ZAMURS AND ASSOCIATES, LLC

Transportation Air Quality Energy Climate Change Sustainability

Comments by

Catskill Heritage Alliance

Regarding

Transportation and Air Quality Impacts for
Modified Belleayre Resort at Catskill Park SDEIS,
Belleayre Mountain Modified Project Unit Management Plan (UMP) and
Cumulative Impacts Analysis for Belleayre Resort and Belleayre Mountain UMP

1. The potential transportation impacts of this project have not been adequately addressed. The traffic study considered only effects on localized roads and intersections in the immediate area of the project during the so-called “worst case” day in winter. This approach is fundamentally flawed and inadequate for a project of this magnitude and scope.

   The project hopes to become a year round destination with the inclusion of a spa, hotel, time-shares and golf course, in addition to the expansion of the ski center. The other facilities would still be used at those times of the year when the ski center is not in operation. The existing traffic analysis is based on historic data when only the Ski Center was in operation. With the Resort in place, this area will experience year round increases in traffic. Indeed, page viii of the Executive Summary declares the project will result in a “full array of year-round demand generators”. For this project, relying on the past is not appropriate.

   - The traffic study should evaluate the impact of this Resort on year-round travel and disaggregate the attracted trips by season of the year. The SDEIS identifies the NYC metropolitan area as the primary source of customers to the Resort.

   - The traffic study should identify the routes used by the customers to reach the Resort and show how that additional traffic will impact volumes, speeds and congestion on those routes, as well as on local roads.

- This information should be disaggregated and disclosed by season due to the implications for potential non-attainment of the ozone (a summertime pollutant) air quality standard (as discussed below in comment 7).

The UMP DEIS analysis begins to approach the issue by considering segments of the Route 28 corridor in its analysis. Since it only considered the expansion of the ski center, it did not examine seasons other than winter. However, the Resort SDEIS and the Cumulative Impacts Analysis must consider regional travel on a year-round basis. In these documents, it is difficult to find any indications of total visitors (and therefore trips) as a result of the project. The documents should clearly and explicitly identify the total trips to the area as a result of the project by using appropriate methodologies to estimate the attracted trips and assign and distribute those trips to the regional highway facilities that will experience the increases in traffic. If the UMP project recognizes the need to consider wider traffic effects than just in the immediate localized project area, it is unclear why the Catskill Resort SDEIS which considers a project of larger scale, magnitude and potential impact, fails to recognize this fundamental approach to project analysis.

Although the documents do not clearly identify potential transportation impacts, there are indications that the increase in traffic may be substantial. For example,

- The UMP analysis shows that 786 trips will be added to the base case 973 trips (Section 4.6), a 76% increase.
- In Appendix 5 of the SDEIS (Fiscal and Marketing Information), the 10 year forecast of rounds of golf played to be nearly 15,000 rounds per year. Conservatively estimating that there will be 2 persons occupying each vehicle driving to play golf, 30,000 trips are expected to be generated from the golf course alone.
- Section 4.1 of the UMP predicts an increase in visitors from the ski center expansion alone from 166,000 visitors per year to 320,000 visitors per year.
- Table 3.9-1 of Appendix 3 of the SDEIS identifies that there will be approximately 1.4 million square feet of development on 739 acres with the Highmount Spa and Resort and Wildacres Resort. At Catamount Valley Ski Resort in Colorado, based on studies for the project prior to its development, 1.5 million visitors per year were expected on 3200 acres (http://www.colorado.edu/conflict/full_text_search/All CRCdocs/94-53.html). Assuming that size of the development is proportional to the number of attracted visitors, then the Belleayre Resort would attract close to 350,000 visitors per year. This does not include the 320,000 annual visitors the UMP DEIS expects with the expansion of the ski center.

These pieces of information (and others) suggest that the transportation impacts could be significant. However, there is no comprehensive, regional transportation study that accurately demonstrates what those impacts are. The project sponsor should analyze the effects of the year-round nature of the project on traffic and transportation and disclose them to the public and NYSDEC so that those impacts can be evaluated and considered in the SEQR and permitting processes. It is perplexing to note that the

environmental documents can detail rounds of golf to be played, salary and job titles of future employees at the Resort but cannot identify how many visitors will be travelling to the Resort.

2. In order to accurately portray the potential impact on transportation in the project area and in the region and to determine the appropriate methodology to determine those impacts, the project sponsor should consult with the relevant Metropolitan Planning Organizations (MPOs). Since much of the traffic will be coming from the New York City metropolitan area, as indicated in the project documents, the consultation should occur with the New York Metropolitan Transportation Council and the Orange County Transportation Council, as well as the MPO in which this project is located, the Ulster County Transportation Council. It is especially important that the consultation occur with the two downstate MPOs so that their transportation conformity determinations are not adversely affected. Transportation conformity determinations are required under Section 176(c) of the Clean Air Act Amendments and codified under USEPA regulations (49CFR Parts 51 and 93). Not accounting for transportation effects and patterns, including those due to significant nearby destinations, such as the Belleayre Resort, could affect these two MPOs' ability to move forward with many transportation projects.

3. The lack of a comprehensive transportation study is not in keeping with the intent of Item 40, Traffic Impacts and Controls, of the Agreement in Principle (AIP). Although Item 40 only discusses County Route 49A, its intent is to make sure that traffic impacts are considered cumulatively and thoroughly. The focus on County Route 49A was likely due to the misdirection caused by the inadequate traffic study which only considered local roads. It can be expected that, had the transportation studies been done properly at the outset, the AIP would have broader concerns than just County Route 49A.

4. The lack of a comprehensive transportation study is also inconsistent with the scoping documents. For example, Section 1.11 of Part C of the scoping documents calls for an air quality analysis of "increased vehicle trips as a result of both projects".

5. The Scoping Document indicates that that the Ski Center expansion will be considered together with the Resort development. Yet the traffic studies for the Resort assume the expansion of the Ski Center as a given in the No-Build case, thereby understating the impact of the Resort development. For example, the Ski Center expansion will generate 736 trips per hour yet the Resort will only generate 168 trips per hour. A complete analysis should look at the Resort development alone as one of the alternatives.

6. Item 41 of the AIP, Public Transportation Improvements, discusses a number of improvements that the State will work to implement to reduce traffic in the area, both by employees and visitors to the area. Yet the SDEIS is silent on this issue (other than repeating potential mitigation measures from DEC's Policy on Assessing Energy Use and Greenhouse Gas Emissions in Environmental Impact Statements). There is no indication that the described transit improvements will be funded or implemented. It does not appear that there are any plans to fulfill those goals and recommendations. Examination of the current transportation planning documents prepared by the Ulster

County Transportation Council shows no indication that funding or plans for these measures exist. The long-range plan (Year 2035 Long Range Transportation Plan, adopted August 31, 2010), the current Transportation Improvement Program (TIP)(for Federal Fiscal Years 2014-2018, adopted May 22,2013), or in the Unified Planning Work Program (starting State Fiscal Year 2013, adopted March 22,2013) do not discuss the Belleayre Resort project nor the goals to expand transit services in the project area, provide jitney service for the hamlets in the immediate project area, and provide for hybrid or alternative fuel buses within the project area corridor, as described in Item 41 of the AIP. As promulgated under Title 23, Sections 134 and 135 and codified at 23 CRR Part 450 (and explained on the Federal Highway Administration (FHWA) website (http://www.planning.dot.gov/documents/briefingbook/bbook.htm) , in order to receive federal transportation assistance, transportation strategies and actions must be discussed in the long-range plan to ensure “an integrated intermodal transportation system that facilitates the efficient movement of people and goods." To receive Federal transportation assistance, transportation projects must be listed on the TIP. State transportation funding is included for informational purposes. Since these transportation planning documents are silent on the AIP Public Transportation Improvements measures, there is no Federal or State funding in place to implement these measures. Without this funding, it is speculative, at best, to assume that these measures will ever be implemented. The project sponsor should commit to providing funding for these services (expanded transit service in the Route 28 corridor, use of hybrid or alternate buses on the Route 28 corridor, and a jitney service to and from the Belleayre Resort and the nearby hamlets), if the Federal and state governments cannot, and this should be a requirement included in any permits issued by NYSDEC for this project.

7. Since the SDEIS for this project did not consider regional transportation impacts or conduct a regional traffic study, the air quality study is deficient. Appendix 24 of the SDEIS describes the mobile source air quality analysis that was performed for this project. It concludes that a mesoscale analysis was not necessary because the difference in vehicle miles travelled (VMT) among the alternatives did not meet the 10% difference criterion, as described in the New York State Department of Transportation (NYSDOT) Air Quality Analysis Procedures. However, as indicated above (comments 1-3), when all features of the Belleayre Resort and ski area expansion are considered, the increase in traffic may be substantial and may well meet the 10% criterion. A regional transportation study would conclusively determine whether this criterion is met and should, therefore, be performed.

8. The additional travel in the summer resulting from this project, and the associated VOC and NO_x emissions, may be sufficient to cause this area to fall into non-attainment of the ozone ambient air quality standard, especially if USEPA further tightens the ozone air quality standard, as it is expected to do soon (Integrated Review Plan For The Ozone National Ambient Air Quality Standards, USEPA, April, 2011). The Air Quality Study for the UMP considered this issue. Section 4.8 of the UMP DEIS includes a mesoscale analysis. This analysis was based on the on the ski center expansion only and looked at emissions along the Route 28 corridor. Since this analysis only considered the ski center expansion, it looked at the Route 28 corridor only since the expansion would primarily affect this road way. It also concluded that the emissions associated with ski center

expansion would be primarily in the winter and would not significantly affect summer time emissions of VOC and NO_x. However, it is appropriate that the Belleayre Resort look at the effect of the combined projects on summer time emissions. Due to the year-round nature of the project and its potential impact on regional travel (as explained above in comments 1-3), the scale of the analysis should be expanded to include those roadways to and from the New York City Metropolitan area that would be affected by the operation of the Belleayre Resort. It is particularly important that the SDEIS should include this analysis in order to assess the potential of the Resort's additional regional travel, and the resultant emissions, to cause Ulster County and/or nearby counties to become non-attainment for ozone.

Ulster County is on the verge of exceeding the ozone National Ambient Air Quality Standard (NAAQS) and may exceed the standard in the near future. In fact, USEPA proposed to tighten the standard to between 60 and 70 parts per billion (ppb) in January, 2010.Air quality monitoring data from NYSDEC's ozone monitor located at Belleayre Mountain indicates that the County would likely be designated as non-attainment for the ozone NAAQS under such a standard. Using the fourth highest daily maximum 8-hour average during the last three years (through 2011), which determines whether an area is in non-attainment, Belleayre Mountain's value was .069 ppb. For years 2008-2010, 2007-2009 and 2006-2008, the values were .068 ppb, .069 ppb, and .072 ppb, respectively. (http://www.dec.ny.gov/chemical/29311.html). Although USEPA withdrew that proposal under pressure, it is expected to begin review of the standard this year and is expected to tighten the standard from the current value of 75 ppb. At that point, the monitoring data will be reviewed again for a possible non-attainment designation. The consequences of a non-attainment designation are substantial and can affect economic development in the county and the larger region. For this reason it is very important that all emission sources be understood and quantified. The potential emissions resulting from the proposed Belleayre project can be determined from a mesoscale analysis that includes all aspects of the project. From this information NYSDEC can evaluate the potential of Ulster County to exceed the ozone standard and to what extent this project may contribute.

9. The mobile source air quality study used models that are obsolete and no longer supported by air quality agencies. Appendix 24 of the SDEIS indicates that the analysis used MOBILE 6.2 for the emissions component and CAL3QHC for the dispersion component of the analysis. Both models have been replaced. USEPA has replaced MOBILE 6.2 with MOVES to estimate emissions and has replaced CAL3QHC with CAL3QHCR or AERMOD for dispersion analysis (http://www.epa.gov/otaq/stateresources/transconf/projectlevel-hotspot.htm#disperse-models). FHWA refers to EPA guidance on model selection through its website (http://www.fhwa.dot.gov/environment/air_quality/). USEPA requires these models be used on analyses performed in non-attainment areas. Although Ulster County is not a non-attainment area, these models are the most up-to-date models and contain features not found in the models they are replacing. The existing analysis should be redone with these newer models to assure that air quality is protected in the project area and that the local citizens and visitors to the area are not exposed to harmful levels of air pollution.

10. The particulate matter (PM) analysis that comprises the mobile source air quality analysis in Appendix 24 of the SDEIS likely severely underestimates the emissions of PM. MOBILE 6.2, the emissions model used, does not account for effects of temperature, speed, idling (for light duty vehicles), road grade (as high as 14% on County Route 49A), and how recently the vehicle was started. These parameters have significant effects on emissions of PM from vehicles. The new emissions model, MOVES, does account for these effects. The analysis should be redone using MOVES.

11. The mobile source analysis in Appendix 24 of the SDEIS and the air quality analysis for the UMP DEIS only considered the intersection of Route 28 with County Route 49A. While this location is appropriate, it alone is not sufficient for a technically sound analysis of the potential air quality impacts of a project as complex as this one. The analysis should consider public exposure to air pollutants coming from the parking lots and nearby buildings. The analysis should include receptors near the parking lots and should model all sources, including roadways, parking lots, buildings, construction vehicles (53 truck trips into the site per day and 53 truck trips leaving the site per day during Stage 1, page 3-61 of the SDEIS), construction and operational equipment, emergency generators, shuttle busses, etc. In fact, the Scoping Document clearly spells out the requirement to analyze emissions in the parking lot (Part A, Section 4.8.D). The dispersion model AERMOD can model multiple receptors and sources and should be used.

12. Generally, emissions arising from construction that are of short duration need not be considered in an air quality analysis of this type. For example, NYSDOT uses two years as the cutoff (Section 15 of Air Quality Analysis Procedures - https://www.dot.ny.gov/divisions/engineering/environmental-analysis/manuals-and-guidance/epm/chapter-1) while USEPA considers five years as short-term (40 CFR Part 93.123 (c)(5)). Since this project will be constructed in three phases stretching over nine years, the air quality analysis should include the effects of the construction phasing. Because some elements of the project are expected to be operational while others are still under construction, both aspects need to be considered. Thus, the analysis should include the combined emissions associated with the elements of the Resort that are operational (buildings, parking lots, roadways, etc.) and emissions associated with the ongoing construction (construction equipment, construction vehicles on the roadways entering and leaving the project site, etc.).

13. The air quality study omitted a number of relevant pollutants that should be examined. In February 2010, USEPA promulgated a new National Ambient Air Quality Standard for nitrogen dioxide (NO_2) (40CFR Parts 50 and 58). It established a short term standard of 100 parts per billion (ppb). USEPA did so, in part because the science is showing that emissions from vehicles travelling on roadways can lead to health effects even at short-term exposures of NO_2. It concluded “Research suggests that the concentrations of on-road mobile source pollutants such as NO_x, carbon monoxide (CO), directly emitted air toxics, and certain size distributions of particulate matter (PM), such as ultrafine PM, typically display peak concentrations on or immediately adjacent to roads.”, and “In light of the body of available evidence and analyses, … the Administrator concluded in the proposal that it is necessary to provide increased public health protection for at-risk

individuals against an array of adverse respiratory health effects linked with short-term (i.e., 30 minutes to 24 hours) exposures to NO_2. Such health effects have been associated with exposure to the distribution of short- term ambient NO_2 concentrations across an area, including higher short-term (i.e., peak) exposure concentrations, such as those that can occur on or near major roadways and near other sources of NO_2, as well as the lower short-term exposure concentrations that can occur in areas not near major roadways or other sources of NO_2. The exposure assessment … estimated that roadway-associated exposures account for the majority of exposures to peak NO_2 concentrations.", and "… that NO_2 concentrations in heavy traffic or on freeways 'can be twice the residential outdoor or residential/arterial road level.' In considering the potential variability in the NO_2 concentration gradient, the proposal noted that available monitoring studies suggest that NO_2 concentrations could be 30 to 100% higher than those in the same area but away from the road." (Federal Register, Vol. 75, No. 26, February 9, 2010). Although USEPA still believes at this point that high levels of NO_2 are associated with major roadways with high traffic volumes, this project should analyze expected concentrations of NO_2 in the project area due to the unique mix of emission sources caused by the phasing of this project. Local residents and visitors to the area could be subject to unacceptably high levels of NO_2 from emissions of on-road traffic, construction vehicles, construction equipment, operating sources, all of which are expected to be occurring at the same time.

14. The air quality study also did not consider emissions of mobile source air toxics (MSATs). MSATs are emitted during the combustion of fuel (gasoline or diesel, for example) in engines and include such compounds as benzene, formaldehyde and diesel particulate matter. Similarly to NO_2 concerns (see previous comment), MSATs impacts are frequently associated with high traffic volumes and/or a high level of diesel trucks. FHWA has issued guidance for addressing MSAT concerns on transportation projects http://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/aqintguidmem.cfm). They identify three tiers of analysis. Since this project will have a meaningful impact on traffic volumes, it would at least meet the criterion for a qualitative analysis. However, as with NO_2, because of the unique mix of emission sources caused by the phasing of this project, this project should quantitatively analyze the effects of the project on emissions of MSATs. Although the FHWA guidance generally reserves quantitative analyses for projects with high traffic volumes, the Belleayre project, with its construction equipment and vehicles emitting while visitor vehicles are also present and emitting, "has the potential to concentrate high levels of diesel particulate matter in a single location, involving a significant number of diesel vehicles for new projects or accommodating with a significant increase in the number of diesel vehicles".

15. The mobile source air quality study, as described in Appendix 24, states that typical "worst-case" meteorological conditions were assumed in the analysis. "Worst-case" assumptions are used to portray a conservative analysis so that if air quality standards are not exceeded, they would not be exceeded under other, typical conditions. However, many of the so-called "worst-case" assumptions that go into the air quality modeling process are often characteristic of an urban or suburban area or are reflective of the nearest airport (in this case, Albany International Airport). The analysis that was completed and documented in Appendix 24 used inputs such as stability class, surface roughness and mixing height, that are likely not representative of the Belleayre area. For

example, a “worst-case” temperature of 30 degrees Fahrenheit was used in the carbon monoxide screening analysis. Belleayre Mountain is a rural area with unique topography and meteorology, hardly represented by suburban conditions or conditions at Albany International Airport. It is likely that conditions at Belleayre Mountain are actually more “worst-case” than those assumed, which would lead to higher levels of pollution experienced by the public. Using the inputs that have been used in Appendix 24 likely under- predict pollutant levels. To determine appropriate “worst-case” conditions in the project area, the project sponsor should install monitoring equipment at the project site that will accurately measure meteorological conditions and pollutant background levels. These inputs, then, will result in a more accurate analysis of air quality with the project in place. Gathering robust meteorological and background pollutant data is often a multi-year effort. However, some research may indicate that this can be accomplished in a shorter time frame (“Short-Term Monitoring for Compliance with Air Quality Standards, National Cooperative Highway Research Program Report 479, Transportation Research Board, 2002). This monitoring effort is necessary to protect the local residents and visitors from unhealthful levels of air quality and to provide adequate safeguards should the project result in pollutant concentrations that approach unacceptable levels.

16. The air quality analysis for the UMP DEIS (Section 4.8) did not apply the NYSDOT Air Quality Analysis Procedures for PM correctly. Per NYSDOT’s procedures, concentration levels of PM must be modeled and the resulting modeled concentrations compared to a Potential Significant Impact Threshold to determine if there is a likelihood of exceeding the relevant PM air quality standard. Instead, the analysis in Section 4.8 only qualitatively estimated a PM emission rate and, based on a comparison of the build and no-build PM emission rates, concluded that there would be no air quality impact. That analysis omitted the critical step of determining PM concentration levels. Regardless, the PM Air Quality Analysis Procedures have now been rescinded as out-of-date and the NYSDOT website now advises use of MOVES and AERMOD for complex air quality analyses (https://www.dot.ny.gov/divisions/engineering/environmental-analysis/manuals-and-guidance/epm/chapter-1).

17. Due to the duration of the project’s phasing and construction (nine years), clean diesel requirements should be part of the project’s construction. Use of technologies such as diesel particulate filters and/or diesel oxidation catalysts can substantially reduce emissions of diesel particulate matter and other harmful pollutants and should be required on all construction vehicles and construction equipment. Similarly, once operational, any equipment that uses diesel fuel should be required to use clean diesel technology. The project sponsor should replace older vehicles and equipment with those that meet the latest emission standards, repower the equipment and vehicles to comply with cleaner emission standards or use equipment and vehicles that have been retrofitted with the appropriate technology. The project sponsor has a number of options available to implement clean diesel requirements on this project but this requirement should be part of any permit conditions issued by NYSDEC for this project. The type of clean diesel application to be used on this project should be done in consultation with NYSDEC staff and the project sponsor.

18. Appendix 24 of the SDEIS indicates that 2009 is the latest year of available information for ambient air quality monitoring. This is out-of-date. Per NYSDEC's website (http://www.dec.ny.gov/chemical/29311.html), data is available for 2011. The outdated information should be replaced with the latest data.

19. Tables 1.11-1, 1.11-2, and 1.12-1 of the Cumulative Impact Analysis do not fully include mobile source emissions. Table 1.11-1 does not include emissions of VOCs, CO, NO_x and SO_x for the Crossroads Resort. The other two tables are incomplete because they do not include emissions from year-round operations (see comments 1-3) and used an outdated emission model (see comments 9 and 10). These emissions should be estimated and included in the analysis to better disclose the potential impacts of the combined projects.

20. The combined project will result in 3 new lanes-miles of roadway and 3477 total parking spaces (a doubling of parking spaces). The number of total of parking spaces is an estimate by examining the Belleayre Resort SDEIS and the UMP DEIS (the cumulative analysis seemingly does not examine the effect of the combined parking spaces). In an air quality non-attainment area, the increase in roadways or the increase in parking spaces would label this project as a "regionally significant project" and would thus have to be carefully evaluated and considered, from a regional perspective and from a project-level perspective, for its impact on air quality. Although, Ulster County is not now a non-attainment area, the same diligence and care should be used to assess this combined project as if this project were in a non-attainment area. The visitors to the area and residents of the area should be afforded equal protection from high levels of air pollution as is afforded the public in non-attainment areas.

21. The Catskill Resort SDEIS lists 250 parking spaces under the hotel and a separate 208 space parking garage. It does not appear that the emissions of the vehicles idling and driving slowly within the garages have been considered in the air quality analysis. The SDEIS also does not identify if the garages will be ventilated and if any air quality permits for the garages will be required from NYSDEC. It is good practice to consider these emissions in order to protect public health and many jurisdictions require this element of an air quality analysis or provide guidance on how to assess these emissions such as the New York City Department of Environmental Protection (www.nyc.gov/html/oec/...ceqr.../2012_ceqr_tm_appendix_air_quality.pdf) and the North Carolina Department of Environment and Natural Resources (daq.state.nc.us/permits/mets/TF_Guide.pdf). The air quality analysis for the Resort should be supplemented to include an examination of the potential impact of the parking garages.

22. Due to the lack of a transportation study that examines the traffic impacts from the year-round activities associated with this project (see comments 1-3), the greenhouse gas emission (GHG) analysis for the Belleayre Resort and the Cumulative Impacts Analysis is flawed and incomplete. Appendix 28, Global Climate Change and Carbon Footprint Assessment, identifies the same shortcoming, stating "Other typical indirect emissions such as those associated with visitor travel to and from the Belleayre Resort were not included in the quantitative analysis because of the lack of sufficient input data or

reliable methods to estimate this information based on other generic data" (page 2-5) because "The total number of annual visitor trips and an annual vehicle miles traveled estimate for the resort has not been developed" (page 2-8). It should be noted that in the UMP DEIS, visitor and commuting trips account for about two-thirds of all the indirect greenhouse gas emissions. Since this critical element of a complete greenhouse gas analysis is missing, any conclusions or findings made relative to greenhouse gas emissions in these documents is inaccurate and incomplete. Appendix 28, Table 2-6, shows that, once operational the project will exceed the 25, 000 metric tons per year reporting threshold and Prevention of Significant Deterioration requirements that energy generating facilities must comply with. If indirect GHG emissions were to be included, the threshold would be exceeded earlier in the project schedule and would continue at a much higher level once the project is fully operational.

23. It should be noted that Attachment B.1 of Appendix 24, the Air Quality Study, shows that the CO2 emissions from the propane heating sources would exceed the 25,000 metric tons per year reporting threshold at nearly 33,000 tons per year while Appendix 28 indicates combustion emissions at about half that level assuming natural gas combustion. This seeming discrepancy of fuel source should be addressed.

24. The discussion of the impacts of climate change in Appendix 28 of the SDEIS is woefully inadequate, devoting less than two pages to this important issue. The discussion in the UMP DEIS of the impacts of climate change is more thorough. However, it should be updated with the latest information on the effects of climate change on New York State, which is the CLIMAid study, commissioned by the New York State Energy Research and Development Authority and completed in November 2011 (http://www.nyserda.ny.gov/Publications/Research-and-Development-Technical-Reports/Environmental-Reports/EMEP-Publications/Response-to-Climate-Change-in-New-York.aspx). All the documents, including the Cumulative Impacts Analysis, should include a discussion of the impact of climate change on the transportation infrastructure features associated with the project.

25. One aspect of climate change that will likely affect the Belleayre area is the increasing frequency of severe weather, in particular the likelihood of increasing heavy rain and storms. This should be accounted for in the infrastructure development and construction on the project. Due to the topography, increasing heavy rains will lead to large amounts of runoff. Accordingly, culverts and other features of roadways that are subject to failure due to excessive and heavy runoff and scouring must be properly designed and sized. The plans and specifications that will be used to construct this project should account for this necessity.

26. The Catskill Heritage Alliance has already provided its views on the viability of this project in light of the increased temperatures as a result of climate change in its letter of March 27, 2013 to Mr. Daniel Whitehead (attached). With the future climate of New York resembling that of current Virginia or North Carolina, it is very likely that snow making will be required much more extensively and frequently than is the current case at Belleayre. What is not clear from the greenhouse gas analyses that are presented in the documents is whether the excess energy expenditures needed to operate the snowmaking equipment more often have been accounted for in the analyses or whether

the operational needs of the resort are based on continuation of the current climate. The environmental documents should clearly delineate the climate assumptions that were made. They should also account for the increased energy usage for snowmaking operations in the greenhouse gas and air quality analyses.

27. The sections of the environmental documents that discuss the effects on the use and conservation of energy are rather skimpy and considerably more thought and commitment must be made to the conservation of energy during both the construction and operational aspects of this project. The use of more energy-efficient snowmaking equipment and the goal of a LEED-certified buildings is recognized, yet other energy efficiencies can be achieved. The project sponsor should consider construction equipment and vehicles that are powered by electricity or other alternative fuels (to diesel). Renewable energy sources could reduce the energy use and the use of conventional fuels for operations of the resort. Solar energy, wind turbines and geothermal sources of energy should be investigated. Some non-traditional, renewable energy sources may also provide financial incentives for their implementation. From the environmental documents, it does not appear that any alternative energy sources have been considered.

28. Similarly, Section 2.8.12 of the SDEIS is vague about which energy conservation measures and approaches will actually be implemented. The Section starts by listing a number of energy codes and indicating the project sponsor will comply with whichever one is more stringent. The most stringent applicable code should be identified and committed to. Throughout the Section, terms such as “will be studied”, “may be implemented”, “wherever possible”, “will take into consideration”, etc. are used when discussing energy efficiency measures and indicate only possible realization of the measures. In order to have these measures actually implemented, they should be made as permit conditions for the various NYSDEC permits required for this project.

29. The greenhouse gas discussions copy the list of possible mitigation measures that are part of NYSDEC’s Policy on Assessing Energy Use and Greenhouse Gas Emissions in Environmental Impact Statements. Yet there is no commitment to any measures in the draft permit conditions. How will the measures cited in the Catskill Resort SDEIS and the UMP DEIS actually be implemented? As indicated in the comment above (see comment 6), there is currently no funding or implementation identified for the transportation mitigation measures through the transportation planning process. NYSDEC and other state agencies involved in this project should review and approve all construction plans, drawings and specifications, and any proposed modifications thereto, to ensure the maximum feasible greenhouse gas mitigation measures are actually implemented.