approximately 1,270ft of box out widening is proposed to provide an additional 12ft wide, 200ft long left-turn lane and maintain the existing 12ft wide lanes and 8ft shoulders. Proposed on CR 49A is 600ft of box out widening to provide an additional 10ft wide, 200ft long right-turn lane to complement the existing 11ft travel lanes and 2ft shoulders. The widening is entirely on the east side of CR 49A to avoid impacting existing buildings and businesses on the west. The State Forest Lands to the southeast of this roadwork will also be avoided. No existing non-standard sight distances exist or will be created at the intersection.

A new traffic signal, guiderail, culvert replacement, clearing and grubbing, signing and striping, topsoil and seed, side street and driveway tie-ins are also included in the proposed design.

Schedule and Traffic Management During Road Work

Rough widening of the upper portion of County Route 49A will occur in the earliest stages of the project in order to provide heavy equipment access to Highmount site during construction. Final top course will wait for substantial construction completion at Highmount. This would avoid having the construction vehicles driving on the "new" roadway.

The improvements along the upper portion of County Route 49A will likely require approximately three months to complete. Improvements to the upper portion of County Route 49A would be more difficult, of a longer duration, and more expensive to do without a detour. Dry Brook Road and Todd Mountain Road to Fleischmanns Heights Road would be adequate detour routes for local traffic during the approximately 3 months it will take to complete this work. The detour would not necessarily be needed for the entire time. The Contractor would still need to provide access to the few residents along County Route 49A within the work zone. The road improvements along County Route 49A near the BMSC upper driveway and the Wildacres Hotel will take approximately two months to complete. Construction work would likely occur in the spring/summer of either the second or third year of construction, and would be completed in time for the seasonal opening of BMSC and the opening of the Wildacres Hotel. The BMSC upper driveway/Wildacres Hotel entrance work can be performed with lane closures only and no need for detours.

The intersection improvement work at the County Route 49A and NY Route 28 intersection should be completed in approximately three months. The timing of this work will be determined in conjunction with NYSDOT. The County Route 49 and Route 28 intersection improvements can be performed with lane closures.

C. Air Quality Study

The air quality study is in Appendix 24 of the SDEIS and is discussed in section 3.12, Air Quality. This study found that the Project will not cause any adverse impact at the microscale and mesoscale levels. See section 3.12.

D. Shuttle Buses

The use of shuttle buses is described in subsection A above, and in more detail in Section 3 of the TIS in Appendix 11.

E. County Route 49A Improvements

See subsection B. above and the Traffic Impact Study in Appendix 11.

F. Construction Traffic

Construction traffic will access the project via NY Route 28 and County Route 49A. For the start of Phase 1 Wildacres construction traffic will come off Route 49A, onto Gunnison Road, and into the site. For the later part of Phase 1 and thereafter traffic will enter through this same route but will also have the upper entrance near the hotel as an access/egress location. Phase 3 construction at Wildacres will utilize the Front-9 Village access road directly off of County Route 49A. Essentially all construction traffic for Highmount will be from Route 28 and Route 49A. All construction vehicles will use this route, but it is possible that some locally residing workers might come to the site from the south via Route 49A.

Parking for construction worker vehicles will occur in construction staging/administration areas around the two hotels. At Wildacres this will be in the area of the golf clubhouse, adjacent parking lot, driving range tees and nearby detached lodging units. The area around the Front-9 Village may also be used if additional space is required. At Highmount this area will be below the hotel in the area of the first detached lodging units along the entrance driveway. The area to the left of the hotel proposed for additional detached units could also be used if additional space is required.

Estimations of construction truck traffic through project buildout are as follows.

Stage 1

- Years 1 and 2
- Approximately 9 month construction season.
- Assumed 5 days per week.
- Average of 53 truck trips per day.

Stages 2 and 3

- Years 3 through 7 (5 years duration)
- Approximately 9 month construction season
- Assumed 5 days per week
- Average of 10 truck trips per day

Stage 4

- Years 8 and 9
- Approximately 18 months total
- Assumed 5 days per week
- Average of 7 truck trips per day.

3.6 Visual Resources

The full visual impact assessment (VIA) for the SDEIS project is in Appendix 25.

A. Daytime Conditions and a Typical 5-Mile Study Area

See Part 1 and Part 4 of Appendix 25. Part 1 of the VIA in Appendix 25 analyzes the AIP Project Plan Alternative and Part 4 analyzes the preferred alternative – the Modified Project Plan.

Visual impact is assessed in terms of the anticipated change in visual resources, including whether there would be a change in character or quality of the view with respect to significant scenic and aesthetic resources.

This assessment analyzed the changes in views that could be expected as a result of the project from 10 locations representative of the viewshed in the five-mile study area as determined by the Lead Agency. These views included local roadways, Forest Preserve lands, a Town Park, and a building on the National Register of Historic Places. The anticipated changes to the viewshed as a result of the project are provided in detail in Appendix 25.

The degree of change is a result of a number of factors including the context of the existing views and mitigation measures integrated into the project design that are intended to reduce the potential for visual impacts.

All of the existing views analyzed have some existing development in them, with some having more than others, and the type varying between viewpoints. Views, for the most part, are from public roads that have existing foreground development between the receptor location and the Project site. From the north of Route 28 looking south foreground and middleground views all have BMSC, Highmount, and the cell phone tower protruding above the ridgeline at Highmount in the views that include the project site. The one view facing north across Route 28, Cathedral Glen hiking trail, has road corridor, residential and recreational development in the view.

Mitigation measures associated with the design of the Modified Project also reduce visual impact to minor levels.. These include eliminating the Big Indian development, designing in accordance with the AIP, clustering development even tighter than what was required in the AIP, relocating the upper elevation units at Highmount in the AIP plan, using smaller building footprints than what were allowed in the AIP, eliminating large areas of clearing needed for surface parking by placing parking underground within buildings, keeping all building heights within limits set by local land use regulations, specifying earth tone colors for exterior finishes, and preserving nearly 70% of the project site in its current condition.

The lack of impact also involves the limited number of people would be affected by any changes in views. The busiest public road in the area is NY Route 28, and the project is only potentially visible from one location on this road. In order to get the view into the site from near Koop Road a driver and any passengers would have to look at an angle to the direction of travel while driving on a road posted at 55 mph and while going around a curve. All of the other road views assessed in the VIA have a very limited number of users, including some views from unpaved roads.

The project will not be visible from any Forest Preserve lands classified as Wilderness. The project's visibility from Wild Forest areas are limited due to vegetation, topography, distance, and the mitigation measures listed above.

There are no other significant resources of statewide significance located in the study area that could be affected by the project.

B. Nighttime Conditions and a Typical 5-mile Study Area

See Part 2 of the VIA in Appendix 25

The SDEIS also assesses the effect of the project outdoor lighting on project visibility at night by analyzing Outdoor Site-Lighting Performance (OSP) or "Glow". The OSP analysis showed that the proposed outdoor lighting at the Resort will likely produce more outdoor light leaving the boundaries of the site in winter compared to summer, due to reflective snow on the ground. The new outdoor lighting at the Resort will probably emit more light than the adjacent old lighting at BMSC. However, when comparing the ratios of light delivered to the ground plane and that leaving the site, the proposed resort lighting is expected to perform better than the existing ski facility. Figure 3-20 below illustrates OSP glow illuminance (left), and Ratio of glow illuminance to ground illuminance (right).



Figure 3-20 Night Lighting Glow and Illuminance

While glow will be greater at the Resort than the BMSC, these levels are all very low.

All the conditions compare favorably to the recommended limit (0.09 fc) that the Rensselaer Polytechnic Institute Lighting Research Center proposed in their 2008 OSP publication, for the most rural locations after a curfew time. While many lumens will be emitted, the flux density is not excessive in any of these conditions because the sizes of the sites are large and many areas have no outdoor lighting at all. A curfew time of one hour after sunset has been established for the lighting at the project tennis courts. An automatic timer will shut off the tennis court lights in order to mitigate potential impacts.

The OPS analysis that was conducted in accordance with the final scoping document did not have an indoor lighting component. In the lighting industry, expert assessments of potential impacts relating to sky glow, like the one done for this SDEIS, focus on outdoor light sources. The Applicant acknowledges that the proposed project will introduce new buildings with indoor lighting, and that this indoor lighting may be visible at night. However, because there is not a reliable methodology to simulate this indoor lighting, unlike the established OSP analysis methodology employed for this SDEIS, it is not possible to accurately portray how this indoor lighting may appear. Furthermore, while the OSP analysis done for the SDEIS was based on specific site lighting plans (see drawings L6.00 through L6.09), the types and locations of internal building lights has not been specified at this time, and likely will not be until construction drawings are prepared. While it is not possible to accurately portray how indoor lighting may appear, the Applicant has adopted measures to mitigate potential impacts from interior lighting. See section 3.6(D) below and Appendix 25.

C. Daytime Conditions Outside the 5-mile Study Area

See Part 3 of the VIA in Appendix 25. For the 22 viewpoints identified by NYSDEC, there are no views into the project from 19 of the viewpoints. Views are blocked by topography and/or vegetation. The project site is barely visible from the fire tower on Hunter Mountain which is 12 miles away. The project is not discernible in the rendering of the proposed condition. Parts of the project site are also visible in a very limited view from Bearpen Mountain that is 9 miles from the site. The project is not discernible in the rendering of the prosed condition. The third

location, Halcott Mountain is actually within five miles, and the view from this trail-less mountain is highly screened by vegetation. See Appendix 25 for more detailed descriptions and graphics.

D. Mitigation Measures

The VIA in Appendix 25 provides a detailed description of the measures employed to mitigate the visual impacts of the project. These measures included the following categories.

- Project components and their locations
- Building footprints and heights
- Clustering development
- Green building architecture at Highmount
- Underground Parking
- Building colors and glass
- Site clearing and Landscaping
- Limits on night lighting of tennis courts.
- Enhanced indoor lighting controls.

3.7 Noise

Noise impact assessments were made for project construction, project operations (other than traffic), and traffic associated with the project,

A., B. & C. Construction and Operational Noise

See Appendix 20.

Figure 3-21 illustrates the locations of the noise receptors discussed below.

It is important to note that sound levels estimated in this assessment are conservatively based. Construction noise impacts were evaluated at the work areas nearest to the receptor, which represents a worst-case condition. Further, estimates used sound levels of typical equipment that maybe higher that sound from lower-noise equipment options ultimately selected for the Project. Since Project sound levels from actual Project construction and operation may be lower that estimated herein, reduced noise levels may be achieved through alternate mitigation methods such as selection of lower-noise equipment, and need for mitigative barriers may in some cases be reduced or eliminated.

The noise assessment consisted of: 1) an ambient sound survey, 2) estimation of predicted sound levels from Project construction and operation, and 3) evaluation of potential adverse noise impacts. Where adverse noise impacts were predicted, noise mitigation was proposed to address the impact.

The ambient sound survey was conducted in February 2001 for the original Project DEIS to determine existing ambient sound levels at the nearest residential receptors to the Project. A second sound survey was conducted in May 2007 to determine existing ambient sound levels at the nearest State Forest Preserve land. Average sound levels for each area were determined to be characteristic of a typical rural environment. Results were used with estimated Project sound levels from construction and operation to determine the predicted noise impact from the Project at each receptor based on the increase in ambient sound level.

Project construction sound levels were estimated and noise impacts were assessed for construction of the following: access roads, golf course, and buildings/facilities. Rock crushing to support construction was also assessed. Construction noise impact assessment results and proposed mitigation are summarized as follows:

- Access Road Unmitigated sound for a limited time period would likely impact receptors W-1 and W-7, and W-8 under worst-case conditions when construction is within 500 feet of receptors only. Proposed mitigation consists of minimizing on-site equipment usage when within 500 feet of residences. Additional mitigation of access road construction, such as the construction of barriers, was not deemed practical due to the local topography and the additional construction sound that would result during barrier construction compared with the limited duration of the noise impacts.
- Highmount Golf Club Unmitigated sound was, at times, expected to impact residences at receptors W-7, W-11, and to a lesser degree other nearby receptors with a line-of-sight view of construction. These impacts are only anticipated under the worst-case condition when golf course construction activities are near receptors, and not predicted under more typical construction distances. Mitigation of noise can be accomplished within 500 feet of receptors by minimizing equipment use and by placing temporary earthen berms when construction is anticipated for an extended period. Mitigation of noise when over 500 feet of receptors can be accomplished by maintaining vegetative buffers between the construction and the receptor, as feasible.
- Building and Facility Construction and Renovation Unmitigated sound from construction of the Front-9 Village and Clubhouse, Golf Maintenance Facility, and the Highmount Hotel, Lodge and Detached Lodging Units may at times result in noise impact at receptors W-11, W-6 and W-1, respectively. Proposed mitigation consisted of minimizing on-site equipment during excavation and finishing aspects of construction. In addition, added control of sound during Front-9 Clubhouse and Highmount Lodge construction can be accomplished when needed by placing a temporary line-of-sight barrier between the construction equipment and receptors W-11 and W-1, respectively.
- Rock Crushing at Highmount Unmitigated sound from rock crushing near the Highmount Hotel during construction Year 1 was predicted to result in potential noise impacts at receptor W-1. As a result, mitigation was proposed consisting of constructing a barrier between the rock crusher and W-1 which is predicted to control the temporary rock crushing noise at W-1 to below significance.

Project operation noise levels and impacts were assessed for both the daytime and nighttime considering all major Project noise sources, continuous and non-continuous. In addition, nighttime continuous sound levels were also assessed considering only continuous Project noise sources. Major continuous noise sources consist of heating, cooling and ventilation system (HVAC) for the hotels and major facility buildings, and hotel room heater/air conditioners.
Major non-continuous (intermittent or time-varying) noise sources consisted of on-site traffic, golf course maintenance, and new ski slope snowmaking operations. Operation noise impact assessment results and proposed mitigations are summarized as follows:

- Nighttime Sound Levels; Continuous Sources Without mitigation, Project operation of continuous sound sources are predicted to result in potential noise impacts at receptors W-1, W-3, W-4, W-5, and W-11 due to HVAC noise. Mitigative options to reduce HVAC sound include specifying lower-noise HVAC units, or placing sound shielding barriers around each HVAC units. A combination of lower-noise HVACs and shielding is also an option, since HVAC systems with lower noise specifications may reduce or eliminate need for sound shielding.
- Nighttime Sound Levels; Continuous and Non-continuous Sources Without mitigation, Project nighttime operation of intermittent or time-varying sound sources (including continuous sound sources) is predicted to result in potential noise impacts at receptor W-1 due to snowmaking equipment operation. Mitigation of snowmaking equipment noise at night can be accomplished by curtailing nighttime operation (no operation between 10 PM and 7 AM) of the six north-most snowmakers on the west slope. Snowmaking equipment at these six locations would only be operated during the daytime (7 AM to 10 PM).
- Daytime Sound Levels Project daytime operation, assuming mitigation of HVAC sound as proposed above, is predicted to increase ambient sound levels by 2 dBA or less at all receptors which indicates no adverse noise impact. As a result, no further mitigation to reduce daytime sound levels was proposed.

<u>Blasting</u>

Instantaneous sound levels from typical construction blasting has been documented as approximately 93 to 94 dBA at a distance of 50 feet (Hoover and Keith, 1981), which is only a few decibels higher than the expected reference sound level from several of the Project construction activities (see Appendix 20). In comparison with other construction sound, the sound from blasting will be brief and relatively infrequent.

The nearest blasting to receptors is expected to occur for the underground parking area of the Wildacres Hotel, approximately 1500 feet south of Receptor W-7. W-7 will be shielded from the blast by terrain and woods, and the brief sound level of the blast at R7 is estimated to be only 46 dBA, which is 4 dBA below the existing ambient daytime average sound level. Therefore, blasting for this project is not expected to significantly contribute to overall Project construction noise.

D. Project- Related Traffic Noise

The Noise Impact Assessment associated with project traffic is in Appendix 26. A traffic noise study was completed to quantify the effect of the increase in traffic volumes on traffic noise in the study area. This noise study compares the potential changes in the noise environment due to the project and compares them to the Codes of the Towns of Shandaken and Middletown, and to the New York State Department of Environmental Conservation Program Policy; "Assessing and Mitigating Noise Impacts" (February 2001, NYSDEC Noise Policy). Traffic related noise levels are expected to increase to a maximum of three (3) dBA along CR 49A during the ski season

Saturday peak one-hour traffic period. These predicted noise level increases will be gradual and slowly increase until full build-out. They also fall within the range of barely noticeable to most people and remain below the FHWA noise abatement criteria for the existing land use. For these reasons, the increase in traffic volumes along effected roadways due to the proposed project will not create a noise impact, therefore, no mitigation measures are necessary. Increases in traffic noise during non-peak periods, which will include resort guests driving to and from the resort, resort shuttles traveling between different areas of the resort (described in Appendix 11), etc. will be less than the three (3) dBA calculated for peak traffic conditions.

E. Mitigation Measures

Crossroads shall establish and comply with the following noise complaint procedures:

- a) During the first two years of construction, Crossroads shall maintain a phone complaint line during its hours of operation. Upon receipt of a complaint regarding noise allegedly generated by blasting operations, rock crushing and cement plant equipment on its construction site(s), whether written or oral, the Permittee shall enter a record of the complaint in a log maintained for that purpose.
- b) Within two hours of receipt of the complaint, Crossroads shall investigate the alleged noise problem and respond to the person who complained.
- c) In the event that Crossroads in its sole discretion determines that corrective action is required, such corrective action shall be promptly implemented and a note of such action shall be entered in the log.
- d) If Crossroads cannot promptly identify and correct the cause of the noise complained of, the person who complained shall be invited to inspect the site, with a company escort, to assist in identifying the source of the problem. Upon completion of any corrective action, the person who complained shall be invited to inspect the site, with a company escort, to observe the corrective action.
- e) The complaint log shall be kept at the site, and shall be available for inspection by the DEC.
- f) This complaint procedure shall not limit the other remedies of DEC, or any other person or organization with regard to noise conditions at or around the Crossroads site.

In addition to the noise complaint mitigation measures described above, the Applicant will also evaluate potential noise impacts prior to initiating construction in accordance with the following protocol.

Mitigation may be necessary for major noise-producing construction and/or post-construction activities, operations, or equipment—hereinafter referred to as "*noise generators*." For construction noise generators, each location/aspect/activity/equipment may require consideration e.g. Wildacres/West Village/clearing/dozer. Mitigation may consist of any or all of: noise barriers (berms and/or walls), site re-grading and structure/activity relocation or reorientation, operational changes or limitations, equipment substitution, operating duration or time changes.

Noise generators were evaluated in the Belleayre Resort (Project) DEIS and SDEIS, and Project activities were identified where noise generators may require mitigation. The final project and construction plans will be compared to those evaluated in the DEIS/SDEIS and any significant additions/deletions regarding noise generators identified. For those Project activities specified in the DEIS or SDEIS or subsequently identified in the final plans as having noise generators requiring mitigation (whether construction and/or post-construction), a Mitigation Plan Report(s) should be prepared by the developer after the subject noise generator's location, operation, or components have been finalized where changes arise as the project and construction plans are finalized that allow refinement in noise analysis that may lead to results substantively different than in the DEIS or SDEIS. More than one mitigation plan may be submitted as practical to address phased starts in construction and/or project operation that cannot be assessed by an initial mitigation plan. The Mitigation Plan Report(s) should be submitted to the appropriate reviewing agency within 45 days prior to the noise generator installation/activation. The Mitigation Plan Report(s) should:

- 1. Identify subject noise generator.
- 2. Document noise generator or group of noise generators: hours of operation—weekdays and weekends, duration of operations (such as for construction activity), times of year.
- 3. Describe dominant noise source and/or generation mechanisms qualitatively.
- 4. Identify appropriate noise metric (e.g., maximum sound level, LAmax; equivalent sound level, LAeq; 10th percentile sound level, L10) for describing noise exposures—may differ for different noise generators. Metrics and their use will be consistent with those recommended by NYSDEC Program Policy document "Assessing and Mitigating Noise Impacts" (February, 2001).
- 5. Define appropriate noise generator mitigation goal in terms of sound level noise metric (not *change* in exposure magnitude due to mitigation). A specific total sound level metric goal (noise generator sound level plus the existing ambient sound level for that metric, in dBA) will be established for each Project activity requiring mitigation, utilizing NYSDEC noise assessment guidance relating impact to increases in existing sound level. Existing ambient sound levels will be based on those previously measured for the Project for the DEIS and SDEIS. Additional ambient measurements may be desirable to allow assessments for new receptor locations per Item 6.
- 6. The now-existing noise receptors should be reexamined with respect to those evaluated in the DEIS/SDEIS and any significant additions/deletions regarding receptors identified. Additional receptors necessary to assess any changes is plans should also be examined. Identify representative worst-case receptor locations—individual specific noise-sensitive locations (e.g., dwelling, school, location where quiet is of special importance) from the receptors identified in the Project DEIS and SDEIS and any others necessary due to introduced receptors or otherwise necessary to assure significant noise impacts are mitigated. The use of noise contours is discouraged.

- 7. Tabulate un-mitigated noise exposure magnitudes at receptors near the Project activity and requiring noise mitigation. Noise levels at receptors farther from the activity and not requiring mitigation need not be tabulated.
- 8. Document supporting noise measurements and/or prediction methodology and reference data for unmitigated sound levels and mitigation design.
- 9. Provide detailed description/specification of proposed mitigation. For noise mitigation via barriers, documentation must include—identification of source-receptor paths and barrier locations, barrier height, top elevation, length, and position.
- 10. For noise generator mitigation by operational limitations, define procedures for problem reporting and response.
- 11. Tabulate mitigated noise exposure magnitudes (total sound levels of the appropriate noise metric) at all receptors.
- 12. Provide any additional situational or relative information necessary for evaluation of proposed mitigation and potential impact.

3.8 Land Use and Planning

3.8.1 Current Land Uses

A. Project Site

1. Project Site Existing Land Uses

Existing project site land uses were described in the DEIS in Section 2.2, including Figure 2-4, and in DEIS Section 3.8.1. Except for the discontinued use of the Wildacres Hotel, uses of the project site have not changed since the DEIS.

2. Project Site Zoning

Project site zoning was discussed in DEIS Section 1.4.1, including Figures 1-9 and 1-10. Zoning for the project site has not changed since the DEIS. The proposed project is permissible under both Towns' zoning regulations as special permit uses. It should be noted that the importance of tourism to the Town of Shandaken is demonstrated by the provision in the Zoning Ordinance which allows resorts, by special permit, in any zone in Shandaken.

- B. Adjacent Properties
 - 1. Adjacent Properties Existing Land Uses

Adjacent land uses were discussed in DEIS Section 3.8.2. There have been no significant changes to surrounding land uses subsequent to the DEIS.

2. Adjacent Properties Zoning

Zoning in both Shandaken and Middletown, including for surrounding lands, was discussed and illustrated in Appendix 26 of the DEIS. No changes to the zoning of surrounding lands have occurred since the DEIS.

- C. General Vicinity
 - 1. General Vicinity Existing Land Uses

Land uses in the general vicinity are described in section 3.8.2 of the SDEIS. Chapter 5 in Appendix 26 of the DEIS provided a detailed assessment of the Route 28 corridor, including land use and zoning. At the scale of this assessment (Route 28 corridor from Boiceville to Margaretville) there have not been significant changes to land use patterns since the preparation of the DEIS.

2. General Vicinity Zoning

See above.

D. Past Uses

Past uses of the site were discussed in the DEIS in sections 2.2 and 3.8.1, while past uses of the general vicinity were discussed in DEIS sections 1.3.1 and 3.8.2.

3.8.2 Land Use, Planning and Zoning

- A. Comprehensive Plans and Land Use Plans
 - 1. Shandaken Comprehensive Plan
 - a. Comprehensive Plan Goals

Subsequent to the DEIS, the Town of Shandaken adopted a Comprehensive Plan in 2005. The following 6 goals and objectives are contained in the Comprehensive Plan.

- (1) Protect and preserve the environmental, historical and cultural features and resources within the Town of Shandaken from harm, physical degradation and visual impacts.
- (2) Promote the economic development of the Town of Shandaken to ensure an acceptable standard of living for its residents.
- (3) Provide programs and laws to guide future development toward desired patterns within the Town of Shandaken.
- (4) Provide the infrastructure necessary to meet the other Comprehensive Plan goals and to meet the health safety and quality of life needs of the residents of Shandaken.
- (5) Be proactive in establishing regional partnerships to address issues that transcend the Town boundaries.
- (6) Develop community education and outreach programs to foster an understanding of key issues facing the Town and encourage public participation in developing effective solutions.

Goals 1, 2, and 3 are applicable to planning and development projects, while goals 4, 5 and 6 are more applicable to municipal actions to be taken to implement the Comprehensive Plan.

Goal 1: The Belleayre Resort project, in its original form and now in its modified form, has received the highest level of environmental scrutiny at the local, regional and State levels. Environmental planning for the project began in 1999 and is continuing some 13 years later. It is fair to say that the environmental review of the project has set precedent for environmental reviews of other projects, as has also been responsible to modifications of some regulations that have resulted in greater environmental protections.

In terms of being protective of historical and cultural features, the project, in its original form and its current modified form, has received confirmation from the New State Office of Parks Recreation and Historic Preservation, the agency that reviewed the project under the New York State Historic Preservation Act, that the project will have no adverse impacts.

The terms "harm" and "physical degradation" in goal 1 are somewhat ambiguous, but is fair to say that planning for a development of this scale, while at the same time preserving nearly 1,200 acres that will be added to the NYS Forest Preserve, placing over 200 acres in a conservation easement, and having an additional 500 acres within its boundaries that will remain undeveloped is protective of the lands in Shandaken and in Middletown.

The project is also protective of the visual environment as discussed and illustrated previously in section 3.6, Visual Resources. Even though the project is large in its size, it is not visually intrusive. In fact, with the exception of one very short section of road, the project will not even be visible when driving along the Route 28 corridor. The project will be visible from some relatively infrequently traveled roads, but even then views into the project are not drastically changed given the views that currently exist. The project will not be visible from any hamlets.

Goal 2: Section 3.9, Socioeconomics, that follows, goes into great detail of the economic benefits that the project will produce, including but not limited to, much-needed employment opportunities and the generation of revenues at not only the local level, but also at the county and State levels.

Goal 3: As discussed previously, the proposed project is consistent with the current zoning regulations in the Town of Shandaken.

b. Other Shandaken Comprehensive Plan Directives

The Comprehensive Plan has language that is specific to development of tourist destinations in the Route 28 corridor, and language regarding development on Highmount as a "privately owned mountain".

When addressing development of new tourist destinations in the Route 28 corridor the Comprehensive Plan states that "unless the nature of the specific use requires a site with unique features, tourist destination uses should be located in or adjacent to the hamlets."

Shandaken includes 12 hamlets (six delineated). The modified project site is located in/adjacent to the hamlet of Highmount, the westernmost hamlet in Shandaken. "Highmount, originally named Summit, began as an Ulster and Delaware Railroad stop and a few farmhouses, situated on the boundary between Ulster and Delaware Counties. Its fortunes changed in 1881 with the building of the Grand Hotel." "Outdoor recreation took hold during the 1940's with the opening of Belleayre and Highmount ski centers. Skiing is the hamlet's continuing attraction today." (Town of Shandaken website)

The Modified Project site is also unique from the standpoint of its large area and its adjacency to the BMSC, perhaps the largest developed parcel(s) in the town of Shandaken. BMSC is the town's largest recreational tourist destination in Shandaken, and the only recreational parcel on a mountaintop (Shandaken Comprehensive Plan). This last statement conflicts somewhat with the Route 28 Corridor Mapping that shows the adjacent old Highmount Ski Area as a recreational parcel.

The Comprehensive Plan describes Highmount as one of the mountains in Town as being under private ownership (the others being Rose and Balsam). The Plan then goes on to state that "any development occurring on the privately owned mountains must consider such things as visibility [see SDEIS section 3.6], erosion control [see SDEIS Sections 3.1 and 3.3] impacts on wildlife, significant ecological communities [see SDEIS Section 3.4] scenic vistas [see SDEIS Section 3.6] and other sensitive environmental resources" [see SDEIS section 3 and 4].

2. Middletown Comprehensive Plan

On December 13, 2011the Town of Middletown adopted its Comprehensive Plan. The following sets forth *the 10 goals* from that plan. Following each of the 10 goals are bulleted items that are recommendations from the Comprehensive Plan. Following the bulleted items are descriptions on how the project meets the goals and recommendations in the new Middletown Comprehensive Plan.

1. To preserve and extend the enjoyment of peace and tranquility of residents on their land and to provide an improved quality of life for the Town.

• Effectively use SEQRA to evaluate and mitigate impacts.

This SDEIS has been prepared under SEQRA, and the subsequent SEQRA process will provide opportunities for public review and comment on the project.

- Promote sustainable land use practices and energy efficient development.
- Encourage LEED standards for new development.

The Wildacres Resort, Highmount Spa Resort and detached lodging units will be designed and constructed with green building design elements set forth by the United States Green Buildings Council. Crossroads is committed to obtaining a Silver or higher rating under the Leadership in Energy and Environmental Design ("LEED") program, for the Wildacres Hotel, Highmount Hotel and Highmount Lodge building.

2. To conserve the land, water, forest, mineral, historic and scenic resources of the Town for the use and enjoyment of all its residents.

- Promote land uses that are consistent with the capacity of the land and other resources.
- Promote the protection of environmentally sensitive resources (wetlands, steep slopes, streams, stream corridors, floodplains, critical habitats, unfragmented forests and open spaces.
- Work to protect critical wildlife habitats when planning for future development.

The 203 acre conservation easement on the Adelstein parcel is located in the Town of Middletown. The Adelstein parcel contains wetlands, steep slopes, streams and forested lands.

Additional wildlife studies were prepared for this SDEIS. The findings of these studies were the same as those presented in the DEIS in that the project site does not contain any critical wildlife habitat.

• Minimize crossing of steep slopes with roads and driveways.

Access roads on slopes greater than 20% have essentially been eliminated under the Modified Project.

- Promote the protection of cultural and historic resources that contribute to the character and environment of Middletown, including scenic and historic resources.
- Evaluate new development impacts on historic resources within the Town during local reviews request NYSOPRHP review.

NYSOPRHP has been consulted throughout the process leading up to the issuance of this SDEIS, and has made a determination that the project will not have any adverse effects on historical or cultural resources. NYOPRHP will continue to be consulted as plans are advanced for the adaptive re-use of the historic Marlowe Mansion and the Leach Farm buildings.

• Site buildings below ridgelines so that they do not protrude above treetops and crest lines of hills as seen from public places and roads.

The Modified Project does not include the upper detached units at Highmount that were included in earlier versions of the project plans.

3. To prevent degradation of the quality of the surface and groundwater supply.

- Minimize impacts of stormwater runoff when land is developed.
- Reduce parking lot size and maintain pervious surfaces.
- Use low impact design stormwater control practices.

The project's stormwater management system has been designed in compliance with the 2010 update of the NYSDEC Stormwater Management Design Manual.

The amounts of impervious surfaces for the project are comparable to the lowest categories of imperviousness in the NYSDEC Stormwater Management Design Manual. Wildacres is less than 7% impervious and Highmount is less than 1% impervious. By comparison, agricultural lands are listed by NYSDEC as having an average of 2% impervious cover.

The project includes the use of green roofs, underground parking and other LID stormwater practices

4. To encourage the properly regulated development of housing, business, industry and community facilities according to a master plan of balanced use.

• Diversify commerce and industries in the area by promoting Middletown as an attractive destination for visitors, home occupations and new businesses.

The Resort will provide needed overnight and extended stay opportunities for skiers who otherwise might only make day trips to the area. The Resort will also attract golfers and conference attendees who may not otherwise travel to the area.

It is projected that annual off-site Resort patron spending of \$10.64 million per year will occur at full project buildout, and this will occur mostly in businesses located in the local village and hamlet centers.

5. To assure that every dwelling and place of work is supported by an adequate supply of potable water, sewage treatment and disposal, solid waste disposal, energy and access.

The Resort will have its own central water supply system and central wastewater collection system that will connect with the Pine Hill wastewater treatment plant. Providers of solid waste disposal service and energy supply have confirmed that they have the capacity to serve the needs of the project. The project is readily accessible from NY Route 28 and County Route 49A.

6. To promote safe, efficient, and well-maintained and designed pedestrian and vehicular traffic.

- Limit curb cuts and promote shared access.
- Separate curb cuts and intersections.

Curb cuts on CR 49are limited to 3 locations for Wildacres and a single curb cut for Highmount. All of these curb cuts have been adequately spaced out to produce smooth traffic flow.

• Align driveways so that they are opposite each other.

The main entrance to the Wildacres Resort is on Country Route 49A directly across from the upper entrance to the BMSC.

• Implement proper speed limits, signs and road markings.

The project involved making improvements to County Route 49A that will improve current substandard conditions related to horizontal and vertical curves. Crosswalks and additional signage will also be provided along County Route 49A as a result of the project.

• Incorporate public access and trails.

7. To provide adequate land and resources for recreation and preservation of the Town's rural character.

- Build on the many recreational resources in Middletown to promote tourism and recreational business growth.
- Access to ski areas and other outdoor recreation, along with tourism are major strengths of Middletown which should be preserved.
- Consider allowing conservation and clustered subdivisions on a voluntary basis.

The project capitalizes on the recreational opportunities that currently exist at BMSC and expands upon theses existing opportunities by providing four-season recreational opportunities.

The Resort will be available for use by the general public including the Highmount Golf Club and the new ski trails and lift proposed near the Highmount Hotel and the old former Highmount Ski Area.

Development in the Resort has been clustered in the Front-9 Village and around the hotel at Wildacres as well as around the hotel/spa at Highmount. Over 70% of the project site will be open space.

8. To maintain a balanced and equitable tax base.

• Work to attract, develop or expand retail businesses which will serve as a "draw" for people to visit Middletown. Concentrate on businesses oriented to the outdoor resources, tourism, agri-tourism and recreational opportunities in the Town.

The off-site spending by Resort visitors cited in number 6 above will have secondary effects that will include increased economic activity where commerce is now centered, and where existing buildings and commercial space are available for business expansions and new business starts. Existing businesses are also expected to increase their sales within their existing building locations.

9. To protect buildings and people from the harm of flood, fire, detrimental land use, and impairment of their natural resources.

• See goals 1, 2 and 3 above.

10. To ensure that this area is a place where you can live, work and thrive economically ones' entire life.

• Provide training and jobs for young people.

To further ensure the availability of personnel to qualify for employment at the Belleayre Resort complex, resort developers will establish on-going relationships with various state and regional education institutions, such as Cornell, NYU, SUNY Delhi, SUNY New Paltz, Culinary Institute of America, etc., which offer degree and advanced course programs in various hospitality disciplines. By working closely with these institutions to support the employment needs of the resort, the resort developers hope to help staunch the outflow of post-secondary school graduates from the region, looking for career opportunities beyond the Catskills, as well as provide job opportunities for local residents with skills needed to successfully operate the resort.

- Encourage businesses and recreational facilities to keep young people here.
- Promote economic development, including development of the tourism industry, particularly year-round tourism.

See goals 4 and 8 above.

3. Shandaken and Middletown Land Use Plans/Regulations

See section 3.8.1(A)(2) above. No variances or zoning changes are requires for the modified Project.

4. Ulster County Open Space Plan

The December 2007 Ulster County Open Space Plan lists 6 resource strategies that form the basis of the plan to Identify, permanently protect and manage critical open space resources and systems. Below are the 6 strategies and how they relate to the project.

• Protect and manage water resources

See sections 3.1, 3.2 and 3.4.2 for discussions of measures that will be taken to protect surface water, groundwater and wetland resources.

• Enhance the viability and protection of working landscapes

The project site does not contain any working landscapes (i.e. farm lands, timber lands).

• Protect the County's valuable landforms and natural features.

The project site does not contain any unique landforms or other unique natural features.

• Develop priority biodiversity areas and ensure that land use decisions incorporate habitat protection and species diversity.

The project site does not contain any unique habitats or rare, threatened or endangered species. See section 3.4.

• Promote stewardship of historic and cultural resources

Cultural resources on and around the property have been documented (see section 3.13 and Appendix 12) and the project will have no impacts to cultural resources as confirmed by NYS Office of Parks, Recreation and Historic Preservation.

• Create, preserve, enhance and provide managed access to parks, hiking trails, active and passive recreation facilities, and historic resources.

Approximately 1,189 acres in fee of the Big Indian Plateau property will be acquired by a public entity so that the property is preserved and used for public, open space and recreational purposes.

B. Catskill Park State Land Master Plan (CPSLMP)

The CPSLMP at the time of the DEIS and its applicability to the DEIS project were discussed in DEIS sections 1.3.1 and 3.9.8.

Changes to the CPSLMP that were adopted subsequent to the DEIS are discussed in section 1.3.C.3 of this SDEIS. Section 3.14 of this SDEIS also discusses the relationship of the Project to the Catskill Forest Preserve, identifies potential impacts, and proposes measures to avoid or minimize impacts to the Forest Preserve to the maximum extent practicable.

3.8.3 Compatibility with Land Use Plans and Effects on Future Developments

A. Compatibility with Existing Character of Surrounding Lands and Communities

See the previous SDEIS sections 3.8.1 and 3.8.2 and DEIS section 3.8.

Changes in the project plans since the DEIS do not affect DEIS conclusions since the Modified Project still meets the zoning requirements of the Town of Shandaken and the Town of Middletown. In the NYSDEC Commissioner's Interim Decision issued for the original project, the NYSDEC Deputy Commissioner ruled that "The Department, to a large extent, relies on local land use plans as the standard for community character. Adopted local land use plans are afforded deference in ascertaining whether a project is consistent with community character." The Modified Project has been consolidated and is located wholly on the Western side of the BMSC. The resorts are more integrated with each other and the BMSC. Resorts are a common use in the Catskills and consistent with the goal of promoting tourism that has been embraced by every level of government in Ulster and Delaware Counties. As is noted above, both municipalities, Shandaken and Middletown, allow resorts upon the issuance of site plan approvals and special use permits. The Modified Project is consistent with the community character, the goals of the community as described in the Comprehensive Plans and zoning and it is consistent with surrounding uses, such as the BMSC. The Modified Project as it stands today has resulted in the conservation of a substantial amount of acreage for public ownership, use and enjoyment including the transfer of ownership of the Big Indian property to New York State and the conservation easement on the Adelstein property to NYCDEP. The resorts are also consistent with surrounding uses and community character in the manner in which the resorts are adaptively reusing and providing for the protection of existing historic structures, such as the Leech Farm. The Modified Project design also continues to provide for substantial green or open space within the Resorts. Indeed, the goal of the architectural design for the Highmount Resort is to have a structure that is fully integrated into the existing landscape, while the goal of the design for the Wildacres Resort is to evoke the historic, large resort buildings that at one time dotted the landscape in Ulster and Delaware counties.

B. Effect on Future Land Use on Other Property and Other Projects

See section 7 and Appendix 4 of this SDEIS.

C. Impact on Land Use Development, Regional Real Estate Sales and Work Force Demands

See sections 7 and 3.9 of this SDEIS as well as Appendices 3 and 4.

3.9 Socioeconomics

Appendix 3 contains the full socioeconomic analysis of the Modified Project.

For this analysis, demographic studies are used to describe existing population and housing conditions within the socioeconomic study area, which includes the county subdivisions along the NY Route 28 corridor between Boiceville and Margaretville. Employment and workforce trends are described in the workforce study area, which is the area from which approximately 80 percent of the proposed project's employees would originate and/or reside.

The proposed project is estimated to generate approximately 541 full-time jobs and 230 part-time jobs, a 5.0 percent increase from the number of employees in the workforce study area in 2007. It was assumed that the part-time positions would be filled by workers in the area that work part-time but are looking for additional work, unemployed persons who are searching for part-time employment, and others who are not technically in the labor force. Because part-time employment generally does not offer a salary that would support moving from one area to another, it was assumed that they would not adversely affect the housing market in the study area.

Of the full-time jobs, it was assumed that about 20 percent would live outside of the workforce study area. Also, discounting people who are over- or under-qualified for positions at the proposed project, it was assumed that approximately 183 unemployed persons from within the workforce study area would be qualified to fill positions at the proposed project. Thus, it was determined that there would be an additional demand for as many as 250 employees from within the study area. Based on an online search conducted in June 2008, there were 259 single family homes for sale and 93 rental units available in the study area, indicating that the existing housing stock could accommodate the employment generated at the proposed project.²⁶

Construction Period Benefits

Construction of the proposed project would create an estimated 2,176 person-years of direct construction employment (a person-year is the equivalent of one person working full-time for a year). Approximately three-quarters of this employment would occur during the first five years of construction. Total direct and indirect employment (from secondary or induced expenditures) is estimated at 3,988 person-years, or an average of 399 jobs during the construction period. Total wages and salaries are estimated at \$191.34 million (all dollar amounts in 2008 dollars).The total economic effect from construction of the project is estimated at \$703.07

²⁶ Based on an updated inquiry conducted in February 2012, there were 396 single family homes for sale and 60 rental units available in the study area, indicating that the existing housing stock could accommodate the employment generated at the proposed project. This updates a 2008 search which found 259 single family homes for sale and 93 rental units available.

million. Total local and state tax revenues generated by the project, exclusive of real estate taxes, are estimated at \$16.85 million.

Operating Period Benefits

Upon completion, the project would create total direct and indirect employment estimated at 1,035 permanent jobs in the Delaware-Ulster-Greene tri-county region and a total of 1,184 jobs in the wider New York State economy. Total wages and salaries are estimated at \$47.17 million in New York State. The total recurring effect from operating the project is estimated at \$210.49 million annually in New York State. The annual operation of the project would have associated with it substantial sales tax, person income tax, corporate and business taxes, and other tax revenue.

Future Property Tax Revenues with the Proposed Project

The proposed project would generate significant future tax revenues for Delaware and Ulster Counties, Onteora and Margaretville school districts, and other taxing districts. The properties on which the proposed project would be located generated about \$87,300 in annual tax revenues in 2007. With the proposed project, the properties could generate over \$2.16 million annually, representing a 2,375 percent increase over the fiscal year 2007 tax revenue of approximately \$87,300.

3.10 Community Services

A., B. & C Service Providers, Capabilities and Mitigation Measures

The following are the anticipated service providers for the modified project.

- 1. Emergency Services
 - a. Police
 - (1) NYSP in Ulster and Delaware Counties

New York State Police Troop C in Delaware County has confirmed their ability to serve the project within their patrol area (Zone 1) of Delaware County. See their January 6, 2011 correspondence in Appendix 27.

New York State Police Troop F in Ulster County provided a February 22, 2011 letter stating that they have the ability to serve the project at the same level it currently serves the Town of Shandaken particularly with an internal resort security operating daily on a full-time basis (as established in the DEIS). See Appendix 27.

(2) County Sheriffs

Delaware County Sheriff's Office has confirmed their ability to serve the project. See their January 10, 2011 letter in Appendix 27 in which they state that they have the capability of serving the project in concert with Ulster County-based law enforcement agencies, particularly with an internal resort security operating daily on a full-time basis (as established in the DEIS).

Similarly, Ulster County's Sheriff in correspondence dated February 8, 2011 (see Appendix 27) stated that their agency can serve the project in conjunction with other law enforcement agencies and with the provision of internal resort security.

(3) Town of Shandaken PD

Appendix 27 contains correspondence from the Shandaken Police Department from October 12, 2004 and January 13, 2011. Both letters are from Chief McGrath. In the 2004 letter the Chief identified an increase in the demand for services, in particular traffic management, during the first three years of project construction. In the October 12, 2004 letter the Chief cites to an agreement with the project sponsor whereby the project sponsor will contribute to the Town of Shandaken a sum equal to the salary and benefits of one additional police officer for up to four years. The Chief goes on to state "We believe that this sum will more than compensate any added expenses the Town's police department may incur during the construction of the resort project." In the January 13, 2011 correspondence the Chief reiterates the Town of Shandaken Police Department's ability to serve the project in conjunction with the New York State Police and the Ulster County Sheriff.

- b. Fire Pine Hill, Big Indian and Fleischmanns In its letter of January 31, 2011 (see Appendix 27) Pine Hill Fire Company #1, the primary responder for the project, outlines the mitigation measures that they believe will allow them to serve the project. These include additional equipment and additional training.
- c. Ambulance In its letter of February 14, 2011 (see Appendix 27) the Town of Shandaken Ambulance Service stated it has the ability to serve the project given an additional ambulance vehicle and a garage with crew quarters in Highmount, along with an annual stipend starting at commencement of project construction and running until the first year following the issuance of the resort's first major occupancy permit.
- d. Medical Margaretville Hospital, Kingston and Benedictine Hospitals

The Health Alliance of the Hudson Valley is a parent corporation and a locally governed healthcare network. The system of Health Alliance of the Hudson Valley includes Benedictine Hospital, The Kingston Hospital, and Margaretville Hospital. By correspondence dated 1/6/11 (copy in Appendix 27) the Chief Information and Community Officer for the Alliance has confirmed that capacity exists to serve the project.

2. Water Supply

The water supply for the proposed project is from private sources that will serve the proposed project. No outside service provider, municipal or otherwise, is involved.

3. Wastewater

The project has been designed to utilize NYCDEP's Pine Hill Wastewater Treatment Plant to treat project-generated wastewater. As discussed previously in sections 2.8.7 and 3.2.2, the Pine Hill Plant has excess capacity to serve the project.

4. Schools

a. Margaretville District

The Superintendent of the Margaretville School District, in a letter dated January 18, 2011, has responded that the school district can service the needs of the project. A copy of this letter can be found in in Appendix 27.

b. Onteora District

Similarly the Interim Superintendent of the Onteora School District has responded that the school district can service the needs of the project. See correspondence dated January 24, 2011 in Appendix 27.

- 5. Solid Waste and Recycling
 - a. Ulster County Resource Recovery Agency

Appendix 27 contains February 16, 2011 correspondence with UCRRA stating that they can serve the needs of the project.

b. Delaware County DPW

In correspondence dated January 27, 2011 the Solid Waste Director of Delaware County DPD stated that there is no flow control within the County meaning that waste generated in Delaware County does not have to be disposed of in Delaware County. The County operates a solid waste management center in Walton and seven Town-owned transfer stations including the Middletown transfer station just north of Margaretville.

6. Electric -NYSEG

Appendix 27 contains a March 1, 2011 letter from NYSEG stating that they have capacity to serve the project demands.

7. Telephone - Margaretville Telephone Co.

On 1/21/11 the Margaretville Telephone Company replied that they have the capacity to serve the project site. See Appendix 27 for correspondence.

- 8. Recreational and Educational Resources
 - a. Hunting Fishing and Hiking

Lands within the New York State (Catskill Park) Forest Preserve are expected to provide the majority of these recreational opportunities. See section 3.14 that provides an assessment of project potential impacts to the Forest Preserve and provides measures to mitigate potential impacts.

9. BMSC

In the ski industry the guest attendance level that can be serviced by a ski area while operations remain optimally functional is known as comfortable carrying capacity or CCC. CCC is not a cap on visitation, but it is rather a design standard defined as the number of daily visitors a ski area can comfortably or efficiently accommodate at one time without overburdening the ski area infrastructure (lifts, parking, buildings, etc.).

The current CCC for BMSC is 4,500 people. With the improvements contained in the currently proposed UMP update, CCC at Belleayre could double to 9,000 people. Recent attendance figures for Belleayre indicate that the current CCC attendance figure of 4,500 people was reached on four occasions during the 2009-2010 ski season. Of these four days of skier attendance over 4,500, none of these occurred on weekdays. With the extended stays of Resort guests, weekday use will likely see the largest amount of increase in attendance on a percentage basis. Resort guests would also utilize the expanding summer activities that occur at the Ski Center, including summer lift rides, concerts, craft fairs and dining.

With the doubling of its CCC to 9,000, BMSC will easily be able to accommodate additional skier visits generated by the project. Even without any increases in its CCC, BMSC is able to accommodate additional skiers because it is currently operating under its CCC on all except its busiest of days. The components of the ski area that currently are the "bottlenecks" that dictate the CCC of 4,500 are parking and building capacities and not trail capacities. Unlike "day trippers" using the ski area, resort guests are less likely to utilize parking at the ski area, instead choosing to utilize the Resorts shuttle system as well as the direct resort connections to skiing at Highmount (trails and lift) and the lift at the BMSC located across from Wildacres hotel. Likewise, resort guests are less likely to utilize ski area building facilities than day trippers since they will have their food and lodging needs met by resort facilities instead of having to rely on on-mountain amenities to meet these needs.

See Part A, BMSC UMP/DEIS, and Part C, Cumulative, for additional information.

10. Libraries, Museums and Other Cultural Resources

Libraries in the area around the project are the Phoenicia Library, the Skene Memorial Library in Fleischmanns, Fairview Public Library in Margaretville and Morton Memorial Library in Pine Hill. Museums in the area include the Empire State railway Museum in Phoenicia, the Town of Shandaken Historical Museum in Pine Hill and the Greater Fleischmanns Museum of Memories. Many of these facilities operate a limited number of hours and days and some are even seasonal. It is hoped that Resort guests would make use of these facilities during their stays. If needed, increased use of the facilities could be accommodated by increases in hours or days of operation.

There is a considerable variety of cultural and arts related activities and organizations active in the towns of Middletown and Shandaken. These include Open-Eye Theater (Arkville), Community Choral of the Catskills, Roxbury Arts Group Festival, October Festival at Belleayre Mountain Ski Center, Shandaken Theatrical Society, The German Alps Oktoberfest, Belleayre Conservatory Music Festival, Phoenicia's Festival of the Voice, Shandaken Art Studio Tour, Empire State Railway Museum, Margaretville Memorial Hospital Auxiliary Crafts Fair and the Pakatakan Farmers Market.

The sponsoring organizations of these activities all operate on a not-for-profit basis and the funds generated by their activities are applied to a variety of community causes. It is expected that some proportion of Resort guests and employees will exhibit a keen interest in some, if not all, of these activities, thus enhancing the financial purposes of these organizations.

D. Municipal Land Use Regulations

Local approvals were previously discussed in Section 1.4.1(A).

The modified project will require Special Use Permit/Site Plan approvals from the Planning Boards in the Towns of Shandaken and Middletown. No variances from the municipal land use regulations are needed.

The Site Plans and Water and Sewer Infrastructure Plans that are part of this SDEIS were prepared with the knowledge that they would also serve as the submission to the Towns for their approvals. Both Towns' Town Boards will need to approve applications to form transportation corporations that will operate and maintain the project water and sewer infrastructure.

3.11 Global Climate Change and Carbon Footprint

See Appendix 28 for the full evaluation of this topic.

GHG emissions are categorized into direct and indirect emission categories. Direct emissions result from activity of equipment owned or leased by the Belleayre Resort. Indirect emissions are emissions associated with operation of the Belleayre Resort, but are not from Belleayre Resort owned or leased equipment.

There are no prescribed thresholds that define significance of GHG emissions. However, in the development of the GHG Mandatory Reporting Rule, USEPA established a minimum GHG emission reporting threshold of 25,000 metric tons per year of CO2e. (The GHG Mandatory Reporting Rule itself does not require reporting for the development of resorts but instead specific categories of facilities that emit higher levels of pollutants, such as electric energy generating plants and other similar industrial facilities.) This threshold level of emissions was established based on the anticipated level of GHG emissions that would be expected to occur from sources that are just large enough to be considered significant for other pollutants (carbon monoxide, nitrogen dioxide, etc.) regulated under the Clean Air Act. In addition, for Federal NEPA environmental impact statements, the Council on Environmental Quality (CEQ) has issued guidance suggesting Federal agencies use 25,000 metric tons per year CO2e value as an indicator value for agencies action-specific evaluation of GHG emissions (CEQ 2010).

The Belleayre Resort carbon footprint is the sum of all GHG emissions and is calculated as metric tons per year carbon dioxide equivalent (CO_2e). GHG emissions from the Resort primarily would result from fossil fuel combustion during construction and operation of the Belleayre Resort.

The following table presents the summary of potential GHG emissions for the Belleayre Resort. Per NYSDEC Policy on assessing GHG emissions, the table presents total projected GHG emissions as the sum of emissions from direct stationary sources, direct mobile sources, indirect stationary sources, indirect mobile sources, and waste generation. These five source categories represent all of the major GHG sources associated with the project.

Table 3-7 Summary of Belleayre Resort Direct and Indirect GHG Emissions									
	Emission (metric tons per year)								
Year	CO ₂	CH₄	N ₂ O	CO ₂ e					
2011 (Construction)	6705	1.6	0.2	6706					
2012 (Construction)	3828	3.8	0.2	3832					
2013 (Construction and Operation)	11,793	268	5	19,049					
2014 (Construction and Operation)	12,058	292	6	1,9970					
2015 (Construction and Operation)	12,754	324	7	21,516					
2016 (Construction and Operation)	13,303	348	7	22,721					
2017 (Construction and Operation)	13,892	377	8	24,105					
2018 (Construction and Operation)	13,552	382	8	23,946					
2019 (Construction and Operation)	13,822	401	8	24,230					
2020 (Construction and Operation)	14,030	417	8	25,372					
2021 and beyond (Operation) (see note 1)	13,712	416	8	25,053					
Kov									

CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent; Note:

(1) In year 2021 and beyond, operation of the fully built resort results in an off-site emission of GHG from landfilled waste. Prior to this period, a lesser quantity of waste and GHG emissions will be produced as floor space is slowly added over time. Because of the non-linear nature of when these emissions will be emitted, they are not included here.

Mitigation Measures

The project incorporates the following mitigation from NYSDEC's Policy document.

- 1. Design an energy efficient building envelope to reduce heating/cooling requirements.
- 2. Install high-efficiency HVAC systems
- 3. Construct green roofs.
- 4. Eliminate or reduce use of refrigerants in HVAC systems
- 5. Use high-albedo roofing materials
- 6. Maximize interior day lighting
- 7. Reduce energy demand using peak shaving or load shifting strategies
- 8. Incorporate super insulation to minimize heat loss
- 9. Incorporate motion sensors and lighting and climate control
- 10. Use efficient, direct exterior lighting
- 11. Use water saving fixtures that exceed building code requirements
- 12. Re-use grey water and/or collect and re-use rainwater
- 13. Provide for storage and collection of recyclables in building design
- 14. Re-use building materials and products
- 15. Use building materials with recycled content
- 16. Use building materials that are extracted and/or manufactured within the region
- 17. Use rapidly renewable building materials
- 18. Use wood that is locally produced and/or certified in accordance with the Sustainable Forest Initiative or the Forestry Stewardship Council's Principles and Criteria
- 19. Track energy performance of buildings and develop strategy to maintain efficiency
- 20. Use energy efficient boilers, heaters, furnaces, incinerators or generators
- 21. Minimize energy use through building orientation
- 22. Provide permanent protection for open space on the project site
- 23. Conserve and restore natural areas on site
- 24. Minimize building footprints
- 25. Design water efficient landscaping
- 26. Locate new buildings in or near areas designated for transit-oriented development (TOD)
- 27. Incorporate TOD principles in employee and customer activity patterns
- 28. Purchase alternative fuel and/or fuel efficient vehicles for fleet
- 29. Incorporate idling reduction policies
- 30. Provide new transit service or support extension/expansion of existing transit (buses, trains, shuttles, water transportation)
- 31. Develop or support multi-use paths to and through site
- 32. Size parking to meet but not exceed local parking requirements
- 33. Develop a parking management program
- 34. Provide on-site amenities such as food service
- 35. Provide bicycle storage and showers/changing rooms
- 36. Roadway improvements to improve traffic flow, and
- 37. Traffic signalization and coordination to improve traffic flow and support pedestrian and bicycle safety.

The incorporation of green building principles into the Belleayre Resort construction to strive for LEED Silver would result in a number of important mitigation measures to lower energy consumption and reduce greenhouse gas emissions from those shown in the analysis in Appendix 28.

Shuttle buses would be used to reduce trips from the Resort. In winter, shuttle buses would operate between the Resort and BMSC to transport skiers between the two facilities. Year round shuttles would be provided between the Resort areas and the Wilderness Activity Center.

3.12 Air Quality

Existing Conditions

Air Quality in New York State is monitored by NYSDEC, including a monitoring station located at Belleayre Mountain (site No. 5565-03). The most recent data for air quality monitoring on NYSDEC's website is from the year 2009.

In 2009 the 12-month annual mean value for sulfur dioxide measured at the Belleayre station was 0.7 ppb. The New York State and Federal Ambient Air Quality Standard (FAAQS) is 30 ppb for the 12-month annual average. The 3-hour block average maximum values for sulfur dioxide at Belleayre was 8-10 ppb while the State and Federal Standard is not to exceed 500 ppb more than once per year. The 24-hour daily average standard for sulfur dioxide is not to exceed 140 ppb more than once a calendar year, and the highest 24-hour average measured at the Belleayre station was 7 ppb.

Inhalable Particulates (<2.5 microns) is a parameter that is not measured at the Belleayre station. The closest monitoring station is located in Poughkeepsie (site No. 3502-04). From the 2009 data, the Poughkeepsie station met the NYS and FAAQS for inhalable particulates, both for the average of the last 3 year's annual means and for the average of the 98th percentile for the last 3 years.

Ozone is monitored at the Belleayre station and the NYS and FAAWQS is that the 4th highest daily maximum 8-hour average is not to exceed an average of 0.08 ppm during the last 3 years. The 3-year average from the Belleayre station in the 2009 report is 0.069 ppm.

Lead is the last parameter included in the 2009 NYSDEC air quality report. Data on lead is not collected at Belleayre, and the closest stations are at Wallkill and Scotchtown in Orange County. The highest quarterly values reported at these stations ranged from 0.005 ug/m3 to 0.034 ug/m3, well below the NYS and FAAQS of <1.5 ug/m3 for quarterly average maximum values.

Potential Impacts and Mitigation Measures

DEIS Appendix 22A examined potential impacts from construction activities, with a focus on the generation and travel of dust from construction traffic, earthmoving, rock crushing, etc. This study found that the nearest receptors that could be affected were located far enough away that there would be no significant impacts on the nearest receptors.

Project-Related Traffic

Appendix 24 contains the results of the microscale and mesoscale air quality screening analyses performed for project-related traffic. The air quality assessments conducted conform to the procedures followed by the NYSDEC. Currently, the NYSDEC follows the procedures outlined in the New York State Department of Transportation (NYSDOT) Environmental Procedures Manual (EPM), Chapter 1.1, Air Quality, last updated January 2001. These procedures address the Clean Air Act Amendments of 1990 and guidance from the Environmental Protection Agency (EPA).

Microscale

A microscale air quality analysis is performed to determine carbon monoxide concentrations at various worst case receptors adjacent to the roadways in a project area. Based on the procedures outlined in the EPM, worst case receptors are typically chosen at signalized intersections where a level of service D, E, or F exists for the build conditions. Unsignalized intersections do not typically warrant a detailed air quality analysis since the major-street high volume approaches at these intersections operate as free flow conditions.

The seven intersections listed below were assessed for air quality:

- NY Route 28/NY Route 214/South Street
- NY Route 28/NY Route 42
- NY Route 28/County Road 47
- NY Route 28/Main Street
- NY Route 28/County Road 49A/Owl Nest Road
- County Road 49A/Gunnison Road/Belleayre Lower Driveway
- County Road 49A/Belleayre Upper Driveway

Based on the site screening analysis conducted for these intersections for full build out conditions the 2015 Build Volumes are lower than the criteria shown in the EPM Table 3C. Therefore, a microscale air quality analysis is not necessary since this project will not increase traffic volumes, reduce source-receptor distances or change other existing conditions to such a degree as to jeopardize attainment of the National and New York State ambient air quality standards.

Particulate Matter Microscale Analysis

The NYSDOT Project Level Particulate Matter Analysis Final Policy (PM Final Policy), dated September 2004, provides guidance for performing a PM analysis. The policy states that only intersections that are most likely to experience a PM air quality impact need to be analyzed. Therefore, only the NY Route 28/County Road 49A/Owl Nest Road intersection requires detailed analysis.

Based on procedures outlined in the PM Final Policy the PM microscale air quality analysis was performed using CAL3QHC, Version 2.0, which is a line based dispersion model. The CAL3QHC procedures require inputs for roadway geometrics, traffic volumes, receptor locations, meteorological conditions, and vehicular emission rates. The predicted particulate matter concentration differences for the receptors have been calculated to be less than the maximum allowable potential significant impact thresholds. This indicates that if the proposed project is constructed, the particulate matter concentrations will not result in a violation of the standards.

Mesoscale

A mesoscale air quality analysis is conceptually similar to the microscale air quality analysis; however, it covers a larger geographic area, typically larger than the immediate project area. In addition to carbon monoxide, a mesoscale air quality analysis monitors for volatile organic compounds (VOC) and nitrogen oxides (NO_x). In general, a mesoscale air quality analysis is required for projects involving the following:

- 1. HOV lanes vs. general use lanes
- 2. New or significant modification to interchanges on access-controlled facilities
- 3. Large-scale signal coordination projects
- 4. In attainment areas, projects having alternatives (including the no-build) with significantly different (10%) VMT
- 5. Widening to provide additional travel lanes more than a mile in length.

The criteria for a mesoscale air analysis found in Chapter 1.1 of the EPM are not met with the development of the project; therefore, a mesoscale analysis is not required and no particulate matter mesoscale analysis is required.

Belleavre Mountain will be responsible for making snow and operating lifts. Potential impacts and mitigation measures associated with these activities are addressed in Section 4.8 of the UMP DEIS.

3.13 Cultural Resources

Background

Section 3.11 of the DEIS addressed the issue of cultural resources.

NYS Office of Parks Recreation and Historic Preservation's (OPRHP's) review of the DEIS Stage 1B materials led them to state in their January 6, 2003 letter (copy in DEIS Appendix 6) "OPRHP has no further issues regarding project ground disturbance and archeology: additional archeological study is not warranted."

This same letter went on to state that it was OPRHP's opinion that the project would have no adverse effect on properties in or eligible for listing on the State and Natural Registers of Historic Places based on the condition that all work (interior and exterior) that is proposed for the historic structures on the project site shall be reviewed by OPRHP prior to the initiation of any construction activities. The historic structures that are referred to in OPRHP's January 6, 2003 letter were listed in OPRHP's June 12, 2000 letter (also in DEIS Appendix 6) and include the Marlowe Mansion (Wildacres Hotel in OPRHP's letter) and the Leach Farm. The other historic structures in OPRHP's June 12, 2000 letter are located on the former Big Indian portion of the site or off the project site.

Existing Conditions

A. Investigation of Additional Lands

For this SDEIS additional Stage 1B testing was performed on areas that were previously outside of the area of potential effect (APE). This additional testing included the upper portions of the Highmount parcel and a portion of the Wildacres parcel. Appendix 12, contains the November 2008 "Phase IA/IB Cultural Resources Survey of Additional Lands of the Modified Belleayre Resort at Catskill Park Project, Towns of Shandaken and Middletown, Ulster and Delaware Counties New York."

The Executive Summary of this report states, "No prehistoric materials were recovered, and no archeological sites were identified. Based on the results of this survey, as well as the NYSOPRHPs January 6, 2003, finding of No Adverse Effect for the previously conducted archeology, we recommend that this modified project be allowed to proceed. These recommendations are subject to the review and concurrence of the New York State Office of Parks, Recreation and Historic Preservation. On December 4, 2009 OPRHP issued a finding of No Adverse Effect for the modified project based on the same condition from 2003 that all work (interior and exterior) proposed for the Marlowe Mansion and Leach Farm historic structures be reviewed by OPRHP prior to the initiation of construction.

The routes of the off-site water lines and the off-site sewer lines were also investigated as part of this SDEIS. A Supplemental Phase 1B report for the off-site utilities was prepared and submitted to OPRHP in March 2010. On April 9, 2010 OPRHP issued a letter stating that the proposed utility work would have no adverse impacts on historic resources. A copy of this letter can be found in Appendix 12 of this SDEIS.

Potential Impacts and Mitigation Measures

In order to mitigate potential impacts to the Marlowe Mansion and Leach Farm historic structures, OPRHP will review all work (interior and exterior) proposed for these structures prior to the start of construction.

No other mitigation measures are required as per OPRHP's determinations.

3.14 Catskill Park Forest Preserve

Existing Conditions

Under the DEIS plan the Big Indian portion of the project abutted the Big Indian Wilderness Area and there were trails connecting the resort to the Wilderness Area. Under the current Modified Project, the Project no longer abuts any designated Wilderness area (or Wild Forest area either) nor are there any proposed direct connections between the resort and Wilderness or Wild Forest areas.

The Wilderness Activity Center that is part of this project will be the resort amenity that will assist resort guests in planning their Forest Preserve (and other outdoor) activities. Through inroom materials or other informational means within the resort, resort guests will be directed to the services of the guides and other staff at the Wilderness Activity Center. Because many of the resort guests will be repeat visitors, it is envisioned that there will be a number of hiking programs established so that resort guests will get varied Forest Preserve experiences. For example there may be a program whereby guests would hike the various fire tower routes. There could be a 3500 foot and trail-less programs set up as well.

The August 2008 Catskill Park State Master Plan (CPSLMP) (Appendix E: Public Use) includes the following statements.

- No overall census of visitor use of Catskill Forest Preserve recreational facilities has ever been undertaken.
- The direct use of undeveloped Forest Preserve lands is estimated based on voluntary visitor sign-ins at trailheads.
- The actual numbers of visitors entering the Catskill Park from trailheads is estimated to be over 150,000 per year, not including hunters, trappers and anglers.
- Most people visit on the weekends, with peak use on holiday weekends.

Figure 3-22, Forest Preserve Use 1990-2002, is a graphic derived from data included in Table 6 in Appendix E of the CPSLMP, and shows Forest Preserve use for the period 1990 to 2002. Annual numbers of visitors to Intensive Use Areas, including campgrounds and Belleayre Ski Center, increased approximately 23% between 1990 and 2002 (Total Intensive Use category on Figure 3-22). This increase in Intensive Use Areas is due to increases in Ski Center use – campground numbers are relatively constant for the period. Likewise, total "backcountry" (combined Wilderness and Wild Forest) use increased approximately 24% between 1990 and 2002, with Wild Forest Use increasing over the period while Wilderness use levels remained fairly constant as shown on Figure 3-22.

The intensity of use of backcountry Forest Preserve units varies. The reasons for this variation are numerous and include such things as accessibility, presence or absence of scenic vistas, etc. In order to gain a sense of how use varies between Forest Preserve units, some data from the August 2008 CPSLMP was compiled to produce Figure 3-23. What Figure 3-23 shows are the ratios of the numbers of annual visitors to the miles of trails within different units. These data were chosen for use to try and get a sense of the intensity of use of Forest Preserve Lands and how it varies spatially. Figure 3-23 shows that with the park-wide estimated annual visitors entering via trailheads at approximately 150,000 (CPSLMP Appendix E), and the approximate 303 miles of trails in the Catskill Forest Preserve (CPSLMP page i), the ratio is approximately 495 visitors per year per mile of trail. Figure 3-23 also shows that the numbers of visitors per miles of trails is nearly four times higher in the Slide Mountain Wilderness Area (651.6) as compared to the Big Indian Wilderness Area (153.1). In fact, using this simple index of intensity of use, the use of the Slide Mountain Wilderness Area is more intense than the High Peaks Wilderness Area in the Adirondacks whose annual visitors in 1998 (140,000) were nearly as much as the entire Catskill Park backcountry (150,000).

Potential Impacts and Mitigation Measures

Local and regional trails are expected to receive an incremental increase in use from the Project. There is no accurate way to project how many residents of the Project will actually utilize the trails in the area, however the following will attempt to quantify the potential additional hikers generated by the Project.

The 2009-2013 New York State Statewide Comprehensive Outdoor Recreation Plan (SCORP) reports that involvement in hiking is predicted to be fairly flat for the period 2005 to 2025, with participation being approximately 19% of the population. It is estimated that average occupancy at full buildout there will be approximately 1,100 people at the Resort. If the 19% factor from the SCORP is applied to the 1,100 people at the Resort, it yields that approximately 209 people per day that could be engaged in hiking. However, many of these people will choose to participate in some other form of recreation that they are interested in, and that is available at the Resort or in the area, i.e. golf, tennis, fishing, etc. Others may choose not to participate in a recreational activity on a given day, opting instead to participate in activities such as spa treatments, off-site shopping or sightseeing, etc. Assuming that half of the potential hikers will hike on a given day produces approximately 105 hikers when the Resort is at average occupancy.

To reiterate, this is at full resort buildout which is anticipated to take up to 11 years, during which time the Resort will have instituted the following mitigation.

Between the April 2008 draft CPSLMP and the September 2008 final CSLMP the following language was added to Section V, Unit Management Plan Development (CPSLMP, pp. 53-54).

"The [UMP] team will collect and assemble the following data.

• An evaluation and plan to implement the Limits of Acceptable Change model by employing carrying capacity concepts as a prescription of the desired resource and social conditions that should be maintained to minimum standards, regardless of use."

To mitigate potential Forest Preserve impacts the Applicant is willing to accept permit conditions from NYSDEC to assist NYSDEC collect data that could be used to update future Unit Management Plans for the area. These conditions were raised during the Issues Conference and state as follows.

- "Prior to the start of resort construction, Crossroads Ventures LLC shall develop a plan to be submitted to NYS DEC for its approval to implement a program to educate and guide resort guests in the use of the trails in the Forest Preserve. In developing the plan, the applicant shall consult with the NYS DEC and other appropriate groups, including the NY/NJ Trail Conference, to identify area trails, in particular, those which may be the subject of over use, in order to redirect guests to less intensively used trails. The plan shall include a method of keeping track of resort guest usage of Forest Preserve trails and for seeking feedback from resort guests on trail conditions. The information on guest usage and trail conditions shall be compiled into an annual report and submitted to NYS DEC. In addition, Crossroads Ventures, LLC shall provide a monthly report to NYS DEC of usage of Forest Preserve trails."
- "Crossroads Ventures LLC shall develop a plan to be submitted to NYS DEC for its approval to implement a maintenance plan for all trails on its property. This maintenance program shall emphasize the prevention and minimization of erosion and sedimentation from these trails."

Providing NYSDEC the data in the first bullet will assist them in their Level of Acceptable Change analysis.

Because the former Big Indian parcel, with its trails that continue onto Forest Preserve land, is no longer part of the modified project, the second bullet in not applicable to the project that is the subject of this SDEIS since there are no trails on the project site that continue onto Forest Preserve land.

Section 3 Figures



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	Non Mechanized				
	Tree Clearing				
		Wetland			
n	Location	Number	Souare Feet		Acres
Č1	Hole 11- South	16	780		0.02
Č2	Hole 11- Center	16	10.655		0.24
C3	Hole 11- North	16	7 395		0.17
C4	Hole 16- Near Green	16	3,206		0.07
Č5	Hole 13- Cart Path	16	1.026		0.02
C6	Hole 13- West	16	12.080		0.28
Č7	Hole 13- East	21	1.778		0.04
Č8	Hole 16- Near tees	21	3.732		0.09
Č9	Hole 18- West	19	12,865		0.30
C10	Hole 18- East	20	32,515		0.75
C11	Hole 3	24	1,665		0.04
C12	Hole 7	24	2,755		0.06
	TOTAL		90.452		2.08
	Wetland Areas Crossed				
	By Elevated Calf Cart				
	Dy Lievaled Golf Gart				
	Boardwalks & Road				
	Bridges				
		Wetland			
	Location	Number	Course Foot	4.5	Aaros
	LUCATION	Number	Square Feel	(LF)	Acres
51	Hole /	24	130	13.0	0.003
<u>S2</u>	Hole 11- Center	16	125	12.5	0.003
53	Hole 11- North	16	305	30.0	0.007
54	Hole 11- South	16	315	31.5	0.007
55	Hole 13- Cart Paths	16	360	36.0	0.008
50	Hole 16 Near Tees	21	250	25.0	0.006
57	Road B Bridge	21	400	24.0	0.009
	TOTAL		1,885	172.0	0.043
	wetland Areas Crossed				
	By Subsurface				
	Directional Bore				
		Wetland			
	Location	Numbor	Square Foot		Acros
D1	Off Cite	Number	Square reel		Acres
	Off-Site	-	-	10.0	
BZ	Off Site	-	-	15.0	
D3	Off-Site	-	-	12.0	
D4	Off Site	-	-	70.0	
D0 D0	Uni-Site	- 10	-	72.0	
00	Hole 11- Tee Box	10	-	20.0	
D /	FIDE TI-TEE DOX	10	-	20.0	
B/	Holo 16 Too Roy	1 11			
B7 B8 B0	Hole 16 - Tee Box	21	-	11.0	
B7 B8 B9 B10	Hole 16 - Tee Box Hole 7 - Tee Box	21	-	11.0	
B7 B8 B9 B10 B11	Hole 16 - Tee Box Hole 7 - Tee Box Hole 7 - Tee Box Hole 7 - Tee Box	21 24 24	-	11 0 11 0	
B7 B8 B9 B10 B11 B12	Hole 16 - Tee Box Hole 7 - Tee Box Hole 7 - Tee Box Hole 7 - Tee Box	21 24 24 24		11.0 11.0 11.0	
B7 B8 B9 B10 B11 B12 B13	Hole 16 - Tee Box Hole 7 - Tee Box Hole 7 - Tee Box Hole 7 - Tee Box Hole 7 - Tee Box Hole 18 - Fairway	21 24 24 24 20 20		11.0 11.0 11.0 15.0	

Selective Wetland Tree Removal Protocols

Removal of trees shall be done in such a manner as to minimize soil disturbance to the maximum extent practicable. The wetland tree removal methods, as described below, shall be contained in the Construction Specifications that will be developed for soliciting bids or project construction.

All cutting of trees and other vegetation shall be performed by hand, using chain saws or other hand-tools. Stumps shall be left in place. Wetland soil shall not be disturbed by pulling of stumps or mechanical dragging of tree trunks.

2. When construction scheduling allows, activities shall be performed in the winter when there is snow cover and frozen ground conditions. Under frozen ground and snow cover conditions, trees shall be felled, sectioned, and winched out of wetland areas using machinery operating from upland locations. At the discretion of the Contractor, some trees may not be sectioned prior to winching them out of wetlands. These trees will be winched ure is supported and distributed by the crown of the winched tree.

5. During times when the ground is not frozen and there is no snow cover, some felled trees will be removed by lifting them out of wetlands, and some felled trees, or portions thereof, will be left in place.

Wetland Edges Felled trees or sections of felled trees shall be lifted and removed from the edges of wetland areas using machinery equipped with typical log-loader pincers, chains, or straps. Machinery shall be operated in upland areas, and will lift and boom trees, or sections of trees, out of wetlands and into upland areas. The type of machine that is used will dictate how far into wetland areas this procedure can be implemented. A larger track-hoe excavator will have the capability of reaching trees that are felled within 30 to 40 feet of the wetland edge.

<u>Wetland Interiors</u> Trees that are felled farther within the wetland shall be limbed and topped. Cut limbs and tops will either be left in place or will be removed by hand from the wetland into upland areas.

Alternatively, trees may be removed beginning at the wetland edge then construction matting will be installed starting from uplands and working out into the wetlands with equipment always working on matting. Trees will be cut, topped, and lifted out of wetlands using machinery operating on the construction matting.

The decision to remove felled trees or portions of felled trees in particular areas shall be made by the Golf Course Architect prior to finalization of construction bid documents. In most, if not all instances, portions of some or all felled trees shall be left within wetland areas. Removal of some or all portions of all felled trees will give the Golf Course Architect the flexibility to make sure that the quality of a particular golf hale is not compromised by unusually high numbers of trees or unusually large trees left within affected wetland areas. The wetland play—over areas will develop into a combination of herbaceous and shrub plant communities following selective tree removal.









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Figure 3-22 Forest Preserve Use 1990-2002



Figure 3-23 Number of Annual Visits to Miles of Trails Ratios for Forest Preserve Lands



Section 3 Tables

Table 3-1Soil Characteristics

Мар		Slope	Hydrologic	Clay	Depth to	Seasonal High	Erosion
Symbol	Serries Name	Range(%)	Group	Content (%)	Bedrock (in.)	Groundwater (ft.)	Potential (K)
EkB	Elka Silt Loam	0-8	С	7-15	>60	>6	0.24
EkC	Elka Silt Loam	8-15	С	7-15	>60	>6	0.24
EkD	Elka Silt Loam	15-25	С	7-15	>60	>6	0.24
HrB	Halcott _Rock Outcrop	0-8	C/D	7-27	0-20	>6	0.24
HrD	Halcott _Rock Outcrop	15-25	C/D	7-27	0-20	>6	0.24
HrE	Halcott _Rock Outcrop	25-45	C/D	7-27	0-20	>6	0.24
HrF	Halcott _Rock Outcrop	>25	C/D	7-27	0-20	>6	0.24
HuF	Halcott-Udorthents very rocky	>25	C/D	7-27	0-40	>6	0.20-0.24
HvB	Halcott-Vly Complex	0-8	C/D	7-27	0-40	>6	0.20-0.24
HvC	Halcott-Vly Complex	8-15	C/D	7-27	0-40	>6	0.20-0.24
HvD	Halcott-Vly Complex	15-25	C/D	7-27	0-40	>6	0.20-0.24
HvE	Halcott-Vly Complex	25-45	C/D	7-27	0-40	>6	0.20-0.24
HvF	Halcott-Vly Complex	>25	C/D	7-27	0-40	>6	0.20-0.24
LdB	Lairdsville Silty Clay Loam	0-8	D		20-40		
LeB	Lewbeach Channery Silt Loam	0-8	С	1-18	>60	2-4 perched Mar-May	0.24
LeC	Lewbeach Channery Silt Loam	8-15	С	1-18	>60	2-4 perched Mar-May	0.24
LeD	Lewbeach Channery Silt Loam	15-25	С	1-18	>60	2-4 perched Mar-May	0.24
LeF	Lewbeach Channery Silt Loam	>25	С	1-18	>60	2-4 perched Mar-May	0.24
OsB	Onteora-Suny Complex	0-8	C/D	1-18	>60	0-1.5 perched Nov-Apr	0.24-0.28
OsC	Onteora-Suny Complex	8-15	C/D	1-18	>60	0-1.5 perched Nov-Apr	0.24-0.28
RB	Rubble Land	varies	D	0	>60	>6	N/A
TkB	Tunkhannock Very Channery Loam	0-8	A	10-20	>60	>6	0.24
TkC	Tunkhannock Very Channery Loam	8-15	A	10-20	>60	>6	0.24
VeD	Vly-Elka Complex	15-25	С	7-27	20->60	>6	0.20-0.24
VeF	Vly-Elka Complex	>25	С	7-27	20->60	>6	0.20-0.24
VhB	Vly-Halcott Complex	0-8	C/D	7-27	0-40	>6	0.20-0.24
VhC	Vly-Halcott Complex	8-15	C/D	7-27	0-40	>6	0.20-0.24
VhD	Vly-Halcott Complex	15-25	C/D	7-27	0-40	>6	0.20-0.24
VhF	Vly-Halcott Complex	>25	C/D	7-27	0-40	>6	0.20-0.24
VyB	Vly Channery Silt Loam	0-8	С	7-27	20-40	>6	0.2
VyC	Vly Channery Silt Loam	8-15	С	7-27	20-40	>6	0.2
VyD	Vly Channery Silt Loam	15-25	С	7-27	20-40	>6	0.24
VyE	Vly Channery Silt Loam	25-45	С	7-27	20-40	>6	0.24
WIB	Willowemoc Channery Silt Loam	0-8	С	1-18	>60	1.5-2 perched Oct-May	0.24
WIC	Willowemoc Channery Silt Loam	8-15	С	1-18	>60	1.5-2 perched Oct-May	

 Table 3-2

 Soil Limitations for Building and Recreation Development

Мар		golf		roads &	underground
Symbol	Serries Name	fairways	buildings	parking	utilities
EkB	Elka Silt Loam	mod., small stones	slight - mod., slope	mod., frost action	slight
EkC	Elka Silt Loam	mod., smal stones, slope	mod severe, slope	mod., frost action, slope	slight
EkD	Elka Silt Loam	severe, slope	severe, slope	severe, slope	slight
HrB	Halcott _Rock Outcrop	severe, depth to rock	severe, depth to rock	severe, depth to rock	severe, depth to rock
HrD	Halcott _Rock Outcrop	severe, depth to rock	severe, depth to rock	severe, depth to rock	severe, depth to rock
HrE	Halcott _Rock Outcrop	severe, depth to rock	severe, depth to rock	severe, depth to rock	severe, depth to rock
HrF	Halcott _Rock Outcrop	severe, depth to rock	severe, depth to rock	severe, depth to rock	severe, depth to rock
HuF	Halcott-Udorthents very rocky	severe	severe, slope, rock	severe, slope, rock	severe
HvB	Halcott-Vly Complex	severe	modsevere, depth to rock	modsevere, depth to rock	severe
HvC	Halcott-Vly Complex	severe	modsevere, depth to rock	modsevere, depth to rock	severe
HvD	Halcott-Vly Complex	severe	severe, slope, rock	severe, slope, rock	severe
HvE	Halcott-Vly Complex	severe	severe, slope, rock	severe, slope, rock	severe
HvF	Halcott-Vly Complex	severe	severe, slope, rock	severe, slope, rock	severe
LdB	Lairdsville Silty Clay Loam	mod., depth to rock			severe, depth to rock
LeB	Lewbeach Channery Silt Loam	mod., small stones, droughty	modsevere, wetness	mod., wetness, frost	slight
LeC	Lewbeach Channery Silt Loam	mod., small stones, droughty	modsevere, wetness	mod., wet, slope, frost	slight
LeD	Lewbeach Channery Silt Loam	severe, slope	severe, slope	severe, slope	slight
LeF	Lewbeach Channery Silt Loam	severe, slope	severe, slope	severe, slope	slight
OsB	Onteora-Suny Complex	severe, wetness, droughty	severe, wetness	severe, wetness, frost	slight
OsC	Onteora-Suny Complex	severe, wetness, droughty	severe, wetness	severe, wetness, frost	slight
RB	Rubble Land				
TkB	Tunkhannock Very Channery Loam	severe, small stones	mod, large stones	moderate, large stones	slight
TkC	Tunkhannock Very Channery Loam	severe, small stones	modsevere, stones, slope	mod., stone, slopes	slight
VeD	Vly-Elka Complex	severe	severe, slope	severe, slope	slight
VeF	Vly-Elka Complex	severe	severe, slope	severe, slope	slight
VhB	Vly-Halcott Complex	severe	modsevere, depth to rock	mod., rock, frost	some depth to rock
VhC	Vly-Halcott Complex	severe	modsevere, depth to rock	mod severe, rock, frost, slope	some depth to rock
VhD	Vly-Halcott Complex	severe	severe, rock, slope	severe, rock, slope	some depth to rock
VhF	Vly-Halcott Complex	severe	severe, rock, slope	severe, rock, slope	some depth to rock
VyB	Vly Channery Silt Loam	severe, small stones, droughty	modsevere, depth to rock	severe, depth to rock	severe, depth to rock
VyC	Vly Channery Silt Loam	severe, small stones, droughty	modsevere, depth to rock	severe, depth to rock	severe, depth to rock
VyD	Vly Channery Silt Loam	severe, small stones, droughty	severe, rock, slope	severe, slope	severe, depth to rock
VyE	Vly Channery Silt Loam	severe, small stones, droughty	severe, rock, slope	severe, slope	severe, depth to rock
WIB	Willowemoc Channery Silt Loam	mod., large stones	mod., wetness	severe, frost action	slight
WIC	Willowemoc Channery Silt Loam	mod., slope, large stones	mod., wetness	severe, frost action	slight

4.1 Vegetation

A total of 218 acres of existing vegetation on the project site will be affected by project construction, leaving over 70% of the site vegetation unaffected. Only 21 of the 218 acres affected will be converted to impervious areas. The remaining 197 acres will be revegetated as golf course, landscaped areas, etc. To mitigate the potential impacts associated with changing currently vegetated lands to buildings, roads, driveways, parking, golf course and other project elements, stormwater management practices have been designed throughout the project in accordance with NYSDEC and NYCDEP requirements so that the rate of runoff from the project site after vegetated conditions. The Water Budget analysis conducted for the project has demonstrated that the removal of the existing vegetation and construction of the project site. The loss of vegetation and the related unavoidable impacts to wildlife are discussed in section 4.3 below.

4.2 Wildlife

Although project plans include reasonable and practicable efforts to minimize wildlife impacts, the alteration of approximately 218 acres, most of which is currently forested, would result in an unavoidable impact to wildlife resources. The magnitude of this avoidable impact would vary across the spectrum of species known to use the site. Small-sized species with small home ranges would be reduced in abundance to an extent commensurate with the loss of habitat. Larger-sized species, with larger home ranges and the ability to adjust their ranges, would also be reduced in abundance, but to a lesser degree. The unavoidable impacts to such species, primarily forest-dwelling species, would be offset to some extent by the creation of ecotone habitat that would improve habitat suitability of other species. There would be no impact on wildlife species listed as endangered, threatened, or special concern.

These unavoidable impacts to wildlife are offset through the protection against future development of nearly 1,200 acres of land at Big Indian and the placement of over 200 acres in the Adelstein parcel into a conservation easement.

4.3 Erosion and Water Quality

Site soils will erode during precipitation events and it will be necessary to implement proper sediment control measures to control erosion at the source in order to protect water quality. As described in Section 3.1, plans for the project include perhaps one of the most comprehensive sediment and erosion control plans proposed for a development project in New York State. Implementation of these plans in accordance with permits issued by NYSDEC and NYCDEP is assured by additional mitigation measures including those that are part of the AIP.

4.4 Fugitive Dust

See Appendix 22A, "Air Quality Assessment of Construction Activities", handling of gravel materials including rock crushing, cement processing, truck transport of materials and truck movement on unimproved roads will lead to fugitive dust. During periods of time when extremely dry conditions are occurring, dust emissions may escape normal control. This will be a short-term impact and can be minimized by use of dust control agents. Sensitive receptors are located far enough away so that there will not be significant impacts.

4.5 Sound

Construction will result in some short term and temporary noise impacts on nearby receptors. Noise sources will include construction equipment and rock crushers. Mitigation measures such as reduced construction equipment levels and noise barriers are proposed to reduce the amount of noise to levels deemed acceptable by regulatory standards.

4.6 Visual

There will be some changes in views into the project site, primarily for lightly traveled local roads on the north side of the Route 28 corridor. as the changes in views are discussed in section 3.6 and discussed in more detail and illustrated in Appendix 25, including the context of the existing views and the mitigation measures incorporated into the project to reduce project visibility.

4.7 Traffic

Construction of the Project will result in some additional trucks and passenger vehicles traveling local roadways. Some additional traffic delays can be expected during construction as the result of trucks entering or exiting the site. Based on information provided in section 3.5, it is expected that the peak construction truck traffic will occur during the first two years of construction with an estimated 53 truck trips per day. Assuming a ten-hour workday, this equates to approximately five trips per hour. The addition of five trips and hour will not be noticeable and will not have an impact on the adjacent roadway system. Currently, the average annual daily traffic on Route 28 is 3,000 vehicles. The addition of 53 trips equates to a maximum overall daily increase in traffic of less than two percent.

During the operational phase of the project, specific mitigative measures have been identified to relieve traffic impacts (see Section 3.5 and Appendix 11, "Traffic Impact Study").

4.8 Water Supply

The testing of the wells that will supply water to Resort were done in accordance with NYSDEC and NYSDOH standards, and demonstrated that using these wells for the project water supply will not adversely impact groundwater resources or surface water resources.

4.9 Global Warming and Carbon Footprint

The project will result in the generation of greenhouse gas emissions during both the construction and operation phases. There will be direct and indirect emissions during construction and operation. The level of emissions, however, will be below the levels deemed to be significant under the Clean Air Act and the Council on Environmental Quality guidance. The project incorporates a host of mitigation measures to limit greenhouse gas emissions, among the most significant being LEED Silver eligible design for the major resort buildings.

SECTION 5 ALTERNATIVES

The alternatives analysis in the SDEIS complies with the Interim Commissioner's Decision by not only addressing the economic necessity of the size and scope of the project but also evaluating the environmental impacts of various smaller alternative layouts. As the Commissioner's decision states "Given the magnitude of the proposed project, its location, and the environmental impacts already noted in this record, the alternatives analysis in the DEIS must include further environmental detail on the alternatives presented as well as one or more additional alternatives to ensure a meaningful basis to compare and evaluate the environmental impacts of the proposed project." The additional alternatives evaluated include the Highmount resort with and without the upper driveway and units at the top of Highmount and the Wildacres resort as a stand-alone facility without any facilities at Highmount. The environmental impacts of these alternatives are evaluated and the economic and environmental reasons for seeking approval of the preferred alternative are thoroughly discussed.

As directed by the Commissioner, this SDEIS and alternatives analysis "addresses the environmental impacts of alternative layouts." The Commissioner also ruled that while he was "not designating a specific number of alternatives that would be included in this supplement"...[the] applicant [should]... include an environmental evaluation of impacts with respect to the two alternatives already referenced in the DEIS (the one golf course and one hotel complex alternative and the east resort/west resort alternative) and such additional smaller scale alternatives that would ensure that a reasonable range is considered...the primary focus of the supplemental alternatives analysis should be directed to provide the information necessary to allow for a comparative environmental assessment of the alternative layouts." See the NYSDEC website for a copy of the NYSDEC Commissioner's Interim Decision at www.dec.dec.ny.gov/hearings/26553.html.

The alternative analysis below fully complies with the ruling of the Commissioner and the approved scoping document. The analysis also sets forth the changes that have been made to the original project as a result of the AIP negotiations.

5.1 Comparison of the Proposed Action with the Previously Proposed Project

The AIP described the original project evaluated in the DEIS as "one economically integrated resort, impacting two non-contiguous assemblages of parcels, Big Indian Plateau and Wildacres, situated on approximately 1,960 acres of land owned by Crossroads, while the project as revised by the AIP was described as "a new, lower impact, alternative which minimizes or avoids the potential for significant adverse environmental impacts identified by several of the Parties and others during the public comment period and Issues Conference, and which the State has determined will provide significant economic benefits to the Central Catskills region."

The Modified Project which is evaluated in this SDEIS reduces even further potential environmental effects than the project concept that was the subject of the AIP. Specifically the removal of units at the top of Highmount and a roadway to the units.

The following table provides comparative statistics for the DEIS project and the currently proposed project evaluated in this SDEIS.

	DEIS	SDEIS		Difference
Project Component	Project	Project	Difference	(%)
total project site size (ac.)	1,960	739	-1,221	-62%
acreage to be developed	573	218	-355	-62%
acreage added to Forest Preserve	0	1,189	1,189	N/A
conservation easement lands (ac.)	0	203	203	N/A
number of lodging structures	121	34	-87	-72%
hotel lodging units (#)	400	370	-30	-8%
detached lodging units (#)	351	259	-92	-26%
single family homes (#)	21	0	-21	-100%
overall density				
(units and rooms/acre)	0.38	0.85	0.47	124%
total length of roads (mi.)	8.2	1.5	-6.7	-82%
length of roads on >20% (mi.)	5.1	0.1	-5.0	-98%
impervious surfaces (ac.)	85	27	-58	-69%
golf courses	2	1	-1	-50%

Table 5-1 Comparison of DEIS and SDEIS Modified Projects Statistics

- The size of the project, in terms of its total size as well as the area to be developed, has been reduced by over 60%.
- The size of the project, in terms of its number of lodging structures, has been reduced by over 70%.
- The size of the project, in terms of its total number of lodging units and homes, has been reduced by 143 units, (19%)
- The size of the project in terms of its single family home subdivision has been reduced by 100%
- The length of proposed roads and the total amount of proposed impervious surfaces have both been reduced by approximately 80%.
- Roads on lands with slopes greater than 20% have essentially been eliminated.

- Nearly 1, 200 acres of land formerly proposed for development are now in State ownership to become New York State Forest Preserve lands
- 203 acres of land have been placed in a Conservation Easement held by the City of New York.

In addition to the positive aspects of the proposed Modified Project as compared to the DEIS Project quantified above, the following qualitative improvements are also accomplished by the proposed Modified Project.

- With the exception of a very small portion of the Wildacres site (+/- 12 acres), stormwater discharges to the sensitive Ashokan Reservoir and Watershed Basin have been eliminated.
- Detached lodging units proposed to be built only on slopes less than or equal to 20% will provide significant stormwater management benefits for this project. This commitment by Crossroads is an enhancement beyond current NYSDEC and NYCDEP regulatory standards for steep slope construction.
- Impacts to views from the Wilderness Area lands in Forest Preserve have been eliminated.
- Two previously proposed private wastewater treatment plants have been eliminated, and treatment is now consolidated at NYCDEP's Pine Hill WWTP.
- Revised plans for water supply for the Project no longer include the Rosenthal wells which eliminates potential impacts to Birch Creek.
- The Big Indian golf course has been eliminated and the remaining Highmount Golf Club was reconfigured to avoid wetland and stream impacts. Moreover, it will be managed in accordance with an Organic Golf Course Management Plan developed in concert with representatives of the environmental parties to the AIP.
- The Wildacres Resort, Highmount Spa Resort and the detached lodging units will be designed and constructed with green building design elements as set forth by the United States Green Buildings Council. Crossroads is committed to obtaining a Silver or higher rating under the Leadership in Energy and Environmental Design ("LEED") program for the Wildacres Hotel, Highmount Hotel and Highmount Lodge building.
- The design of the stormwater facilities at the Wildacres Resort maximizes the use of stormwater runoff for irrigation of the golf course,
- Performance bonds or some other form of security will be posted to ensure that construction stormwater and sediment and erosion control are carried out in conformance with NYSDEC and NYCDEP permits.

Also see SDEIS sections 2.3 and 2.6(A) that describe changes to Wildacres and what was previously proposed at Big Indian, respectively.

5.2 Alternative Layout for Highmount Spa Resort

A. The AIP Plan

One alternative design that was examined and which is included in the AIP is referenced as the AIP plan.

The primary difference between the AIP Plan and the Modified Plan involves 24 detached lodging units and an access road that were originally proposed to be located at Highmount.

See Figure 5-1, Alternative AIP Master Plan. This plan shows the access road for Highmount extending beyond the hotel and the lodge and switching back a number of times before reaching the top of the old Highmount Ski Area. Five (5) single units are located along the roadway as it climbs the hill, and the 19 units are located on the plateau at the top of the hill above the ski trails and lifts. Under this plan the lift line from the Highmount Spa hotel would be shortened and the observatory/warming hut is not proposed near the top of the lift.

The 24 detached units included in the upper part of Highmount under the AIP plan are proposed to be relocated under the Modified Project plan by adding a third floor to the detached lodging unit buildings at Wildacres. The new third floor units would encompass, and be within, the footprint of the detached lodging buildings. Parking for all units in the buildings, including these upper floor units, would be provided under the buildings. Elevators would be added to connect the underground parking and the third floor units. Driveways and surface parking for visitors have been rearranged to accommodate the underground parking and the layout of the detached units in the Front-9 Village would be reconfigured slightly. The reconfiguration provides for a slightly tighter cluster in this area with units remaining off slopes greater than 20%.

Under the AIP plan, the following environmental effects would have occurred.

- An additional 5,580 feet (1.1 miles) of roadway, the majority of which is located on slopes >20%.
- Approximately 6 acres of additional impervious surfaces from roads, buildings and driveways.
- An increase in the number of detached unit buildings by 24 (as opposed to having the units relocated to already proposed buildings at Wildacres).
- Approximately 17 acres of additional site disturbance.
- An upward extension of the highest elevation proposed for development (roads and buildings) from 2620 feet to 3080 feet.

• An increase in the overall visibility of the project, including some additional, but very limited visibility of the project from Wild Forest, Forest Preserve lands on the Dry Brook Ridge Trail and the Balsam Lake Mountain Fire Tower. Nighttime visibility may also have been slightly increased with the higher elevation detached units on Highmount. (See the VIA in Appendix 25)

The following table provides a comparison of the DEIS Project plan, the Modified Project plan and the AIP plan.

Table 5-2 Comparison of DEIS Plan, SDEIS Modified Project Plan, and AIP Project Alternative Plan

	DEIC	SDEIS Modified	AIP <u>Project</u>
Project Component	DEIS Project Plan	<u>Project</u> <u>Plan</u>	<u>Plan</u> <u>Alternative</u>
total project site size (ac.)	1,960	739	739
acreage to be developed	573	218	235
acreage added to Forest Preserve	0	1,189	1,189
conservation easement lands (ac.)	0	203	203
number of lodging structures	121	34	58
hotel lodging units (#)	400	370	370
detached lodging units (#)	351	259	259
overall density (units/acre)	0.38	0.85	0.85
total length of roads (mi.)	8.2	1.5	2.6
length of roads on >20% (mi.)	5.1	0.1	1.1
impervious surfaces (ac.)	85	21	27
golf courses	2	1	1

B. Eliminating Entire Highmount Development

Overview

The proposed Belleayre Resort at Catskill Park is an integrated singular development project. Although its major components (Highmount Golf Club, Wildacres Resort and Highmount Spa Resort) are physically separated to the north and west of BMSC they are connected by County Route 49A. This Scoping Document prescribed alternative involves reducing the size of the project by pursuing development of the Wildacres component of the project only. The intended purpose of such an alternative would be to eliminate the physical disturbance in total to one tract of land and thereby avoid the potential environmental impacts associated with site development. This alternative would result in the following:

- approximately 42 acres less project site disturbance;
- approximately 2 acres less project site impervious area; and
- approximately 328,000 cubic yard less of project site earthwork.

However, as examined in detail for the proposed action, it is noted that the extensive investment in terms of site design and construction planning already minimize or avoid environmental impacts associated with the full construction of the site, especially with the Modified Project having removed the upper portion of the access road on steep slopes and the elimination of the higher elevation units, i.e. the AIP Plan Alternative.

At the same time that physical disturbance would be reduced, there would be significantly less economic benefit accruing to the Towns, County, and State in terms of construction period benefits or the annual increase in property and sales taxes associated with the project itself and the spillover economic activity generated in the Route 28 Corridor.

Potential economic, fiscal and employment effects of a No Build Highmount Spa Resort Alternative:

- Loss of an estimated \$182.19 million in construction
- Loss of 1,991 person-years of direct and indirect construction employment (from the 3,988 total for the proposed action)
- Loss of \$95.01 million in construction wages and salaries
- Loss of \$351.21 million in total economic output or demand
- Loss of \$8.381 million in tax revenues exclusive of property taxes
- Loss of 274 full time jobs during operation of the resort
- Loss in excess of \$12 million annually in paid wages and salaries
- Loss of an estimated \$289,000 annually in hotel occupancy tax revenues to Ulster County
- An annual estimated loss of over \$1,874,000 in property tax collections after full build out

In addition, without the Highmount Spa Resort there would be no need for the applicant to seek the redevelopment of the old Highmount Ski Center, in fact the potential for those lands to be subdivided for single family homes would have to again be pursued.

Most important, detailed market and fiscal analyses undertaken by the applicant show that it is not a reasonable or feasible alternative to the proposed action in that any reduction or elimination of a project element results in either an increased risk to overall marketability and financial viability, or an unacceptably low financial return on investment. The market-based and financial analysis that underlies this conclusion are discussed in detail in Appendix 5, Fiscal and Marketing Information, including reports by HVS Consulting Services regarding the fiscal evaluation.

From a market demand standpoint the proposed project cannot consist of either portion of the project standing alone individually. The project must make an approach to the broadest segment of the market. The project must be of sufficient scale and quality to make a recognizable impact of the target market's impression of the area. The project must offer a variety of activities and facilities to accommodate all members of the family and all levels of proficiency at the various activities. These statements have been consistently supported by various land use and economic analyses of the proposed project performed by various experts in resort development, particularly resorts that involve golf.

HVS is the leading national consulting firm providing appraisal and financial consulting services to the hotel industry. HVS examined the potential development of the Belleayre Resort by examining detailed estimates of initial project costs and future revenues and expenses once the Resort was operational. By relating the financial performance of the Resort (i.e., net income after expenses) and then relating this performance to the initial cost of the development, the project's return on initial investment can be measured.

The HVS study provides detailed projection of income based on all revenue producing components of the project (i.e., room charges, food, golf, spa, retail sales, conference fees) applying regionally adjusted industry benchmarks in terms of rates, occupancy, and golf rounds played. Expenses, also benchmarked to industry standards, included fixed costs (i.e., property taxes, insurance, operating reserves) and variable operating costs (including labor, supplies, marketing, administrative, fees, and others). Income and expense streams over the 10 year analysis period were adjusted based on historical inflation trends as calculated by the Consumer Price Index and an average rate of 3 percent per year was utilized.

The marketability and demand-based viability of the proposed project requires the full breadth of project components, including both hotels to fully cover the marketplace from a 3 to 5 star hotel, a golf course, fractional interest and time share units. As analyzed by HVS Consulting Services, this market-driven need for all components to be considered as an integrated whole, is also reflected in the financial performance of the proposed project

Based on this financial analysis as well as their in-house market data and review of other documents prepared for the Belleayre Resort project, the HVS Consulting study concludes that the proposed project – namely, full development of all project components – is the only feasible and viable approach. This is based on the following findings:

- Critical mass is essential to attracting sufficient patron demand and market awareness for the Resort. This is critical to overcome the current limitations of the surrounding area.
- Economies of scale generated by the operating efficiencies of co-operatively operating the two facilities is important to providing enough expense sharing contributing to the overall feasibility of the project.
- Elimination of market segmentation, thereby allowing for both middle and top elements of the target marketplace to create customer base.

Conclusion

The *No Build Highmount Alternative* is not considered a reasonable or feasible alternative based on the information on market and financial viability summarized above and found in their entirety in Appendix 5 of the SDEIS. It is unlikely that this alternative would ever attract sufficient equity investment or financing or, if built, would be marginally performing or scaled back to a substantially lower quality development without the integration of well-designed and high performance environmental standards. The findings further enforce that the proposed Resort represents an attractive investment opportunity only when considered collectively, in its entirety. Crossroads Ventures would not pursue the project without both the Wildacres and the Highmount elements.

5.3 Alternative Golf Course Layout

See DEIS section 5.3.1 for a discussion of alternative layouts considered for the Highmount Golf Club.

SDEIS Changes to DEIS Wildacres Plans

• Figure 2-15, "Changes to Wildacres Project Site" illustrated lands that were under contract by the Applicant at the time of the DEIS, but are no longer part of the project site. These lands were previously utilized for golf holes 2 and 3 and a part of hole 4. Also the museum parcel was added to the project site.

The Front-9 Village portion of the site previously had 7 golf holes and currently has 6 golf holes. A third golf hole was added in the area between Wildacres Hotel and Gunnison Road.

• Avoidance of 20% slopes when siting the detached units was accomplished without an appreciable increase in the amount of golf course sited on lands >20%. In the SDEIS there is a 1% increase in the amount of golf on lands >20% over the DEIS (24.7 vs. 24.5 acres). However, unlike the DEIS, the SDEIS identifies areas of golf holes on slopes >20% where no earthwork is proposed, where no grubbing will be proposed, etc. See Section 3.3.2, Sediment and Erosion Control, for additional details

Golf Hole 12 from the DEIS was rotated to the east to avoid a large area of steep slopes.

The SDEIS golf layout reduces stream crossings and increases buffers along streams when compared to the DEIS layout.

• In Figure 2-15, "SDEIS Stream Crossings" the streams on the site and their associated riparian wetlands were shown in blue along with the current layout plan. Figure 2-16 "DEIS Stream Crossings", was the DEIS project layout plan that also includes streams/wetlands. Overall, the number of stream crossings has been reduced from 20 in the DEIS plan to 14 in the current SDEIS. The following are the stream crossings under the two plans.

Golf Hole Stream Crossings (-1)

- SDEIS: (7 total): Hole 11(2), Hole 13 (2), Hole 16, Hole 7, Hole 3
- DEIS (8 total): Hole 11 (2), Hole 13 (2), Hole 16 (2), Hole 2, Hole 8

Golf hole 16 was changed to a dogleg left to eliminate the need for a stream crossing.

Golf Cart Path Stream Crossings (-4)

- SDEIS (6 total): #3 tees, between #8 green and #7 tees, #11 tees, #11 green, #13 tees, #16 tees
- DEIS (10 total): Hole 11(3), Hole 13 (2) Hole 16 (2), hole 16/17, Hole 2, Hole (8)

5.4 Alternative Water Supply

The K-wells and the Q-well were developed as an alternative to the DEIS water supply sources that included the Rosenthal wells. The DEIS also contemplated use of Crystal Spring for water supply. Crossroads developed the new, alternative water supply to avoid any impacts to surface waters, including Birch Creek. The well testing report in Appendix 13 demonstrates that the new, alternative water source will not impact surface water resources or groundwater resources. When the K-wells and Q-well were being installed and tested in 2007 and 2008 the Village of Fleischmanns water system did not have capacity to serve the project.

5.5 Alternative Wastewater Disposal

A. Alternative Disposal Options

In the DEIS there were wastewater treatment plants proposed at Big Indian and at Wildacres. Both plants could discharge to the golf course irrigation ponds when irrigation water was needed. Surface discharges during other times were proposed in Birch Creek for Big Indian and an unnamed tributary of Emory Brook at Wildacres. Conveying wastewater from the project to the Pine Hill wastewater treatment plant was not an available option at the time the DEIS was prepared.

The proposed project is estimated to generate 145,200 gpd of wastewater at maximum occupancy. The wastewater would consist of sanitary wastewater and is expected to have concentrations equal to municipal wastewater, which are 200 mg/l BOD, 200 mg/l TSS, and 40 mg/l ammonia. Based on the estimated flows and concentrations, the wastewater loadings are projected as 265 lbs./day BOD, 265 lbs./day TSS, and 53 lbs./day ammonia.

Three alternatives were evaluated for treatment and disposal of the wastewater on-site subsurface treatment, on-site wastewater treatment, and connection to the Pine Hill WWTP.

On-site subsurface treatment is not a viable option for this project due to the steep terrain and volume of wastewater. On-site wastewater disposal fields over 100,000 gpd are not recommended by the NYSDEC and are impractical due to the number of acres required for such a large leach field.

On-site wastewater treatment and surface discharge to a stream was evaluated. This alternative would require constructing a collection system that terminated at a wastewater treatment plant. The WWTP would treat the wastewater to levels designated by NYSDEC and would most likely discharge to a tributary of Emory Brook. Based on the Agreement in Principal, this alternative was discontinued in favor of connecting to the existing Pine Hill WWTP.

Connecting to the Pine Hill WWTP involves constructing a collection system that terminates at a pump station. The pump station would then pump the wastewater to the Pine Hill sewer system, where it would be treated by the Pine Hill WWTP. The existing Pine Hill WWTP is an updated treatment plant with capacity to treat up to 500,000 gpd. However, the current average flows are approximately 130,000 gpd. Since the Pine Hill WWTP has the capacity and is capable of treating the full build out maximum day flow of the project, connecting is the recommended option, as stated in the Agreement in Principal.

The Pine Hill WWTP is designed and permitted to treat BOD, TSS and Ammonia to levels of 10 mg/l, 10 mg/l and 2 mg/l, respectively. Thus, the wastewater loadings are reduced from 90 to 95% by treating the wastewater at a municipal WWTP.

B. Alternative Storage Tank Locations

The Pine Hill WWTP currently experiences high flows during wet weather events due to inflow and infiltration in the existing Pine Hill sewer collection system. The Agreement in Principle requires Crossroads to provide an equalization tank that would hold back the flows from Crossroads during high flows, if needed. Per the requirement, the tank needs to hold twice the maximum average flow plus an allowance for infiltration in the Crossroads sewers. A 420,000 gallon has been selected to meet these requirements.

Two alternatives for the location of the tank were considered. Locating the tank at the Pine Hill WWTP was considered, per the Agreement in Principle. Locating the tank at the Project site was considered based on review comments provided by NYCDEP, which owns the Pine Hill WWTP.

Figure PN 1, includes a site plan at the Pine Hill WWTP and tank details. The proposed tank location would be at the head of the plant before the Headworks Building. The 56-foot diameter tank would be placed adjacent to Route 28 near an existing storage building.

A series of manholes, valves and pumps would be required to allow for the operators of the WWTP to direct flow to the tank, when needed, and then drain the tank back to the plant after the high flow event has passed.

The proposed equalization tank could be constructed at the WWTP site. However, as commented by NYCDEP, this would eliminate the last available space on the property and limit their future options for plant expansion.

Alternatively, the equalization tank could be located on the resort' property and provide the same function, which is store up to two days of flow when needed. As shown on Plan Sheet PN 6, the equalization tank would be located adjacent to the golf course, north of Hole No. 4 Tee.

Under normal conditions, the wastewater flows from the resort would be pumped to the Pine Hill collection system. When needed to help mitigate high flows at the WWTP as directed by the NYCDEP, the wastewater would be pumped into the equalization tank instead. The equalization tank would be operated and maintained by the NYCDEP. The NYCDEP could operate that tank either manually or remotely at their discretion with remote monitoring equipment.

To accommodate the NYCDEP's request, the Applicant would prefer to install the tank at the resort's property. This will allow for operational flexibility envisioned by the AIP and address NYCDEP's concern about limited space at the Pine Hill WWTP.

5.6 Alternative Golf Course Management Practices

See Appendices 14 and 15 of the DEIS. Appendix 15 is the pesticide and fertilizer risk assessment that screened out practices that had the potential to negatively impact surface water, aquatic biota and groundwater resources. Appendix 14 is the Integrated Pest Management Plan that presented a hierarchy of practices to combat golf course pests, with pesticide use being the lowest in the hierarchy.

5.7 Alternative Stormwater Practices

Stormwater is conveyed through a series of stabilized rip rap and grassed swales, storm pipes, culverts and in some cases sheet flow. It is collected, treated and attenuated in catch basins, micropool extended detention ponds, bioretention areas, dry swales, sections of porous pavement, stormwater planters, a wet extended detention pond that will function as a cistern for irrigation, and a green roof. Controlled release structures within the detention ponds regulate the rate at which stormwater is discharged. The existing soils limit the ability to use infiltration for treatment, so underdrains are included in the bioretention areas, dry swales and stormwater planters. The wet pond used to store irrigation water is an isolated man-made pond with a liner and is not associated with any of the watercourses on the project site. Sufficient freeboard will be maintained in the irrigation ponds so that required treatment and attenuation can be achieved.

Even though there are no direct discharges to trout waters, concerns relating to thermal loading were considered in the selection of stormwater management practices. This is one of the reasons Micropool Extended Detention Ponds are used throughout the plan instead of other stormwater ponds, (such as Wet Ponds), which could potentially result in increased stream temperatures. Only two Wet Extended Detention Ponds are utilized. The first is the irrigation pond mentioned above, however since it will be used for irrigation, potential for stormwater discharges from the pond is greatly reduced. The second is at Highmount and actually functions more like a large forebay since it will discharge directly into an adjacent Micropool Extended Detention Pond. Using Bioretention and Dry Swales also helps, as it reduces the amount of stormwater that would be required to pond, and potentially warm, prior to being discharged. Even though 24 hours of extended detention of the 1 yr. storm event is required, using these practices and the Micropool Extended Detention Ponds minimize the potential for thermal loading.

5.8 Alternative Construction Phasing

The construction phasing presented in the SDEIS is for simultaneous construction at Wildacres and at Highmount. This is a possible scenario and the scenario that creates more land disturbance at any one time and generates more construction traffic at one time. An alternative would be to stagger the construction of Wildacres and Highmount. From the standpoint of protecting surface water quality by reducing the amount of concurrent land disturbance, this alternative approach would not provide additional protection since areas at Highmount and at Wildacres drain to different surface waters on the sites and where they leave the sites. From the standpoint of construction traffic, this alternative approach will not lessen traffic on local roads with the exception of the short stretch of CR 49A between Route 28 and Gunnison Road which would carry more truck traffic when Wildacres and Highmount are constructed concurrently.

The proposed project is much different than other types of projects, such as construction of a residential subdivision, where it may be more feasible to limit disturbance project-wide to smaller areas of 1 acre or 3 acres at any one time. First, this project involves construction of some large buildings – the hotels at Wildacres and Highmount – that require site preparation for building construction that is not practical to accomplish in 1 to 3 acre increments. Similarly performing the earthwork required for golf course construction is not practical in 1 to 3 acre increments. The table previously presented in section 2.8.9(E) shows that most of the golf course construction involves areas that are around 5 acres in size. The 5 acres area was originally proposed in the DEIS and it was originally derived from an older NYSDEC General Permit which had 5 acres as the threshold over which a SWPPP was required.

5.9 No-Action Alternative

A. Leaving Lands in Their Present State

Under the no-action alternative, the benefits of the project described previously in section 1.3.4 would not be realized. These benefits included the following.

Employment and Tax Revenues

Leaving the lands in their present state would result in the loss of the projects socioeconomic benefits, creation of private sector employment and generation of revenues at the local, county and State level, that are sorely needed in the current economic climate.

- The proposed project is estimated to directly generate approximately 541 full-time jobs and 230 part-time jobs, a 5.0 percent increase from the number of employees in the workforce study area in 2007.
- Construction of the proposed project would create an estimated 2,176 person-years of direct construction employment (a person-year is the equivalent of one person working full-time for a year). This would represent an average of 218 full-time jobs during the ten-year construction period.

- Total direct and indirect employment (from secondary or induced expenditures) is estimated at 3,988 person-years, or an average of 399 jobs during the construction period.
- Total wages and salaries are estimated at \$191.34 million (all dollar amounts in 2008 dollars). The total economic effect from construction of the project is estimated at \$703.07 million. Total local and state tax revenues generated by the project, exclusive of real estate taxes, are estimated at \$16.85 million.
- Upon completion, the project would create total direct and indirect employment estimated at 1,035 permanent jobs in the Delaware-Ulster-Greene tri-county region and a total of 1,184 jobs in the wider New York State economy. Total wages and salaries are estimated at \$47.17 million in New York State.
- The total recurring effect from operating the project is estimated at \$210.49 million annually in New York State. The annual operation of the project would have associated with it substantial sales tax, person income tax, corporate and business taxes, and other tax revenue.
- During the operational phase when the proposed project is in full swing, the Resort would provide annual sales tax revenues to Ulster County and New York State. On an annual basis, these taxes are estimated to include \$2.69 million in sales taxes for Ulster County, and \$2.69 million to New York State.²⁷
- Upon full development of the proposed project, the taxable assessed value is estimated to be nearly \$60 million. By 2031, when all construction is completed, and when all business investment tax exemptions have expired, there will be an estimated annual property tax revenue increase of \$3.49 million in Shandaken and Ulster County. These future property tax amounts are estimated to be allocated as follows:

Ulster County General	\$	715,205
Shandaken Town General	\$	395,111
Shandaken Highway	\$	374,378
Highmount Fire	\$	167,154
Pine Hill Fire	\$	11,871
Pine Hill Light	\$	4,841
Pine Hill Water	\$	5,412
Onteora Library	\$	323
Onteora Central School	\$	419,306
Margaretville School	\$1	,400,446

At that point in the future, there would also be an annual property tax revenue increase of an estimated \$324,649 in Middletown and Delaware County allocated as follows:

Delaware County General \$ 114,621

²⁷ The 2002 Draft Environmental Impact Statement (DEIS) estimated sales tax revenues generated by a hotel use that would be located within Delaware County. The revised program being advanced in this SEIS does not include uses that would generate sales tax revenues within Delaware County.

Middletown Town	\$ 51,182
Highway Outside Village	\$ 31,843
General Outside Village	\$ 2,119
Middletown FD #1	\$ 7,878
Margaretville School	\$ 117,006

• In addition to the employment and tax benefits provided by the project, it is projected that annual off-site Resort patron spending of \$10.64 million will occur, and that this will occur mostly in businesses located in local village and hamlet centers. These visitor-generated expenditures would result in additional sales tax generation accruing to the Counties and State.

Preservation of Open Space

In the event the Belleayre Resort was not to be developed as presently conceived under the AIP, and as proposed under the Modified Project plan, the lands controlled by Crossroads Ventures would likely be sold. Prospective purchasers may include residential or recreational developers, a public entity such as NYCDEP, or perhaps a land trust. In the event of a sale to a developer, the Wildacres and Highmount parcels, given their proximity to Belleayre Mountain Ski Center would likely be developed with a mix of residential and commercial uses.

Roadway Improvements

Installation of turning lanes and signal control at the NY Route 28 and CR 49A intersection may not occur without the resort project. Similarly, road improvements around the upper driveway in the area of the Wildacres Hotel may not occur without the resort project.

Recreation

Under the no-action alternative Resort guests would not be present to increase attendance at BMSC, particularly as potential multiple-day visitors and weekday visitors. This would also be true for the expanding summer uses at BMSC including summer lift rides, concerts, etc.

Cultural Amenities

The various cultural and arts related activities and organizations active in Middletown and Shandaken which operate on a not-for-profit basis and fund a variety of community causes would not benefit from the participation of Resort guests and employees. The following table summarizes relevant statistics for the no-action alternative in comparison to other alternatives examined.

		SDEIS	AIP	
	DEIS	Modified	Alternative	No-Action
Component	Project	Project	Project	Alternative
Total Project Site (acres)	1,960	739	739	1,960
Acreage Developed	573	218	235	0
Acreage Added to Forest Preserve	0	1,189	1,189	0
Acreage of Conservation Easement	0	203	203	0
Number of Lodging Structures	121	34	58	6
Number of Hotel Lodging Units	400	370	370	24
Number of Detached Lodging Units	351	259	259	3
Overall Density (units/acre)	0.38	0.85	0.85	0.01
Miles of Road	8.2	1.5	2.6	3.4
Miles of Road on Slopes >20%	5.1	0.1	1.1	2.5+/-
Acreage of Impervious Surfaces	85	21	27	2+/-
Number of Golf Courses	2	1	1	0
Water Supply	private	private	private	private
	251,000 gpd	145,200 gpd	145,200 gpd	domestic
Wastewater	private	municipal	municipal	private
Visual Impact on Forest Preserve	Big Indian	Limited	Limited	N/A
	Wilderness	Wild Forest	Wild Forest	
Noise Impact on Forest Preserve	Big Indian	None	None	N/A
	Wilderness			
Annual Local and State Revenues	\$4,200,000	\$9,200,000	\$9,200,000	\$87,000
Jobs Created	872	771	771	0

Table 5-3 Comparison of DEIS Project, SDEIS Modified Project, AIP Alternative Project, and No-Action Alternative

B. Pursuing the Previously Proposed Project

The potential impacts and benefits would be those described in the DEIS.
Section 5 Figures



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See section 6 of the DEIS.

The project will utilize 158,800 gpd of the Pine Hill WWTP's design flow of 500,000 gallons per day (gpd). The average day flows of the Pine Hill WWTP are reported at 130,000 gpd based on current operational reports. The WWTP will still have 211,700 gallons of capacity available.

There will be no loss of any old growth forests since none exist on the project site.

There will be no loss of public recreational opportunities because the project site lands are private and don't provide public recreational opportunities. Public recreational opportunities will be enhanced by the modified project via additional public skiing available at Highmount and additional public land being available at Big Indian.

SECTION 7 GROWTH INDUCING AND SECONDARY IMPACTS OF THE PROPOSED ACTION

Appendix 4 contains the detailed analysis of growth inducing and secondary impacts of the proposed action at full buildout of the project.

This section evaluates the potential for secondary or indirect development in the study area as a result of the construction and operation of the proposed Belleayre Resort. New economic activity associated with the proposed project, as described in previous sections, would generate economic activity and changes to land use off of the project site.

Effects of Visitor, Employee, and Resort Operations Spending

It is expected that the primary economic effects of the Resort within the study area would result from off-site spending generated by visitors to the Resort, and off-site spending from Resort-generated employment (direct and indirect). It is anticipated these effects would stimulate business activity, and that the bulk of this new economic activity would be largely absorbed occur within the existing stock of businesses now operating in the affected area.

Resort Visitors

Resort visitors would not limit their spending solely to on-site Resort goods and services. Visitors would be expected to make numerous purchases of items from local venders, as well as explore Phoenicia, Margaretville, Fleischmanns, Boiceville, and Pine Hill, and to make purchases, dine, service their automobiles, and purchase outdoor equipment. Similarly, it is expected that nearly all visitors would stop along Route 28 or visit one of the hamlets or towns along the way, potentially making purchases.

It is estimated that Resort visitors would spend approximately \$10.64 million per year in the Route 28 Corridor area, shopping for antiques, crafts, etc., restaurant meals, groceries, gas and oil, recreational fees for off-site amenities, and cultural attractions. The estimated on-site and off-site expenditures are detailed in the following table:

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	Total Visitor On-Site Expenditures	Non-Lodging On-Site Spending	Off-Site Visitor Spending
Highmount Resort and Spa	\$27.21 million	\$12.76 million	\$4.25 million
Wildacres Resort	\$40.14 million	\$19.17 million	\$6.39 million
Total	\$67.35 million	\$31.93 million	\$10.64 million

Estimated On-Site and Off-Site Spending by Resort Visitors

The expected off-site spending amounting to an estimated \$10.64 million per year would occur throughout the NYS Route 28 corridor, most particularly in the village and hamlet locations where commerce now is centered, and where existing buildings and commercial spaces are available for business expansions and new business starts. In general, the projected demand is expected to stimulate existing businesses to expand their sales within their existing business locations. New business starts are expected to occupy existing vacant commercial space along

the Route 28 corridor, with most occurring within commercial districts of villages and hamlets where individual businesses benefit from the presence of complementary business activities.

The table below shows the anticipated primary industry and business sectors in which visitor spending is expected to occur.

Trip Spending Category	NAICS Industry Sector	Total	
Restaurants	Food Services and Drinking Places (NAICS 722)	\$2.76 million	
Groceries	Food and Beverage Stores (NAICS 445)	\$2.02 million	
Gas and Oil	Gasoline Stations (NAICS 447/4471)	\$1.60 million	
Recreation Fees	Various	\$0.74 million	
Shopping and Souvenirs	General Merchandise Stores (NAICS 452) and Miscellaneous Store Retailers (NAICS 453)	\$1.49 million	
Other	Various	\$2.02 million	
Total		\$10.64 million	
Sources: Stynes, et. al., Univ. of Michigan, Golf Research Institute, Inc., Halcyon, Ltd., D. K. Shifflet Associates, AKRF, Inc.			

Belleayre Resort Visitors' Projected Off-Site Spending

Resort Employees

The Resort is expected to have about 771 direct (on-site) employees with a projected payroll of \$24.85 million, and support 264 indirect (off-site) employees, with salaries and wages of \$12.96 million. Based on the assumption that half of the direct wages and salaries would accrue to households within the NY Route 28 Corridor area, there would be an estimated \$12.43 million in new expenditure potential within the NY Route 28 Corridor area from Resort employees' wages and salaries. The analysis assumes that about 5 percent of indirect wages and salaries would be captured by residents living within the corridor, resulting in indirect employees generating an estimated \$650,000 of expenditure potential in the NY Route 28 Corridor area.

Expenditures generated by these employees would primarily be for household expenditures, mirroring the distribution of goods and services demanded by existing residents within the corridor.

Resort Operations

The spending and purchases related to the Resort's operations would further contribute to the local economy. The analysis presented in Section 3.9 estimates a total economic output within the tri-county area of \$167.94 million per year. The businesses of the Route 28 Corridor area can be expected to capture a share of this off-site economic activity, such as the Resort's purchase of food or office materials. To estimate the corridor's share of this activity, the off-site activity was estimated proportionate to the corridor's share of retail sales within the tri-county area. This amount—about 2.4 percent based on ESRI Business Analyst estimates—was applied to the net economic activity after subtracting the indirect wages and salaries which was applied in a different and specific manner described above. Thus, the corridor's share of the Resort's operational expenditures is estimated at approximately \$1.05 million per year.

Effects on Businesses

Based upon the inventory of existing businesses, a business survey completed by the applicant, and windshield surveys within the Route 28 Corridor and in Phoenicia, Margaretville, Fleischmanns, Boiceville, and Pine Hill, there appears to be sufficient capacity within existing businesses to accommodate the additional projected spending anticipated to occur within the Route 28 corridor. The increase in local spending would be expected to enable many businesses to increase sales, and extend operating hours or hire additional employees. Other businesses may also respond by increasing inventory and sales, modifying the product line to cater to different consumer tastes, or by adding nominal amounts of area to existing structures. The predominant response would be an increase in existing levels of business activity among existing business. It is also anticipated that there would be new business starts that would locate within and occupy existing structures within hamlets and villages.

While it is unlikely that new corridor spending would directly result in construction of new business structures, a conservative estimate was prepared of the potential impact of new Resort-related spending if it were considered as demand accommodated by all new construction. Projected spending in the corridor was converted to equivalent square feet using an industry standard revenue multiplier of \$326 of revenue per square foot. Applying this standard, approximately 39,400 square feet of new space is estimated as a result of \$12.85 million in new projected sales within the corridor when the project is fully built out.

It is reasonable to anticipate that new commercial establishments would endeavor to open in the Study Area as the Resort's spending potential enhances the region as a place to do business, and as the hamlet and village centers experience more vibrant economic activities. Due to environmental constraints, land use regulations, public land ownership, and high vacancy rates, it is expected that such new business starts would most likely locate in existing structures and buildings, and within the Corridor's hamlets or villages. For these reasons, new business starts are not expected to result in commercial construction on undeveloped sites along the Route 28 Corridor in any appreciable degree. Any new construction, regardless of its location, would have to comply with the rigorous land use and environmental regulations, as further discussed below.

Effects on Seasonal Housing

In regard to housing effects, the Belleayre Resort is designed to capture much of the region's existing demand for seasonal residences, particularly those generated by the adjacent Belleayre Mountain Ski Center and Forest Preserve trails, and to deliberately capture the demand generated by its own recreational amenities, such as the golf course and spa facilities. The Resort is expected to generate little off-site seasonal home demand, and the same is true of off-site year-round residential demand.

Effects of Year-Round Housing

Belleayre Resort is expected to have a negligible effect on year-round residential development in the study area. The vast majority of the jobs created by the Resort would be filled by existing local residents or people within a commuting radius, so the demand for housing or rental units is not expected to increase as a result of new workers. Many current area non-homeowners (e.g., renters) are among the un- and under-employed and commuters to distant job markets who are in fact the workers most likely to seek stable and close-to-home jobs at the Resort.

Any new demand for year-round homes as a result of Resort operations is expected to be small, and would be the result of the few specialized employment positions (e.g., hotel management) that will likely be recruited from outside the existing regional labor pool. It is expected these new year-round residents will, to a large extent, be accommodated within the existing housing stock, with few new housing starts anticipated. The timeshare and hospitality industry workforce is highly mobile. Employees of this mobile nature are not likely candidates to construct homes from scratch, however, there remains the possibility that among the 16 to 20 individuals in this group there may be a very small number of whom, once their employment at the Resort is stable and considered long-term, may choose to build a permanent year-round residence.

Potential Impacts from Induced Growth

Based upon the analyses of the environmental and regulatory constraints, an assessment of available land, an evaluation of existing businesses within the study area, as well as the projection of minimal new potential residential and commercial development that could be anticipated as a result of the Resort, the indication is that Resort-induced business growth would have an insignificant impact on land use in the study area. There appears to be adequate available capacity among existing businesses to accommodate new retail demands as would be generated by the Resort.

The land use and environmental effects of business upgrades would be expected to have a negligible impact on the region's infrastructure or natural or cultural resources. Attractive vacant buildings and storefronts, as well as attractive rents, would be expected to induce the redevelopment of existing underutilized spaces prior to the creation of new commercial space on undeveloped sites. The redevelopment or establishment of new businesses in existing space would not consume new land or create new impervious surfaces. It would, however, be expected to result in the generation of minor amounts of new wastewater flows.

Since the Resort is estimated to result in negligible new seasonal or year-round housing construction, the impacts are anticipated to be insignificant.

Guiding New Development

The existing hamlets and villages of Phoenicia, Margaretville, Fleischmanns, Boiceville, and Pine Hill are the historic and current focus of commercial and economic activity throughout the Route 28 corridor, between Boiceville and Margaretville. Limited commercial development along Route 28 does exist between hamlet areas, but there is no concentration of "commercial strip" development except for the areas immediately adjacent to Boiceville and Margaretville. This pattern is likely to continue for a number of reasons but primarily due to local and New York City regulations governing new development, combined with environmental constraints and New York City and State land ownership along the Corridor.

The primary method for controlling the location, scale, appearance, and character of any new development is through local zoning codes. Environmental constraints within the Route 28 corridor are severe constraints to new development activities. Of specific relevance to potential new commercial development is the location of primary streams (including the Esopus Creek and East Branch of the Delaware River) alongside Route 28, the prevalence of floodplain and wetland areas in close proximity to the road, and the numerous locations where steep slopes are located immediately adjacent to the right-of-way. These environmental constraints also tend to focus development in already built-up places, including Margaretville, Fleischmanns, Boiceville, Phoenicia, and Pine Hill, or in areas immediately outside these hamlets and villages.

Based on the inventory of businesses and land uses within the NY Route 28 corridor, the natural direction for new economic activity would be in the hamlets and villages. The potential impact of induced commercial development is largely a function of how strongly local regulations and plans are enforced. The Towns of Shandaken and Middletown can determine how any additional growth can be directed to reinforce existing community character.

SECTION 8 EFFECT OF THE MODIFIED PROJECT ON THE USE AND CONSERVATION OF ENERGY

The proposed action will cause a use of energy. The consumption of fossil fuels and power will be required by the project both in its construction and operational phases.

During construction, the primary expenditure of energy will be the consumption of fossil fuels to operate construction equipment and to transport construction workers and materials to the site. This activity will cause a temporary and unavoidable increase in energy use. Some of the activities involving fuel consumption during the construction phase include clearing and grubbing, excavation, grading, building construction, and road construction.

The daily action of Resort guests traveling to a variety of destinations, and resort employees traveling to and from work will contribute to the consumption of fossil fuels.

Normal day-to-day operation of the resort will contribute to power consumption on a long-term basis. Heating and air conditioning requirements will also cause the consumption of power resources.

Outside of the structures, some outdoor lighting is expected, but will not result in a substantial use of electricity.

NYSEG has indicated that the existing electricity infrastructure and supply are adequate to meet the new demand of the resort.

A substantial amount of energy conservation will occur at the proposed Highmount Hotel and Lodge buildings. The earth and vegetation covering of the building will reduce heat loss in the winter and will keep the interior of the building cooler during the summer months.

See Sections 2.8.12(A) and 2.8.12(E) for a full discussion of energy conservation measures that have been incorporated into the project.

SECTION 9 CONSULTATION AND COORDINATION

The following agencies and organizations were contacted as part of the preparation of this SDEIS.

ADK/New York New Jersey Trails Council Belleayre Mountain Ski Center Big Indian, Pine Hill and Fleischmanns Fire Departments Catskill Center for Conservation and Development Catskill Regional Invasive Species Program **Cornell Cooperative Extension Cornell University Delaney Construction** Delaware County Planning Department Delaware County Sheriff Delaware County DPW Health Alliance of the Hudson Valley Hydrotech Maine Drilling and Blasting Margaretville Central Schools Margaretville Telephone Company Natural Resources Defense Council NYCDEP **NYS** Police NYSDEC NYSDOH NYSDOT NYSEG NYSOPRHP **Onteora Central Schools** Riverkeeper Shandaken Police Shandaken Rescue SUNY Delhi Time Warner Cable **Trout Unlimited** Ulster County Department of Health Ulster County Planning Department Ulster County Resource Recovery Agency **Ulster County Sheriff** US Army Corps of Engineers USGS Green Section Verizon Village of Fleischmanns