Application for Natural Resource Protection Act Review from the Maine Department of Environmental Protection

Sugarloaf – West Mountain Expansion

Carrabassett Valley, Maine

Prepared for: Sugarloaf Mountain Corporation
C/o Boyne USA, Inc.
3951 Charlevoix Avenue, Petoskey MI 49770

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MAIN-LAND
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September 24, 2021

Ms. Jami MacNeil
Maine Department of Environmental Protection
106 Hogan Road
Bangor, ME 04401

Subject: Boyne Resorts NRPA Tier 3 Application for Construction of the Sugarloaf West Mountain Development

Dear Ms. MacNeil,

Boyne Resorts (Boyne) is pleased to file this Natural Resources Protection Act (NRPA) Tier 3 application with the Maine Department of Environmental Protection (DEP) for the proposed expansion of the Sugarloaf Resort known as the West Mountain, in Carrabassett Valley, Maine. This submittal is concurrent with an application being submitted related to Site Location of Development Law (Site Law).

As agreed during the pre-application meeting, the concurrent submission of these permit applications will avoid the need for duplicative information. Accordingly, certain required information for the NRPA application can be found in the following Site Law application sections:

Activity Description	Site Law Application, Section 1
USGS Location Map	Site Law Application, Section 1
Title, Right Interest	Site Law Application, Section 2
Public Notice, Public Information Meeting	Site Law Application, Section 25
Erosion Control/Construction Plan	Site Law Application, Sections 1, 12 & 14

If you have any questions or would like any additional follow-up information, please do not hesitate to contact me by email at rick@main-landdci.com or by phone at (207) 897-6752. Thank you for your attention to Boyne's application for this important project.

Sincerely,

Main-Land Development Consultants, Inc.

Richard W. Dunton, P.E.
Director of Engineering

Department of Environmental Protection
Bureau of Land & Water Quality
17 State House Station
Augusta, Maine 04333
Telephone: 207-287-7688

FOR DEP USE
ATS #_____
L- _____
Total Fees: _____
Date: Received _____

APPLICATION FOR A NATURAL RESOURCES PROTECTION ACT PERMIT

➔**PLEASE TYPE OR PRINT IN *BLACK INK ONLY***

1. Name of Applicant:	Scott Kelley, Boyne Resorts	**5.Name of Agent:**	Rick Dunton, Main-Land
2. Applicant's Mailing Address:	15 South Ridge Road, Newry, ME 04261	**6. Agent's Mailing Address:**	367 US 1, South building 3rd Floor, Falmouth, Maine 04105
3. Applicant's Daytime Phone #:	207-824-5951	**7. Agent's Daytime Phone #:**	207-897-6752
4. Applicant's Email Address (Required from *either* applicant or agent):	mhall@boyneresorts.com	**8. Agent's Email Address:**	rick@main-landdci.com

9. Location of Activity: (Nearest Road, Street, Rt.#)	West Mountain Road	**10. Town:**	Carrabassett Valley	**11. County:**	Franklin

12. Type of Resource: (Check all that apply)
- ■ River, stream or brook
- ❑ Great Pond
- ❑ Coastal Wetland
- ■ Freshwater Wetland
- ■ Wetland Special Significance
- ■ Significant Wildlife Habitat
- ❑ Fragile Mountain

13. Name of Resource: Unnamed freshwater wetlands and streams; WOSS; Bicknell's Thrush habitat

14. Amount of Impact: (Sq.Ft.) 180,868

Fill: 180,868 square feet

Dredging/Veg Removal/Other:

15. Type of Wetland: (Check all that apply)
- ■ Forested
- ■ Scrub Shrub
- ■ Emergent
- ❑ Wet Meadow
- ❑ Peatland
- ■ Open Water
- ❑ Other_____

FOR FRESHWATER WETLANDS

Tier 1	*Tier 2*	*Tier 3*
❑ 0 - 4,999 sq ft. ❑ 5,000-9,999 sq ft ❑ 10,000-14,999 sq ft	❑ 15,000 – 43,560 sq. ft.	■ > 43,560 sq. ft. or ❑ smaller than 43,560 sq. ft., not eligible for Tier 1

16. Brief Activity Description: Sugarloaf West Mountain Development Project

17. Size of Lot or Parcel & UTM Locations: ☐ _____square feet, or ☑ 3,071 acres UTM Northing: 4990050 UTM Easting: 395790

18. Title, Right or Interest: ■ own ❑ lease ❑ purchase option ❑ written agreement

19. Deed Reference Numbers:	Book#: 3994 Page: 90	**20. Map and Lot Numbers:**	Map #: 0001B	Lot #: 0001	
21. DEP Staff Previously Contacted:	Jami MacNeil	**22. Part of a larger project:**	❑ Yes ■ No	**After-the-Fact:**	❑ Yes ■ No
23. Resubmission of Application?:	❑ Yes➔ ■ No	**If yes, previous application #**		**Previous project manager:**	
24. Written Notice of Violation?:	❑ Yes ➔ ■ No	**If yes, name of DEP enforcement staff involved:**		**25. Previous Wetland Alteration:**	❑ Yes ■ No

26. Detailed Directions to the Project Site: Take exit 130 off I-95 N toward Waterville, continue to US-201 N, then take ME-16 W. Destination will be on the left.

27.

TIER 1
- ■ Title, right or interest documentation
- ■ Topographic Map
- ❒ Narrative Project Description
- ❒ Plan or Drawing (8 1/2" x 11")
- ■ Photos of Area
- ❒ Statement of Avoidance & Minimization
- ■ Statement/Copy of cover letter to MHPC

TIER 2/3 AND INDIVIDUAL PERMITS
- ■ Title, right or interest documentation
- ■ Topographic Map
- ■ Copy of Public Notice/Public Information Meeting Documentation
- ■ Wetlands Delineation Report (Attachment 1) that contains the Information listed under Site Conditions
- ■ Alternatives Analysis (Attachment 2) including description of how wetland impacts were Avoided/Minimized
- ■ Erosion Control/Construction Plan
- ■ Functional Assessment (Attachment 3), if required
- ■ Compensation Plan (Attachment 4), if required
- ❒ Appendix A and others, if required
- ■ Statement/Copy of cover letter to MHPC
- ❒ Description of Previously Mined Peatland, if required

28. FEES Amount Enclosed: $6,330.36

CERTIFICATIONS AND SIGNATURES LOCATED ON PAGE 2

IMPORTANT: IF THE SIGNATURE BELOW IS NOT THE APPLICANT'S SIGNATURE, ATTACH LETTER OF AGENT AUTHORIZATION SIGNED BY THE APPLICANT.

By signing below the applicant (or authorized agent), certifies that he or she has read and understood the following :

DEP SIGNATORY REQUIREMENT

PRIVACY ACT STATEMENT

Authority: 33 USC 401, Section 10; 1413, Section 404. Principal Purpose: These laws require permits authorizing activities in or affecting navigable waters of the United States, the discharge of dredged or fill material into waters of the United States, and the transportation of dredged material for the purpose of dumping it into ocean waters. Disclosure: Disclosure of requested information is voluntary. If information is not provided, however, the permit application cannot be processed nor a permit be issued.

CORPS SIGNATORY REQUIREMENT

USC Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry shall be fines not more than $10,000 or imprisoned not more than five years or both. I authorize the Corps to enter the property that is subject to this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein.

DEP SIGNATORY REQUIREMENT

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Further, I hereby authorize the DEP to send me an electronically signed decision on the license I am applying for with this application by emailing the decision to the address located on the front page of this application (see #4 for the applicant and #8 for the agent)."

_____ Date:_____

SIGNATURE OF AGENT/APPLICANT

NOTE: Any changes in activity plans must be submitted to the DEP and the Corps in writing and must be approved by both agencies prior to implementation. Failure to do so may result in enforcement action and/or the removal of the unapproved changes to the activity.

Attachment 2

Alternatives Analysis

ATTACHMENT 2. ALTERNATIVES ANALYSIS

Under NRPA rules in Chapter 310, an applicant for a permit to impact protected natural resources must avoid and minimize impacts to protected natural resources to the greatest extent practicable. In order to achieve the Project purpose and need, and due to site constraints including sensitive natural resources and the required proximity to existing ski lifts and transportation and utility infrastructure, the Project cannot be located entirely in upland areas. The Project represents infill development within existing established trails and lift services and leverages existing infrastructure to support the Project while minimizing impacts associated with extension of new infrastructure into currently undeveloped areas. Wetland impacts have been minimized to the greatest extent practicable.

Proposed wetland impacts consist of approximately 180,868 square feet (4.15 acres) of permanent wetland fill. Some of this fill is related to cutting and grubbing forested wetland to allow for the burial of utilities and conversion of a forested wetland to a meadow for a ski trail. The specific wetland and waterways impacted are provided in Appendix 1 of this document.

Boyne Resorts (Applicant) investigated several alternatives to avoid or minimize the amount of proposed freshwater wetland alteration, resulting in the impacts described above. The proposed Project layout included with this application package is the result of a multi-year integrated design team approach that encompasses input from Boyne Resort in-house experts in trail design and mountain operations as well as ski real estate specialists, VHBs mountain planners, civil engineers, ecologist and natural resource specialists, and Main-Land Development Consultant's experience with civil engineering and infrastructure design.

In addition to the integrated design team approach described above, the Applicant participated in several regulatory agency meetings to review impact avoidance and mitigation strategies to be used for the Project. These meetings are summarized below

- Introductory onsite interagency meeting with DEP, IFW, Corps – **November 12, 2020**
- Site visit with Trevor Persons and MNAP to review salamander, mayfly, thrush, sub-alpine fir habitat – **November 20, 2020**
- Working Meeting with DEP (for guidance on buffer avoidance strategies, general avoidance and minimization of habitat & wetland impacts) – **January 27,2021**
- DEP Pre-Application Meeting #1 (Standard SLODA Pre-App) – **March 26, 2021**
- VHB/ IFW call to obtain input on thrush, mayfly/salamander prior to 2nd Pre-app meeting – **April 5, 2021**
- DEP Pre-Application Meeting #2 (Natural Resources and Wildlife Focused) to review natural resource issues/permitting – **April 7, 2021**
- Site Law/NRPA Public Information Meeting – **July 29, 2021**
- Site Law/NRPA Pre-Submission Meeting – Scheduled for **September 9, 2021**

The resulting Project layout optimizes skier experience, successful long-term operation of trail features, and avoidance and minimization of impacts to steams, wetlands and wildlife. A description of how these various design considerations have shaped the Project to achieve the least environmentally impactful practicable alternative is described in more detail in the sections below.

2.1 Project Purpose and Need

Project Objectives: The West Mountain Project is a key component of Sugarloaf's 2030 Plan published last year and represents a major enhancement for Sugarloaf. The purpose of the Project is to employ a comprehensive master planning approach to further develop the western side of Sugarloaf Mountain to include additional ski trails for all abilities, skier services infrastructure, roads, bridges, parking lots, and housing consisting of condominiums, duplex-style townhomes and single-family lots. The Project has several key goals:

- **Improve Sugarloaf's trail mix by providing additional intermediate and beginner terrain.** This supports entry level and multigenerational use of the mountain ski terrain, which is critical to the future of the resort and also serves to and avoid skiers attempting to ski on terrain over their ability, which is a safety issue.
- **Protection against wind holds.** On average, Sugarloaf experiences 7 days/season of ski terrain shutdown for wind holds. Wind holds require partial shutdown of lifts 15 days +/- year, which can negatively impact skier experience. The proposed lift location and design will provide lift access to ski terrain with much less probability of wind hold. This will improve the skier experience and operational efficiency.
- **Provide additional parking and convenient lift access for guests.** In recent years, growth of skier visits has created parking issues with 250+ cars parking on the main access road 6-8 days per year, complicating shuttle services. The Town of Carrabassett Valley has expressed concern about the current parking situation with regard to congestion and safety, and the construction of additional parking and trail access and ticketing options will address those concerns.
- **Four season use.** Providing four-season activities is critical for success of ski areas moving forward. The addition of the lift will be transformative for summers at Sugarloaf and would allow the utilization of its mid-mountain Bullwinkle's Restaurant facility for weddings, concerts, and food & beverage service.
- **Increase skier visits by providing additional single family residential housing on site.**
- **Increase the bed base with new townhomes and condominiums.** Sugarloaf is currently experiencing a shortage of housing units available at the mountain. This Project would also assist in funding the new lift, 140 acres of new ski terrain, and snowmaking that are the core of this Project.
- **Develop the Project while being respectful of the environment and leaving hundreds of acres in the Project area undisturbed.** The Project has undertaken significant efforts to shift ski trails and terrain out of sensitive areas to the extent feasible in order to preserve stream buffers and wildlife habitat.

The housing portion of the Project consists of the following:

- 54 single family lots;

- 4 condominium buildings, each totaling 22 to 28 units, depending on interior configuration for a total of 88 to 112 units;
- 22 duplex style townhomes (44 units); and
- Associated access roadways, parking, and utilities and stormwater management facilities.

The ski terrain portion of the Project consists of the following:

- Approximately 140 acres of new beginner and intermediate ski terrain;
- Installation of a new high-speed lift;
- Reduced length of the existing West Mountain lift by approximately 2,700 linear feet and provide new top unload area in the vicinity of the existing mid station;
- A skier services building of 1500+/- square feet, including 24 restaurant seats, small kitchen & bar, small lodge seating area and an office/ticket sales; and
- Three new parking lots including approximately 366 spaces.

Project Benefits: The Project will have substantial local and regional benefits. In terms of recreation, the West Mountain Expansion will expand Sugarloaf's beginner and intermediate ski and snow board terrain and will greatly alleviate traffic congestion at the existing lift facilities by shifting significant numbers of riders to this new area. In addition, the proposed lift will open the mountain up to summer recreational opportunities. The new lift will allow summer guests to ride to Bullwinkle Bistro, opening the venue up to summer business including weddings and conferences. This enhancement is an important consideration as ski resorts across the country are finding it beneficial to expand their market base beyond the traditional skier.

The increase in the number of homes will help meet the demand for new inventory in the local housing market. These lodgings will also allow more guests to experience the region throughout the year. This increase in visitors will enhance tourism, an important source of revenue in the region. In addition to the temporary construction jobs, the facility will create additional permanent jobs associated with tourism and the maintenance of these new structures.

The proposed improvements will increase the Town of Carrabassett's tax base. As with the increase in lodging, the enhanced recreational facilities will require temporary construction jobs as well as long-term operations and maintenance jobs.

2.2 **Project Siting and Alternatives Analysis**

Initial planning for the Project began in 2019 as part of the development of Sugarloaf's 2030 Plan issued in 2020. Key components of this plan included enhancing the on-mountain experience and resort facilities, promoting new skiers to the sport by providing expanded beginner terrain, and creating year-round recreational opportunities. The initial location of the facilities was determined based on a feasibility analysis which considered preliminary environmental, design and engineering considerations.

The Applicant initiated consultations with resource agencies in early 2020 in order to identify potential environmental constraints. Field surveys of the entire Project area were completed throughout 2020 and into 2021 to determine the presence / absence of sensitive resources and provide base information for use during project design and permitting. The Applicant conducted an iterative alternative analyses process in order to avoid and minimize impacts on identified natural resources while ensuring that the Project design needs were being met. The analysis of alternatives involved reviewing the following design criteria, which are further discussed below:

- Utilizing, managing, or expanding one or more other sites that would avoid resource impacts;
- Reducing the size, scope, configuration, or density of the activity as proposed, thereby avoiding or minimizing resource impacts; and
- Developing alternative designs that avoid or lessen resource impacts.

Utilizing, managing or expanding one or more other sites that would avoid resource impacts

As evidenced by the Project purpose, the proposed facilities could only be located on the West Mountain at Sugarloaf Resort. The Project represents infill development within existing established trails and lift services and leverages existing water, sewer, and snowmaking infrastructure to support the Project while minimizing impacts associated with extension of new infrastructure into currently undeveloped areas. The new lift creates a direct connection to an existing restaurant and all of the proposed new trails need to connect to this new access point as well as the new left bottom terminal. Similarly, the proposed new buildings and parking facilities were designed to take advantage of or support the new ski facilities. Existing terrain is at a slope that is similar to that utilized for beginner ski trails (8% -25%), which are key component of the Project, thus minimizing impacts associated with extensive trail grading. Therefore, no other site would be feasible that meets the Project's purpose.

Reducing the size, scope, configuration or density of the activity as proposed, thereby avoiding or minimizing resource impacts

The Project's goal was to avoid all wetlands, streams, vernal pools, and their appropriate buffers to the greatest extent feasible, while still achieving the Project need. In early 2020, the Applicant conducted extensive fieldwork to identify and map natural resources within the Study Area. Concurrently with these studies, Project designers reviewed topographic, soil, and other constraint mapping to determine onsite constructability. In fall of 2020, and informed by the recent natural resource delineations, the Applicant's internal design engineers conducted multiple onsite meetings with VHBs mountain planners and engineers as part of an effort to optimize trail design while eliminating natural resource impacts. The goal of these efforts was to identify sufficient suitable land (*i.e.,* land with minimal natural resource or constructability constraints) to be used for the Project.

Land uses and land cover changes within the Project were considered. Ski terrain which is mowed only annually and features dense vegetative cover and simar runoff characteristics to forested terrain is situated adjacent to the larger streams and wetlands where more sensitive wildlife habitat exists. Remaining portions of the Project where stream and wetland features are less extensive have been utilized for roads and real estate development.

Ski Lift Design

The design of the ski lift must incorporate engineering and safety factors. Ski lifts need to be constructed so as to promote visitor safety, allow for maintenance activities, and meet emergency medical evacuation requirements as developed by the National Ski Area Association and established in ANSI B77.1-2017 for Passenger Ropeways.

Ski Trail Design

Ski trails design requires careful planning of ski trail grades, load and unload zones, site lines, radii and fall lines along all trails, and merging of trail traffic for trails of differing rider experience and ski speed. Table 1 presents these requirements at a high level of analysis. These components are particularly important because the Project involves trails that would be utilized by beginner and intermediate skilled users. Users must have access to trails consistent with their skill level in order to avoid unsafe passing, queuing, and pressure from skiers behind. Novice skiers are unlikely to revisit a trail system that presents a greater risk for skier conflict and distracts the skier's focus, both of which discourage a welcoming environment to learn the sport.

Table 1. Ski Trail Design Requirements

Trail I.D.	Skill Level	Grade	Description
Green	Beginner	8% - 25%	Wide, groomed trails, gentle slopes
Blue	Intermediate	25% - 40%	Groomed surface, moderate slopes
Black	Advanced	40% +	More difficult terrain, partial grooming

While the designers looked for ways to avoid wetlands, in some cases the existing conditions required impacts. In these situations, the impacts were minimized to the extent possible while still addressing engineering and safety concerns.

As previously noted, the buildings and parking structures by necessity needed to be located in close proximity to the ski trails and to support visitor use of these new facilities. As shown in Attachment 1 of this application, the lower portion of the West Mountain has significant wetland coverage and, while designers have avoided and minimized impacts to these features, there were areas where impacts were unavoidable.

Real Estate and Roadway Infrastructure

A significant portion of the proposed ski development construction (e.g. lift, new trails) is expected to be paid for by the sale of the homes included in this Project. Any significant decrease in the number of homes would jeopardize the financial model for the Project. Likewise, the expected value from the sale of these residences is based on the proposed enhancements to the West Mountain. Based on these factors, the Project cannot be reduced in scope or have components extracted without making it financially infeasible and therefore unable to meet its need.

From a design perspective Roadways serving the proposed housing must meet geometrical requirements of the Town of Carrabassett Valley summarized in Table 2 below.

Table 2. Roadway Design Requirements

Roadway Type	Min. Width incl. Shoulder	Maximum Allowable Grade	Minimum Curve Radius	Min. between reverse curves
Collector	30’	12%	200	200
Residential Collector	26’	12%	200	100
Residential Access	22’	12%	150	50

In addition to these criteria are requirements regarding profile grades and minimum distances at intersection approaches. The existing landform in the area of the Project has slopes ranging from 10-25% and so roadway must feature switchbacks that meet the municipal criteria outlined above. The three proposed ski bridges, where roadways and ski trails cross, represent significant engineering and design challenges where approach grades for both road and trail must anticipate the crossing several hundred feet on either side of the crossing in order to ensure both driver and skier safety through the feature.

Implementing a successful trail and road network involves several interrelated design components. The design parameters included here are provided to reinforce that any single trail or roadway feature such as a curve or culvert crossing must be reviewed with the context of the entire Project. The Project as a whole was laid out in a manner that avoided resource impacts to the extent feasible and minimized unavoidable impacts. Accordingly, and in consideration of the complexities of trail layout, further refinement to even a single feature may result in additional resource impacts elsewhere to accommodate the change.

Developing alternative activity designs that avoid or lessen resource impacts

The Project has been designed to avoid and minimize wetland impacts to the maximum extent practicable. Proposed ski infrastructure, buildings, and roads have been purposely sited outside of wetland areas to the greatest extent, while still meeting resort expansion goals of the Project. The extent of clearing is limited to only what is necessary to construct the housing and ski infrastructure. The Project also seeks to minimize redundant trails as much as possible while providing dedicated trails for users of different skill levels.

As referenced above the Project sought early input from MDIFW, MNAP, and MDEP during project development. Figures 1 to 5 below and the accompanying summaries provide an overview of the major changes and reduction in natural resource impacts resulting from this consultation process. From left to right, the plan excerpt below depicts the original project design, and the design progression as modified in response to regulatory agency comments, and as currently proposed.

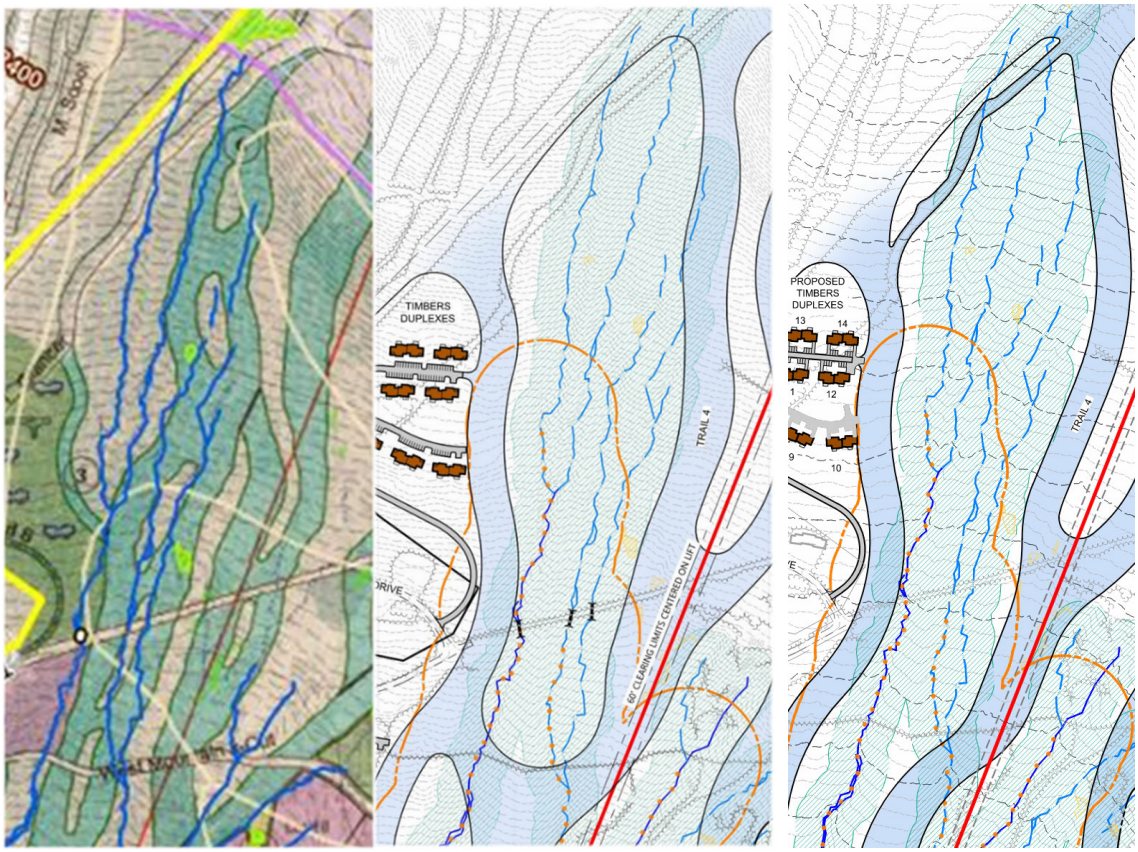

Figure 1 - Upper Timbers Trail and Trail #4:

(left to right). Trails moved out of stream buffers, reduced parking areas at upper timbers, perennial stream crossing eliminated, Trail 4 narrowed and moved out of upper stream channel

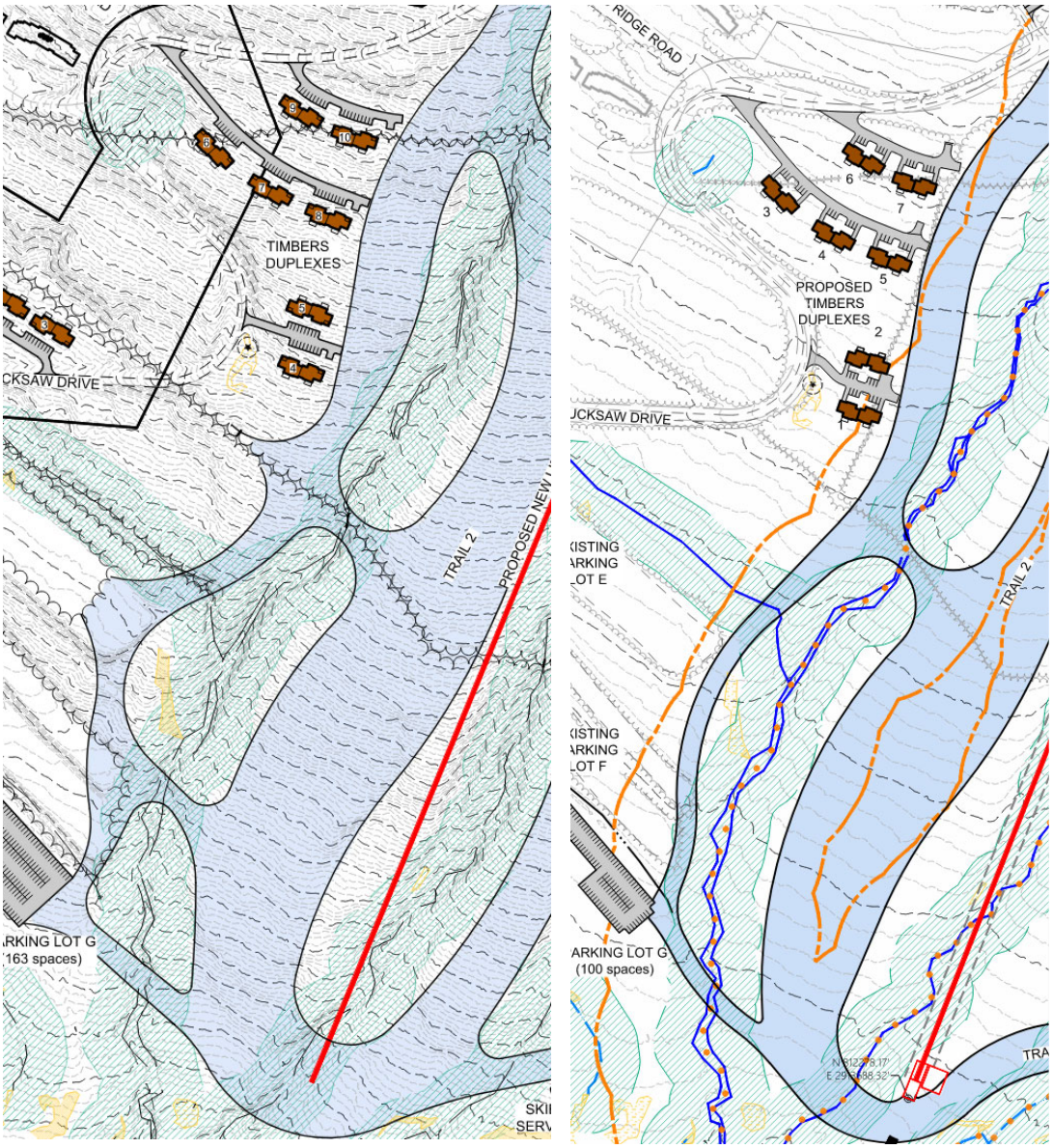

Figure 2 - Lower Timbers Trail and Trail #2:

(left to right). Perennial stream crossing eliminated. Timbers trail narrowed, Parking Lot G reduced in size. Trail width at bottom terminal reduced significantly. Trail from Lot G shifted to avoid a localized wider stream channel.

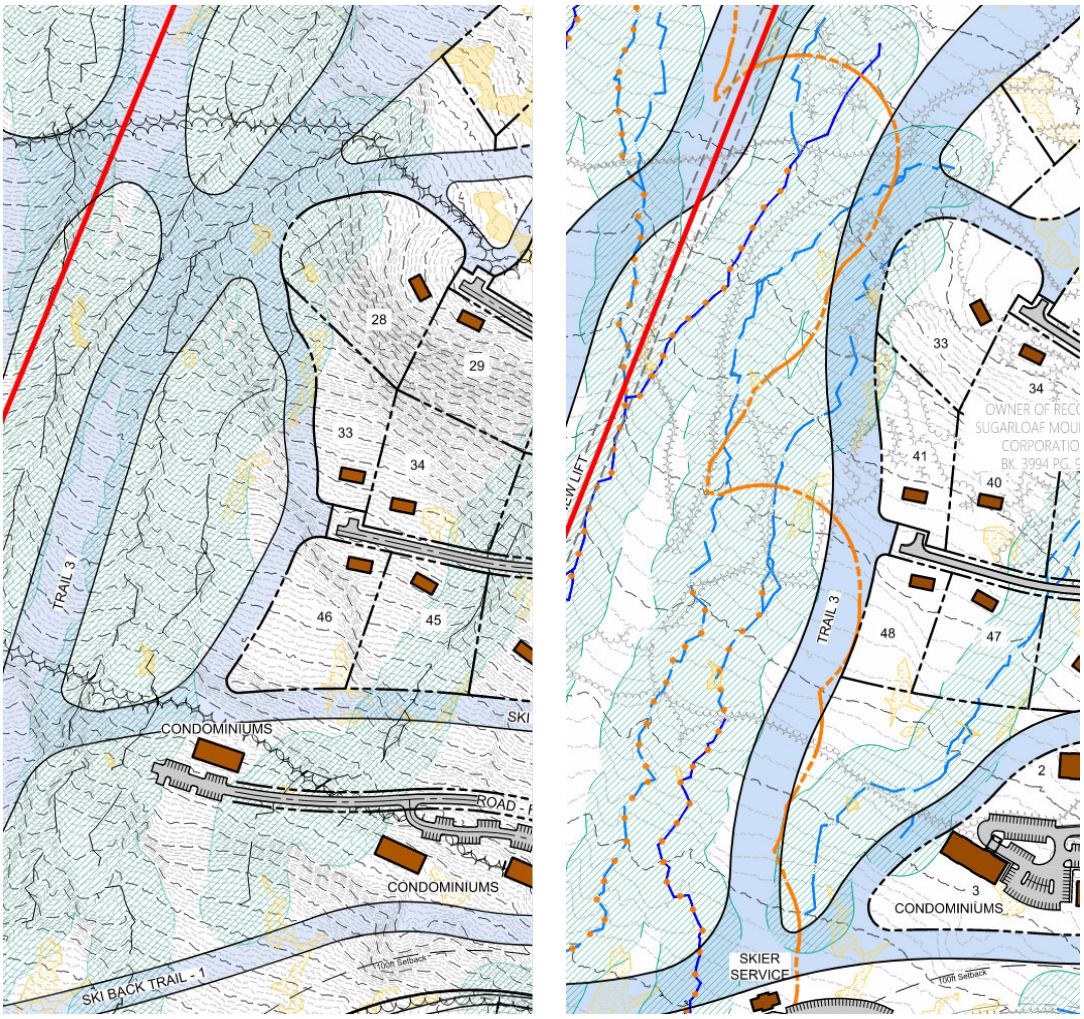

Figure 3 - Trail # 3

(left to right). Multiple stream crossings eliminated. Trail eliminated. Trail 3 relocated outside of mayfly/salamander buffer to extent feasible. Upper ski back trail intersection reduced in area

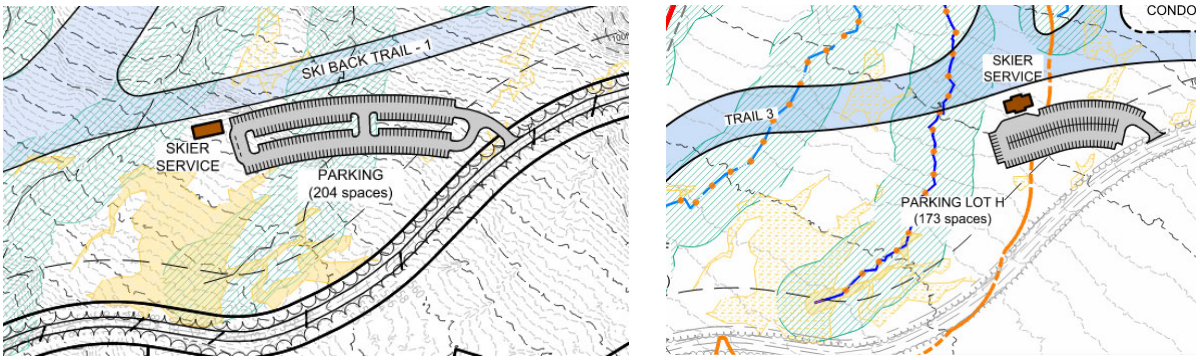

Figure 4 -Skier Services Parking Lot Area:

(left to right) This location saw many revisions with the final proposed facility location resulting in elimination of a perennial stream crossing, reduce wetland impacts, and reduced stream and wildlife buffer impacts.

Figure 5 - Top Terminal Area:

(left to right) This location underwent several iterations to reduce clearing and impacts associated with trail construction and grading within Bicknell's Thrush Habitat and Subalpine Fir Forest. Trail 8 width has been reduced; two proposed trails eliminated. Existing West Mountain lift line allowed to be allowed revert back to forest vegetation.

Other Avoidance and Minimization Techniques

Existing access roads have been utilized to the extent possible. In addition, new roads will be constructed at the minimum allowable width and gradient, as described above, limiting the amount of wetland fill required for accessing housing, skier services buildings, and parking lots. Access roads will be paved and will consist of asphalt surfaces with appropriate stormwater management controls.

A stormwater management system will be incorporated into the Project design that will provide treatment to stormwater prior to potentially entering or impacting wetland areas. Stormwater treatment measures will comply with state and municipal regulations. Wherever possible existing drainage and grading patterns will be maintained in the proposed design.

2.3 Construction Phase Impact Minimization

The Applicant has developed a robust erosion and sedimentation control plan and stormwater management procedures designed to reduce threats to natural resources and offsite properties from runoff and stormwater. The Project will be constructed in Phases over a period of approximately 5-7 years. Earth disturbance within the proposed ski trail areas will be limited to approximately 200 ft length of trail at any one time. These measures are described in the Site Law application Section 12 – Stormwater Management and Attachment 5 – Erosion Control, of this application. Construction work will begin with establishing base lines and demarcating the Project limit of work. Following installation of temporary erosion and sediment control measures such as silt fence and erosion control mix (ECM), the site will be cleared and grubbed as necessary. The design of erosion and sedimentation control measures will be based on the Maine Erosion & Sediment Control Handbook for Construction: Best Management Practices (BMPs).

Conclusion

The West Mountain Project is the result of collaborative and coordinated effort to provide expanded housing and outdoor recreational opportunities and appreciation of Maine's natural environment, while minimizing impacts to existing valuable natural resources.

APPENDIX 1

WETLANDS IMPACT SUMMARY

SUMMARY OF WETLAND IMPACTS

Wetland ID	Cowardin Classification	Fill Impacts (square feet)	Vegetation Alteration (square feet)	Notes
2020-407	PEM	3600		
2020-117	PFO	421		Clearing for trail
2020-1	PEM	7354		
2020-101	PFO	1066		
2020-102	PFO	2065		
2020-116	PFO	400		
2020-119	PFO	1429		
2020-12	PEM	8851		
2020-401	PEM	532		
2020-121	PFO	1018		
2020-123	PEM	2192		
2020-124	PEM	1674		
2020-402	PEM	2441		
2020-403	PFO	1042		Utility Line
2020-127	PFO	3063		
2020-13	PEM	25		
2020-130	PFO	459		
2020-404	PFO	7030		Utility Line
2020-16	PFO	846		
2020-19	PEM	1068		
2020-20	PEM	1358		
2020-200	PFO	812		
2020-201	PEM	731		
2020-202	PFO	2464		
2020-203	PFO	1201		
2020-208	PFO	6312		
2020-209	PEM	1901		
2020-21	PEM	4768		
2020-226	PFO	4496		
2020-227	PFO	1051		
2020-411	PEM	1794		
2020-412	PFO	264		
2020-30	PEM	11740		
2020-300	PFO	2520		
2020-302	PEM	112		
2020-31	PEM	650		
2020-32	PFO	10304		
2020-33	PFO	615		
2020-34	PFO	201		
2020-35	PFO	49746		
2020-37	PEM	1298		

SUMMARY OF WETLAND IMPACTS

Wetland ID	Cowardin Classification	Fill Impacts (square feet)	Vegetation Alteration (square feet)	Notes
2020-38	PEM	4986		
2020-39	PEM	751		
2020-42	PFO	1174		
2020-43	PEM	450		
2020-44	PEM	6270		
2020-45	PFO	688		
2020-417	PEM	815		
2020-48	PFO	2066		
2020-5	PEM	420		
2020-52	PEM	2033		
2020-53	PEM	4881		
2020-7	PEM	713		
2020-420	PEM	824		
	SUMMARY:	**176985**	**0**	
WETLANDS OF SPECIAL SIGNIFICANCE				
2020-1	PEM	30		
2020-12	PEM	2516		
2020-202	PFO	14		
2020-204	PEM	194		
2020-21	PEM	391		
2020-411	PEM	10		
2020-300	PFO	41		
2020-35	PFO	17		
2020-40	PEM	2		
2020-43	PEM	637		
2020-51	PEM	6		
2020-421	PEM	23		
	SUMMARY:	**3883**	**0**	
	OVERALL:	**180868**	**0**	

SUMMARY OF WATER BODIES CROSSED

Stream ID	Dominant Substrate	Water Depth (Inches)	Flow Regime	Length of Crossing (FT)	Area of Crossing where available (SQFT)
2020-JD-17	Sand	1	Intermittent	226	
2020-SC-1	Cobble	2	Intermittent	207	
2020-SC-1	Cobble	3	Perennial	112	
2020-SC-10	Cobble	1	Intermittent	177	
2020-SC-101	Cobble, organic	2	Intermittent	116	
2020-SC-102	Cobble, Gravel	3	Intermittent	100	
2020-SC-11	Cobble	1	Intermittent	307	
2020-SC-120	Gravel	1	Perennial	139	
2020-SC-202	Cobble, Organic	1	Intermittent	104	
2020-SC-205	Cobble, Boulder	3	Intermittent	414	
2020-SC-210	Cobble	2	Perennial	276	
2020-SC-211	Sand, gravel	1	Intermittent	29	
2020-SC-212	Gravel, organic	1	Intermittent	158	
2020-SC-216	Boulder, Cobble	1	Intermittent	205	
2020-SC-218	Boulder, Gravel	1	Intermittent	767	
2020-SC-22	Gravel	1	Perennial	291	
2020-SC-30	Sand	1	Intermittent	67	
2020-SC-304	Cobble	2	Intermittent	318	
2020-SC-31	Cobble, Gravel	1	Intermittent	68	
2020-SC-311	Cobble	1	Intermittent	613	
2020-SC-316	Organic	2	Intermittent	83	
2020-SC-318	Organic	2	Intermittent	75	
2020-SC-33	Gravel, organic	1	Intermittent	215	
2020-SC-5	Cobble	1	Intermittent	468	
2020-TOB-1	Boulder, Cobble	3	Perennial		929
2020-TOB-1a	Boulder, Cobble	3	Perennial		845
2020-TOB-1b	Boulder, Cobble	3	Perennial		6884

Attachment 3

Functional Assessment

Wetland Functions and Values

The functions and values of a wetland are determined based on a descriptive, best professional judgment approach, with reference to the methodology recommended by the U.S. Army Corps of Engineers New England District - *The Highway Methodology Workbook Supplement: Wetland Functions and Values - A Descriptive Approach*. Thirteen wetland functions and values are recognized under the USACE methodology:

- Groundwater Recharge/Discharge;
- Floodflow Alteration (Storage & Desynchronization);
- Fish and Shellfish Habitat;
- Sediment/Toxicant Pathogen Retention;
- Nutrient Removal/Retention/Transformation;
- Production Export (Nutrient);
- Sediment/Shoreline Stabilization;
- Wildlife Habitat;
- Recreation (Consumptive & Non-Consumptive);
- Educational/Scientific Value;
- Uniqueness/Heritage;
- Visual Quality/Aesthetics; and,
- Threatened or Endangered Species Habitat.

The USACE Highway Methodology provides a list of considerations and qualifiers that are used to assess the occurrence of each function or value, followed by a subjective determination of Principal Functions and Values.

The principal wetland functions and values associated with the wetlands identified in this study are: Groundwater recharge and discharge; nutrient removal, retention, transformation and production export; sediment and streambank stabilization; and wildlife habitat. However, the regular disturbance of this site due to logging and other activities has diminished the function and value of some of these wetlands.

Several functions and values did not appear to apply to the study area wetlands, including visual quality/aesthetics, fish and shellfish habitat and the presence of threatened or endangered species habitat. These functions and values were not represented for several reasons. Visual quality/aesthetics was not a function or value for many of these wetlands because they lack a primary viewing location, and because the wetlands do not significantly contrast with the surrounding uplands. Fish and shellfish habitat were not observed on-site. No threatened or endangered species that rely on wetlands or vernal pools partially or entirely to complete their life cycle are on record within the Study Area and thus threatened and endangered species habitat is not a demonstrated function or value associated with the wetlands in the Study Area. Spring salamander (*Gyrinophilis porphyriticus porphyriticus*), Maine Species of Special Concern, and roaring brook mayfly (*Epeorus frisoni*), Threatened, were not observed by VHB ecologists or Maine Natural Areas Program biologists during wetland delineations and stream surveys. However, suitable habitat for both species exists in low to mid-elevation streams within the Study Area and are displayed on the Natural Resources Map in Appendix 5 of the Wetland Delineation Report provided in Attachment 1 of this NRPA application.

Attachment 4

Compensatory Mitigation

ATTACHMENT 4. COMPENSATORY MITIGATION

4.A Avoidance and Minimization of Protected Natural Resource Impacts

Through the evaluation of project alternatives and construction implementation alternatives, the Applicant has avoided and minimized impacts to natural resources to the maximum extent practicable. As described in Attachment 2, the Applicant conducted an extensive alternatives analysis and revised and refined the Project design to identify the least environmentally damaging practicable alternative. Project objectives were weighed against natural resource impacts and design limitations to produce the Project design presented herein. The design presented in this application is the culmination of a comprehensive investigation intended to accommodate the Project purpose and need while maintaining Maine Department of Environmental Protection's (MDEP) and the U.S. Army Corps of Engineers' (USACE) policy of avoidance and minimization when projects involve impacts to natural resources.

In addition to the Project design, construction will be sequenced to limit disturbance to the extent practicable. The Project's Erosion and Sediment Control Plan (see Sections 14 of the Site Law application being submitted with this application) will be implemented to avoid unnecessary impacts to natural resources during construction through control of erosion and sedimentation. The Applicant will ensure contractor compliance with the Erosion and Sediment Control Plan and proper function of temporary control measures and site stabilization. The Applicant will also be responsible for identifying issues and supplementing the Erosion and Sediment Control Plan as necessary to maintain compliance. The implementation of these standards will further minimize and avoid impacts to natural resources during the construction phase of the Project.

4.B Protected Natural Resource Impacts

Though a robust alternatives analysis was completed that sought to avoid and minimize protected natural resource impacts, the Project will result in unavoidable impacts to wetlands. The Project design concept recommended as the preferred alternative includes approximately 180,868 square feet (4.15 acres) of wetland fill. Some of this fill is related to cutting and grubbing forested wetland to allow for the burial of utilities and conversion of a forested wetland to a meadow for a ski trail.

As part of the wetland evaluation, the Applicant completed a Functional Assessment for impacted wetlands (Attachment 3). While the wetland functions currently provided by the wetland systems within the Project site are anticipated to remain intact subsequent to Project construction, there will be localized impacts to wetland functions where permanent fill will be placed and changes in the functions provided where forested wetland is converted to wet emergent wetlands.

4.C Proposed Mitigation

4.C.1 *In Lieu Fee Compensatory Mitigation*

The Applicant proposes to use the In-Lieu Fee (ILF) Compensatory Mitigation program to offset the approximately 180,868 square feet (4.15 acres) of permanent wetland fill and the associated wetland functions and values impacts and changes. To calculate the ILF payment, the Applicant has referenced the resource compensation rates and the formula provided for impacts to wetland resources in the MDEP Fact Sheet – In Lieu Fee Compensation Program, September 1, 2020 to December 31, 2021.[1]

Wetland impacts are proposed to be compensated for at the rate of $4.28 for each square foot of wetland impact ($4.23 [Natural Resource Enhancement & Restoration Cost/ Sq. Ft.] + $0.05 [Avg. Assessed Land Value/ Sq. ft. – Franklin County]). Based on the MDEP Fact Sheet, the Applicant proposes a total ILF payment of $774,113 to compensate for the Project's wetland fill.

[1] The In Lieu Fee Compensation Program has revised their fee schedule to accommodate financial hardships due to COVID-19 and has extended the rate to January 2022.
https://www.maine.gov/dep/land/nrpa/ILF_and_NRCP/ILF/fs-in-lieu-fee.pdf

Attachment 5

Consultation with Maine Historic Preservation Commission and Tribes

www.vhb.com

vhb

September 30, 2020

via e-mail

Maine Historic Preservation Commission
Attn: Megan Rideout
55 Capitol Street
65 State House Station
Augusta, Maine 04333

RE: Information Request for Boyne Resorts Sugarloaf West Mountain Project
Carrabassett Valley, Maine

Dear Ms. Rideout:

Boyne Resorts, owner of Sugarloaf Mountain Ski Area, is considering a future mixed-use ski terrain/land development project at Sugarloaf Mountain in Carrabassett Valley, Maine that is anticipated to require permit applications to the Maine Department of Environmental Protection, U.S. Army Corps of Engineers, and the local municipality. The project would consist of the development of a mixed-use ski facility in the currently undeveloped West Mountain portion of the resort lands to include ski trails, ski lift, skier services and residential real estate ("Project"). Please see the attached USGS map for the proposed project location. The final project layout would be informed by field assessments in order to avoid natural resources.

VHB is requesting, on behalf of Boyne Resorts, information and/or digital data, if available, regarding historic and archeological resources known to exist at the proposed project location. If digital data are available, they should be e-mailed to shale@vhb.com. Your information will be used to supplement initial natural resources fieldwork that has been completed to better understand existing conditions, and to understand if further surveys are necessary. Boyne Resorts is also requesting that if further surveys are not warranted, that written correspondence confirming this conclusion be provided. Your correspondence will likely be included in permit applications as may be required.

If you have any questions regarding these projects or would like additional information, please do not hesitate to contact me by email at shale@vhb.com or by phone at 207.536.2588. Thank you very much.

Sincerely,
Vanasse Hangen Brustlin, Inc.

S. D. H

Sean D. Hale, PWS, CWS
Project Manager

Attachment – Site Location Map

Based on the information submitted, I have concluded that there will be no historic properties affected by the proposed undertaking, as defined by Section 106 of the National Historic Preservation Act. Consequently, pursuant to 36 CFR 800.4(d)(1), no further Section 106 consultation is required unless additional resources are discovered during project implementation pursuant to 36 CFR 800.13.

Kirk F. Mohney
Kirk F. Mohney,
State Historic Preservation Officer
Maine Historic Preservation Commission

10/8/2020
Date

500 Southborough Dr.
Suite 105B
South Portland, Maine 04106
P 207.889.3150
F 207.253.5596

Sean Murphy

From: Isaac St. John <istjohn@maliseets.com>
Sent: Wednesday, September 30, 2020 10:42 AM
To: Sean Hale
Subject: [External] RE: Information Request - Boyne Resorts Sugarloaf West Mountain Project

Good morning,

We do not have an immediate concern with your project or project site, and do not currently have the resources to fully investigate same. Further, we do not have any record of sites or potential sites in the area, but should be aware of the possibility of there being some. Should any human remains, archaeological properties or other items of historical importance be unearthed while working on this project, we recommend that you stop your project and report your findings to the appropriate authorities including the Houlton Band of Maliseet Indians.

Thank you,

Isaac St. John
Tribal Historic Preservation Officer
Houlton Band of Maliseet Indians
88 Bell Road
Littleton, ME 04730

PENOBSCOT NATION
CULTURAL & HISTORIC PRESERVATION
12 WABANAKI WAY, INDIAN ISLAND, ME 04468

CHRIS SOCKALEXIS – TRIBAL HISTORIC PRESERVATION OFFICER
E-MAIL: chris.sockalexis@penobscotnation.org

NAME	Sean Hale
ADDRESS	Vanasse Hangen Brustlin, Inc. 500 Southborough Drive, Suite 105B South Portland, ME 04106
OWNER'S NAME	Boyne Resorts
TELEPHONE	(207) 536-2588
EMAIL	shale@vhb.com
PROJECT NAME	Sugarloaf West Mountain Project - development of a mixed-use ski facility in the currently undeveloped West Mountain
PROJECT SITE	Carrabassett Valley, ME
DATE OF REQUEST	September 30, 2020
DATE REVIEWED	February 24, 2021

Thank you for the opportunity to comment on the above referenced project. This project appears to have no impact on a structure or site of historic, architectural or archaeological significance to the Penobscot Nation as defined by the National Historic Preservation Act of 1966, as amended.

If there is an inadvertent discovery of Native American cultural materials during the course of the project, please contact my office at (207) 817-7471. Thank you for consulting with the Penobscot Nation Tribal Historic Preservation Office with this project.

Chris Sockalexis, THPO
Penobscot Nation

Tribal Historic Preservation Office
Mi'kmaq Nation (Formerly known as the Aroostook Band of Micmac)
Kendyl Reis
Tribal Historic Preservation Officer
7 Northern Road
Presque Isle, ME 04769
Phone: (207)764-1972 ext. 161
Fax: (207)764-7667
Email: kreis@micmac-nsn.gov

Sugarloaf Mountain Project
Carrabassett Valley, Maine
September 21, 2021

Thank you for the opportunity to review the above-referenced project for compliance with National Environmental Policy Act (NEPA) and National Historic Preservation Act (NHPA) requirements.

Based on the project description, we do not have knowledge of any specific sites or cultural features that exist at the proposed project location. However, this geographic area does constitute traditional areas that were historically utilized by members of the Mi'kmaq Nation and the other Wabanaki Tribes. Therefore, we respectfully request that if during the course of excavation/construction activities, human remains, artifacts, or any other evidence of Native American presence is discovered, that site activities in the vicinity of the discovery immediately cease, pending notification to us.

In addition, if this project results in wetland disturbances requiring mitigation, we are requesting that you utilize the black ash (Fraginus nigra) as the principal wetland species for wetland restoration activities. The black ash tree has special significance in the culture of the northeastern Tribes and is used extensively for weaving baskets and other Native American crafts. The black ash tree also provides valuable food and habitat for migratory waterfowl and other wildlife. Unfortunately, however, this species has been selected against by foresters and landowners who favor other tree species. As a result of this, and other environmental factors, the black ash tree is in serious decline in Maine. The Mi'kmaq Nation has completed several black ash wetland restoration projects and have a dependable source for highly-quality seedlings, and the experience and expertise to assist you with black ash wetland restoration projects.

On the subject of human remains, artifacts, or any other evidence of Native American presence is discovered. The human remains will be reburied with the appropriate respect for the remains that is required at a distinctive and respectable site. The artifacts and other evidence of Native American discovery will be documented with appropriate detail. The items will be analyzed for the precise period of the items' distinctive period and will be documented by the Tribal Historic Preservation Officer for the Mi'kmaq Nation.

If you have any questions or comments, please feel free to contact me.

Sincerely,

Kendyl Reis
Tribal Historic Preservation Officer

www.vhb.com

September 30, 2020

via e-mail

Jennifer Pictou, Tribal Historic Preservation Officer
Aroostook Band of Micmacs
7 Northern Road
Presque Isle, Maine 04769

RE: Information Request for Boyne Resorts Sugarloaf West Mountain Project
Carrabassett Valley, Maine

Dear Ms. Pictou:

Boyne Resorts, owner of Sugarloaf Mountain Ski Area, is considering a future mixed-use ski terrain/land development project at Sugarloaf Mountain in Carrabassett Valley, Maine that may require permit applications to the Maine Department of Environmental Protection, U.S. Army Corps of Engineers, and the local municipality. The project would consist of the development of a mixed-use ski facility in the currently undeveloped West Mountain portion of the resort lands to include ski trails, ski lift, skier services and residential real estate ("Project"). Please see the attached USGS map for the proposed project location. The final project layout would be informed by field assessments in order to avoid natural resources.

As part of the project planning and environmental permitting process, Boyne Resorts is currently evaluating potential environmental and cultural resource constraints at proposed project location. In accordance with the consultation requirements of the U.S. Army Corps of Engineers State of Maine General Permit, VHB is contacting you, on behalf of Boyne Resorts, to request information regarding known pre-historic and archeological resources at the proposed project site.

If you have any questions regarding this project or would like additional information, please do not hesitate to contact me by email at shale@vhb.com or by phone at 207.536.2588. Thank you very much.

Sincerely,
Vanasse Hangen Brustlin, Inc.

S. D. H

Sean D. Hale, PWS, CWS
Project Manager

Attachment – USGS Location Map

Engineers | Scientists | Planners | Designers

500 Southborough Dr.
Suite 105B
South Portland, Maine 04106
P 207.889.3150
F 207.253.5596

www.vhb.com

September 30, 2020

Mr. Donald Soctomah
Tribal Historic Preservation Officer
Passamaquoddy Tribe of Indians, Indian Township Reservation
P.O. Box 301
Princeton, Maine 04668

Via e-mail

RE: Information Request for Boyne Resorts Sugarloaf West Mountain Project
Carrabassett Valley, Maine

Dear Mr. Soctomah:

Boyne Resorts, owner of Sugarloaf Mountain Ski Area, is considering a future mixed-use ski terrain/land development project at Sugarloaf Mountain in Carrabassett Valley, Maine that may require permit applications to the Maine Department of Environmental Protection, U.S. Army Corps of Engineers, and the local municipality. The project would consist of the development of a mixed-use ski facility in the currently undeveloped West Mountain portion of the resort lands to include ski trails, ski lift, skier services and residential real estate ("Project"). Please see the attached USGS map for the proposed project location. The final project layout would be informed by field assessments in order to avoid natural resources.

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Sincerely,
Vanasse Hangen Brustlin, Inc.

S. D. H

Sean D. Hale, PWS, CWS
Project Manager

Attachment – USGS Locus Map

Engineers | Scientists | Planners | Designers

500 Southborough Dr.
Suite 105B
South Portland, Maine 04106
P 207.889.3150
F 207.253.5596

September 30, 2020

Mr. Donald Soctomah
Tribal Historic Preservation Officer
Passamaquoddy Tribe of Indians, Pleasant Point Reservation
P.O. Box 343
Perry, Maine 04667

Via e-mail

RE: Information Request for Boyne Resorts Sugarloaf West Mountain Project
Carrabassett Valley, Maine

Dear Mr. Soctomah:

Boyne Resorts, owner of Sugarloaf Mountain Ski Area, is considering a future mixed-use ski terrain/land development project at Sugarloaf Mountain in Carrabassett Valley, Maine that may require permit applications to the Maine Department of Environmental Protection, U.S. Army Corps of Engineers, and the local municipality. The project would consist of the development of a mixed-use ski facility in the currently undeveloped West Mountain portion of the resort lands to include ski trails, ski lift, skier services and residential real estate ("Project"). Please see the attached USGS map for the proposed project location. The final project layout would be informed by field assessments in order to avoid natural resources.

As part of the project planning and environmental permitting process, Boyne Resorts is currently evaluating potential environmental and cultural resource constraints at proposed project location. In accordance with the consultation requirements of the U.S. Army Corps of Engineers State of Maine General Permit, VHB is contacting you, on behalf of Boyne Resorts, to request information regarding known pre-historic and archeological resources at the proposed project location.

If you have any questions regarding this project or would like additional information, please do not hesitate to contact me by email at shale@vhb.com or by phone at 207.536.2588. Thank you very much

Sincerely,
Vanasse Hangen Brustlin, Inc.

Sean D. Hale, PWS, CWS
Project Manager

Attachment – USGS Location Map

Engineers | Scientists | Planners | Designers

500 Southborough Dr.
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South Portland, Maine 04106
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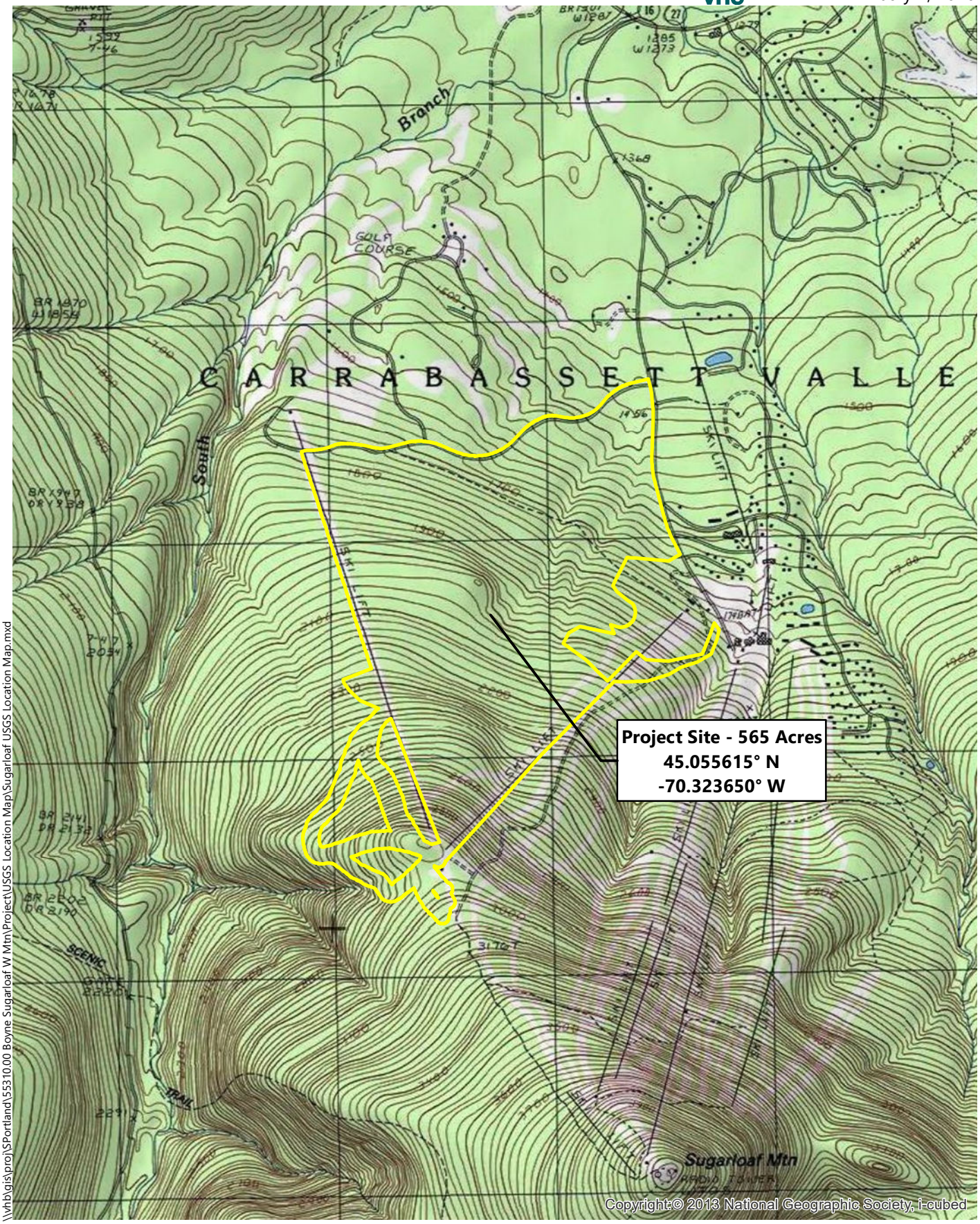
BOYNE RESORTS
EXPERIENCE THE LIFESTYLE

vhb

July 7, 2020



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0 1,000 2,000 4,000 Feet

Project Area (VHB)

Sugarloaf West Mountain | **Carrabassett Valley, Maine**

Location Map

Sources:
USA Topo Basemap - Copyright:© 2013 National Geographic Society, i-cubed

Sean Murphy

From: Sean Murphy
Sent: Tuesday, September 21, 2021 11:22 AM
To: Donald Soctomah
Subject: Boyne Resorts Sugarloaf West Mountain Project, Carrabassett Valley, Maine
Attachments: Passamaquoddy_Pleasant Pt_Info Req_Sugarloaf W Mtn_VHB_9-30-2020.pdf; Passamaquoddy_Indian Township_Info Req_Sugarloaf W Mtn_VHB_9-30-2020.pdf

Good morning,
Boyne Resorts, owner of the Sugarloaf Mountain Ski Area is proposing a mixed-use ski terrain / land development project. Boyne Resorts intends to submit applications to the Maine Department of Environmental Protection and the U.S. Army Corps of Engineers for this Project in the next week to two weeks.

In September of 2020, we submitted the attached letters which provided details on the project and requested information on any known pre-historic and/or archeological resources at the proposed site. As I do not believe we have heard from your Tribes, I wanted to reach out again to see if you would be willing to share any information you have on this site.

Thank you in advance for your consideration and please let me know if you have any questions or need additional information.

Regards,

Sean Murphy
Senior Project Manager

500 Southborough Drive
Suite 105B
South Portland, ME 04106-6928
P 207.536.2579 **| F** 207.253.5596
smurphy@vhb.com