WHITEFACE

Proposed Final

2018~~7~~ Amendment to the 2004 Whiteface Mountain Unit Management Plan and ~~Draft~~ Final Generic Environmental Impact Statement

(~~Public Draft~~)

NEW YORK STATE OF OPPORTUNITY.

Olympic Regional Development Authority

MarchJanuary 2018

Lead Agency and Prepared by:
The Olympic Regional Development Authority
2634 Main Street, Lake Placid, New York 12946
(518) 302-5332
Contact: Robert W. Hammond
and
Whiteface Mountain Ski Center
Route 86 Wilmington, New York 12997
(518) 946-4201
Contact: Aaron Kellett

In cooperation with:
The NYS Department of Environmental Conservation
and in consultation with:
The Adirondack Park Agency
Ray Brook, New York 12977

Private Consultants:
The LA Group, Landscape Architecture and Engineering, P.C.
40 Long Alley, Saratoga Springs, New York 12866
(518) 587-8100
Contact: Kevin Franke

Date of Acceptance of DGEIS: January 3, 2018
Date of Public Hearing: January 25, 2018
Date of Close of Comment Period: February 9, 2018
Date of Acceptance of FGEIS: _____

Submitted: ~~December 8~~February ___, 201~~7~~8

EXECUTIVE SUMMARY

I. INTRODUCTION

This 2018~~7~~ Unit Management Plan (UMP) ~~Draft~~ Amendment for Whiteface Mountain Intensive Use Area has been prepared in accordance with the Adirondack Park State Land Master Plan (APSLMP or SLMP), addresses changes to the 1996 UMP Update and the 2004 UMP Update and Amendment thereto, and adds several new management actions. This 2018~~7~~ UMP ~~Draft~~ Amendment reviews the status of the 1987, 1996~~, and~~ 2004 and 2006 management actions and identifies those management actions that have been completed, those that are pending, and those that are to be modified or abandoned through this 2018~~7~~ UMP Amendment. Previous UMP documents are incorporated by reference into this document.

Section 816 of the Adirondack Park Agency Act directs the Department of Environmental Conservation (DEC) to develop, in consultation with the Adirondack Park Agency (APA), UMPs for each unit of land under its jurisdiction classified in the APSLMP. Concurrent with the development of UMPs is the preparation of a Generic Environmental Impact Statement (GEIS), which analyzes the significant impacts and alternatives related to each UMP. The Olympic Regional Development Authority (ORDA), pursuant to its enabling law and agreement with the NYSDEC for the management of Whiteface Ski Center, has prepared this UMP ~~Draft~~ Amendment in cooperation with DEC and in consultation with APA.

II. 2017~~7~~8 UMP AMENDMENT MANAGEMENT ACTIONS

New management actions are identified and analyzed in this 2018~~7~~ UMP ~~Draft~~ Amendment. The potential environmental impacts and the attendant proposed mitigation measures for any new or modified management actions are also identified and discussed. The potential impacts and the identified mitigation measures for the previously approved UMP management actions remain in effect and will not be repeated here, but are incorporated by reference.

The following lists the New Management Actions that are the subject of this UMP ~~Draft~~ Amendment and that can be undertaken after the UMP Final Amendment is adopted. See **Figure** ES-1, 2017~~7~~8 Master Plan – Proposed & Previously Approved Actions.

New Downhill Trails and Lifts

- Extend Bear Den's lift (Bunny Hutch or Lift C), with related trail work
- Widen Easy Way
- Widen Brookside
- Widen Easy Street
- Widen Upper Boreen
- Widen Boreen Loop
- Widen Parkway Exit
- Widen Drapers Drop
- Construct New Intermediate Trail 12a on Little Whiteface

- Extend and Replace the Bear Lift (Lift B)
- Replace and Realign Freeway Lift (Lift I)

Parking and Vehicular Circulation
- Create additional parking
- Create a formal drop-off area at Bear Den
- Construct a base area bridge behind NYSEF building to replace existing culverts
- Possible second bridge over West Branch Ausable River (Conceptual Action)

Pedestrian Circulation
- Install a People Mover Between Parking and Base Lodge (Conceptual Action)
- Install a Base to Base transfer lift (Conceptual Action)

Snowmaking
Examine options for a snowmaking reservoir (Conceptual Action)

Off-Season
Add biking trails from mid-station

These management actions are discussed in the context of existing resources, facilities and use (Section 2) and ORDA's Management and Policy when it comes to the Whiteface Mountain Intensive Use Area (Section 3). The management actions themselves are described in detail in Section 4.

An introductory section (Section 1) first gives an overview of project purpose, a general facility description, the history of the ski area, a description of the UMP/GEIS process and a summary update of the status of actions contained in previous UMPs.

III. SEQRA PROCESS

ORDA, as the Agency responsible for undertaking the actions in this 2018~~87~~ UMP ~~Draft~~ Amendment/~~D~~FGEIS, completed a NY State Environmental Quality Review Act (SEQRA) Full Environmental Assessment Form (FEAF)Parts 1, 2, and 3. Based on the analysis in Part 3 of the FEAF, ORDA determined that the Project may result in one or more significant adverse impacts on the environment and this Environmental Impact Statement (EIS) must be prepared to further assess the impacts and possible mitigation and to explore alternatives to avoid or reduce these impacts.

The SEQRA aspects of this document are presented as a Generic Environmental Impact Statement (GEIS). A GEIS may be used to assess the environmental effects of a sequence of actions contemplated by a single agency or an entire program or plan having wide application (6NYCRR 617.10(a)(2) and (4)). They differ from a site specific EIS in that it applies to a group of common and related activities which have similar or related impacts. It is the intent of this GEIS to provide sufficient, site-specific information for all aspects of the UMP. In

conformance with SEQRA, these related actions are being considered in this ~~D~~FGEIS. No additional SEQRA analyses are anticipated to be required for any new management action in this UMP Amendment, provided that such actions are carried out in accordance with the recommendations of this document. Conceptual actions contained in this UMP Amendment will be subject to future SEQRA analyses should they be pursued in the future.

A preliminary version of the~~is~~ UMP Draft Amendment/DGEIS was provided to NYSDEC and to the APA for their review on December 8, 2017. Comments from these agencies were received by ORDA, and ORDA revised the preliminary document accordingly. ORDA then declared th~~is~~e document to be complete for public review on January 3, 2018. Notice of ORDA's acceptance of the DGEIS, establishment of the public comment period, and directions for accessing this document were published in the January 10, 2018 issue of the Environmental Notice Bulletin. The Public Draft of this document was presented to the NYS APA at their January 11, 2018 Agency meeting.

The~~is~~ 2018~~7~~ UMP Amendment/DGEIS was~~is~~ open for public comment until February 9, 2018 including a SEQRA public hearing ~~scheduled for~~held on January 25, 2018 at 7:00 PM at the Base Lodge at Whiteface Mountain~~.~~ Responses were prepared to comments received at the public hearing and written comments submitted during the public comment period. A transcript of the public hearing, copies of written comments and responses to comments are included in this FGEIS. Also included in this FGEIS is an errata section that summarizes the changes that were made to the DGEIS when preparing this FGEIS.

~~Notice of ORDA's acceptance of the DGEIS, establishment of the public comment period, and directions for accessing this document were published in the January 10, 2018 issue of the Environmental Notice Bulletin.~~

Part 3 of the FEAF identified those topics for which additional information was required within the GEIS. Primary concerns include steep slope soil erosion and water quality, water quality impacts and potential impacts to the Bicknell's thrush, a species of special concern in New York State. Potential impacts and mitigation measures for these topics and a range of other topics are discussed in detail in Section 5 of this ~~Draft~~ UMP/FGEIS.

Section 6 considers alternatives to the new management actions including alternative trail improvements, lift configurations, parking and circulation and appurtenances.

IV. CONFORMANCE WITH THE APSLMP

It is stated in Section I of the APSLMP that "In accordance with statutory mandate, all [unit management] plans will conform to the guidelines and criteria set forth in the master plan …."

The following is from Intensive Use Area portion of Section II of the APSLMP, and includes descriptions of how this ~~draft~~ UMP amendment conforms to the stated guidelines.

Guidelines for Management and Use

Basic Guidelines

1. *The primary management guideline for Intensive Use Areas will be to provide the public opportunities for family group camping, developed swimming and boating, downhill skiing, cross country skiing under competitive or developed conditions on improved cross country ski trails, visitor information and similar outdoor recreational pursuits in a setting and on a scale that are in harmony with the relatively wild and undeveloped character of the Adirondack Park.*

   The Whiteface Mountain Intensive Use Area will continue to provide opportunities for downhill skiing and similar outdoor recreational pursuits.

   There are no new management actions in this ~~Draft~~ UMP Amendment that change the current setting or scale of the facilities at Whiteface Mountain. All new management actions are proposed for the interior of the existing ski area. Three existing ski lifts will be realigned and replaced, while another surface lift (Magic Carpet) will be added in the Bear Den learning area. Selective trail widening will occur on existing trails. Some limited new ski trails are proposed to be constructed in between existing ski trails in order to provide connections from the relocated/realigned lifts to existing trails.

2. *All intensive use facilities should be located, designed and managed so as to blend with the Adirondack environment and to have the minimum adverse impact possible on surrounding state lands and nearby private holdings. They will not be situated where they will aggravate problems on lands already subject to or threatened by overuse, such as the eastern portion of the High Peaks Wilderness, the Pharaoh Lake Wilderness or the St. Regis Canoe Area or where they will have a negative impact on competing private facilities. Such facilities will be adjacent to or serviceable from existing public road systems or water bodies open to motorboat use within the Park.*

   All of the new management actions proposed in this UMP Amendment in the Bear Den area are located low on the mountain where they will not cause a visual impact (see UMP section V.C.I). Those improvements and structures proposed higher on the mountain, such as trail 12a, the previously approved, but not yet constructed trail 73a, and the tops of the realigned Freeway and Bear lifts will blend in with the existing on-mountain facilities. (See UMP section V.C.I, featuring a visual simulation of the built condition looking into the mountain from NYS Route 86 at the entrance driveway.)

   All actions are located in the interior of the Intensive Use Area, removed from adjoining State and private lands. This UMP amendment is not proposing any significant enlargement of the ski area, so there is no potential for adversely affecting lands subject to or threatened by overuse or competing private facilities.

3. *Construction and development activities in Intensive Use Areas will:*

-- avoid material alteration of wetlands;
Impacts to wetlands have been avoided (see UMP section V.A.5).
-- minimize extensive topographic alterations;
No extensive topographic alterations are proposed (see UMP section V.A.3).
-- limit vegetative clearing;
Vegetative clearing will be limited and will be well within the limits established by Article 14 of the NYS Constitution (see UMP section V.B.1).
and,
-- preserve the scenic, natural and open space resources of the Intensive Use Area.
See items 1 and 2 above.

4. *Day use areas will not provide for overnight camping or other overnight accommodations for the public.*

No overnight accommodations, camping or otherwise, are proposed.

5. *Priority should be given to the rehabilitation and modernization of existing Intensive Use Areas and the complete development of partially developed existing Intensive Use Areas before the construction of new facilities is considered.*

The actions contained in this ~~draft~~ UMP amendment are for the improvement and modernization of the existing Whiteface Mountain Intensive Use Area.

6. *Additions to the intensive use category should come either from new acquisitions or from the reclassification of appropriate wild forest areas, and only in exceptional circumstances from wilderness, primitive or canoe areas.*

No such additions are contemplated in this UMP Amendment.

7. *Any request for classification of a new acquisition or reclassification of existing lands from another land use category to an Intensive Use Area will be accompanied by a draft unit management plan for the proposed Intensive Use Area that will demonstrate how the applicable guidelines will be respected.*

No such requests are contemplated in this UMP Amendment.

8. *No new structures or improvements at any Intensive Use Area will be constructed except in conformity with a final adopted unit management plan for such area. This guideline will not prevent the ordinary maintenance, rehabilitation or minor relocation of conforming structures or improvements.*

None of the new management actions proposed in this UMP ~~Draft~~ Amendment will be

constructed unless and until they are included in the Final UMP Amendment adopted by NYSDEC.

9. *Since the concentrations of visitors at certain intensive use facilities often pose a threat of water pollution, the state should set an example for the private sector by installing modern sewage treatment systems with the objective of maintaining high water quality. Standards for the state should in no case be less than those for the private sector and in all cases any pit privy, leach field or seepage pit will be at least 150 feet from the mean high water mark of any lake, pond, river or stream.*

   No new in-ground wastewater treatment is proposed.

10. *Any new, reconstructed or relocated buildings or structures located on shorelines of lakes, ponds, rivers or major streams, other than docks, primitive tent sites not a part of a campground (which will be governed by the general guidelines for such sites set forth elsewhere in this master plan) boat launching sites, fishing and waterway access sites, boathouses, and similar water related facilities, will be set back a minimum of 150 feet from the mean high water mark and will be located so as to be reasonably screened from the water body to avoid intruding on the natural character of the shoreline and the public enjoyment and use thereof.*

    No new buildings or structures are proposed near any shorelines.

V. IMPACT ANALYSIS

A. Geology

Bedrock is at or near the ground surface in many locations in the Whiteface Mountain Intensive Use Area.

The intermediate trail (73), previously approved but not yet constructed between the relocated Freeway Lift and the Gondola, is in an area that is predominantly Hogback- Knob Lock complex soil series. Depth to bedrock is listed as 9-14 inches for this soil series. The proposed new intermediate trail (12a) that would connect Approach to the bottom of Upper Empire is in the same soil series as well as in the Ricker-Couchsachraga- Skylight complex with bedrock listed as 9 to 15 inches. The upper lift towers and the upper lift terminal for the relocated Freeway lift will be installed in these same soils. Blasting may be required during the construction of these trails and lift components.

The summit of Whiteface Mountain is characterized as a “Unique Geological Feature” and is described in the NYSDEC Environmental Resource Mapper as “cirques” and “aretes.” A cirque is an amphitheater-like valley formed by glacial erosion. Aretes are sharp created ridges in rugged mountains. No new management actions are proposed in proximity to the Whiteface Mountain summit, so there will be no impacts to this unique geological feature.

ORDA will employ the services of a professional, licensed and insured blasting company to perform any needed blasting. Blasters in New York State are required to possess a valid NY State Department of Labor issued Explosive License and Blaster Certificate of Competence. The Explosives License permits the licensee to purchase, own, possess or transport explosives. The Blaster Certificate of Competence permits the use of explosives.

If it is determined that blasting will be required, a written blasting plan will be developed and approved prior to the commencement of blasting. In general, the blast plan will contain information about the blasting methods to be employed, measures to be taken to protect the safety of the public, and how the applicable rules and regulations will be complied with. If, during the evolution of the project, there are significant changes in the blast design, a new blast plan will be required.

See Section V.A.1 for a full description of all of the measures ORDA will implement to mitigate potential impacts from any blasting that may be required.

B. Soils

Erosion potentials for soils in the Intensive Use Area are provided in Section 2.A.1.b. Erosion potentials are slight, moderate or severe.

Activities in areas south of the FaceLift on the slopes of Little Whiteface are in soils with severe erosion potential. To the north of Freeway, and in all lower elevation areas, soils have mostly moderate erosion potentials. The C soils at the lowest elevations such as Monadnock and Adams have slight erosion potentials.

Disturbance of areas of steep slopes during construction for ski trails, lifts, etc., can lead to an increased vulnerability of the soils to erosion. Suitable measures must be implemented to first prevent soil erosion and then second to make sure that any soils that are eroded are contained and prevented from causing sedimentation in receiving waters.

ORDA is familiar with implementing proper erosion and sediment control practices when undertaking construction practices at their venues that oftentimes involve construction on steep slopes. These proper practices are set forth in the New York State Standards and Specifications for Erosion and Sediment Control (last updated November 2016). These standards and specifications will be used to develop Stormwater Pollution Prevention Plans (SWPPPs) for construction activities in accordance with NYSDEC's SPDES General Permit for Stormwater Discharge from Construction Activity GP-0-15-002.

SWPPPs will detail those measures that will be implemented during construction to mitigate potential soil erosion and surface water sedimentation. SWPPP content will include such things as construction sequencing and phasing, temporary and permanent stabilization, structural erosion control practices and vegetative control practices. SWPPs will include requirements for monitoring, inspections, data collection, and compliance documentation.

Section V.A.2 provides a lengthy and detailed description of mitigation measures that ORDA commonly and successfully employs during ski area construction activities that will be incorporated into pre-construction SWPPP plans and specifications, and installed, monitored and maintained during construction until soils become stabilized.

C. Topography and Slope

Very limited grading is required for new ski trails, trail widening or ski lifts. Trails are laid out to follow natural fall lines. Lift grading is limited to the upper and lower terminals and at the tower foundations.

More significant grading will be required to create the additional 100 car parking spaces in the bus parking lot. Up to 15 feet of fill will be required to create the additional parking spaces on the west side of the lot. All of the graded area that is not actual parking lot surface will be revegetated.

Impacts associated with grading involve erosion and sediment control (see the previous section) and protection of water resources (see the following sections).

D. Water Resources

The stream crossing for Trail 89 will require installation of a bottomless arch culvert. Previously there was a culverted crossing at this location, but those culverts were removed when the former trail was abandoned.

Trail 88 will require the removal of the existing culverted stream crossing and the installation of a longer bottomless arch culvert.

The existing “culvert 2” in the base area, which is actually 3 individual culverts next to each other, will be removed and replaced with a bridge crossing.

A skier bridge will be constructed for Trail 92 just above the NYSEF building.

Expansion of the Bus Lot may require a slight re-route of the diversion ditch previously constructed by NYSDOT.

Mitigation Measures

(1.) All efforts should be made to construct/reconstruct the Trail 88 and Trail 89 stream crossings when streams are not flowing.

(2.) If natural streamflows don’t allow for dry construction/reconstruction for Trails 88 and 89, then the crossings should be installed in the dry using temporary upstream damming

(i.e. sandbags or similar) and a pump around.

(3.) Any pump arounds shall be discharged to a stable streambed reach with minimal amounts of material that could become dislodged.

(4.) If a mid-span abutment is still proposed in the construction drawings for the Trail 92 bridge, efforts shall be made to keep this (and all other bridge abutments) outside of the stream channels. Use of pre-cast abutments for bridges and arch culverts is preferred.

(5.) No machinery shall operate from within the stream channel.

(6.) Machinery should be regularly maintained and checked frequently for fluid leaks. Any machine found to have even a minor fluid leak shall be removed to a remote area for repairs.

(7.) Machinery operating in the vicinity of streams shall be equipped with spill control materials including absorbent pads.

(8.) Any concrete forms in proximity to surface waters shall be tightly sealed.

(9.) Structural erosion controls shall be installed, inspected and maintained until areas of disturbance become fully stabilized with vegetation, stone or other materials.

E. Wetlands

No impacts to wetlands have been identified.

F. Climate and Air Quality

No new permanent sources of air emissions are proposed as part of this UMP.

Construction activities may result in localized increases in dust levels. However, areas of proposed construction are located within the interior of the intensive use areas, so no offsite areas are expected to be affected.

Many ORDA venues exist within the boundaries of State protected lands and the impact of climate change on our environment is recognized. ORDA will be a leader in environmental stewardship with consistent commitment to sustainability, responsible development practices, and continuous communication with DEC, APA, and other regulatory agencies to ensure we are taking the appropriate measures.

G. Vegetation

Essentially all of the new management actions proposed in this UMP ~~Draft~~ Amendment will

occur in the Northern Hardwood community. No management actions are proposed in areas of Spruce-Fir communities.

In summary, the following acreages of wooded areas will be affected:

- New Downhill Trails: 10.6 acres
- Widen Existing Trails: 9.2 acres
- Realign/Extend Lifts: 6.4 acres

Total: 26.2 acres

A total of 22,049 trees will be cut. Of this total, 9,466 will be between 3 and 4 inches dbh, and 12,583 will be greater than 4 inches dbh.

Tree cutting is proposed on approximately 1% of the Intensive Use Area, and falls within the capacity of the resource to absorb the impact.

All tree cutting will be done in compliance with the DEC tree cutting policy LF-91-2.

No rare, threatened or endangered plant species will be impacted.

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.

Upon the completion of clearing of new ski trails and ski lift corridors, they will be seeded with grass mixtures to promote rapid revegetation. Areas disturbed for any other improvements will also be landscaped and revegetated as soon as practicable.

Plants used to revegetate disturbed areas and planted as part of landscaping will be species indigenous to the region.

H. Wildlife

The actions proposed in this UMP are expected to have minimal impacts on wildlife. Proposed management actions are interspersed within the landscape of the existing developed ski trails and lifts. For the most part, new management actions are proposed at low elevations on the mountain. (See Critical Habitat below for a discussion of activities above 2,800 feet elevation and Bicknell's thrush).

Almost all of the actions proposed in this UMP will occur in the Northern Hardwood community.

Trail widening projects, including the green trails in the Bear Den area, involve existing trails. This will result in the loss of some currently treed areas along the edge of existing ski trails and will move the forest edge slightly inward.

New Trails 88 and 89 are in areas that were previously disturbed with a lift and trail before the upper terminal for the Bunny Hutch lift was moved down the mountain.

The relocation/realignment of the Bear and Freeway lifts will take place in the area that is north of the gondola line and south of the Face Lift, an area already highly dissected by existing ski trails and lift lines.

Additional parking at the bus parking lot is an expansion of the current parking lot.

The creation of the formal drop-off at Bear Den and the additional biking trails from Mid-Station do not involve any impacts to wildlife habitat.

I. Fisheries

ORDA will continue to comply with its MOU with DEC that regulates water withdrawals from the West Branch AuSable River that was developed to be protective of fisheries resources.

J. Unique Areas

There are no unique biological areas present in the Intensive Use Area.

K. Critical Habitat

The upper portion of the relocated Freeway Lift and the new trail 12a are proposed on lands 2,800 feet in elevation or higher. The upper portion of the previously approved, but not yet constructed, trail 73 is also located above 2,800 feet. None of these proposed improvements or related structures are located in spruce-fir habitat.

ORDA will continue to implement the comprehensive set of measures designed to mitigate impacts to Bicknell's thrush contained in section II.B of the 2006 UMP amendment. These mitigation measures include, but are not limited to, prohibiting tree cutting above elevation 2,800 feet between May 15 and August 1, limiting the width of new trails above 2,800 feet to 115 to 131 feet (35-40m), and maintaining trails and lifts with feathered vegetation on wind exposed sides.

L. Visual Resources

The Bear Den portion of Whiteface is blocked from view from surrounding areas by intervening landforms. None of the activities in the Bear Den area will be visible from offsite.

Higher elevation activities that include the realignments of the Bear and Freeway lifts, construction of the approved, but not yet constructed, Trail 73 and possibly the new Trail 12a may be visible from three locations. These three locations are: VP2, NYS Route 86 overlooking Beaver Brook Meadow; VP5, Fox Farm Road; and VP6 NY Route 86 at the entrance to Whiteface.

A visual simulation of the built condition was created for the "worst case" view which is looking into the ski area from the entrance on NYS Route 86 (VP6). The proposed components, with the exception of Trail 12a which is not visible, are visible within the context of the existing ski area trails and lifts and do not cause a significant change in the character of the view.

M. Transportation

None of the proposed new management actions are intended to significantly increase the carrying capacity of Whiteface. The addition of 100 spaces to the bus lot only represents a 5% increase in the amount of available parking. The new proposed management actions will not result in significantly higher traffic generation over what currently exists.

N. Community Services

There will be some increase in demand for community services such as fire, EMS, police, rescue, solid waste and health care. However, Whiteface Ski Center presently makes very little demand on such services and the increase in such demand is anticipated to be minimal.

O. Local Land Use Plans

The actions in the UMP ~~Draft~~ Amendment are entirely consistent with local, regional and ORDA efforts to enhance an attractive year-round day use recreation area.

P. Historical and Archaeological Resources

On November 9, 2017 NYS Office of Parks Recreation and Historic Preservation issued a letter stating that the project will not impact historical or archeological resources.

VI. ALTERNATIVES ANALYSIS

Section 6 of the UMP contains an analysis of alternatives to the proposed management actions. Alternatives were examined for trail improvements, lift configurations, parking and circulation improvements, and the no-action alternative. Information is provided as to why the proposed management actions are the preferred alternatives from a ski area operations standpoint, while at the same the proposed actions have avoided significant adverse environmental impacts as compared to other alternatives considered.

Whiteface ~~(Public Draft)~~
Proposed Final 2018~~7~~ Amendment to the 2004 Unit Management Plan and
Final~~Draft~~ Generic Environmental Impact Statement

Executive Summary

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AADT	Average Annual Daily Traffic
ACOE	US Army Corps of Engineers
APA	NYS Adirondack Park Agency
APSLMP	Adirondack Park State Land Master Plan
CCC	Comfortable Carrying Capacity
cfs	Cubic Feet per Second
DEC	NYS Department of Environmental Conservation
ENB	Environmental Notice Bulletin
EOC	Emergency Operations Center
FEAF	Full Environmental Assessment Form
GEIS	Generic Environmental Impact Statement
Mgal	Million Gallons
MOU	Memorandum of Understanding
NPS	Net Promoter Score
NYNHP	New York Natural Heritage Program
NYSDOT	New York State Department of Transportation
NYSEF	New York Ski Education Foundation
NYSEG	New York State Electric and Gas

ORDA	NYS Olympic Regional Development Authority
SEQRA	NY State Environmental Quality Review Act
SPDES	State Pollution Discharge Elimination System
SWPPP	Stormwater Pollution Prevention Plan
UMP	Unit Management Plan
USDA NRCS	US Department of Agriculture Natural Resource Conservation Service

SECTION I INTRODUCTION

A. Project Purpose

ORDA, the Olympic Regional Development Authority, is amending the 2004 Unit Management Plan (UMP) for Whiteface Mountain Intensive Use Area (Whiteface) located in the Town of Wilmington, Essex County, New York. Included in this UMP Amendment, is a Generic Environmental Impact Statement (GEIS), which evaluates potential impacts of identified improvements along with an evaluation of viable alternatives.

Section 816 of the Adirondack Park State Land Master Plan (APSLMP or SLMP) directs the New York State Department of Environmental Conservation (NYSDEC) to develop UMPs for State lands in the Adirondack Park. This UMP Amendment satisfies requirements to develop a Unit Management Plan for each unit of land classified under jurisdiction of the APSLMP in consultation with the Adirondack Park Agency (APA).

This UMP Amendment is a tool used to assess existing natural resources, facilities, lifts, ski trails, management objectives, operations and systems of Whiteface. UMP Amendments are to be used as the basis for actions that meet the projected needs of competitive year-round recreational day-use facilities. The GEIS has been prepared in accordance with the requirements of the State Environmental Quality Review Act (SEQRA), and in compliance with Article 8 of the Environmental Conservation Law. The level of site-specific information and impact analysis for the proposed management actions is sufficient to satisfy site-specific SEQRA requirements. Similarly, this document meets the standards and regulations pertaining to the SLMP.

The GEIS meets the requirements set forth by SEQRA by analyzing the proposed new management actions and their potential to cause significant, adverse environmental impacts. The purpose of a GEIS is to produce a written document that can be used to assess the environmental implications of a broad-based action. In this case, the action involves proposed improvements within the Intensive Use Area boundaries of Whiteface. A unique feature of a GEIS is that it allows the identification and analysis of the cumulative effects of a group of actions or combination of effects from a single action. More specifically, these include the effects ranging from a single action to a group of actions regarding the proposed improvements to Whiteface in terms of ski trails, lifts, facilities and management operations system. As a GEIS, the document takes a hard look at all of the actions contemplated in this UMP. However, as individual actions are implemented, if additional permits or approvals are required, additional environmental review will occur to determine if any environmental impacts exist that have not been evaluated in this GEIS. A separate determination under SEQRA will be made for each such project or activity that requires a permit or approval. Conceptual actions in this UMP Amendment will require further SEQRA analysis if they are pursued in the future.

This UMP Amendment presents prioritized management actions to update facilities, lifts, ski trails, management, operations and systems at Whiteface. The primary objective of the UMP/GEIS is to continue the maintenance and operation of Whiteface at a constant level over the ensuing five-year management period in such a way that will contribute to stabilizing Olympic Region employment, economics, public recreation and governmental administration. Additional objectives include improving facilities that will add to intermediate and beginner terrain on the mountain, increase user safety, and enhance recreational pursuits. Many of the improvements listed in this UMP Amendment are safety-related and pertain directly to present needs of the mountain in terms of customer expectations and the safety of all levels of skiers. Primarily, the proposed improvements are designed to spread traffic out in order for skiers and riders to experience less congestion on trails, which makes it safer and more enjoyable for all.

The purpose of the UMP Amendment/GEIS is to update the 2004 UMP with regards to the environmental setting, management objectives, and management actions, along with the analysis of the associated environmental impacts of those objectives and actions. This document will provide the foundation for ORDA's management decisions and capital expenditures through the year 2022.

B. Brief Overview

Whiteface Mountain Ski Center (a.k.a. Whiteface, the Ski Center) is a New York State-owned facility operated by ORDA to provide the public with an intensive form of recreation for both the spectator and participant.

Host of the alpine skiing events of the 1980 Olympic Winter Games, Whiteface is located nine miles northeast of Lake Placid. Whiteface provides diverse opportunities for year-round pubic use including competitive and recreational downhill skiing, cross-country skiing, hiking, mountain biking and summer scenic gondola rides.

Whiteface Mountain derived its name from the white anorthositic bedrock exposed on the northern flanks and summit of the mountain. The unique topography of Whiteface is unparalleled in the northeast ski industry with the greatest vertical drop east of the Mississippi: 3,430 feet. The unique terrain accommodates all levels of skiing abilities in this natural and scenic setting. There are a total of 80 trails that are suitable for all skier ability levels from beginner to expert. Snowmaking covers approximately 99% of the trails at Whiteface, or 223 acres. Whiteface has a total of eleven lifts including one gondola, one high speed detachable quad chairlift, one fixed quad chairlift, two triple chairlifts, five double chairlifts and one surface conveyor lift. The mountain mass (Whiteface Mountain) is characterized by three separate peaks, Whiteface, Little Whiteface and Lookout, and contains separate, but interconnected, ski terrain on the lower mountain called Bear Den. See **Figure 1**, Existing Conditions.

C. General Facility Description

1. Location Description

Whiteface Mountain, located in the Town of Wilmington, Essex County, is approximately nine miles northeast of the Village of Lake Placid on New York State Route 86 (NYS Route 86). The Ski Center rests in the northeastern portion of the Adirondack Park approximately 2 ½ hours north of Albany and 2 hours south of Montreal (see **Figure 2**, Regional Location Map). A paved access road leads from Whiteface to Route 86. Route 86 runs northeast/southwest in this general vicinity and connects the Town of Wilmington to the heart of the Olympic Village in Lake Placid. This road also follows the general configuration of the West Branch of the Ausable River. See **Figure 3**, Site Location Map.

2. Property Description

Whiteface Mountain Ski Center, as identified in the Adirondack Park State Land Master Plan, is classified as an Intensive Use Area. See **Figure 4**, Intensive Use Area Boundary. The property covers a total of 2,910 acres. Approximately 8% or 242.7 acres (the slide area is an additional 35 acres) of the site has been developed for ski trails, lifts, lodge facilities, roads and parking.

Whiteface is significant in that it is designated as Forest Preserve Land and, as such, must be managed consistent with Article 14 of the New York State Constitution. Adjacent land use classifications include State and private land. State land classified as Wild Forest is located to the north of Whiteface, while Wilderness is located to the south and west. Some private land uses adjacent to Whiteface are located toward the Hamlet of Wilmington. Such private land uses classified by the APA include Resource Management, Rural Use, Low Intensity Use, and Moderate Intensity Use. See **Figure 5**, Surrounding Land Use Classifications, that illustrates Whiteface boundaries and surrounding property.

D. Historical Overview

1. Constitutional Amendment

Whiteface is located on NYS State Forest Preserve lands and is, therefore, governed by Article 14 of the NYS Constitution (the "forever wild" provision).

Article 14 strictly controls the use of Forest Preserve lands, allows for no alienation of these lands, and prohibits the cutting or removal of vegetation. Vegetative cutting for the ski trails at Whiteface Mountain is allowed pursuant to a specific amendment to Article 14, which allows a specified width and a specified number of linear miles for ski trails on the north, east and northwest slopes of the mountain.

This amendment was approved by a State referendum in November 1941 and became effective on January 1, 1942. It allowed for the construction and maintenance of 20 miles of ski trails on the northern, eastern and northwestern slopes of Whiteface Mountain. Additional limitations included that trails be restricted to a minimum of 30 feet wide to a maximum of 80 feet wide. This was amended in 1988 to allow for up to 25 miles of trails with related amendments to allowable trail widths.

Following World War II, during the administration of Governor Dewey, development was undertaken on the northeast flank of Whiteface Mountain outside of the present-day Intensive Use Area. This site was used briefly as a ski center then was later abandoned. It currently houses the State University of New York Atmospheric Sciences Research Center.

2. Adirondack Mountain Authority

Governor Harriman signed into law the Main-McEwen bill in 1957 authorizing development of the ski center. Whiteface was officially opened on January 25, 1958 and dedicated to the Mountain Ski Troops of World War II. The Ski Center opened with two chairlifts and has been operating as a recreational area open to the public during seasonal recreation periods.

The Adirondack Mountain Authority built and operated the Ski Center until 1968. A 1,500-foot T -bar lift was added in 1960 with associated trails. In 1961 snowmaking was extended from mid-station to the top of lift E (#1) and a J-bar was added to the lift facilities. Further extension of snowmaking was made in 1964 on the J –bar practice slope. Another chairlift was opened in 1966 serving novice trails in the "Olympic Acres" area and lift F (#6) was completed in 1967, rising to the highest elevation (4,386 feet) of any lift in the northeast. Expansion of the Main Lodge was also completed in 1967. Another compressor was added to the snowmaking equipment in 1968 along with additional water capacity from the West Branch of the Ausable River. In 1968, operation of Whiteface was taken over by NYSDEC.

3. Department of Environmental Conservation

The NYS Legislature terminated the Adirondack Mountain Authority in 1968 and transferred authority of the Whiteface facilities to the NYSDEC beginning on October 1 of that year. The NYSDEC has had a long-term plan to improve its facilities at Whiteface to better accommodate the recreational skier. The facility gradually improved over the years, as funds were made available.

Whiteface has frequently been the site of major international alpine events including the 1971 pre-FISU Races and the 1972 World University Alpine events. The Canadian-American Slalom, Giant Slalom and the United States National Downhill races were held at Whiteface in 1974. The Empire Cup, the Governor's Cup and the Can-Am Finals were held in 1975 and 1976. In 1978, Whiteface hosted the Nor-Am and U.S. National Alpine Championship events.

Beginning in 1976, an extensive construction program was undertaken in order to host the Alpine Events for the XIII Olympic Winter Games. The Main Lodge was expanded and new water and sewer systems were constructed. An additional lodge was also constructed in an effort to serve the Olympic Acres area. Additional buildings were constructed which served the men's and women's downhill and slalom start and finish areas. This included the slalom area on "Mountain Run" and the common finish area for the men's and women's downhill and giant slalom runs.

Continuing the 1976 program, a new maintenance shop was built on the eastern portion of the Olympic Acres area while the existing shop was razed to improve the aesthetics of the area. A new snowmaking system was also installed to serve the trails scheduled for the Olympic events. Lift E was rebuilt as a "double-double" lift, Lift G was rebuilt, Lift F was shortened and a surface lift added to reach its former upper terminal. An additional lift, Lift I, was added to serve the new Giant Slalom "Parkway" trail.

The alpine events of the XIII Winter Olympic Games were staged at Whiteface Mountain during February 1980. Immediately prior to the 1980 XIII Winter Olympics, actions at Whiteface were thoroughly evaluated in an EIS. This EIS did not, however, address the important issue of development beyond the 1980 Winter Olympics.

4. Olympic Regional Development Authority

After the 1980 (XIII) Winter Olympic Games, the New York State Legislature determined and declared in 1981 that there was an immediate need to institute a comprehensive, coordinated program of activities utilizing the optimum year-round operation, maintenance and use of Winter Olympic venues. Article Eight of the Public Authorities Law was amended in 1981 by adding Title Twenty-Eight effectuating the declared policy and creating the "New York State Olympic Regional Development Authority" (ORDA). ORDA currently operates and manages Whiteface Mountain under an agreement with the NYSDEC.

This agreement was entered into on October 4, 1982 pursuant to the Public Authorities Law, Section 2614. This agreement is now part of the 2013 DEC/ORDA Consolidation Agreement that covers Whiteface Mountain, the Whiteface Memorial Highway, Gore Mountain, and Mount Van Hoevenberg. Appendix 1 of this UMP Amendment contains a copy of this Consolidation Agreement.

5. Adirondack Park State Land Master Plan

The Adirondack Park State Land Master Plan (SLMP) was adopted in 1971 and provides guidelines for the preservation, management and use of State-owned lands by State Agencies within the Adirondack Park. Whiteface Mountain is classified under the plan as an "Intensive

Use Area." The plan states that the primary management guideline for Intensive Use Areas is to provide the public opportunities for a variety of outdoor recreational pursuits in a setting and on a scale in harmony with the relatively wild and undeveloped character of the Adirondack Park. An Intensive Use Area, according to the Adirondack Park State Land Master Plan, is defined as follows:

“These areas provide overnight accommodations or day use facilities for a significant number of visitors to the Park and often function as a base for use of Wild Forest, Wilderness, Primitive and Canoe Areas."

Language in the APSLMP that pertains specifically to Whiteface Mountain states “Existing downhill ski centers at Gore and Whiteface should be modernized to the extent physical and biological resources allow. Cross-country skiing on improved cross-country ski trails may be developed at these downhill ski centers.”

6. 1987 Constitutional Amendment

The number of miles of ski trails that may be constructed on the north, east and northwest slopes of Whiteface Mountain were increased by an amendment to Article 14, effective on January 1, 1988, from 20 to 25 miles. The maximum width of trails was increased from 120 to 200 feet provided that no more than 5 miles can be used in excess of 120 feet width. Currently, there are 19.06 miles of trails constructed. There are an additional 1.93 miles of trails approved in previous UMP Amendments that have not yet been constructed.

E. Description of UMP/GEIS Process

Section 816 of the Adirondack Park Agency Act directs the DEC to develop, in consultation with the Adirondack Park Agency, Unit Management Plans for each unit of land under its jurisdiction classified in the APSLMP. Pursuant to its enabling law and agreement with the DEC for the management of Whiteface, ORDA works with the DEC, in the consultation of the APA, to update and amend the Whiteface UMP. The original UMP for Whiteface Mountain was prepared in 1987. UMP Amendments for Whiteface Mountain were prepared 1996, 2004, 2006, 2013 and 2015.

Specific requirements pertaining to the development of UMPs for ORDA venues was specified in the March 9, 1981 DEC/ORDA MOU and were then expounded upon in the November 2013 DEC/ORDA Consolidation Agreement. Section 2 of the Consolidation Agreement (copy of Consolidation Agreement in **Appendix 1**) provides specifics regarding the preparation of UMPs for ORDA venues, including the following topics:

- UMP Content,
- SLMP Compliance,
- Consultation with NYSDEC Prior to and During UMP Preparation,

- Procedural Steps for preparation of Preliminary Draft UMPs, Public Review Draft UMPs, and Final UMP's,
- Consultation with APA,
- APA SLMP Consistency Review,
- APA Resolution on SLMP Conformance, and
- Commissioner Approval of UMPs, and

The Generic Environmental Impact Statement (GEIS) included in this document in prepared in accordance with the New York State Environmental Quality Review Act (SEQRA, 6 NYCRR Part 617 and Implementing Regulations). In the March 8, 1991 DEC/ORDA MOU, which is now incorporated as part of the November 2013 DEC/ORDA Consolidation Agreement states that, "ORDA will normally serve as Lead Agency for State Environmental Quality Review (SEQR) and the Department and the Agency will participate in the SEQRA process as involved agencies."

ORDA, as Lead Agency, completed a SEQRA Full Environmental Assessment Form (FEAF) Parts 1, 2, and 3 (See **Appendix 2**). Based on the analysis in Part 3 of the FEAF, ORDA determined that the new management actions proposed in this UMP Amendment may result in one or more significant adverse impacts on the environment and that an Environmental Impact Statement (EIS) must be prepared to further assess the potential impacts and possible mitigation measure to offset potential impacts, as well as the exploration of alternatives of the new management actions need to be examined to reduce these impacts.

The SEQRA aspects of this document are presented as a Generic Environmental Impact Statement (GEIS). A Generic EIS may be used to assess the environmental effects of a sequence of actions contemplated by a single agency or an entire program or plan having wide application (6NYCRR 617.10(a)(2) and (4)). They differ from a site specific EIS in that it applies to a group of common and related activities which have similar or related impacts. It is the intent of this GEIS to provide sufficient, site-specific information for all aspects of the UMP. In conformance with SEQRA these related actions are being considered in this ~~D~~FGEIS. No additional SEQRA analyses are anticipated to be required for any management action in this UMP, provided that such actions are carried out in accordance with the recommendations of this document. Conceptual actions in this UMP Amendment will require further review under SEQRA if they are pursued in the future.

A preliminary version of the~~is~~ UMP Draft Amendment/DGEIS was provided to NYSDEC and to the APA for their review on December 8, 2017. Comments from these agencies were received by ORDA, and ORDA revised the preliminary document accordingly. ORDA then declared thi~~s~~e document to be complete for public review on January 3, 2018. Notice of ORDA's acceptance of the DGEIS, establishment of the public comment period, and directions for accessing this document were published in the January 10, 2018 issue of the Environmental Notice Bulletin. The Public Draft of this document was presented to the NYS APA at their January 11, 2018 Agency meeting.

Theis 2018 UMP Amendment/DGEIS wasis open for public comment until February 9, 2018 including a SEQRA public hearing scheduled forheld on January 25, 2018 at 7:00 PM at the Base Lodge at Whiteface Mountain. Responses were prepared to comments received at the public hearing and written comments submitted during the public comment period. A transcript of the public hearing, copies of written comments and responses to comments are included in this FGEIS. Also included in this FGEIS is an errata section that summarizes the changes that were made to the DGEIS when preparing this FGEIS.

A preliminary version of this UMP Draft Amendment/DGEIS was provided to NYSDEC and to the APA for their review on December 8, 2017. Comments from these agencies were received by ORDA, and ORDA revised the preliminary document accordingly. ORDA then declared this Public Review UMP Draft Amendment/DGEIS to be complete for public review on January 3, 2018. This 2017 UMP Draft Amendment/DGEIS is open for public comment until February 9, 2018 including a SEQRA public hearing scheduled for 7:00 PM on January 25, 2018 at the Whiteface Mountain Base Lodge.

Notice of ORDA's acceptance of the DGEIS, establishment of the public comment period, and directions for accessing this document were published in the January 10, 2018 issue of the Environmental Notice Bulletin.

This Public Draft UMP Draft Amendment/DGEIS is available online at http://www.dec.ny.gov/lands/90459.html . Hard copies of the document are available at the following offices: ORDA in Lake Placid, NYSDEC Regional Office in Ray Brook and NYSDEC Central Office (Lands and Forests) in Albany.

Following the completion of the public comment period, ORDA, in consultation with NYSDEC and in cooperation with the APA, will proceed with the preparedtion of theis FGEIS in accordance with the requirements of SEQRA.

This proposed final UMP Amendment/FGEIS is available online at http://www.dec.ny.gov/lands/90459.html . Hard copies of the document are available at ORDA offices in Lake Placid Wilmington Town Hall. CD copies are available upon request.

This proposed final UMP Amendment/FGEIS will be presented to the APA at their March 8, 2018 meeting for a first reading.

F. Status of 2004 UMP Update and Amendment

Figure 6, Previously Approved Actions, Not Yet Constructed, shows the locations of the previously approved actions in the Table below that have not yet been constructed.

Figure 7, 2018~~7~~ Proposed Actions, shows those the locations of the New Management Actions in the Table below that are proposed in this UMP Amendment.

Figure 8 is a combination of these two previous figures and is the 2018~~7~~ Master Plan – Proposed and Approved Actions for this UMP Amendment.

The following table provides the current status of past and present UMP management actions.

Table 1
Status of Management Actions

Item #	Facility		Management Action / Improvements	Current Status
1	**Ski Trails**			
	Trail #	Trail Name		
	45	Easy Way	Widen to approximately 80' to improve beginner skiability.	New Action Item, 2018~~7~~ UMP amendment
	26	Easy Street	Widen to between 100-120' to improve beginner skiability.	New Action Item, 2018~~7~~ UMP amendment
	46	Upper Boreen	Trail is currently very narrow, less than 30' wide. Widen to between 40'-100' where adjacent terrain allows	New Action Item, 2018~~7~~ UMP amendment
	82	Boreen loop	Widen up to 80' where terrain allows, to improve beginner skiability.	New Action Item, 2018~~7~~ UMP amendment
	72	Parkway Exit	Widen up to 120' to improve congestion at the bottom of Draper's Drop during race training	New Action Item, 2018~~7~~ UMP amendment
	71	Draper's Drop	Widen up to 135' (40m) to meet FIS homologation standards.	New Action Item, 2017~~8~~ UMP amendment
	34	Bobcat	Widen to between 70-120' to improve connection from Boreen and beginner skiability.	New Action Item, 2017~~8~~ UMP amendment
	36	Flying Squirrel	Widen up to approximately 100' to improve beginner skiability.	New Action Item, 2017~~8~~ UMP amendment
	42	Runner Up	Widen narrow connector between Boreen and Moose to improve connection	New Action Item, 2017~~8~~ UMP amendment

Item #	Facility		Management Action / Improvements	Current Status
	43	Moose	Widen to between 100-120' to improve beginner skiability.	New Action Item, 2018~~7~~ UMP amendment
	37	Porcupine pass	Widen where possible to improve skiability and connection from learning area to Base area.	New Action Item, 2018~~7~~ UMP amendment
	-	Learning Area	Widen learning area to accommodate new surface lift, improve fall line and expand learn to ski area and operations	New Action Item, 2018~~7~~ UMP amendment
	88	New Trail	New beginner trail to service extended Lift C	New Action Item, 2018~~7~~ UMP amendment
	89	New Trail	New beginner to low-intermediate trail to increase learning area terrain	New Action Item, 201~~7~~8 UMP amendment
	90	New Trail	New connection from bottom of Moose to Bobcat will avoid/eliminate existing flat portion of Moose, improve beginner skiability.	New Action Item, 2018~~7~~ UMP amendment
	91	New Trail and Ski Bridge	Better beginner connection from Learning Area to Base Area, less steep than only existing connection. Includes Ski Bridge over stream.	New Action Item, 201~~7~~8 UMP amendment
	92	New Trail	Connection from Bear Den Lodge to Base Lodge	New Action Item, 2018~~7~~ UMP amendment
	12a	New Trail	New Intermediate trail from Approach near Upper Mackenzie to bottom of Empire.	New Action Item, 2018~~7~~ UMP amendment, (Conceptual Action in 2004)
	Previously Approved Actions - Ski Trail and Glade Construction			
	5a	New Glade	A new 9.8-acre expert glade, Trail 5a, between Paron's Run (5), Excelsior (6), Connector (l10) and Upper Cloudspin (1).	Conceptual Action in 2004, remains conceptual.
	74 (Upper), 75 (Lower), 77	Hoyt's High	New trails in the Tree Island Pod	Approved in 2006. Completed.

Item #	Facility		Management Action / Improvements	Current Status
	76	New Trail	New trails in the Tree Island Pod	Approved in 2006. Constructed as a work road only, not available for skiing.
	78	The Wilmington Trail	New trails in the Tree Island Pod	Approved in 2006. Completed.
	79	Lookout Below	New trails in the Tree Island Pod	Approved in 2006. Completed.
	80	Sugar Valley Glades	New glade in the Tree Island Pod	Approved in 2006. Completed.
	74 (Lower)	New Trail	New trail within the Tree Island Pod	Approved in 2006, Lower portion not yet constructed.
	75 (Upper)	New Trail	New trail within the Tree Island Pod	Approved in 2006, Upper portion not yet constructed.
	4b	Blazer's Bluff	New bypass trail along Lower Skyward	Approved in 2006. Completed.
	73, 73a, 73b	New Trail	New trail (73b) from Gondola unloading to Approach, New intermediate trails (73, 73a) from Upper Parkway to Lower Parkway.	Approved under June 2001 amendment to 1996 UMP. VINS report and field study of Bicknell's Thrush for portions above 2,800 feet completed and approved in 2006 UMP Amendment. Anticipated construction in 2018 / 2019.
	86 (27a in 2004)	New Glade	A new 5.7-acre intermediate glade, 27a (now 86) between Boreen (27) and Medalist (Now Moose, 43).	Approved in 2004, Completed.
	87 (36a in 2004)	New Glade	A new glade, 36a (now 87) in the area between Otter and Flying Squirrel	Approved in 2004, Completed.
	6a	John's Bypass	New Bypass trail from Excelsior to Connector	Approved in 2004, confirmed in 2006 UMP Amendment after VINS study. Completed.
	C1-C6*	New Trails	Conceptual ski trails within the Tree Island Pod, consisting of several weaving and interconnected narrow (40- 80 foot wide) expert trails.	Conceptual Action in 2004. Portion of the tree island pod that was not included as a formal action in 2006. Remains conceptual.
	31a	New Trail	A new trail (31A) to be built between Wolf (31) and Wolf Run (66).	Approved in 1996, not yet implemented.
	38a	Paron's Run (Re-Alignment)	Re-alignment of the lower section of Paron's Run	Approved in 1996, not yet implemented.
	58a	New Trail connector	Provide connection from Excelsior to Upper Valley to replace Lower Empire	Approved in 1996, not yet implemented.
	Previously Approved Action - Ski Trail Widening			

Item #	Facility		Management Action / Improvements	Current Status
	81 (3a in 2006)	Niagara	Widen to 170' to meet FIS Downhill Homologation Standards.	Approved in 2006. Not yet completed
	48	Ladies Bridge	Widen to meet homologation standards	Approved in 2004, Not yet completed
	49	Lower Gap	Widen to meet homologation standards	Approved in 2004, Not yet completed
	12	Upper Empire	Widen to improve skiability.	Approved in 1996, Not yet completed
	13	Upper Mackenzie	Widen to improve skiability.	Approved in 1996, Not yet completed
	15	Upper Wilderness	Widen to improve skiability.	Approved in 1996, Not yet completed
	18	Upper Parkway	Widen to improve skiability.	Approved in 1996, Completed.
	19	Lower Parkway	Widen to improve skiability.	Approved in 1996, Completed.
	20	Upper Thruway	Widen to meet homologation standards	Approved in 1996, Completed.
	21	Lower Thruway	Widen to improve skiability.	Approved in 1996, Not yet completed
	22	Upper Valley	Widen to 120' to improve skiability, relieve bottleneck.	Approved in 1996, Completed
	23	Lower Valley	Widen short section near Mid-Station	Approved in 1996, 2004, partially completed
	24	Burton's	Widen from approx. 30' to 100' to improve skiability.	Approved in 1996, 2004, Not yet completed
	28	Danny's Bridge	Widen to improve skiability.	Approved in 1996, Completed.
	30	Mixing Bowl	Widen to improve beginner skiability.	Work Approved in 1996 Completed. Work approved in 2004 not yet undertaken.
	25	Broadway	Widen to meet homologation standards	Approved in 1996, 2004, Not yet completed
	27	Boreen	Widen to meet homologation standards	Approved in 1996, 2004, Not yet completed
	34	Bobcat	Widen to improve beginner skiability.	Approved in 1996, partially completed
	35	Otter	Widen to improve beginner skiability.	Approved in 1996, partially completed
	36	Flying Squirrel	Widen to improve beginner skiability.	Approved in 1996, completed.
	40	Bobcat Chute	Widen to improve beginner skiability.	Approved in 1996, not yet undertaken.
	42	Runner Up	Widen to improve beginner skiability.	Approved in 1996, not yet undertaken.

Item #	Facility		Management Action / Improvements	Current Status
2	**Ski Lifts**			
	Lift B	Bear Lift	Replace existing Bear Lift with new Quad chair extending from the Base Area, with a mid-station terminal near the existing top of Bear lift, to an area west of Calamity Lane near Mid-Station Lodge.	New Action Item, 2018~~7~~ UMP amendment
	Lift C	Bunny Hutch	Replace existing lift with new Quad chair, re-align and extend upper terminal uphill approximately 500' .	New Action Item, 2018~~7~~ UMP amendment
	Lift I	Freeway Lift	Replace existing Freeway lift with new Quad chair extending from the Base area to the top of Upper Empire	New Action Item, 2018~~7~~ UMP amendment
	Lift J	Cub Carpet	Re-align to improve learning area.	New Action Item, 2018~~7~~ UMP amendment
	Lift L	New surface conveyor lift	Add new beginner conveyor lift	New Action Item, 2018~~7~~ UMP amendment
	Lift N	Bear Den Transport Lift	Install transport lift from Bear Den Lodge to Base Lodge	Conceptual Action Item, 2018~~7~~ UMP amendment
	Lift O	Parking Lot Transport Lift	Install transport lift from the Bus Lot to Lot 1 next to Base Lodge	Conceptual Action Item, 2018~~7~~ UMP amendment
	Previously Approved Action - Lift Installation			
	Lift A	Mixing Bowl	Upgrade from double chair to triple chair	Approved in 1996, not yet implemented.
	Lift B	Bear Lift	Upgrade from double chair to quad, lower base terminal	Approved in 1996, not implemented. Superceeded by proposed 2018~~7~~ Action.
	Lift D	Mid-Station Shuttle	Remove lift	Approved in 1996, completed.
	Lift E	Face Lift	Replace Valley Triple chair with high-speed detachable quad.	Approved in 1996, completed.
	Lift G	Little Whiteface	Replace double chair with quad.	Approved in 1996, not yet implemented.
	Lift H	Mountain Run	Replace double chair with quad.	Approved in 1996, not yet implemented.

Item #	Facility		Management Action / Improvements	Current Status
	Lift I	Freeway Lift	Lower 60 vertical feet and shorten 500 ft.	Approved in 1996, not implemented. Superceeded by proposed 2018~~7~~ Action.
	Lift M	Lookout Mountain Triple	Install new lift to service proposed Tree Island Pod	Approved in 2006, completed.
3	**Buildings**			
	Operations Building (Formerly NYSEF/Alpine Training Center)		Demolish Building	New Action Item, 2018~~7~~ UMP amendment
	Base Lodge			
			(a) Larger reception and ticket area (4,000sf.)	In Progress
			(b) Enclose existing deck area to provide additional cafeteria space (2,500 sf.)	Approved in 1996, Completed.
			(c) a second retail shop (replacing860sf. administration space)	Approved in 1996, not yet started.
			(d) Relocation of the ski school operations (replacing 880sf. of locker and ticketing space and adding 770sf.)	Approved in 1996, Completed.
			(e) a VIP room (700sf.) and coffee shop (700sf.) to be established in the relocated ski school space	Approved in 1996, Completed.
			(f) additional rest rooms (utilizing 750sf. of the retail shop space)	Approved in 1996, Completed.
			(g) Expansion of the ski patrol/first aid space (680sf.)	Approved in 1996, not yet started.
			(h) Additional offices, storage and conference space for administration (350sf.)	Approved in 1996, not yet started.
			(i) Relocation of employee lockers/lounge space to the breezeway storage space (950sf.)	Approved in 1996, not yet started.
			(j) Expansion of employee lockers/lounge space, (336sf.)	Approved in 1996, not yet started.

Item #	Facility	Management Action / Improvements	Current Status
		(k) Updating the computer ticketing system, creating more efficient sales points	Approved in 1996, Completed.
		(l) Updating the drop-off area to reflect the reception/ticketing area addition.	Approved in 1996, Completed.
	Bear Den Lodge (Formerly Easy Acres)	Renovate existing building to total 16,580 Sq. Ft., Add new building as connected addition, up to 30,920 Sq. Ft, for total floor area of 47,500 sq. ft. Total Footprint is 36,335 sq. ft.	Approved in 1996, 2004, 2006. Connected Building Addition currently under construction. Total new footprint (existing lodge plus addition) = 28,310 sq. ft. total Floor Area = 31,110 sq. ft.
	New NYSEF Training Bldg.	Construct new bldg. adjacent to Operations Bldg. and Base Lodge	Approved in 2004, Completed.
	Fox Pole Barn	Relocate Fox Pole Barn, double the size to 3,400sf.	Approved in 2004. Not yet undertaken.
	Lot 5 Pole Barn	Relocate the Lot 5 Pole Barn to the maintenance facility, double the size to 2,400sf.	Approved in 2004, Completed.
	New Maintenance Bldg	Create an additional maintenance building (1,200sf.) to accommodate two vehicle bays for equipment storage.	Approved in 2004, Completed.
	Cloudsplitter Lodge	A new on-mountain restaurant with 355 seats (13,500 sf.) is proposed at the summit of Little Whiteface.	Conceptual Action in 2004
	Operations Building (Formerly NYSEF/Alpine Training Center	Improvements to first floor level without increasing floor space; Addition of approximately 960 sf. to the second floor plan; Addition of an approximately 940 sf. conference space to the upper level floor; Improvement to the façade.	Approved in 1996, not yet started. (Superceeded by 201~~7~~8 proposed action)
	Mid Station Lodge	Relocate Mid-station Lodge approximately 150 feet to the south of its current position.	Approved in 1996. Not yet undertaken.

Item #	Facility	Management Action / Improvements	Current Status
	Don Straight's Bldg.	Double the size of Don Straight's building to 720sf.	Approved in 1996. Not yet undertaken.
4	**Snowmaking**		
	Water System Improvements		
		Build New Reservoir near Snowmaking Pump House	New Conceptual Action Item, 2018~~7~~ UMP Amendment
		Reconfigure PH 1 Intake	Approved in 2004, Completed
		Increase System Pumping Capacity, PH 2 Water	Approved in 1996, Completed
		Electrical revisions to achieve 6,000 gpm	Approved in 1996, Completed
		Monitoring and Control Revisions	Approved in 1996, Completed
		PH 1 water pressure increase	Approved in 2004, not yet undertaken
		PH 3 Water, Electrical revisions to achieve 6,000 gpm.	Approved in 1996, not yet completed
		New snowmaking reservoir adjacent to Upper Boreen	Conceptual action in 2004
		New Pump House to service Tree Island Pod	Approved in 2004, Completed
		Pump House 1 improvements, new wet well and pump	Approved in 2006, Completed
	Air System Improvements	Replace existing rotary screw compressors	Approved in 1996, Completed
		Air to Air Aftercooler repair	Approved in 2004, Completed
		Install additional cooling water system	Approved in 1996, Completed
	Mountain Infrastructure	Piping Upgrades	Approved in 1996, Completed
		Valve House Upgrades	Approved in 1996, Completed
	Snow Guns and Hose	Fan guns and Fan support	Approved in 1996, Completed
		Tower Guns (300)	Approved in 1996, Completed
		Hose repair / replacement	Approved in 1996, Ongoing

Item #	Facility	Management Action / Improvements	Current Status
5	**Utilities**		
	Drainage	Replace Culvert #2 with a vehicular bridge	New Action Item, 2017~~7~~8 UMP Amendment
		Replace Culvert #2 with single large culvert	Approved in 2004, completed.
		Install Debris Control Structures upstream of culverts in accordance with plans	Approved in 2004, not yet implemented.
	Potable Water	Develop new source of water for Base Lodge	Now served by Town of Wilmington municipal water supply system.
		Develop new source of water for Cloudsplitter Lodge	Conceptual Action in 2004.
	Sanitary Wastewater	Develop new wastewater disposal system for the Cloudsplitter Lodge	Conceptual Action in 2004.
6	**Parking / Circulation**		
	Lot #4, Bear Den Lodge Drop Off Area	Improve circulation at Bear Den Lodge drop off area, reconfigure parking.	New Action Item, 2018~~7~~ UMP amendment
	Bus Lot	Expand Lot to accommodate approx. 100 additional cars	New Action Item, 2018~~7~~ UMP amendment
	Maintenance and Staff Access Road	New access road from Lot 5 to Maintenance	Approved in 2006, not yet constructed
	Lot #5	Additional 350 car parking lot	Approved in 2004, Completed
	Bus Drop Off	Structure a bus drop off lane along access road on right, after bridge	Approved in 2004, not yet implemented.
	Lot #3	3-Acre expansion on North End	Approved in 1996, not undertaken. (Note: A large portion of the proposed expansion area is not within the Whiteface Intensive Use Boundary. The area within the boundary available for expansion is 0.83 acres (50-75 cars)
	Entrance and Base Lodge Arrival	Various alternatives to improve pedestrian and vehicular circulation between the Base Lodge	Conceptual Action in 2004

Item #	Facility	Management Action / Improvements	Current Status
		and parking areas	
	Bus Parking Lot	Built new Bus Lot	Conceptual Action in 2005
7	**Other Recreational Trails**		
	Hiking Trails	A 0.7-mile hiking/cross country skiing/snowshoeing trail along the Ausable River on the south side of the base area; 0.5 miles of hiking trails on the north side of the Easy Acres base area; A 2.5-mile hiking loop trail to Bear Den Mountain.	Approved in 2004, completed.

Table 1A that follows is derived from Table 1 above, and provides the amounts of ski trails at Whiteface Mountain that (1) currently exist, (2) were previously approved but have not yet been constructed, and (3) are proposed in this UMP Amendment. Locations of trails are shown on **Figure** 8. Appendix 5, Trail Analysis and Inventory, provides additional detail on the information tabulated below.

Table 1A
Trail Length Data

	Trail Ref #	**Trail Name**	**Trail Length (LF)**
Existing Trails			
	60	1900 Road	806
	61	2200 Road	373
	11	Approach	1,953
	32	Bear	1,609
	76	Blazers Bluff	591
	34	Bobcat	2,318
	40	Bobcat Chute	656
	27	Boreen	3,896
	82	Boreen loop	982
	25	Broadway	1,820
	68	Brookside	2,062
	24	Burton's	700
	47	Calamity Lane	375
	1	Cloudspin	1,721
	51	Cloudspin Cut	335
	10	Connector	814
	55	Crossover Loop	434
	28	Danny's Bridge	1,466
	33	Deer	977
	71	Draper's Drop	2,129
	26	Easy Street	2,140
	45	Easy Way	427
	85	Empire cut	270
	7	Essex	1,062
	6	Excelsior	5,162
	36	Flying Squirrel	1,407
	38	Follies	2,590
	84	Fox	2,128
	56	Glen	520
	77	Hoyt's High	4,048
	52	John's Bypass	727

	Trail Ref #	Trail Name	Trail Length (LF)
	48	Ladies Bridge	185
	79	Lookout Below	1,238
	41	Loon	112
	63	Low Road	572
	58	Lower Empire	300
	49	Lower Gap	138
	14	Lower Mackenzie	1,273
	9	Lower Northway	1,554
	19	Lower Parkway	2,205
	4	Lower Skyward	2,207
	54	Lower Switchback	550
	21	Lower Thruway	1,240
	23	Lower Valley	2,128
	16	Lower Wilderness	723
	30	Mixing Bowl	624
	43	Moose	1,555
	83	Moose Cut	200
	17	Mountain Run	2,115
	81	Niagara	1,135
	73	Off Broadway	285
	65	On Ramp	600
	35	Otter	1,703
	72	Parkway Exit	466
	5	Paron's Run	2,421
	37	Porcupine pass	471
	50	Riva Ridge	708
	29	River Run	1,019
	44	Round-a-Bout	586
	42	Runner Up	678
		Slide Out	775
	67	Summit Express	228

	Trail Ref #	Trail Name	Trail Length (LF)
	78	The Wilmington Trail	9,400
	64	Tom Cat	116
	46	Upper Boreen	792
	12	Upper Empire	1,517
	13	Upper Mackenzie	1,487
	8	Upper Northway	973
	18	Upper Parkway	1,934
	3	Upper Skyward	2,222
	53	Upper Switchback	550
	20	Upper Thruway	1,174
	22	Upper Valley	2,127
	15	Upper Wilderness	976
	39	Valve House Road	275
	2	Victoria	1,986
	57	Victoria Shoot	183
	59	Weber's Way	415
	31	Wolf	1,595
	66	Wolf Run	420
		Totals (LF)	**104,634**
		Totals (MILAGE)	**19.82**
Trails Approved, Not Yet Constructed			
	38a Lower	Approved, not yet constructed	0
	38a Upper	Approved, not yet constructed	450
	58a	Approved, not yet constructed	300
	31a	Approved, not yet constructed	1580
	73	Approved, not yet constructed	1136
	73a	Approved, not yet constructed	1540
	73b	Approved, not yet constructed	1536
	74	Approved, not yet constructed	1793
	75	Approved, not yet constructed	2145
		Totals (LF)	**10,480**
		Totals (MILAGE)	**1.98**

	Trail Ref #	Trail Name	Trail Length (LF)
Trails Proposed in 2018~~7~~ UMP			
	88	Proposed	670
	89	Proposed	1030
	90	Proposed	408
	91	Proposed	545
	92	Proposed	970
	12a	Proposed	1060
		Totals (LF)	**4,683**
		Totals (MILAGE)	**0.89**
Conceptual Trails and Glades from Previous UMP's			
	C1	Conceptual Action	2,480
	C2	Conceptual Action	100
	C3	Conceptual Action	280
	C4	Conceptual Action	80
	C5	Conceptual Action	320
	C5	Conceptual Action	1,235
	5a	Conceptual Action	1,530
		Totals (LF)	**6,025**
		Totals (MILAGE)	**1.14**

Summary of Totals	***(In Miles)***
Total Existing Trails	19.82
Total Approved/Not Constructed Trails	1.98
Total Existing and Approved Trails	***21.80***
Total Proposed Trails	0.89
Total Existing/Approved and Proposed Trails	***22.69***
Constitutional Trail Mileage Limit	25.00
Total Allowable Trail Mileage Remaining	***2.31***
Total Existing/Approved and Proposed Trails	22.69
Total Existing Glades	1.88
Total Existing/Approved and Proposed Trails and Glades	***24.57***
Conceptual Trails and Glades from Previous UMP's	*1.14*

SECTION II INVENTORY OF EXISTING RESOURCES, FACILITIES, SYSTEMS AND USE

A. Inventory of Natural Resources

1. Physical Resources

a. Geology

Whiteface Mountain is situated in the High Peaks Region of the Central Highlands in the Adirondack Mountains. Most of Whiteface Mountain is underlaid by anorthositic bedrock thinly mantled by a layer of gravelly and bouldery soil. The soil on the upper portion of the mountain (above approximately 2,000 feet) consists primarily of weathered fragments of bedrock (hard crystalline, anorthositic, igneous rock). There is very little glacial till and the unconsolidated deposits are very thin. The soil of the lower area consists principally of shallow glacial till, varying up to a possible thickness of ten feet, mantling the same kind of anorthositic bedrock. In the valley bottom, sandy and gravelly outwash deposits are fairly common.

A past history of landslides on the mountain necessitates careful site selection for any future development. Those areas of the mountain which have exhibited major landslides ("the slides" at Whiteface) are located within the areas of a steep walled cirque, whereas trail development lies on the outer flanks of the mountain. Within the cirque, located below the Memorial Highway, the relatively smooth rock surface has allowed slippage of the overburden. On the outer flanks, the rock surface is sufficiently irregular to hold the overburden in place.

b. Soils

Whiteface Mountain is characterized by poorly or incompletely developed soils. The natural fertility of the soils is low. Soils found in this area are generally much younger and less fertile than soils found in other parts of New York State. In areas of steep slopes, which occur at high elevations, the soil is two inches in depth or less. The high altitude of this area tends to retard those biochemical processes which form soil. Consequently, the soils and associated ecosystems which predominate in this area are particularly vulnerable to damage by trail construction and other human activity.

See **Figure 9**, **Soils** Map, for the distribution of soils on Whiteface. **Table 2**, Soil Types, lists the soils present.

Table 2
Soil Types

Map Symbol	Soil Series Name		Map Symbol	Soil Series Name
650D	Monadnock-Adams-Colton complex, 15-35% slopes, bouldery		BvA	Burnt Vly peat, 0-1%
721F	Becket-Turnbridge complex, 35-60%, rocky, very bouldery		CwB	Croghan fine sand, 3-8%
725B	Skerry-Becket complex 3-15%, very bouldery		FnD	Fernlake loamy fine sand, 15-35%, very bouldery
931F	Mundalite-Rowasonville complex, 35-60%, rocky, very bouldery		FuA	Fluviquents-Unifluvaquents complex, frequently flooded, nearly level
932D	Mundalite-Ampersand complex, 15-35%, very bouldery		HrF	Hogback-Knob Lock complex, 35-60%, very rocky, very bouldery
941F	Rawsonville-Hogback complex, 35-60%, very rocky very bouldery		MkC	Monadnock fine sandy loam, 8-15%, very bouldery
944F	Hogback - Knob Lock complex, 35-60%, very rocky, very bouldery		MkD	Monadnock fine sandy loam, 15-35%, rocky, very bouldery
971D	Esther -Wallface complex, 15-35%, rocky, very bouldery		MnD	Monadnock-Turnbridge complex, 15-35%, rocky very bouldery
992D	Wallface-Skylight complex, 15-35%, very rocky, very bouldery		MuD	Mundalite fine sandy loam, 15-35%, rocky, very bouldery
993F	Santanoni-Skylight complex, 35-80% slopes, very bouldery		MwD	Mundalite Rawsonville complex, 15-35%, very rocky, very bouldery
995F	Ricker-Couchsachraga complex, 35-80%, very rocky, very bouldery		RaD	Rawsonville-Hogback complex, 15-35%, very rocky, very bouldery
998F	Rock outcrop-Ricker-Skylight complex, 35-80%, very bouldery		RaF	Rawsonville-Hogback complex, 35-60%, very bouldery
AdB	Adams loamy sand, 3-8%		RpF	Rock outcrop - Knob Lock-Lyman complex, 35-60%, very bouldery
AdC	Adams loamy sand, 8-15%		SeA	Searsport peat, 0-3%
AdE	Adams loamy sand 25-45%		SnB	Sunapee fine sandy loam, 3-8%, very bouldery
AkB	Adirondack fine sandy load, 3-8%, very bouldery		SrC	Skerry fine sandy loam, 8-15%, very bouldery

BeC	Becket fine sandy loam, 8-15%, very bouldery		TuF	Turnbridge Lyman complex, 35-70%, very rocky, very bouldery
BeD	Becket fine sandy loam 15-35%, very bouldery		UlC	Udorthents, nearly level through strongly sloping
BkD	Becket-Tunbridge complex, 15-35%, rocky, very bouldery			

Two of the important soil characteristics that need to be given consideration are the susceptibility of soils to erosion and the depth to bedrock in the soils at Whiteface.

Table 8 in the Soils Survey of Essex County provides data on potential hazard of forest off-road or off-trail soil erosion. This is a good measure of erosion potential of soils that become exposed during construction at Whiteface. **Table 3**, Soil Erosion Potential, rates the erosion potential of soils at Whiteface from slight to severe.

Table 3
Soil Erosion Potential

Map Symbol	Soil Series Name	Erosion Potential	Map Symbol	Soil Series Name	Erosion Potential
650D	Monadnock-Adams-Colton complex, 15-35% slopes, bouldery	Moderate	BvA	Burnt Vly peat, 0-1%	Slight
721F	Becket-Turnbridge complex, 35-60%, rocky, very bouldery	Severe	CwB	Croghan fine sand, 3-8%	Slight
725B	Skerry-Becket complex 3-15%, very bouldery	Slight	FnD	Fernlake loamy fine sand, 15-35%, very bouldery	Moderate
931F	Mundalite-Rowasonville complex, 35-60%, rocky, very bouldery	Severe	FuA	Fluviquents-Unifluvaquents complex, frequently flooded, nearly level	Slight
932D	Mundalite-Ampersand complex, 15-35%, very bouldery	Moderate	HrF	Hogback-Knob Lock complex, 35-60%, very rocky, very bouldery	Severe
941F	Rawsonville-Hogback complex, 35-60%, very rocky very bouldery	Severe	MkC	Monadnock fine sandy loam, 8-15%, very bouldery	Slight
944F	Hogback - Knob Lock complex, 35-60%, very rocky, very bouldery	Severe	MkD	Monadnock fine sandy loam, 15-35%, rocky, very bouldery	Moderate
971D	Esther -Wallface complex, 15-35%, rocky, very bouldery	Moderate	MnD	Monadnock-Turnbridge complex, 15-35%, rocky very bouldery	Moderate

992D	Wallface-Skylight complex, 15-35%, very rocky, very bouldery	Moderate	MuD	Mundalite fine sandy loam, 15-35%, rocky, very bouldery	Moderate
993F	Santanoni-Skylight complex, 35-80% slopes, very bouldery	Severe	MwD	Mundalite Rawsonville complex, 15-35%, very rocky, very bouldery	Moderate
995F	Ricker-Couchsachraga complex, 35-80%, very rocky, very bouldery	Severe	RaD	Rawsonville-Hogback complex, 15-35%, very rocky, very bouldery	Moderate
998F	Rock outcrop-Ricker-Skylight complex, 35-80%, very bouldery	Severe	RaF	Rawsonville-Hogback complex, 35-60%, very bouldery	Severe
AdB	Adams loamy sand, 3-8%	Slight	RpF	Rock outcrop - Knob Lock-Lyman complex, 35-60%, very bouldery	Severe
AdC	Adams loamy sand, 8-15%	Slight	SeA	Searsport peat, 0-3%	Slight
AdE	Adams loamy sand 25-45%	Moderate	SnB	Sunapee fine sandy loam, 3-8%, very bouldery	Slight
AkB	Adirondack fine sandy load, 3-8%, very bouldery	Slight	SrC	Skerry fine sandy loam, 8-15%, very bouldery	Slight
BeC	Becket fine sandy loam, 8-15%, very bouldery	Slight	TuF	Turnbridge Lyman complex, 35-70%, very rocky, very bouldery	Severe
BeD	Becket fine sandy loam 15-35%, very bouldery	Slight	UlC	Udorthents, nearly level through strongly sloping	Variable
BkD	Becket-Tunbridge complex, 15-35%, rocky, very bouldery	Moderate			

Construction activities that require excavation in areas of soils with shallow depth to bedrock can require blasting of the underlying bedrock. Generally speaking, the soils at lower elevation in the Intensive Use Area have deeper bedrock. The following are the depths at which bedrock is typically present in the soils at Whiteface.

Table 4
Depth to Bedrock

Map Symbol	Soil Series Name	Bedrock Depth (in.)	Map Symbol	Soil Series Name	Bedrock Depth (in.)
650D	Monadnock-Adams-Colton complex, 15-35% slopes, bouldery	>72	BvA	Burnt Vly peat, 0-1%	>72
721F	Becket-Turnbridge complex, 35-60%, rocky, very bouldery	27->72	CwB	Croghan fine sand, 3-8%	>72
725B	Skerry-Becket complex 3-15%, very bouldery	>72	FnD	Fernlake loamy fine sand, 15-35%, very bouldery	>72

Map Symbol	Soil Series Name	Bedrock Depth (in.)	Map Symbol	Soil Series Name	Bedrock Depth (in.)
931F	Mundalite-Rowasonville complex, 35-60%, rocky, very bouldery	25->72	FuA	Fluviquents-Unifluvaquents complex, frequently flooded, nearly level	>72
932D	Mundalite-Ampersand complex, 15-35%, very bouldery	>72	HrF	Hogback-Knob Lock complex, 35-60%, very rocky, very bouldery	9-14
941F	Rawsonville-Hogback complex, 35-60%, very rocky very bouldery	14-25	MkC	Monadnock fine sandy loam, 8-15%, very bouldery	>72
944F	Hogback - Knob Lock complex, 35-60%, very rocky, very bouldery	14-25	MkD	Monadnock fine sandy loam, 15-35%, rocky, very bouldery	>72
971D	Esther -Wallface complex, 15-35%, rocky, very bouldery	38->72	MnD	Monadnock-Turnbridge complex, 15-35%, rocky very bouldery	27->72
992D	Wallface-Skylight complex, 15-35%, very rocky, very bouldery	15-38	MuD	Mundalite fine sandy loam, 15-35%, rocky, very bouldery	>72
993F	Santanoni-Skylight complex, 35-80% slopes, very bouldery	15-39	MwD	Mundalite Rawsonville complex, 15-35%, very rocky, very bouldery	25->72
995F	Ricker-Couchsachraga complex, 35-80%, very rocky, very bouldery	9-15	RaD	Rawsonville-Hogback complex, 15-35%, very rocky, very bouldery	14-25
998F	Rock outcrop-Ricker-Skylight complex, 35-80%, very bouldery	11-15	RaF	Rawsonville-Hogback complex, 35-60%, very bouldery	14-25
AdB	Adams loamy sand, 3-8%	>72	RpF	Rock outcrop - Knob Lock-Lyman complex, 35-60%, very bouldery	9
AdC	Adams loamy sand, 8-15%	>72	SeA	Searsport peat, 0-3%	>72
AdE	Adams loamy sand 25-45%	>72	SnB	Sunapee fine sandy loam, 3-8%, very bouldery	>72
AkB	Adirondack fine sandy load, 3-8%, very bouldery	>72	SrC	Skerry fine sandy loam, 8-15%, very bouldery	>72
BeC	Becket fine sandy loam, 8-15%, very bouldery	>72	TuF	Turnbridge Lyman complex, 35-70%, very rocky, very bouldery	18-27
BeD	Becket fine sandy loam 15-35%, very bouldery	>72	UlC	Udorthents, nearly level through strongly sloping	>72
BkD	Becket-Tunbridge complex, 15-35%, rocky, very bouldery	27->72			

c. Topography and Slope

Elevations within the Whiteface Mountain Intensive Use Area range from approximately 1,150 feet along the West Branch Ausable River to 0ver 4,600 feet near the peak of Whiteface Mountain. See **Figure 10**, Topography.

Topography on the upper portion of Whiteface Mountain may be described as steep and rugged. See **Figure 11**, Slope Map. Slopes in excess of 50% are not unusual. Landslides in this area have occurred in the past exposing the "white" rock of the mountain. On the other hand, the lower elevations are characterized by grades ranging between 10% and 30% where trail construction for the lower ability level skiers can be carried out with relatively few restrictions.

d. Water Resources

The Whiteface Mountain Ski Center is bordered on the east by the West Branch of the Ausable River and is located within the Lake Champlain drainage basin. There is one tributary to the West Branch of the Ausable River and four sub-tributaries located within the Whiteface boundaries. Eventually, surface water from Whiteface drains via the main tributary into the West Branch of the Ausable River. See **Figure 12**, Surface Water and Wetland Resources, for the locations of these tributaries and subtributaries on Whiteface Mountain.

The portion of the West Branch of the Ausable River which is within the Intensive Use Area is designated within the State's Wild, Scenic and Recreational Rivers System as a Recreational River.

Flow monitoring of the West Branch of the Ausable River has been implemented to minimize the snowmaking water withdrawal impacts to the river's aquatic ecology and to properly manage the coldwater fishery during times of low flow.

An operational plan has been developed in conjunction with the NYSDEC and formalized in a Cooperative Agreement between the two organizations to ensure snowmaking operations will not adversely affect the river environment (See **Appendix 3**, Snowmaking Withdrawal Cooperative Agreement).

e. Wetlands

Figure 12, Surface Water and Wetland Resources, shows the wetlands mapped by the Adirondack Park Agency.

The Adirondack Park Agency (APA) official wetlands map was confirmed to be accurate based on file review and observations of the site. In the course of preparation of the previous Unit Management Plan, APA Resource Analysis staff were consulted and visited the sites in question for confirmation.

The wetlands identified by the APA as being under their jurisdiction are also under the jurisdiction of the US Army Corps of Engineers (ACOE). In addition, the ACOE exercises jurisdiction over other "waters of the United States," including the West Branch of the Ausable River and the small streams that drain the Whiteface Intensive Use Area, as well as pockets of riparian wetland that exist along these streams. These riparian wetlands are, in general, too small to identify on a small-scale map as in Figure 12. The area of the West Branch of the Ausable River within the Ski Center boundaries is approximately 11.8 acres.

Freshwater wetlands comprise approximately 0.5% of the Whiteface Mountain Intensive Use Area total acreage. The Adirondack Park Agency has mapped approximately 13.2 acres of freshwater wetlands within the boundaries of the Ski Center. Most of these wetlands are located in areas remote from any roads, ski trails or ski facilities. However, there is one small forested coniferous wetland with a value rating of 2 located near parking lot #3 which is adjacent to the West Branch of the Ausable River. The placement of downhill ski slopes and the construction of various support facilities have not disturbed nor affected the wetlands.

f. Climate and Air Quality

The Lake Placid area has a humid continental climate with severe winters, no dry season, warm summers and strong seasonality. According to the Holdridge life zones system of bioclimatic classification, the Lake Placid area is situated in or near the boreal wet forest biome.

The following climate information was taken from the Soil Survey for Essex County (USDA NRCS, 2010) that provides climate data, including data from NRCS Lake Placid 2S climate station.

Temperature (F)

- Average Daily Maximum = 52.3
- Average Daily Minimum = 29.6
- Winter Average = 18.1
- Summer Average = 62.2
- Average Annual = 40.9

Precipitation (in.)

- Mean Annual = 39.65
- Average Seasonal Snowfall = 115.2

The following table provides a summary of natural snowfall that has fallen at Whiteface for the last 8 ski seasons (November to March). (data source: https://www.onthesnow.com/new-york/whiteface-mountain-resort/historical-snowfall.html)

Table 5
Monthly Snowfall Totals (inches) at Whiteface Mountain

		16-17	15-16	14-15	13-14	12-13	11-12	10-11	09-10
	Nov	3	2	15	5	10	28	1	0
	Dec	57	16	25	26	39	7	44	20
	Jan	38	35	24	18	30	25	38	21
	Feb	47	17	40	34	36	22	46	54
	Mar	59	12	18	52	39	14	55	8
SUM		204	82	122	135	154	96	184	103
First		25-Nov	28-Nov	15-Nov	22-Nov	25-Nov	24-Nov	27-Nov	8-Dec

NYSDEC last reported on air quality attainment in the area in 2016. One of the monitoring station locations is at the base of Whiteface Mountain. Parameters monitored include sulfur dioxide and inhalable particulates (PM2.5). Monitored levels for these 2 parameters were well within federal air quality standards.

2. Biological Resources

a. Vegetation

(1) Plant Species

Whiteface Mountain hosts a wide variety of plant species. A list of the common species found in the UMP area is provided in **Table 6**, "Flora of the Whiteface Mountain Ski Center Area." Most of these species thrive throughout the Adirondack Park. However, due to ecological factors, change in climate, and man-made development, there are some species that warrant protection.

Table 6
Flora of the Whiteface Mountain Ski Center Area

Scientific Name	*Common Name*
Trees	
Abies balsamea	*balsam fir*
Acer rubrum	*red maple*
Acer saccharum	*sugar maple*
Betula alleghaniensis	*yellow birch*
Betula cordifolia	*mountain paper birch*
Betula papyrifera	*paper birch*
Fagus grandifolia	*American beech*

Scientific Name	*Common Name*
Osflya virginiana	*hop hornbeam*
Picea rubens	*red spruce*
Pinus resinosa	*red pine*
Pinus strobus	*white pine*
Populus grandidentata	*bigtooth aspen*
Populus tremuloides	*trembling aspen*
Prunus serotina	*black cherry*
Quercus rubra	*red oak*
Salix nigra	*black willow*
Sorbus americana	*mountain ash*
Thuja occidentalis	*northern white cedar*
Tilia americana	*basswood*
Tsuga canadensis	*hemlock*
Shrubs and Small Trees	
Acer pensylvanicum	*striped maple*
Alnus incana ssp. rugosa	*speckled alder*
Clematis sp.	*virgin's-bower*
Comus sericea	*red osier*
Hamamelis virginiana	*witch hazel*
Rubus allegheniensis	*northern blackberry*
Rubus idaeus	*red raspberry*
Rubus odoratus	*pink thimbleberry*
Spiraea alba	*meadow-sweet*
Scientific Name	*Common Name*
Viburnum acerifolium	*maple-leaf viburnum*
Herbaceous Plants and Low Woody Plants	
Apocynum sp.	dogbane
Aster puniceus	purple-stemmed aster
Athyrium filix-femina	lady fern
Calamagrostis canadensis	bluejoint grass
Carex crinita	sedge
Carex intumescens	sedge
Cichorium intybus	Chicory
Cinna latifolia	drooping woodreed
Coptis trifolia	gold thread
Cornus canadensis	bunchberry
D1yopteris carthusiana	spinulose wood fern

Scientific Name	*Common Name*
Eupatorium maculatum	spotted Joe-Pye weed
Eupatorium rugosum	white snakeroot
Euthamia graminifolia	bush goldenrod
Glyceria striata	fowl manna-grass
Hypericum pejoratum	St. John's-wort
Lycopodium lucidulwn	shining clubmoss
Lycopodium obscurum	ground pine
Lycopodium tristachyum	ground cedar
Lycopus virginicus	water-horehound
Monotropa uniflora	Indian-pipe
Onoclea sensibilis	sensitive fern
Osmunda claytoniana	interrupted fern
Osmunda regalis	royal fern
Oxalis montana	common wood sorrel
Potentilla recta	five-fingers
Solidago caesia	wreath goldenrod
Solidago canadensis	common goldenrod
Solidago squarrosa	ragged goldenrod
Thelypteris noveboracensis	New York fern
Tussilago fmfara	coltsfoot

According to the NYSDEC Natural Heritage Program, various plant species and ecological communities in the Whiteface Mountain Intensive Use Area have been identified as rare, threatened, or endangered. These plant species and communities are primarily ones found in the alpine meadows and krummholz (stunted forest) on the upper reaches of Whiteface Mountain where soil conditions and climate provide unique habitats.

In a letter recently obtained from the New York Natural Heritage Program (see **Appendix 7)** , the following plants were identified to be present in the Whiteface Mountain area.

Snowline Wintergreen (*Pyrola minor*), Endangered Plant Species, 0.1 mile NW of Intensive Use Area along the Memorial Highway

Northern Bentgrass (*Agrostis mertensii*), Threatened Plant Species, NW corner of Intensive Use Area in open areas in alpine Krummholz community

Bearberry Willow (*Salix uva-ursi*), Threatened Plant species, on and within 0.1 of the NW corner of the Intensive Use Area in alpine Krummholz community

Alpine Cliff Fern (*Woodsia alpine*), Endangered Plant Species, sensitive location not provided

Smooth Cliff Fern (*Woodsia glabella*), Endangered Plant Species, sensitive location not provided

High-mountain Blueberry (*Vaccinum boreale*), Threatened Plant Species, NW corner of the Intensive Use Area in alpine Krummholz community

Canadian Single-spike Sedge (*Carex scirpoidea ssp. Scirpoidea*), Endangered Plant Species, NW corner of the Intensive Use Area in alpine Krummholz community

Dwarf White Birch (*Betula minor*), Endangered Plant Species, NW corner of Intensive Use Area near the Memorial Highway

Boot's Rattlesnake-root (*Nabalus bootii*), Endangered Plant Species, NW corner of Intensive Use Area near summit and observation building

Alpine Goldenrod (*Solidago leiocarpa*), Threatened Plant Species, NW corner of the Intensive Use Area in alpine Krummholz community

Bigelow's Sedge (*Carex bigelowii ssp. bigelowii*), Threatened Pant Species, NW corner of the Intensive Use Area in alpine Krummholz community

Arctic Rush (*Oreojuncus trifidus*), Threatened Plant Species, NW corner of the Intensive Use Area in alpine Krummholz community

Rock-cress (*Draba arabisans*), Threatened Plant Species, Wilmington Notch 0.1 mile SW of Intensive Use Area along west branch AuSable River, talus at a cliff base

Black Crowberry (*Empeterum nigrum*), Rare Plant Species, NW corner of the Intensive Use Area in alpine Krummholz community

Appalachian Firmoss (*Huperzia appressa*), Rare Plant Species, NW corner of the Intensive Use Area in alpine Krummholz community

Deer's Hair Sedge (*Trichophorum cepsitosum ssp sepitosum*), Threatened Plant Species, NW corner of the Intensive Use Area in alpine Krummholz community

Smooth Cliff Brake (*Pellaea glabella ssp. glabella*), Threatened Plant Species, Wilmington Notch 0.1 mile SW of Intensive Use Area along west branch AuSable River

Alpine Sweetgrass (*Anthoxanthum monticola ssp. monticola*), Endangered Plant Species, NW corner of the Intensive Use Area in alpine Krummholz community

None of the known locations of any of these rare, threatened or endangered species lies within or substantially near the areas of the Intensive Use Areas proposed for construction activities or areas of current ski center operations.

(2) Forest Covertypes and Ecological Communities

Whiteface Mountain Intensive Use Area is situated in the Adirondack High Peaks Ecozone, as identified by the New York Natural Heritage Program. The area is comprised primarily of terrestrial communities with a predominance of forested uplands, and to a lesser extent terrestrial cultural communities of the ski center and the riverine communities of the West Branch Ausable River and its tributaries. The dominant cultural feature in the IUA is the ski center. Another major cultural feature consists of the summit facilities associated with the Whiteface Mountain Veterans Memorial Highway. However, this use is outside the Whiteface Mountain Intensive Use Area and is in the adjacent Veterans Memorial Highway Intensive Use Area.

The terrestrial cultural features consisting of the ski center trails and facilities dominate the visual landscape of the area. As is shown in **Figure 13**, Vegetation Covertype Map, the ski center stretches from the upper slopes of the mountain, about 400 feet below the summit of Whiteface Mountain, including the Little Whiteface Summit, down to the existing base lodge facilities adjacent to the West Branch Ausable River.

In general, the vegetation of the Ski Center area progresses from a hardwood forest dominated by sugar maple and beech, on the lower slopes of the mountain, to conifer forests with red spruce and balsam fir upward toward the summit. This is a common progression found on most mountainous terrain throughout the Adirondacks. In previous unit management plans for the Ski Center, vegetation was described in terms of forest covertypes, which is a forestry-oriented approach. **Figure 13**, Vegetation Covertype Map, shows the forest covertypes identified by NYSDEC. The vegetation unit boundaries on this map have been altered from previous versions on the basis of in-field observations and interpretation of aerial photographs.

Following are descriptions of these covertypes:

a) Northern Hardwood
This forest covertype is composed primarily of sugar maple, American beech and yellow birch. Other associated species are red maple, white ash, black cherry, hemlock, red spruce, paper birch, and red oak. The northern hardwood forest type is a climax forest capable of reproducing itself under its own canopy. As the stand regenerates itself in the natural forest condition, yellow birch will tend to become less important due to its relative intolerance or inability to grow in the shade as compared to maple and beech.

b) Pioneer Hardwood
In the Adirondacks, this forest covertype is normally composed of aspen, paper birch, and pin cherry with occasional red maple and balsam fir. In the Ski Center area, the overstory of this forest type is almost entirely composed of mountain paper birch while the understory is composed of thick balsam fir.

Other associated species, as mentioned above, can be found in this forest covertype. However, the almost pure dominance of mountain paper birch overshadows the importance of the other hardwood species normally found.

Pioneer hardwood is a successional forest covertype and over a period of time it will give way to climax forest covertypes due to the intolerance of the species involved. A few places mapped as this covertype are areas of thin soil and bedrock outcrops, and are not likely to progress quickly to climax forest.

c) Spruce-Fir
The species composition of this forest covertype normally consists of balsam fir, red spruce, and black spruce, which are sometimes associated with tamarack, hemlock and white cedar. The spruce-fir forest covertype on Whiteface Mountain is composed almost entirely of balsam fir and red spruce.

Balsam fir is the more numerous of the two species. The presence of a heavy understory consisting of balsam fir and red spruce mixed with an overstory of the same species is evidence of a spruce-fir climax forest covertype. The significant Alpine Krummholz Zone is found within the area mapped as spruce-fir forest covertype, and is dominated by stunted balsam fir and birch.

d) Pioneer Hardwood-Spruce-Fir
This combination of forest covertypes occupies an important transition niche on Whiteface Mountain, although pioneer hardwood-spruce-fir is not usually designated as a separate forest covertype. Species composition consist of mountain paper birch, balsam fir and red spruce overstory with a thick spruce-fir understory. There is a higher percentage of balsam fir in both the understory and overstory of this forest covertype than the associated red spruce. This type

lies between the pioneer hardwood and spruce-fir types previously described and is a transition between the intermediate pioneer hardwood type and the climax spruce-fir type.

e) White Pine-Red Pine
This forest covertype is dominated by eastern white pine and red pine. Associated species are balsam fir, red spruce, hemlock, aspen, red maple and white birch.

f) Red Pine
A pure forest covertype of red pine exists in a small area on Whiteface Mountain. Pure natural red pine is considered a unique forest covertype due to the fact that red pine is almost always associated with white pine in unplanted situations. The red pine forest covertype is located on the rocky crest of a ridge, at an elevation of about 2,400 feet.

g) Hemlock
This forest covertype occurs in the southern part of the Ski Center, immediately adjacent to the West Branch of the Ausable River. The Eastern hemlock stand is dense and very heavy with just a few associated species consisting of white birch, yellow birch, and American beech. Hemlock is a climax forest covertype capable of reproducing itself under its own shade.

In the recent Natural Heritage Program correspondence referenced in the previous section, the following are identified as Significant Natural Communities on and near the Intensive Use Area.

Mountain Fir Forest, Rare Community Type, north and northwest portions of the Intensive Use Area. Large occurrence with large undisturbed area yet bisected by the Memorial Highway and Lookout Mountain ski trails.

Alpine Krummholz, Rare Community Type, northwest corner of the Intensive Use Area. Small to moderate size occurrence adjacent to summit development (road, trails, castle, visitors center).

Ice Cave Talus Community, Rare Community Type, Wilmington Notch 0.1 mil south of Intensive Use Area along river.

Open Alpine Community, Rare Community Type, northwest corner of the Intensive Use Area. Moderate-sized occurrence under heavy human disturbance.

Mountain Spruce-Fir Forest, Rare Community Type, in the center of the Intensive Use Area within the operations of the ski facility. Moderate to high disturbance well connected to a large landscape of moderate to high quality.

b. Wildlife

Considering the present degree of development and use of the Intensive Use Area, Whiteface supports a wide variety of wildlife species. **Appendix 4** contains a list of wildlife species, resident and migrant, that have been physically or visually confirmed or are species which may utilize the area because of suitable habitat conditions. Forty-six mammalian species, eighty-four avian species, eleven amphibian species, and five reptile species are identified.

Data from the breeding bird atlas of New York State indicate that 21 bird species are confirmed to be breeding in the Whiteface Mountain area, and another 63 species are listed as probable or possible breeders. One of the confirmed species, the peregrine falcon, is listed as an endangered species in New York. Peregrines are not known to inhabit the th e intensive use area. Falcons are known to nest upriver on riverside cliffs. One species listed as threatened, the osprey, is a probable breeder in the Whiteface Mountain area. Ospreys are commonly seen at many locations along the West Branch Ausable River.

The New York Natural Heritage Program identified Bicknell's Thrush (Catharus bicknelli), a Species of Special Concern, on Whiteface and Esther Mountains. The presence of Bicknell's thrush on and around Whiteface Mountain has been well documented and information on occurrences have been described in previous UMPs. ORDA has worked cooperatively with a number of other stakeholders including NYSDEC, NYSAPA and the Wildlife Conservation Society to understand Bicknell's thrush ecology at Whiteface, to develop measures to protect Bicknell's thrush during the breeding and rearing periods, and to develop informational materials to inform the public about the ecology and conservation of this neotropical bird. See subsection "e" below, Critical Habitat, that provides additional information regarding Bicknell's thrush.

The distribution and abundance of wildlife species are determined by physical and biological factors such as elevation, topography, climate, vegetation and land use, combined with the habitat requirements and population dynamics of each species. Five major wildlife habitats can be identified at Whiteface:

Northern Hardwood, Pioneer Hardwood-Spruce-Fir combination, Krummholz, Grassland (ski slopes), and Alpine Zone. The types listed above generally represent differences in wildlife habitat and, therefore, may not conform to the more technical descriptions of forest covertypes as detailed in Section II.2.b. above.

The clearings and brushy ecotones created by the ski trails provide additional habitats not frequently found in most of the Forest Preserve.

Those wildlife species dependent on the earlier stages of succession can inhabit the grasslands, whereas in the adjacent forest covertypes only those species preferring mature forests can prosper. Included in **Appendix 5** is a description of wildlife habitat types and additional information regarding the wildlife at Whiteface.

c. Fisheries

Information regarding fish is derived from a 1990s study conducted on the "West Branch Ausable River; Habitat, Fishery Resources and Angler Concerns," prepared by the NYSDEC. Fishery and habitat surveys were conducted in the West Branch Ausable River and public opinions regarding the fishery were obtained during 1992. In conclusion, the 1992 study summarizes the following information:

1. The quality of the West Branch Ausable fishery is lower than might be expected for a river of such renown. Large and wild trout are present, but less abundant than is desirable.

2. The historic fish survey data is inadequate to document whether the present quality represents a decline from previous periods.

3. Habitat problems contribute significantly to poor angling quality. Severe winter ice conditions (during years of low snow pack) cause high winter mortality. Substrate embeddedness contributes to the winter mortality, probably decreasing invertebrate production and reducing natural reproduction of trout.

4. Angler use is apparently not responsible for poor quality. Use declined substantially in the period from the late 1960's to the mid-1980's with a perceived decline, not improvement, in the quality of the fishery. Therefore, additional reductions in exploitation, such as no kill regulations, are not expected to substantially improve quality. However, the greatest potential to improve quality and satisfy constituent desires would be along the River Road section where prospects of over-winter survival are best.

5. Given the low abundance of wild fish and the evidence that stocked fish are not impacting wild fish abundance or growth, continued stocking is appropriate to achieve desired catch rates. Stocking rates will be based on catch rate oriented trout stocking (CROTS) estimates and the angling regulations applied to each river section.

Several changes were made in fisheries management of the river following the 1992 study. Increased numbers of two-year-old trout are stocked annually to improve the abundance of large trout. Also, catch-and-release regulations have been applied to about 5 miles of the river.

Angler use and popularity of the river has apparently increased due to the revised management. In a 1996 statewide survey of anglers conducted by Cornell University, The Ausable River received the highest satisfaction rating and the highest location rating of the 29 most heavily fished waters in the state (satisfaction and location ratings were not analyzed for waters fished less frequently due to small sample size (Connelly et al., 1997). An estimated

13,440 anglers fished the Ausable during 1996 for a total of 105,600 angler days.

The survey estimated that fishing-related expenditures in 1996 for fishing in the Ausable River totaled $4,774,000, with $3,663,000 of that being "at location" expenditures. DEC staff electrofished stations upstream of the Whiteface Ski Center on the West Branch Ausable River during the week of July 21, 2003. The study was not designed to assess the impacts of Whiteface water withdrawals or compare fish population parameters above and below Whiteface. Instead, the objectives of the electrofishing survey were to evaluate the current status of the fish resources in the river and to evaluate the biological effects of the catch-and-release regulations affecting that stretch of river from the mouth of Holcomb Pond outlet downstream to the marked boundary 2.2 miles downstream of Monument Falls. The river had last been surveyed in the early 1990s prior to enacting the catch-and-release regulations.

Brown trout in the 2003 sample averaged substantially larger than the early 1990's. Considering yearling and larger trout, 41 percent were longer than 12 inches in 2003 compared to only 4 percent in the earlier period. The increased average size was observed in both the catch-and-release section and the areas where harvest is allowed. The largest brown trout collected was 19 inches long.

Overall, 23 percent of the yearling and older brown trout were wild, which was very similar to the 22 percent wild observed in the early 1990's. However, wild fingerling trout (young-of-the-year trout) were several times more abundant in 2003 than previously, which indicates increased natural reproduction. The increased abundance of wild fingerlings occurred in both the catch-and-release and in the harvest allowed sections. Qualitative observations indicated that the abundance of fines (sand) in the substrate had decreased substantially since the early 1990's, which could explain the increased natural reproduction.

The overall abundance of trout longer than 12 inches indicates a very desirable fishery resource (from Region 5 Inland Fisheries August 2003 Monthly Highlights).

d. Unique Areas

The summit of Whiteface Mountain is characterized as a “Unique Geological feature” and is described in the NYSDEC Environmental Resource Mapper as “cirques” and “aretes.” A cirque is an amphitheater-like valley formed by glacial erosion. Aretes are sharp created ridges in rugged mountains.

e. Critical Habitat - Adirondack Sub-Alpine Bird Conservation Area

Areas at the Whiteface Ski Center are identified by the State of New York as Adirondack Sub-Alpine Bird Conservation Areas (http://www.dec.ny.gov/animals/7404.html). A “Species of Special Concern” in New York, Bicknell’s thrush, is known to inhabit areas of Whiteface. These two conditions motivated Whiteface to develop procedures and standards for mitigating

impacts to Bicknell's thrush habitat. Bicknells thrush habitat is defined as elevations over 2,800 feet, particularly those areas over 2,800 feet that support spruce-fir communities. See **Figure 14**, Potential Bicknell's Thrush Habitat.

3. Visual Resources

(1) Visual Setting

Whiteface Mountain is located in a setting dominated by the scenic quality and character of the natural environment. This land, owned by the State, functions to preserve the unique ecologic, geologic, scenic and historic features of the area according to the SLMP. In addition, all previous development has been restricted to comply with the SLMP - in a setting and on a scale that is in harmony with the relatively wild and undeveloped character of the Adirondack Park.

(2) Visibility

Whiteface Mountain is located off of NYS Route 86 which is a relatively well-traveled corridor in this portion of the north central region of the Adirondack Park. Due to the dense vegetation of the area and tree-lined roads, Whiteface is not clearly visible from most outside locations. However, because of the unique topography of the region and scattered clearings, Whiteface is visible at various vantage points along some nearby state and local roads. Previous UMP studies were conducted and identified those areas from which Whiteface Mountain is visible.

Whiteface is visible from scattered vantage points along Route 86 beginning near Bassett Mountain and ending by High Falls Gorge. The Ski Center's lifts, ski trails, and supporting facilities are most visible from Route 86 near the Whiteface Mountain entrance road. Views west of High Falls Gorge on Route 86 begin quickly to diminish as vegetation dominates views from the roadway. Visibility to the Ski Center east on Route 86, however, is scattered due to vegetation and topography until it reaches the final vantage point at the former Paleface Mountain Ski Center located near Bassett Mountain in the Town of Jay. East of this point, visibility diminishes altogether. The upper section of Fairview Terrace on Quaker Mountain used to provide a clear vantage point to Whiteface Mountain but views over time have diminished as a result of the growth of intervening vegetation. Although the mountain can be viewed from as far south as Route 73 near the Heart Lake Road, no ski facilities, lifts or trails are visible.

Figure 15, Zone of Potential Visibility and Aesthetic Resources Inventory, depicts locations along state and local roads where the Whiteface Mountain Ski Center is visible. This Figure was produced in 2012 when a number of management actions were being considered at various locations across the Intensive Use Area. These actions included the restoration of Porcupine Lodge, construction of a Lookout Mountain work road, construction of the public radio communications building on Little Whiteface and trail widening at the intersection of Burton's and Lower Thruway.

Figure 16, Existing Views Into Whiteface Mountain, contains 2017 photos of views into Whiteface from 9 locations. Photo locations are shown on **Figure 17**, Photo Location Map.

Generally speaking, Whiteface Mountain is not visible from hiking trails on Forest Preserve lands in the area. Because of intervening topography, including Wilmington Notch, there are no views into Whiteface from the trails south of Route 86 around Owen Pond, Copperas Pond and Winch Pond.

B. Human Resources

1. Transportation

Whiteface Mountain Ski Center is located off of Route 86. This highway is in good traveling condition. Turning lanes for left and right traffic movements are provided at the Route 86 and the Ski Center access road intersection. The access road from Route 86 to the Base Lodge and Easy Acres is a two lane paved road that is in good condition.

Traffic counts were provided by the New York State Department of Transportation (NYSDOT). The traffic counts for Route 86 between very near the entrance road to Whiteface in 2015 indicate a two-way traffic volume of 2,983 vehicles per day based on an Average Annual Daily Traffic (AADT).

Direct access to the mountain is from New York State Route 86. This access consists of dual roads approximately 180 feet apart, which converge to a single two-lane road at a point of access to the "Bus Lot" parking lot which is the first parking lot on the left upon entry. A large identification sign for the Ski Center is located in a landscaped island, which is formed by the two access roads.

Once on the entry road, drivers pass a long row of national flags, which introduces the ski area's image as the "Olympic Mountain". Cars and pedestrians continue across the West Branch Ausable River on a bridge, which strongly signals arrival at the main base area. A directional decision must be made (to the drop off, other parking, or Bear Den), which is aided by an attendant.

Whiteface is currently served by public transportation provided by Essex County Transportation. The Mountain Valley Shuttle is a free system that runs between Lake Placid and Whiteface with several stops in Lake Placid and Wilmington. There are also stops in Jay and Ausable Forks. Additional information is provided at http://www.whiteface.com/mountain/services/shuttle-schedule .

Whiteface also routinely receives tour buses, group tours and teams who are transported on

buses.

The Lake Placid Airport and the Lake Clear Airport in Saranac Lake are available locally for smaller plane air travel.

Direct railroad service into the area is not available. Amtrak service is available in Westport, approximately 40 miles away.

2. Community Services

Police Protection

The NY State Police (Troop B) provides primary law enforcement service in the Town of Wilmington, 24/7/365. They have a substation on NYS Route 86 within the Town of Wilmington that is manned part-time.

The Essex County Sheriff's Office provides land and marine patrol, prisoner transport services, and court management services. Essex County Emergency Service, located in the Town of Lewis, provides emergency scene coordination, 24-hour dispatch, and training is achieved by many specific programs:

- Emergency Scene Coordination (Fire, EMS, Hazmat, Cause and Origin)
- Hazardous Materials / WMD Response Team Operation
- Operation of the County Emergency Operations Center (EOC)
- Operation and Maintenance of a County-Wide Public Safety Radio System
- Development and Maintenance of Emergency Planning Documents
- Development and Maintenance of Emergency Mutual Aid Agreements
- 911 System Coordination, Public Safety Answering and Radio Dispatch
- Emergency Services Training Programs

NYS Department of Environmental Conservation provides primary enforcement of Environmental Conservation laws within State forest lands, of which most of Wilmington is comprised.

Fire and Rescue Services

The Town of Wilmington is serviced by the all-volunteer Wilmington Fire Department and the Wilmington Rescue Squad. The North Country Life Flight Air Medical Rescue Team is an air medical rescue service serving northern New York State. They provide lifesaving, critical care by air to regional hospitals.

Whiteface ski patrol partners with the Wilmington Volunteer Ambulance Service and a group of volunteer physicians. The Ambulance Service and physicians dedicate a crew at the ski area during weekends, holidays and major events. Having an ambulance on site has decreased response time by 15 minutes, greatly improving patient care and transport time.

Most injuries that occur at Whiteface Mountain are managed on the mountain while serious injuries require response from the local Rescue Squad. On the mountain, the main Medical Services Area is located in the Main Level of the Base Lodge. Ski Patrol stations are located at the tops of Little Whiteface, Summit Chair, Lookout Chair, Mountain Run Slalom Finish Building, and at Bear Den Lodge during holiday periods.

NYS Department of Environmental Conservation Forest Ranger Division provides primary search and rescue services in the backcountry with assists by Wilmington Fire Rescue members.

Medical Services

Most medical emergencies are transported to either Saranac Lake or Plattsburgh. Serious injuries are flown by helicopter to University of Vermont Medical Center. Adirondack Health maintains emergency centers in Lake Placid and Saranac Lake that serve as central emergency services hubs for northern New York. The emergency department in Lake Placid operates from 8 a.m. to 11 p.m., seven days a week**,** and the Saranac Lake emergency department is open 24 hours**.** The Adirondack Medical Center at Saranac Lake serves the residents of the greater Saranac Lake community and is also home to the headquarters of Adirondack Health's administrative and foundation offices. Adirondack Medical Center also has a 24-hour Emergency Department. Adirondack Health Emergency Center at Lake Placid offers a full range of outpatient services including primary care, sports medicine and rehabilitation, medical imaging and laboratory services. Located at the site of the former Placid Memorial Hospital, Adirondack Health at Lake Placid also has an Emergency Department that operates daily from 8 a.m. to 11 p.m.

Other medical facilities that have the potential to services residents and visitors include: Mountain Health Center in Keene, Elizabethtown Community Hospital (UVM Health Network Facility), and Au Sable Forks Health Center.

Solid Waste Disposal

A private hauler takes refuse and recyclables from Whiteface Mountain to the Town of North Elba Recycling Center and Transfer Station where it is compacted and then disposed of at the Franklin County Solid Waste Authority Landfill. Residents of the Town of Wilmington take their solid waste to the Wilmington Transfer Station located off of Bonnie View Road.

Schools

Educational services in Wilmington are provided by the AuSable Valley Central School District. The school district has three individual school buildings which are located in AuSable Forks (K-6), Keeseville (K-6), and the AVCS Middle School-High School (7-12) housed in Clintonville, New York. The District Office is also located in Clintonville at a separate office building on Route 9N. The AuSable Valley Central School District covers over 300 square miles and represents a portion of three counties (Clinton, Essex and Franklin) in New York State. The District encompasses in whole and/or part of the Towns of AuSable, Black Brook, Chesterfield, Jay, Wilmington, Keene, Franklin, Peru and Willsboro.

Municipal Water

The Wilmington Water District provides water service to Whiteface Mountain. The water source consists of a dam impoundment on White Brook off the Whiteface Mountain Memorial Highway. A dam impoundment on Red Brook just north of White Brook serves as an auxiliary water source. Water from these sources is filtered, disinfected, and treated for corrosion before distribution.

Municipal Wastewater

There is no public sewage treatment facility in the Town of Wilmington. All wastewater is treated through individual septic systems.

Electric and Telecommunications

New York State Electric and Gas (NYSEG) provides electric services to the Wilmington area.

Telephone Services

Landline telephone services are provided by Frontier Communications, cell phone services are provided by Verizon, and cable television service is provided by Charter Communications.

3. Local Land Use Plans

APA Land Use Classifications

The State lands at Whiteface and in the surrounding area are classified according to the APSLMP administered by the APA. Private lands in the area are classified to the Adirondack Park Land Use and Development Plan which is also administered by the APA.

The Town of Wilmington has a total land area of 50,746 acres (79 square miles) and is located entirely in the Adirondack Park. As reported by the Adirondack Park Agency in June 2017, approximately 53% of lands in the Town of Wilmington are privately owned and the other 47% is owned by the State of New York. These lands are distributed under the private and state land classifications included in the Table below.

Table 7
Town of Wilmington Land Classifications

Land Use Classification	Acres	Percentage
PRIVATE LANDS		
Hamlet	1,270.4	4.7%
Moderate Intensity	2,160.6	8.0%
Low Intensity	3,557.3	13.1%
Rural Use	6,484.0	23.9%
Resource Management	13,269.2	48.9%
Industrial Use	374.0	1.4%
TOTAL	**27,115.5**	**100%**

STATE LANDS		
Wilderness	12,794.3	48%
Primitive	2.5	<1%
Wild Forest	10,488.1	39%
Intensive Use	3,096.5	12%
Administrative	22.9	<1%
Water	226.9	1%
TOTAL	**26,631.2**	**100%**

Source: Adirondack Park Agency June 2017 Acreage Statistics for the Adirondack Park Land Use & Development Plan and State Land Map

Local Development Controls and Planning Initiatives

The following is a list of documents, laws, and plans that impact decisions made by the Town:

Comprehensive Plan for the Town of Wilmington (1975)

This plan identifies the natural character of the Town as a critical asset, and identifies the direct relationship between recreational-based tourism and the town's economic growth potential.

Town of Wilmington Regulations

The Wilmington Planning Board adopted their subdivision regulations originally in 1975, and made revisions in July 1977 and most recently in 2004 to include new erosion prevention practices. The Town of Wilmington Zoning Code was updated in 2013 in accordance with the Town of Wilmington Local Waterfront Revitalization Program and Comprehensive Plan. The Town of Wilmington Stormwater Management and Erosion and Sediment Control Law was established in 2013.

Hamlet of Wilmington: Strategies for Development (1983)

This report explores the historic evolution of Wilmington dating back to 1799 and traces the boom and bust cycles that it has experienced through time, and outlines a number of action programs aimed at revitalization, including physical improvements to public areas, redevelopment of private sites, promotional activities, marketing and human resource development and organization.

Town of Wilmington Community Revitalization Plan (2001)

This report focuses on a strategic and market-oriented approach to community revitalizing the Ausable River and Lake Everest as important natural resources and major tourist attractions.

Other Relevant Planning Documents and Planning Considerations

Essex County Comprehensive Land Use Plan

Essex County has an active County Planning Board that makes decisions guided by their Land Use Plan.

Essex County Pre-Disaster Multi-Jurisdiction Hazardous Mitigation Plan (2011)

This Plan, prepared in response to the Disaster Mitigation Act of 2000 (DMA 2000). DMA 2000 (also known as Public Law 106-390), improves the disaster planning process by increasing hazard mitigation planning requirements for hazard events. DMA 2000 requires states and local governments to prepare hazard mitigation plans to document their hazard mitigation planning process and identify hazards, potential losses, and mitigation needs, goals, and strategies. This type of planning supplements already strong disaster response, recovery, and relief capabilities.

Olympic Scenic Byway Corridor Management Plan (2004)
This regional planning document provides for the planning and promotion of tourism and economic development as well as the conservation and enhancement of the byway's intrinsic qualities. The Management Plan can be used as a reference tool for future regional planning efforts in Byway communities along NYS Route 3, NYS Route 86, and NYS Route 9N from Lake Ontario to Lake Champlain.

Wilmington Wild Forest Unit Management Plan/Environmental Impact Statement (2005)
This five-year plan covers activities of the Dept. of Environmental Conservation and the Adirondack Park Agency – following the State Land Master Plan - within the Wilmington Wild Forest Preserve. Its goals are broad and overlap with those of the LWRP: to provide for the long-term protection of the area and natural resources, to encourage various outdoor recreation activities without destroying the natural character of the area, to preserve and protect known cultural resources within the area.

Whiteface UMP Amendment /EIS (2006 Amendment to 2004 UMP)
This amendment document addresses trail construction above 2800 feet and includes erosion control plans, an expansion of facility construction at the children's ski area, protection plans for the Bicknell's Thrush, changes in water/snow pump operations, and a new staff road.

Wild, Scenic and Recreational Rivers System Act
The Ausable River is designated as a Recreational River under the State's Wild, Scenic and Recreational Rivers System Act, and is subject to special protection. Inside the Adirondack Park, the law is administered by the Adirondack Park Agency with regards to private lands and by NYSDEC with regards to State Lands.

Adirondack Park State Land Master Plan (2016)
This document sets forth the master plan for all state lands within the Adirondack Park. The classification system and guidelines set forth are designed to guide the preservation, management and use of these lands by all interested state agencies in the future. In Wilmington, this includes land owned by the Department of Environmental Conservation (DEC) and Department of Transportation. The DEC has the authority independent of the Master Plan to regulate uses of waters and uses of wild, scenic and recreational rivers running through state land, but may not have such authority to regulate certain uses of waters where all or part of the shoreline is in private ownership. The APA has the authority to regulate motorized use of wild, scenic and recreational rivers and their river corridors on private lands.

NYSERDA Energy Smart Community (2003)
The Town Board of Wilmington adopted a resolution to become an energy smart community in February 2003, urging its inhabitants, businesses, and others to cooperate with NYSERDA to introduce energy efficient technologies in the Town.

4. Historical and Archaeological Resources

The Whiteface Veterans Memorial Highway Complex adjacent to the Whiteface Mountain Intensive Use Area is listed on the National Register of Historic Places. There are no known archeological resources in the area.

C. Man-Made Facilities

1. Inventory of Constructed Facilities

a. Downhill Ski Slopes

The amount of ski trails that can be constructed at Whiteface Mountain is established by Article 14 of the NYS Constitution. Article 14 addresses the allowable mileage of downhill ski trails along with allowable trail widths.

A comprehensive inventory of existing downhill ski trails at Whiteface Mountain was undertaken for this 201~~7~~8 UMP Amendment. **Appendix 5** contains that comprehensive inventory.

Figure 18, "Whiteface Mountain, Ski Trail Inventory," illustrates the existing ski trails at Whiteface Mountain for the Winter 2016/2017 ski season.

Final trail length measurements were made electronically using AutoCAD Civil 3D-2014 and GIS software. **Table 1** in **Appendix 5**, "Whiteface Mountain Trail Inventory and Analysis," presents the results of the inventory and mileage measurement for each trail. The Table lists each trail by name, indicates if a ski lift and/or snowmaking exists on a trail, and presents lengths of each trail by width (less than 30 feet wide, 30 feet to 120 feet wide and 120 feet to 200 feet wide. Key totals are summarized below:

Total trail length by width on Intensive Use Area lands is as follows:

a)	Under 30 feet wide (on trail map and named)	2.~~06~~ 14 miles
b)	30 feet to 120 feet wide	15.~~88~~ 93 miles
c)	120 feet to 200 feet wide	1.~~48~~ 75 miles

The total existing constructed trail length 0 -200 feet wide is 19.~~42~~ 82 miles. Based on a detailed analysis of trail planning in previous UMP's, and the application of the rules and methodologies

presented in Sections 2 and 3 in **Appendix 5**, a total of up to 21.~~30~~ 80 miles of trails are already constructed (19.~~42~~82) or currently approved to be constructed (1.~~88~~98).[1] Whiteface is authorized to operate up to 25 miles of ski trails and therefore has 3.~~70~~ 20 miles (25 miles minus 21.~~30~~ 80 miles) of trail length available for future planning and approval.

Additional trails proposed in this UMP Amendment as New Management Actions (see Section 4) total 0.89 miles. The addition of these trails to those described above would result in there being (21.~~3~~ 8 + 0.89) 22.~~19~~ 69 miles of trails, which leaves an additional 2.~~81~~ 31 miles of trails available for future planning and approval at Whiteface (25 minus 22.~~19~~69).

It is important to clarify that even though the mileage reported above is less than what was previously reported, the areas on the mountain approved for trail construction in the 2006 UMP have not changed. As part of this UMP amendment, a very detailed analysis of all previous UMP documentation related to trail development (See Appendix 5) was performed. The calculation methodology, applied rules and criteria and high resolution aerial imagery used in the inventory and analysis in Appendix 5 are more detailed and provide a higher degree of accuracy than the mapping and data used in previous UMP's. The result is an updated and more refined inventory of total trail mileage.

In the 12-14 years since the 2004 UMP 0and 2006 UMP updates were developed, portions of some trails have been re-named, trail names have changed, single trails have been divided into multiple trails (or vice versa), trails originally designated as conceptual are adjusted and have become proposed/approved, and actual built conditions have resulted in minor trail adjustments. As a result, a side-by-side tabulation of mileage calculated for each trail in the 2006 UMP and each trail in the current Trail Inventory in Appendix 5, would not provide comparable data.

Nonetheless, the following provides a more detailed explanation of the factors responsible for the difference in trail mileage reported in the 2006 UMP Amendment and the current documentation of trail mileage at Whiteface Mountain.

The appearance of a change in almost 3 miles (2.72 miles) between the 2018 UMP and the 2006 UMP Amendment is because of the differences in the way the trails were categorized in each UMP. In order to provide an appropriate comparison, trails listed in the 2006 UMP Amendment must be categorized and broken down in detail similarly to the way they are categorized in the 2018 UMP.

The 2006 UMP Amendment reported a total of 24.96 miles of trails, including proposed activities on page I-2 of the document. Table T1, "Proposed Terrain Specifications" in the 2006 UMP Amendment calculated only 24.02 total miles of trails, including proposed activities. The

[1] This is less than the 24.02 total miles of constructed and approved trails noted in the 2006 UMP amendment.

difference appears to be because no trails categorized as "Conceptual Actions" are included in Table T-1. Since conceptual actions are not 'approved' actions, trails that are conceptual actions should not be included as approved mileage.

The 24.02 total miles of trails reported in the 2006 UMP Table T1 includes existing trails, proposed trails, glades, and 'previously approved but not constructed' trails collectively in a single table. These trail categories were not independently 'broken out' or categorized, and therefore require further analysis in order to appropriately compare the data to the 2018 data. For example, the upper portion of Table T-1 lists a total of 19.48 miles of trails. This total includes existing trails, glades, proposed trails and previously approved/not constructed trails. But it does not include ALL proposed trails. Additional proposed trails are categorized in a lower section of the Table titled Proposed Tree Island Pod. In order to determine the total amount of proposed trails in 2006, one must add the proposed Tree Island Pod data with proposed trails listed in the upper section of the Table. Similarly, in order to determine the amount of existing ski trails calculated in 2006, one must identify and subtract out the proposed trails, glades, and previously approved/not constructed trails from the upper section of the Table. The area known as "The Slides" are not included in the Table T-1.

Table 7A below includes the 2018 UMP trail calculations and trail categories. Glades have also been included in this table. "The Slides" are not included.

Table 7A
2018~~7~~ Trail and Glade Mileage Summary

Summary of Totals	***(In Miles)***
Total Existing Trails	19.82
Total Approved/Not Constructed Trails	1.98
Total Existing and Approved Trails	***21.80***
Total Proposed Trails	0.89
Total Existing/Approved and Proposed Trails	***22.69***
Constitutional Trail Mileage Limit	25.00
Total Allowable Trail Mileage Remaining	***2.31***
Total Existing/Approved and Proposed Trails	22.69
Total Existing Glades	1.88
Total Existing/Approved and Proposed Trails and Glades	***24.57***

Conceptual Trails and Glades from Previous UMP's	*1.14*

The Slides are rightfully not counted toward the constitutional limit since they are natural, unmaintained, backcountry areas suitable for skiing, and not maintained ski trails. The Slides consist of areas of bare rock exposed by historic landslides. This off-piste backcountry skiing is similar to what occurs on other exposed rock face areas skied in the Adirondacks such as Angel Slides on Wright Peak and Bennies Brook on Lower Wolf Jaw. The Slides present an attractive nuisance to skiers at Whiteface (as well as "poachers") due to the challenging terrain and limited accessibility. It is imperative that this part of the Intensive Use Area be regularly patrolled to protect the public.

The total existing, approved and proposed trails and glades in the 2018 UMP is 24.57 miles.

Table 7B below tabulates the same trail and glade data presented in Table T1 of the 2006 UMP. However it breaks the trails into categories similar to the categories presented in the 2018 data (Table 7A), so the data can be appropriately compared. The re-organized data is shown in Table 7B. Other factors considered in Table 7B include trails built between 2006 and 2018, and trails proposed in previous UMP's that were not accounted for in 2006.

Table 7B
2006 Trail and Glade Mileage Summary

Existing Trails in 06	16.97
Previously Approved, Not Constructed Trails in 06*	1.35
Existing and Approved Trails in 06	***18.32***
Proposed Trails in 06	3.89
Total Existing, Approved and Proposed Trails	***22.22***

Existing Glades in 06	0.99
Previously Approved Glades in 06	0.00
Existing and Approved Glades in 06	***0.99***
Proposed Glades in 06	0.81
Total Existing, Approved and Proposed Glades	***1.80***

Total Existing, Approved and Proposed Trails and Glades	***24.02***

Assumed Conceptual Trails in Previous UMP's	0.94
Total Reported in 2006	***24.96***

*Some Previously approved, not constructed trails from previous UMPs were not accounted for.

The re-categorized 2006 data is summarized and compared to the data calculated in 2018 in Table 7C. The comparison shows a calculated difference of only 0.18 miles of existing trails and glades.

These data show that, whether or not glades are included in the calculation of mileage at Whiteface, mileage is below the 25 mile Constitutional limit.

Table 7C
2006-2017~~7~~8 Trail and Glade Mileage Comparison Summary

Existing Trails in 2006	16.97
Trails Built between 2006 and 2017	3.03
Total	20.00
Total Existing Calculated in 2018~~7~~	***19.82***
Difference	-0.18
Existing Glades in 2006	0.99
Glades Built between 2006 and 2017	0.89
Total	1.88
Total Existing Calculated in 2018~~7~~	***1.88***
Difference	0.0
Existing Trails and Glades in 2006	17.96
Trails and Glades Built between 2006 and 2017	3.92
Total	21.88
Total Existing Calculated in 2017~~7~~8	***21.70***
Difference	-0.18
Previously Approved, Not Constructed Trails reported in 06	1.35
Previously Approved, Not Constructed Trails not accounted for in 06	0.14
Trails Approved in 2006 UMP, but not constructed.	0.89
Total	2.39
Total Previously Approved, Not Constructed Trails Calculated in 2017~~7~~8	***1.98***
Difference	-0.40

b. Backcountry, Hiking and Mountain Bike Trails

There are no formal cross-country ski trails at Whiteface. There are some skiers that skin up Whiteface, but most make use of the existing alpine ski trails.

One of the important aspects of the Ski Center is the connection to the area via existing hiking trails. There are hiking trails from Whiteface Landing and Connery Pond from the west, through McKenzie Mountain Wilderness to the summit of Whiteface Mountain, and from below the base of the former Marble Mountain Ski Center through the Wilmington Wild Forest from the east. The Bear Den Mountain trail starts within the Ski Area at the north end of the Bear Den parking lot. The lower section of this hiking trail is also a mountain bike trail.

The Whiteface Mountain Bike Park boasts 17 single-track trails and one double-track, five ski trails, and four service roads, with the following difficulty breakdown:

- Beginner: 3
- Intermediate: 13
- Advanced: 7
- Expert/Pro: 4
- Total # of Trails: 27

Figure 19 is a map of Existing and Proposed Hiking and Biking Trails.

The Upper Connector and Lower Connector trails have their ends at the Bear Den Parking Lot (Lot 5) and extend off of the Intensive Use Area toward the north, connecting to a trailhead near the flume off of NYS Route 86.

c. Lifts

The following is an accounting of the ski lifts at Whiteface.

Table 8
Existing Lift Specifications

Map Ref.	Lift Name	Lift Type	Vert. Rise (ft.)	Slope Length (ft.)	Avg. Grade (%)	Actual Design Capacity (persons/hrs.)	Year INSTALLED/ Upgraded
A	Mixing Bowl	Double	92	687	13%	800	1984
B	Bear	Double	310	1,534	20%	1,200	1984
C	Bunny Hutch	Triple	258	1,792	14%	1,600	1966/97
E	Facelift	Quad	1,314	5,945	21%	2,000	2002
F	Summit Quad	Quad	1,830	4,706	39%	1,500	1997
G	Little Whiteface	Double	1,555	4,515	34%	1,100	1988
H	Mountain Run	Double	979	2,475	40%	1,200	1989
I	Freeway	Double	1,458	4,220	35%	800	1979
J	Conveyor Lift	Surface	40	450	9%	400	1992
K	Cloudsplitter Gondola	Gondola (8)	2,432	8,487	29%	1,800	1999
L	Lookout Triple	Triple	1,600	4,459	36%	1,200	2005
	TOTAL					**13,600**	

Some of the specific characteristics of each of the 11 lifts serving Whiteface terrain are set forth below.

- Mixing Bowl (A): This lift is well located and suitably designed for the beginner skier.

- Bear (B): The bottom terminal of this lift is 500 feet from the base lodge and is accessed by Lift A.

- Bunny Hutch (C): Lift C was relocated in 1997 so that its base terminal is at the same level as the Bear Den Lodge (then Kid's Kampus) building. Its top terminal was lowered to provide better and easier access to the trail system and avoid the steep section at the top, which made the trail ability level too difficult for beginner skiers in this area.

- Facelift (E): this lift was installed in 2002 and aging Midstation Shuttle (formerly D) and the Valley Triple (formerly E) were removed. Replacement of these two former lifts with a detachable quad was an approved action of the 1996 UMP. The Facelift is a Dopplemayr detachable quad that services primarily beginner and intermediate terrain.

- Summit Quad (F): Lift F serves the upper mountain terrain in a satisfactory manner. Its hourly capacity is in balance with the trails it serves.

- Little Whiteface and Mountain Run (G & H): The combination of these two lifts causes skier congestion problems at the top terminal of and the mid-station unload of G and on the trails they serve when both lifts (in addition to Lift I) are operating at full capacity.

- Lifts G and H are both aging and have functional problems.

- Freeway (I): Lift I provides excellent skiing opportunities for the intermediate and advanced skiers. It is particularly useful on race event days as it provides a somewhat isolated area for round trip skiing on the race terrain that it serves. It is also useful when wind conditions shut down other lifts.

- Conveyor Lift (J): This is a surface "magic carpet" lift that replaced the former handle tow. The magic carpet generally eliminated the disadvantages formerly associated with the old handle tow. The former handle tow required a short but difficult climb for the new skier from the Bear Den Lodge building to the bottom loading area, and it involved the undesirable mix of beginner skiers with the faster traffic emanating from the Silver and Gold Trails (#34 and #35).

- Gondola (K): The Gondola lift was installed as recommended in the 1996 UMP.

- Summer use of the gondola has proven to be a valuable addition to the Whiteface and Lake Placid venues. Winter use has also proven to be a valuable addition to the ski center by improving the out-of-base capacity and as a means to access the upper reaches of the mountain on days of inclement weather.

- Lookout (L): This is the newest lift at Whiteface. This Dopplemayr triple was installed in 2005 as recommended in the 2004 UMP. Lookout lift services the Lookout Mountain peak and the intermediate and expert terrain in this part of Whiteface Mountain.

Many improvements have been made at Whiteface over the past five years, however several lifts are more than twenty years old. It is the goal of this UMP Amendment to continue the modernization of the Ski Center through the focused implementation of management actions that will improve the user-friendly nature of the Ski Center while concurrently responding to the market and economic opportunities to increase public access and business potential. Items such as lift replacements will be necessary to maintain operating efficiency and avoid costly repairs and excessive maintenance.

d. Parking

Parking is available in six primary parking lots with additional space available along the internal roads. The total parking capacity available at Whiteface is approximately 1,860 cars and 20 buses.

Lot 1, which is located adjacent to Mountain Operations (former NYSEF), has a capacity of 75 cars and is ideally located close to the drop off. This is known as the Premier Lot, and it is a paid lot in the winter. Lot 2 is across the bridge and holds 305 cars. Lot 3 is close to Route 86 and has a capacity of 400 cars. Most of these parking spaces lie beyond a comfortable walking distance

from the Base Lodge and skiers are shuttled in. The "Bus Lot"(Lot 2) has functioned primarily as a car lot in recent times, and its capacity is 400 cars and 20 buses. Most of these spaces are also dependent on the shuttle service. Lot 4 is located at the Bear Den Lodge and provides convenient parking for 175 cars at this facility. An additional 86 cars can be parked along the access road to Bear Den, and 72 cars can be parked on the main entrance road east of the bridge. Lot 5/Bear Den Parking was a Management Action from the 2004 UMP Update. Now constructed, Lot 5 was designed for a capacity of 350 cars.

The area can accommodate virtually unlimited buses since drivers historically take their buses in to Lake Placid until pick-up time in the afternoon, thereby alleviating parking loads, but not peak hour traffic congestion.

Bus access to the Base Lodge is a major problem due to the very limited maneuvering space available. Bus traffic creates unsafe conditions in the drop off area especially for the pedestrians. Ideally, buses should not be allowed to cross the bridge into the tight drop off space presently available. Various alternatives for bus access are continuing to be evaluated. This includes evaluation of the following:

- Special drop-off area to be created at the Bus Parking Lot with convenient shuttle service available.

- New turnaround and drop off area to be constructed prior to the Ausable River Bridge crossing.

- Construct a second bridge to create a sufficient drop-off space for passenger cars and buses. Easier traffic circulation will be provided by the second bridge since the access to the outgoing travel lane on the ski center main access road will be on the easterly side of the two bridges. Additional alternatives to be considered are presented in Section VI.C., Alternative Parking/Circulation Improvements.

e. Access Roads

Whiteface Mountain Ski Center is located off of NYS Route 86. This highway is in good traveling condition. Turning lanes for left and right traffic movement are provided at the NYS Route 86 and the Ski Center access road intersection. The access road from NYS Route 86 to the Base Lodge and Easy Acres is a two lane paved road that is in good condition.

Traffic counts were provided by the New York State Department of Transportation (NYSDOT). The traffic counts for NYS Route 86 between very near the entrance road to Whiteface in 2015 indicate a two-way traffic volume of 2,983 vehicles per day based on an Average Annual Daily Traffic (AADT).

Direct access to the mountain is from New York State Route 86. This access consists of dual

roads approximately 180 feet apart, which converge to a single two-lane road at a point of access to the "Bus Lot" parking lot. A large identification sign for the Ski Center is located in a landscaped island, which is formed by the two access roads.

Once on the entry road, drivers pass a long row of national flags, which introduces the ski area's image as the "Olympic Mountain". Cars and pedestrians continue across the Ausable River on a bridge, which strongly signals arrival at the main base area. A directional decision must be made (to the drop off, other parking, or Bear Den), which is aided by an attendant.

The arrival sequence to the Base Lodge entry area terminates at the newly constructed drop-off area which directs access directly to the Base Lodge lobby area or to the back of the base lodge and gondola station through the building with an open passage. Planned future improvements to the Base Lodge building will be to further enhance a positive arrival feeling by construction of a formal Base Lodge lobby at the entrance.

f. Buildings

There are 29 buildings on the Whiteface property that are currently used by the mountain in some capacity. The buildings range in size from the three-story base lodge with a total of 52,848 square feet to the snowmaking valve houses that can be as small as 20 square feet. In all cases, the buildings employ a variety of construction materials and are in varying states of physical condition. In general, the buildings that service the public are in fair to good condition and show no signs of overstress or excessive deterioration. That is, the buildings are safe for everyday use and require only minor repairs and maintenance.

a) Primary Buildings
The primary buildings include: Base Lodge, Mid-station Lodge, Bear Den, NYSEF and the Alpine Training Center. All of these buildings are used daily by the Ski Center employees and by customers. For that reason, their overall structural integrity is very important. The buildings are in good condition with localized areas of deterioration. Typically, the deterioration is due to exposure to the elements and deferred maintenance, which results in the need for maintenance type repairs. For example, the Base Lodge has experienced deterioration of wood fascia, handrails, and window frames, while at the Mid-station Lodge checking of the timber framing and deterioration at timber column bases is visible. All of these items, although not a threat to the structural integrity of the buildings at the present time, must be repaired to prevent further deterioration and possible damage to the structural integrity of the building.

b) Mountainside Buildings
The mountainside buildings include: four race start buildings, two race finish buildings, three warming huts, and the bus-lot ticket booth. The four race start buildings are only used during the ski season and only during downhill and slalom races, and even then very few people are in the buildings at one time. The race finish buildings, as the name implies, are also used during races; however, portions of the buildings have also been converted to office and storage space.

The warming huts and the bus-lot ticket booth are used by Ski Center employees during the ski season. In all cases these buildings need maintenance work to replace damaged and missing items and to generally improve appearance. For example, fascia and trim pieces are missing or have been damaged, metal roof and wall panels are dented, floors are experiencing deterioration due to exposure to water and cold, and paint in many cases is old and deteriorated. The structural integrity of these buildings has not been compromised by the deficiencies; however, if the deterioration is allowed to continue, structural members may be weakened.

The Porcupine Lodge structure was built in 1933± was recently rehabilitated for use as a warming hut and for ski patrol. This rehabilitation was covered under a 2015 UMP Amendment.

c) Maintenance Buildings

The maintenance buildings include: the maintenance garage, Don Straight's building, and a pole barn. Unlike the other buildings associated with the mountain, these buildings are only used by employees, and with the exception of the maintenance garage, they are used primarily for storage. The maintenance garage is used primarily to service the Ski Center trucks, plows and mountain grooming equipment. In addition, the building is used for electrical and mechanical repair shops and the servicing of equipment used in the daily operation of the mountain. The building is in fair condition, requiring maintenance work to clean and repair areas that have deteriorated or damaged during the life of the building.

Don Straight's building is in good condition, requiring only minor repair work. The pole barn is in poor condition. The structural support framing has deteriorated and in some cases has broken down, requiring extensive rehabilitation or replacement. However, because the barn is not used for anything more than storage, the importance of its structural integrity is low. That is, the repairs are not critical to the operation of the Ski Center, nor do they pose a substantial threat to the well-being of an employee or customer. For that reason, the repairs may be postponed until the buildings are replaced.

The maintenance facilities contain a total of 10,020 square feet. The breakdown of this available space is shown in **Table 9** below.

Table 9
Maintenance Facilities

Use	Available Square Feet	Required Square Feet
Major maintenance, repair and vehicle storage-4 vehicles	5,940	4,800
Parts, supplies, storage, office, toilets, etc.	Included above	800
Other vehicle repair and storage	Included above	2,200
Shop space - lifts, carpentry, electrical, etc.	4,080	3,000
TOTAL	10,020	10,800

The pole barn located near the Fox Trail contains 1,700 square feet.

Storage space is needed for many items including race supplies that were purchased for the Goodwill Games. Over 4.5 miles of B netting and thousands of fiberglass net poles, 4-5 meter wide A nets, safety pads, etc., are all currently jammed into shipping containers which makes it difficult to access and inventory.

In addition, not all of the items fit into these containers. An 80-foot by 40-foot pole barn would be adequate for proper storage of these items.

An additional two bays for vehicle and Snow Cat maintenance bays are needed to accommodate the existing fleet. An additional 60-foot by 20-foot maintenance building would provide for equipment storage and increase the length of Snow Cat and equipment life spans.

d) Snowmaking Buildings
The snowmaking buildings are limited to the pumphouse and valve houses located at various locations on the mountain. The pumphouses are typically constructed using pre-engineered metal buildings and are in good condition.

Some of the metal panels have been dented while others have developed minor leaks, both of which can be easily repaired. The valve houses vary in size, construction, and condition. The valve houses are in fair condition, requiring some maintenance. However, because the use of the buildings is critical to the efficient operation of the ski center, those in the worst condition should be repaired immediately and the remainder repaired on a regular maintenance schedule.

In general, the buildings at Whiteface are in good condition, requiring only maintenance and other minor repairs. Where more extensive repairs are required, for instance at the pole barn, the importance and the value of the structure should be considered prior to commencing design and construction.

g. Maintenance Roads

There are approximately 8.4 miles of maintenance roads located throughout the ski area.

h. Visitor Services and Ski Center Operations

The 2004 UMP Amendment contained a very detailed accounting of Whiteface facilities including descriptions of the various functions and the locations and sizes of functions. This accounting was used to development New Management Actions in the 2004 and 2006 UMP Amendments including improvements/additions at the Main Base Lodge and at Bear Den Lodge that were under construction in the fall of 2017. The 2004 accounting and 2004 and 2006 New Management Actions served as a foundation for some of the New Management Actions in this 2018~~7~~ UMP including the lift and trail improvements in and around the Bear Den area of Whiteface.

i. Potable Water

Potable Water is supplied to the following facilities at the Ski Center:

- Base Lodge
- Bear Den Lodge
- NYSEF Building
- Mountain Operations Building
- Maintenance Garage
- Mid-station Lodge

In 2006, the Town of Wilmington extended its municipal water service including the construction of a 300,000 gallon water storage tank along the driveway to Bear Den Lodge.

After the Town extended its water service, buildings switched over from well water to municipal water. The wells are still in place, but not in use. Well locations and well yields were described in the 2004 UMP Amendment.

Potable water for the Mid-Station Lodge is provided by a shallow dug well (4 feet deep with concrete tile) located 50 feet south of power line #32 (approximately 50 feet above the Mid-station Lodge) at the junction of Upper Valley and McKenzie Run Trails. The well provides potable water via a 1 1/2 inch gravity feed line to a 6,000 gallon storage facility located inside the Mid-station Lodge. The water is chlorinated and pumped into the cafeteria and restroom areas of the lodge.

The capacity of the dug well has not been determined. However, the yield is observed to far exceed the peak demands of the lodge.

j. Snowmaking

A detailed inventory of the snowmaking system was provided in the 2004 UMP Amendment (see section II.C). New Management Actions in the 2006 UMP Amendment included improvements to Pumphouse #1 (PH#1) 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 improvements to PH#1 included:

- 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.

k. Water Supply for Snowmaking

Water for snowmaking operations is withdrawn from the West Branch of the Ausable River and pumped to PH-2, where it passes through filter strainers that eliminate sand, silt, and organics. From PH-2 it is pumped to the mountain distribution system and upper Pump Houses 3 and 4 (PH-3, and PH-4). A stream gauging station was constructed in 2001 in the West Branch Ausable River near the existing intake structure to measure stream flow during the snowmaking season.

With the installation of this structure Whiteface is required to maintain a minimum base flow of 38 cubic feet per second (cfs) in the river immediately downstream of the intake. ORDA and DEC have adopted a Memorandum of Understanding (MOU) which establishes the methods and procedures by which water for snowmaking operations can be withdrawn from the river while maintaining the integrity of this surface water resource (See **Appendix 3**). Flow monitoring of the river will minimize the impacts to the river's aquatic ecology and properly manage the fishery during times of low flow.

There are four (4) sections of the water system:

- River Withdrawal 6,000 gpm
- Lower Mountain System 5,100 gpm
- Mid Mountain System 3,800 gpm
- Upper Mountain System 2,850 gpm
- Lookout Mountain 1,300 gpm

l. Grooming Equipment

The following is an inventory of the current groomer fleet at Whiteface.

Table 10
Grooming Vehicle Inventory

Vehicles	Year	Condition
Pisten Bully 600w	2010	Good
Pisten Bully 600w	2012	Good
Pisten Bully 600	2008	Fair
Pisten Bully 400 park	2014	Good
Pisten Bully 280D	1997	Poor
Pisten Bully 600	2007	Fair
Pisten Bully 400	2010	Good
Pisten Bully 600w	2013	Good
Pisten Bully 600	2015	Very good

m. Sanitary Wastewater

On December 18, 2017 NYSDEC issued a notice of complete application for a new SPDES permit (5-1554-00013/00001) for Whiteface.

Outfall 001 is for sanitary sewerage from the Base Lodge and Bear Den Lodge. Design Flow is 25,000 gpd to ground water. Treatment consists of septic tanks followed by a dosed absorption system constructed circa 1977. Pumping is required to convey the sewage from the facilities to the absorption bed, which i s located across the Ausable River. The river crossing consists of a gravity sewer line located beneath the access bridge.

Outfall 002 is for sanitary sewerage from the Mid-station Lodge. Design flow is 5,600 gpd to groundwater. Treatment consists of septic tanks followed by a dosed absorption system. A new absorption system will be built to replace the existing "bee-hive'' system and to allow for gravity conveyance of the septic tank effluent to the new absorption field. The existing pump

station will be converted into a septic tank.

Outfall 003 formerly served the “Kid's Kampus'' and has since been discontinued. Sewerage formerly served by this outfall is now conveyed to Outfall 001.

Outfall 004 is for industrial sewerage from floor d rains at the maintenance garage. Design flow is 25 gpd. Treatment formerly consists of an underground oil/water separator which discharged directly to the ground. This tank has since been removed. A new system is under construction, which will consist of an above ground oil/water separator followed by sand and carbon filtration. The effluent will be conveyed by an underground pipe and will discharge to the ground surface.

n. Drainage

Base Area Drainage
The main drainage course enters into the Ausable River just downstream from the Ski Center access road bridge. There are five (5) major culverts altogether. After Tropical Storm Irene in 2011 the undersized culverts located near the NYSEF Building were replaced by larger culverts.

Route 86, Bus Lot and Lot 2 Drainage Course
After flooding in 1996, the NYSDOT made improvements to the Route 86 culvert and installed a new drainage channel which directs flows around the Bus Lot parking.

Parking Lot #5 (Bear Den)
A stormwater infiltration basin was constructed as part of the construction of this parking lot which was approved in the 2004 UMP Amendment.

Other
The remaining drainage system at the Ski Center consists of several small-diameter piping systems, ditches and swales. Other, older parking areas are drained by sheet flow to adjacent wooded areas. Slope areas where concentrated runoff discharges occur should be regularly checked for erosion.

o. Electrical System

The 2004 UMP Amendment (section II.D.7) provides a detailed assessment of the electrical distribution system at Whiteface.

Electrical service for the facility is provided by five (5) circuits. Circuits 1 and 2 start directly from the incoming New York State Electric and Gas (NYSEG) 34.5 KV incoming line. Remaining circuits 3, 4 and 5) start at internal switchgear.

As expected, the facility’s electrical demand varies based on seasonal changes. Peak demands

typically occur in January and February, and coincide with maximum snowmaking efforts. Highest KWH demand range is generally around 8 KWH with total annual KWH generally around 13,000,000.

Whiteface currently obtains approximately 100% of its electrical supply through renewable sources provided by Direct Energy, including energy provided at its wind farm in Altona.

On March 3, 2017 Governor Andrew M. Cuomo announced the three New York-owned ski resorts, Belleayre Ski Resort, Gore Mountain and Whiteface Mountain, have pledged to be powered by 100 percent renewable energy by 2030, joining The Climate Reality Project I AM PRO SNOW *100% Committed* campaign. The initiative corresponds with Governor Cuomo's Clean Energy Standard, which requires that half of all electricity used in New York come from renewable sources by 2030.

The I AM PRO SNOW *100% Committed* program helps meet the Governor's Reforming the Energy Vision's strategic plan for building a cleaner, more resilient and affordable energy system across the state. By committing to this important cause, Belleayre, Gore, and Whiteface mountains are working to move away from the fossil fuels driving climate change and shift to 100 percent clean, renewable energy. The initiative, coordinated by The Climate Reality Project's I AM PRO SNOW program, encourages ski resorts, towns, businesses and other mountain communities around the world to commit to being powered by 100-percent renewable energy by 2030.

p. Solid Waste Management

Solid waste is generated at both the Whiteface Mountain and the Memorial Highway Intensive Use Areas and is collected and transported by a private hauler.

The waste generation rates are affected by the seasonality of facility use. The Memorial Highway is closed during the winter months, providing waste contribution only during summer operations. The greatest percentage of the waste is generated during the November through April ski center operating season, resulting in approximately 60 tons, and approximately 80 tons total is generated annually. Approximately 10 tons of materials are recycled annually.

q. Equipment Inventory

The equipment assigned to Whiteface consists of automotive (such as trucks, tractors) and non-automotive (such as tables, chairs) items. A current equipment inventory is maintained at Whiteface and the ORDA headquarters in Lake Placid and is available for public inspection.

2. Inventory of Systems

a. Management

The New York State Olympic Development Authority (ORDA) was created by the State Legislature to institute a comprehensive, coordinated program of activities utilizing Olympic facilities, such as Whiteface Mountain, in order to insure optimum year-round use and enjoyment (Chapter 404, Laws of 1981). The "Authority" consists of ten board members who shall include the Commissioners of Environmental Conservation, Commerce, and Parks and Recreation, and seven other members appointed by the Governor, by and with the advice and consent of the Senate.

The Department of Environmental Conservation is the statutory custodian of the Whiteface Mountain. The Authority, however, operates and manages Whiteface Mountain under an agreement with the Department of Environmental Conservation. Under this agreement, ORDA is to maintain the facility subject to DEC inspections; make capital improvements with DEC's prior written approval; establish a sinking fund for capital improvements; continue the level of prior public recreation; comply with specified prior agreements; and cooperate with DEC in completion of a Unit Management Plan Update and Amendment for the ski area.

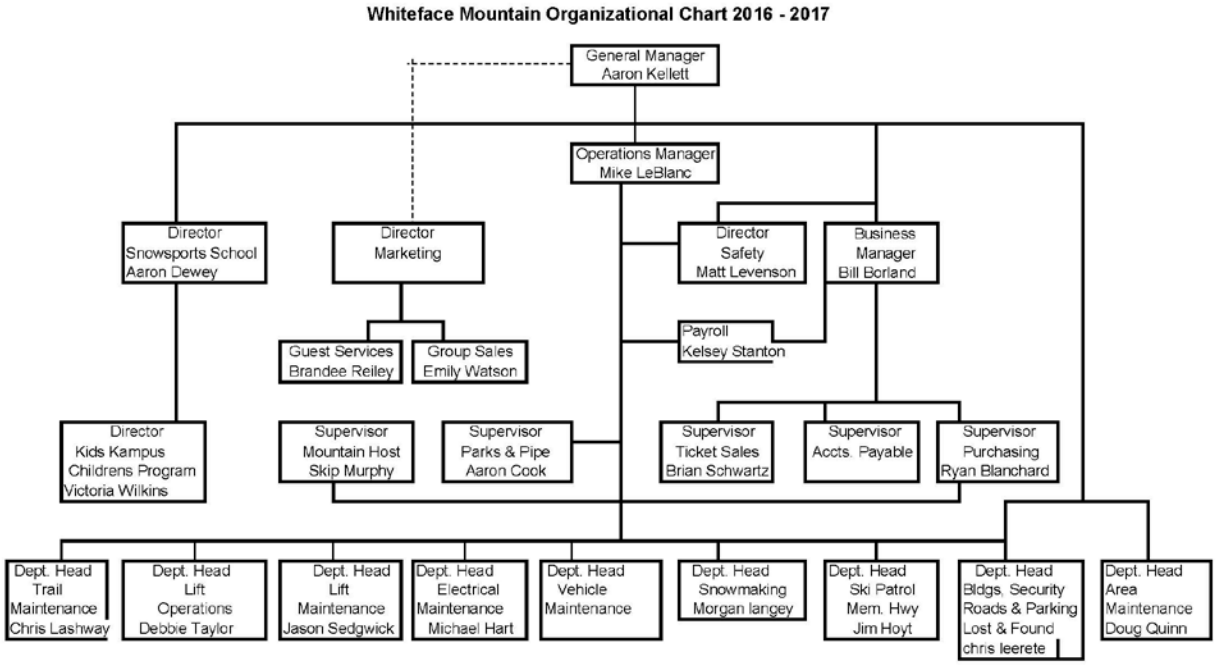
In March, 1991, DEC and ORDA consummated an inter-agency Memorandum of Understanding, superseding a 1984 Memorandum, for the continued use, operation, maintenance and management of the ski area by ORDA. This 1991 MOU was incorporated into the current (2013) DEC/ORDA Consolidation Agreement that covers Whiteface, Gore, the Memorial Highway and Mount Van Hoevenberg.

Under an agreement entered into in October 1982, the Authority permitted the United States Olympic Committee the use of the Whiteface facilities, along with other Authority facilities, for its training and competition needs in connection with the Olympic Training Center located in Lake Placid, New York. The United States Olympic Committee does not have management authority under this agreement and cannot make any capital improvements to the premises.

The Authority permits the New York Ski Educational Foundation (NYSEF) to conduct, under certain terms and conditions, its ski training, educational and competition programs at Whiteface Mountain. A specific building at Whiteface is dedicated to NYSEF.

b. Organization

Administrative functions are centralized for the Olympic Regional Development Authority. Programs of the Authority are directed by the CEO, working through department heads and venue managers. This organizational chart illustrates the administrative organization that covers Whiteface Mountain.



c. Operations

Personnel at Whiteface are comprised of approximately 40 permanent staff. The winter season requires the employment of 240 seasonal persons. The summer season requires employment of 41 seasonal positions to supplement the permanent staff.

d. Contractual Arrangements

On July 16, 2011, the Authority entered into a 10 year agreement with Centerplate whereby the Authority granted Centerplate a license to have exclusive rights to furnish and install certain equipment and improvements and to manage and operate the food, beverage, catering and merchandise services, equipment rental/ski touring concessions including liquor/sales, food, and retail services at all ORDA Olympic facilities on a year-round basis. Per the Agreement, the license is valid until July 15, 2021 with an option to renew for another 10 years upon the mutual written consent of both parties.

Under the terms of the Agreement, Centerplate's exclusive rights are subject to certain other contracts existing with the Authority, including for Whiteface: the summer mountain bike rental concession agreement with High Peaks Cyclery of Lake Placid, New York.

Part and parcel to the Agreement is Centerplate's obligation to comply with all present and future federal and state laws, codes and regulations applicable to the conduct of the activities authorized, including all other applicable governmental regulations affecting the ORDA and the Olympic facilities in regard to the sale, use and storage of materials. Centerplate is also

responsible for procuring, at its own expense, all permits, licenses or other approvals necessary for the performance of its duties under the terms of the License.

D. Public Use of the Ski Center

1. Ski Season Use

See **Table 11**, Public Usage of Whiteface Mountain Ski Center 2006-2016. Average annual total visits to the Ski Center during this time period was 192,000. In the last 5 years there have been increases in annual attendance with the exception of the 2015-2016 season which had unusually low natural snowfall.

Table 11
Public Usage of Whiteface Mountain Ski Center 2006-2016

Season	Ticketed Visits	Pass Holder Visits	Total Visits
2006-07	N/A	N/A	166,145
2007-08	N/A	N/A	214,108
2008-09	N/A	N/A	185,486
2009-10	N/A	N/A	188,880
2010-11	138,020	71,194	209,214
2011-12	107,940	57,012	164,952
2012-13	124,991	67,436	192,427
2013-14	148,044	66,115	214,159
2014-15	140,608	75,611	216,219
2015-16	106,686	60,575	167,261

The peak ticketed days of attendance used to always be within the February Presidents' Week. Since the last UMP Amendment this has changed. While President's Week continues to be the time of highest attendance with 3 of the 5 years reported below occurring during this February holiday. For the last two years below, the peak attendance day occurred in January during the Martin Luther King holiday weekend period. Average peak day attendance for the last 5 years is around 4,800.

Park Attendance Days at Whiteface Mountain Ski Center

Season	Peak Day (Date)	Skier (Ticketed + Pass Holder) Visits
2011-12	19-Feb	4,474
2012-13	16-Feb	5,159
2013-14	15-Feb	5,398
2014-15	18-Jan	5,000
2015-16	16-Jan	4,121

2. Non-Ski Season Use

The summer and fall season program centers around mountain biking, including mountain bike racing. Whiteface also holds and annual Octoberfest which is well attended. The gondola is operated as a tourist attraction year-round. Hunting and trapping are prohibited at Whiteface but there are public fishing rights along the West Branch AuSable River. The section of river in the Intensive Use Area is a catch-and-release, artificial lures only section.

Use data for mountain biking, gondola rides, and base area adventure park activities are presented in the table below. There are no distinctive participation trends over the 10-year period covered. Gondola tickets are usually between 30,000 and 40,000 per year. There has been somewhat of a decline in the Octoberfest attendance going back to 2007, but numbers have been steady the last 3 years. Mountain biking has been declining in recent years since peaking at just over 2,100 visitors in 2010.

Table 12
Whiteface Mountain Off-season Use 2007-2016

	Gondola Tickets	**Octoberfest Tickets**	**Downhill Mountain Bike Visitors**	**Adventure Park Visits**	**Memorial Highway Visits**
2007	31,581	6,399	1,552	N/A	66,240
2008	35,785	6,199	1,602	N/A	64,946
2009	37,499	4,517	1,845	N/A	66,989
2010	42,382	5,718	2,108	N/A	72,010
2011	34,199	2,984	1,832	N/A	65,251
2012	34,629	2,969	1,538	N/A	74,475
2013	38,797	4,280	1,191	N/A	72,579
2014	45,102	4,397	1,187	7,898	61,528
2015	40,724	4,571	992	7,712	78,752
2016	36,595	4,608	1,103	5,444	96,178

SECTION III MANAGEMENT AND POLICY

A. Orientation and Evolution of Management Philosophy

ORDA's central management goal and management philosophy is as follows:

"The Olympic Regional Development Authority will continue to provide a safe, quality, recreational experience to the public and promote both local and regional economic benefits through its responsibility to manage and operate the Whiteface Mountain Ski Center to the highest standard."

ORDA's goals and management philosophy have evolved since its inception following the 1980 Olympic Games. Originally created as a management organization with a priority of providing a safe, quality, recreational experience, ORDA has expanded its operational philosophy to encompass business strategies that are similar to leaders in the ski resort and sports industry. It is recognized that ORDA's unique portfolio of assets, have an ability to positively impact the economies in which it operates. In addition, ORDA's sporting events, attractions, and training facilities enhance people's lives.

Today, ORDA continues to build on the foundation of its mission and is deploying a philosophy that will allow the organization to be sustainable long into the future. This will be accomplished through strategic planning and open communication both internally and externally with all constituents. The business priorities are organized into three categories:

1.) Revenue Growth and Opportunities
2.) Capital Projects and Development
3.) Organizational Excellence

Within each of these categories, ORDA's centralized team works with management teams to develop strategic business plans for each venue that are in line with ORDA's goals and objectives. Short descriptions of these priorities are as follows:

<u>Revenue Growth and Opportunities</u>

Each year, management teams evaluate short term and long term concepts to increase revenue. Additionally, they explore opportunities in hosting major events, creating new partnerships that amplify ORDA's offerings, and overall, provide guests with the best experience. ORDA measures success through end of the year evaluations in specific revenue segments, visitation numbers, event profit and loss statements, and NPS (Net Promoter Score). (NPS is system utilized by leading resort operators in the industry and has been directly correlated with the ability to increase visitation and revenue.)

Capital Projects and Environment

Capital projects will be initiated through management and in line with ORDA's strategic plans. General priorities include refurbishment of outdated structures for safety, development or improvement of attractions or infrastructure that enhance the guest experience or allows ORDA to increase visitation and revenue.

Many ORDA venues exist within the boundaries of State protected lands and the impact of climate change on our environment is recognized. ORDA will be a leader in environmental stewardship with consistent commitment to sustainability, responsible development practices, and continuous communication with DEC, APA, and other regulatory agencies to ensure we are taking the appropriate measures.

Organizational Excellence

ORDA will strive for organizational excellence in every facet of its operation. From financial management, team building, communication, education, strategic planning, to overall safety, organizational excellence is a vision where every employee focuses on ways to improve or positively influence our operations.

B. Regulatory Issues

1. New York State Constitution Article 14

According to Article 14 of the NYS Constitution, Forest Preserve Lands are to be kept wild, with certain authorized uses and exceptions. The certain authorized uses and exceptions as they relate to Whiteface are as follows:

a) Ski Trails
The number of miles of ski trails that may be constructed and maintained on the north, east and northwest slopes of Whiteface Mountain in Essex County is 25 miles; and the maximum width of such trails is 200 feet provided that no more than 5 miles of such trails shall be in excess of 120 feet wide.

In addition to the above, the Constitution discusses buffer zones between ski trails and features such as other ski trails, access roads, maintenance areas, electrical distribution equipment and surrounding facilities. However, there are no clear criteria regarding the width of these buffer zones in relation to topography, drainage, outcrops, soil stabilization, public use carrying capacity, safety considerations, machinery requirements, and aesthetic concerns.

b) Vegetative Cutting
Article 14 states that Forest Preserve land, as currently fixed by law, either presently owned or acquired in the future by the State, will be kept forever as wild forest lands. As such, Forest

Preserve lands cannot be leased, sold, or exchanged, or be taken by any public or private corporation. Timber on Forest Preserve land cannot be removed, sold or destroyed. In the interest of public safety and in consideration of the development of protective and recreational facilities, it has been necessary for the Department of Environmental Conservation, as the managing authority for Forest Preserve lands, to periodically ascertain the limitations of legislative intent from the State Attorney General pertaining to the cutting, removal and destruction of trees.

In instances where cutting has not been sanctioned by constitutional amendment, the opinion and interpretation of the State's Attorney General has been sought on allowable cutting activities. One such opinion, dated January 18, 1934 pertaining to ski trail construction, states "ski trails (cross-country) may be constructed by the Conservation Department in the Forest Preserve when cutting trees to any material degree will not be necessary and the wild forest character of the Preserve will not be impaired."

In addition, trees may be removed for several other purposes. An Attorney General's opinion dated February 5, 1935 authorizes the removal of trees in the Forest Preserve that endanger public safety.

An Attorney General's opinion dated September 20, 1934 allows the use or removal of vegetation for surveying triangulation stations, where these stations serve as an aid to the conservation work of the State, and where the number of small trees used or removed for the work appear immaterial.

The cutting of trees to establish scenic vistas is addressed in an Attorney General's opinion of January 17, 1935. In this opinion, vistas may be established as long as the work is "carried on with care in order that the tree removal may not be sufficient to pass the point of immateriality." Before the creation of a vista, alternate locations in the area and alternate methods of achieving the view must be considered. For example, a more sparsely wooded site might be found, or an observation platform erected.

The salvage of windfall timber is authorized when it is determined that it represents a fire hazard in an opinion dated July 26, 1945. Salvaged timber cannot be sold or given away to anyone who may sell it, but it can be used for any project under Department of Environmental Conservation jurisdiction. A September 2, 1998 letter from the NYSDEC Regional Forester noted the permissibility of milling lumber on-site for on-site use.

In addition to authorizing tree cutting for ski trails, Article 14 permits cutting for appurtenances associated with the trails. ORDA, as with the previous DEC management, considers appurtenances to the ski trails to be those improvements and structures necessary to operate a modern, state-of-the-art ski center for safe, enjoyable skiing. Generally, these include such facilities as ski lifts, lodges, service roadways, parking lots, utility and water lines and other buildings and improvements needed for the operation and management of the ski center.

Appurtenances are constructed on a case-by-case basis based upon criteria of effective use, safe engineering design and minimum disturbance to vegetation and other natural features. They are implemented in accordance with this UMP Amendment and the 2013 DEC/ORDA Consolidation Agreement, as well as in accordance with the guidelines and criteria expressed in the Adirondack Park State Land Master Plan.

A February 17, 1977 letter from the NYSDEC General Counsel's office details the width to be accorded to ski center appurtenances, i.e., snowmaking lines, ski trail mergers, areas where trails and lifts coincide, and trail width necessary for ski trail grooming, skier safety, and compliance with international standards.

DEC's established policy regarding cutting, removal and destruction of trees and other vegetation on all forest preserve lands is found in the Policies and Procedures of the Commissioner of Environmental Conservation (Organization and Delegation Memorandum #84-06 as amended). This policy recognizes the tree cutting sanctioned through constitutional amendment (e.g., ski trails) and by the Attorney General's Opinions above. Adherence to the commissioner's tree cutting policy is mandated in the DEC/ORDA Memorandum of Understanding of 1991 contained in the 2013 Consolidation Agreement. All vegetation cutting at the Whiteface Mountain Ski Center must, and will be, in accordance with this policy.

The removal of cut trees may be done in any manner consistent with the guidelines of the SLMP, this UMP Amendment and Article 8 of the ECL.

c) Non-Alienation
Article 14 of the State Constitution provides that Forest Preserve Lands " ... shall not be leased, sold or exchanged to any corporation public or private."

2. Adirondack State Land Master Plan (SLMP)

The Adirondack State Park SLMP, adopted in 1971, provides general guidelines and criteria for the preservation, management and use of State Forest Preserve lands in the Adirondack Park by all State agencies. Under the plan, Whiteface Mountain Ski Center is classified as an Intensive Use Area:

"an area where the State provides facilities for intensive forms of outdoor recreation by the public."

The SLMP provides that the primary management guideline for Intensive Use Areas is to provide the public opportunities for a variety of outdoor recreational pursuits in a setting and on a scale in harmony with the relatively wild and undeveloped character of the Adirondack Park.

The SLMP further states that:

"Priority should be given the rehabilitation and modernization of existing Intensive Use Areas and the complete development of partially developed existing Intensive Use Areas before the construction of new facilities is considered."

"The primary management guideline for Intensive Use Areas will be to provide the public opportunities for family group camping, developed swimming and boating, downhill skiing, cross country skiing under competitive or developed conditions on improved cross country ski trails, visitor information and similar outdoor recreational pursuits in a setting and on a scale that are in harmony with the relatively wild and undeveloped character of the Adirondack Park."

"All intensive use facilities should be located, designed and managed as to blend with the Adirondack environment and to have the minimum adverse impact possible on surrounding State lands and nearby private holdings. They will not be situated where they will aggravate problems on lands already subject to or threatened by overuse, such as the eastern portion of the High Peaks Wilderness, the Pharaoh Lake Wilderness or the St. Regis Canoe Area or where they will have a negative impact on competing private facilities. Such facilities will be adjacent to or serviceable from existing public road systems or water bodies open to motorboat use within the Park."

"Construction and development activities in Intensive Use Areas will:

- avoid material alteration of wetlands;
- minimize extensive topographic alterations;
- limit vegetative clearing; and,
- preserve the scenic, natural and open space resources of the Intensive Use Area."

"No new structures or improvements at any Intensive Use Area will be constructed except in conformity with a final adopted unit management plan for such area. This guideline will not prevent the ordinary maintenance, rehabilitation or minor relocation of conforming structures or improvements."

"Since the concentrations of visitors at certain intensive use facilities often pose a threat of water pollution, the State should set an example for the private sector by installing modern sewage treatment systems with the objective of maintaining high water quality. Standards for the State should in no case be less than those for the private sector and in all cases any pit privy, leach field or seepage pit will be at least 150 feet from the mean high water mark of any lake, pond, river or stream."

"Existing ski centers at Gore and Whiteface should be modernized to the extent physical and biological resources allow. Cross-country skiing on improved cross-country ski trails may be developed at these downhill ski centers."

This UMP Amendment for Whiteface Mountain Ski Center has considered all the above provisions of the APSLMP. As a result, the UMP represents a document, when implemented, that will enhance Whiteface Mountain and the surrounding region in conformance with the APSLMP.

3. 2004 Unit Management Plan

The 2004 UMP for Whiteface is still in effect for the Ski Center. Included in Section I of this Amendment (see Table 1) is a detailed status of management actions adopted in the 2004 UMP Amendment of the 1996 UMP. Amendments made to the 2004 UMP since its adoption include the following:

May 2006-Approval for trail construction above 2,800 feet elevation including Tree Island (Lookout Mountain) Pod and associated lift, Excelsior-Bypass, New Niagara, Lower Skyward Bypass and new glade. Also included were improvements to Pump House #1, expansion of the Easy Acres (Bear Den) Lodge and erection of a new staff access road via Parking Lot #5.

July 2013-Approval of a public safety radio communications system at Little Whiteface Ski Patrol Building.

December 2015-Porcupine Lodge rehabilitation for continual ski patrol use and as a public warming shelter with light food and beverage service.

Many of the management actions approved under the 2004 and 1996 UMPs have been carried out. Some approved action still remain to be undertaken, and their implementation will be carried out under the specific conditions established in the previous UMPs, as well as this 2018~~7~~ UMP Amendment.

4. Environmental Conservation Law

Section 9-09031 of the Environmental Conservation Law places the "care, custody and control" of the Whiteface Mountain Ski Center with the Department of Environmental Conservation.

5. Olympic Regional Development Authority Act

The Olympic Regional Development Act (Article 8, Title 28, NYS Public Authorities Law) establishes the Olympic Regional Development Authority (ORDA) and sets forth its responsibilities, functions and duties. The management of Whiteface was transferred to ORDA pursuant to Chapter 99 of the Laws of 1984. This authority was implemented by an agreement between the DEC and ORDA on April, 1984. The 1984 agreement is incorporated into the 2013 DEC – ORDA Consolidation Agreement.

6. DEC - ORDA Memorandum of Understanding and Consolidation Agreement

The DEC and ORDA implement their mutual responsibilities for management of Whiteface through a Memorandum of Understanding (MOU) dated March 8, 1991. The MOU sets forth mutually agreeable methods and procedures by which managerial requirements are implemented. The MOU also establishes the means by which the 1996 and 2004 Updates and subsequent Amendments are to be implemented. Such means generally involve notification, inspection and review of actions to ensure compliance with the UMP Update or Amendment and applicable regulations.

In 2013 DEC and ORDA entered into a Consolidation Agreement that, in part, incorporates the 1991 MOU. A copy of this *Agreement Consolidating the Management Agreements for the Gore Mountain Ski Center, the Whiteface Mountain Ski Center and Memorial Highway, and the Mount Van Hoevenberg Recreation Area* is in **Appendix 1**. The 2013 Consolidation Agreement reestablishes the procedures for preparation of UMP's including such things as UMP content, UMP conformance with the SLMP, and the roles of ORDA, DEC and the APA in preparation, review and approval of UMPs.

7. Other Regulations

Sanitary wastewater disposal at Whiteface is regulated under a State Pollution Discharge Elimination System (SPDES) permit administered by NYSDEC.

Food service facilities at Whiteface Mountain are subject to regulations administered by New York State Department of Health.

Lift inspections are conducted by NYS Department of Labor.

C. Management Goals and Objectives

Whiteface Management has established goals and objectives in line with ORDA's key priorities:

1.) Revenue Growth and Opportunities
2.) Capital Projects and Environment
3.) Organizational Excellence

The general goals, as specified in the 2004 Whiteface UMP, which continue to be applicable to this 2018~~7~~ UMP Amendment and aligned with ORDA's priorities are as follows:

1. Revenue Growth and Opportunities

   a. Whiteface Mountain will observe the trends within the ski industry and seek to modernize buildings and infrastructure to increase guest capacity as well as provide a desirable mountain resort atmosphere.
   b. Whiteface recognizes the need to offer more intermediate terrain, specifically on Little Whiteface, and overall increase the number of family friendly trails accessed by the Gondola. A new lift is also part of this consideration to better manage the funnel effect which has occurred from the top of the gondola.
   c. Whiteface will continually seek to diversify its offerings in order to increase revenue and attract larger audiences year-round (i.e. mountain biking, snow shoeing, etc.).
   d. Whiteface's planning will include consideration for improving and expanding training opportunities for world-class athletes and attracting a greater number of world-class alpine events.
   e. Whiteface will work cooperatively with regional DMO's and other regional business entities to amplify the exposure for Whiteface Mountain and our new projects in order to benefit the region and attract more visitors.

2. Capital Projects and Environment

   a. Whiteface will continue to plan in a way that is consistent with the Adirondack Park State Land Master Plan and Article 14 of the NYS Constitution. As an Intensive Use Area, Whiteface's basic management guidelines include providing facilities for intensive forms of outdoor recreation by the public. At the same time, Whiteface development will blend with the Adirondack environment and have minimum adverse impacts on surrounding State lands.

      A careful approach to enhancements at Whiteface will provide continued opportunity for the public to enjoy a unique experience, gain an appreciation for sensitive development, and expose large numbers of people to the Forest Preserve.

   b. Whiteface will continue the on-going improvement and modernization of parking lots, lodges and guest service facilities, ski trails, snowmaking and lift facilities at Whiteface that will add to the public accessibility, increase user safety, and enhance recreational pursuits.

   c. One of the primary goals of this UMP update is to identify and formalize the commitment that ORDA and Whiteface have made to creating an atmosphere of environmentally-sensitive business practices. This commitment is evident by ORDA'S allocation of funds and efforts to study the ecology of Bicknell's thrush, joining the global ski industry environmental program "I AM PRO SNOW," purchasing high-efficiency snow guns, and working toward use of 100% renewable energy.

d. Whiteface has recently participated in the creation of the National Ski Areas Association Sustainable Slopes Charter, which outlines a series of best management practices related to the investigation and implementation of proactive, environmentally-friendly management actions that embody the philosophy of ORDA and Whiteface.

3. Organizational Excellence

a. Whiteface Mountain management will seek to establish annual budgets and schedules in support of the proposed capital improvements plan and other management objectives.

b. Whiteface will continue the maintenance and operation of Whiteface Mountain at a constant level over the ensuing five-year management period that will contribute to a stabilizing effect on Olympic region employment, economics, public recreation and governmental administration.

c. Whiteface will seek to improve infrastructure reliability in order to reduce the high frequency of breakdown, excessive staffing requirements and consequent financial drain.

d. Whiteface will seek to reduce its operations and maintenance costs by replacing outdated and aged equipment.

e. Whiteface will continue to develop informational and interpretive graphics and displays that will educate guests on environmental projects as well as the rich Olympic legacy of the region.

SECTION IV PROPOSED MANAGEMENT ACTIONS AND PROJECTED USE

A. Proposed Management Actions to be Undertaken after Acceptance and Adoption of this UMP

1. General

ORDA proposes to undertake a number of new management actions to further its goals for the future of Whiteface. Those goals include the following:

- Make Whiteface more desirable for recreational guests, athlete training and hosting premier events
- Modernize aging facilities and infrastructure
- Continue energy efficiency improvements
- Improve operational efficiency
- Increase competitiveness in the marketplace
- Explore potential for, and increase development of, year-round and summer attractions
- Improve quality and diversity of recreational facilities
- Attract more visitors, including the younger generation/next generation

Section VI discusses the alternatives that were considered when developing the new management actions.

2. New Downhill Trails and Lifts

a. Extend Bear Den's lift (Bunny Hutch or Lift C), with related trail work

Teaching activities at Whiteface currently take place out of the Base Lodge and out of Bear Den Lodge. ORDA wants to consolidate teaching activities into the Bear Den portion of the mountain. In order to accomplish this consolidation, it is proposed that the existing Bear Den Lift (Bunny Hutch) be replaced and extended uphill and that various trail improvements are made. These activities will increase the skier capacity of the area and will also allow for separation of beginning skiers with different ability levels and skiers of different ages (young children vs. adults).

See **Figure 7**, 2018~~7~~ Proposed Actions, and **Figure 20**, Master Plan – Enlargement (Base Area).

For the new quad chair at Bear Den, the lower terminal will get moved slightly upslope, the alignment of the lift would be rotated slightly to the south, and the upper terminal would be located approximately 500 feet higher up the mountain. After coming off the lift, skiers would have the option of skiing to their right and connecting with Boreen. Going left, skiers will take a proposed new trail (89) that will split into 2 trails. Going right at the split (trail 88), skiers would connect with the current upper lift terminal area. Continuing down the new trail (89) to skier's left, this trail eventually connects to the Flying Squirrel trail.

The following trail widening is also proposed in this area:

- Bobcat – skiers' right from Boreen to Loon, skier's left above and below Bobcat Chute, and skier's left below Bobcat Chute. Widen to between 70 to 120 feet to improve connection to Boreen and beginner skiability.
- Flying Squirrel – widen to +/- 100 feet on skier's right for most of its length and then skier's left at the Otter intersection.
- Runner Up – widen the narrow connector between Boreen and Moose to improve the connection.
- Moose – widen both sides in upper section, skier's left below Runner Up, and Skier's left before Bobcat to achieve 100 to 120 feet for improved beginner skiability.
- Porcupine Pass – widen where possible to improve skiability and connection from Learning Area and Base Area.
- Learning Area- widen learning area to improve fall line and expand lear-to-ski area and operations. The existing surface lift (Cub Carpet, lift J) will be slightly relocated and a second surface conveyor lift (Lift L) would be added.
- Bottom of Bobcat to Moose Connection – a new trail (90) that will avoid/eliminate the existing flat portion of Moose and improve beginner skiability.
- Learning Area to Base Connection – a new trail (91) will be constructed to provide a better connection from the Learning Area to the Base Area. This connection will be less steep than the only current connection (Porcupine Pass). This trail will include a skier bridge over the brook above the NYSEF building.
- Bear Den Lodge to Base Area Connection – another new trail (92) will provide a ski connection from the Bear Den Lodge and use the same bridge that carries trail 91 over the brook by NYSEF.

b. Widen Easy Way

This trail will be widened to approximately 80 feet to improve beginner skiability.

c. Widen Brookside

Widen to up to 120 feet to improve beginner skiability.

d. Widen Easy Street

Widen to between 100 to 120 feet to improve beginner skiability.

e. Widen Upper Boreen

This trail is currently less than 30 feet wide. Widen to between 40 to 100 feet where terrain allows.

f. Widen Boreen Loop

Widen up to 80 feet wide where terrain allows to improve beginner skiability.

g. Widen Parkway Exit

Widen up to 120 feet to improve congestion at the bottom of Draper's Drop during race training.

h. Widen Drapers Drop

Widen up to 135 to 150 feet skier's left to meet FIS homologation standards.

i New Trail 12a

This will be a new intermediate trail on Little Whiteface from Approach near Upper MacKenzie to the bottom of Empire.

k. Realign and Extend Bear Lift (Lift B)

Replace the existing Bear Lift with a new quad chair extending from the Base Area with a mid-station terminal near the top of the existing Bear Lift, to an area west of Calamity Lane near Mid-Station Lodge.

k. Replace Freeway Lift (Lift I)

Replace the existing Freeway lift with a new quad chair extending from the Base Area to the top of Upper Empire.

3. Parking and Vehicular Circulation

a. Create additional parking

The bus parking lot, the first parking lot on the left when entering Whiteface from NYS Route 86, will be enlarged in order to provide parking for an additional 100 cars. The lot will be extended on its northwest side (away from Route 86/toward the river). **Figure 20**, Master Plan – Enlargement (Base Area) and **Figure 21**, Master Plan Enlargement (Parking Area), shows the proposed parking lot expansion, the location and size of a stormwater practice and the area to be revegetated within area cleared for grading.

b. Create formal drop-off area at Bear Den

The drop-off at Bear Dean is currently informal, which hinders efficient skier drop-off and causes auto/pedestrian conflicts. By formalizing the drop-off, drop-off efficiency can be improved and a better separation between auto and pedestrian traffic can be achieved. **Figure 20**, Master Plan – Enlargement (Base Area), shows that a semicircular island will be installed along with more formalized pedestrian access along the exterior of the drop-off loop. Additional hardscape will be installed between the drop-off loop and the Bear Den Lodge. Attempts will be made to increase parking efficiency in Lot 4 through parking attendants, barriers or other means.

c. Base area bridge to replace existing culvert

The 2004 UMP Amendment identified that the triple culvert, named together as culvert 2, "is in bad shape, can't take high flows, water rises to a point where it overtops road." As part of this ~~draft~~ UMP Amendment, culvert 2 will be replaced by a bridge designed to pass flows from a 500-year design storm. The 500-year design storm for the Whiteface area is 7.5 inches in a 24-hour period.

4. Examine options for a snowmaking reservoir (Conceptual Action)

The amount of water that Whiteface can withdraw from the West Branch AuSable River is dictated by the MOU that ORDA entered into with NYSDEC (copy of MOU in **Appendix 3**). At peak snowmaking times, river flows may keep Whiteface from withdrawing water fast enough to meet peak demands.

The amount of water that Whiteface can withdraw is also limited by the pumping capacity in pumphouse 1. When there are mechanical or other problems with a pump or pumps in pumphouse 1, Whiteface may not be able to withdraw water fast enough to meet peak snowmaking demands.

Having additional snowmaking water available in a reservoir would help Whiteface meet peak snowmaking demands during times of lower river flows and/or during times when pumphouse 1 pumping capacity is diminished during optimum snowmaking conditions.

The possibility of constructing a snowmaking reservoir at Whiteface was considered in the 1996 UMP and was included in the 2004 UMP as a conceptual action. The 2004 UMP identified a conceptual area located uphill from Boreen Loop. It was determined that a reservoir with a storage capacity of 5 to 8 million gallons was desirable. Construction of this reservoir would have required the construction of a dam in order to impound the main section of stream that runs down Whiteface.

As part of developing this UMP Amendment, ORDA continued to examine alternatives available

for constructing a snowmaking reservoir. An area located to the south of pumphouse 2 was identified as a potentially suitable alternative for the following reasons:

- The area is relatively flat.
- The soils in the areas are mapped as not having shallow depth to bedrock.
- There are no streams or wetlands to be affected.
- The area is in relatively close proximity to pumphouse 1 and pumphouse 2.

Figure 22, Conceptual Snowmaking Reservoir, shows the location and the configuration of the conceptual snowmaking reservoir.

The full reservoir (elevation 1308.5 feet) would have a surface area of 4.1 acres. The total storage volume of the reservoir would be 22.6 million gallons (Mgal). If the pump intake was set 2 feet off of the bottom of the reservoir and the reservoir had 3 feet of ice on top, the usable reservoir volume would be 17.5 Mgal.

The reservoir would be equipped with a drain valve that would be left open during the summer months. This would allow for any runoff water inflow to pass through the reservoir. Outflow from the reservoir would be to the West Branch AuSable, so any warm water discharge should be avoided.

It is envisioned that the reservoir would be filled in late fall with water pumped from pumphouse 1. Water withdrawal would be in accordance with the ORDA/DEC MOU. The reservoir will have a precast outlet control structure to provide access to the reservoir drain and to pass typical storm events when the reservoir is filled. The reservoir will also have a broad crested weir outlet to be used as an emergency spillway for larger storm events when the reservoir is filled. The reservoir would be slowly drained in early spring prior to high spring river flows.

5. Add biking trails from mid-station

Options for adding trails out of mid-station include utilizing existing alpine trails such as River Run, Lower Valley, Burtons and Thruway.

6. People Mover Between Parking and Base Lodge (Conceptual Action)

The bridge over the West Branch AuSable River has long been a bottleneck for getting skiers into and out of Whiteface. Passenger vehicles often experience arrival delays when driving into the base area to drop passengers and equipment before driving back to park in one of the parking lots. This also frequently happens at the end of the day when picking up passengers and equipment. Whiteface shuttles experience the same delays during peak arrival and departure times.

In order to alleviate some of this congestion, ORDA is contemplating installing a people mover

between the parking lots and the base area. The type of transport hasn't been decided on, but options include an elevated transport lift with enclosed cars, or a monorail type transport such as the Hilltrac automated people mover (https://hilltrac.com/).

At this time it is envisioned that the transport would have loading/unloading areas located at the bus parking lot and in front of the old NYSEF building in front of the Base Lodge. A pedestrian crossing of the entrance road could be established so that people who park in the lot across from the bus lot could access the transport along with people parked in the bus lot. Having this transport as a convenient available option would reduce the number of vehicles trying to get in and out of the base area.

7. Base to Base transfer lift (Conceptual Action)

A transfer lift between the Base Lodge and the Bear Den Lodge would provide an alternative for accessing the Bear Den area without having to cross the bridge to take a vehicle into the Bear Den area. Adults who are skiing non-beginner terrain out of the base lodge could use the transport lift to Bear Dean to meet up with children or others skiing beginner terrain at Bear Den. Non-skiing spectators could use this transport lift to travel between the Base Area and Bear Den.

C. Projected Use

As per attendance figures previously provided in Section 2, ticketed and passholder ski visits are expected to fluctuate around the 190,000 – 200,000 per year average.

Peak day attendance is expected to range from 5,000 to 6,000 ski visits with peak day attendance over 7,000 being possible. Presidents' Day weekend is expected to be the most likely time of peak day attendance.

Off-season visits for things such as mountain biking, gondola rides, hiking, Oktoberfest etc. are expected to average 50,000 to 55,000 per year.

D. Actions Approved in Previous UMP/EIS which are Part of the Foregoing 5-year Plan

Table 1 in Section 1 previously presented an accounting of management actions from previous UMP/EIS documents. Including in this accounting were categories for previously approved management actions that are partially completed and management actions that were approved and for which construction is pending.

These categories include the following, which will continue to be part of the foregoing 5-year plan.

- Continued trail development

- Ongoing trail widening
- Lift improvements
- Lodge improvements and expansion
- Parking development
- Snowmaking modernization/improvements
- Continued infrastructure and energy efficiency improvements
- Continued development/improvement of compatible recreation amenities and public access

E. Prioritization of Management Actions

The following is a listing of new management actions by priority

Top Priority

- Bear Den lift extension and related trail work
- Create formal drop-off at Bear Den

Moderate Priority

- Widen Easy Way
- Widen Brookside and Easy Street
- Realign Bear lift
- Replace Freeway Lift

Lower Priority

- Create additional parking spaces
- Add biking trails from mid-station
- Construct Base to Base transfer lift
- Examine snowmaking reservoir options
- Construct people mover between parking and Base Lodge

SECTION V POTENTIAL IMPACTS AND MITIGATION MEASURES

A. Physical Resources

1. Geology

Potential Impacts

The summit of Whiteface Mountain is characterized as a "Unique Geological Feature" and is described in the NYSDEC Environmental Resource Mapper as "cirques" and "aretes." A cirque is an amphitheater-like valley formed by glacial erosion. Aretes are sharp created ridges in rugged mountains. Per **Figure 7**, 2018~~7~~ Proposed Actions, no actions are proposed in proximity to the Whiteface Mountain summit, so there will be no impacts to this unique geological feature.

Bedrock is at or near the ground surface in many locations in the Whiteface Mountain Intensive Use Area.

The intermediate trail 73, previously approved, but not yet constructed between the relocated Freeway Lift and the Gondola, is in an area that is predominantly Hogback- Knob Lock complex soil series. Depth to bedrock is listed as 9-14 inches for this soil series. The proposed new intermediate trail (12a) that would connect Approach to the bottom of Upper Empire is in the same soil series as well as in the Ricker-Couchsachraga- Skylight complex with bedrock listed as 9 to 15 inches. The upper lift towers and the upper lift terminal for the relocated Freeway lift will be installed in these same soils. Blasting may be required during the construction of these trails and lift components.

The construction in the Bear Den section of the mountain, including lift relocation, trail widening and new trails, is less likely to encounter as much bedrock. This area is mostly deep Monadnock soils. However the upper portions do include the Monadnock-Turnbridge complex with Turnbridge soils typically having 27 inches to bedrock. There are also some outlying areas of Turnbridge-Lyman complex soils that typically have bedrock at 18-27 inches.

Mitigation Measures

ORDA will employ the services of a professional, licensed and insured blasting company to perform any needed blasting. Blasters in New York State are required to possess a valid NY State Department of Labor issued Explosive License and Blaster Certificate of Competence. The Explosives License permits the licensee to purchase, own, possess or transport explosives. The Blaster Certificate of Competence permits the use of explosives.

If it is determined that blasting will be required, a written blasting plan will be developed and approved prior to the commencement of blasting. In general, the blast plan will contain information about the blasting methods to be employed, measures to be taken to protect the safety of the public, and how the applicable rules and regulations will be complied with. If during the evolution of the project there are significant changes in the blast design, a new blast plan will be required.

While each blast plan is tailored to meet the specific needs of a particular project, they all contain certain elements. Typically the general information provided will include the blasting contractor; the project blaster; locations of blasting; the duration of blasting operations; locations of offsite receptors; location of any nearby utilities; the drill hole pattern; the explosives and detonation systems to be employed; the proposed loading of the holes; the maximum weight of explosives to be detonated in any delay period; measures to be taken to minimize the offsite impacts of blasting; traffic control and warning signs; the sequence and type of blasting warning signals; location of seismographs to monitor blast induced vibrations; what, if any local permits are required; will pre-blast surveys be performed, and if so where; and other information as necessary.

In addition, prior to the commencement of blasting, a pre-blast meeting will be held with the blaster, project manager, and other interested parties.

A record of each blast will be made by the blaster, and a copy provided to and retained by the project, which contains at a minimum the following information:

- Name of the operator and/or contractor conducting the blast.
- The location, date and time of the blast.
- Name, signature and identification number of the blaster (certificate of competency number, as issued by the Department of Labor).
- Type of material to be blasted.
- Diagram of shot including number of holes, depth of holes, diameter of holes, burden, spacing, and face orientation.
- Location and distance of nearest non-company owned structure.
- A record of the shot including amount of subdrilling, decking, stemming height and type, quantity and type of explosive, quantity and type of detonator, weather conditions (including wind speed and direction), type of initiation system and all delay periods progressively, in milliseconds. A drill log reviewed and signed by the licensed blaster and company supervisor including date, time, location, shot number, number of holes, hole depth, average face height, burden, spacing, diameter and any potential problem areas such as seams, cracks, voids and water.

The following techniques and control measures will be considered in blast design to reduce ground vibration:

- Adjusting the blast hole pattern
- Reducing the pounds of explosive per delay:
    - use of smaller diameter blast holes
    - reduce bench height
    - use of decking
- Avoiding overly confined charges (e.g. excessive burden).

- Avoiding excessive subdrilling.
- Strict control over spacing and orientation of blast holes.
- Borehole deviation monitoring.
- If possible, designing the blast sequence to direct vibration away from structures of concern.

A properly designed blast will give lower vibrations per pound of explosive. Close to the blast, the ground vibration character is affected by factors of blast design and geometry, particularly charge weight per delay, delay interval, and to some extent direction of initiation, burden, and spacing.

Additionally, to reduce the public's concern regarding ground vibrations:

- Blasts will be scheduled for the same time of day whenever possible.
- Blasts will be scheduled for periods of high local activity.
- Blasts will not be scheduled for quiet periods.
- Neighbors will be notified of the blast schedule in advance.

2. Soils

Potential Impacts

Erosion potentials for soils in the Intensive Use Area were provided previously in Section 2.A.1.b. Erosion potentials are slight, moderate or severe.

See **Figure 23**, Soils Map and Proposed Actions.

Activities in areas south of the FaceLift on the slopes of Little Whiteface are in soils with severe erosion potential. To the north of Freeway and in all lower elevation areas soils have mostly moderate erosion potentials. The 'C' soils at the lowest elevations such as Monadnock and Adams have slight erosion potentials.

Disturbance of areas of steep slopes during construction for ski trails, lifts, etc., can lead to an increased vulnerability of the soils to erosion. Suitable measures must be implemented to first prevent soil erosion and then, second, to make sure that any soils that are eroded are contained and prevented from causing sedimentation in receiving waters.

ORDA is familiar with implementing proper erosion and sediment control practices when undertaking construction practices at their venues that oftentimes involve construction on steep slopes. These proper practices are set forth in the *New York State Standards and Specifications for Erosion and Sediment Control* (last updated November 2016).

These standards and specifications will be used to develop Stormwater Pollution Prevention Plans (SWPPPs) for construction activities at Whiteface in accordance with NYSDEC's *SPDES General Permit for Stormwater Discharge from Construction Activity, GP-0-15-002.*

SWPPPS will detail those measures that will be implemented during construction to mitigate potential soil erosion and surface water sedimentation. SWPPP content will include such things as construction sequencing and phasing, temporary and permanent stabilization, structural erosion control practices and vegetative control practices. SWPPS will include provisions for monitoring, inspections, data collection, and compliance documentation.

Mitigation measures that ORDA commonly and successfully employs during ski area construction activities include the following that will be incorporated into Whiteface pre-construction SWPPP plans and specifications.

Mitigation Measures

Construction Road Stabilization – site access will be achieved using existing work roads, ski trails, driveways and parking areas. At this time, no new disturbance is anticipated for site access, material storage areas or other construction uses.

Concrete Washout – Concrete truck washouts will be provided in existing parking areas located in proximity to the base area.

Protecting Vegetation to Remain – clearing limits will be marked with flagging tape, paint or other suitable means prior to the felling of trees for lift line and ski trail construction. ORDA is particularly sensitive to adhering to clearing limits on the Forest Preserve lands on which they operate their venues.

Runoff Control

- **Water Bars** – Water bars shall be installed during construction of the ski slopes and lift lines. They are to be placed across the slope to reduce the potential for erosion, with diversion into stable vegetated areas or other stabilized outlet. All water bars shall be installed at a 2% slope and particular attention shall be paid to proper spacing specifications as follows:

Slope (%)	Water Bar Spacing (ft.)
<5	125
5 to 10	100
10 to 20	75
20 to 35	50
>35	25

(Source: New York State Standards and Specifications for Erosion and Sediment Control, 2016)

Rock outlet protection using construction-generated rock will be installed at the ends of water bars when natural areas appear not to be adequate.

- **Trench Plugs** – Sand bags or gravel bags will be employed in open utility trenches longer than 300 feet. Compost filter socks of suitable size are an acceptable alternative to sand bags or gravel bags.

Soil Stabilization

- **Temporary Seeding** - Seed and mulch inactive areas with bare soil within 3 days of disturbance unless construction will resume in that area within 2 days. Seed with annual rye mixture at 30 pounds per acre**.** For late fall or early winter seeding seed with winter rye at a rate of 100 pounds per acre. Mulch areas with straw at a rate of 2 tons per acre.

- **Permanent Seeding and Mulching** - Maintain existing vegetation outside of marked limits of disturbance. Soils disturbed for construction of ski trails and lifts shall be permanently stabilized by successfully establishing an herbaceous ground cover.

  Seeding – A commercially available native seed mixture appropriate to the climate shall be used to stabilize disturbed areas to be re-vegetated. Seed may be applied by a number of suitable means including broadcasting, hydro-seeding, or incorporated as part of a geotextile (i.e. Green & Bio Tech SureTurf 1000 and 4000 Seeded Mat System ®, BIOMAT ® seeded mats).

  Mulching – Broadcast seeded areas shall also be mulched. Broadcast seeded areas shall be mulched with invasive species free hay or straw at a rate of 2 to 3 bales per thousand square feet (100-120 bales per acre). Mulch shall be secured in place by either driving over the mulched area with a tracked vehicle or by applying a non-asphaltic tackifier.

  Hydro-seeded areas shall contain a mix of wood cellulose mulch applied during the hydro-seeding process. Wood cellulose mulch shall be applied at a rate of 35 pounds per thousand square feet (2,000 pounds per acre). A non-asphaltic tackifier will be included with the hydro-mulch application.

Soil Restoration

As directed by the Qualified Inspector, areas of compacted soils that are to be seeded should be restored to improve the quality of the seed bed. The top four (4) to six (6) inches of soil shall be loosened using hand or mechanical means prior to applying seed. Also, as directed by the Qualified Inspector, finished grades consisting of exposed subsoils may require soil amendment or topsoil in order to provide a suitable seed bed.

Sediment Control

- **Silt Fence** – Where appropriate, silt fence (standard or reinforced) shall be installed along topographic contours. Use of silt fence is appropriate where there is no concentration of water flowing to the barrier and where the drainage area for overland flow does not exceed ½ acre per 100 feet of fence. Additionally, maximum allowable slope lengths contributing runoff to a silt fence shall be as follows:

Slope Steepness	Standard Maximum Slope Length (ft.)	Reinforced Maximum Slope Length (ft.)
<50:1	300	N/A
50:1 to 10:1	125	250
10:1 to 5:1	100	150
5:1 to 3:1	60	80
3:1 to 2:1	40	70
>2:1	20	30

(Source: New York State Standards and Specifications for Erosion and Sediment Control, 2016)

  - Silt fence structures should be installed anywhere sediment retention is needed in and around a construction site.
  - Perpendicular to slopes or parallel to contour.
  - At the toe of highly erodible slopes.
  - Around culverts and storm water drainage systems.
  - Adjacent to lakes, streams or creeks.

Maintenance – Silt fences should be inspected periodically for damages such as tearing by equipment, animals, or wind and for the amount of sediment which has accumulated. Removal of the sediment is generally necessary when it reaches 1/3 the height of the silt fence. In situations where access is available, machinery can be used; otherwise, it must be removed manually. The key elements to remember are:

- The sediment deposits should be removed when heavy rain or high water is anticipated.
- The sediment removed should be placed in an area where there is no danger of erosion.
- The silt fence should not be removed until adequate vegetation ensures no further erosion of the disturbed slopes. Generally, the fabric is cut at ground level, the wire and posts removed, the sediment spread, and seeding and mulch is applied immediately.

Reinforced silt fence should be installed at the base of temporary stockpiles. The reinforced silt fence is designed to hold heavier loads. Falling debris from stockpiles may be caught by the reinforced silt fence where standard silt fence could fail.

- **Straw Bale Dikes** – Straw bale dikes may be used as a substitute for silt fence ONLY where shallow depth to rock precludes the proper installation of silt fence. Straw bale dikes shall NOT be used where there is concentrated flow. Straw bale dikes shall NOT be used where more than 3 months of erosion and sediment control is required unless bales are replaced or an additional parallel row of bales is installed prior to the original straw bales being in place for 3 months. Length of slope above the straw bale dike shall not exceed the following:

Slope Steepness	Maximum Slope Length (ft.)
2:1	25
3:1	50
4:1	75

(Source: New York State Standards and Specifications for Erosion and Sediment Control, 2016)

Straw bale dikes require more maintenance and degrade much more rapidly. Straw bale dikes offer a more standalone practice that may be less dependent on the require staking. Staking is required for both silt fence and straw bale dikes. Both practices are required to be buried in the ground, although silt fence is required a six inch burial as opposed to a four inch burial trench for straw bale dikes. If neither application is applicable, sediment may be captured by using aproned Triangular Silt Dikes.

Installation specifications:

- Each bale shall be embedded in the soil a minimum of 4 inches.
- Bales shall be placed in a row with ends tightly abutting the adjacent bales.
- Bales shall be securely anchored in place by stakes driven through the bales. The first stake in each bale shall be driven toward the previously laid bale to force bales together.
- Inspection shall be frequent and repair or replacement shall be made promptly as needed.

Ski Trail Construction

Erosion and sediment control practices for trail construction will be conducted similarly as it has been done in previous trail construction projects with much success. ORDA staff is experienced in ski trail and lift construction including erosion control techniques. They will use the following measures to mitigate the potential impacts of trail construction.

- Limit individual disturbance areas to less or equal to 1 acre at any time.

- Tree trunks will be removed and used on site either as part of trail construction or cut up and used for firewood.
- Logs will be used on constructed trails to create cribbing to help stabilize the down gradient slope.
- Where possible, tree stumps will be cut flush to the ground to minimize the impact to the existing root systems and to allow the quick establishment of vegetation. Emphasis to minimize cutting, filling and grubbing operations on slopes over 25 percent will be made.
- Grubbed stumps will be buried within the trail as part of trail construction (filling low spots, etc.)
- Branches and tops will be chipped with chips broadcast into adjoining wooded areas. Chip piles shall not be created in wooded areas.
- Install sediment and erosion control practices.
- On constructed trails, which involved cut/fill operations, exposed earth areas will be contained by diverting clean runoff from the uphill side with water bars as much as practicable.
- Silt fence and/or chip berms on the downhill side will be utilized to filter the runoff from the raw site.
- During final grading, all water bars will be repaired in order to effectively intercept and divert water from new trails and lift areas.
- Areas where finish grade has been established will be seeded and mulched within 3 days. No areas shall be left with raw earth exposed for more than 7 days.

Lift Terminals Construction

Lift terminal construction will be located in relatively flat to low slope areas and are limited to approximately ¼ acre in size. E&SC practices include silt fence, upgradient water bars, and vegetative stabilization. RECP will be installed on the graded outruns of upper lift terminals.

Lift Line Construction

The scope of lift line construction operations is similar, but less intense, than most trail construction operations. Construction of the lift line corridors will involve:

- Cutting trees to provide a 60 feet wide area with sufficient clearance.
- Stumps are cut flush to the ground.
- Grading operations are limited to the areas immediately around lift tower footings and where vehicle access is required. In these locations E&SC practices include silt fence, upgradient water bars, and vegetative stabilization.
- Ground cover vegetation will be undisturbed to the extent possible.
- Areas requiring site disturbance will be stabilized using practices described above.

- Wooded areas which are cut will be allowed to naturally fill in with brushy type growth where no ski trails or service driveways are to be created.

Linear Utilities

Linear utilities include underground water pipe, air lines, and electric lines. Erosion from pipeline construction will be minimized by limiting the length of the open trench to 1200' for a period not to exceed 10 days. Sand or gravel bags trench plugs will be placed in sloped trenches at a minimum of 300' intervals to slow the velocity of stormwater runoff that may enter the trench.

Areas where finish grade has been established will be seeded and mulched within 3 days. No areas shall be left with raw earth exposed for more than 7 days.

3. Topography and Slope

Potential Impacts

See **Figure 24**, Topography and Proposed Actions.

Limited grading is required for new ski trails, trail widening or ski lifts. Trails are laid out to follow natural fall lines. Lift line grading is limited to the upper and lower terminals and at the tower foundations.

More significant grading will be required to create the additional 100 car parking spaces in the bus parking lot. See **Figure 21**, Master Plan Enlargement (Parking Area). Up to 15 feet of fill will be required to create the additional parking spaces on the west side of the lot. All of the graded area that is not actual parking lot surface will be revegetated.

Significant grading (excavation) would be required if the conceptual snowmaking reservoir is pursued as a management action in a future UMP orUMP amendment. Under the current concept, approximately 90,000 cubic yards of material would be excavated.

Impacts associated with grading involve erosion and sediment control (see the previous section) and protection of water resources (see the following sections).

Mitigation Measures

No mitigation measures beyond those described in the previous section and in the following section are required.

4. Water Resources

Potential Impacts

See **Figure 25**, Surface Water and Wetlands and Proposed Actions, and **Figure 20**, Master Plan Enlargement (Base Area).

The stream crossing for Trail 89 will require installation of a bottomless arch culvert. Previously there was a culverted crossing at this location, but those culverts were removed when the former trail was abandoned.

Trail 88 will require the removal of the existing culverted stream crossing and the installation of a longer bottomless arch culvert.

A skier bridge designed to pass flows from a 500-year storm event will be constructed for Trail 92 just above the NYSEF building. See **Figure 20**, Master Plan Enlargement (Base Area) and Figure **26**, Trail 92 Stream Crossing Bridge. Stormwater calculations were performed utilizing widely accepted engineering methodologies, including TR-55, and the stormwater modeling computer program HydroCAD (version 10.00) produced by HydroCAD Software Solutions, LLC. The goal of the stormwater analysis was to determine the total flow through the existing drainage channel at the proposed Trail 92 ski bridge location. The existing channel has an estimated total watershed of 1,141 acres and is a combination of woods and grass. The curve numbers utilized in the modeling were assigned based on cover type and HSG soil classification. The design storm used for the channel flow analysis was 500-year, 24-hour duration, SCS Type II events. The rainfall amounts for this storm is 7.50 inches. Runoff from the mountain flows through two distinct channels prior to combining at the location of the proposed ski bridge. The design storm (500 year, 24 Hour Type II) produced an average flow depth at peak storage of 3.91 feet. Therefore, all abutments, bridge supports and bridge decking is to be placed outside of this flow depth to allow the design flow to pass without obstruction.

The existing “culvert 2” in the base area, which is actually 3 individual culverts next to each other, will be removed and replaced with a bridge crossing.

Expansion of the Bus Lot may require a slight re-route of the diversion ditch previously constructed by NYSDOT.

Mitigation Measures

(1.) All efforts should be made to construct/reconstruct the Trail 88 and Trail 89 stream crossings when streams are not flowing.

(2.) If natural streamflows don’t allow for dry construction/reconstruction for Trails 88 and 89,

then the crossings should be installed in the dry using temporary upstream damming (i.e. sandbags or similar) and a pump around.

(3.) Any pump arounds shall be discharged to a stable streambed reach with minimal amounts of material that could become dislodged.

(4.) If a mid-span abutment is still proposed in the construction drawings for the Trail 92 bridge, efforts shall be made to keep this (and all other bridge abutments) outside of the stream channels. Use of pre-cast abutments for bridges and arch culverts is preferred.

(4.) No machinery shall operate from within the stream channel.

(5.) Machinery should be regularly maintained and checked frequently for fluid leaks. Any machine found to have even a minor fluid leak shall be removed to a remote area for repairs.

(6.) Machinery operating in the vicinity of streams shall be equipped with spill control materials including absorbent pads.

(7.) Any concrete forms in proximity to surface waters shall be tightly sealed.

(8.) Structural erosion controls shall be installed, inspected and maintained until areas of disturbance become fully stabilized with vegetation, stone or other materials.

5. Wetlands

Potential Impacts
No impacts to wetlands have been identified.

Mitigation Measures
No mitigation measures are necessary.

6. Climate and Air Quality

Potential Impacts
No new permanent sources of air emissions are proposed as part of this UMP.

Construction activities may result in localized increases in dust levels. However, areas of proposed construction are located within the interior of the Intensive Use Areas, so no offsite areas are expected to be affected.

Many ORDA venues exist within the boundaries of State protected lands and the impact of climate change on our environment is recognized. ORDA will be a leader in environmental stewardship with consistent commitment to sustainability, responsible development practices,

and continuous communication with DEC, APA, and other regulatory agencies to ensure we are taking the appropriate measures.

Mitigation Measures
No significant adverse impacts have been identified, therefore, no mitigative measures are necessary.

B. Biological Resources

1. Vegetation

Potential Impacts

As shown on **Figure 27**, Vegetation and Proposed Actions, essentially all of the new management actions proposed in this UMP will occur in the Northern Hardwood community. No management actions are proposed in areas of spruce-fir communities.

Table 13, Whiteface Mountain Tree Cutting by New Management Action Types, presents the amounts of currently wooded area that will be impacted by each of the new management actions in this UMP Amendment.

In summary, the following acreages of wooded areas will be affected:

- New Downhill Trails: 10.6 acres
- Widen Existing Trails: 9.2 acres
- Realign/Extend Lifts: 6.4 acres

  Total: 26.2 acres

The numbers of trees that are proposed to be cut are accounted for in detail in **Appendix 6**, Whiteface Mountain 2018~~7~~ UMP Amendment Tree Cutting. A total of 22,049 trees will be cut. Of this total, 9,466 will be between 3 and 4 inches dbh, and 12,583 will be greater than 4 inches dbh. (Numbers of trees to be cut has been reported with the breakdown of 3-4" and >4" dbh in Whiteface UMP documents going back to the 2004 Update.)

Tree cutting is proposed on 26.2 acres of the approximately 2,910 acres of intensive use area. Because this is about 1% of the intensive use area, there is sufficient capacity to absorb the impact to vegetation resources.

All tree cutting will be done in compliance with the DEC tree cutting policy LF-91-2.

No rare, threatened or endangered plant species will be impacted.

Mitigation Measures

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 with grass mixtures to promote rapid revegetation. Areas disturbed for any other improvements will also be landscaped and revegetated as soon as practicable.

Plants used to revegetate disturbed areas and planted as part of landscaping will be species indigenous to the region.

No clear-cutting of trees to develop panoramic views is proposed. Views will be framed or filtered by existing vegetation.

Continue to train staff working at Whiteface Mountain unit to identify and document the location of key invasive plant species.

Work toward a complete comprehensive inventory of the presence and extent of invasive plants in the unit.

Eliminate any identified populations of invasive plant species that are discovered in the unit. These actions may be carried out by DEC personnel or by members of APIPP or other volunteers under supervision of DEC through an Adopt-a-Natural Resource Agreement.

2. Wildlife

Potential Impacts

The actions proposed in this UMP are expected to have minimal impacts on wildlife. Proposed management actions are interspersed within the landscape of the existing developed ski trails and lifts. For the most part, new management actions are proposed at low elevations on the mountain. (See subsection 5, Critical Habitat, below for a discussion of activities above 2,800 feet elevation and Bicknell's thrush).

As shown on **Figure 27**, Vegetation and Proposed Actions, almost all of the actions proposed in this UMP will occur in the Northern Hardwood community.

Trail widening projects, including the green trails in the Bear Den area, involve existing trails. This will result in the loss of some currently treed areas along the edge of existing ski trails and

will move the forest edge slightly inward.

New Trails 88 and 89 are in areas that were previously disturbed with a lift and trail before the upper terminal for the Bunny Hutch lift was moved down the mountain.

The relocation/realignment of the Bear and Freeway lifts will take place in the area that is north of the gondola line and south of the Face Lift, an area already highly dissected by existing ski trails and lift lines.

Additional parking at the bus parking lot is an expansion of the current parking lot.

The creation of the formal drop-off at Bear Den and the additional biking trails from Mid-Station do not involve any impacts to wildlife habitat.

Mitigation Measures
No significant adverse impacts have been identified, therefore, no mitigation measures are required.

3. Fisheries

Potential Impacts
ORDA will continue to comply with its MOU with DEC that regulates water withdrawals from the West Branch AuSable River that was developed to be protective of fisheries resources.

Protection of water quality (fisheries habitat) was addressed in the earlier Water Resources section.

Mitigation Measures
No significant adverse impacts have been identified, so no mitigation measures are needed.

4. Unique Areas

Potential Impacts
No such areas exist in the Intensive Use Area.

Mitigation Measures
No impacts have been identified, and no mitigation measures are needed.

5. Critical Habitat

Potential Impacts
See **Figure 28**, Potential Bicknell's Thrush Habitat and Proposed Actions. The upper portion of the relocated Freeway Lift and the new trail 12a are proposed on lands 2,800 feet in elevation

or higher. The upper portion of the previously approved, but not yet constructed, trail 73 is also located above 2,800 feet. None of these proposed improvements or related structures are located in spruce-fir habitat.

Mitigation Measures

ORDA will continue to implement the comprehensive set of measures designed to mitigate impacts to Bicknell's thrush contained in section II.B of the 2006 UMP amendment.

These mitigation measures include, but are not limited to, prohibiting tree cutting above elevation 2,800 feet between May 15 and August 1, limiting the width of new trails above 2,800 feet to 115 to 131 feet (35-40m), and maintaining trails and lifts with feathered vegetation on wind exposed sides.

C. Human Resources

1. Visual Resources

Potential Impacts

None of the activities in the Bear Den area will be visible from the nine locations from which the photos in section II.A.3 were taken. The Bear Den portion of Whiteface is blocked from view from these nine vantage points by intervening landforms.

Higher elevation activities that include the realignments of the Bear and Freeway lifts, construction of the approved, but not yet constructed, Trail 73 and possibly the new Trail 12a may be visible from three locations. These three locations are: VP2, NY Route 86 overlooking Beaver Brook Meadow; VP5, Fox Farm Road; and VP6 NY Route 86 at the entrance to Whiteface.

Figure 29 is the existing conditions photo of Whiteface as seen from the entrance road on NYS Route 86. **Figure 30** is a simulation of the built condition from the same viewpoint. The Freeway Lift and the previously approved, but not yet constructed trail 73 are visible in the simulation. A small are of cut for the Bear Den Lift is also visible. Trail 12a is blocked by topography. Overall, the character of the view is not significantly different than the existing view since the new actions are located within the context of the existing view, including existing ridgeline breaks for the top of the gondola and the "castle" building on top of Whiteface Mountain.

Figures 31 and 32 show the areas on the mountain where the new higher elevation actions may be visible based upon the simulation in Figure 28. **Figure 31** is from VP2 and **Figure 32** is from VP5. Components in the view will be visible but not nearly as discernable as the view from NYS Route 86 entrance because of distances and angles of the view.

Mitigation Measures
No significant impacts have been identified, and no mitigation measures are needed.

2. Transportation

Potential Impacts
None of the proposed new management actions are intended to significantly increase the carrying capacity of Whiteface. The addition of 100 spaces to the bus lot only represents a 7% increase in the amount of available parking. The new proposed management actions will not result in significantly higher traffic generation over what currently exists.

From an internal circulation standpoint, the conceptual transport lifts under consideration have the potential to increase transportation efficiency within the facility.

Mitigation Measures
No mitigation measures are need since no significant impacts have been identified.

3. Community Services

Potential Impacts
There will be some increase in demand for community services such as fire, EMS, police, rescue, solid waste and health care. However, Whiteface Ski Center presently makes very little demand on such services and the increase in such demand is anticipated to be minimal.

Mitigation Measures
No mitigation measures are needed since no potential impacts have been identified.

4. Local Land Use Plans

Potential Impacts
The actions in this UMP ~~Draft~~ Amendment are consistent with local, regional and ORDA efforts to enhance an attractive year-round day use recreation area.

Mitigation Measures
No mitigation measures are needed since no potential impacts have been identified.

5. Historical and Archaeological Resources

Potential Impacts
There is a November 9, 2017 letter from NYS Office of Parks Recreation and Historic Preservation in **Appendix 7** stating that the project will not impact historical or archeological resources.

Mitigation Measures
No mitigation measures are needed since no potential impacts have been identified.

SECTION VI ALTERNATIVES

A. Alternative Trail Improvements

The following alternatives were considered when developing plans for trail improvements that would meet the management goals and objective for Whiteface.

Trail 88
Upon extending the top of Bunny Hutch Lift (C) to its proposed location (see subsection below on Alternative Lifts), it was critical to provide a suitable beginner trail connection to the existing beginner trail network. An alternative was explored that extended down the currently proposed trail 89, then turned south to tie into the area where the existing top terminal of Lift C is currently located. This alignment would have required extensive earthwork, and was restricted by the existing elevations at the stream crossing on Trail 89.

Trail 89
This trail utilizes a portion of a former trail that was previously abandoned. This is currently the only feasible alternative for a new trail to the north of the existing beginner trail network. Terrain further to the north is not suitable for beginner or low intermediate terrain and would not provide access back to the Bear Den Lodge.

Trail 90
This is a short section of trail connecting the bottom of Moose back to the Bear Den base area. The exiting connection is very flat and difficult for beginner skiers, as well as instructors with classes in tow, to traverse. An alternative was explored that instead of turning North on Moose to head back to the base area, continued further east before turning north to get back to the Bear Den Lodge. The terrain in this area offers a similar pitch to the existing connection and would have conflicted with the proposed learn-to-ski area expansion and surface lifts. The proposed alternative alignment provides better pitch and therefore an easier and better connection, and works well with existing skier traffic patterns.

Trail 91
This trail is an alternative beginner connection from the Bear Den Area to the main Base Lodge area. Porcupine Pass is a current connection between these areas, but is a narrow and steep section of trail that is intimidating and difficult for a beginner skier to traverse. This trail is proposed to provide terrain more suitable and comfortable for a beginner skier. An alternative explored was a no-action alternative that instead, utilized proposed trail 92. However, this alternative is not desirable, as it would force skier traffic through the proposed learn-to-ski area. There is no other area or terrain available that allows for additional trail alignments to be explored.

Trail 92

This trail provides a 'last resort' connection back to the main Base Lodge area. It utilizes an existing cleared power line corridor to the extent possible. The goal of this trail is to provide a suitable beginner connection from the Bear Den Lodge to the Base Lodge, without having to ride a lift up the mountain, and offers better flexibility for family members trying to re-connect at the end of the day. An alternative was explored that followed the current alignment halfway, then turned west to connect back to Porcupine Pass and make use of the existing culverted stream crossing. This alternative alignment was too flat to provide sufficient pitch for beginner skiers, and was undesirable due to the connection back to Porcupine Pass which can be difficult for beginner skiers.

Trail 12a

As a previously conceptual action, this trail alignment was reviewed against the current trail network and existing terrain and deemed to be an appropriate alternative for an intermediate trail.

B. Alternative Lift Configurations

Bunny Hutch (C) Lift

The alternatives examined as part of the replacement and re-alignment of Lift C looked to improve the beginner skiing experience, improve beginner connectivity from the Bear Den area to the 'main' part of the mountain, provide more flexibility when accessing beginner terrain, and offer potential access to additional beginner terrain. The first alternative was a simple replace-in-kind, which did not address the aforementioned goals. The second alternative replaced the existing lift in its current location, then added a second lift from the Bear Den Lodge (close to the existing lift C bottom terminal), extending to the Mid-Station Lodge at the top of Boreen. This option restricted the space and circulation within the base area at the Bear Den Lodge and was not pursued. Another option explored replacement in kind along with adding a new lift from the Main Base area north of the Face Lift to the bottom of the Wilmington Trail. This lift, along with trail improvements between the Bear Den Lodge and the main Base Area improved connectivity but was not determined to be cost efficient. The proposed alternative closely follows the existing alignment but extends the lift farther up the hill and closer to the bottom of the Wilmington Trail. This was the option that addressed most of the goals and resulted in minimal additional cost over an in-kind replacement.

Freeway (I) Lift and Bear (B) Lift

Improvement of these lifts were ultimately planned together to address different needs, as well as support the goals established for the Lift C improvement. One of the primary goals of the Freeway Lift replacement was to provide redundant access to a large part of the mountain in the event that the Face Lift and/or the Gondola were unable to operate due to windy conditions. The initial alternative for the Freeway Lift replacement extended from a location immediately adjacent to the Face Lift terminal in the base area to the existing location of the

Freeway upper terminal. This provided direct access out of the base area but was limited in the terrain that could be accessed, especially during ski race training that requires closure of many of the trails accessed by the Freeway Lift. The second alternative started at the same location adjacent to the Face Lift in the base area, and extended to the currently proposed upper terminal location near the top of Upper Empire. While this option increased direct access out of the base area to intermediate and expert terrain and provided alternative access to the Summit Quad, it resulted in two lift line crossings (Gondola and Bear Lift) and did not maintain convenient access to ski racing terrain for the racing programs. Another alternative was to retain the existing alignment of the Freeway Lift, add a mid-point unloading station on the Face Lift at Mid-Station Lodge, and replace the Mountain Run lift and extend the upper terminal to an area adjacent to Upper Empire. While providing more flexibility out of the Mid-Station and additional access to beginner terrain, and maintaining convenient racing terrain access and it did not provide direct access out of the base area and did not seem cost effective relative to the benefit provided. Finally, the proposed alternative combined the replacement and realignment of both the Freeway Lift and the Bear Lift to achieve desired goals. Setting the Freeway lift to extend out of the base area south of the Gondola lift line, as well as relocating the bottom terminal of the Bear Lift to the location immediately adjacent to the lower Face Lift terminal resulted in only one lift line crossing (Freeway and Gondola) which is the same number that currently exists (Bear and Gondola). Extending Freeway to the top of Empire provides redundant, direct access out of the base area, and access to racing terrain and the Summit Quad. Extending the Bear Lift to a location near the Mid-Station Lodge provides flexibility out of the Mid-Station Area, access to beginner terrain as well as secondary access to racing terrain. A mid-point unloading terminal on the Bear Lift, in the location of the existing Bear Lift upper terminal maintains access to beginner terrain near the base area.

Surface Lifts (J and L) at Bear Den

With the construction of the addition to the Bear Den Lodge and the desire to expand and improve the learn-to-ski area, a new surface conveyor lift (L) was required along with a reconfiguration of the existing surface conveyor (J). One alternative explored was to locate both surface lifts to the north, in the area where the existing Lift C terminal is. This option was not pursued as it resulted in undesirable skier and user circulation patterns, and it did not have suitable terrain. A second alternative kept the existing surface lift in its current location, and added a second surface lift extending from the top of the existing lift to the intersection of the bottom of Moose and Bobcat. The provided a longer stretch of learn-to-ski area, but was still limiting with regards to space given its proximity to the base terminal of Lift C. The current alternative is sufficiently separated from the Lift C terminal, makes use of existing terrain with a more suitable fall line and is proximate (horizontally and vertically) to access from the Bean Den Lodge addition.

C. Alternative Parking/Circulation Improvements

An alternative means of alleviating vehicular congestion and pedestrian/vehicular conflicts in the Base Lodge area would be to replace the existing bridge over the West Branch Ausable with

a wider bridge or to construct a second bridge over the river further to the north. A wider bridge could provide for additional vehicle lanes, including possible dedicated lanes for shuttle buses, as well as providing pedestrian walks that are wider than the current narrow walks over the bridge. A second bridge to the north could provide the opportunity for flow through traffic in the base lodge area. These alternatives could be given further consideration in future UMP documents. Currently, the conceptual transport lifts, could prove a viable alternative to what would be a costly construction project involving the environmentally sensitive river and some steep riverside slopes.

Consideration was given to improving access and circulation in and around the Bear Den area by using all or parts of the new upper driveway access to the mountain's maintenance area. Topographically, no desirable options were identified, and there is a strong desire to keep patron and mountain maintenance vehicular circulation segregated as much as feasible.

D. Alternative Appurtenances

Earlier planning efforts for Whiteface have included improvements to appurtenances. The new management actions in this UMP Amendment complement those previously approved actions.

There are no appurtenant buildings proposed in the UMP Amendment. Planning for building improvements, including the Base Lodge, Bear Den Lodge and Porcupine Lodge were approved in earlier UMP Amendments and are currently at various stages of completion.

There are no significant changes to the snowmaking system proposed in this UMP Amendment. Recent upgrades to pumphouse number 1 have been taking place under previously approved UMP amendment.

E. The No-Action Alternative

If the no-action alternative were pursued, none of the new management actions proposed in this ~~Draft~~ UMP would be given consideration. Any management actions approved in earlier adopted UMPs, but not yet constructed/implemented, could remain in effect and can continue to be implemented.

The last significant UMP Amendment for Whiteface was in 2006, more than 10 years ago. The no-action alternative would defer new planning for the facility, and could mean that the following goals set by ORDA for Whiteface Mountain may not be attainable:

Whiteface recognizes the need to offer more intermediate terrain, specifically on Little Whiteface, and overall increase the number of family friendly trails accessed by the Gondola. A new lift is also part of this consideration to better manage the funnel effect which has occurred from the top of the gondola.

Whiteface will continue the on-going improvement and modernization of parking lots, lodges and guest service facilities, ski trails, snowmaking and lift facilities at Whiteface that will add to the public accessibility, increase user safety, and enhance recreational pursuits.

Whiteface will continue the maintenance and operation of Whiteface Mountain at a constant level over the ensuing five-year management period that will contribute to a stabilizing effect on Olympic region employment, economics, public recreation and governmental administration.

Whiteface will seek to improve infrastructure reliability in order to reduce the high frequency of breakdown, excessive staffing requirements and consequent financial drain.

Whiteface will seek to reduce its operations and maintenance costs by replacing outdated and aged equipment.

SECTION VII SUMMARY OF UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS

Some of the potential environmental impacts of the new management actions cannot be prevented or reasonably avoided. This section describes the unavoidable impacts that might occur as a result of the implementation of management actions set forth in this UMP which provide for further modernization, improvement and expansion of the Whiteface facility.

7.1 Construction Phase

Construction activities inevitably result in temporary impacts including: visual, noise, vibrations, dust, fumes and odors.

During construction, while vegetation is disturbed there is an increased risk of erosion during stormwater events and a resulting adverse impact in surface water quality. As a result, the water quality in nearby receiving waters may be impacted during the course of construction due to possible erosion of excavated areas. Preparation of project-specific Stormwater Pollution Prevention Plan (SWPPP) for construction activities using the mitigation measures described in Section V.A.2 will minimize these impacts.

Construction will involve clearing of vegetation for the construction of trails, buildings, shuttle lanes and other proposed facilities. Clearing results in habitat loss that could increase runoff and adversely impact wildlife. (See Section 2 for an explanation of the Environmental Setting, and Section 5 for Potential Impacts and Mitigation Measures) While there will be tree cutting required for ski trails, tree cutting is minimized to the extent feasible and the footprint of the proposed trails are within State constitutional limits.

There may be a localized impact to air quality from dust during construction, however, this potential impact will be temporary and will not extend outside of the Intensive Use Area.

7.2 Operational Phase

There will be an incremental increased use of surface water resources for snowmaking water supply. ORDA will continue to withdraw water from the West Branch Ausable River in accordance with its MOU with DEC in order to minimize potential impacts.

Wildlife may be impacted as a result of permanent removal of vegetation. As previously stated, tree cutting required for the construction of new ski trails and for trail widening is within constitutional limits.

Slightly increased attendance and operational activities as a result of the project will cause a corresponding slight increase in traffic levels, but peak hour traffic is not expected to significantly increase.

SECTION VIII IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The extent to which a proposed action may cause permanent loss of one or more environmental resources should be identified as specifically as possible based upon available information. Resources which should be considered include natural and man-made resources that would be consumed, converted or made unavailable for further uses due to construction, operation, or use of the proposed project, whether those losses would occur in the immediate future, or over the long term.

The management actions contained in this UMP Amendment do not involve any significant, irreversible or irretrievable commitment of natural resources under the footprint of the proposed new or widened ski trails or the new or relocated ski lifts. The footprint of the additional parking at the bus lot represents a small commitment of these natural resources to built conditions.

Many of the management actions would involve the removal of existing vegetation and would disturb on- site soils. It is not believed that such impacts are significant. No rare, threatened or endangered species are known to inhabit the site.

There would be a commitment of raw materials for construction of the bridges, including concrete, steel, gravel, and wood. Energy resources would be required for the construction, operation and maintenance of the expanded facility.

SECTION IX GROWTH INDUCING, 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 versus 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.

SECTION X EFFECTS ON THE USE AND CONSERVATION OF ENERGY

Fuels will be used to power construction equipment and tools. Deliveries of lift components and other construction materials will also require fuel. Outside contractors will use fuel for traveling to and from the job site at Whiteface.

Development of new trails and widening existing of new trails will result in an incremental increase in energy needed for the increased areas of snowmaking. Better circulation at the Bear Den drop off may conserve some energy by decreasing the duration of vehicle idling.

The three New York-owned ski resorts, Belleayre Ski Resort, Gore Mountain and Whiteface Mountain, have pledged to be powered by 100 percent renewable energy by 2030, joining The Climate Reality Project I AM PRO SNOW *100% Committed* campaign. The initiative corresponds with Governor Cuomo's Clean Energy Standard, which requires that half of all electricity used in New York come from renewable sources by 2030.

Whiteface currently obtains approximately 100% of its electrical supply through renewable sources provided by Direct Energy, including energy provided at its wind farm in Altona.