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April 19, 2004

New York State Department of Environmental Conservation
21 South Putt Corners Road
New Paltz, NY 12561-1696

Attn: Mr. Alexander Ciesluk, Jr.

Re: Draft Environmental Impact Statement for the Belleayre Resort at Catskill Park
CEA No. 04017

Dear Mr Ciesluk:

Carpenter Environmental Associates, Inc. (CEA) on behalf of Riverkeeper, Inc. (Riverkeeper) has reviewed the Draft Environmental Impact Statement (DEIS) for the proposed Belleayre Resort at Catskill Park. Please find our comments on the DEIS listed below.

1. Page 3-26 of the DEIS states that "No more than 25 acres of soil are proposed to be unstabilized at any given time within either reservoir watershed, but always with enhanced erosion control measures in place." Construction General Permit GP-02-01¹ under the section titled Minimum SWPPP Components, Section a.(4) states "there shall not be more than five (5) acres of disturbed soil at any one time without prior written approval from the Department. The Applicant has not provided sufficient information to justify a waiver of the 5 acre disturbance limit. The Applicant has stated that the CP series of plans exemplify the level of planning and phasing that will be completed for all phases of the project. However, the CP series of plans do not possess sufficient detail to warrant granting of a waiver. For example, CP-15 contains a table that lists the various erosion control technologies which can be used at the site based on the slope of the specific area requiring mitigation. Based on this plan twenty different technologies could be used in an area with slopes greater than 100%. The Applicant does not show which technology has been selected for use. Prior to starting work in an area, the Applicant, the New York State Department of Environmental Conservation (NYSDEC) and the public must know exactly what

¹ The SWPPP page 3 of 44 references compliance with the GP-02-01 (SPDES General Permit for Stormwater Discharges from a Construction Activity). However, the NYSDEC has informed me that the Applicant is applying for individual stormwater discharge permits.

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- erosion controls will be used. The Applicant should be required to show exactly how erosion and sediment control will be addressed in an area. The Applicant is requesting that NYSDEC waive its disturbance requirement, but the Applicant has not properly demonstrated that proper erosion and sediment controls will be used to protect these large areas of soil disturbance. Without specific erosion control plans and details the Applicant's waiver request should be denied.
2. The Applicant proposes the potential use of gabions and retaining walls at the site. These are structural controls which require engineering design. The Applicant should be required to show on the plans precisely where these controls and any other controls requiring engineering design will be installed. The NYSDEC and the public must know exactly what structural controls are to be used so that their design and placement can be evaluated.
 3. Page 2-37 of the DEIS states that a number of locations have been identified as being suitable for stockpiles, and that these stockpiles will be stabilized by "enhanced erosion and sediment controls". All stockpile areas along with the "enhanced erosion and sediment controls" must be shown on the soil erosion and sediment control plans. This is another example of the detail that is missing from the Applicant's plans.
 4. Page 3-30 of the DEIS and Page 6 of 44 of the SWPPP (Appendix 11, under Section 6) discusses the sequence of activities for Phase 2 of the construction. This sequence of activities shows that the Applicant will install perimeter control after centerline clearing has taken place. Perimeter control/erosion control measures must be completed prior to any earth disturbing activities.
 5. Page 13 of 44 of the SWPPP (Appendix 11) references Figures 3-5 and 3-6 as soils maps for the western and eastern portions of the site respectively. The correct Figure numbers are 3-6 and 3-7.
 6. The Drawings PF 1-3, titled Phasing and Erosion Control Plans, are seriously lacking soil erosion device detail. There is extremely limited soil erosion device information on these plans, yet they are titled Erosion Control Plans. Furthermore, the PH series of plans are not consistent with the CP series of plans, in terms of the erosion control devices that are to be used. For example, PH-3 shows the use of silt fence only around the tip of hole 3 at Big Indian Plateau. Yet CP-6 shows the use of silt fence around the perimeter of the entire construction area for this hole. It is understood that PH series of plans cannot show the level of detail that is shown on the CP series of plans. However, these plans should show the major erosion controls that will be used and they should be consistent with the measures shown on the CP series of plans. As stated previously in Comment 1, even the CP series of plans do not provide sufficient detail of the soil erosion and sediment control practices planned for the site.
 7. Appendix 9 of the DEIS (Construction Phase SW Management) (page No. 1 in the middle on the Appendix) states that La Group Plan Sheet CP-2 shows the location of the level spreaders. The level spreaders are not shown on this drawing or any other drawing. The locations and dimensions of the level spreaders should be shown on the plans so that the public and interested parties

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can evaluate the potential impacts that could result from the use of level spreaders, and so the Applicant can evaluate the feasibility of using level spreaders at the chosen locations.

8. Page 33 of 44 of the SWPPP (Appendix 11) states that surface water monitoring will be completed above and below the project area. Presumably this data will be used to assess the effectiveness of the stormwater and erosion control practices during construction. However, it is unclear how the Applicant will determine when a change in the water quality is due to naturally occurring conditions, or due to the Belleayre project. The Applicant should be required to develop a plan which statistically evaluates the available water quality data and determines the natural fluctuations in the water quality that can be expected to occur. This plan should establish water quality action levels, and provide details on what actions will be taken if the water quality exceeds the action levels. Without such a plan, the collection of water quality data will most likely be useless or of limited value.
9. Page 36 of 44 of the SWPPP (Appendix 11) states that petroleum for fueling the construction vehicles will be stored onsite. Secondary containment or Convault tanks will be used to store the fuel. However, the Applicant does not provide any secondary containment for the area where the vehicles will be fueled (i.e., the fuel transfer area). The Applicant should provide a fuel transfer area with an impervious surface, and containment capable of containing the largest anticipated spill that can occur in the area. The design of the fuel transfer area should also include provisions for the storage of rainwater if it is possible for rainwater to accumulate in the transfer area. The provision for and utilization of a fuel transfer area is a standard Best Management Practice.
10. The soil erosion plan does not utilize the symbols required by the NYSDEC.
11. The detailed soil erosion plans (i.e., CP-1 to CP-18) do not have the sediment basins clearly labeled, which makes the review of the plans difficult.
12. Page 15 of 44 of the SWPPP (Appendix 11) discusses the use of temporary sediment and stormwater basins to capture and hold runoff from the entire subcatchment area draining to them. These basins are designed to store the runoff associated with the 10 year storm. The Applicant's basin design only provides sufficient storage volume to hold stormwater. The Applicant has failed to provide the required sediment storage in the stormwater/sediment basins. For example, Appendix 9 of the DEIS, page 2 of the Hydrocad calculations shows that for subcatchment 211, the runoff from a 10 year storm will generate 1.07 ac-ft of water. The runoff from subcatchment 211 is directed to basin 211. Basin 211 (see page 15 of the Hydrocad calculations) has a peak storage capacity of 1.07 ac-ft. The New York Guidelines for Urban Erosion and Sediment Control (page 5A.47) states that "the sediment storage volume of the basin, as measured from the bottom of the basin to the elevation of the crest of the principal spillway shall be at least 1,800 cubic feet per acre of disturbed area draining to the basin." Using this guidance for subcatchment 211, which has a drainage area of 3.0 acres, 0.124 ac-ft (5,400 ft³) of sediment storage is

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- required. This would increase the required basin volume to 1.19 ac-ft. The Applicant must increase the storage volume of the stormwater/sediment basins to allow for the accumulation of sediments. The sediment basins should be designed in accordance with the New York Guidelines for Urban Erosion and Sediment Control.
13. The Final SWPPP must include an accurate construction schedule as required by NYSDEC. The construction schedule included in the Draft SWPPP is incomplete.
 14. The SWPPP must include a discussion of the existence of any environmentally sensitive areas as required by the NYSDEC. The Draft SWPPP provided no information on the existence or the lack thereof of environmentally sensitive areas.
 15. The NYSDEC has developed a Total Maximum Daily Load (TMDL) for phosphorus within the Ashokan Watershed. According to Appendix 10 of the DEIS, there is flexibility in the loading assigned to non-point sources since as of 1996, the actual phosphorus loading from non-point sources was less than the allocated loading. Data from 1996 is not sufficient to make a determination as to whether there is available loading within the Ashokan Watershed today. After over eight years, there has likely been additional development which has increased the phosphorus loading within the watershed. The cumulative impact of all projects since 1996 and any proposed projects which would be concurrent with the construction phase of the Belleayre project must be considered in determining whether the TMDL will be complied with. For example, the NYSDEC recently released the Draft SPDES permit for the Shandaken Tunnel. This permit includes the Shandaken Tunnel as an additional point source within the watershed and allocates 10,457 kg/yr to the Shandaken Tunnel. Since the discharge from the Tunnel was unaccounted for in the original TMDL allocations², the proposed allocation of 10,457 kg/yr exceeds the 8,026 kg/yr margin of flexibility for non-point sources, meaning that no additional inputs of phosphorus would be allowable. The Applicant must reevaluate the phosphorus loading from the site using current data, discharge permits, and planned or completed projects, so that an accurate and up to date assessment of compliance with the TMDL can be completed.
 16. The check dam detail shown on plan CP-18 does not comply with the New York Guidelines for Urban Erosion and Sediment Control.
 17. Page 16 of 44 of the SWPPP (Appendix 11) states that Chitosan (i.e., Storm Klear) will be used as the flocculant for the stormwater/sediment basins. There is conflicting information on the toxicity of this flocculant to rainbow trout. Toxicity to cultured rainbow trout was observed at concentrations as low as

² Appendix 10 of the DEIS indicates that only 254 kg/yr was allocated to point sources. Therefore, the Shandaken Tunnel was not originally included as a point source in the TMDL. Phosphorus loadings from the Shandaken Tunnel may have been included in the non-point source allocation, although it is not clear from the TMDL documents whether this is indeed the case.

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0.075 mg/l after 24 hours of exposure³. On the contrary, the information found in Appendix 2 of the DEIS shows that Chitosan used at the proposed dose of 1 to 2 mg/l is not toxic to rainbow trout. Since there is some question as the toxicity of this flocculant, the Applicant must be required to evaluate the potential toxicity of Storm Clear under site specific conditions. This could be accomplished by completing bioassay testing on a stormwater sample collected from the first stormwater/sediment basin installed at the project site. Without such testing, the use of Storm Klear at the site may cause an adverse impact to the trout population of the receiving waters.

Based on the information contained in the DEIS the Applicant has failed to provide sufficient information and has not completed the analyses necessary to satisfy the requirements of SEQRA. If you have any questions regarding my comments on the DEIS, please do not hesitate to contact me at (845) 781-4844.

Sincerely,

CEA ENGINEERS, P.C.

Steven R. Garabed, P.E.
Sr. Engineer

³ "Toxicity of acidified chitosan for cultured rainbow trout (*Oncorhynchus mykiss*)", Graham Bullock, Vicki Blazer, Scott Tsukuda, Steve Summerfelt, Aquaculture, Elsevier Science, November 7, 1999.