2006 UNIT MANAGEMENT PLAN AMENDMENT

to the

2004 Unit Management Plan

and

Final Environmental Impact Statement

for



WHITEFACE

Mountain Ski Center

Prepared By: Olympic Regional Development Authority Office of Planning & Construction and Whiteface Mountain Ski Center

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Whiteface Mountain Ski Center 2006 Unit Management Plan Amendment to the 2004 Unit Management Plan and Final Environmental Impact Statement

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In Cooperation with The New York State Department of Environmental Conservation

> and in consultation with The Adirondack Park Agency

Special thanks to **The Vermont Institute of Natural Science** and **The Wildlife Conservation Society**

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EXECUTIVE SUMMARY

This 2006 Unit Management Plan (UMP) Amendment addresses trail construction above the elevation of 2,800 feet and the Tree Island Pod that were presented as Conceptual Items in the 2004 UMP and expands the scope of three items included and approved in the 2004 UMP.

Trail work above 2,800 feet is of particular concern due to impact on the habitat of the Bicknell's Thrush. Over the past three years the Olympic Regional Development Authority (ORDA) and Whiteface Mountain Ski Center staff have worked in partnership with the Vermont Institute for Natural Science, the Wildlife Conservation Society, the New York State Department of Environmental Conservation, the Adirondack Park Agency, the Adirondack Council and Audubon New York on the development of the 'Best Management Practices' for the development and maintenance of ski trails above 2800 feet. The recommendations and processes presented in this amendment are evidence of these efforts and unprecedented achievements in the quest to protect this important species.

The other three items presented in this amendment are actions that target the improvement to existing facilities and the expansion of an action approved in the 2004 UMP. The improvements to the two existing facilities have been presented in the 2004 UMP, but further study has resulted in a change in scope to these items. Improvements to Pump House #1 are required to further mitigate the impacts of frazzle ice, to allow for necessary modification to the systems hydraulic profile and provide redundancy in the system operations. Improvements to the Easy Acres Lodge are included to provide a safe and efficient learning environment for our children visitors. The inclusion of a new staff access road from the approved Parking Lot #5 to the existing maintenance facility will allow for the appropriate separation of operational and guest services.

This 2006 UMP Amendment refers to and includes portions of the 2004 UMP where no revisions in the UMP text or mapping are required.

The proposed amendments will continue to ensure the responsible development in harmony with the Adirondack Forest Preserve and the regional economy.

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I. PROPOSED MANAGEMENT ACTIONS

A. Project Descriptions

1. Overview – Trail Construction:

This action includes creation of the Tree Island Pod (TIP) and Lift M, New Excelsior – Bypass, New Niagara, Lower Skyward Bypass and New Glades. This amendment also includes discussion of the construction/maintenance of ski trails above 2,800 feet that have been previously approved in the 1996 Unit Management Plan (UMP) or 2001 amendment to the 1996 UMP. This document is an amendment to the 2004 Whiteface Unit Management Plan Update – Whiteface Mountain Ski Center Final Generic Environmental Impact Statement 2004-2009 (March 2004), also known as the 2004 Whiteface UMP Update. Page xii and xiii of the Executive Summary of the 2004 UMP lists the status of ski trails to be constructed as follows:

- a1. "Upper Mountain (1) The upgrade to occur on the Upper Mountain focuses on the Downhill/FIS trail homologation standards. (2) Trail 3a, Niagara, will be used to connect Upper Skyward (trail 3) to Upper Cloudspin (trail 1). (3) A new 9.8 acre expert glade, Trail 5a, will be constructed in the forest between Paron's Run (trail 5), Excelsior (trail 6) connector (trail 10) and Upper Cloudspin (trail 1) Conceptual only; not a proposed action at this time....
- b1. "Little Whiteface The addition of an intermediate trail (73/73a) from the summit of Little Whiteface Approved under June 2001 amendment of 1996 UMP. Portions above 2,800 feet elevation will not occur until after completion of the VINS report and 2004 field study of Bicknell's Thrush....
- c1. "Little Whiteface Selective widening to Empire (12), Upper MacKenzie (13), Upper Wilderness (15), Upper (18) and Lower Parkway (19) and Upper Thruway (20) This action was approved in the 1996 UMP. This work is underway. Empire, Upper MacKenzie and part of Upper Wilderness above 2,800 feet elevation will not occur until after completion of the VINS report and 2004 field study on Bicknell's Thrush....
- d1. "Tree Island Pod This new pod (74 through 83) will be established north of the Summit Quad pod. Situated around a double chair, the trail network will consist of several weaving, intertwined and interconnected narrow (40-80 foot wide) expert trails. Conceptual only, not a proposed action at this time."

In addition, the New Excelsior – By Pass (trail 6a) was identified in Figure IV-1 of the 2004 Update as a future project and labeled as conceptual only at that time.

Figure F1, Figure F1, Figure Tree Island Pod configuration as proposed in the 2004 UMP.

The project proposed in this amendment was considered part of the long-range plan for Whiteface Ski Center as evidenced in the language and figure referenced above from the approved 2004 Whiteface UMP Update. This project is in compliance with Article XIV, Section 1 of the New York State Constitution and other applicable laws, including the guidelines established by the Adirondack Park State Land Master Plan (SLMP) for management and use of lands designated as Intensive Use Areas. The trail construction activities proposed in this amendment bring the total trail mileage at Whiteface Mountain (WFM) to 24.02 miles, which is below the constitutionally allowed limit of 25 miles. None of the trails to be constructed or widened will exceed the maximum width requirements of 200 feet and no more than 5 miles in aggregate of all trails at the Ski Center exceed of 120 feet wide as allowed by Article XIV, Section 1 of the New York State Constitution. The number of trees to be cut in relation to the proposed activities is 15,195 of 3inch to 4-inch diameter-at-breast-height (DBH) and 28,451 greater than 4 inches DBH. Table T2, ****** "Summary of Vegetation Impacts – Tree Clearing Estimates for Proposed Management Actions".

This UMP amendment is a tool to present evaluation and assessment of the project design and site-specific potential impacts within the Intensive Use Boundaries at Whiteface Mountain Ski Center. Ski trails proposed for approval in this Amendment are as follows:

Upper Mountain

- The upgrade to occur on the Upper Mountain focuses on the Downhill/FIS trail homologation standards. The Niagara section of Upper Cloudspin will be widened from 120 feet to 170 feet. There will be no increase in mileage.
- Excelsior By-Pass (trail 6a) will be used as a bypass to a portion of Excelsior. [Increase = 0.057 miles].
- Lower Skyward By-Pass (trial 4b) will be used as a bypass to a portion of Lower Skyward. [0.11 miles].

Tree Island Pod

- Trails 74, 75, 76, 77, 78 and 79 and new lift [Increase = 3.73 miles]. The lift is excluded form this mileage as it does not constitute a ski trail.
- A new 52-acre expert glade, Trail 80, will be constructed in the forest to the east of the Tree Island Pod [Increase = 0.81 miles].

Ski Trails already approved in the 1996 UMP or 2001 amendment to the 1996 UMP that are included for discussion purposes in this amendment are:

- Little Whiteface The addition of an intermediate trail (73/73a) from the summit of Little Whiteface – Approved under June 2001 amendment of 1996 UMP. Portions above 2,800 feet elevation were not to be constructed until after completion of the VINS report and the 2004 field study of Bicknell's Thrush.
- Little Whiteface Selective widening to Empire (12), Upper MacKenzie (13), Upper Wilderness (15), Upper (18) and Lower Parkway (19) and Upper Thruway (20) This action was approved in the 1996 UMP. This work is underway. Work on Empire, Upper MacKenzie and part of Upper Wilderness above 2,800 feet elevation was not to occur until after completion of the VINS report and 2004 field study on Bicknell's Thrush.

The upgraded trail design reflects the desire to provide additional acreage at critical locations throughout the mountain in order to improve the flow of skier traffic, segregation of ability levels, and diversity of terrain.

Upgrades to the Upper Mountain are focused on the Downhill/Federation Internationale de Ski (FIS) trail homologation standards and increasing skier safety. The Niagara section of Upper Cloudspin needs to be widened for continued homologation. A by-pass on Excelsior is needed to reduce skier conflict during peak periods, and the by-pass on Lower Skyward is needed to allow for better trail diversity. These trails will involve cutting balsam fir, mountain paper birch, red spruce and mountain ash. Tree counts and species are detailed in Table T2, ****** "Summary of Vegetation Impacts – Tree Clearing Estimates for Proposed Management Actions"

The most significant increase in skiable terrain comes from the addition of the "Tree Island" pod. This pod will provide two expert trails and a new intermediate trail that will have a connector trail to the new lift or allow skiers to travel to the base of the mountain. These improvements are necessary to improve the intermediate skiing experience at WFM. The pod's new intermediate trail system will allow better distribution of skiers on the mountain. The new pod will be serviced by a triple lift which will be engineered to maintain a comfortable carrying capacity on the trail system. The pod's segregation from the existing trail network is intended to provide an alternative to the traditional ski trail experience yet it would also be different than the typical glade skiing experience. The main differences are that the pod would have snowmaking and the trails would be groomed. Additionally, the pod has been designed to have very low terrain densities as a result of the capacity of the triple chair lift. The vegetation within the limits of the TIP is a combination of hardwoods and softwoods. Tree counts and species are detailed in Table T2, F "Summary of Vegetation Impacts - Tree Clearing Estimates for Proposed Management Actions.

The new glades have been sited to the east of the Tree Island pod. This will enhance the natural skiing experience and help maintain low densities of skiers on

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the groomed trials during high attendance times. The new glades are sited in an area that is primarily hardwoods with a low density of understory. The attached map, Figure F2, 🔎 "Proposed Trail and Lift Increase" details the areas described above. Additionally, Table T1, 🏈 "Proposed Terrain Specifications" provides a complete list of existing and proposed trail mileage and other trail information and statistics.

2. Pump House #1 Improvements:

This action includes the work required to continue the mitigation of frazzle ice impacts, mitigate pump operational problems due to a shortfall in the system's hydraulic profile, increase water pressure to the pumping system and add redundancy to the system's operation.

The 2004 Whiteface UMP Update (page xi of the Executive Summary) lists Snowmaking, Water System Improvements, and PH#1 Water Pressure Increase as necessary actions. Section IV, Part 7, Snowmaking System Upgrade Plan, f) Water System Improvement (page IV-50) included the need to review the challenges with the existing system. The challenges to PH#1 have been dynamic due to the impact of the weir system and the frazzle ice.

The new proposed work to the existing PH#1 to be approved on the acceptance of this amendment includes:

- Installation of a new pumping wet well at an elevation required by the design hydraulic profile of the pumping system and provision of required separation distances between pumps.
- Installation of a new pumping wet well sized for a finishing band screen system.
- Installation of a new pumping wet well sized for a fourth pump for redundancy to ensure operational efficiency.
- Modifications and additions to the pump house structure that will accommodate a hoist conveyance system, boiler system, and upgrades to the motor control system.
- Increase of the existing pumps' horsepower from 200 hp to 300 hp.
- Addition of a fourth pump for redundancy to ensure operational efficiency.

The existing wet well size and depth in Pump House #1 is not in conformance with the pump manufacturer's minimum requirements for pump separation, offset from chamber walls and submersed depth. These physical conditions cause vortexing and cavatation of the pumps. To further compound the problem, the addition of the new band screens used to mitigate the frazzle ice condition causes hydraulic head loss, which further negatively affects the water level in the pump chamber. These conditions put the operation of the pumps at risk during lower flow conditions and heavy frazzle ice conditions.

Improving the mitigation measures to combat the effects of the frazzle ice is an ongoing battle. The introduction of two band screens has been very successful to date, but the ice still accumulates in the pumping wet well. Therefore, the new pump chamber shall be designed to house a secondary band screen chamber and new secondary band screens will be installed. The chamber will be positioned between the existing screens and the proposed wet well. The media of this secondary treatment screens will be finer than the two existing screens to ensure a higher level of filtration.

The snowmaking season is limited and the equipment in Pump House #1 is operated under taxing conditions. Under the current conditions if there is a failure in any of the three pumps, the capacity of the pumping operation is reduced by one-third. This scenario became reality in January 2006. An unprecedented pressure drop occurred due to heavy loading of the band screen media, resulting in a drop in the wet well water elevation below the required elevation to satisfy the pump suction operation. The result was significant damage to a pump, putting the operational withdrawal to 2/3 of the approved withdrawal capacity during prime snowmaking conditions. Therefore, it is critical that the improvements to Pump House #1 include the addition of a fourth pump for redundancy.

Accessibility to the pumps for routine maintenance and for emergency repairs is a vital component in ensuring the facility's reliability and staff safety. Limiting the required access into the wet well for operation and maintenance is a critical issue in mitigating confined space situations. The lack of egress, the dangers associated with the wet well water depths, the temperatures of the water during the winter season and the liabilities associated with mechanical equipment, develop a situation that requires the wet well to be classified as a Confined Space that requires a Confined Space Permit. In order to mitigate the liabilities associated with confined space entry the improvements to Pump House #1 will include a hoist / conveyor system. This hoist / conveyor system will allow staff safe access and removal of the pumps, while reducing the need to enter a confined space.

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Additionally, the expansion of Pump House #1 will allow for the installation of a hot water boiler system. Currently a rented portable boiler system is used to provide heated water for the band screen spray wash operation. The cost and operational issues associated with the rented portable boiler system and significant propane usage needs to be eliminated. The expansion of the pump house will allow for the additional operational space needed to install a permanent boiler system, thus allowing for the removal of the temporary portable boiler system. Furthermore, the supply of process water for the spray wash operation will be changed from the current process of heating 32 degree river water and utilizing closed loop compressor cooling waters to temper the band screen spray wash system waters. Currently, the closed loop compressor cooling water energy to the band screen spray wash system. This process will result in a reduced amount of propane fuel to heat the band screen spray wash system.

Additional floor space is required for the motor control systems that will be needed for the increased horsepower for the water withdrawal pumps. It is critical that the pumps' horsepower be increased to a level that allows the head pressure required for "Low Energy Snow Guns" at the upper elevations of the mountain. Currently, Low Energy Snow Guns can only be employed at lower elevations on the mountain. Low Energy Snow Guns are a vital component in the operational plan for reduced electrical and diesel fuel consumption.

The location of the new pump chamber is sited to connect to the existing pump house on the mountain side of the existing structure. During the design of the existing screen chamber measures were employed to allow a connection to the screen chamber in a manner that would avoid future work occurring on the river side of the existing pump house. The pump house siding will be changed to a rustic style siding with brown-stain.

A site plan, building plan views and elevations have been developed and are include in this amendment. F Refer to Figure F3, "Pump House #1 Site Plan", Figure F4, "Pump House #1 North Elevation", Figure F5, "Pump House #1 West

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Elevation", Figure F6, "Pump House #1 Plan View", and Figure F7, "Pump House #1 Hydraulic Profile".

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3. Easy Acres Lodge:

The approved 2004 UMP included upgrades consisting of construction of a new 6,000 sf building on the Easy Acres campus for the SkiWee/Drop-in and the 1996 UMP included expanding the existing lodge facility to 10,580 sf. The upgrades approved in the 1996 UMP and 2004 UMP for the Easy Acres Lodge facilities allow the overall square footage to increase to 16,580 sf. The existing Easy Acres Lodge will be modified to contain only food service activities. A new kitchen facility and Americans with Disabilities Act (ADA) compliant restrooms shall be added, and the existing nursery area shall be converted to cafeteria seating area. The conversion of the existing building to service solely as a cafeteria will allow for the most efficient use of resources. This strategy will reduce construction costs and use of natural resources. The reconfiguration and modifications of the existing Easy Acres building would increase the existing area from 9,739 sf to 10,300 sf. Figure F8, F "Proposed Modified Existing Easy Acres Lodge Expansion" provides a conceptual layout of the proposed facility. These upgrades are within the current approved and permitted square footage increases.

The Easy Acres main building currently supports ticketing, lesson registration, nursery, children's assembly area, restrooms, staff lounge and lockers, food services facilities and a cafeteria. The mixed occupancies complicate New York State Building Code compliance. The existing arrangement of the buildings occupancies and access are not ADA compliant. The existing facility does not allow efficient administration of programs and guest services. In order to ensure a safe and comfortable visitation by the ski centers guests a new rental, ticketing, guest services, rentals, nursery and children's learning center shall be constructed. This center will incorporate a connection to the cafeteria area via an enclosed hallway.

The new facility would be located between the existing campus structure and the maintenance garage. The new location would facilitate access from the student drop-off point to the ski lift and would target keeping all guest services on one level to better accommodate ADA and children access. A basement level would be included for staff needs and storage. New construction will include an enclosed walkway to link the modified existing building to the new learning center. The enclosed walkway would provide locker space and provide views of the lift and

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outrun areas. The new facility would allow for the removal of the existing temporary yurt structures and the modular building from the Easy Acres Campus. These temporary structures will be relocated within the Base Campus area to support the improvement of 770 sf of locker and ticketing space and 350 sf for additional offices, storage and conference space for administration, 336 sf of expansion of employee lockers/lounge space approved in previous UMP's. The temporary structures will be removed at the completion of the Base Campus improvements. The proposed maximum square footage footprint of the new structure, including both the lower and main levels is 37,200 sf; this estimate includes the connector-enclosed walkway. The total of developed area for the new building is 19,200 sf. Table T3, ***** "Summary of Approved and Proposed Increases in Building Area for the Easy Acres Campus", summarizes the approved and proposed development space.

Conceptual drawings are provided for the new buildings. The new buildings will use earth-tone colors in the siding and roofing. Traditional gable style roof system with moderate overhangs and natural materials will be utilized to the most practical extent possible. Final design of the Easy Acres Campus buildings may involve rearrangement of the space utilization plan, including moving food service activities to the new building and retaining rental, ticketing, guest services, etc in the existing, to-be expanded building if deemed more suitable. Figure F9, "Proposed Easy Acres Learning Center – Plan View" and Figure F10, "Proposed Easy Acres Learning Center – Plan View" and Figure F10, "Proposed Easy Acres Learning Center – Plan View" and Figure F10, "Proposed Easy Acres Learning Center – Plan View" and Figure F10, "Proposed Easy Acres Learning Center – Plan View" and Figure F10, "Proposed Easy Acres Learning Center – Plan View" and Figure F10, "Proposed Easy Acres Learning Center – Plan View" and Figure F10, "Proposed Easy Acres Learning Center – Plan View" and Figure F10, "Proposed Easy Acres Learning Center – Plan View" and Figure F10, "Proposed Easy Acres Learning Center – Elevations" provide a conceptual layout of the proposed facility. Figure F11, "Proposed Overall Layout - Easy Acres Lodge – Renovation and Expansion" and Figure F12, "Proposed Easy Acres Campus Site Plan", provide conceptual layouts of the proposed improvements.

The expansion of the facilities at the Easy Acres is targeted toward increasing visitor comfort and building code compliance consistent with the rate of growth anticipated in the 2004 UMP submission. The lodges wastewater flows are seasonal and only reach targeted maximum design flows on Christmas Week, Martin Luther King Holiday weekend and Presidents Week. The 2004 UMP presented an increase in the growth of the facilities' SPDES permit from the existing rate of 1,880 GPD to 5,600 GPD. An engineering review of the proposed growth rate and current attendances and historical flow data have indicated that

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the amount of 5,600 GPD proposed in the 2004 UMP submission is acceptable for 2006 UMP amendment proposal. An engineering review is included in Appendix A1, A "Schematic Engineer's Report for Proposed Wastewater Disposal System Improvements – Expansion to "Kids Kampus" Base Lodge Building Whiteface Ski Area". The Schematic Engineer's Report is targeted toward development of wastewater consumption data for the proposed rate of the SPDES permit. The text in the Schematic Engineer's Report on the treatment of wastewater is based on the existing seepage pit system. Since seepage pit systems do not embrace the preferred technology for wastewater treatment, seepage pits are not being proposed as the wastewater treatment system. Final wastewater treatment design for the facility will involve:

- Modification of the Whiteface Mountain Ski Area SPDES Permit No. NY 012 8783 for Outfall # 003 to reflect a new treatment type and increased design flow.
- Plan review and approval by the New York State Department of Health Saranac Lake District Health Office.
- The permitting process will be performed in partnership with the DEC and the DOH to ensure that all viable options for environmentally sound treatment are considered.
- Final design of the Easy Acres I will include review of utilization and possible connection to previously approved IST's on the WFM complex." Section I, page 11, Fourth Bullet; Add "Final design of the Easy Acres Individual Sanitary Treatment (IST) will include review of utilization and possible connection to previously approved IST's on the WFM complex.

In addition to the proposed building area the renovations to the Easy Acres Campus will include new decks and ramp systems to ensure ADA compliance and guest safety. The new decks and ramp system will total approximately 9,800 sf. The decks and ramps shall be constructed to allow water to migrate through separations in the boards and drain to a granular sub-base material. This will allow water to migrate into the ground and not contribute to additional stormwater runoff.

The area targeted for new construction is primarily a previously developed impervious area. The area is identified as parking lot, access road and minimal vegetation area. Portions of previously developed impervious area surrounding the targeted building site will be reclaimed as vegetation area. Therefore, the building project will experience no net increase in impervious area. The total measured footprint of the improved existing building, the new building and enclosed walkway and the new deck and ramp systems is estimated at 36,335 sf or 0.83 acres.

4. Staff Access Road via Parking Lot #5:

Included and approved in the 2004 UMP is Parking Lot #5. The primary objective in the design and construction of Parking Lot #5 was to accommodate the existing and future needs of the Easy Acres Campus. In the effort to improve the separation of guest and operational services a new staff access road via Parking Lot #5 has been included in this amendment. Relocation of the staff access to the maintenance facility will allow staff to avoid conflicts with pedestrian traffic at the Easy Acres Campus. The inclusion of the road construction in the development of Parking Lot #5 will allow for better cost effective construction and sizing of stormwater controls. Figures F13, Figures F13, Figure Access Road – Location Map", Figure F14, "Maintenance Area Access Road – Plan View" and Figure F15, "Maintenance Area Access Road – Profile and Section" provide the proposed layout and detail the access road's profile and cross-section.

II. POTENTIAL IMPACTS AND MITIGATION MEASURES

This section discusses the potential impacts from the proposed 2006 management plan amendment actions. Where significant impacts are identified, mitigation measures are proposed. Site-specific impacts generally relate to natural resource features such as vegetation, soils visual characteristics and Bicknell's Thrush habitat. The specific number of trees, type of soil, or extent of viewshed affected is presented for such impacts. Traffic impacts are referred to in the 2004 UMP, since this analysis included the impacts of Conceptual Actions. The following topics are considered here:

- A. Trial Construction Potential Impacts to Bicknell's Thrush Habitat
- B. Trail Construction Mitigation Measures to Bicknell's Thrush Habitat (VINS Recommendations for Minimization of Project Impacts and Measures to be incorporated at Whiteface Mountain)
- C. Potential Impacts to Physical Resources Trail Construction *(other than Bicknell's Habitat)*, Pump House and Easy Acres Lodge
- D. Potential Impacts to Biological Resources Trail Construction *(other than Bicknell's Habitat)*, Pump House and Easy Acres Lodge

A. Trail Construction - Potential Impacts to Bicknell's Thrush Habitat

Whiteface Mountain, in conjunction with other peaks over 2,800 feet in the area north of Lake Placid and Keene, is part of the Northern Adirondack Peaks Important Bird Area (IBA), as identified by Audubon New York in 2005. Additionally, in 2001 Governor Pataki designated state-owned Adirondack peaks over 2,800 feet as the Adirondack Sub-alpine Forest Bird Conservation Area (BCA); documentation regarding which specifically mentions the inclusion of Whiteface Mountain. The primary reason for the both the IBA and BCA designations is that these peaks support multiple pairs of breeding Bicknell's Thrush, which is considered one of the highest priority bird species in the northeastern U.S., in addition to being a state-listed species of special concern. Among Neotropical migrant birds in the northeastern United States, Bicknell's Thrush *(Catharus bicknelli))* is ranked as the species most at risk of extinction, and thus of highest conservation priority (Pashley et al. 2000, Rimmer et al. 2001a, 2001b). Bicknell's Thrush is also one of the least-known breeding species of eastern North America, a fact that has precluded its formal consideration for federal endangered or threatened status. At both ends of its

migratory range, the species occupies a restricted, highly fragmented distribution and faces multiple habitat threats. One identified threat in the northeastern U.S. breeding range of Bicknell's Thrush is habitat loss and fragmentation from ski area development. Despite numerous ski area expansion projects in New England and New York during the past decade, no systematic evaluation of the effects of ski area development on Bicknell's Thrush has been conducted. (Rimmer et al. 2000; Strong et al. 2003). A careful assessment of existing information is needed to guide future ski area development in the region, and to direct planning for site-specific proposals. The proposed Tree Island Pod expansion project on Whiteface Mountain presents an opportunity to apply ecological data from two existing ski areas in Vermont. Bicknell's Thrush is a Species of Special Concern in-New York. Its occurrence on Whiteface Mountain raised concerns that the Tree Island Pod project might cause adverse effects to the local breeding population. Although the species had not previously been documented within the Tree Island Pod expansion area, its known occurrence nearby, in combination with the area's habitat features and elevational range, strongly suggested regular occupancy. Site visits by staff of the Wildlife Conservation Society during June of 2004 confirmed the presence of Bicknell's Thrush in the Tree Island Pod (Glennon and Karasin 2004).¹

The development of the Tree Island Pod, widening of the Niagara section of Upper Cloudspin and the construction of the Excelsior By-Pass and the Lower Skyward By-Pass will involve the removal and disturbance of vegetation. The width of the trail cutting varies. The Tree Island Pod will include narrow and wide sections of trail. Narrow sections of trails will be 40 feet wide and wider sections will be 110 feet. The widening of the Niagara section of Upper Cloudspin involves the widening from the existing 120 feet to 170 feet. This action is required to ensure homologation of the trail for Downhill/FIS events. The Excelsior By-Pass is proposed with a maximum width of 75 feet and the Lower Skyward By-Pass is designed with a maximum width of 65 feet.

The new glades, Trail 80, are located to the east to the Tree Island Pod. These glades will not be available for skiers until the completion of the Tree Island Pod lift. The glades will require removal of understory but do not require significant removal and disturbance of vegetation. The vegetation is primarily hardwood and densities are ideal for glade skiing.

The removal and disturbance of vegetation during the development of the ski trails has the potential to result in loss and fragmentation of Bicknell Thrush habitat. To mitigate impacts a systematic evaluation of the effects of ski area development on Bicknell's Thrush has been conducted and the recommendations have been included in the mitigation measures for Bicknell's Thrush Habitat.

1. Evaluating the Use of Vermont Ski Areas by Bicknell's Thrush: Applications for Whiteface Mountain, New York, Vermont Institute of Natural Science, Christopher C. Rimmer, Kent P. McFarland, J. Daniel Lambert, Rosalind B. Renfrew, December 2004

B. Trail Construction - Mitigation Measures to Bicknell's Thrush Habitat (VINS Recommendations for Minimization of Project Impacts and measures to be incorporated at Whiteface Mountain).

The primary resource for the analysis of impacts for trail construction above 2,800 feet is the Vermont Institute of Natural Science (VINS) report titled, "Evaluating the Use of Vermont Ski Areas by Bicknell's Thrush: Applications for Whiteface Mountain, New York" (BTAWM).¹ The Executive Summary of the BTAWM states that there was "no evidence that nest predation rates differed between ski area and natural forest plots, or that nests in either plot type were more likely to be depredated", and that "we (VINS) found no significant differences in adult survivorship, nest success, or breeding productivity of Bicknell's Thrushes between ski areas and natural forests." These findings indicate that development of ski trails on Whiteface Mountain can continue in partnership with sound environmental stewardship. The BTAWM includes recommendations for minimization of project impacts, recommendations for post-construction habitat maintenance, recommendations for project mitigation, recommendations for population monitoring, and introduces suggestions for opportunities for conservation education. The design and construction practices for the TIP and all ski trails at WFM will embrace these aspects of the report. Additionally, WFM will embrace the opportunity to incorporate the BTAWM mitigation recommendations into the overall environmental stewardship program for all developed areas of the ski area over 2,800 feet.

Field monitoring by the Wildlife Conservation Society's Adirondack Communities and Conservation Program (WCS) has taken place for two seasons (summer 2004,

¹ This report is available on-line at <u>http://www.vinsweb.org/assets/pdf/ORDA2004.pdf</u>

2005) on developed, proposed to be developed, and not proposed for development areas of the mountain. Preliminary findings² show no statistically significant affect of ski trials on the presence of Bicknell's Thrush, although WCS cautions that sample sizes are small due to the nesting behavior of Bicknell's Thrush. WCS is continuing its fieldwork for at least one more field season, which will allow for post-construction monitoring of bird populations. WCS's study at Whiteface Mountain is funded by a State Wildlife Grant with matching funds provided by ORDA.

The following text addresses the recommendation of the BTAWM report in the order that the recommendations were presented in the BTAWM report.

Methods for Avoidance of Project Impacts

- 1. Timing of Construction Activities
 - a. Tree cutting operations above 2,800 feet in terrain identified as suitable Bicknell's habitat shall be prohibited between the dates of 15 May and 01 August to minimize impacts during the active nesting cycle. Additionally, during these times, all other construction activities above 2800 feet in terrain identified as suitable Bicknell habitat shall be reviewed for potential impact. Activities that may case cause negative impact to Bicknell's Thrush will be scheduled for other times.
- 2. Proposed Location for Tree Island Pod
 - a. The original proposed trail configuration of the TIP identified conflicts with highly suitable Bicknell Thrush habitat along the west-facing edge of the TIP, where the ridgeline drops abruptly. BTAWM recommended that the trail configuration be moved a minimum of 30 meters eastward to avoid encroaching on this area. This recommendation can be fully embraced; the TIP trail system has been reconfigured to avoid the referenced area.
- 3. Avoid Trail Construction within Suitable Bicknell's Thrush Habitat
 - a. The TIP trail system configuration has been revised to attempt to avoid areas where natural disturbance, either chronic or random, may be of suitable habitat for Bicknell's Thrush. These areas include west-facing slopes, ridgelines, fir waves and areas adjacent to fir waves that have been explored in the field with Department of Environmental Conservation staff and the Wildlife Conservation Society staff. While it is impossible to completely avoid all the above referenced areas and develop a ski trail system that provides suitable carrying capacities and adequate skier safety, all attempts have been made in the layout of the trails and will continue to be made during construction of the trails to minimize negative impact.
 - b. Widening of existing trails will embrace the same sensitivity as discussed above to areas where natural disturbance, either chronic or random, may be of suitable habitat for Bicknell's Thrush.
 - c. BTAWM recommends that ski trails should be less than 35-40m (115 feet to 131 feet) in width. The width of the ski trails at the TIP are 50 feet in areas that have a high probability of Bicknell's habitat and range from 90 to 110 feet in other areas above 2,800 feet. Areas below 2,800 feet have an average trail width of 90 to 120 feet.

Management Goals for Post-Construction Habitat Maintenance 1. Vegetation Management

² www.wcs.org/adirondackresearch

- a. Ski trail vegetation management will include the feathering of trail edges, usually the wind-exposed side of the trail. This technique will develop a space between the ski trail and trees greater than five (5) meters to include woody vegetation of heights of 0.5-2 meters or more.
- b. Regeneration cuts to keep the spruce-fir feathered edge as a dense thicket will be performed as infrequently as possible to maximize Bicknell's Thrush habitat availability and continuity.
- c. WFM will partner will Stratton Ski Center for a review of vegetation management techniques that have been administered in Stratton's efforts of Bicknell's Thrush habitat management.
- 2. Glade Management
 - a. Cleared vegetation on existing Glade trails will not be expanded beyond the current limits. Existing Glade trails will be kept as narrow as possible.
 - b. Remaining patches of understory will be left in place when possible and minimally altered as required.
 - c. New Glade disturbance will minimize understory removal.
 - d. The conceptual proposed New Glade area, Trail 5a, which had been sited in an area that has a high presence of balsam firs, will be moved to a less sensitive area through this amendment. An alternate location has been selected, in an area that doesn't have a high presence of balsam fir and the understory is not identified as potential highly suitable Bicknell's Thrush habitat. The proposed New Glade, Trail 80, has been sited to the east of the proposed Tree Island Pod.
 - e. Annual maintenance will ensure that some young saplings are retained in order to allow continual recruitment for older age trees.
 - f. Efforts will continue to prevent all unauthorized glade trail establishment and maintenance, or unauthorized habitat alteration.
- 3. Island Sizing and Spacing
 - a. Islands will be designed to avoid small sizing. Size will be maximized and number of islands will be limited to facilitate movement of Bicknell's Thrush among suitable habitat patches and provide increased nesting opportunities.
- 4. Timing of Vegetation Management
 - a. Timing of vegetation management in areas of Bicknell's Thrush breeding habitat will be delayed until August 1st. after most nesting activity has been completed.
- 5. Bicknell's Thrush Habitat Management Plan
 - a. A Bicknell's Thrush Habitat Management Plan will be developed and employed at Whiteface Mountain Ski Center. The management plan will be developed in the same spirit of cooperation as were the mitigation efforts presented in this document. DEC, APA, VINS, Audubon New York and WCS will assist WFM in the development of this plan. The plan will include items such as: GPS Identification, Scheduling, Orientation of Staff, Collaboration with other Ski Areas that have experience in these efforts, Periodic Evaluation and Review, and all other positive means the group determines to have a value at obtaining the program goals.

Recommendations for Project Mitigation

- 1. Mapping of Bicknell Thrush Habitat
 - Habitat for Bicknell's Thrush is inherently patchy and dynamic. Because Bicknell's Thrush respond to natural disturbances that are sometimes ephemeral in nature, it is difficult to accurately predict whether or not Bicknell's Thrush will occupy a given area. Regardless of whether a habitat classification is accomplished by means of satellite imagery or high-resolution aerial photographs, there will still be considerable inaccuracy in estimating the amount of habitat that is actually occupied. For this reason, no attempt was made to precisely measure the amount of occupied Bicknell's habitat in the proposed expansion area. However, relocation of the trail system as per the suggestions of VINS and others, and narrowing of trails in firwaves were made. Figure F2, "Proposed Trail and Lift Increase" is attached and details the areas described above.

- 2. No Net Loss Mitigation
 - a. No net loss of Bicknell's Thrush habitat will be achieved by the creation of potential new habitat during the construction of new trail systems. Trail edges will be opened up and/or feathered to allow suitable habitat to grow. The planting of balsam fir seedlings will be targeted in areas that have potential for creating habitat.
 - b. Ski lift openings will be included in the Bicknell's Thrush Habitat Management Plan. Edges will be feathered to develop new habitat when allowed by NYS Department of Labor ski trail construction regulations.
 - c. Passive revegetation through natural succession will be embraced on existing trails that become obsolete. This process has begun at Trail #52 "Yellow Brick Road" which is at an elevation above 3,650 feet.
 - d. Restoration and new trail construction will include planting of balsam fir seedlings and saplings.
- 3. Consolidation of Habitat Islands
 - a. Consolidation of existing small, adjacent habitat fragments (<0.1ha) into single, large blocks will be targeted as part of the passive revegetation planning. This process has begun at Trail #52 "Yellow Brick Road". The elimination of this trail will allow for the development of a larger potential habitat.
- 4. Protection of Mitigation Sites
 - a. Sites selected for forest regeneration will be protected with barriers from skier traffic and accidental passes by mechanized equipment.
 - b. Protection barriers will include conspicuous signage to inform potential users about the closure and will educate them about its benefits.
- 5. Habitat Development Standards
 - a. VINS in the BTAWM recommends that the development of standards to evaluate the success of the habitat restoration efforts is needed. The standards need to include:
 - Explicit objectives for restoration
 - Timeline and measures to objectively determine success
 - Continuing field surveys to monitor progress
 - Contingency plan to address any failures in the restoration efforts
 - Evaluation Standards

Currently there are no standards or explicit protocols to guide restoration of montane forest habitat. ORDA and WFM will continue to partner with the NYSDEC, APA, VINS, Audubon New York and WCS and establish such protocols. Habitat Restoration and Evaluation Standards shall be included in the Bicknell's Thrush Habitat Management Plan to ensure a holistic approach.

- 6. Hispaniolan Wintering Grounds
 - a. The recommendation for the State of New York to contribute to a fund in the Dominican Republic to protect forest vegetation is not a measure that ORDA is able to authorize or in which it can participate.
 - b. The promotion of public awareness to the activities/are affecting the Bicknell's Thrush in the Dominican Republic is an activity in which ORDA is available to participate. ORDA will provide opportunities to non-for-profit groups to host informational and fund-raising events at ORDA venues. Additionally, ORDA will work to include information on the Hispaniolan wintering grounds for the Bicknell's Thrush in the conservation educational opportunities. ORDA and the DEC will work with stakeholder groups to develop a public/private partnership to create a mitigation fund for Bicknell's Thrush wintering habitat on the island of Hispaniola. ORDA and DEC will form part of a steering committee with non-profit 501(c)3 organizations, including: the Adirondack Council, Audubon New York, Cornell Laboratory for Ornithology, the Nature Conservancy, Vermont Institute of Natural Sciences, and the Wildlife Conservation Society to develop interpretative kiosks and other information at the Whiteface ski facilities to promote Bicknell's Thrush habitat conservation. A mitigation fund dedicated to protection actions by Hispaniolan non-profit conservation organizations focusing on the wintering range

will be established and administered through a non-governmental fiduciary agent, such as the Adirondack Community Trust. The initial mitigation fund will be supplemented by a broad-based approach to securing additional public and private funds for this purpose.

Recommendations for Population Monitoring

- 1. Sampling Methods
 - a. After a comprehensive review of available monitoring options expressed in the BTAWM and meetings with VINS and the WCS, it was agreed that a standard point count sampling method would be endorsed. The WCS used this method for the 2004 and 2005 monitoring season (see WCS reports: "Use of Whiteface Mountain by Bicknell's Thrush and other Montane Forest Birds Species" (Glennon and Karasin 2004) and "Use of Whiteface Mountain by Bicknell's Thrush and other Montane Forest Birds Species" (Glennon and Karasin 2005)).
- 2. Monitoring
 - a. The short-term monitoring program includes on-site monitoring by the WCS for an additional season in 2006. The scope includes standard point count sampling in the areas detailed in the 2004-monitoring season. The intent of the short-term program is to obtain a third season of data collection before disturbance to the TIP area and a season of monitoring after disturbance is incurred. Work in other trail areas detailed in this Amendment may start before the third season of data collection.
 - b. A long-term monitoring program has not been completely established. It is anticipated that Mountain Bird Watch will continue to be active on Whiteface Mountain and that post construction monitoring will be required to fully document the impact of the TIP project. A Bicknell's Thrush Population Management Plan will be developed for Whiteface Mountain Ski Center. The plans for long-term monitoring of Bicknell's Thrush be integrated into the Bicknell's Thrush Habitat Management Plan, such that habitat evaluation and thrush monitoring be coordinated in an adaptive management framework.
 - c. The management plan will be developed in the same spirit of cooperation as were the mitigation efforts presented in this document. DEC, APA, VINS, Audubon New York and WCS will assist WFM in the development of this plan.

Opportunities for Conservation Education

- 1. Development of Informational Displays
 - a. WFM will develop an informational display to educate visitors about the Bicknell's Thrush and other montane forest bird species.
 - b. ORDA will develop an informational display that can be used at other venues to educate visitors about the Bicknell's Thrush and other montane forest bird species.
 - c. DEC will work to help secure funds for kiosks.
- 2. Public Programs
 - a. WFM will work with the New York State Department of Environmental Conservation and the Adirondack Park Agency Visitors Interpretation Centers to develop a partnership in developing public programs on montane forest ecology.
- 3. Summer Field Trips
 - a. WFM has expanded its weekly nature walks to a daily nature walk program for the summer operating season.
- 4. Develop Booklets and Brochures Summarizing the Ecology of WFM.
 - a. The Whiteface Wildlife program was started in 2003 and provides visitors a brochure detailing wildlife on WFM.
 - b. A web page will be added to the WFM and ORDA web sites. The page will detail the Whiteface Wildlife program and other environmental stewardship efforts.

C. Potential Impacts and Mitigation Measures to Physical Resources – Trail Construction *(other than Bicknell's Habitat)*, Pump House #1, Easy Acres Lodge and Maintenance Access Road via Parking Lot #5.

Topography, Geology and Soils

Impacts

Impacts to soils and slopes associated with the proposed improvements are most likely to occur in areas of construction of new ski trails and widening of existing trails. The installation of the wet well at Pump House #1 will require excavation, but no impact to the river embankment will occur. The construction at the Easy Acres campus will include excavation and grading. The staff maintenance access road via Parking Lot #5 to the maintenance garage will be phased with the Parking Lot #5 construction. The majority of the soils mapped on the mountain are shallow to very deep, coarse textured glacial till soils. Organic soils (Folists) on steep uplands are generally in a complex pattern with the local deep or shallow glacial till soil. There will not be any extensive areas of folist soil that will be impacted by this project. Mitigation measures for earthwork operations have been included.

Ski Trail Construction: Trees and other woody vegetation will be removed over a total area of 65.1 acres) In some places, it will be necessary to remove boulders and to grade, which will involve cutting and/or filling. These activities will result in exposure of soils, which will then be susceptible to erosion. Glade Construction shall involve no earth work operations.

<u>Pump House #1:</u> Excavation and soil disturbance will occur during the expansion of Pump House #1. The installation of the wet well at Pump House #1 will require excavation, but no impact to the river embankment will occur. Previous work at the Pump House took into consideration future needs and provisions were taken to allow access to the screen chamber from the embankment side of the existing structure. Earth work activities will result in exposure of soils, which will then be susceptible to erosion.

Easy Acres Lodge: The construction at the Easy Acres campus will include excavation and grading. The new building has been sited to reduce excavation at

undisturbed areas and avoid steep embankments. Earthwork activities will result in exposure of soils, which will then be susceptible to erosion.

<u>Staff Access Road via Parking Lot #5:</u> The staff maintenance access road via Parking Lot #5 to the maintenance garage will be phased with the Parking Lot #5 construction. Clearing and grubbing and earthwork grading will be required. Mitigation measures for earthwork operations have been included.

Mitigation Measures

The following measures will be employed to mitigate the potential impacts on soils and topography during construction:

<u>Ski Trail Construction</u>: Whiteface staff is experienced in ski trail and lift construction, including erosion control techniques. Erosion control measures will be employed during ski trail construction. The Tree Island Pod trail system has been surveyed by WFM staff and GPS data has been obtained to produce a preliminary layout. During final layout the trail will be routed to avoid unnecessary cutting and filling operations. The Clearing and Grubbing operation will avoid the removal of stumps when possible; this will allow the root systems to stabilize soils during the revegetation process.

<u>Pump House #1:</u> The proposed plan for increasing the depth of the wet well will not involve deepening the existing wet well that is on the edge of the river bank. Instead a new pump chamber will be installed on the mountain side of the existing structure. During the design of the existing screen chamber measures were employed to allow a connection to the screen chamber in a manner that would avoid future work occurring on the river side of the existing pump house. Avoiding work along the river bank will significantly reduce the opportunity for sediment to enter the river.

During the execution of the project, improvements to the access route will be employed to further stabilize the sites resistance to erosion. A new 'soft pave' live grass mat system will be installed to reduce disturbance from operational traffic.

Erosion control measures will be employed during the pump house improvements.

Easy Acres Lodge: The proposed plan for the expansion of the Easy Acres Campus will employ erosion control measures during construction. The areas selected for new buildings are primarily existing impervious areas such as parking lot and access roads. Existing "Green Area" eliminated during the construction will be mitigated with the re-vegetation of existing impervious area. The area estimated to be addressed in this no net loss mitigation efforts is less than 200 sf.

<u>Maintenance Access Road via Parking Lot #5:</u> The proposed plan to construct a new access road will be phased with the construction of the new Parking Lot #5. The current Construction Storm Water Pollution Prevention Plan for Parking Lot #5 utilizes Best Management Practices for erosion and sediment control. The current plan will be amended to reflect the additional recommendation presented in the document.

<u>Erosion and Sediment Control:</u> Proper administration and execution of erosion and sediment control is critical in the protection of soil and water resources. WFM staff will embrace a "Five Point System" to ensure that practices meet or exceed recommended standards and practices. The "Five Point System" is defined as follows:

- Planning
- Phasing
- Programming
- Education
- Review

Planning: Projects will be planned to avoid unnecessary impacts to the surrounding environment. The site will be examined before the design of the improvements starts to allow the designer to develop a design that will be in harmony with the existing site rather than in conflict.

Phasing: Projects will be phased to avoid exposure to unnecessary or premature ground disturbance. Restoration shall be phased to continue to reduce the total area of exposure. Additionally, restoration plans will include Preliminary Restoration to mitigate and reduce the level of the exposure of areas disturbed during multiple phase of the project.

Programming: Erosion control measures, including "Best Management Practices" (BMP) as filter fabric fences, erosion-control blankets, water bars, wood chipped access roads, stone lined ditches, selective minimal clearing, minimal stump removal, immediate stop-gap mulching and seeding and staked straw bale filters will be employed. These BMP's are specified in the Generic Construction Pollution Prevention Plan in Appendix A2, I Generic Storm Water Pollution Prevention Plan". The generic SWPPP includes standard details of specific BMP produced by the USDA – Natural Resources Conservation Service, details that

have be developed and tested on Whiteface Mountain and practices and material that have proved to be effective in controlling erosion on steep slopes. The generic SWPPP is not intended to be a submission for the NYSDEC General Permit (GP-02-01) for storm water discharges from construction activities.

The construction Project Manager for the projects will have certification as a Certified Professional Erosion Sediment Control (CPESC). Site staff shall have access to a copy of "New York Contractors Erosion and Sediment Control Field Notebook" prepared by NYSDEC and the USDA-NRCS. These measures will allow for guidance for field-adjustment procedures to be implemented during construction on an as-needed basis.

Because the proposed construction activities are located within the Champlain watershed, which is a TMDL (total maximum daily load) watershed for phosphorus, site assessments and inspection during construction will be administered by a qualified professional in accordance with requirements of the NYS DEC's General Permit GP-02-01. This qualified professional will be responsible for conducting site inspections prior to construction and then during construction once every seven (7)-calendar days and within 24 hours of the end of a storm event of 0.5 inches of greater. Inspections will track the construction process and document the effectiveness of the appropriate erosion and sediment control practices. Since ORDA has staff with CPESC certification this task can be administered by the project's Project Manager. This will allow for increased participation in the control of the measures.

WFM and ORDA staff will work to include turbidity monitoring to better measure performance of devices and operations. CPESC staff will administer the program and use the data for corrective feedback on future designs.

<u>Education:</u> Whiteface staff is experience in ski trail and lift construction, including erosion control techniques. ORDA staff has obtained CPESC certification. CPESC staff will continually provide peer review of implementation and maintenance of control devices. New educational training elements have been developed that will include On-Site Training of Erosion and Sediment Control and Weekly Erosion Control Tailgate Meetings to ensure professional development and awareness.

<u>Review:</u> In order to continue to learn and improve from actual project experiences a Closeout Report will be generated by the CPESC. The report will include an overview of negative and positive experiences during the project and recommendations for improvements. The report will be submitted to the Venue Manager and shall be presented by the CPESC in a workshop forum. These new elements will enable staff to continue to improve operations and reduce environmental impact.

Summary: A Final SWPPP will be developed upon completion of final engineered drawings for the Pump House #1 and Easy Acres Lodge improvements. A Final SWPPP will be developed for the trail construction of the TIP and other trail construction in accordance with the timing provisions of the NYSDEC General Permit. Given the fluid nature of trail construction the plan will be comprehensive in standard details / practices and timing of activities but will include a stringent controls procedure that can adhere to the fluid conditions of ski trail construction. Specifics of the SWPPP such as the "site specific plans" and future schematic design phases are required to be prepared and submitted to NYSDEC under their General Permit GP-02-01, "SPDES General Permit for Stormwater Discharges form Construction Activity" (January 8, 2003). The plans will include erosion and sediment control components and will address stormwater runoff. Appropriate stormwater management practices will also be included in the SWPPPs. This may include sheet flow to wooded areas, water bars, pipe slope drains, etc and, if necessary, structural practices such as sediment basins and detention basins. The goal is to minimize erosion and protect watercourses and wetlands from sediment and other pollutants. Subcatchment areas and all watercourses and any wetlands will be identified in the SWPPPs as well as an assessment of any potentially

significant changes in peak discharges and stormwater volumes between the pre- and postdevelopment conditions for the areas affected by this plan. In accordance with GP-20-01, these materials will be prepared by a licensed/certified professional and submitted to NYSDEC, as well as, APA for review and approval prior to beginning construction of the pertinent management activity.

Visual Resources

Impacts

Tree Island Pod

The potential visual impacts of the Tree Island Pod were evaluated in the 2004 UMP in Exhibits, V-1, V-2 and V-3 in Appendix W. These exhibits are included in this amendment as Appendix 3, Time 2004 UMP Visibility Study". The Exhibits contain nine views of Whiteface Mountain. The ski trails in the Tree Island Pod would not be visible from six of the nine locations. For the three photographs where a view of the ski trials would be possible, the approximate location of the Tree Island Pod has been indicated on the photograph. For all three views, the new trail system would be adjacent to the existing ski trails and would not result in a significant visual impact.

Using USGS topography, a digital elevation model (DEM) was constructed using the Tree Island Pod as the target location. The USGS Land Cover Classification was then overlaid on the topography to account for vegetation (forest cover) view attenuation affects. A conservative tree height of 40 feet was assumed for areas of forest cover throughout the study area. The DEM confirmed the local limits of visibility determined previously from the windshield survey conducted from local roadways and other public places. Within five miles, views into the site are generally limited to the Fox Farm/Hardy Kilburn Road area and along NY Route 86 in the immediate vicinity of the ski area. These areas already have views of the existing trail system.

Based on the limits of visibility mapping produced with the DEM and land cover classification, and assuming a driving speed of 45 MPH, the duration of views are estimated to be relatively short and include existing features already on Whiteface Mountain. On Hardy Kilburn Road the view is to the west when traveling west; on Fox Farm Road views are somewhat more in line with the travel direction, which is to the northwest. The duration is approximately 160 seconds and the direction of the view is approximately 30 degrees to the west of the direction of travel. Views for Route 86 are nearly perpendicular to the direction of travel and the durations for the views traveling northwest and southwest are approximately 40 seconds and 60 seconds respectively. All of the aforementioned views would also include existing ski trails and most of the duration of the views would also include the Slides area and/or the observatory on top of Whiteface Mountain. Examples of the landscape

positioning and approximate extant were illustrated in the figures referenced in the previous paragraph (Exhibits V-1, V-2 and V-3).

Additionally, potential views of the conceptual Tree Island Pod ski trails were evaluated for nearby hiking trails in the Forest Preserve. The digital elevation model constructed for the area within five miles of the new proposed ski trails included a viewshed analysis for hiking trails. The viewshed analysis demonstrated that potential views into the Tree Island Pod from the trails around Owen Pond, Copperas Pond and Winch Pond would be locked by topography.

The DEM viewshed analysis descrieded above indicated that potential views into the Tree Island Pod could be possible from the area around Lookout Mountain to the north. Lookout Mountain is within the same Intensive Use area that contains the Ski Center. Field work was conducted in this area to investigate potential views. Views from the summit of Lookout include the Memorial Highway, the observatory, the upper portion of the Slides area, and the uppermost reaches of the existing ski trails. Views into the location of the proposed Tree Island Pod are mostly blocked by vegetation and intervening topography, particularly a southeast sweeping ridgeline that obscures the potential view to the conceptual ski trails (V-4). Based on topographic cross sections between the summit of Lookout Mountain and the Tree Island Pod, it is estimated that, at most, the upper 1/6th on the new pod might be visible in a view that currently contains the other features listed above, including existing ski trails on Whiteface Mountain.

Views towards the mountain area also are available from the Wilmington trail east of the summit of Lookout Mountain before the trail drops down a steep slope on the way to Marble Mountain (See V-5 and V-6). However, due to intervening topography and vegetation, the Tree Island Pod would not be visible from these locations.

Views into the Tree Island Pod would be possible from the summit of Whiteface Mountain itself. This view encompasses the existing ski trails on the mountain in this Intensive Use Area.

Since the development of the exhibits presented in the above text, there have been minor revisions to some portions of the trails in the Tree Island Pod. The size of the revisions in relationship to the scale of the study viewshed is infinitesimal.

Base Area – Pump House #1, Easy Acres Lodge and Staff Access Road via Parking Lot #5.

The low elevation of the existing Pump House #1, Easy Acres Lodge improvements and the addition of the Staff Access Road to Parking Lot #5 preclude them from being visible from locations removed from the immediate vicinity of the Mountain's existing base campuses.

Views of the existing Pump House #1 are blocked from Route 86 by the landform (hills) and vegetation. The proposed addition is located on the embankment side of the existing pump house. The height of the proposed addition is higher than the existing structure. The height increase is due to a trolley lift system that will be installed to provide access to the pumps for maintenance. A height assessment survey was performed at the location of the new addition location for the Pump House #1 wet well. APA and DEC staff were present during the height assessment survey. A red Safety Flag was raised to an elevation of 30'-10" +/- above the existing finish grade of PH#1. The view was observed and photos were taken from the surrounding vicinity. Appendix 4, , Photos 1,2,3 & 4 and descriptions are included in this report.

Views of the Easy Acres Lodge are currently blocked from Route 86 by the landform (hills) and vegetation that exist on both sides of the entrance road to Whiteface Ski Center. The expanded facility will continue to take advantage of these natural screens. While there will be some minimal removal of vegetation for the construction of the Easy Acres Lodge expansion, an increased amount of vegetation will be planted between the new building and the existing maintenance garage. This new vegetation will screen the maintenance facility from the Easy Acres Lodge and improve the visual resources of the area. Refer to Appendix 4, , Photos 5,6,7 & 8 and descriptions.

Views of the Staff Access Road via Parking Lot #5 are blocked from Route 86, the Base Lodge and the Easy Acres Lodge by the landform (hills) and vegetation. The addition of the road to the Parking Lot #5 project will allow for improved visual resources between the Easy Acres Lodge and the existing maintenance facility.

Mitigation Measures

1

The improvements in the UMP Amendment represent a consolidation of visual impacts, as they occur in an area, historically and currently, used for alpine skiing and other winter sports.

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D. Potential Impacts and Mitigation Measures to Biological Resources – Trail Construction (other than Bicknell's Habitat), Pump House #1 and Easy Acres Lodge

Wetlands and Water

Impacts

Wetlands

To the greatest extent possible, impacts to wetlands in the Whiteface Mountain Ski Center Intensive Use Area have been avoided in the planning and design of the proposed additions and expansions of facilities. There will be no impacts to the West Branch of the AuSable River and the wetlands that lie adjacent to it.

Prior to beginning any construction it will be necessary to have qualified scientists examine the areas to be affected to determine whether wetlands areas are present, and to precisely delineate any wetland boundaries and stream channels. A licensed land surveyor will locate and map the delineated wetland boundaries and stream channels. Maps of the wetlands and stream will then be provided to the Adirondack Park Agency, the New York State Department of Environmental Conservation and US Army Corps of Engineers for the purposes of determining whether those agencies have jurisdiction over the proposed activities.

It appears that the proposed activities may require permits from the APA under Environmental Conservation law Article 24 regulations governing disturbance of wetlands.

The stream crossings at the Tree Island Pod have been reduced from the proposed two crossings in the conceptual proposal to one crossing. The crossing will be designed with a clear-span bridge system. The bridge system will employ concrete wing-walls to stabilize the embankment and girders. The impacted area during the construction phase will be included in the development of the Construction Stormwater Pollution Prevention Plan.

The expansion of Pump House #1 will occur to the embankment side of the existing pump house. Provisions were made during previous work at the pump house to ensure that no further work would occur in the river or along the embankment of the river.

II-17

Waters

No new or increased water withdrawal beyond what was approved in the 1996 UMP is proposed in this 2006 UMP Amendment. Upgrades to the Pump House #1's ability to pump water within the system to various parts of the Mountain and to include redundancy in the pumping operation are proposed, but these upgrades do not affect snowmaking water withdrawal from the West Branch of the AuSable River.

The withdrawal of water from the West Branch of the AuSable River was one of the management actions approved in the 1996 UMP process. Note that the withdrawal of water from the river for snowmaking has been ongoing since the 1962-1963 ski season. A Cooperative Agreement between DEC and ORDA is in place for the protection of the surface water resources of the West Branch of the AuSable River in relation to the water to be withdrawn for snowmaking operations at Whiteface. Minimum flow conditions to be maintained to protect aquatic life were decided during the preparation of the 1996 UMP. After construction of the steam flow monitoring device, river flow data was available and was used to verify the parameters for snowmaking water withdrawal established by the NYSDEC. A copy of the current Cooperative Agreement between NYSDEC and ORDA is provided in Appendix A5, The Cooperative Agreement between NYSDEC and ORDA.

Trail clearing, excavation and site work for the expansion of Pump House #1, Easy Acres Campus and the Staff Access Road are all activities that have the potential to effect water quality. However, implementation of proper sediment and erosion control practices during the construction, as well as properly controlling runoff hydrology after construction, are important for protection of water quality.

Mitigation Measures

Construction Phase

Proper administration and execution of erosion and sediment control is critical in the protection of soil and water resources. WFM staff will embrace a "Five Point System" to ensure that measures meet or exceed recommended standards and practices. The "Five Point System" is detailed in Part C of this section, Topography, Geology and Soils, Mitigation Measures.

II-18

The following measures will be employed to mitigate the potential impacts on streams and wetlands during construction of the improvements and operation of the ski center:

Operational Phase

The effects of storm water that may be expected as a result of the actions put forth in the GEIS for Whiteface Mountain have been assessed by use of the Simple Method.

a. Ski Trails

The effects of runoff, as a result of ski trail construction, have been determined by the Simple Method, also known as the SCS Runoff Curve Number (CN) Method. The most important factors that determine CN are the hydrological soil group (HSSG), cover type, treatment, hydrologic condition, and antecedent runoff condition (ARC). In the area of ski trails, the predominant soil type is Typic Cryonumods (extremely bouldery). The general hydrologic soils group is considered C/D for this area and has subsequently been used to determine the pre and post Curve Numbers. Comparing the pre ("Woods") and post ("Meadow") CN for the proposed ski trails construction, as put forth in the SCS TR-55 Manual, there is no significant change in the amount of runoff from any sub-catchments where ski trails will be constructed. Considering a C soil type and a "good" woods ecosystem as the existing condition, the CN may increase from 70 to 71 with the proposed ski slopes. Evaluating a D soil type and "good" cover, indicates a change in the CN from 77 to 78. Current assessment methodologies available for storm water analyses cannot accurately differentiate changes in runoff with a CN change of one (1). Hence there is no expected change in runoff quantity, and operational phase storm water quantity controls are not necessary.

b. Pump House #1

The expansion of Pump House #1 is minor and will have no calculable affect on storm water runoff. To prevent post construction erosion from building eaves runoff, light stone fill will be placed around the eave line. This will prevent disturbance of erodable soils and will de-energize the velocity of the flow.

- c. Easy Acres Lodge Expansion The location sited for the Easy Acres Expansion is currently existing building, driveway, parking lot and two small islands of vegetation. The expansion will include the reclamation of existing impervious area for new green space. The project is estimated to have no net increase in impervious area. Final engineering of the facility will conform to the requirements of stormwater run-off controls. To prevent post construction erosion from building eaves runoff, light stone fill will be placed around the eave line. This will prevent disturbance of erodable soils and will de-energize the velocity of the flow.
- d. Staff Access Road (Via Parking Lot #5)

The 2004 UMP included a storm water management report and plan for Parking Lot #5. The introduction of the access road will increase the impervious area by 16.5% and will increase the cleared area by 20.0%. The runoff from the proposed access road will utilize the same detention basins network as proposed for Parking Lot #5 for storm water that sheet flows from the access road to the parking lot. The access road will utilize stone lined ditches on the up-grade side of the road to intercept and divert storm water before it crosses the road, the stoned lined ditch will direct the water to a level spreader. Sheet flow from the down grade portion of the access road, that is not directed to the parking lot, will be intercepted by a drainage swale and diverted to the level spreader.

The design intent, for Parking Lot #5, of limiting the proposed runoff rate to a level less than the existing runoff rate has been met by directing storm water into a detention basin and controlling the rate of release. The quality of the runoff is improved by allowing sediments to settle out in the storm water management area before releasing it. In addition to attenuating the storm water, the outlets of the detention basin has been set at an elevation so that the runoff from the water quality storm is captured and infiltrated. All access road sheet flow that is directed to the parking lot will utilize the detention basin.

Vegetation

Impacts

Impacts to vegetation at the Ski Center will result from the expansion of existing ski trails, construction of new ski trails and construction of the maintenance facility access road and Easy Acres Lodge improvements. In order to estimate the impacts resulting from the ski trails development, biologists collected data on tree density in those places where trail work is proposed. Belt transects measuring 100 feet long by 10 feet wide were sampled at seventeen (17) locations representative of the vegetation cover-types in which clearing would take place, In each transect, counts were made of all trees within two categories: (1) trees measuring 3 to 4 inches DBH and (2) trees measuring greater than 4 inches DBH. The tree counts were provided in Appendix K of the 2004 UMP. If more than one transect came from a given vegetation cover-type, the counts from all those transects were added together. These counts were then used to calculate the tree density in terms of number of trees per acre for each species encountered.

Estimates for the number of trees of each species to be cut during the construction of widening of each ski trail were made by multiplying the acreage of proposed clearing by the measured tree density of the appropriate cover-type.

II-20

The estimate for the tree cutting for the maintenance access road and the expansion of the Easy Acres Campus was developed by a physical survey of the areas. Whiteface Mountain staff performed a physical survey of the areas and identified all trees to be impacted by the construction.

All tree cutting at Whiteface Mountain Ski Center will be in compliance with the Department of Environmental Conservation's Lands and Forest Policy LF-91-2 entitled 'Cutting Removal or Destruction of Trees and Endangered or Rare Plants' on Forest Preserve Lands." Trees lawfully cut cannot be removed from the premises in any manner but can be chipped or used on site by ORDA so long as such method is consistent with the guidelines of the State Land Master Plan, this UMP, and Article 8 of the Environmental Conservation Law. Virtually all trees that are cut for ski trail construction and widening and construction of lifts and other amenities will be chipped and used on-site for construction and erosion projects. Access for the wood chipper on steeper terrain is limited, so some trees will be buried for use as fill and erosion control. When practical tree stumps will be left in place to help ensure stabilization of the soils. Tree cutting at elevations above 2,800 feet that are identified to be located in potential Bicknell' Thrush habitat will not occur between the dates of May 15st and August 1st.

Impacts to rare, threatened or endangered species of plants are extremely unlikely to occur as a result of the proposed actions. Information provided by the New York Natural Heritage Program indicates that only one species occurs at low elevations on the Ski Center, but it is found along the West Branch of the AuSable River, remote from any proposed action. All of the other known occurrences of such species on the Ski Center are limited to the uppermost parts of Whiteface Mountain, at elevations above where rail construction and other projects will take place. No other action is as close, or closer than, 1,000 feet to the location of any of the rare, threatened, or endangered species.

II-21

Less than 1% of the mountain spruce-fir forest would be impacted. However, over 630 acres of this cover-type would remain undisturbed within the Intensive Use area alone at Whiteface. This impact to the cover-type will not be significant (99+% will remain undisturbed). An even smaller percentage of this cover-type would be disturbed in relation to the whole mountain.

Mitigation Measures

The following measures will be employed to mitigate the potential impacts on vegetation during construction:

- VINS Recommendations for Minimization of Project Impacts as detailed in Section 2, Part B shall be utilized.
- Only areas absolutely necessary for construction of ski trails, ski lifts and other proposed improvements will be cleared of vegetation. All other areas will be maintained in a natural state.
- Erosion control measures will be used on cleared areas with disturbed soils to avoid affecting adjacent vegetation by erosion or siltation. Erosion-control devices to be used will include filter fabric fences and staked straw bale filters.
- Upon the completion of clearing of new ski trails and ski lift corridors, they will be seeded and mulched to promote rapid revegetation. Areas disturbed for any other improvements will also be landscaped and revegetated as soon as practical.
- Plants used to revegetated disturbed areas and planted as part of landscaping will be species that are indigenous to the region.
- No clear-cutting or trees to develop panoramic views is proposed. Views will be framed or filtered by existing vegetation.
- To some extent, vegetation losses due to new clearing will be compensated by the abandonment and revegetation of trail 52 and a section of trail 5. This will result in revegetation of approximately 0.96 acres within the occupied by the spruce-fir vegetation cover-type.

Fish and Wildlife

Impacts

Activities proposed to occur at Whiteface Mountain Ski Center that are anticipated to have the greatest impact on resident and migratory wildlife that use the site include the construction of new trails through currently wooded areas and expansion of existing trails. Construction of new trails and expansion of existing trails will remove portions of forest communities and replace them with communities dominated by grasses, broad leveled herbs and new spruce-fir. Localized habitat fragmentation and creation of habitat edge will occur where new trails are created.

Creation of new trails has the greatest potential for impacting wildlife populations. Opening the forest by trail construction will favor wildlife adapted to forest edges at the expense of forest interior species. The forest interior species most likely will emigrate to nearby suitable habitats. Depending on the population level and carrying capacity of those nearby habitats, individuals of the immigrant species will be subject to increased competition and selective compensatory mortality. Conversely, the newly created forest edge habitat will enable existing populations of forest-edge species and species of open fields to expand with the potential for a localized increase in biodiversity.

Mitigation Measures

Impact of trail construction on the Bicknell's Thrush has been of concern with the continued development of trails above the elevation of 2,800 feet. Part 'B' of this section has addressed and presented mitigation measures for this particular issue.

E. Potential Impacts Human Resources

Transportation

Impacts

Future traffic volumes were estimated by Creighton Engineering (the 2004 UMP traffic consultant) by increasing the background traffic volumes on Route 86 and projecting future traffic growth from the mountain expansion. The Traffic Assessment is provided in Appendix A6, Traffic Assessment". It was assumed that the project could be completed in 2003. Therefore, a 1% growth rate was added to the existing traffic volumes observed at the entrance to the ski mountain. As a result of the management actions proposed in the 2002 DGEIS, the comfortable carrying capacity (CCC, the number of skiers that can be accommodated at any given time was expected to increase from 5,070 to 5,640 an 11% increase. This increase was also applied to the traffic volumes observed at the entrance to the ski mountain. The resulting future traffic forecast represents an increase of approximately 12% in the traffic volumes observed on February 16, 2002.

Currently, the entrance to the Whiteface Ski Center area operates at a good level of service during the AM and PM peak hours. With the increase in traffic volumes evaluated in the 2002 DGEIS, skiers could experience longer delays during the PM peak hour. Several circulation conflicts exist between Route 86 and the base lodge. Most significant is the merge of the main entrances and the main access road and the loading area at the Base Lodge.

The new lodge at Easy Acres will displace staff parking; however, this will be accommodated at the Maintenance Area. No increase in visitor parking needs is foreseen due to the construction of the new lodge at Easy Acres. Visitor parking associated with the new lodge will be accommodated in existing lots and the new Parking Lot 5, which was approved in the 2004 UMP.

Mitigation Measures

The construction of Parking Lot 5 will reduce traffic conflicts at the intersection of the Base Lodge and the Easy Acres driveway. Guest visiting the Easy Acres campus will be able to obtain parking in the vicinity of the campus and will not be forced to park in the remote parking lots in the vicinity of the main entrance. Parking Lot 5 will

contribute to the reduction of pedestrian traffic by allow increased parking in lots serviced by on-site mass transit.

Additional alternatives are described in the Traffic Assessment (see Appendix I), which may be able to improve circulation. These alternatives may be proposed as action items in the future.

ECONOMICS

Impacts

There are several economic impacts that are directly related to the UMP. These include: pre-construction spending for professional services such as planning, architectural, permitting, environmental and legal fees; construction spending related to labor and supplies for trail development, snowmaking installation and the building of lodges; spending by new skiers for lift tickets, ski lessons, equipment rental and meal purchases both on and off the mountain, lodging and entertainment; and payroll spending for new operations employees.

Construction materials will be sent out for bid and, whenever possible, will be purchased locally.

Most of the trail work and snowmaking elements will be handled by ORDA workers whereas lift installations and the construction of the lodge will be contracted to outside contractors.

The annual operating payroll is expected to increase proportionately due to the anticipated hiring of additional ski patrollers, ski school instructors, trail groomers, building maintenance personnel and service workers at the Base and Easy Acres lodges. The new payroll will in turn generate new spending for rent, mortgages, groceries, gasoline, personal services, retail and recreation by new workers and their families throughout the primary and secondary area of impact.

Additional direct and long-term spending will come from the skiers themselves for ticket purchases, equipment rentals, ski lessons and on-site food purchases. The National Ski Areas Association reports that the average ski dollar buys the following

goods and services: 54% on ski lift tickets; 7% on ski lessons; 13% on food and beverage; 5% on equipment and clothing; 4% on equipment rentals; 6% on summer services; 2% on real estate; and 9% on miscellaneous items (NSAA, 1993). Based upon an average of 1525 potential new skiers per day, projected as a result of UMP actions, including conceptual actions, a season length of 135 days and an on-site spending per person average of \$59, this new spending is projected at \$13.16 million per year which represents an increase of about \$4 million over existing skier spending. These revenues will primarily be used to improve overall economic conditions at Whiteface and ORDA plus support the new payroll requirements for the ski area. Some money may be contributed to fund continued completion of the UMP actions.

A multiplier effect will occur for revenues that are produced on the mountain and later spent off the mountain. This traditionally includes short-term (5 years) construction spending and long-term operational spending as well. Multipliers have been developed for all industries by the U.S. Department of Commerce. They are used to predict the direct and indirect economic impacts generated by each spending sector. Direct economic impacts refer to additional revenues received from the ski area for construction and from the skiers themselves. Indirect impacts include the additional purchases made by the ski industry from other business to satisfy the additional demand, and induced impacts are produced from the new spending of persons employed in the ski industry. Each category of industry (construction, recreation, lodging) has separate and unique impacts associated with its own business operation and production.

Generally, each dollar spent in the construction and operational phase generates an additional dollar of spending, thereby effectively doubling the total economic impact.

Substantial direct off-site economic benefits will occur as a result of the project. These include the spending that skiers do off the mountain for goods and services such as food and lodging along the way. It has been estimated through the user survey that \$1.5 million is currently spent by skiers annually on lodging accommodations plus approximately \$0.7 million on food purchases. A multiplier of approximately 6 can be

applied to these figures resulting in a total of \$13.2 million in total economic impact from off-site skier spending.

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Off-season revenue sources are not considered significant and were not included in this analysis.

III. ALTERNATIVES

A. Ski Trail Improvements

The trail configuration presented in this amendment for the Tree Island Pod and the new Glades area have been significantly revised since the conceptual proposal included in the 2004 UMP. While the trail improvements reviewed the available skiable terrain that will conform to the shape of the mountain and the breakdown of ability levels that are required due current industry demand, the improvements have included a detailed review of the Bicknell's Thrush habitat. Recommendations for the trail modifications in the VINS Report were fully embraced to ensure minimal possible impact to the Bicknell's Thrush habitat.

As much as possible, the natural contours of the terrain are preserved and terrain modification is minimized. Some of the fine-tuning of trail design occurs during the field layout that is undertaken prior to construction.

B. Pump House #1 Improvements

The proposed improvements to the wet well for Pump House #1 was selected in order to avoid work at and around the existing wet well. The alternative to installing a new wet well would be to deepen and increase the size of the existing wet well. This alternative would require work to occur on the river side of the pump house with mobilization of construction equipment into the river. This alternative would have a substantial amount of negative environmental impact.

C. Easy Acres Lodge Improvements

The proposed expansion to the Easy Acres Lodge includes the construction of a new facility adjacent to the lodge and improvements to the existing building. Alternatives to this are to demolish of the entire existing lodge and construct a new, larger lodge to accommodate all future spatial needs.

At this time, renovation of the existing lodge facility's at Easy Acres, along with the construction of an additional facility, is the preferred alternative as it is the most cost effective and reduces the environmental impact.

Sec. 1

D. Staff Access Road via Parking Lot #5

The proposed location of the new Staff Access Road via Parking Lot #5 allows for improvements to guest safety and staff efficiency. Alternatives to this plan would be to position the new Easy Acres facilities in the ravine to the east of the existing facility or installing the access road in Parking Lot #4.

Locating the maintenance building access road to Parking Lot #5 will have the least amount of environmental impact.

The No-Action Alternative

If no action is taken and no improvements are made at the ski center, many skiers will continue to choose to ski at better-maintained facilities, which provide desired amenities. Equipment will continue to break down and further deter the skiing population. As the number of skier visits declines, revenue will be lost which could result in personnel layoffs and a continuing downward spiral of the ski center until it becomes uneconomical for the facility to remain in operation.

The "No-Action" alternative also implies that no "new" actions are taken (or approved) in the 2006 UMP amendment. The 2004 UMP is approved and remains in effect and can continue to be implemented.

IV. SUMMARY OF UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS

Some environmental impacts of the proposed action can neither be prevented nor reasonably avoided. This section will describe the unavoidable impacts which may occur due to construction and implementation of the UMP Amendment actions.

Construction activities will result in dust, odors, fumes, noise, and vibration. A small amount of traffic will be generated. Removal of vegetation, excavation and grading will be required to improve ski trail areas, and construct chairlift support structures and new chairlifts. Implementing sediment and erosion control Best Management Practices during construction and following construction will greatly reduce the possibility of any serious erosion problems. Final vegetative growth and grades will blend with the existing environmental setting.

Increased noise levels during construction of improved facilities cannot be avoided. Related noise will have significant short-term impact, but little long-term permanent impact is expected.

Operational activities will cause a minor increase in peak hour traffic and solid waste disposal needs.

There will be minimal demands on local government offices such as the assessor, tax collector, and building inspector. The need for fire, police and rescue services will continue. Medical emergencies will continue to occur, requiring service.

Minor amounts of air pollution and noise will be generated and fuel will be used.

There will be an increase in surface water runoff due to increased impervious areas. Stormwater management practices designed in accordance with recently adopted Phase II regulations have been proposed to mitigate potential impacts as much as possible.

All of these impacts are relatively minor and local in nature. Most do not require mitigation measures. Section 2 of this amendment describes those mitigation measures which are required.

The mitigation measures presented in this amendment for the protection of the Bicknell's Thrush and their habitat will ensure the protection of the species at Whiteface Mountain and contribute to the awareness and survival of the species throughout North America.

V. IRRETRIEVABLE AND IRREVERSIBLE COMMITMENT OF RESOURCES

Expansion of recreational use of the land at Whiteface Mountain does not represent a significant or irretrievable commitment of resources. Should intensive use recreational facilities and programs ever be abandoned, the area would revert to natural vegetation and habitat characteristics, which are representative of those in the Forest Preserve in the Adirondack Park.

Construction of the actions presented in this amendment will result in the permanent commitment of raw materials including concrete, steel, gravel, and wood for construction of the permanent structures, in addition to energy resources required to construct, operate and maintain the recreation area.

Site preparation for the proposed project will impact approximately 35 acres of existing vegetation and disturb soils on the site. Since no rare, threatened or endangered species are known to inhabit the site, the removal of this habit is not viewed as significant. Measures are proposed to mitigate potential impacts to the Bicknell's Thrush, a Special Concern Species in New York State.

Operation of the proposed project will result in the permanent, irretrievable commitment of resources such as energy for heating, lighting, and equipment operations, however, such commitment will be extremely minimal. Adverse impacts on air, water and socioeconomic resources will not be irreversible or significant.

V-1

VI. GROWTH INCLUDING, SECONDARY AND CUMULATIVE IMPACTS

This section identifies the potential off-site impacts that may occur following improvements to the Whiteface Mountain facility. Growth inducing and secondary impacts relate to changes in population, land use patterns, and the creation of new businesses. Cumulative impacts relate to changes from the project plus changes from other projects in the region.

A review of the period since the 1996 UMP gives an excellent idea of what kind of economic impacts have occurred in the local region as a result of the recent improvements at Whiteface Mountain. The total number of visitors per year has increased, as has the number of season passes sold each year. The increase has had an entirely positive impact on the local business community and outlying communities.

The additional business realized from more skiers translates into jobs for residents and compounds its value as it moves through the local economy. The salaries from this employment help stabilize the local economy by offsetting the summer seasonal employment then layoff syndrome that dominates the service industry in the North Country area.

Cumulative impacts are also considered a positive factor for the economy. Several new housing developments are under construction to meet the demand for second homes. Much of the demand for new housing can be attributed to new people being exposed to the area through skiing at Whiteface Mountain. The impacts from residential growth verses tourism growth tend to be more subjective in that they can be perceived as positive changes for some and negative changes from other points of view. For example, an overall increase in downtown business revenue most likely also means more traffic on local roads. Most roads in the North Country, however, are designed to handle the level generated by the high volume summer seasonal traffic. Winter business is always welcome and the increased traffic is generally accepted as a necessary side effect.

Whiteface Mountain has not reached all the goals set in the 1996 UMP document but is on its way there. The planned improvements set forth in this document will help the ski area attain the stated goal but will not necessarily cause there to be substantially more skiers, nor a significantly higher amount of impacts.

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VII. EFFECTS ON THE USE AND CONSERVATION OF ENERGY

The proposed actions will not cause a major increase in the use of energy, although the consumption of fossil fuels and power will be required by the project both during its construction and operational phases.

During construction, the primary expenditure of energy will be the consumption of fossil fuels to operate construction equipment and to transport construction workers and materials to the site. This activity will cause a temporary and unavoidable increase in energy use. Some of the activities involving fuel consumption during the various construction phases include clearing and grubbing, excavating, grading, and lift and building construction.

The operation of the facility will also require the consumption of fossil fuels and power. The use of electric and fossil fuels for improved chairlifts and snowmaking equipment cannot be avoided. Additionally, new and expanded lodge facilities and services will necessitate the use of more fuel for heating.

Various lifts will be replaced, upgraded or in some cases eliminated and other lifts will be added resulting in only nominal new chairlift energy requirements. In order to improve the snowmaking process and to conserve energy, the improvements to Pump House #1 are critical. In order for Whiteface to continue to invest in low energy snowmaking technology water pressure increases are needed.

The improvements proposed for the Whiteface Mountain Ski Center are expected to result in an increase in the number of skiers traveling to the area. The resulting automobile traffic could contribute to the consumption of fossil fuels. Shuttle buses from local communities, overnight accommodations and schools are proposed to be included. Shuttles will serve to diminish parking and traffic congestion and will reduce the consumption of fossil fuels.

Normal day-to-day operation will contribute to increased power consumption on a long-term basis. This consumption, however, will predominately be seasonal in nature.

Outside of the structures some outdoor lighting is expected, but will not result in a substantial use of electricity.

<u>Ski Trails</u>

- Figure F1, "Tree Island Pod configuration as Proposed in the 2004 UMP"
- Figure F2, "Proposed Trail and Lift Increase"



Pump House #1

- Figure F3, "Pump House #1 Site Plan"
- Figure F4, "Pump House #1 North Elevation"
- Figure F5, "Pump House #1 West Elevation"
- Figure F6, "Pump House #1 Plan View"
- Figure F7, "Pump House #1 Hydraulic Profile"









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Easy Acres Lodge

91.9°

- Figure F8, "Proposed Modified Existing Easy Acres Lodge Expansion"
- Figure F9, "Proposed Easy Acres Learning Center Plan View"
- Figure F10, "Proposed Easy Acres Learning Center Elevations"
- Figure F11, "Proposed Overall Layout Easy Acres Lodge Renovation & Expansion"
- Figure F12, "Proposed Easy Acres Campus Site Plan"



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Staff Access Road via Parking Lot #5

- Figure F13, "Maintenance Area Access Road Location Map"
- Figure F14, "Maintenance Area Access Road Plan View"
- Figure F15, "Maintenance Area Access Road Profile and Section"







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Table T1 "Proposed Terrain Specifications"

TABLE T1 - "PROPOSED TERRIAN SPECIFICATIONS"

				D. (
			Avg.	Bun	ers I		
Map Ref	Trail/Area Name	Slope Length (ff)	Width (ft)	Snowmaking	l iff	Appr. Area (ac)	Skier Ability
1	Upper Cloudspin	2600	149	*		8.9	Most Difficult
2	Lower Cloudspin	2500	138	*		7.9	More Difficult
3	Upper Skyward	800	177	*	· · ·	3.3	Most Difficult
4 4b	Lower Skyward	3800	140 60	*		12.2	Most Difficult
5	Parson's Run	2600	107	*	<u> </u>	6.4	More Difficult
6	Excelsior	5600	85	*		10.9	More Difficult
6a	New Excelsior Bypass	300	110	*		0.8	More Difficult
7	Essex	1000	83	*		1.9	Most Difficult
0	Lower Northway	1700	74 87	*		1./	Most Difficult
10	Connector	700	40	*		0,6	More Difficult
11	Approch	1900	65	*		2,8	Most Difficult
12	Empire	1600	60			2.2	Most Difficult
13	Upper Mackenzie	1000	95	*		2.2	Most Difficult
14	Lower Mackenzie	1400	105	*	·	3.4	Most Difficult
15	Lower Wilderness	1400	105	*		55	Most Difficult
17	Mountain Run	2400	180	*	*	9.9	Most Difficult
18	Upper Parkway	1800	135	*		5.6	Most Difficult
19	Lower Parkway	2700	122	*	*	7.6	More Difficult
20	Upper Thruway	1000	165	*		3.8	Most Difficult
21	Lower Thruway	1400	113	*	*	3.6	Most Difficult
22	Lower Valley	2000	74	*	*	4.9 2 F	More Difficult
23	Lower Valley B	900	200	*	*	4.1	More Difficult
23	Lower Valley C	1700	160	*	*	6.2	More Difficult
24	Burton's	600	30	*		0.4	Most Difficult
25	Broadway	1700	135	*		5.3	More Difficult
25a	Off Broadway	200	40				
26	Easy Street A	400	10	*		0.1	Easier
20	Boreen	5600	86	*		11 1	Easier
27a	Silver Glade	1425	175			5.7	More Difficult
	Danny's Bridge (Terrain						
28	Park)	1100	86	*		2.2	Most Difficult
29	River Run Mixing Rowal	1000	110	*	*	2.5	More Difficult
30	Wolf	1800	58	*		2.8	Easier
31a	Fox	2500	71	*		4.1	Easier
32	Bear	1700	150	*			Most Difficult
33	Dear	950	50		*	1.1	Easier
34	Silver-Uppper	1000	73	*	ļ	1.7	Easier
34	Silver-Lower	1000	90	*	1	2.1	Easier
35	Gold	1800	135	*	*	0.8	Fasier
36	Bronze	1650	90	*		3.4	Easier
36a	New Glade	950	175			3.8	More Difficult
37	Home Run	500	25		*	0.3	Easier
38	Follies	2400	60	*	}	3.3	More Difficult
39 40	Silver Shoot	700	60	*		1.0	Fasier
41	Main Street	400	60	*		0.6	Easier
42	Runner Up - Upper	400	30	*		0.3	Easier
42	Runner Up - Lower	400	30	*	Į	0.3	Easier
43	Medalist	1600	50			1.8	Easier
44 15	Facy Way	250	25			0.3	Easier
46	Upper Boreen	800	40	<u> </u>	<u> </u>	0.3	More Difficult
47	Calamity	400	70	*		0.6	More Difficult
48	Ladies Bridge	500	110	*		1.3	More Difficult
49	Lower Gap	300	110	*		0.8	More Difficult
50	Riva Ridge	500	25	*	·	0.3	Most Difficult
51	Vellow Brick Bood	400	25	has been stand	and is hoirs	0.2	WOST Difficult
53	Upper Switchback		25	*	and is pering re-ve	-yetated 0 ?	More Difficult
54	Lower Switchback	600	25	*		0.3	More Difficult
55	Crossover Loop	600	25	*		0.3	More Difficult
56	Glen	450	25			0.3	More Difficult
57	Victoria Shoot	250	100	*	·	0.6	More Difficult
58	Lower Empire	350	120	+		0.6	More Difficult
60	1900 Road	700	25	*	+	1.1 n_4	More Difficult
61	2200 Road	300	60	*		0.4	Most Difficult
62	High Country Glade	1550	150			5.3	Most Difficult
63	Low Road	200	70	L		0.3	More Difficult
64	Tom Cat	400	38	*		0.3	More Difficult
65	Un Kamp	600	25	*		0.3	Most Difficult
67	Summit Express	550	80	*			Easier More Difficult
				+	<u> </u>	1.0	More Difficult
68	Brookside (Terrain Park)	1800	100	*		4.1	Most Difficult
69	Coludsplitter Glade	300	500	*		3.4	Most Difficult
70	10th Mtn Division Glade	1000	450		1	10.3	Most Difficult
71	Draper's Drop	1700	130	*		5.1	More Difficult
72	Trail - 73	200		*		0.5	More Difficult
73a	Trail - 73a	1150	100	*	1	2.6	More Difficult
	Sub-Total Footage	102865	5		Sub-Total Ac	243.0	
	Sub Total Miloago	10 / 9	1				•

Proposed - Tree Island Pod

74	New Trail	4,182	95	*	*	9.1	Most Difficult
75	New Trail	3,967	90	*	*	8.2	Most Difficult
76	New Trail	443	90	*	*	0.9	More Difficult
77	New Trail	153	55	*		0.2	Most Difficult
78	New Trail	9,261	50	*		10.6	More Difficult
79	New Trail	1,665	85	*		3.2	More Difficult
	Sub-Total Footage	19,671			Sub-Total Ac.	32.3	
-	Sub-Total Mileage	3.73					

Proposed - Tree Island Pod Glades

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80	New Glade	4277	250			63.5	Most Difficult
	Sub-Total Footage	4,277			Sub-Total Ac.	63.5	
	Sub-Total Mileage	0.81					
	Constrainty of the second s	Contraction of the second s					
	Total Trial Footage	126,813		Approx.	Total Acreage	338.8	

<u>Table T2</u> "Summary of Vegetation Impacts – Tree Clearing Estimates for Proposed Management Actions"

 Table T2

 SUMMARY OF VEGETATION IMPACTS TREE CLEARING ESTIMATES FOR PROPOSED MANAGEMENT ACTIONS

TREE SPECIES	Maintenand	e Garage									TREE ISL	AND POD
	Access	Road	Easy Acres	Expansion	TRA	JL 3a	TRA	IL 4a	TRA	IL 6a	TRAILS	; 74 - 73
	3-4" DBH	> 4" DBH	3-4" DBH	> 4" DBH	3-4" DBH	> 4" DBH	3-4" DBH	> 4" DBH	3-4" DBH	> 4" DBH	3-4" DBH	>4" DBH
BALSAM FIR	20	51	2	-	22	32	30	44	119	179	11464	16270
STRIPED MAPLE	-	-	-	-	-	-	-	-	-	-	558	838
RED MAPLE	-	-	-	-	-	-	-	-	_	-	0	0
SUGAR MAPLE	-	2	-	5	-	-	-	-	_	-	133	425
YELLOW BIRCH	-	-	1	3	-	-	-	-	-	-	0	53
MOUNTAIN PAPER BIRCH	-	-	-	-	4	18	6	25	37	186	1789	7334
PAPER BIRCH	-	3	1	2	-	-	-	-	-	-	0	53
BEECH	22	40	4	4	-	-	_	-	_	-	133	319
WHITE ASH	2	5	-	-	-	-	-		-	-	0	26
IRONWOOD	7	12	J	-	-	-	_	-	-	-	26	0
RED SPRUCE	~	-	-	1	-	3	-	4	_	30	69	1280
RED PINE	-	-	_	-	-	-	-	-	-	-	0	14
WHITE PINE	-	-	-	-	-	-	-	-	-	-	0	41
BIGTOOTH ASPEN	-	-	-	2	-	-	-	-	-		0	107
PIN CHERRY	-	1	-	-	1	-	1	-	_	-	259	0
MOUNTAIN ASH	2	5	-	1	2	3	3	4	15	22	764	1269
NORTHERN WHITE CEDAR	-	-		-	-	-	-	-	-	-	0	55
OAK	-	-	-	2	-	-	-	-	-	-	-	-
HEMLOCK	2	2	-	4	-	-		-	-	-	0	66
TREE CLEARING TOTALS	55	121	8	24	29	56	40	77	171	417	15,195	28,151

1. 1. 1.

Table T3

"Summary of Approved and Proposed Increases in Building Area for the Easy Acres Campus"

Table T3Summary of Approved and Proposed Increasesin Building Area for the Easy Acres Campus

Historic Data

Post 1996 UMP Total Approved Building Area = 9,739 sf

<u>1996 UMP</u> Additional Approved Area = 841 sf Total Approved Building Area = 10,580 sf

2004 UMP

Additional Approved Area = 6,000 sf Total Approved Building Area = 16,580 sf

Proposed in 2006 UMP Amendment

Existing Building Total Current Area = 9,739 sf Total Approved Building Area = 16,580 sf

Proposed Improvements to Existing Building

Remove = 822 sf Add = 1,383 sf Total Proposed Improvement to Existing Building Area = 11,122 sf

Proposed New Building Facility's

Proposed New Learning Center Main Level = 18,000 sf Proposed New Learning Center Basement Level = 18,000 sf Proposed New Enclosed Walkway = 1,200 sf

Total Proposed New Building Facility Area = 37,200 sf

<u>Proposed Net Increase in Building Facility Area</u> Total Proposed Improvement to Existing Building Area = 11,122 sf Total Proposed New Building Facility Area = 37,200 sf

> Total Proposed Improvement to Existing Building Area + New Building Facility Area 11,222 sf + 37,200 = 48,422 sf

Total Proposed Improvement to Existing Building Area + New Building Facility Area = 48,222 sf

Total Approved Building Area = 16,580 sf

(Total Proposed Improv. to Ex. Building Area + New Building Facility Area) - (Total Approved Building Area) 48,422 sf - 16,580 = 31,842 sf

Proposed Net Increase in Building Facility Area = 31,842 sf

Appendix A1

"Schematic Engineer's Report for Proposed Wastewater Disposal System Improvements – Expansion to "Kids Kampus" Base Lodge Building Whiteface Ski Area"

SCHEMATIC ENGINEER'S REPORT

FOR PROPOSED WASTEWATER TREATMENT & DISPOSAL SYSTEM IMPROVEMENTS

EXPANSION TO "KIDS KAMPUS" BASE LODGE BUILDING WHITEFACE SKI AREA

PREPARED FOR:

OLYMPIC REGIONAL DEVELOPMENT AUTHORITY

March 10, 2006

PREPARED BY

IVAN ZDRAHAL ASSOCIATES, PLLC ENGINEERING AND PLANNING 959 ROUTE 146 CLIFTON PARK, NY 12065 (518) 383-0769

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Appendix A: Water Consumption DataAppendix B: Engineers Report – September 21, 2000Appendix C: Map - Schematic Plan

PROPOSED UPGRADE OF EXISTING WASTEWATER SYSTEM – KIDS KAMPUS, WHITEFACE SKI CENTER

1. INTRODUCTION

The ensuing engineer's report plans to address the planned expansion of the existing wastewater disposal system which is presently serving this facility.

The expansion of the system is proposed to accommodate the anticipated larger volumes of wastewater flows because of the contemplated building improvement which will increase utilization of the base lodge facility by the guests.

2. EXISTING SYSTEM

Treatment of wastewater flows from the Kids Kampus is regulated by an existing SPDES permit issued by NYSDEC. The present system was upgraded in 2002. This last upgrade involved installation of a new pumping station, grease trap, septic tank and a new distribution box. (Reference: Appendix B, Engineers Report Proposed Upgrade of Existing Wastewater Disposal System at Kids Kampus Whiteface Ski Center)

The disposal system consisting of four (4) eight (8) feet diameter, twelve (12) feet deep seepage pits was found satisfactory and was not modified at that time.

3. **PROPOSED IMPROVEMENTS**

Estimated daily flow -

Whiteface Ski Center is keeping records of water consumption at the Base Lodge and at the Kids Kampus facility. (Reference: Appendix A)

The water consumption at the Kids Kampus facility is due to operation of kitchen/dining areas and toilets. I believe that most of the water used leaves the building as a waste therefore the sizing of a wastewater disposal system utilizing the recorded water consumption can be justified.

As shown in the "Appendix A", recently the highest daily water consumption is February 18 thru February 20, 4600 gallons per day. These demands coincide with one of the busiest days at the ski center.

Considering the highest recorded per day consumption (4600 gallons) and the higher utilization of the present building due to the proposed improvements, I believe that an expansion of the present wastewater disposal system capacity up to the Unit Management Plan (UMP) projected 5,950 gallons per day should be undertaken.

Proposed Improvements

The system upgrade will comply with requirements of NYSDEC for the projected design flow of 5,950 gallons per day. The following improvements will be necessary:

- Septic Tank existing 3,000 gallon septic tank capacity will require an increase to 8,000 gallons
- Grease Trap existing 1,000 gallon capacity will require an increase to 2,000 gallons. The combined storage capacity (grease trap and septic tank) will be 10,000 gallons
- Pumping Station The pumping station discharge rate of 66 GPM in its duplex configuration is adequate for the projected daily flow. The pumping units might need to be changed should the discharge head condition will change because of the disposal area design and/or location.
- Subsurface discharge the present design capacity of 1950 gallons per day will require an upgrade to the 5,950 gallons per day capacity. The soil characteristics in the area where present seepage pits are located are well suited for a seepage pit type subsurface disposal application.
- Location of the treatment system the Appendix C map illustrates a schematic plan.

4. CONCLUSION

Construction of the improvements identified in this report will establish wastewater treatment system in compliance with NYSDEC standards. The expanded treatment capacity will provide environmentally safe treatment of wastewater for a long time into the future.

Respectfully submitted,

IVAN ZDRAHAL ASSOCIATES, PLLC ENGINEERING AND PLANNING

APPENDIX A

WASTEWATER CONSUMPTION DATA

ENGINEER'S REPORT Kids Kampus, Whiteface Ski Center Appendix A March 10, 2006

		Gallons used	Days	consumption	
	Consumption	between	between	between	
Date	reading)	readings	readings	readings	
8/11/2004	931,000	<u></u>			
8/12/2004	931,500	500	1	500	
8/13/2004	932,600	1,100	1	1100	
8/16/2004	933,300	700	3	233	
8/17/2004	933,600	300	1	300	
8/30/2004	942,800	9,200	13	707	
9/27/2004	956,100	13,300	27	492	
10/4/2004	960,000	3,900	7	557	
10/11/2004	964,200	4,200	7	600	
10/18/2004	968,100	3,900	7	557	
10/25/2004	974,800	6,700	7	957	
11/1/2004	979,900	5,100	. 7	728	
11/8/2004	985,000	5,100	7	728	
11/15/2004	991,700	6,700	7	957	
11/22/2004	998,000	6,300	7	900	
11/27/2004	1,000,100	2100	7	300	
12/7/2004	1,012,900	12,800	8	1600	Thanksgiving Holiday
12/13/2004	1,018,700	5,800	6	966	
12/20/2004	1,028,500	9,800	7	1400	
12/28/2004	1,043,000	14,500	8	1812	
1/3/2005	1,058,900	15,900	6	2650	New Years Holiday
1/10/2005	1,070,500	11,600	7	1657	
1/17/2005	1,085,400	14,900	7	2128	MLK Holiday
1/24/2005	1,093,300	7,900	7	1128	
1/31/2005	1,106,600	13,300	7	1900	
2/7/2005	1,120,200	13,600	7	1942	
2/14/2005	1,134,100	13,900	7	1986	
2/21/2005	1,147,600	13,500	7	1929	President's day holiday
2/28/2005	1,167,100	19,500	7	2786	
3/7/2005	1,181,400	14,300	7	2043	
3/14/2005	1,193,900	12,500	7	1786	
3/21/2005	1,207,200	13,300	7	1900	
3/28/2005	1,219,700	12,500	7	1786	
4/4/2005	1,234,200	14,500	7	2071	

5/16/2005		-			
6/13/2005	_	ank Draining (
7/11/2005		ant braining, t			
8/8/2005					
9/19/2005	1,595,900	361,700	94	3849	
10/10/2005	1,601,400	5,500	21	262	
11/14/2005	1,602,900	1,500	35	43	
12/27/2005	1,616,800	13,900	43	323	
1/2/2006	1,644,200	27,400	6	4566	New Years Holiday
1/8/2006	1,668,600	24,400	6	4066	
1/9/2006	1,671,400	2,800	1	2800	
1/20/2006	1,710,800	39,400	10	3940	MLK Holiday
1/23/2006	1,720,700	9,900	3	3300	
1/30/2006	1,732,700	1,200	7	1714	
2/13/2006	1,760,100	27,400	13	2108	
2/18/2006	1,767,700	7,600	6	1520	
2/20/2006	1,776,900	9,200	2	4600	President's day holiday
2/21/2006	1,780,000	3,100	1	3100	
2/22/2006	1,782,880	2,880	1	2880	
2/23/2006	1,786,112	3,232	1	3232	
2/24/2006	1,789,200	3,088	1	3088	
2/25/2006	1,792,100	2,900	1	2900	
2/26/2006	1,794,500	2,400	1	2400	
2/27/2006	1,796,900	2,400	1	2400	
2/28/2006	1,797,800	900	1	900	
3/1/2006	1,799,300	1,500	1	1500	
3/2/2006	1,803,600	4,300	1	4300	
3/3/2006	1,805,300	1,700	1	1700	
3/4/2006	1,807,200	1,900	1	1900	
3/5/2006	1,809,200	2,000	1	2000	
3/6/2006	1,810,900	1,700	1	1700	
3/7/2006	1,812,500	1,600	1	1600	
3/8/2006	1,815,011	2,511	1	2511	

APPENDIX B

ENGINEER'S REPORT

PRPOSED UPGRADE OF EXISTING WASTERWATER DISPOSAL SYSTEM AT KIDS KAMPUS WHITEFACE SKI CENTER

DATED: SEPTEMBER 21, 2000

ENGINEER'S REPORT Kids Kampus, Whiteface Ski Center Appendix B March 10, 2006 Ş

ENGINEER'S REPORT

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PROPOSED UPGRADE OF EXISTING WASTEWATER DISPOSAL SYSTEM AT KIDS KAMPUS WHITEFACE SKI CENTER

PREPARED FOR:

OLYMPIC REGIONAL DEVELOPMENT AUTHORITY

September 21, 2000

PREPARED BY

IVAN ZDRAHAL ASSOCIATES, PLLC ENGINEERING AND PLANNING 959 ROUTE 146 CLIFTON PARK, NY 12065 (518) 383-0769

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Appendix C: Lift Station Components

Appendix D: Project Components Budget Figures

PAGE NO.

PROPOSED UPGRADE OF EXISTING WASTEWATER SYSTEM – KIDS KAMPUS, WHITEFACE SKI CENTER

1. INTRODUCTION

The ensuing engineer's report and the accompanying design plans address the repair and upgrading of the present septic system, which at the present time has a failed septic tank and pumping station.

2. BACKGROUND

Treatment of wastewater flows from the Kids Kampus is regulated by an existing SPDES permit issued by NYSDEC. This permit allows discharge of 1,880 GPD of wastewater into a subsurface disposal system which consists of four (4) 8'O.D. by 12 feet deep seepage pits. The present absorption capacity of this system is estimated at 1950 GPD based on percolation rate of one minute 30 seconds per inch.¹

In preparation for the prescribed planned upgrade, representatives from the office of Ivan Zdrahal Associates, PLLC, performed a field investigation of the existing system and found the following:

- Existing fiberglass septic tank is collapsed
- Existing pumping station is beyond cost effective repair and must be replaced
- Existing distribution box with deep sump, sedimented and debris on bottom. Bottom may be open to soil.
- Existing seepage pits are in good condition clean, no visible deposits of any grease or debris.

3. **PROPOSED IMPROVEMENTS**

The proposed upgrade of the existing system will include the following:

- A. Modify interior plumbing in such a way that waste from food service area flow first into a grease trap.
- B. Install new septic tank with adequate capacity to handle present permitted daily flow.
- C. Install new lift station consisting of 5' I.D. wet well duplex pumps control panel for alternate operation of the pumping unit.
- D. Replace existing distribution box.

The following is a brief description of each of the proposed improvements:

Separation of Food Area Wastes

Field review revealed that only minor reworking is needed to achieve this. We feel that this is a desirable component of the future system which will contribute to a long term reliable operation. Grease trap will consist of a 1,000 gallon concrete tank.

Septic Tank

Using NYSDEC standards, the required septic tank size for the present permitted flow is 3,000 gallons. Should the Kids Kampus capacity be enlarged as indicated in the Unit Management Plan to 5,600 gallon per day, the septic tank capacity will need to be increased to 8,000 gallons. To accomplish the increase in septic tank capacity to 8,000 gallons, when necessary, a second 5,000 septic tank will be installed in series after the first.

Lift Station

The proposed lift station is designed in such a way to handle present and future flows. Main features of this station are as follows:

- Duplex ½ HP pumps each capable of pumping 66 GPM at 25 feet of TDH mounted on rails for ease of servicing
- 5 feet inside diameter wetwell
- Control panel with all components for duplex operation, high level alarm, low level alarm, pump seal failure, auto pump alternator, pump run lights, run time meters, thermal overload protection, and heater

Distribution Box

Existing distribution box, which consists of balloon masonry units will be replaced with a precast concrete unit.

4. CONCLUSION

Construction of the above improvements will bring the wastewater disposal system to a good working condition and will be in conformance with NYSDEC standards.

Respectfully submitted,

IVAN ZDRAHAL ASSOCIATES, PLLC ENGINEERING AND PLANNING

aund Ivan Zdrahal, P.E.

APPENDIX C

Map

Schematic Plan

ENGINEER'S REPORT Kids Kampus, Whiteface Ski Center

Appendix C March 10, 2006



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<u>Appendix A2</u> "Generic Storm Water Pollution Prevention Plan"

DLYMPIC REGIONAL New YDRK DEVELOPMENT AUTHORITY

GENERIC CONSTRUCTION STORM WATER POLLUTION PREVENTION PLAN

For

WHITEFACE MOUNTAIN SKI CENTER

Prepared in Accordance with New York State Department of Environmental Conservation SPDES General Permit for Storm Water Discharge from Construction Activities that are Classified as "Associated with Construction Activity", General Permit GP-02-01 and Pending Updates.

Prepared by the Olympic Regional Development Authority Office of Planning and Construction

> Robert W. Hammond, CPESC Director, Planning & Construction CPESC Certification # 2674

Introduction

The intent of this document is to outline the procedures and elements for the development of site specific Storm Water Pollution Prevention Plans. Presented are the standard and recognized practices utilized in Construction Storm Water Pollution Prevention Plans. In the Olympic Regional Developments Authority's and Whiteface Mountain Ski Center's continued efforts to provide and develop the most effective Storm Water Pollution Prevention Plans this documents includes new elements that will continue to ensure positive progress in the effort for improved SWPPP development. The new elements included in this document are:

- Inclusion of site specific practices
- Improved Timing / Control Measures
- Turbidity Monitoring
- Tailgate Meetings
- Closeout Reports

ORDA's CERTIFICATION SWPPP for Whiteface Mountain Ski Center

Office of Planning and Construction

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signed:	
Name:	
Title:	
Date:	

Venue Manager

I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the Storm Water discharge associated with industrial activity from the construction activity from construction site identified as part of this certification.

Signed:	
Name:	
Title:	
Date:	

	Storm water Pollution Prevention Plan (SwPPP)
Project Name:	Whiteface Mountain Ski Center Trail Expansion, Pump House #1 and Easy Acres Expansion.
Project Location:	Whiteface Mountain Ski Center Town of Wilmington, New York
Project Sponsor:	New York Olympic Regional Development Authority
Project Scope:	Whiteface Mountain Ski Center Trail Expansion, Pump House #1 and Easy Acres Expansion.
Storm Water Management Objectives:	 Final SWPPP shall be prepared in accordance with New York State Department of Environmental Conservation SPDES General Permit for Storm Water Discharge from Construction Activities that are Classified as "Associated with Construction Activity", General Permit GP-02-01 and Pending Updates. It is the objective of the final SWPPP plan to provide best practices of sedimentation and erosion control during the development phase and ensure that on completion of the project the activates will not adversely effect the surrounding environment. During the design of the facility upgrades significant efforts shall be made to minimize the increase of impervious areas. Scheduling and restoration shall be a primary practice for the earthwork activates at Whiteface. Limiting the amount of disturbed area to the minimum practical amount shall be targeted. Site specific practices that have been proven to reduce erosion and utilize resources for control of erosion shall be utilized. Examples of site specific practices include: Reduce grubbing activities on ski trails to allow for cut trees root systems to remain in place. Construction of temporary haul roads and permanent access roads from wood chips. Recycle of shot-rock for stone lined ditching. Best management practices as presented and detailed in the Blue Book and DEC technical standards shall be the minimum requirements for the SWPPP. Project drawing be developed and included in the Final SWPPP that includes all necessary details and notes. Situations may arise during the construction operations that may require additional actions to comply with the technical standards for erosion and
	sediment control as set forth in the "New York Standards and Specifications for Erosion and Sediment Control. The Olympic Regional Development Authority,

Office of Planning and Construction shall be notified 48 hours in advance of the start of work and shall monitor the progress of work to ensure that full conformance to the SPDES General Permit.

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Storm Water Pollution Prevention Plan (SWPPP)

Storm Water	
Management:	The discharge of storm water shall not result in discharge of toxic of deleterious substances.
	The discharge of storm water shall not result in the discharge of suspended, colloidal or settable solids in amounts that cause substantial visible contrast to natural conditions or impairer receiving water for their best classified usages.
Timing of	
Control/Measures	1. Temporary structural erosion controls shall be installed prior to earthwork as per this plan. Controls such as filter fabric fences, erosion-control blankets, water bars, wood chipped access roads, stone lined ditches, selective minimal clearing, minimal stump removal, immediate stop-gap mulching and seeding and staked straw bale filters will be employed, in addition to other standard details of specific BMP produced by the USDA – Natural Resources Conservation Service, the NYS DEC and details that have be developed and tested on Whiteface Mountain and practices and material that have proved to be effective in controlling erosion on steep slopes.
	2. Seeding and mulching of disturbed areas shall take place as soon as possible. Reseeding will occur in all areas that have not achieved stabilization during the recommended planting season of between May 15 and August 31. Dormant seeding done after this time should only be done when 2 inch soil temperatures is less than 50 degrees. When it is necessary to stabilize disturbed areas beyond these timeframes, alternative measures will be review. Mulching shall be applied in disturbed areas to reduce wind and runoff erosion as soon as possible after rough grading operations are complete.
	3. Erosion blankets shall be installed immediately after finished grades are established and seeding completed with slopes steeper than 3:1.
	4. Copies of Stabilization Inspection forms and Structural Inspection forms located at the end of this report shall be completed in full for every inspection performed by the Office of Planning and Construction. Complete inspection forms shall be retained by the Office of Planning and Construction and at the Venue Managers Office.
	5. Structural erosion controls and non-stabilized area shall be inspected by the Office of Planning and Construction twice a week and immediately after a rainfall of 0.5 inches.
	6. Vegetation stabilization is to be performed within 5 day after establishing final grades.
	7. Temporary erosion control devices will not be removed until the growth of vegetation stabilizes the area served. Vegetation coverage of 75% shall be considered stabilized.
	8. A construction log shall be maintained and record dates of initiation of construction, implementation of erosion control measures, stabilization, ect.

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Maintenance/Inspect	ion
Procedures:	1. ORDA will supervise day-to-day activities on the site. ORDA staff shall inspect all E&D devices daily and a Certified Professional in Sediment and Erosion Control will inspect the site twice a week and immediately after a rainfall of 0.5 inches.
	2. All measures will be maintained in good working order. If repair is necessary, it will be initiated immediately after discovery.
	3. Built up sediment will be removed form silt fences if it ever reaches one-third the height of the structural control.
	4. Silt fence will be inspected for depth of sediment, tears, etc., to see if the fabric is properly functioning, securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
	5. Seeded area shall be inspected for bare spots, washouts, and healthy growth. If necessary, replanting, reseeding, or resodding will be implemented.
Monitoring:	Monitoring quality and condition storm water run-off shall be performed with Turbidity Meters. Regular sampling shall be performed by the CPESC. Records shall be kept and revisions to the BMP shall be made as required to ensure the most effective BMP's.
Tailgate Meetings:	During earthwork operations that impact large areas, such as ski trails, Tailgate Meetings will be held that focus on Erosion and Sediment Control. Traditionally, Tailgate Meetings are held to focuses on jobsite safety, but in Whiteface's continued efforts to minimize Erosion and Sediment impacts, Tailgate Meetings will include discussions on Erosion and Sediment control devices, impacts and improvements in devices and behaviors.
Closeout Report	In order to continue to learn and improve from actual project experiences a Closeout Report will be generated by the CPESC. The report will include an overview of negative and positive experiences during the project and recommendations for improvements. The report will be submitted to the Venue Manager and shall be presented by the CPESC in a workshop forum.
Spill Prevention:	The following are the material management practices that will be used to reduce the risk of spills or other accidental exposures of materials and substances to storm water runoff.
	1. Petroleum shall be stored in above ground skid-tanks or in-vehicle (pickup truck) mounted tanks. Any refueling shall occur at least 100 feet from any surface water shoreline or wetland area.
	2. Hydraulic oil shall be stored in original containers removed at least 100 feet from any shoreline or wetland area.
	Housekeeping 1. All efforts will be made to store only products required to do the job. This involves fuel for machinery involved in this action.

	2 Materials stored on site will be stored in a neat orderly manner in their
	appropriate containers. Storage of materials is not generally anticipated for this action.
	3. Products shall be kept in their original containers with the original manufacturer's label.
	4. Manufacturer's recommendations for proper use and disposal will be followed.
Product Specific	
Practices:	<u>Petroleum Products:</u> 1. Construction personnel will be made aware that emergency telephone numbers are located in this SWPPP.
	2. NYSDEC shall be immediately contacted in the event of a spill. ORDA shall take appropriate steps to contain the spill including constructing a dike around the spill and placing absorbent materials over this spill.
	3. Fuels, oils and chemicals will be stored in appropriate and tightly capped containers. Containers shall not be disposed of on site.
	4. Store fuels, oils, chemicals, materials and equipment away from trees and at least 100 feet from streams, wells, wet areas and other environmentally sensitive sites.
	5. Dispose of chemical containers and surplus chemicals off the project site in accordance with label directions.
	6. All onsite vehicles will be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage. Any vehicle leaking fuel or hydraulic fuel will be immediately removed from the site.
	<u>Fertilizers:</u> 1. Fertilizers shall be stored in original containers and on pallets should the need to store fertilizers occur.
	2. When possible local retail supplier shall be utilized for purchase and immediate use of fertilizers on site. Proper delivery scheduling will minimize storage time.
	3. Damaged containers will be repaired immediately upon discovery and any released fertilizer recovered to the fullest extent practicable.
	<u>Concrete Trucks:</u> 1. Concrete trucks will not be allowed to wash out or discharge surplus concrete or drum wash water on the site except in a designated upland area.
Spill Control	
Practices:	1. Manufacturers' recommended methods for spill cleanup will be clearly posted and on site personnel will be made aware of the procedures and the locations of the information and cleanup supplies. Any spill in excess of suspected to be in excess of two gallons will be reported to the NYSDEC Spill Response Unit.

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Notification to NYSDEC (1-800-457-7326) must be completed within two hours of the discovery of the spill.

2. Materials and equipment necessary for spill cleanup will be made available to this site. Equipment and materials will include but not limited to absorbent pads, brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust and plastic and metal trash containers specifically for this purpose.

3. All spills will be cleaned up immediately after discovery.

4. The spill area will be kept will ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with spilled substance.

5. Spills of toxic or hazardous material will be reported to the appropriate State of local government agency, regardless of size.

6. The spill prevention plan will be adjusted to include measures to prevent this type of spill from reoccurring, and how to clean up the spill if there is another one. A description of the spill, what caused it, and the clean up measures will also be included.

7. The construction manager responsible for the day-to-day site operations will be the spill prevention and cleanup coordinator. The manager will designate at least one other site personnel who will receive spill prevention and cleanup training. These individuals will each be responsible for a particular phase of prevention and cleanup. The names of responsible spill personnel will be posted in the material storage area.

SPILL RESPONCER REPORT

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Within one hour of a spill discovery of less than 2 gallons in volume the following must be notified:

- 1. Robert Hammond, Director of Planning and Construction: (518) 523-1655
- 2. Alan Hosler, Director of Safety and Security: (518) 523-1655

Within one hour of a spill discovery greater than 2 gallons in volume the following must be notified:

- 1. Robert Hammond, Director of Planning and Construction: (518) 523-1655
- 2. Alan Hosler, Director of Safety and Security: (518) 523-1655
- 3. NYSDEC Spill Response Hotline: 1-800-457-7362
- 4. Approved Spill Response Contractors (One of the following):
 - Clean Harbours Environmental Services, Glenmont, NY: (518) 434-0149
 - OPTEC Environmental Services, Inc., Plattsburgh, NY: (518) 561-8368
 - Environmental Products and Services of Vermont: (518) 562-5656

The following information will need to be provided:

Material Spilled:	
Approximate Volume:	````
Location:	
Distance to nearest downgradient drainageway:	
Distance to nearest downgradient open water:	
Temporary control measures in place:	

Storm Water Pollution Prevention Plan Inspection and Maintenance Report Form

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Inspector:			Date:			
Amount o	f Last Rainfall	Inche	S			
		Stabilizatio	n Measures			
Area	Date Since Last Disturbance	Date of Next Disturbance	Stabilized?	Stabilized with	Conditions	
Stabilizati Required:	on					
To be perf	formed by:	on or be	fore:			
		Structural	Controls			
Date:		Components:	•			
Temporar	y Sediment Basins_		Permanent Sed	iment Basin		
		Sedimen	t Basins			
Depth of S Condition Any evide Conditions Maintenan basin:	Sediment in Basin: of Basin: nce of overtopping s of outfall form sec nce required for sed	of the embankn liment basin: iment	nent?			
To be perf	formed by:	0	n or before			

Date	Inspector	Perimeter Controls	Sediment Basin	Construction Entrance
Weekly-Post				

d . .

Other Controls Stabilized Construction Entrances

Does much sediment get tracked onto road?
Is the gravel clean or is it filled with sediment?
Does all traffic use the stabilized entrance to leave the site?
Is the Culvert beneath the entrance working?

Maintenance required for stabilized construction entrance:

To be performed by:______on or before:______

Signed:	
Name:	
Title:	
Date:	

Storm Water Pollution Prevention Plan Inspection and Maintenance Report Form

Changes required to the SWPPP:

Reasons for change:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signed:	
Name:	
Title:	
Date:	

Seeding Specifications

Mix Supplies: The Vermont Wildflower Farm, 4750 Shelburne Road Shelburne, VT 05482 (802) 985-9455

Common Name	Scientific Name	% by Weight	Pounds	
Wildflower Species				
Chicory	Cichorium intybus	10%	3.00	
Black-Eyed-Susan	Rudbeckia hirta	5.1%	1.55	
Stiff-Leaf Goldenrod	Solidago rigida	0.3%	0.10	
Bird's-Foot Trefoil	Lotus corniculata	16.6%	5.00	
Queen-Anne's-Lace	Daucus carota	0.8%	0.25	
Common Yarrow	Achillea millefolium	3.6%	1.10	
Evening Primrose	Oenothera	3.3%	1.00	
Ox-Eye Daisy	Leucanthemum vulgare	9.1%	2.75	
Wild Lupine	Lupinus perennis	50%	15.00	
New England Aster	Aster novae-angliae	0.8%	0.25	
			30 lbs. total	
Grass Species				
Sheep Fescue	Festuca trachyphyllm	66%	20.00	
Annual Rye Grass	Lolium spp.	33%	10.00	
			30.00 lbs. total	
Total			60 lbs.	

Application rate is 60 lbs. Per acre, supplier can advise for hydroseed application.

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<u>Appendix A3</u> "2004 UMP Visibility Study"



1. View from Route 86 at the former Paleface Ski Center near Bassett Mountain looking southwest.

Tree Island Pod not visible (Blocked by topography).







2. View from Route 86 near Beaver Brook looking southwest.

Tree Island Pod not visible (Blocked by topography).

Photo #2

3. View from Route 86 on the west branch of the Ausable River bridge looking south in the hamlet of Wilmington.

Tree Island Pod not visible (Blocked by topography).



Photo #3

PROJECT NUMBER: 01102	ME VIEWSHED PI	COMPREHEN AND PL AND UNIT N	Prepared By:	Prepared For: OLYMPIC REGIONA LAKE PLACID, NEW	WHI-	
FILE: [whiteface]	HOTOS	NSIVE MANA ANNING REV MANAGEMEN		AL DEVELOPMEN. V YORK	TEFL	
	олте: ост зі, 2001 ехнівіт: V = 1	GEMENT IEW T PLAN	ZA Engineering & Viansing an Aladad Versouries 1916	T AUTHORITY		

4. View from Fairview Avenue on Quaker Mountain looking southwest.

Very upper portion of Tree Island Pod is visible in context of existing ski trail.







5. View from Fox Farm looking west.

Very upper portion of Tree Island Pod is visible in context of existing ski slopes.

Photo #5

6. View from Route 86 to the entrance of Whiteface Mountain Ski Center looking west.

View of Tree Island Pod location in context of existing ski area.



Photo #6

PROJECT NUMBER: 01102 FILE: [whiteface]	THE VIEWSHED PHOTOS	COMPREHENSIVE M/ AND PLANNING AND UNIT MANAGE	Prepared By:	Prepared For: OLYMPIC REGIONAL DEVELO LAKE PLACID, NEW YORK	WHITE	
	олте: ост 31, 2001 Ехнивл: V = 2	ANAGEMENT REVIEW MENT PLAN	1ZА Евдисетиц & Рилліад Каж Ассала Контоло, ИСС	PMENT AUTHORITY	FACE	

7. View from Route 86 just south of Monument Falls looking north.

Ski Trails not visible.



Photo #7



8. View from River Road at Lake Placid Skeet Range looking north.

Ski Trails not visible.

Photo #8

9. View from Route 73 looking north.

Ski Trails not visible.



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Southwest view from Lookout Mountain Summit.

Only very upper portion of Tree Island Pod potentially visible.







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Southwest view from Wilmington Trail east of Lookout Mountain summit.

Tree Island Pod not visible.









Southwest view from Wilmington Trail before steep descent toward Marble Mountain.

Tree Island Pod not visible.





Appendix A4 "Pump House #1 and Easy Acres Lodge Visibility Study"



Photo #1 - View of Proposed Pump House Maximum Height from Gondola Deck



Photo #2 -View of Proposed Pump House Maximum Height from Mixing Bowl Lift



Photo #3 - View of Proposed Pump House Maximum Height Looking towards Base Lodge



Photo #4 -View of Proposed Pump House Maximum Height Looking from Bridge (Flag not visible, Existing Pump House shelter by Vegetation)



Photo #5 - View of Proposed New Structure Looking towards Existing Facility



Photo# 6 - View of Existing Facility – Portion to be Removed is Highlighted



Photo# 7 - View from Existing Facility - Looking towards Maintenance Facility New Building shall include vegetation to screen Maintenance Facility



Photo# 8 - View from Existing Facility - Looking towards Maintenance Facility New Building will use existing vegetation to develop a Turn Around

<u>Appendix A5</u> "Cooperative Agreement between NYSDEC and ORDA"

COOPERATIVE AGREEMENT BETWEEN THE NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION AND THE NY OLYMPIC REGIONAL DEVELOPMENT AUTHORITY

The NYS Department of Environmental Conservation (DEC) and the New York Olympic Regional Development Authority (ORDA) enter into the following agreement in connection with the need to protect the surface water resource of the West Branch of the Ausable River in relation to the water to be withdrawn for snowmaking operations at Whiteface Mountain Ski Center. Whiteface Mountain Ski Center is under DEC's care and custody, and ORDA manages the operation and maintenance of the ski center.

The purpose of this Cooperative Agreement is to establish mutually agreeable methods and procedures by which water for snowmaking operations can be withdrawn from the West Branch of the Ausable River while maintaining the integrity of this surface water resource. Flow monitoring of the West Branch of the Ausable River has been implemented to minimize the impacts to the river's aquatic ecology and properly manage the fishery during times of low flow.

It shall be the responsibility of the signatories or their designees to generally administer the provisions of this Cooperative Agreement. This agreement amends the existing Memorandum of Understanding between DEC and ORDA which became effective March 8, 1991, and which established mutually agreeable methods and procedures for implementation of the MOU relating to Whiteface Mountain Ski Center and Memorial

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Highway, Mt. Van Hoevenberg Recreation Area and Gore Mountain Ski Center (copy attached).

Compliance with this agreement in conjunction with the individual Unit Management Plan for Whiteface Mountain Ski Center shall occur immediately.

Water Withdrawal from the West Branch of the Ausable River

Monthly water withdrawals for snowmaking during some winter months exceed the threshold for requiring a Great Lakes Water Withdrawal Registration Certificate. A certificate covering the period July 7, 2003 through July 7, 2005 was issued and will be renewed as necessary (copy attached).

Flow monitoring of the West Branch of the Ausable River is necessary to minimize the impacts to the river's aquatic ecology from snowmaking water withdrawals and properly manage the fishery during times of low flow.

The stream improvement structure on the West Branch has been built, and provides a flow monitoring station.

In order to define the pumping parameters for snowmaking as they relate to stream flows, several meetings were held with the NYSDEC during the preparation of the 1996/2002 Whiteface Mountain UMP. The following parameters were developed for water withdrawals in order to protect the aquatic environment of the river and to minimize the potential impacts to the resource during times of low flow:

- 1. Pumping withdrawal rates will be based on the instantaneous flow measured at the flow monitoring station.
- 2. Unrestricted pumping at approved withdrawal rates is permitted if the flow is 51.4 cubic feet per second (cfs) or greater. The currently permitted maximum withdrawal rate is 13.4 cfs (6,014 gallons per minute). Withdrawals by Whiteface will not reduce river flows below 38 cfs.
- For instantaneous flows measured at the flow monitoring station between 51.4 cfs and 38 cfs, the pumping rate will be incrementally reduced. Instantaneous flows will not be reduced below 38 cfs by withdrawals by Whiteface.
- 4. If, during any pumping day the "instantaneous" flow rate is less than or equal to 38 cfs, then the immediate shut down of the snowmaking system will occur.
 ("Instantaneous" is defined as a fifteen minute average of readings taken within the 15 minute period.) Approved pumping withdrawal rates can resume when the instantaneous flow measured at the flow monitoring station is at least 44 cfs for at least 8 hours or 46 cfs for at least 6 hours, 48 cfs for at least 4 hours or 50 cfs for at least 2 hours, in order to maintain suitable downstream flow conditions.

- 5. The flow data and pumping data will be provided to the DEC for compliance monitoring. During the snowmaking season, the data will be provided to the DEC monthly on a routine basis, and more frequently in response to direct requests by DEC for data from specific dates. The routine submittals will include the daily minimum river flow for all days and the "Daily Detail" (15 minute flow reports) for days when, at any time during the day, river flows declined below 52 cfs. Records of withdrawals from the river should also be provided on days when river flows declined below 52 cfs. The monthly report will be provided to the DEC by five days after the end of the month.
- 6. During periods of severe anchor ice formation, data from the two gauges installed in the flume will be manually compared to determine if backwater effects are altering the gauge readings. Such comparisons will be done for periods upon request by the DEC.
- 7. The flume will be re-calibrated annually, preferably shortly before the start of the snowmaking season.
- 8. This Cooperative Agreement will be reviewed annually by DEC Fisheries staff and ORDA management and can be modified, amended, or canceled at any time upon mutual agreement of the signatories to this agreement.

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9. This term of this agreement will be concurrent with the term of the Whiteface

Mountain Ski Center UMP.

This Cooperative Agreement will become effective upon its execution by each of

the parties hereto.

Department of Environmental Conservation By: ussier, Director of Management and Budget Nancy ZŚ 03 Date:

Olympic Regional Development Authority

By:_ Ted Blazer, President, C.E.O.

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11-18-03 Date:

01043/cooperative.agreement

<u>Appendix A6</u> "Traffic Assessment"



4 AUTOMATION LANE * ALBANY, NY 12205-1683 PHONE 518-446-0396 * FAX 518-446-0397

Memo

To:	Holly Elmer
From:	Ken Wersted
cc:	
Date:	March 26, 2002
Re:	Whiteface Mountain Traffic Assessment
Proiect	01-073

Creighton Manning Engineering (CME) has completed a review of the traffic circulation and operations of the Whiteface Mountain Ski area, located in Wilmington New York, and operated by the Olympic Regional Development Authority (ORDA). Whiteface Mountain is located off Route 86, approximately 9 miles east of Lake Placid New York. Whiteface Mountain ski area provides approximately 70 trails with 11 lifts capable of processing over 13,000 people per hour.

1.0 - Traffic Volumes

Based on review of the latest available NYSDOT *Traffic Volume Report* (2000), the annual average daily traffic (AADT) on Route 86 between the entrance to Whiteface Ski Center and Route 431 is 3,350 vehicles per day. The AADT on Route 86 between the entrance to Whiteface and Lake Placid is 3,900 vehicles per day. When compared to the AADT volumes over the past decade (1991 and 1993 to 2000), both sections experienced decreases in traffic volumes through the mid 1990's reaching a low around 1997. Since then, traffic volumes have increased significantly. Neglecting the changes in the trends of traffic volumes on Route 86, there has been an overall increase in traffic volumes of approximately 0.6 percent per year west of Whiteface Mountain and 1.07 percent per year east of the mountain.

Existing turning movement traffic volumes were observed at the entrance to Whiteface Mountain ski area during the peak hours on Saturday February 16, 2002, from 8:00 AM to 10:00 AM and from 2:30 PM to 5:15 PM. These time periods represent the peak arrival and departure times for skiers. February 16 also marked the beginning of Presidents Day weekend and a week long winter recess for most grade schools in New York. Typically Presidents day weekend represents one of the busiest weekends during the season.

The AM peak hour occurred from 8:30 AM to 9:30 AM in which 617 vehicles were observed entering the ski area and 99 vehicles exited. The afternoon peak period occurred from 4:00 PM to 5:00 PM in which 88 vehicles were observed entering with 756 vehicles exiting.

2.0 - Future Traffic Volumes

Future traffic volumes were estimated by increasing the background traffic volumes on Route 86 and projecting future traffic growth from the mountain expansion. It is assumed that the project can be completed in 2003. Therefore, a one percent growth rate was added to the existing traffic volumes observed at the entrance to the ski mountain. Based on information contained in the Whiteface Unit Management Plan Update, dated March 2002, the

Page 1

comfortable carrying capacity (CCC, the number of skiers that can be accommodated at any given time) is expected to increase from 5,070 to 5,640, an 11% increase. This increase was also applied to the traffic volumes observed at the entrance to the ski mountain. The resulting future traffic forecasts represent an increase of approximately 12% in the traffic volumes observed on February 16, 2002.

3.0 - Levels of Service

The operational characteristics of the entrance to the ski area were evaluated based on the procedures contained in the 2000 Highway Capacity Manual, using the latest version of the Highway Capacity Software (HCS version 4.1b). An intersection analysis was performed for the existing 2002 traffic volumes and the future traffic volumes with the expansion. The following levels of service were calculated:

Internection		Control	AM Pe	ak Hour	PM Peak Hour		
Intersection			2002 Existing	2003 Build	2002 Existing	2003 Build	
Rt. 86/North entrance					and the second second second	2011.001.001.001.001.001.001.001.001.001	
NB	L	υ	A (8.3)	A (8.5)	A (7.6)	A (7.6)	
EB	LR		C (15.0)	C (16.7)	C (20.5)	C (27.9)	
Rt. 86/South entrance							
NB	L	U	A (8.0)	A (8.2)	A (7.8)	A (7.8)	
EB	LR		B (11.0)	B (11.7)	D (27.9)	F (50.1)	
Rt. 86/Single entrance							
NB	L	U		B (10.1)		A (7.8)	
EB	L			E (45.8)		D (26.1)	
	R			A (9.0)		C (16.3)	

Table 1 – Level of Se	ervice Summary
-----------------------	----------------

U= Unsignalized Intersection

X(Y.Y) = Level of Service (Delay, seconds per vehicle)

Based on the results shown above, the existing configuration of the entrance to the ski area operates well with AM peak hour exiting traffic operating at LOS C or better, and left turn entering traffic operating at LOS A. During the PM peak hour, the majority of traffic is exiting the mountain and utilizing the two entrances depending on which direction they are headed. Approximately 61% of the vehicles exiting the mountain use the south entrance to turn right onto Route 86 destined for Lake Placid, while 31% use the north entrance to turn left towards Wilmington. The exiting maneuvers from the ski area currently operate at LOS D or better during the PM peak hour.

With the increase in traffic volumes as a result of the expansion, AM peak hour levels of service will remain the same. However, as skiers attempt to leave the mountain in the afternoon, they will experience increases in delays and LOS F at the south entrance.

As one alternative (discussed in more detail later), combining the two entrances into a single entrance with the existing Whiteface Mountain sign located in the median, would improve traffic flow internally in this area and would result in LOS D or better operations during the PM peak hour. During the AM peak hour, LOS E will be experienced by drivers attempting to turn left from the mountain onto Route 86. This is considered acceptable however, due to the low traffic volume on this maneuver.

4.0 - Traffic Circulation

The current configuration of the mountain entrance reduces the conflicts between the major traffic streams as they enter during the AM peak hour. With approximately 294 vehicles turning left into the site at the south entrance and 218 vehicles turning right at the north entrance, ingress into the site is facilitated easily with this configuration. However, a short distance west of Route 86, the two entrances merge to form the main access road to parking lots and the base lodge. At this merge, no signing or traffic control exists with the exception of a ski area employee directing traffic and answering questions. This area of conflict results in congestion on the access road and may extend back along each entrance road onto Route 86. Due to the lack of pavement markings and signs at the entrances, some motorists were observed using the south entrance as a one-way exit only queuing side by side blocking access into the ski area from the left turn lane on Route 86.

Another traffic circulation issue is the pick up and drop off area at the ski lodge. Here, an area around a rectangular median is used as a loading area for skiers via passenger car and buses. The parking lot shuttle and the shuttle running to and from Lake Placid also use this area. During peak times, mountain employees direct passenger cars and buses through this area, sometimes queuing four vehicles wide in the loop. Inadequate loading areas for coach buses add to the congestion as employees stop traffic and direct buses to back into spaces along the shoulder areas.

Although more of a pedestrian safety issue rather than traffic circulation, pedestrians are required to walk in the road to and from parking lots and the lodges along the main access road and the road up to parking lot #4 and the Easy Acres area. Pedestrian activity along the main road reduces the effective width of the road thereby slowing traffic and increasing the pedestrian/vehicle conflicts.

5.0 - Sight Distance

Existing intersection sight distances were measured from each of the site driveways from the perspective of a driver exiting the ski area and looking in both directions. The available sight distances were then compared to the desirable sight distances for a 55-mph speed as published by the New York State Department of Transportation in *"Policy and Standards for Entrances to State Highways, February 1998"*. The following table illustrates the results of this evaluation:

Intersection	Distance	DL	DR	Ds
North Entrance	Available	>1,000	405	>1,000
	Desirable	845	875	610
South Entrance	Available	>1,000	350	>1,000
	Desirable	845	875	610

Table 2 – Sight Distance Evaluation

D_{LRS} = Sight distance looking Left, Right, and Straight.

This table illustrates that there is a sight distance limitation looking right from both the site driveways. The sight distance is limited due to the horizontal and vertical curves of Route 86 as well as the guiderail located on the west side of the roadway. After heavy snowfalls, this sight distance may be further reduced due to larger snow banks just south of the ski area entrances.

Mitigating this situation is two large "Intersection Ahead" signs located north and south of the ski area entrance. Each sign includes a supplemental sign reading "Ski Area" and flashing beacons warning drivers of the intersection ahead. To further improve the sight distance looking right from the ski area entrances, realignment of Route 86 to the south would be required. This may not be feasible due to the severe rock cuts required. Although this is an existing condition, relocating the main entrance further north could improve the situation. Additionally, adding a supplemental distance sign to the "ski area ahead" signs may improve the awareness to approaching drivers to the conflict area ahead.

6.0 - Alternatives

Based on the preceding analysis, the following alternatives are identified to help improve the poor access and circulation of the ski area. They are as follows:

- 1. Provide proper signing and pavement markings at the two separate entrance points to the ski area. This will channelize traffic flow and improve operations to and from Route 86.
- Add signing and intersection control to the merge point of the two entrances. Stop sign control should be installed on the westbound approach to this intersection from the north entrance due the lower traffic volumes on this leg.
- 3. Reconfigure the main entrance by reducing the median width between the north and south entrance, and create a standard entrance with one lane entering and two exit lanes on the eastbound approach to Route 86.
- 4. Provide means to allow buses (shuttle and coach) to turn around without turning out onto Route 86 and back into the site. This can be accomplished by installing a mini-roundabout at the entrance merge and parking lot intersections, or by some other means. This will improve the circulation on the main access road at the entrance and parking lot intersections.

- 5. Remove pedestrian conflicts along the main access road by providing a 10-foot wide sidewalk along one or both sides of the road.
- 6. Widen the access road (on the downhill side) from the base lodge to Easy Acres to provide approximately 30 feet from the edge of pavement and allow perpendicular parking on this side rather than parallel parking. This will increase the parking capacity along this access road and provide enough shoulder to allow pedestrians to walk and an area for vehicles to back out of a parking space without backing into the roadway completely.
- Create a bus loading area and/or move the bus parking to lot #2. This will remove the need for buses to access the existing loading area next to the lodge but will require pedestrians to cross the bridge and will displace some vehicles currently using lot #2.
- 8. Minimize parking in the loading area to handicap vehicles only. This will create additional space for loading but will displace some employee vehicles.
- Remove parking between the base lodge and the NYSEF building and modify the area to increase the size and performance of the current loading area. This will displace vehicles but could triple the loading area and improve traffic flow significantly.
- 7.0 Conclusions and Recommendations

Currently, the entrance to the Whiteface Ski mountain area operates at good levels of service during the AM and PM peak hours. With the increase in traffic volumes as a result of the expansion, skiers will experience longer delays during the PM peak hour. Several circulation conflicts exist between Route 86 and the base lodge. Most significant is the merge of the main entrances and the main access road and the loading area at the base lodge. Several alternatives have been proposed which will improve circulation, and may be implemented in combination with others or as stand alone projects. However, it is recommended that the configuration of the entrance to the mountain be modified to provide a single access point with separate left and right turn lanes exiting onto Route 86. Additionally, it may not be feasible to increase the available sight distance looking right from the site driveway. Therefore adding a supplemental distance sign is recommended to supplement existing warning of the conflict area ahead for approaching drivers.

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SEQRA Public Comment and Responses

Response to Public Comments

This section presents responses to comments made on the 2006 Unit Management Plan Amendment to the 2004 Unit Management Plan and Draft Environmental Impact Statement for Whiteface Mountain Ski Center (May 2006). Comments have been summarized by the original source. Copies of comment letters are included at the end of this section.

Audubon New York, 200 Trillrum Lane, Albany, NY, Letter of 19 June 2006, Michael F. Burger

Comment 1

The Commentor states: In the Executive Summary on page 3 of the UMP Amendment, Audubon New York is incorrectly referred to as the "New York Audubon Society." Considering that there is a different organization with a name similar to that, we request that we be identified as "Audubon New York."

Response 1

Executive Summary on page 3 of the UMP Amendment, reads "New York Audubon Society", this is incorrect and shall read "Audubon New York"

Comment 2

The Commentor states: On page 25, section 5.a., please include Audubon New York as one of the groups that will assist in the development of the Bicknell's Thrush Habitat Management Plan for Whiteface Mountain. Audubon New York has been an active participant in the cooperative process leading up to this UMP Amendment, and we intend to stay involved.

Response 2

Page 25, section 5.a. of the electronic version translates to Section II, page 5 of the hard paper version shall include Audubon New York as one of the groups that will assist in the development of the Bicknell's Thrush Habitat Management Plan for Whiteface Mountain.

Comment 3

The Commentor states: On page 26, section 3.a., similar to the comment above, please include Audubon New York as one of the partners that will work with ORDA to develop standards for habitat restoration and evaluation. Furthermore, we suggest explicitly stating that these standards that will be developed will be included in the Bicknell's Thrush Habitat Management Plan.

Response 3

Page 26, section 3.a., of the electronic version translates to Section II, page 6 of the hard paper version shall include Audubon New York as one of the partners that will work with ORDA to develop standards for habitat restoration and evaluation. Section II, page 6

shall include: Habitat Restoration and Evaluation Standards shall be included in the Bicknell's Thrush Habitat Management Plan to ensure a holistic approach.

Comment 4

The Commentor states: Regarding long-term monitoring (page 27, section 2.b.), we suggest that plans for long-term monitoring of Bicknell's Thrush be integrated into the Bicknell's Thrush Habitat Management Plan, such that habitat evaluation and thrush monitoring be coordinated in an adaptive management framework. Again, please include Audubon New York as one of the partners who will assist with this effort.

Response 4

Page 27, section 2.b., of the electronic version translates to Section II, page 7, section 2b of the hard paper version shall include that plans for long-term monitoring of Bicknell's Thrush be integrated into the Bicknell's Thrush Habitat Management Plan, such that habitat evaluation and thrush monitoring be coordinated in an adaptive management framework. This effort shall include Audubon New York as one of the partners that will work with ORDA.

Comment 5

The Commentor states: Finally, the UMP Amendment fails to make note of the IBA identification and BCA designation for this area. We suggest that it would be appropriate to include this information somewhere in the document, for example on page 21 and/or in the Executive Summary.

Response 5

The following text shall be added to the Section II, page 1, paragraph 1: "Whiteface Mountain, in conjunction with other peaks over 2,800 feet in the area north of Lake Placid and Keene, is part of the Northern Adirondack Peaks Important Bird Area (IBA), as identified by Audubon New York in 2005. Additionally, in 2001 Governor Pataki designated state-owned Adirondack peaks over 2,800 feet as the Adirondack Subalpine Forest Bird Conservation Area (BCA); documentation regarding which specifically mentions the inclusion of Whiteface Mountain. The primary reason for the both the IBA and BCA designations is that these peaks support multiple pairs of breeding Bicknell's Thrush, which is considered one of the highest priority bird species in the northeastern U.S., in addition to being a state-listed species of special concern."

University at Albany, Atmospheric Science Research Center, Whiteface Mountain Field Station, Letter of 23 June 2006, Douglas Wolfe

Comment 1

The Commentor states: The Draper Lodge Skiing Complex is approaching it's fiftieth anniversary with several expansion projects some of which will impact the sub-alpine zones of Whiteface. One of the original designers Mr. Otto Schneibs insisted of two features... lifts and trails not be oriented along the prevailing wind (sweep) and keep the bulldozers off the bedrock as fresh outcrop exposures may never heal and water run-off may render unsuitable for use. After fifty years of experience, it should be apparent what the specific methods should be for constructing and maintaining trails and facilities.

Response 1

All modern means and methods for soil and erosion will be employed. Appendix A2 "Generic Storm Water Pollution Prevention Plan" in the DEIS identifies the program elements.

Comment 2 The Commentor states: Environmental research considerations include concern for cloud water and precipitation runoff eroding effects in these areas of "high" erodeability as evidenced in a number of storm events. A lack of vigilance and maintenance of constructed trails and associated drainage has been a source of erosion problems.

Response 2

All modern means and methods for soil and erosion will be employed. Appendix A2 "Generic Storm Water Pollution Prevention Plan" in the DEIS identifies the program elements. New program elements include new training programs for staff.

Comment 3

The Commentor states: Proposals for new trails (TIP) of narrow width are unrealistic as infrastructures, i.e., lifts, power, snowmaking pipes all demand separation as well as the "snowboarder" factor, a situation /use not addressed in the UMP proposal.

Response 3

Reduced trail sizes in the Tree Island Pod (TIP) are a result of Whiteface Mountain and Olympic Regional Development Authority Staff commitment to the protection of the Bicknell's Thrush and their habitat. Skiers and snowboarders will have to adjust and adopt behaviors in these areas that will allow the trail systems and the mountain ecosystem to function in harmony.

Comment 4

The Commentor states: Some long-term ecology/forest monitoring sites also exist around the mountain which may be abolished by new trails.

Response 4

The new trail systems has been mapped using GPS technology, the Commentor suggest that there may be an effect on "some long-term ecology/forest monitoring sites". If the Commentor can provide specific location of the long-term ecology/forest monitoring sites the issue can be addressed in a defined manor.

Comment 5

The Commentor states: The cloud rime icing level occurs from 3600' upwards and can be hazardous to lift operation along with sweep direction.

Response 5 Whiteface Mountain and Olympic Regional Development Authority Staff will monitor and mitigate all operational hazards.

,

,


200 Trillium Lane Albany, NY 12203 Tel: 518-869-9731 Fax: 518-869-0737 nasnys@audubon.org http://ny.audubon.org

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Theodore Roosevelt Audubon Center 134 Cove Road Oyster Bay, NY 11771 Tel: 516-922-3200

Prospect Park Audubon Center 95 Prospect Parl: West Brooklyn, NY 11215 Tel: 718-965-8951

Rheinstrom Hill and Buttercup Farm Audubon Centers P.O. Box 1 Craryville, NY (252) Tel: 518-325-5203 19 June 2006

Jay Rand, General Manager Whiteface Mountain Ski Center Rte. 86 Wilmington, New York 12997

Dear Mr. Rand:

Thank you for the opportunity to review and comment on the Whiteface Mountain Ski Center 2006 Unit Management Plan Amendment to the 2004 Unit Management Plan and Draft Environmental Impact Statement (hereafter, the UMP Amendment).

Audubon New York, like our colleagues in the other conservation organizations active in the Adirondack Park, is very supportive of the proposed management actions described in the UMP Amendment for ski trail construction and improvement on Whiteface Mountain. Our comments are organized as follows: an introduction explaining the significance of this unit to bird conservation, a brief description of the actions proposed in the UMP Amendment that we support, and finally, some very specific comments about the contents of the UMP Amendment.

Introduction

Of paramount interest and concern for Audubon New York is the fact that Whiteface Mountain, in conjunction with other peaks over 2,800 feet in the area north of Lake Placid and Keene, is part of the Northern Adirondack Peaks Important Bird Area (IBA). Additionally, in 2001 Governor Pataki designated state-owned Adirondack peaks over 2,800 feet as the Adirondack Sub-alpine Forest Bird Conservation Area (BCA); documentation regarding which specifically mentions the inclusion of Whiteface Mountain. The primary reason for the both the IBA and BCA designations is that these peaks support multiple pairs of breeding Bicknell's Thrush, which is considered one of the highest priority bird species in the northeastern U.S., in addition to being a statelisted species of special concern. Furthermore, Bicknell's Thrush is a species for which New York has a special responsibility, because a significant proportion of its population breeds here. Bicknell's Thrush has a very limited distribution and is restricted to a narrow range of acceptable breeding habitats, including patches of young or stunted spruce-fir forests found at high elevations. The most significant threat to this species, however, is likely the loss of winter habitat on the island of Hispaniola.

Important Bird Areas of New York: Habitats Worth Protecting (Burger and Liner, 2005) states on page 157 that development projects (e.g., expansion of ski slopes) in this IBA with potential to disturb Bicknell's Thrush habitat should be monitored closely. Similarly, the Adirondack Sub-alpine Forest BCA management guidance

summary includes the following vision statement: "Continue to maintain the wilderness quality of the area, while facilitating recreational opportunities in a manner consistent with conservation of the unique bird species present." The BCA document contains additional language directing state agencies to address Bicknell's Thrush and other bird conservation concerns in individual unit management plans. We commend ORDA on their conscientious effort to amend ski trail construction and improvement plans on Whiteface Mountain in accordance with IBA and BCA recommendations. Specifically, we a pleased that ORDA chose to work constructively with the bird conservation community to assess the situation on Whiteface Mountain and to accept recommendations that accommodate the habitat requirements of Bicknell's Thrush.

UMP Amendment Actions that Audubon New York Supports

The Whiteface Mountain UMP Amendment outlines a number of modifications to the Tree Island Pod and glade ski trail construction plans that resulted from consultation with several partners in the bird conservation community, including Audubon New York. We support the following proposed actions described in the UMP:

- 1. Prohibiting trail construction activities between 15 May and 1 August, which is the most active part of the nesting season for Bicknell's Thrush.
- 2. Moving the Tree Island Pod trail a minimum of 30 meters eastward to avoid naturally occurring Bicknell's Thrush habitat.
- 3. To the extent possible, avoiding Bicknell's Thrush habitat when constructing new or widening existing ski trails.
- 4. Keeping ski trails above 2,800 feet less than 35-40 meters in width.
- 5. Feathering the vegetation at the edges of ski trails (including review of this technique at Stratton Mountain in Vermont).
- 6. Limiting vegetation clearing and understory removal in glade trails and keeping glades as narrow as possible.
- 7. Moving the New Glade trail (formerly 5a, now trail 80) to an area on the mountain with fewer balsam fir trees and lower value to Bicknell's Thrush.
- 8. Preventing unauthorized establishment of glade trails.
- 9. Maximizing the size of and minimizing the number of habitat islands within the trails.
- 10. Delaying vegetation management until after 1 August.
- 11. Developing a Bicknell's Thrush Habitat Management Plan in consultation with bird conservation groups to guide the implementation and maintenance of these proposed actions.
- 12. Creating potential new Bicknell's Thrush habitat by feathering the edges of ski lift openings and actively or passively revegetating trail edges or obsolete trails.
- 13. Consolidating existing habitat fragments.
- 14. Promoting public awareness of Bicknell's Thrush as a species of concern in the Adirondacks as well as in its winter range on Hispaniola.
- 15. Participation by ORDA and DEC on a steering committee to create and administer an international habitat conservation fund to protect Bicknell's Thrush winter habitat on Hispaniola.
- 16. Continuing short-term and baseline monitoring of Bicknell's Thrush in the project area, as well as establishing a long-term monitoring effort.
- 17. Creating a multifaceted educational program focusing on the conservation of Bicknell's Thrush and other high-elevation birds.

Specific Comments on the UMP Amendment

In the Executive Summary on page 3 of the UMP Amendment, Audubon New York is incorrectly referred to as the "New York Audubon Society." Considering that there is a different organization with a name similar to that, we request that we be identified as "Audubon New York."

On page 25, section 5.a., please include Audubon New York as one of the groups that will assist in the development of the Bicknell's Thrush Habitat Management Plan for Whiteface Mountain. Audubon New York has been an active participant in the cooperative process leading up to this UMP Amendment, and we intend to stay involved.

On page 26, section 3.a., similar to the comment above, please include Audubon New York as one of the partners that will work with ORDA to develop standards for habitat restoration and evaluation. Furthermore, we suggest explicitly stating that these standards that will be developed will be included in the Bicknell's Thrush Habitat Management Plan.

Regarding long-term monitoring (page 27, section 2.b.), we suggest that plans for long-term monitoring of Bicknell's Thrush be integrated into the Bicknell's Thrush Habitat Management Plan, such that habitat evaluation and thrush monitoring be coordinated in an adaptive management framework. Again, please include Audubon New York as one of the partners who will assist with this effort.

Finally, the UMP Amendment fails to make note of the IBA identification and BCA designation for this area. We suggest that it would be appropriate to include this information somewhere in the document, for example on page 21 and/or in the Executive Summary.

Summary Comments

Audubon New York would like to emphasize the significance of this unit as part of the larger Important Bird Area identified for its support of breeding Bicknell's Thrush, one of the highest priority birds in the northeastern U.S. The actions outlined in this UMP Amendment make a serious and significant attempt to accommodate Bicknell's Thrush and its habitat on Whiteface Mountain, in addition to creating an international habitat conservation fund to protect winter habitat on Hispaniola and therefore address the most critical threat to this species. Audubon New York thanks ORDA, as well as the DEC, the Adirondack Park Agency, and the several conservation groups for their willingness to work cooperatively toward a solution that all find suitable. Finally, thanks to Ted Blazer, Bob Hammond, and you, Jay, for your personal commitment to this process and to the conservation of Bicknell's Thrush. I and others at Audubon New York look forward to working with you to see this through.

Sincerely,

Michael F. Burger Director of Bird Conservation

Cc: David Miller, Audubon New York Al Caccese, Audubon New York Stu Buchanan, NYS DEC Region 5 Atmospheric Sciences Research Center Whiteface Mountain Field Station



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UNIVERSITY AT ALBANY STATE UNIVERSITY OF NEW YORK

TO: Mr. Jay Rand, Manager, Whiteface Mt. Ski Center

RE: Comments on UMP Expansion Proposals

The Draper Lodge Skiing Complex is approaching its fiftith anniversary with several expansion projects some of which will impact the sub-alpine zones of Whiteface. One of the original designers, Mr. Otto Schneibs insisted on two features...lifts and trails not be oriented along the prevailing wind (sweep) and keep the bulldozers off the bedrock as fresh outcrop exposures may never heal and water run-off may render unsuitable for use. After fifty years of experience, it should be apparent what the specific methods should be for constructing and maintaining trails and facilities.

Environmental research considerations include concern for cloud water and precipitation runoff eroding effects in these areas of "high" erodeability as evidenced in a number of storm events. A lack of vigilance and maintainence of constructed trails and associated drainage has been a source of erosion problems. Proposals for new trails (TIP) of narrow width are unrealistic as infrastructure, ie lifts, power, snowmaking pipes all demand separation as well as the 'snowboarder' factor, a situation/use not addressed in the UMP proposal. Some long-term ecology/forest monitoring sites also exist around the mountain which <u>may</u> be abolished by new trails. The cloud rime icing level occurs from 3600' upwards and can be hazardous to lift operation along with wind sweep direction.

An increase in winter use of the Memorial Highway to access the upper ski area has been noted and adds to the necessity of developing the Unit Management Plan for the Memorial Highway.

This written comment supplements the verbal comments made at the public hearing held on Thursday June 8, 2006. Respectfully submitted June 23,2006.

SEQRA Public Comment and Responses

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Response to Public Comments

This section presents responses to comments made on the 2006 Unit Management Plan Amendment to the 2004 Unit Management Plan and Draft Environmental Impact Statement for Whiteface Mountain Ski Center (May 2006). Comments have been summarized by the original source. Copies of comment letters are included at the end of this section.

Audubon New York, 200 Trillrum Lane, Albany, NY, Letter of 19 June 2006, Michael F. Burger

Comment 1

The Commentor states: In the Executive Summary on page 3 of the UMP Amendment, Audubon New York is incorrectly referred to as the "New York Audubon Society." Considering that there is a different organization with a name similar to that, we request that we be identified as "Audubon New York."

Response 1

Executive Summary on page 3 of the UMP Amendment, reads "New York Audubon Society", this is incorrect and shall read "Audubon New York"

Comment 2

The Commentor states: On page 25, section 5.a., please include Audubon New York as one of the groups that will assist in the development of the Bicknell's Thrush Habitat Management Plan for Whiteface Mountain. Audubon New York has been an active participant in the cooperative process leading up to this UMP Amendment, and we intend to stay involved.

Response 2

Page 25, section 5.a. of the electronic version translates to Section II, page 5 of the hard paper version shall include Audubon New York as one of the groups that will assist in the development of the Bicknell's Thrush Habitat Management Plan for Whiteface Mountain.

Comment 3

The Commentor states: On page 26, section 3.a., similar to the comment above, please include Audubon New York as one of the partners that will work with ORDA to develop standards for habitat restoration and evaluation. Furthermore, we suggest explicitly stating that these standards that will be developed will be included in the Bicknell's Thrush Habitat Management Plan.

Response 3

Page 26, section 3.a., of the electronic version translates to Section II, page 6 of the hard paper version shall include Audubon New York as one of the partners that will work with ORDA to develop standards for habitat restoration and evaluation. Section II, page 6

shall include: Habitat Restoration and Evaluation Standards shall be included in the Bicknell's Thrush Habitat Management Plan to ensure a holistic approach.

Comment 4

The Commentor states: Regarding long-term monitoring (page 27, section 2.b.), we suggest that plans for long-term monitoring of Bicknell's Thrush be integrated into the Bicknell's Thrush Habitat Management Plan, such that habitat evaluation and thrush monitoring be coordinated in an adaptive management framework. Again, please include Audubon New York as one of the partners who will assist with this effort.

Response 4

Page 27, section 2.b., of the electronic version translates to Section II, page 7, section 2b of the hard paper version shall include that plans for long-term monitoring of Bicknell's Thrush be integrated into the Bicknell's Thrush Habitat Management Plan, such that habitat evaluation and thrush monitoring be coordinated in an adaptive management framework. This effort shall include Audubon New York as one of the partners that will work with ORDA.

Comment 5

The Commentor states: Finally, the UMP Amendment fails to make note of the IBA identification and BCA designation for this area. We suggest that it would be appropriate to include this information somewhere in the document, for example on page 21 and/or in the Executive Summary.

Response 5

The following text shall be added to the Section II, page 1, paragraph 1: "Whiteface Mountain, in conjunction with other peaks over 2,800 feet in the area north of Lake Placid and Keene, is part of the Northern Adirondack Peaks Important Bird Area (IBA), as identified by Audubon New York in 2005. Additionally, in 2001 Governor Pataki designated state-owned Adirondack peaks over 2,800 feet as the Adirondack Subalpine Forest Bird Conservation Area (BCA); documentation regarding which specifically mentions the inclusion of Whiteface Mountain. The primary reason for the both the IBA and BCA designations is that these peaks support multiple pairs of breeding Bicknell's Thrush, which is considered one of the highest priority bird species in the northeastern U.S., in addition to being a state-listed species of special concern."

University at Albany, Atmospheric Science Research Center, Whiteface Mountain Field Station, Letter of 23 June 2006, Douglas Wolfe

Comment 1

The Commentor states: The Draper Lodge Skiing Complex is approaching it's fiftieth anniversary with several expansion projects some of which will impact the sub-alpine zones of Whiteface. One of the original designers Mr. Otto Schneibs insisted of two features... lifts and trails not be oriented along the prevailing wind (sweep) and keep the bulldozers off the bedrock as fresh outcrop exposures may never heal and water run-off

may render unsuitable for use. After fifty years of experience, it should be apparent what the specific methods should be for constructing and maintaining trails and facilities.

Response 1

All modern means and methods for soil and erosion will be employed. Appendix A2 "Generic Storm Water Pollution Prevention Plan" in the DEIS identifies the program elements.

Comment 2 The Commentor states: Environmental research considerations include concern for cloud water and precipitation runoff eroding effects in these areas of "high" erodeability as evidenced in a number of storm events. A lack of vigilance and maintenance of constructed trails and associated drainage has been a source of erosion problems.

Response 2

All modern means and methods for soil and erosion will be employed. Appendix A2 "Generic Storm Water Pollution Prevention Plan" in the DEIS identifies the program elements. New program elements include new training programs for staff.

Comment 3

The Commentor states: Proposals for new trails (TIP) of narrow width are unrealistic as infrastructures, i.e.. lifts, power, snowmaking pipes all demand separation as well as the "snowboarder" factor, a situation /use not addressed in the UMP proposal.

Response 3

Reduced trail sizes in the Tree Island Pod (TIP) are a result of Whiteface Mountain and Olympic Regional Development Authority Staff commitment to the protection of the Bicknell's Thrush and their habitat. Skiers and snowboarders will have to adjust and adopt behaviors in these areas that will allow the trail systems and the mountain ecosystem to function in harmony.

Comment 4

The Commentor states: Some long-term ecology/forest monitoring sites also exist around the mountain which may be abolished by new trails.

Response 4

The new trail systems has been mapped using GPS technology, the Commentor suggest that there may be an effect on "some long-term ecology/forest monitoring sites". If the Commentor can provide specific location of the long-term ecology/forest monitoring sites the issue can be addressed in a defined manor.

Comment 5

The Commentor states: The cloud rime icing level occurs from 3600' upwards and can be hazardous to lift operation along with sweep direction.

Response 5

Whiteface Mountain and Olympic Regional Development Authority Staff will monitor and mitigate all operational hazards.

ERRATA

Revisions

This section presents revisions to the May 2006 DEIS.

Revision 1

Table of Contents, List of Figures, Tables and Appendices; Revise: "Section VIII – Figures and Photo" to "Section VIII – Figures"

Revision 2

Section I, page 2, first paragraph; Revisetotal trail mileage at Whiteface Mountain (WFM) to 24.96 miles...; Shall be revised tototal trail mileage at Whiteface Mountain (WFM) to **24.02** miles...

Revision 3

Section I, page 10, first paragraph; Add "The new facility would allow for the removal of the existing temporary yurt structures and the modular building from the Easy Acres Campus. These temporary structures will be relocated within the Base Campus area to support the improvement of 770 sf of locker and ticketing space and 350 sf for additional offices, storage and conference space for administration, 336 sf of expansion of employee lockers/lounge space approved in previous UMP's. The temporary structures will be removed at the completion of the Base Campus improvements"

Revision 4

Section I, page 10, second paragraph; Add "Final design of the Easy Acres Campus buildings may involve rearrangement of the space utilization plan, including moving food service activities to the new building and retaining rental, ticketing, guest services, etc in the existing, to-be expanded building if deemed more suitable."

Revision 5

Section I, page 11, Fourth Bullet; Add "Final design of the Easy Acres I will include review of utilization and possible connection to previously approved IST's on the WFM complex." Section I, page 11, Fourth Bullet; Add "Final design of the Easy Acres Individual Sanitary Treatment (IST) will include review of utilization and possible connection to previously approved IST's on the WFM complex."

Revision 6

Section II, page 4, Remove "Article I"

Revision 8

Section VIII – Figures, Ski Trails, Figure F2, Proposed Trail and Lift Increase, Correct "Edge of Existing Trials and Dense Vegetation" to "Edge of Existing **Trails** and Dense Vegetation".

Revision 9

Section VIII – Figures, Ski Trails, Figure F2, Proposed Trail and Lift Increase, Remove "Potential Wind Monitoring Site"