

SECTION 3 ENVIRONMENTAL SETTING, IMPACT ANALYSIS AND ADDITIONAL MITIGATION MEASURES

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.

The Delaware Watershed consists of 648,320± 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 231,777 acres. The approximately 234.5 acres to be developed in the Pepacton Watershed represents 0.1% of the watershed that is currently 80% forested or water (NYCDEP, 1999). DEIS Figure 3-9, "Pepacton Watershed Land Use", illustrated the amount of various land uses in the watershed as of 1999.

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. 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. 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 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 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. Approximately 1 to 8 feet wide with a depth of 1 to 8 inches, this stream has substrate consisting of rock, boulder and gravel.

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. The width of the stream ranges between 1 and 4 feet with depth ranging from 2 to 4 inches and some deeper areas of 8 to 10 inches. The substrate is a mix of boulder, rock, and gravel.

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 a 10-year 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 ten year water quality monitoring program.

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 154.7 kg/yr includes 84.8 kg/yr in runoff from undisturbed land.

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 154.7 kg/yr. This new load represents a 0.41% increase in the existing loading, and a 0.22% increase in the TMDL, or 0.46% of the unallocated loading. The new TP loading of 154.7 kg/yr includes 84.8 kg/yr from undisturbed areas. Removing the 84.8 kg/yr of TP from the 154.7 kg/yr total estimates the net new TP of 69.6 kg/yr. This net new TP load is 0.21% 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 81,740.5 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 of the 1 yr storm event is required, using these practices and the Micropool Extended Detention Ponds minimize the potential for thermal loading.

C. Draft Stormwater Pollution Prevention Plan (SWPPP)

The required draft SWPPP for Phase 1 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 parties to the AIP spent considerable time developing appropriate and reasonable measures to mitigate the potential for adverse environmental effects from construction activities. Detailed below are the conditions agreed to by the AIP parties.

The following is from the AIP Exhibit F and paragraph 15.

- The project is being administered under an individual industrial permit for construction stormwater discharges. This permit will be issued following a detailed evaluation by NYSDEC.
- The individual stormwater permit process incorporates 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%. The Parties acknowledge that the commitment by Crossroads to build [detached] lodging units 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.

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 Oversight-AIP

AIP paragraph 21.

- a. 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. Prior to approval, NYSDEC and NYCDEP will provide the NGO with a 30-day opportunity to comment on the qualifications of the proposed Independent Monitor, including training, experience and potential conflicts of interest. 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.
- b. 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, and all other related requirements described in this Agreement in Principle or otherwise required as stormwater conditions adopted pursuant to SEQRA. The Independent Monitor will 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 will be conducted in accordance with an Independent Monitor Service Agreement (“I.M. Agreement”) that will be fully consistent with this Agreement in Principle. The Independent Monitor will be either (or both) a qualified professional engineer or a Certified Professional in Erosion and Sediment Control. The Independent Monitor will 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 will be 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 NYSDEC and NYCDEP permits. Original copies of all Independent Monitor reports, and any information generated or relied upon by the Independent Monitor related to Crossroads' report, will 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 will have all necessary staff available who possess the requisite educational background, certifications, licenses and/or experience necessary to perform the various tasks required. The Independent Monitor will 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 post-construction review or monitoring. The Independent Monitor will 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 will 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 will be maintained in their original format and be available to NYSDEC and NYCDEP. The Independent Monitor will retain 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 will notify 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 will 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.

There will be a Project Erosion Control Superintendent who will be a main point of contact for the Independent Monitor. The Project Erosion Control Superintendent and their staff will 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 Security

AIP, paragraph 37.

37. Financial Security. 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 this Agreement in Principle and the applicable provisions of NYSDEC and NYCDEP permits issued for the modified project/lower impact alternative, Crossroads will deliver to NYSDEC and NYCDEP the following:

- a. 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 implementing and complying with the SWPPP prepared for the modified project/lower impact alternative, and the applicable provisions of 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

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 overall approach to enhanced erosion control during construction of the project is in accordance with the AIP, including AIP Exhibit D.

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), 2.8.9(F) and 2.10 previously described the project phasing and extended buildout anticipated for the project. See the Phasing Plan (CP-1) and construction phasing plans (PH-1.1 through PH-1.20) 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 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 Development, show the progression of work for Phase 1 construction. In this drawing phase 1 construction in the main part of Wildacres is designated as 1A, the northeast corner of Wildacres is designated as 1B and Highmount is designated as 1C. The work areas are then sequentially numbered within 1A, 1B and 1C. This same information is also contained on the Sediment and Erosion Control Plans, sheets L3.02-L3.21, 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 L3.18 through L3.21 shows the construction phasing work areas at Highmount. Work areas for the upper road construction at Highmount have been limited to less than 1 acre, and in almost all instances, the 10 work areas are ½ acre or less.

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

1.A Construction Wildacres Main Parcel		1.B Construction Northeast Wildacres		1.C Construction Highmount	
Work Area	Acreage	Work Area	Acreage	Work Area	Acreage
1A.1	5.2	1B.1	5.5	1C.1	9
1A.2	5.3	1B.2	4.3	1C.2	0.7
1A.3	3.2	1B.3	4.6	1C.3	0.4
1A.4*	20.5	1B.4	5	1C.4	0.4
1A.5	2.6	1B.5	3.7	1C.5	0.7
1A.6	6.5	1B.6	4	1C.6	0.4
1A.7	3.7	1B.7	5.1	1C.7	0.5
		1B.8	5.5	1C.8	0.4
				1C.9	0.4
				1C.10	0.8
				1C.11	0.5
				1C.12	0.5
				1C.13**	15.1

*1A.4 includes 16.3 acres around the Wildacres Hotel

**1C.13 includes the Highmount Hotel

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 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 pre-construction 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 reseeded 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:

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

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

- No treated stormwater may be directly discharged to any surface water under any conditions.
- No treated stormwater may be discharged which exceeds a 50 NTU turbidity value, in any manner.
- Whenever possible, treated stormwater must be transferred from a stormwater management pond to an Irrigation Pond for future irrigation purposes.
- Stormwater which cannot be transferred to an Irrigation Pond, due to insufficient capacity or for any other reason, must be discharged to the ground (overland flow) at a location which is at least 300 feet from the nearest surface water, including intermittent streams, in an area which is fully vegetated at the disposal location and over the entire pathway to the surface water.
- Discharge of the treated stormwater to land must be performed in a manner which results in even and controlled distribution of the stormwater, and which will not result in scouring, channelization, or erosive velocities.

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

10. Draft SWPPP

The required draft SWPPP for phase 1 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.

D. Water Supply Technical Committee

The Water Supply Technical Committee was established in the AIP (paragraph 22). The role of this Committee is to resolve any disagreements that may arise in regards to NYSDEC issuing a draft water supply permit in consultation with NYSDOH. The committee is comprised of representatives of NYSDEC, NYSDOH, the USGS, Crossroads and NGOs. See the AIP in Appendix 1.

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 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 160,000 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 will be collected and conveyed to the Pine Hills wastewater treatment plant. 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 160,000 gpd at full project buildout and under a 100% occupancy scenario. Further, 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.

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 fair-share pay for a flow equalization tank at the WWTP.

As stipulated in the AIP, the capacity of the equalization tank is 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 is determined based on Ten States Standards recommended value of 100 gpd per inch diameter mile for gravity sewers. The Resort's wastewater collection system has nearly 2 miles of 8-inch gravity sewers. Thus the infiltration flow rate is calculated as follows:

- Flow Rate = (2 Miles) X (8 inch) X 100 gpd
- Flow Rate = 1,600 gpd

Thus, the required capacity of the equalization tank is 390,000 gallons plus 1,600 gallons which is 391,600 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 located at the Pine Hill WWTP. The supporting equipment includes a mechanical aerator mixer, and submersible duplex pump station.

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

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 the Resort's maintenance staff.

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 backup generators.

The Resort's maintenance staff will need to have trained individuals who will check the status of the pump stations and sewers and respond to maintenance calls. If the staff does not have the equipment or the resources to address a problem, they will need to hire a contractor that specializes in that type of work.

Mitigation Measures

1. An equalization tank designed and paid for (fair share) by the Applicant as part of the Project will fix the problems that the Pine Hill WWTP currently experiences with inflow and infiltration to existing pipes in Pine Hill during wet weather.
2. As per AIP paragraph 23, the connection of the project to the Pine Hill WWTP will 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.

3. As per Exhibit H of the AIP, the Applicant will 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 WWTP.
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.

Mitigation Measures

Potential impacts to aquatic biota will be mitigated by implementing the Project organic golf course management plan in accordance with the AIP.

As described in detail in Appendix 15 of this SDEIS, the Highmount Golf Club will be managed under an Organic Golf Course Management Plan required under the Agreement in Principle. 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 & 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.

Consistent with the AIP, the following list of products may not 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. *Milogranite*®)
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 are permitted.)
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.

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 lysimeters 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.

The AIP includes the following provision which is also being proposed as mitigation measures in this SDEIS in the event that organic management is discontinued.

“Following five years of Wildacres Golf Course operation pursuant to this Agreement, 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 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 under this provision and that the concerns raised by the operator cannot be adequately addressed through adjustments or modifications to the Organic Management Plan, as provided for in this Agreement and Exhibit E. 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.”

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.

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. 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.

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

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 in accordance with the Agreement in Principle.

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 17 demonstrates 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 impacts 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 ¼ mile of the blasting locations within the site of the opportunity to have a pre-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 ¼ 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 ¼ mile of the blasting locations within the site of the opportunity to have a per-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 ¼ 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 ¼ 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.
 - l) 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.

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. Under the current grading plans there is a net excess cut for all of Highmount of approximately 8,700 cubic yards. For the purpose of the SDEIS, and the level of detail of the accompanying drawings (grading at 2 foot contour intervals) this can be considered balanced since the 8,700 cubic yard quantity is equivalent to placing 6 inches of fill under the hotel/spa building, Area 8 on figure 3-2.

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 Wildacres 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, 32% 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	178.8
Hardwood swamp	2.4	0.3
Hemlock-northern hardwoods forest	71.5	36.0
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	4.9
Intermittent rocky stream wetland	4.4	0.8
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	1.7
Old quarry with open successional vegetation	3.0	0.0
Total	739.3	233.4

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”.

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.

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. A response from the USACOE is currently pending.

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 pre-development 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 playover areas only. This is described in greater detail in Section 3.4.3, Wildlife.

G. Permitting Requirements

The January 11, 2011 letter to the USACOE includes a request for a Jurisdictional Determination and confirmation that the project does not require any further authorizations.

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 easment 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 Belleayre Mountain Ski Center 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.

Table 3-4 Impact Acreage by Plant Community

Plant Community	Existing Acreage	Impact Acreage
Beech-maple mesic forest	587.5	178.8
Hardwood swamp	2.4	0.3
Hemlock-northern hardwoods forest	71.5	36.0
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	4.9
Intermittent rocky stream wetland	4.4	0.8
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	1.7
Old quarry with open successional vegetation	3.0	0.0
Total	739.3	233.4

Of the 739 acres of existing plant communities on the site approximately 233, or about 32 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, black-throated 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/beechn-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 ample 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 are 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 small-sized 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 discernable 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 are proposed to be placed in public ownership and may 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 (<http://www.dec.ny.gov/animals/6995.html>) 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.
3. The level of service analysis indicates that the unsignalized study area intersections on NY Route 28 at NY Route 214, NY Route 42, CR 47, and Main Street and the CR 49A/Gunnison Road/Belleayre 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 *Belleayre 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 Belleayre 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 left-turn 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 Unit Management Plan (UMP) timeframe. In accordance with the AIP the BMSC UMP is being updated as part of the SDEIS 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 between 1.8 and 2.5 times higher than June volumes, and 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 Belleayre 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

Table 3-5 Design Criteria Table					
Route No. & Name:		County Road 49A – Galli Curci Road		Functional Class:	
Project Type:				Design Classification (AASHTO Class)	
% Trucks:		1 %		Terrain:	
ADT:		1600 vpd (in season)		Truck Access Rte.:	
				Rural Minor Collector	
				Special Purpose Roads	
				Mountainous	
				No	
Element		Standard Criteria	HDM/AASHTO § Reference	Existing Conditions	Proposed Conditions
1	Design Speed	40 mph ³	-	55 mph	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 Note 1)	2 ft	AASHTO Ex 5-18	0 ft	1 – 2ft ⁴
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 & Vertical)	305 ft min	HDM Ex 2-5 AASHTO Ex 5-13	127 ft ⁵	127 ft ^{Error! Bookmark not defined.}
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	NA
11	Pavement Cross Slope Travel Lanes = Parking Lanes =	1.5 % to 2.0% 1.5% to 5.0%	2.7.3.1 K	Varies	Match Existing
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 ⁶ and HDM Chap 18	2.7.3.1 N HDM Chp. 18	None	None
17	Median Width	NA	NA	NA	NA

³ 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.”

⁴ 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.

⁵ Sag curve condition.

⁶ ADAAG – American Disabilities Act Accessibility Guidelines for Buildings and Facilities

Table 3-6 Design Criteria Table

Table 3-6 Design Criteria Table					
Route No. & Name:		New York Route 28		Functional Class:	
Project Type:				Design Classification (AASHTO Class)	
% Trucks:		9 %		Terrain:	
ADT:		3000 vpd		Truck Access Rte.:	
Element		Standard Criteria	HDM § Reference	Existing Conditions	Proposed Conditions
1	Design Speed	60 mph	-	60 mph	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 ft	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 & 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	Varies	Match Existing
12	Rollover – between lanes = at edge of traveled way =	4.0% max 8.0% max	2.7.2.1 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 and HDM Chap 18	2.7.2.1 N HDM Chp. 18	None	None
17	Median Width	NA	NA	NA	NA

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 for the SDEIS project is in Appendix 25.

A. Daytime Conditions and a Typical 5-Mile Study Area

See Part 1 of Appendix 25.

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. 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.

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 render visual impact insignificant. These include eliminating the Big Indian development, designing in accordance with the AIP, clustering development even tighter than what was required in the AIP, using smaller buildings 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 would have to look at a right 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.

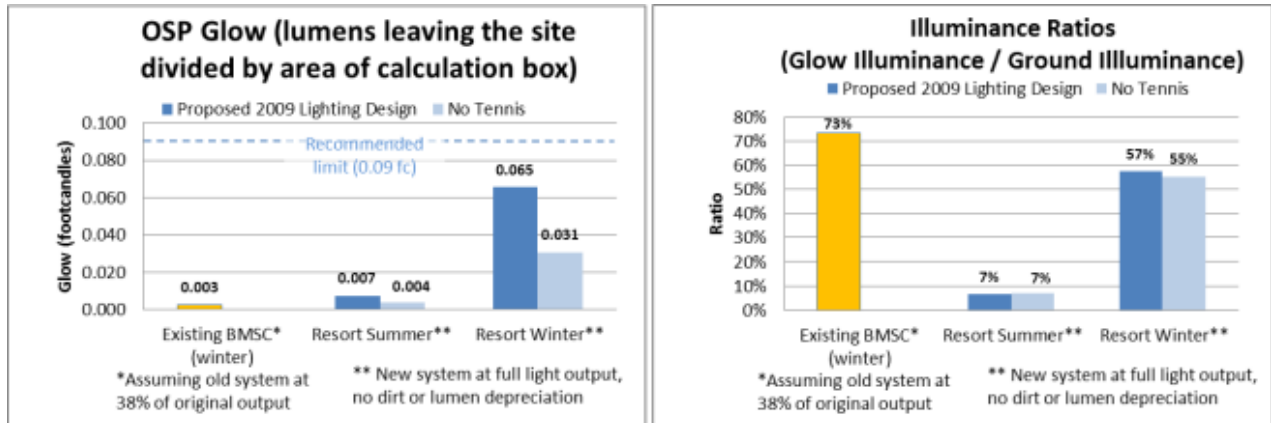
There are no other significant resources of statewide significance located in the study area that could be affected by the project.

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.

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 discernable 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 discernable in the rendering of the proposed 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.

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 than sound from lower-noise equipment options ultimately selected for the Project. Since Project sound levels from actual Project construction and operation may be lower than 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.

Blasting

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.

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.

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 were 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 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 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 nebulous, 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 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. Shandaken and Middletown Land Use Plans/Regulations

See section 3.8.1(A)(2) above. No variances or zoning changes are required for the modified Project.

3. 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.”

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 3.

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.

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). 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 2,375 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 & 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 will 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 more than enough 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 would 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 (CO₂e). 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				
Year	Emission (metric tons per year)			
	CO₂	CH₄	N₂O	CO₂e
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

Key:
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 2007.

In 2007 the 12-month annual mean value for sulfur dioxide measured at the Belleayre station was 1.3 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 for sulfur dioxide at Belleayre was 17 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 9 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 2007 report, 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 2007 report is 0.076 ppm. Like the Belleayre station, the station in Millbrook (Dutchess County) was below the 0.08 limit at 0.074 ppm. The Region 3 air quality monitoring stations in White Plains (0.091 ppm) and Mt. Ninham (0.085) exceeded the NYS and FAAQS for ozone in the 2007 report.

Lead is the last parameter included in the 2007 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 0.00 ug/m³ to 0.06 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.

Belleayre 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 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 in-room 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 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 is 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.