

DESCRIPTION OF LAND

Exhibit VIII. C.1.f

Below are summaries of Phase I and II reports, geotechnical reports, and wildlife reports conducted on the Sterling Forest Resort site and the proposed interchange 15B site, all of which are based on analyses conducted in 2014. As provided in Question and Answer number 322, full versions of the reports summarized below are contained in electronic format submitted along with this Application as identified in the Application table of contents. RW Orange County LLC has run searches of the federal and New York State threatened and endangered species databases and has conducted or is in the process of conducting all environmental, geotechnical, and wildlife surveys recommended by its expert team. No impediments to completion of the project have been found.

Project Site Phase I Environmental Assessment (ESA) and Phase II ESA

GEI Consultants, Inc., P. C. (GEI) conducted a Phase I ESA and Phase II ESA of the Sterling Forest Resort site and delivered a Phase I Environmental Assessment Report dated April 2014 and a Phase II Environmental Assessment Report dated June 2014. Following the Phase II ESA, GEI concluded that no remedial action is warranted.

By 1960, the site was initially developed as Sterling Forest Gardens at the current-day location of the New York Renaissance Faire. The Sterling Forest Resort site was operated as the New York Renaissance Faire starting in approximately 1978. The existing Tuxedo Ridge Ski Center had been constructed by 1984. Since its construction, the fairgrounds have been modified and expanded with the construction of buildings and amenities. Additionally, low areas have been filled north of Route 17A for use primarily as parking areas.

All former underground storage tanks (USTs) have been removed from the Sterling Forest Resort site according to New York State Department of Environmental Conservation (NYSDEC) Petroleum Bulk Storage records, and no open NYSDEC spill cases are associated with the site. The environmental database search conducted as part of the Phase I ESA identified the Sterling Forest Resort site in only one database: NYSDEC Spills database with four spill cases. All of these cases have been closed.

One Historical Recognized Environmental Condition (HREC) was identified for the Sterling Forest Resort site, a spill case associated with the removal of a former 8,000-gallon UST. Impacted soil was discovered beneath the tank's dispenser. No groundwater was encountered and the impacts were reported limited to approximately one yard of soil, which was disposed off-site. The spill case was closed on August 8, 2013.

The Recognized Environmental Conditions (REC) identified for the Sterling Forest Resort site included the following:

- Surficial soil surface staining in the area of the vehicle fueling tanks, west of the existing Tuxedo Ridge Ski Center maintenance building;
- Soil staining in an area downgrade of the eastern end of the existing Tuxedo Ridge Ski Center ticket booth building;
- The unknown discharge point for the floor drains within the set production building, southwest of the New York Renaissance Faire;
- The unpermitted aboveground 550-gallon waste oil tank on the south side of the village maintenance building; and
- The nature of the material used to fill in the low areas for the current-day east and north parking lots.

Housekeeping issues include localized apparent petroleum staining within the New York Renaissance Faire maintenance building and east parking lot building, and the miscellaneous staging of drums, empty tanks, and debris in the vicinity of the Sterling Forest Resort site maintenance buildings.

GEI offered the following recommendations to investigate and address the RECs identified for the Sterling Forest Resort site, which were addressed in the Phase II ESA described below:

1. Conduct a focused surface and subsurface probehole investigation to investigate potential impacts associated with the surficial soil staining in the area of the vehicle fuel tanks at the existing Tuxedo Ridge Ski Center and a petroleum stain on soil, which emanates from an upgrade stain on asphalt south of the central building of the existing Tuxedo Ridge Ski Center;
2. Conduct dye testing for the set production building floor drains to determine their discharge point(s);
3. Conduct a subsurface sampling program for the filled-in areas of the site;
4. Remove and either replace the 550-gallon waste oil tank on the south side of the fairgrounds maintenance building, or upgrade staging of waste oil for appropriate off-site disposal; and
5. Prior to the purchase of the property, it is recommended that stored waste oil is properly removed from the site and that staining on the maintenance room floors and asphalt is cleaned. Additionally, it is recommended that empty drums and debris from the vicinity of the maintenance buildings be removed, and handling and management of hazardous and petroleum materials related to these buildings be upgraded.

The scope of work for the Phase II investigation included a soil boring program to investigate two of the three RECs identified in the Phase I assessment including two surficial soil staining areas and the filled areas of the site. To address the third REC, a dye test and a follow-up investigation using various techniques were conducted for the production building floor drains to determine their discharge point(s).

Concentrations in soil samples above applicable guidelines were limited to two compounds in a sample from one of the fill areas. The exceedances were marginal. The dye test did not identify the discharge point(s) for the floor drains in the set production building; however, the follow-up investigation determined that it is likely that the drainage system is connected to the sanitary line located in the area.

Based on the analytical results, GEI found that no remedial action is warranted.

Project Site Preliminary Geotechnical Investigation Report

The Louis Berger Group, Inc. conducted a preliminary geotechnical investigation and prepared a preliminary geotechnical investigation report to assess the development potential at the Sterling Forest Resort site. The preliminary geotechnical investigation report presents the results of the preliminary geotechnical investigation and engineering study, evaluations of the site and foundation systems, and geotechnical-related recommendations for the proposed site.

The Sterling Forest Resort site is located within a north-south trending narrow glacial valley; approximately 2,500 feet in length and 300 feet wide. The valley is approximately 720 feet above sea level and is situated between two steep ridges that are at approximately 900-foot elevation. To assess the development potential of the site, a preliminary subsurface exploration program was conducted between April 15 and May 7, 2014. The program consisted of four exploration borings (drilled between 8 and 65 feet below the existing ground surface), temporary monitoring well installation, collection of engineering geologic data within the proposed development area, dynamic cone penetration testing (DCPT) within the surface parking areas, and laboratory testing on collected samples. To monitor groundwater, five temporary monitoring wells were installed throughout the site area.

The thickness of the valley sediments varies between greater than 65 feet below surface in the valley center to approximately 27.5 feet towards the valley's sides, gradually decreasing to about 2 feet at the west flank of the valley. The sediments consist of glacial till and outwash and fine-grained lake deposits overlain by a thin (~5 foot) layer of man-made fill. The bedrock underlying the sediments consists of very hard, sound, and generally "good to excellent" rock-quality metamorphic rock (granite gneiss). No visual signs of contamination were observed during drilling. The valley sides have slopes between 10 and 20 degrees and contain gravelly silt and sandy soils beneath an approximate 6-inch layer of highly

decomposed plant material with abundant boulders with diameters between 3 and 30 feet below the existing grade. At the southern end of the valley, groundwater in overburden was encountered at 0.10 feet below existing grade.

Based on the findings from this investigation, the general foundation conditions for the proposed development (in terms of soil/structure interaction) were reviewed and alternate methods for foundations for the proposed structures were evaluated. It was determined that the upper fill (Stratum 1) and the underlying soft to medium silt (Stratum 2) are not considered suitable bearing strata in accordance with the New York State Building Code; therefore, they cannot be relied upon to support the anticipated foundations because of excessive total and differential settlements. For the preparation of development plans and feasibility and conceptual design studies, both shallow foundation system after ground improvement and deep foundation systems were evaluated. Both were found to be feasible depending on the final development plans. Because of shallow groundwater and likely required rock excavations, construction of below-grade structures (i.e., basement) is not recommended due to high initial and life cycle costs. If no basement structures are sought, this study recommends the structures to be supported on timber piled foundation systems (discussed in Section IV. 2.3) of the Preliminary Geotechnical Investigation Report).

For at-grade parking and access road, DCPT showed highly variable surface compactness. Therefore, to provide a uniform subgrade for the satisfactory performance, a site-specific subgrade preparation was recommended in Section 4.3 of the Preliminary Geotechnical Investigation Report. For the site access road and pavement, a California Bearing Ratio value of 10 for a flexible pavement design can be assigned following the preparation of the subgrade as described above. Based on the assumed traffic data, the following pavement structure is recommended:

- 1½-inch Asphalt Concrete Surface Course
- Six-inch crushed stone drainage layer
- Four-inch Aggregate Base Course over compacted subgrade as suggested above.

A limited number of chemical analyses suggested that the potential for sulfate and chloride attack on concrete and steel elements is negligible. Therefore, Type IM (MS), I (MS) P, (MS), or Type II Portland cement can be used in all foundation concrete and concrete in contact with soil and water. To mitigate long-term corrosion of uncoated ferrous metals (such as reinforcing bars, steel pipes, or other steel members of the structure in contact with the soil), a minimal cover for reinforcement steel in accordance with American Concrete Institute (ACI) requirements should be observed. Steel and other metallic pipes in contact with soil also should be protected in accordance with the manufacturer's recommendations.

Seismic parameters used in the design should be based on the Building Code of New York State, which indicates Site Class D parameters can be used in the preliminary design. Unless improved by the Department of Design and Construction or excavated and removed, the site has a potential for liquefaction in a seismic event.

Borehole data and the engineering geological map of studies indicate the site does not have a potential for a major geological hazard, such as landslides and or slope failures. In a major storm event, however, the site may have a potential flash flood event due to relatively shallow bedrock with relatively poor infiltration characteristics of the soils and the bedrock. A drainage design including stream training must be prepared by a licensed hydrologist/drainage engineer during preparation of the site development plans.

Project Site Timber Rattlesnake Emergence Survey Preliminary Report

Ecolsciences, Inc. ("EcolSciences") conducted den and basking habitat surveys on the proposed re-development site and a half mile buffer around all parts of the property. Surveys were conducted on nine days between 10 April and 17 May, 2014 during optimal weather conditions to observe snakes. There were

12 general mountain areas of habitat to be surveyed within the half mile buffer, some with more than one ridge top. The areas which were determined to have the best habitat were surveyed several times.

During the surveys several common species which sometimes share hibernacula with timber rattlesnakes, but often hibernate throughout rocky slopes were observed emerging at various locations or basking in adjacent open habitat. These included northern racers, eastern rat snakes and a copperhead. Other herpetofauna observed included five-lined skinks, wood frogs, common garter snakes, eastern newts, green frogs, pickerel frogs, American toads and ambystomid salamander larvae. No timber rattlesnakes were found during any of these surveys.

In addition to the emergence and post-emergence surveys, several additional surveys were conducted during the month of June to cover the identified potential basking and/or gestating areas on the open rocky hilltops during the time when snakes undergo a shedding cycle. Snakes often seek this type of habitat during this shed cycle. These additional basking/gestating surveys provide a higher confidence level that no rattlesnakes are denning on or adjacent to the property or using the site for basking or gestating. No timber rattlesnakes were observed on the proposed project property or within the one half mile radius buffer surveyed to date.

The preliminary results of these surveys indicate that it is unlikely that there is a timber rattlesnake den within a half mile of the proposed re-development project. The NYSDEC has indicated that there are known dens within 1.5 miles of the site. This distance is used in making an initial determination regarding habitat use by rattlesnakes since they radiate outward from their dens during summer foraging; females averaging 1.5 miles and males up to 2.5 miles, occasionally farther. However, there are other factors to consider such as the presence of major roadways which function as barriers to movement. Generally, gravid (pregnant) females gestate in suitable natural open rocky areas with sufficient cover rock to protect them from predators. These gestation areas are critical habitat for the survival of a den and are usually located no farther than a half mile from the den. Suitable habitat was observed on several of the mountains, however no rattlesnakes were found at any of the sites.

The apparent absence of any rattlesnake dens close to the proposed project site would indicate that none of the potential basking on site should be considered critical habitat. In addition the only areas of potential basking habitat on site were on the ski slope which is apparently used frequently for dirt bike racing, camping, summer festivals and other activities incompatible with rattlesnake gestation. It does not appear that any NYSDEC Part 182.11 incidental Take Permit (for habitat) or any habitat restoration/enhancement would be necessary for the project to proceed.

EcolSciences suggests the following: standard timber rattlesnake mitigation measures should be taken during the re-development of the site which may include providing a NY approved rattlesnake monitor during clearing and grading activities if they are to be done during the snake's active season, approximately 1 April through 30 October and/or exclusion fencing of certain areas as determined by NYSDEC upon review of the final report. After grading is completed the potential habitat in the workspace should be eliminated, making the area less attractive to snakes. The contractors should be made aware of the potential for a snake to cross the site from one of the dens approximately a mile away. An educational handout with pictures of rattlesnakes on various backgrounds should be distributed to workers so that they can be alert for any crossing the workspace. Key supervisory personnel at the site should be trained to properly remove a rattlesnake in the unlikely event that one is encountered in the workspace during construction. All personnel should be advised of the protected status of the timber rattlesnake in New York. In addition, the maintenance or landscaping personnel at the resort should be trained in proper handling and relocation techniques in the event a rattlesnake is found on the property during the operation of the resort. KT Wildlife personnel are approved to provide such training in New York State.

Project Site Dusted Skipper Habitat Evaluation and Survey

EcolSciences conducted a habitat evaluation and survey for the dusted skipper on June 10 and 16, 2014. Prior to conducting the habitat evaluation and field survey aerial photographs of the Ren-Faire site were reviewed to identify potential open habitats that could support Dusted skippers. Based upon the

aerial photographs and a field investigation, extensive open habitats occur on the ski slopes in the southern portion of the site. There are no formal survey methodologies for Dusted skipper but the Michigan Natural Features Inventory suggests an approach that was largely followed during the field survey and proved to be successful at locating the species: "The best way to survey for this species is by meandering thorough potential habitat while checking nectar sources or perches such as low forbs and grasses."

During the survey, a single dusted skipper was found onsite along the Natural Gas pipeline near the western-most property boundary. The butterfly was observed intermittently for about 5 minutes but repeatedly flew when approached closely enough for a photograph. Nonetheless, the butterfly was easily identified using Swift Eaglet Close-focusing binoculars. The butterfly was a fresh individual with clearly visible diagnostic fieldmarks.

Although there are extensive open habitat areas associated with the ski slopes on the Ren-Faire site, the larval host plant, Little Bluestem grass, was limited to only one area. This area is on the "Bowl" slope near the southeastern property boundary. Little Bluestem grass is widespread along the upper half of this slope but the area is also considerably shrubby. No dusted skippers were found at this location and it may be that too much shrub cover is present to provide suitable open habitat despite the presence of the larval food plant. It also appears that all of the ski slopes have significant and regular spring and summer disturbances via various sports. The pipeline where the single dusted skipper was found lacked any apparent Little Bluestem grass. This area is also rather mesic and appears too densely vegetated and rich for dusted skippers. Therefore it is possible that this individual was utilizing the corridor to move between other unknown habitats or was dispersing from a small onsite population.

Given the presence of only a single butterfly and the limited larval food plant resources, it does not appear that the Ren-Faire site supports a population of the dusted skipper. Therefore, it is not expected that any onsite development-related activities will impact the species. However, the Ren-Faire site may offer excellent opportunities to create habitat for this species given the open and regularly maintained nature of the ski slopes. Planting these slopes with the larval food plant and continuing their regular maintenance may provide extensive suitable habitat that could be colonized and utilized by dusted skippers, especially given the presence of a dusted skipper onsite and the recently discovered nearby populations at the highway interchanges. As a result of the dusted skippers apparent ability to find and colonize new habitats when nearby source populations are present, the Ren-Faire ski slopes may offer a significant opportunity to create habitat and assist with the conservation of this species.

Interchange Site Phase I ESA

GEI Consultants, Inc., P. C. ("GEI") conducted a Phase I ESA of the proposed interchange 15B site. Following the Phase I ESA, GEI concluded that no remedial action is warranted.

Forest lines most of Interstate 87 and CR 106 in the proposed interchange 15B site. A parking area is located at the northwest corner of Route 17A and Route 17. A railroad line is located along Route 17 on its east side. The Ramapo River is located between the railroad and Interstate 87.

North of CR 106, the area between Route 17 and Interstate 87 is a portion of Harriman State Park that provides access to the Ramapo River. This area contains roadways and visitor access points to the river. The river is connected to tributaries and ponds along its path. Dense forest exists on the east side of the river. Maintenance access roads are present on the east and west sides of Interstate 87 north of CR 106. A chain-link fence is present between the forest and Interstate 87. Forest lines CR106 to the east of Interstate 87.

The area to the south of CR 106 is similar to the area north of CR 106 except that access is restricted and is limited to archery hunting on the west side of the Ramapo River. Pondered water is present in a few areas between the Ramapo River and Interstate 87.

The western portion of the site along Route 17 and south of the Route 17A south ramp is used as a parking area. Immediately to the west is a small open field. The southern part of the parking lot is bordered by a tributary of the Ramapo River and flows eastward beneath Route 17. South of this tributary on the west side of Route 17 is a landscape facility.

No evidence of hazardous materials was observed during the site visit to indicate an environmental concern for the proposed interchange 15B site.

The environmental database search conducted as part of the Phase I ESA did not identify the proposed interchange 15B site or any nearby sites within their respective database search radii.

No Controlled RECs, HREC, or RECs were identified for the proposed interchange 15B site during the Phase I ESA.

Interchange Site Dusted Skipper Habitat Evaluation and Survey

EcolSciences conducted a habitat evaluation and survey for the dusted skipper on June 10, 2014. During the survey, Dusted skippers were found at two locations adjacent to the existing interchanges. Prior to conducting the habitat evaluation and field survey aerial photographs of the study area were reviewed to identify potential open habitats that could support Dusted skippers. Based upon the aerial photographs and a field investigation, open habitats were limited to the areas west of the onramp to Route 17 South and on both sides of County Road 106 east of I-87.

During the survey, dusted skippers were found in the field to the west of the onramp to Route 17 South just beyond the small commuter parking area and also on the steep grassy slopes to the south of County Road 106 just east of I-87. In the meadow west of the onramp there were at least six skippers and possibly as many as 10 and on the grassy slopes to the east of T-87, 3 dusted skippers. It appears that both locations suggest a viable population of the butterfly. At both locations, some of the butterflies were worn suggesting they have been flying for a period of time while others were fresh indicating recent emergence. Both areas feature the host plant (Little Bluestem grass) and a wide variety of suitable nectar sources. Dusted skippers were not found in the relatively flat meadow habitat on the north side of County Road 106, east of I-87. This area lacks Little Bluestem grass but features a wide variety of potential nectar sources for butterflies breeding on the south side of the road. Although dusted skippers were not found in this meadow and it lacks the caterpillar host plant, it may provide nectaring sources for adults given its proximity to the breeding site. However, the impact of traffic and separation via the road is unknown.

Given the presence of multiple individuals and the larval food plant it is expected that both areas support viable populations of the butterfly. These two populations are almost certainly being facilitated by periodic mowing that is maintaining the habitats in an early successional stage. It is unknown if other dusted skipper populations exist in the area that are serving as source habitats for dispersing individuals or if these two locations are isolated. However, given the apparent scarcity of the butterfly in the state, avoidance of these habitats is recommended. In addition, continued management of these habitats in the same manner currently being conducted should continue. Because the dusted skipper occupies their habitats in one life stage or another throughout the entire year, even disturbances when the adults are not flying are expected to be potentially detrimental.

New York State Environmental Quality Review (SEQR)

The applicant (RW Orange County LLC, "the Applicant") has initiated the SEQR coordinated review process for Sterling Forest Resort. The Environmental Assessment Form (Parts 1-3) was submitted electronically to the Town of Tuxedo on June 20, 2014, and in hard copy on June 24, 2014. RW anticipates completion of the SEQR process on or before November 24, 2014.

Sterling Forest Resort has been designed to minimize and avoid environmental impacts to the greatest extent practicable. As detailed in Exhibit IX.A.3, RW Orange County LLC has developed a comprehensive mitigation strategy for potential environmental impacts identified through the SEQR coordinated review process, and is committed to meeting or improving environmental quality through mitigation measures.

The proposed action requires several local, county and state discretionary approvals for the development of the applicant's proposed project, Sterling Forest Resort. Discretionary approvals include

site plan review and a special use permit from the Town of Tuxedo for the parcels associated with the Sterling Forest Resort, identified by the Orange County Tax Map as Section 1, Block 1, and Lots 36.32, 37.20, 52.25, 52.26 and 59.20. Additional government approvals and/or permits that will be necessary for the Sterling Forest Resort Project are detailed in EXHIBIT VIII.C.3.c. Necessary Permits.

The proposed action is considered a Type I action given the substantial size of the proposed development that would occur substantially contiguous to publicly owned parkland. Type I Actions pursuant to 6 NYCRR Part 617.4 State Environmental Quality Review (SEQR) are typically larger and more complicated than Unlisted Actions, and are more likely to require preparation of an Environmental Impact Statement than Unlisted Actions. Sterling Forest Resort is considered a Type I action because it meets the following criteria specified in 6 NYCRR §617.4:

- a project or action that involves the physical alteration of 10 acres;
- parking for 1,000 vehicles;
- in a city, town or village having a population of 150,000 persons or less, a facility with more than 100,000 square feet of gross floor area;
- any Unlisted action, that exceeds 25 percent of any threshold in this section [6.17.4(2)(b)] occurring wholly or partially within, or substantially contiguous to any publicly owned or operated parkland, recreation area or designation open space.

The Tuxedo Town Board is the requested Lead Agency for SEQR review. Anticipated Involved and Interested agencies are listed below, yet are subject to change pending further discussions with the Town.

Involved Agencies (anticipated):

- Town of Tuxedo Planning Board
- Town of Tuxedo Architectural Review Board
- Orange County Planning Department
- Orange County Health Department
- New York State Department of Environmental Conservation (NYS DEC)
- New York State Department of Transportation (NYS DOT)
- New York State Gaming Commission (NYS GC)

Interested Agencies (anticipated):

- New York State Office of Parks, Recreation and Historic Preservation (NYS OPRHP) / Palisades Interstate Park Commission (PIPC)
- U.S. Army Corps of Engineers (USACE)
- U.S. Fish & Wildlife Service (USFWS)
- Federal Emergency Management Agency (FEMA)

In accordance with SEQR, the Town of Tuxedo is evaluating whether or not the proposed project elements within Sterling Forest Resort would result in significant adverse environmental impacts. Sterling Forest Resort has been designed to minimize and avoid environmental impacts to the greatest extent practicable. As detailed in Exhibit IX.A.3, RW Orange County LLC has developed a comprehensive mitigation strategy for potential environmental impacts identified through the SEQR coordinated review process, and is committed to meeting or improving environmental quality through mitigation measures.

A Draft Scoping Document has been prepared for Sterling Forest Resort and provided to the Town of Tuxedo to describe the Proposed Action and Proposed Project, present the proposed framework for the Draft Environmental Impact Statement (DEIS) analysis, and discuss the procedures to be followed in the preparation of the DEIS. This document is intended to serve as the foundation for the identification and evaluation of all potentially significant adverse impacts that are pertinent to the Proposed Project, and

identify appropriate mitigation measures, including available alternatives. It is also intended to eliminate consideration of impacts that are irrelevant or non-significant. The Town is presently revising the Scoping Document in anticipation of commencing the scoping process.

Interchange 15B

A proposed Type I action under SEQRA “New York State Thruway Interchange 15B” contains state and federal approvals required to improve access to the area by constructing and operating a new interchange 15B on the Thruway, connecting Interstate Road 87 with State Route 17. The Applicant has initiated the SEQR coordinated review process for Interchange 15B. The Environmental Assessment Form (Part 1) was submitted electronically to the New York State Thruway Authority on June 23, 2014, and in hard copy on June 25, 2014.

The proposed action is considered a Type I action given the proposed development would occur substantially contiguous to publicly owned parkland. The proposed action will require NEPA review and an Environmental Assessment (EA), which is anticipated to receive a Finding of No Significant Impact (FONSI). Potential conditions and mitigation pursuant to the FONSI are discussed in Exhibit IX.A.2.B. and Exhibit IX.A.3.

Through coordination with the New York State Thruway Authority and the New York State Department of Transportation, the Federal Highway Administration has advised that the agency has no approval authority over the construction of Interchange 15B as proposed by RW Orange County LLC in this application. A potential lead agency is the Department of Interior - National Park Service, due to Harriman State Park’s receipt of funds from the Land and Water Conservation Act.

Rationale for Permissible Segmentation of Sterling Forest Resort and Interchange 15B

Under SEQRA, segmentation is defined as “the division of the environmental review of an action such that various activities or stages are addressed under this Part as though they were independent, unrelated activities, needing individual determinations of significance.” (6 NYCRR §617.2). The regulations also specify the requirements for undertaking a segmented review. “Considering only a part or segment of an action is contrary to the intent of SEQR. If a lead agency believes that circumstances warrant a segmented review, it must clearly state in its determination of significance, and any subsequent EIS, the supporting reasons and must demonstrate that such review is clearly no less protective of the environment. Related actions should be identified and discussed to the fullest extent possible.” (6 NYCRR §617.2).

The Sterling Forest Resort and Interchange 15B are proposed for permissible segmented SEQRA reviews. The rationale for this approach is outlined below.

- *Interchange 15B has functional independence/utility.* Construction of the interchange would meet local transportation needs by reducing traffic on Route 17 and is supported by the Town of Tuxedo 2011 Comprehensive Plan Update. This function would exist even if the Resort was not constructed. Further, as noted in the following paragraph, the project has been considered by the Thruway
- *Interchange 15B was previously authorized.* Interchange 15B was authorized and approved in 1985 in Section 341 (34) of the New York State Highway Law: The construction of a new interchange on the “Thruway between exit fifteen, in the town of Ramapo, Rockland County, and exit sixteen in the town of Woodbury, Orange County, connecting such Thruway with existing highways in the vicinity ofthe town of Tuxedo, Orange County...” Since that time, an Interchange 15B at this location has been the focus of several prior studies, including a Draft Environmental Impact Statement in 1987 and a Feasibility Study in 2000. Meanwhile, the Orange County Transportation Council included an Interchange 15B project in its Long-Range Transportation Plan for approximately 20 years until

Federal transportation planning requirements were revised to “constrain” such Plans based on expected funding streams.

- *Geographic Separation.* The interchange is approximately 2.4 miles east (straight line) or 2.25 miles (travel distance) from the Resort, providing a logical basis for considering the two sites separately.
- *Streamline Coordinated Review.* The proposed action for Sterling Forest Resort requires several local, county, state and federal approvals while the proposed action for Interchange 15B involves some similar but several different state and federal approvals from additional agencies, including the New York State Thruway Authority and potentially the National Park Service. Segmenting review will streamline the coordinated review process for SEQRA involved agencies and allow for the appropriate agencies to focus on their areas of expertise.

To provide the basis for the permissible segmented review of Sterling Forest Resort and Interchange 15B that is no less protective of the environment than would occur if they were evaluated in a single environmental document, a cumulative impacts assessment will be prepared. The focus of the cumulative impacts assessment will be on the resource areas where there is the potential for the same resources to be affected by both projects. The resources evaluated for the cumulative impacts assessment will include:

- Traffic
- Air Quality
- Noise
- Construction
- Water Quality
- Parkland and park users
- Quality of Life
- Demand for Community Services
- Demand for Emergency Services

Additional Reports/Surveys Expected

The following additional surveys have been or are in the process of being conducted. Reports will be produced in the coming weeks and will be submitted if needed to update the Application. Results to date have not suggested any impediments to completion of the project.

- Indiana Bat and Northern Long-Eared Bat Report (Sterling Forest Resort site and proposed interchange 15B site)
- Timber Rattlesnake Emergence Survey Final Report (Sterling Forest Resort site)
- Whip-poor-will Report (Sterling Forest Resort site)
- Cricket Frog Report (Sterling Forest Resort site)
- Geotechnical Investigation Report (proposed interchange 15B site)

DESCRIPTION OF LAND

SUPPORT EXHIBIT VIII. C.1.f-1

Executive Summary

The findings of this Phase I Environmental Site Assessment (ESA) are based on the following: visual inspection of the project site, visual survey of adjacent/contiguous and nearby properties, and review of available historical property and environmental regulatory agency records of the project site described as the Ren Faire Site, located in Tuxedo, Orange County, New York. The Orange County Tax Map identification numbers associated with the project site are Section 1, Block 1, and Lots 36.32, 37.20, 52.25, 52.26 and 59.20.

The project site is located approximately 5 miles northwest of the center of Tuxedo, New York. The project site is approximately 232 acres in size, is irregular-shaped, and straddles Route 17A for approximately 3/4 of a mile. The site is comprised of four general areas: a North-Central Site Area consisting of office buildings, support facilities, parking areas, ponds, and streams; Sterling Forest Ski Center with building support facilities; the Renaissance Faire Village with support facilities and a campground; and an Eastern Site Area comprised primarily of two open fields. The adjoining properties of the project site have historically primarily consisted of undeveloped forest, with some residences.

The project site is serviced by electric and water supplied by municipal sources. The project site is connected to the municipal sanitary sewer system. Stormwater surface drains and piping are located throughout the project site. They assist in collecting and diverting stormwater runoff into either onto ground surface to or the surface water bodies. Maintenance vehicles and equipment are fueled by aboveground storage tanks.

All former underground storage tanks have been removed from the project site according to New York State Department of Environmental Conservation (NYSDEC) Petroleum Bulk Storage records and there are no open NYSDEC spill cases associated with the site.

The site was initially developed as Sterling Forest Gardens by 1960 at the current-day location of the Renaissance Faire Village. The project site was operated as the Renaissance Faire starting approximately 1978. The Sterling Forest Ski Center had been constructed by 1984. Since its construction, the fairgrounds have been modified and expanded with the construction of buildings and amenities. Additionally low areas have been filled north of Route 17A for use primarily as parking areas.

The environmental database search conducted as part of this Phase I ESA identified the project site in only one database: NYSDEC Spills database with four Spill Cases. All of these cases have been closed.

One Historical Recognized Environmental Condition (HREC) was identified for the site, a spill case associated with the removal of a former 8,000-gallon UST. Impacted soil was

discovered beneath the tank's dispenser. No groundwater was encountered and the impacts were reported limited to approximately one yard of soil, which was disposed offsite. The spill case was closed on August 8, 2013.

The Recognized Environmental Conditions (RECs) identified for the project site include the following:

- Surficial soil surface staining in the area of the vehicle fueling tanks, west of the ski center maintenance building
- Soil staining in an area of downgrade of the eastern end of the ski center ticket booth building
- The unknown discharge point for the floor drains within the set production building, southwest of the Renaissance Faire Village
- The unpermitted aboveground 550-gallon waste oil tank on the south side of the village maintenance building
- The nature of the material used to fill in the low areas for the current day east and north parking lots

Localized housekeeping issues including localized apparent petroleum staining within the fair maintenance building and east parking lot building, and the miscellaneous staging of drums, empty tanks, and debris in the vicinity of the project site maintenance buildings.

GEI offers the following recommendations to investigate and address the RECs identified for the project site:

1. Conduct a focused surface and subsurface probehole investigation to investigate potential impacts associated with the surficial soil staining in the area of the vehicle fuel tanks at the ski center, as well a petroleum stain on soil which emanates from an upgrade stain on asphalt south of the central ski center building
2. Conduct dye testing for the set production building floor drains to determine their discharge point(s)
3. Conduct a subsurface sampling program for the filled-in areas of the site
4. Remove and either replace the 550-gallon waste oil tank on south side of the fairgrounds maintenance building, or upgrade staging of waste oil for appropriate offsite disposal
5. Prior to the purchase of the property, it is recommended that stored waste oil is properly removed from the project site and that staining on the maintenance room

floors and asphalt is cleaned. Additionally, it is recommended that empty drums and debris from the vicinity of the maintenance buildings be removed, and handling and management of hazardous and petroleum materials related to these buildings be upgraded.

DESCRIPTION OF LAND

Support Exhibit VIII. C.1.f-1

See Support Exhibit VIII.C.1.f-1 submitted electronically on the USB for Support Material for the supporting material for this document.

DESCRIPTION OF LAND

SUPPORT EXHIBIT VIII. C.1.f-2

Executive Summary

GEI Consultants, Inc., P. C. had conducted a Phase I Environmental Site Assessment (ESA) of the project site described as the Ren Faire Site, located in Tuxedo, Orange County, New York in April 2014, on behalf of RW Orange County LLC. The Phase I ESA identified five Recognized Environmental Conditions (RECs) and recommended further investigation of three of the RECs.

The scope of work for the Phase II investigation included a soil boring program to investigate two of the RECs, including two surficial soil staining areas, as well as the filled areas of the site. A dye test and a follow-up investigation using various techniques were also conducted for the production building floor drains to determine their discharge point(s) to address the third REC.

Concentrations in soil samples above applicable guidelines were limited to two compounds in a sample from one of the fill areas. The exceedances were marginal. The dye test did not identify the discharge point(s) for the floor drains in the set production building; however, the follow-up investigation determined that it is likely that the drainage system is connected to the sanitary line located in the area.

Based on the analytical results, no remedial action is warranted.

DESCRIPTION OF LAND

Support Exhibit VIII. C.1.f-2

See Support Exhibit VIII.C.1.f-2 submitted electronically on the USB for Support Material for the supporting material for this document.

DESCRIPTION OF LAND

SUPPORT EXHIBIT VIII. C.1.f-3



EXECUTIVE SUMMARY

Alesund I LLC & Cleary Gottlieb Steen & Hamilton, LLP has retained the Louis Berger Group, Inc. (Louis Berger) to conduct a preliminary geotechnical investigation and prepare a preliminary geotechnical investigation report to assess the development potential at the Sterling Forest Resort located in the Town of Tuxedo, Orange County, New York. This report presents the results of the preliminary geotechnical investigation and engineering study, evaluations of the site and foundation systems, and geotechnical related recommendations for the proposed development.

The proposed site is located about 4 miles northwest of Tuxedo Village in Orange Country, New York. The general development area is about 50 acres and will likely consist of the construction of a 5-story Resort World Grand Hotel structure, a 7-story parking garage, several surface parking structures and ponds, the renovations, functional improvements/changes of the existing buildings, site access roads, and the installation of utilities.

The project site is located within a north-south trending narrow glacial valley; approximately 2,500 feet in length and 300 feet wide. The valley is at approximately 720 foot above sea level elevation and is situated between two steep ridges that are at approximately 900 foot elevation. To assess the development potential of the site, a preliminary subsurface exploration program was conducted between April 15 and May 7, 2014. The program consisted of four (4) exploration borings (drilled between 8 and 65 feet below the existing ground surface), temporary monitoring well installation, and collection of engineering geologic data within the proposed development area, Dynamic Cone Penetration Testing within the surface parking areas, and laboratory testing on collected samples. To monitor groundwater, five temporary monitoring wells were installed throughout the site area.

The thickness of the valley sediments varies between greater than 65 feet below surface in the valley center to approximately 27.5 feet towards the valley's sides, gradually decreasing to about 2 feet at the west flank of the valley. The sediments consist of glacial till and outwash, and fine-grained lake deposits, overlain by a thin, (~5 ft.) layer of man-made fill. The bedrock underlying the sediments consists of very hard, sound and of generally "good to excellent" rock quality metamorphic rock (granite gneiss). No visual signs of contamination were observed during drilling. The valley sides have slopes between 10 and 20 degrees and contain gravelly silt and sandy soils beneath an approximate 6-inch layer of highly decomposed plant material with abundant boulders with diameters between 3 and 30 feet below the existing grade. At the southern end of the valley, groundwater in overburden was encountered at 0.10 feet below existing grade.

Based on the findings from this investigation, the general foundation conditions for the proposed development (in terms of soil/structure interaction) were reviewed and the alternate methods for foundations for the proposed structures were evaluated. It was determined that the upper fill (Stratum 1) and the underlying soft to medium silt (Stratum 2) are not considered to be suitable bearing strata in accordance with the New York State Building Code, and therefore cannot be relied upon to support the anticipated foundations because of excessive total and differential settlements. For the preparation of development plans, feasibility, and conceptual design studies both shallow foundation system after ground improvement, and deep foundation systems were evaluated and both found to be feasible depending on the final development plans. As discussed in detail in Section 4.2, because of shallow groundwater and likely required rock excavations, construction of below grade structures (i.e. basement) is not recommended due to high initial and life cycle costs. If no basement structures are sought, this study recommends the structures to be supported on timber piled foundation systems (discussed in Section 4.2.3).

For at grade parking and access road, dynamic cone penetration testing (DCPT) showed highly variable surface compactness. Therefore, to provide a uniform subgrade for the satisfactory performance a site specific subgrade preparation was recommended in Section 4.3 of this report. For the site access road and pavement, a CBR value of 10 for a flexible pavement design can be assigned following the preparation of the subgrade as described above. Based on the assumed traffic data, the following pavement structure is recommended:



- 1½-inch Asphalt Concrete Surface Course
- Six (6) inch crushed stone drainage layer
- Four (4)-inch Aggregate Base Course, over compacted subgrade as suggested above.

A limited number of chemical analyses suggested that the potential for sulfate and chloride attack on concrete and steel elements is negligible. Therefore, Type IM (MS), I (MS) P, (MS) or Type II Portland cement can be used in all foundation concrete and concrete in contact with soil and water. To mitigate against long-term corrosion of uncoated ferrous metals (such as reinforcing bars, steel pipes, or other steel members of the structure in contact with the soil), a minimal cover for reinforcement steel in accordance with ACI requirements should be observed. Steel and other metallic pipes in contact with soil should also be protected in accordance with the manufacturer's recommendations.

Seismic parameters used in the design should be based on the Building Code of New York State, according to which Site Class D parameters can be used in the preliminary design. Unless improved by DDC, or excavated and removed, the site has a potential for liquefaction in a seismic event.

Borehole data and the engineering geological map of studies indicate the site does not have a potential for a major geological hazard, like landslides and or slope failures. In a major storm event, however, the site may have a flash flood potential event due to relatively shallow bedrock with relatively poor infiltration characteristics of the soils and the bedrock. A drainage design, including stream training must be prepared by a licensed hydrologist/drainage engineer during preparation of the site development plans.

DESCRIPTION OF LAND

Support Exhibit VIII. C.1.f-3

See Support Exhibit VIII.C.1.f-3 submitted electronically on the USB for Support Material for the supporting material for this document.

DESCRIPTION OF LAND

SUPPORT EXHIBIT VIII. C.1.f-4

**Preliminary Report - Timber Rattlesnake Emergence Surveys –
Renaissance Faire Property, Town of Tuxedo, Orange County, New York**

Prepared for

**EcolSciences, Inc.
75 Fleetwood Drive, Suite 250
Rockaway, New Jersey 07866**

By



**42 School Street
Narrowsburg, NY 12764
845-252-3501**

June 24, 2014

Preliminary Report - Timber Rattlesnake Emergence Surveys – Renaissance Faire Property, Town of Tuxedo, Orange County, New York

Introduction

The proposed Sterling Forest Resort is a destination resort and casino complex which encompasses a 238 acre parcel located in the Town of Tuxedo, Orange County, New York. The site is currently developed as Tuxedo Ridge, a ski slope, lodge and restaurant complex and the Renaissance Faire village. The ski slope property contains well worn trails which are used seasonally for motocross races, Spartan athletic events and 5K races drawing crowds of several thousand people. The Renaissance Faire is a popular fall attraction, again drawing thousands of people daily during its operation. Several large parking areas are included on this parcel and were observed to fill to capacity during summer events. Nearly the entire 238 acre property is subject to some use and much of it is extensive. Most of the proposed redevelopment project is surrounded by Sterling Forest State Park Land.

Sterling Forest is home to a rich diversity of wildlife including the New York State listed Timber Rattlesnake. The New York Natural Heritage Program data base has nearly a dozen rattlesnake den locations (hibernacula) within Sterling Forest. Three of these were previously unknown sites located in recent years by KT Wildlife personnel surveying for development and re-development sites. The ridge and valley system running southwest to northeast is composed of predominantly deciduous forest with rock ledges, talus slides and buried talus. The ridges provided numerous south to southeast exposures commonly associated with timber rattlesnake dens.

With extensive suitable timber rattlesnake habitat surrounding the proposed re-development site it was necessary to survey any possible habitat on the site and adjacent to it since a den in close proximity could be negatively impacted by the proposed land alteration project. In New York State timber rattlesnake den and gestation habitat must be avoided and impacts to basking and foraging habitat and/or migration corridors could require significant mitigation/restoration depending on the impact, as well as an Incidental Take Permit.

Surveys and Results

Den and basking habitat surveys were conducted on the proposed re-development site and a half mile buffer around all parts of the property (see attached map). Surveys were conducted on nine days between 10 April and 17 May, 2014 during optimal weather conditions to observe snakes. There were 12 general mountain areas of habitat to be surveyed within the half mile buffer, some with more than one ridge top. The areas which were determined to have the best habitat were surveyed several times. During the surveys several common species which sometimes share hibernacula with timber rattlesnakes, but often hibernate throughout rocky slopes were observed emerging at various locations or basking in adjacent open habitat. These included northern racers, eastern rat snakes and a copperhead. Other herpetofauna observed

Preliminary Report - Timber Rattlesnake Emergence Surveys – Renaissance Faire Property, Town of Tuxedo, Orange County, New York

included five-lined skinks, wood frogs, common garter snakes, eastern newts, green frogs, pickerel frogs, American toads and ambystomid salamander larvae. No timber rattlesnakes were found during any of these surveys.

In addition to the emergence and post-emergence surveys, several additional surveys were conducted during the month of June to cover the identified potential basking and/or gestating areas on the open rocky hilltops during the time when snakes undergo a shedding cycle. Snakes often seek this type of habitat during this shed cycle. These additional basking/gestating surveys provide a higher confidence level that no rattlesnakes are denning on or adjacent to the property or using the site for basking or gestating. No timber rattlesnakes were observed on the proposed project property or within the one half mile radius buffer surveyed to date. Two additional surveys will complete this additional effort.

The preliminary results of these surveys indicate that it is unlikely that there is a timber rattlesnake den within a half mile of the proposed re-development project. The NYSDEC has indicated that there are known dens within 1.5 miles of the site. This distance is used in making an initial determination regarding habitat use by rattlesnakes since they radiate outward from their dens during summer foraging; females averaging 1.5 miles and males up to 2.5 miles, occasionally farther. However, there are other factors to consider such as the presence of major roadways which function as barriers to movement. Generally, gravid (pregnant) females gestate in suitable natural open rocky areas with sufficient cover rock to protect them from predators. These gestation areas are critical habitat for the survival of a den and are usually located no farther than a half mile from the den. Suitable habitat was observed on several of the mountains, however no rattlesnakes were found at any of the sites.

The apparent absence of any rattlesnake dens close to the proposed project site would indicate that none of the potential basking on site should be considered critical habitat. In addition the only areas of potential basking habitat on site were on the ski slope which is apparently used frequently for dirt bike racing, camping, summer festivals and other activities incompatible with rattlesnake gestation. It does not appear that any NYSDEC Part 182.11 incidental Take Permit (for habitat) or any habitat restoration/enhancement would be necessary for the project to proceed.

Standard timber rattlesnake mitigation measures should be taken during the re-development of the site which may include providing a NY approved rattlesnake monitor during clearing and grading activities if they are to be done during the snake's active season, approximately 1 April through 30 October and/or exclusion fencing of certain areas as determined by NYSDEC upon review of the final report. After grading is completed the potential habitat in the workspace should be eliminated, making the area less attractive to snakes. The contractors should be made aware of the potential for a snake to cross the site from one of the dens approximately a mile away. An educational

Preliminary Report - Timber Rattlesnake Emergence Surveys – Renaissance Faire Property, Town of Tuxedo, Orange County, New York

handout with pictures of rattlesnakes on various backgrounds should be distributed to workers so that they can be alert for any crossing the workspace. Key supervisory personnel at the site should be trained to properly remove a rattlesnake in the unlikely event that one is encountered in the workspace during construction. All personnel should be advised of the protected status of the timber rattlesnake in New York. In addition, the maintenance or landscaping personnel at the resort should be trained in proper handling and relocation techniques in the event a rattlesnake is found on the property during the operation of the resort. KT Wildlife personnel are approved to provide such training in New York State.

A full report with photos and a table of dates and areas of the potential habitat which were surveyed within the half mile radius will be provided following the completion of the June basking/gestating surveys.

DESCRIPTION OF LAND

Support Exhibit VIII. C.1.f-4

See Support Exhibit VIII.C.1.f-4 submitted electronically on the USB for Support Material for the supporting material for this document.

DESCRIPTION OF LAND

SUPPORT EXHIBIT VIII. C.1.f-5



EcolSciences, Inc.

Environmental Management & Regulatory Compliance

June 23, 2014

RW Orange County LLC
C/O Cleary Gottlieb Steen & Hamilton LLP
One Liberty Plaza
New York, NY 10006
Attn: Ben Leffler, Esq.

Re: Dusted Skipper Habitat Evaluation and Survey
Ren-Faire Property
Tuxedo, Orange County, New York

Dear Mr. Leffler:

As requested, EcolSciences conducted a habitat evaluation and survey for the Dusted skipper on June 10 and 16, 2014. During the surveys, a single Dusted skipper was found onsite along the Natural Gas pipeline near the western-most property boundary. The location is shown on the attached map. The following provides a summary of the habitat evaluation and study results.

Background

A request for sighting information in the NYDEC Natural Heritage Program database did not indicate Dusted skippers occurring on or in the vicinity of the Ren-Faire site (attached) although a similar request for the nearby Route 17 and I-87 interchanges did note the potential for this species. Despite the lack of database records for the Ren-Faire property, a habitat evaluation and survey was conducted because Dusted skippers were found adjacent to the nearby Route 17 and I-87 interchanges and portions of the Ren-Faire site are maintained as open early successional habitats.

Dusted skipper is not listed as Endangered, Threatened or of Conservation Concern by New York State but is considered Rare by the Heritage Program and has a Heritage Conservation Status in New York State as Imperiled. According to the New York Heritage Program Conservation Guide for Dusted skipper, the species has a state rarity rank of S2 meaning: Typically 6 to 20 occurrences, few remaining individuals, acres, or miles of stream, or factors demonstrably make it very vulnerable in New York State¹. Across its range, "the Dusted Skipper is almost always found in localized colonies closely associated with patches of the foodplant. These may or may not be demes in metapopulations. Even by skipper standards this one is usually scarce and many colonies are probably only a few dozen adults per year."²

¹ New York Heritage Program Conservation Guide for Dusted skipper. Retrieved on June 19, 2014 from <http://www.acris.nynhp.org/report.php?id=7814>

² NatureServe – Dusted Skipper (Retrieved from Nature Serve on June 19, 2014 - <http://explorer.natureserve.org/servlet/NatureServe?searchName=ATRYTONOPSIS+HIANNA>)

Identification

The Dusted skipper (*Atrytonopsis hianna*) is a rather large dark and distinctively patterned butterfly. It is a relatively easy skipper to identify by the bright white dot on the hindwing near the base and also the white line above the eye. This white line coupled with the white palps on the face give it a "masked" appearance. The butterfly also gets the common name of "dusted" from the grayish-white frosting or dusting on the wings.

Habitat and Ecology

The Dusted skipper is an early successional habitat specialist³. Typical habitats include "Dry fields, barrens, and power-line cuts in association with its foodplant"⁴. In New York State the habitat is described as "openings and utility right-of-ways in pine barrens and other sandy habitats. This species also occasionally inhabits various types of rock outcrops in the New York City area."⁵ The primary host foodplant for the caterpillars in the northeast is Little bluestem grass (*Schizachyrium scoparium*) along with Big Bluestem (*Andropogon gerardi*) and Beardgrass⁶. In New York "the larval foodplant is bluestem grasses, usually Little Bluestem (*Schizachyrium scoparium*)"⁷ and (NYNHP 2013).

The Dusted skipper is strongly associated with the larval foodplant and is rarely found significant distances from it. The NYNHP notes "The adults are rarely seen more than a few feet from the larval foodplant (bluestem grasses, usually Little Bluestem (*Schizachyrium scoparium*), unless they are forced into adjacent habitats to find nectar." (NYNHP 2013).

The Dusted skipper remains in the habitat in close association with the larval host plant throughout the entire year. Even when the adults are not flying, the eggs, caterpillars and chrysalis remain in the habitat. The adult flight period is generally short and the eggs are laid on bluestem grass. The caterpillars hatch a week or two later and "are probably more or less active most of the summer but may aestivate some. Nearly mature larvae overwinter within a tent of several leaves sewn together attached to host plant well off the ground (Stanford, 1981; Opler and Krizek, 1984). Pupation occurs in spring in a sealed case at the base of the grass clump 1-3 inches above ground (Heitzman, 1974, in Opler and Krizek, 1984)."⁸

³ Cech, R. and G. Tudor. 2005. Butterflies of the East Coast: An Observer's Guide. Princeton University Press. 234 pp.

⁴ Glassberg, J. 1993. Butterflies Through Binoculars: A Field Guide to the Boston-New York-Washington Region. Oxford University Press. 256 pp.

⁵ New York Natural Heritage Program (NYNHP 2013). New York Heritage Program Conservation Guide for Dusted skipper. 2013. Retrieved on June 19, 2014 from <http://www.acris.nynhp.org/report.php?id=7814>

⁶ Gochfeld, M. and J. Burger. 1997. Butterflies of New Jersey. Rutgers University Press. 327 pp.

⁷ Shapiro, A. 1974. Butterflies and Skippers of New York State. Search Agriculture Entomology. Cornell University Agricultural Experiment Station. V. 4(3). 60 pp.

⁸ NatureServe – Dusted Skipper (Retrieved from Nature Serve on June 19, 2014 - <http://explorer.natureserve.org/servlet/NatureServe?searchName=ATRYTONOPSIS+HIANNA>)

Study Results

Prior to conducting the habitat evaluation and field survey aerial photographs of the Ren-Faire site were reviewed to identify potential open habitats that could support Dusted skippers. Based upon the aerial photographs and a field investigation, extensive open habitats occur on the ski slopes in the southern portion of the site. There are no formal survey methodologies for Dusted skipper but the Michigan Natural Features Inventory suggests an approach that was largely followed during the field survey and proved to be successful at locating the species: “The best way to survey for this species is by meandering thorough potential habitat while checking nectar sources or perches such as low forbs and grasses.”⁹.

During the survey, a single Dusted skipper was found onsite along the Natural Gas pipeline near the western-most property boundary. A photo was not able to be secured of the single Dusted skipper found on the Ren-Faire site. The butterfly was observed intermittently for about 5 minutes but repeatedly flew when approached closely enough for a photograph. Nonetheless, the butterfly was easily identified using Swift Eaglet Close-focusing binoculars. The butterfly was a fresh individual with clearly visible diagnostic fieldmarks.

Although there are extensive open habitat areas associated with the ski slopes on the Ren-Faire site, the larval host plant, Little Bluestem grass, was limited to only one area. This area is on the “Bowl” slope near the southeastern property boundary. Little Bluestem grass is widespread along the upper half of this slope but the area is also considerably shrubby. No Dusted skippers were found at this location and it may be that too much shrub cover is present to provide suitable open habitat despite the presence of the larval food plant. It also appears that all of the ski slopes have significant and regular spring and summer disturbances via various sports. The pipeline where the single Dusted skipper was found lacked any apparent Little Bluestem grass. This area is also rather mesic and appears too densely vegetated and rich for Dusted skippers. Therefore it is possible that this individual was utilizing the corridor to move between other unknown habitats or was dispersing from a small onsite population. The following photographs show the habitats where the Dusted skipper was found and the broad area of Little Bluestem grass on the “Bowl” ski slope.

⁹ Cuthrell, D.L. 2006. Special animal abstract for *Atrytonopsis hianna* (dusted skipper). Michigan Natural Features Inventory, Lansing, MI. 3 pp.



The Natural Gas pipeline where the Dusted skipper was found.



The "Bowl" ski slope where extensive Little Bluestem grass was found interspersed with shrubs.

Ben Leffler, Esq.

June 23, 2014

Page 5

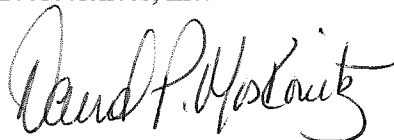
Summary and Recommendations

Only a single Dusted skipper was found at the Ren-Faire site in the Natural Gas pipeline near the southwestern-most property boundary. The larval food plant was not found at this location and was limited to only one area onsite. Given the presence of only a single butterfly and the limited larval food plant resources, it does not appear that the Ren-Faire site supports a population of the Dusted skipper. Therefore, it is not expected that any onsite development-related activities will impact the species. However, the Ren-Faire site may offer excellent opportunities to create habitat for this species given the open and regularly maintained nature of the ski slopes. Planting these slopes with the larval food plant and continuing their regular maintenance may provide extensive suitable habitat that could be colonized and utilized by Dusted skippers, especially given the presence of a Dusted skipper onsite and the recently discovered nearby populations at the highway interchanges. Dispersal in this species is expected to occur and Howe (1975) notes with respect to fire disturbance (but also assumed to be consistent with other temporary disturbances) that "Through much of its range this species is evidently a transient because its apparent foodplant is a grass that is a pioneer on recently burned areas. The grass occupies the area disturbed by fire for only a few years until, through succession, it is replaced by other plants. This demands effective dispersal flight of the skippers, for newly burned areas must be located and colonized during the few years that the site is habitable."¹⁰ As a result of the Dusted skippers apparent ability to find and colonize new habitats when nearby source populations are present, the Ren-Faire ski slopes may offer a significant opportunity to create habitat and assist with the conservation of this species.

I trust this information is helpful. However, please do not hesitate to contact either me or Laura Newgard if you have any questions or need anything else.

Very truly yours,

EcolSciences, Inc.



David P. Moskowitz
Senior Vice President

Attachments

F:\jobs14\En14-018\Dusted Skipper Survey Ren-Faire

¹⁰ Howe, W. 1975. *The Butterflies of North America*. Doubleday and Company, Inc. 633 pp.

DESCRIPTION OF LAND

Support Exhibit VIII. C.1.f-5

See Support Exhibit VIII.C.1.f-5 submitted electronically on the USB for Support Material for the supporting material for this document.

DESCRIPTION OF LAND

SUPPORT EXHIBIT VIII. C.1.f-6

Executive Summary

The findings of this Phase I Environmental Site Assessment (ESA) are based on the following: visual inspection of the project site, visual survey of adjacent/contiguous and nearby properties, and review of available historical property and environmental regulatory agency records of the project site described as the Interchange 15B Site, located in Tuxedo, Orange County, New York.

The project site is located in the southeastern portion of Orange County, approximately three miles north of the center of the town of Tuxedo, New York, along Interstate 87.

The project site is irregularly-shaped and straddles Interstate 87 for approximately 3,500 feet north and approximately 2,500 feet south of County Route (CR) 106. It extends approximately 2,000 feet east of CR 106 and approximately 800 feet west of Route 17A.

Forest lines most of Interstate 87 and CR 106 in the project site. A parking area is located at the northwest corner of Route 17A and Route 17. The Metro North Railroad line is located along Route 17 on its east side. The Ramapo River is located between the railroad and Interstate 87.

North of CR 106, the area between Route 17 and Interstate 87 is a portion of Harriman State Park that provides access to the Ramapo River. This area contains roadways and visitor access points to the river. The river is connected to tributaries and ponds along its path. Dense forest exists on the east side of the river. Maintenance access roads are present on the east and west sides of Interstate 87 north of CR 106. A chain-link fence is present between the forest and Interstate 87. Forest lines CR106 to the east of Interstate 87.

The area to the south of CR 106 is similar to the area north of CR 106 except that access is restricted and is limited to archery hunting on the west side of the Ramapo River. Pooled water is present in a few areas between the Ramapo River and Interstate 87.

The western portion of the site along Route 17 and south of the Route 17A south ramp is used as a parking area. Immediately to the west is a small open field. The southern part of the parking lot is bordered by a tributary of the Ramapo River and flows eastward beneath Route 17. South of this tributary on the west side of Route 17 is a landscape facility.

No evidence of hazardous materials was observed on the project site during the site visit to indicate an environmental concern for the project site.

The environmental database search conducted as part of this Phase I ESA did not identify the project site or any nearby sites within their respective database search radii.

No Controlled Recognized Environmental Conditions, Historical Recognized Environmental Condition, or Recognized Environmental Conditions have been identified for the project site during this Phase I ESA.

DESCRIPTION OF LAND

Support Exhibit VIII. C.1.f-6

See Support Exhibit VIII.C.1.f-6 submitted electronically on the USB for Support Material for the supporting material for this document.

DESCRIPTION OF LAND

SUPPORT EXHIBIT VIII. C.1.f-7



EcolSciences, Inc.

Environmental Management & Regulatory Compliance

June 23, 2014

RW Orange County LLC
c/o Cleary Gottlieb Steen & Hamilton LLP
One Liberty Plaza
New York, NY 10006
Attn: Ben Leffler, Esq.

Re: Dusted Skipper Habitat Evaluation and Survey
Proposed Interchange Improvements
Tuxedo, Orange County, New York

Dear Mr. Leffler:

As requested, EcolSciences conducted a habitat evaluation and survey for the Dusted skipper on June 10, 2014. During the survey, Dusted skippers were found at two locations adjacent to the existing interchanges. The locations are shown on the attached map. The following provides a summary of the habitat evaluation and study results.

Background

The habitat evaluation and survey was conducted to address a response from the NYDEC Natural Heritage Program (attached) indicating that the Dusted skipper was documented in the project vicinity. Based on the Heritage Program data, Dusted skipper was previously found at Parker Cabin Hollow on June 9, 2001. Dusted skipper is not listed as Endangered, Threatened or of Conservation Concern by New York State but is considered Rare by the Heritage Program and has a Heritage Conservation Status in New York State as Imperiled. According to the New York Heritage Program Conservation Guide for Dusted skipper, the species has a state rarity rank of S2 meaning: Typically 6 to 20 occurrences, few remaining individuals, acres, or miles of stream, or factors demonstrably make it very vulnerable in New York State¹. Across its range, "the Dusted Skipper is almost always found in localized colonies closely associated with patches of the foodplant. These may or may not be demes in metapopulations. Even by skipper standards this one is usually scarce and many colonies are probably only a few dozen adults per year."²

Identification

The Dusted skipper (*Atrytonopsis hianna*) is a rather large dark and distinctively patterned butterfly. It is a relatively easy skipper to identify by the bright white dot on the hindwing near the base and also the white line above the eye. This white line coupled with the white palps on the face give it a "masked" appearance. The butterfly also gets the common name of "dusted" from the grayish-white frosting or dusting on the wings. The photos below of Dusted skippers from the site show the diagnostic fieldmarks for this species.

¹ New York Heritage Program Conservation Guide for Dusted skipper. Retrieved on June 19, 2014 from <http://www.acris.nynhp.org/report.php?id=7814>

² NatureServe – Dusted Skipper (Retrieved from Nature Serve on June 19, 2014 - <http://explorer.natureserve.org/servlet/NatureServe?searchName=ATRYTONOPSIS+HIANNA>)



Habitat and Ecology

The Dusted skipper is an early successional habitat specialist³. Typical habitats include “Dry fields, barrens, and power-line cuts in association with its foodplant”⁴. In New York State the habitat is described as “openings and utility right-of-ways in pine barrens and other sandy habitats. This species also occasionally inhabits various types of rock outcrops in the New York City area.”⁵ The primary host foodplant for the caterpillars in the northeast is Little bluestem grass (*Schizachyrium scoparium*) along with Big Bluestem (*Andropogon gerardi*) and Beardgrass⁶. In New York “the larval foodplant is bluestem grasses, usually Little Bluestem (*Schizachyrium scoparium*)”⁷ and (NYNHP 2013).

The Dusted skipper is strongly associated with the larval foodplant and is rarely found significant distances from it. The NYNHP notes “The adults are rarely seen more than a few feet from the larval foodplant (bluestem grasses, usually Little Bluestem (*Schizachyrium scoparium*), unless they are forced into adjacent habitats to find nectar.” (NYNHP 2013).

The Dusted skipper remains in the habitat in close association with the larval host plant throughout the entire year. Even when the adults are not flying, the eggs, caterpillars and chrysalis remain in the habitat. The adult flight period is generally short and the eggs are laid on bluestem grass. The caterpillars hatch a week or two later and “are probably more or less active most of the summer but may aestivate some. Nearly mature larvae overwinter within a tent of several leaves sewn together attached to host plant well

³ Cech, R. and G. Tudor. 2005. *Butterflies of the East Coast: An Observer's Guide*. Princeton University Press. 234 pp.

⁴ Glassberg, J. 1993. *Butterflies Through Binoculars: A Field Guide to the Boston-New York-Washington Region*. Oxford University Press. 256 pp.

⁵ New York Natural Heritage Program (NYNHP 2013). *New York Heritage Program Conservation Guide for Dusted skipper*. 2013. Retrieved on June 19, 2014 from <http://www.acris.nynhp.org/report.php?id=7814>

⁶ Gochfeld, M. and J. Burger. 1997. *Butterflies of New Jersey*. Rutgers University Press. 327 pp.

⁷ Shapiro, A. 1974. *Butterflies and Skippers of New York State*. Search Agriculture Entomology. Cornell University Agricultural Experiment Station. V. 4(3). 60 pp.

off the ground (Stanford, 1981; Opler and Krizek, 1984). Pupation occurs in spring in a sealed case at the base of the grass clump 1-3 inches above ground (Heitzman, 1974, in Opler and Krizek, 1984).”⁸

Study Results

Prior to conducting the habitat evaluation and field survey aerial photographs of the study area were reviewed to identify potential open habitats that could support Dusted skippers. Based upon the aerial photographs and a field investigation, open habitats were limited to the areas west of the onramp to Route 17 South and on both sides of County Road 106 east of I-87. There are no formal survey methodologies for Dusted skipper but the Michigan Natural Features Inventory suggests an approach that was largely followed during the field survey and proved to be successful at locating the species: “The best way to survey for this species is by meandering thorough potential habitat while checking nectar sources or perches such as low forbs and grasses.”⁹.

During the survey, Dusted skippers were found in the field to the west of the onramp to Route 17 South just beyond the small commuter parking area and also on the steep grassy slopes to the south of County Road 106 just east of I-87. In the meadow west of the onramp there were at least six skippers and possibly as many as 10 and on the grassy slopes to the east of I-87, 3 Dusted skippers. It appears that both locations support a viable population of the butterfly. At both locations, some of the butterflies were worn suggesting they have been flying for a period of time while others were fresh indicating recent emergence. Both areas feature the host plant (Little bluestem grass) and a wide variety of suitable nectar sources. Dusted skippers were not found in the relatively flat meadow habitat on the north side of County Road 106, east of I-87. This area lacks Little bluestem grass but features a wide variety of potential nectar sources for butterflies breeding on the south side of the road. Although Dusted skippers were not found in this meadow and it lacks the caterpillar host plant, it may provide nectaring sources for adults given its proximity to the breeding site. However, the impact of traffic and separation via the road is unknown. The following photographs show the habitats where the Dusted skippers were found.

⁸ NatureServe – Dusted Skipper (Retrieved from Nature Serve on June 19, 2014 - <http://explorer.natureserve.org/servlet/NatureServe?searchName=ATRYTONOPSIS+HIANNA>)

⁹ Cuthrell, D.L. 2006. Special animal abstract for *Atrytonopsis hianna* (dusted skipper). Michigan Natural Features Inventory, Lansing, MI. 3 pp.



Dusted skippers were found in this field to the west of the onramp to Route 17 South just beyond the small commuter parking area.



Dusted skippers were found on these steep grassy slopes to the south of County Road 106 just east of I-87.

Ben Leffler, Esq.

June 23, 2014

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Summary and Recommendations

Dusted skipper was found at two locations near the Route 17 and I-87 interchanges. Given the presence of multiple individuals and the larval food plant it is expected that both areas support viable populations of the butterfly. These two populations are almost certainly being facilitated by periodic mowing that is maintaining the habitats in an early successional stage. Howe (1975) notes with respect to fire disturbance (but also assumed to be consistent with other temporary disturbances) that “Through much of its range this species is evidently a transient because its apparent foodplant is a grass that is a pioneer on recently burned areas. The grass occupies the area disturbed by fire for only a few years until, through succession, it is replaced by other plants. This demands effective dispersal flight of the skippers, for newly burned areas must be located and colonized during the few years that the site is habitable.”¹⁰ It is unknown if other Dusted skipper populations exist in the area that are serving as source habitats for dispersing individuals or if these two locations are isolated. However, given the apparent scarcity of the butterfly in the state, avoidance of these habitats is recommended. In addition, continued management of these habitats in the same manner currently being conducted should continue. Because the Dusted skipper occupies their habitats in one life stage or another throughout the entire year, even disturbances when the adults are not flying are expected to be potentially detrimental.

I trust this information is helpful. However, please do not hesitate to contact David P. Moskowitz or me if you have any questions or need anything else.

Very truly yours,

EcolSciences, Inc.



David P. Moskowitz
Senior Vice President

Attachments

F:\jobs14\En14-018\Dusted Skipper Survey Interchange (Final)

¹⁰ Howe, W. 1975. The Butterflies of North America. Doubleday and Company, Inc. 633 pp.

DESCRIPTION OF LAND

Support Exhibit VIII. C.1.f-7

See Support Exhibit VIII.C.1.f-7 submitted electronically on the USB for Support Material for the supporting material for this document.

DESCRIPTION OF LAND

SUPPORT EXHIBIT VIII. C.1.f-8

DESCRIPTION OF LAND

Support Exhibit VIII. C.1.f-8

See Support Exhibit VIII.C.1.f-8 submitted electronically on the USB for Support Material for the Environmental Assessment Form for Sterling Forest Resort submitted June 20, 2014.

DESCRIPTION OF LAND

SUPPORT EXHIBIT VIII. C.1.f-9

DESCRIPTION OF LAND

Support Exhibit VIII. C.1.f-9

See Support Exhibit VIII.C.1.f-9 submitted electronically on the USB for Support Material for the Environmental Assessment Form for Interchange 15B submitted June 23, 2014.