Mount Buffalo Business Case Assessment and Activation

September 2018

Presented to: Mount Buffalo Business Case Assessment Taskforce

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Project Purpose

In March 2018, PricewaterhouseCoopers (PwC) was commissioned by the Alpine Shire Council to complete a business case feasibility assessment of the tourism concepts identified in the *Vision for Mount Buffalo* document (refer to Appendix A), prepared by the Mount Buffalo Destination Advisory Group (MBDAG). The Vision, as described in the *Vision for Mount Buffalo*, is a whole of mountain approach and includes seven concepts across five key visitor hubs – The Gorge and Chalet Village, Lake Catani, Dingo Dell, Cresta Valley and the base of the mountain.

PwC's assessment included the preparation of a project management and communications plan and analysis of the commercial feasibility of each tourism concept that considers demand drivers, challenges and policy constraints, costs and benefits, and where feasible, the realisation of commercial opportunities for potential development. It is noted that at the time this report was prepared, these activations are concepts only and no formal development activities have yet been planned for Mount Buffalo.

Project Outline

This project is part of a collaborative and strategic approach to reinvigorating Mount Buffalo as a year round alpine destination. The project has three key components:

Component A

Project management and communications plan (Refer to Appendix B)

- Development of a detailed project management plan & communications plan;
- Management and delivery of stakeholder relationships and engagement.

Component B

Concept feasibility (Refer to section 3)

- Determination of potential visitation demand and target markets;
- Determination of commercial feasibility of each tourism concept;
- Consideration of specific challenges and potential solutions associated with the activation plan.

Component C

Project activation (Refer to section 4)

- Development of a marketing prospectus for a portfolio of commercially viable options;
- Identification of potential commercial investors and operators;
- Early market sounding with potential investors and operators to understand opportunities, risks and appetite for involvement;
- Realisation of commercial opportunities and investment for each viable concept.

Figure 1: Vision for Mount Buffalo, February 2017

Executive Summary

The Project assessment covers seven tourism concepts across five key visitor hubs within the Mount Buffalo National Park, as determined in the *Vision for Mount* Buffalo document.

The five key visitor hubs include:

- The Gorge and Chalet Village precinct as the primary visitor area, containing a range of tourism experiences;
- Lake Catani as the area for camping ;
- Dingo Dell as the destination's new centre for outdoor education;
- Cresta Valley as the mountain's day lodge and activity precinct;
- Mountain Gateway visitor centre at the base of the mountain.

The seven proposed activation concepts include:

1. Gorge Skywalk Tourism Attraction: 50 m walkway across the granite rock gorge of Mount Buffalo;
2. Mount Buffalo Chalet and Village: Potential restoration of the Mount Buffalo Chalet and the re-use of surrounding buildings for commercial activities such as accommodation, spa retreat, hotel, retail, training and events;
3. Food and Beverage Offering: Opportunities for a high-quality food and beverage offering located in the front section of the Chalet;
4. Glamping and Wilderness Eco-Pods: Located at Lake Catani or in other areas of the National Park;
5. Enhancement of Activity and Event Offering: Redevelopment of Cresta Valley into an Alpine Activity Centre, expanded walks, mountain bike trail development;
6. Dingo Dell: Potential development as an Outdoor Education Centre of Excellence and student accommodation;
7. Mountain Gateway: Development of a visitor centre at the base of the mountain.

Figure 2: Community driven concept plan, included in Vision for Mount Buffalo, p.7

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Concept Feasibility Summary

The outcomes of the individual concept feasibility assessments can be summarised as follows:

Table 1: Concept feasibility assessment summary

Concept	Gorge Skywalk	Mount Buffalo Chalet Hotel	Food & Beverage – Café in the Chalet	Wilderness Eco-Pods	Cresta Valley Activities & Events	Dingo Dell Outdoor Centre of Excellence	Mountain Gateway
Concept Visitor Expenditure *(estimated direct revenue in year 1)*	$693,000	$2,879,000	$581,000 (L)* $970,000 (H)*	$581,000	$852,000	$1,242,000	$-
Operating Expenses *(estimated in year 1)*	($426,156)	($2,587,294)	($363,087) (L)* ($565,367) (H)*	($444,104)	($732,797)	($1,055,136)	($373,093)
Total Capital Cost	$12,231,000	$38,782,000	$2,002,000	$1,459,000	$12,516,000	$13,619,000	$14,890,000
Net Present Value (NPV)**	($8,212,922)	($32,271,575)	$1,596,075 (H)*	($87,392)	($10,134,284)	($10,727,141)	($16,164,498)

** NPV has been calculated over the assumed lease period of 21 years for all concepts except for Chalet (50yrs)

* (H) High revenue scenario
* (L) Low revenue scenario

Note - Total Capital Cost rounded to the nearest '000

Preliminary Cost Benefit Analysis

Preliminary cost benefit assessment examines the benefits derived through a high level demand assessment of each of the seven proposed concepts and their associated capital and ongoing costs. This shows the economic feasibility (separate to the financial feasibility) of investing in each of these concepts. The economic feasibility assessment as part of this study is represented through a high level benefit cost ratio (BCR), presented in Table 2, overleaf.

The economic benefits examined in this preliminary cost benefit analysis include both use (market value) value and non-use (non-market) values.

- Use value is the value placed on the ability to access the concept's infrastructure and includes recreation (demonstrated by the spending made directly on the concept), tourism (demonstrated by the spending in the rest of region) and education (the direct education benefit derived from visitors).
- Non-use values is the value placed by the broader population, even without visiting the concepts. Non-use value includes existence value (value from simply knowing that some assets, such as heritage sites, exist even if not visited), option value (value placed on preserving assets so that the option to visit or use the asset in the future is maintained) and bequest value (value placed on maintaining assets so that these can be passed onto future generations).

Heritage assets are generally considered to be irreplaceable once damaged or destroyed and therefore it could be argued that they are priceless. Nonetheless, we have conducted a cost benefit gap analysis of the Mount Buffalo Chalet heritage asset as well as the Cresta Valley Activities & Event Centre and the Dingo Dell Education Centre of Excellence. Although each of these concepts are not financially viable as demonstrated in Table 1, they each provide non-use economic benefits presented in Table 2, overleaf.

Private owners of heritage assets will usually invest in conservation of the asset up to the point where they can still realise returns from the investment. However, there are benefits from heritage assets that may not accrue to the direct owners of those places. These benefits may include the benefit of the place for a region, the benefits to the community of knowing heritage places are being preserved and the ability to access these place. For example, a report by The Allen Consulting Group in 2005[1] indicated that Australians place value in protecting heritage places including the upkeep of the condition and increasing accessibility of heritage places valued at $146.27 (in 2018 dollars) per person per year. Additionally, an Aboriginal Heritage Regulatory Impact Statement conducted by PwC in 2018 indicated a value of $296,739 per Aboriginal cultural heritage site in Victoria.

These observations indicate that there is justification for government involvement in the protection of heritage places and assets that generate non-use values generally. Further detailed analysis of the non-use values contributed by the Mount Buffalo Chalet, Cresta Valley Activities & Event Centre and the Dingo Dell Education Centre of Excellence concepts may be required to measure the specific benefits these bring to the region and Victoria more broadly.

[1] The Allen Consulting Group report prepared for the Heritage Chairs and Officials of Australia and New Zealand, 'Valuing the priceless: The value of historic heritage in Australia', Research Report 2, 2005

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Table 2: Preliminary cost benefit analysis summary

	Gorge skywalk	Mount Buffalo Chalet	Food & Beverage – Café in the Chalet	Wilderness Eco-Pods	Cresta Valley Activities & Events	Dingo Dell Education Centre of Excellence	Mountain gateway
Preliminary BCR analysis							
Costs:							
PV costs (capital and ongoing)	17,633,966	71,585,826	9,170,010	7,089,797	21,806,640	26,997,298	19,630,992
Benefits:							
Use-value							
Concept expenditure benefits only	PV benefit = 9,094,029 BCR = 0.5	PV benefit = 35,857,283 BCR = 0.5	PV benefit = 12,492,808 BCR = 1.4	PV benefit = 6,314,621 BCR = 0.9	PV benefit = 11,019,658 BCR = 0.4	PV benefit = 16,059,792 BCR = 0.6	- BCR = 0
Whole of region (concept + rest of region) expenditure benefits	PV benefit = 15,152,068 BCR = 0.9	PV benefit = 60,812,968 BCR = 0.8	PV benefit = 12,492,808 BCR = 1.4	PV benefit = 10,949,167 BCR = 1.5	PV benefit = 14,869,855 BCR = 0.7	PV benefit = 16,059,792 BCR = 0.6	PV benefit = 14,615,639 BCR = 0.7
Whole of region expenditure benefits + non-use value	BCR = 0.9	BCR >1*	BCR = 1.4	BCR = 1.5	BCR >1*	BCR >1*	BCR = 0.7

** Potential BCR greater than one based on a reasonableness test on the non-use value.*

Table 3: Breakeven value analysis

	Gorge skywalk	Mount Buffalo Chalet	Food & Beverage – Café in the Chalet	Wilderness Eco-Pods	Cresta Valley Activities & Events	Dingo Dell Education Centre of Excellence	Mountain gateway
Cost benefit gap (present value)	-	10,772,858	-	-	6,936,785	10,937,506	-
Non-use benefit per year per adult Victorian	-	$0.08	-	-	$0.11	$0.08	-
Education surplus benefit per user	-	$1.94 per Mount Buffalo visitor	-	-	-	$44 per user of education concept	-

This gap analysis shows that, for example, the benefits of the Mount Buffalo Chalet concept will outweigh the costs, if each adult Victorian resident values the Chalet at $0.08 per year and each visitor to Mount Buffalo values the Chalet at $1.94 (in non-use terms) per year. These represent minimal values indicating the heritage benefits delivered may likely exceed costs, which in turn could make this a feasible investment in broader economic terms.

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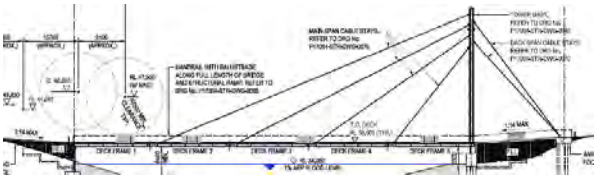
Activation Summary

Concept 1. Gorge Skywalk

Description

The gorge skywalk concept is described in the *Vision for Mount Buffalo* as a 'high-profile tourism attraction developed in accordance with sustainable eco-tourism management practices.'[2] The gorge skywalk concept assessed for the purpose of this feasibility assessment is a 50m glass bottomed walkway that traverses across the granite rock gorge of Mount Buffalo, located at Crystal Brook. The skywalk structure costed is a steel-framed cable slayed structure walkway.

Glass-bottomed bridge, Hebei, China.



Steel-framed cable slayed structured walkway.
Images are for indicative purposes only.

Visitor Economy

National and global growth trends in nature based tourism exceeds current visitor growth at Mount Buffalo, indicating market demand for an increase in nature based activities, such as the proposed gorge skywalk concept.

The number of users estimated to participate in this activity in year 1 is approximately 25,000. The estimated total economic benefit driven by this activation is calculated to be $1,156,000 (year 1), with direct revenue generation of $693,769. The benefit cost ratio is calculated to be 0.9.

Costs

Building Cost	$11,349,000
Utilities Cost	$881,000
Total Capital Cost	**$12,231,000**

Costs are exclusive of GST. Figures have been rounded to the nearest '000

Concept Feasibility Snapshot

Capital Cost (year 0)	$12,230,762
Total Revenue p.a. (year 1)	$693,768
Total Expenses p.a. (year 1)	($426,156)
Estimated Net Profit p.a. (yr 1)	$267,612
Net Present Value (NPV)	($8,212,922)

Refer to Section 3.3.4 for detailed calculations.

Opportunities Assessment

- Whilst there does not appear to be sufficient revenue generation to instigate this concept privately and feasibly, the opportunities for broader regional and mountain visitation could make this "key market attractor" appealing for State government investment.
- The Taskforce feel that estimated annual visitation numbers in the PwC feasibility assessment are conservative, and the potential visitation increase to Mount Buffalo derived from this "key market attractor" could be much higher.
- An opportunity for a partnership between Traditional Owner groups, private investors and government would exist for this concept.

[2] Vision for Mount Buffalo, p.3

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Activation Summary

Concept 2. Mount Buffalo Chalet Boutique Hotel

Description

Historically and socially, the Mount Buffalo Chalet plays a significant role in promoting the development of the Mount Buffalo National Park as a year-round alpine destination for generations, to a broad cross section of visitors from the region, interstate and from overseas. [3]

The *Vision for Mount Buffalo* proposes a major redevelopment of the existing Chalet and surrounding areas, repurposing of up to 95% of the existing building infrastructure for the purpose of an accommodation and day lodge facility.

Mount Buffalo Chalet in the green season

For the purpose of this feasibility assessment, a logical staged approach has been adopted for the redevelopment of the Mount Buffalo Chalet. The proposed initial stage includes a 42-room boutique hotel within the fabric of the existing Chalet. The concept includes complete refurbishment of the existing northern and southern wings into high-end hotel rooms, as well as the refurbishment the existing upstairs dining room, Manfields Café, the ballroom, lounges and billiards room for use by hotel guests. Due to current technology and associated costs to effectively utilise alternative renewable energy sources, as well as the sensitive heritage nature of this building, the Taskforce agree this is a logical first stage for the hotel. This approach would not preclude additional future development of the Chalet into a larger Hotel and Village as described in the *Vision for Mount Buffalo.*

Visitor Economy

In addition to restoring the historic Chalet as a tourist attraction for the region, the redevelopment will provide a unique year-round accommodation offering not currently available on the mountain. Using regional benchmarking and local market research, the redevelopment of the Chalet is expected to incrementally increase rest-of-region expenditure by $2,003,000 (year 1), and generate a total economic benefit of $4,882,000. Direct revenue generated by the hotel and restaurant in year 3 (reaching a maximum average estimated occupancy of 50.3%) is estimated to be $2,879,000. The benefit cost ratio is calculated to be >1 (assuming a non-use benefits of maintaining the heritage asset of $0.08 per Victorian adult resident per year, and a $1.94 education benefit per visitor to Mount Buffalo).

Costs

Building Cost	$22,066,000
Utilities Cost	$16,716,000
Total Capital Cost	**$38,782,000**

Costs are exclusive of GST. Figures have been rounded to the nearest '000

Concept Feasibility Snapshot

Capital Cost (yr 0)	$38,781,694
Total Revenue p.a. (yr 3)	$2,878,770
Total Expenses p.a. (yr 3)	($2,587,294)
Estimated Net Profit p.a. (yr 3)	$291,475
Net Present Value (NPV)	($32,271,575)

Refer to Section 3.3.4 for detailed calculations.

Opportunities Assessment

- At a total capital cost of $38.78M, the Chalet redevelopment concept does not produce a positive financial return in its own right.
- Despite the Chalet's closure over 12 years ago, the historic attraction still remains a major driver of visitors to the mountain.
- The benefits of this concept will outweigh the costs if each adult Victorian resident values the Chalet at $0.08 per year, and each visitor values the Chalet at $1.94 (in non-use terms).
- The development of an initial stage of works (42-room hotel & restaurant) would not detract from the future development of the entire Chalet hotel and Village development as described in the *Vision for Mount Buffalo,* and would act as a catalyst for further development.

[3] Vision for Mount Buffalo, p.21

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Activation Summary

Concept 3. Food and Beverage (Café in the Chalet)

Mount Buffalo Chalet in the winter season.

Description

To address the current food and beverage product gap at Mount Buffalo, this concept proposes the development of a vibrant food offering on the mountain that not only enriches the visitor experience but acts as an attraction in its own right.[4]

Whilst the *Vision for Mount Buffalo* proposes a short-term, medium-term and long-term (ultimately 'hatted') food and beverage offering on the mountain, for the purpose of this concept feasibility, the restaurant offering has been included in Concept 2 – Mount Buffalo Chalet, as a hotel restaurant. This concept assesses the feasibility of a high quality day café and information office located within the front area of the Chalet.

The proposed year-round café is proposed to be serviced by a collection of local food and beverage producers offering a range of quality regional produce. This concept is also supported by self-guided tours of the Chalet, including the ballroom, during opening hours.

Visitor Economy

Currently, there are limited food and beverage options at Mount Buffalo, a noticeable undersupply of what would be expected by the current level of visitation to the mountain. The addition of a café in the existing Chalet could start to address this undersupply in the short-to-medium term. If the Chalet café reaches revenue estimates based on benchmarks from other local businesses, this would translate to almost 35,000 annual day patrons, up to 1,400 per week in the high season. This is estimated to meet 4-22% of the full market potential, and is estimated to generate a direct revenue of $970,000 in year 1. The benefit cost ratio is calculated to be 1.4.

Cost

Building Cost	$1,189,000
Utilities Cost	$813,000
Total Capital Cost	**$2,002,000**

Costs are exclusive of GST. Figures have been rounded to the nearest 'ooo

Concept Feasibility Snapshot

Year 1 Operation	Low Scenario (report-based statistics)	High Scenario (local specific evidence)
Gross Sales	$581,000	$970,000
Cost of Goods	($174,300)	($291,000)
Gross Profit	$406,700	$679,000
Operating Expenses	($363,087)	($565,367)
Net Profit	$43,613	$113,633
Profit Margin	7.5%	11.7%

Opportunities Assessment

- This concept is the first critical step to realising the *Vision for Mount Buffalo*, and would address the current undersupply of food and beverage within a short time frame.
- The 'High' revenue scenario (based on local specific evidence) is estimated to produce a commercial return that would be considered attractive to an investor / operator.
- The key to success will be obtaining early input from an experienced hospitality operator for design, fitout and activation strategy.
- Attracting the 'right' operator, with experience in regional café operation, customer service and marketing expertise, will be critical to the café's success.

[4] Vision for Mount Buffalo, p.20

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Activation Summary

Concept 4. Wilderness Eco-Pods

Indicative eco-pod floor plan

Description

This "remote yet luxurious" mountain accommodation offering is proposed to enable visitors to feel immersed within the natural environment.[5]

This concept analyses the commercial feasibility of 10 low-impact, sustainable eco-pods that are assumed to be pre-fabricated off-site and located at Lake Catani. The eco-pod design would utilise sustainable design principles to minimise environmental impacts and reliance on external utilities.

It is envisioned that this form of accommodation would offer a unique alternative to the existing camp site at Lake Catani, or the proposed Mount Buffalo Chalet Hotel.

Whilst the capital cost reflects cabins situated in close proximity to Lake Catani, this concept does not preclude alternative locations on the mountain. Cresta Valley has also been identified by the Taskforce as a suitable location for this accommodation experience.

Visitor Economy

Luxury camping is a growing segment of the $1.3 billion Victorian camping and caravan sector. Research commissioned by Tourism North East has identified a real demand for accommodation offerings that are 'unique' and located within natural surrounds. There is currently a gap in the regional product offering in the Victorian High Country.

Increase in on-mountain expenditure generated by this activation includes direct revenue generated by the accommodation and associated food / hamper offering, as well as an average spend on other goods and services provided on the mountain and in the broader region.

The total increase in visitor expenditure to the rest-of-region is estimated to be $385,000 (year 1), with an additional direct revenue of $581,000 achieved by the eco-pod operator (year 1). The total incremental increase in visitor expenditure is estimated to be $966,000. The benefit cost ratio (using the high scenario) is calculated to be 1.5.

Costs

Building Cost	$780,000
Utilities Cost	$679,000
Total Capital Cost	**$1,459,000**

Costs are exclusive of GST. Figures have been rounded to the nearest '000

Concept Feasibility Snapshot

Capital Cost (year 0)	$1,459,031
Total Revenue p.a. (year 1)	$581,219
Total Expenses p.a. (year 1)	($444,104)
Estimated Net Profit p.a. (year 1)	$137,115
Net Present Value (NPV)	($87,392)

Refer to Section 3.3.4 for detailed calculations.

Opportunities Assessment

- Nature based tourism promotes a healthy lifestyle. This investment would enable a new market of visitors (users of luxury accommodation) to participate in the Mount Buffalo experience, expanding engagement in other activities.
- The Wilderness Eco-Pods produce a return that would be considered commensurate to the risks that exist to proceed with this commercial activation.
- This concept would be considered attractive to a private operator based on the unique outdoor experience it could offer visitors, and the relatively low level of capital commitment required.
- Cresta Valley is also considered by the Taskforce to be an ideal location for this remote accommodation offering.

[5] Vision for Mount Buffalo, p. 22

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Activation Summary

Concept 5. Cresta Valley Activities and Events

Artist impression for Cresta Valley Activity Centre by DE Atelier Architects.

Description

The development of Cresta Valley includes the following proposed activations:

- construction of a new Cresta Valley Alpine Activity Centre;
- expanded hero walks;
- mountain bike trail development;
- integrated cultural tourism experiences; and
- the addition of one annual event.

The concept proposes developing Cresta Valley into a Day Lodge and Alpine Activity Centre which would see this area become the mountain's primary recreational hub.[6] The vision is to provide a range of day-visitor facilities including shelter, food and beverage, amenities and mountain information, effectively substituting and adding to the current offering at Dingo Dell.

Visitor Economy

The popularity of current events in the region indicates there is demand for increasing the number of events on Mount Buffalo. In addition to one additional annual event, the development of hiking and mountain bike trails on the mountain will provide visitors with a greater variety of activity options, increasing overall expenditure resulting from increased visitation. The addition of one event per year combined with trail development is estimated to result in a regional economic benefit of $538,000 in visitor expenditure in year 1. The annual revenue estimated to be derived from the Cresta Valley Alpine Activity Centre in year 1 is $852,000. The benefit cost ratio is calculated to be >1 (assuming a non-use value of $0.11 per year per Victorian adult resident).

Costs

Building Cost	$4,911,000
Utilities Cost	$7,604,000
Total Capital Cost	**$12,516,000**

Costs are exclusive of GST. Figures have been rounded to the nearest '000

Concept Feasibility Snapshot

Capital Cost (year 0)	$12,515,555
Total Revenue p.a. (year 1)	$852,089
Total Expenses p.a. (year 1)	($732,797)
Estimated Net Profit p.a. (yr 1)	$119,293
Net Present Value (NPV)	($10,134,284)

Refer to Section 3.3.4 for detailed calculations.

Opportunities Assessment

- This concept is predicted to be a greater catalyst for cumulative future visitation growth to Mount Buffalo.
- At a total capital cost of $12.5M, this concept does not produce a commercial return that would be considered reasonable by the private sector given the risks involved.
- However, this concept will drive greater regional economic benefits, producing a positive BCR.
- The Taskforce feel this is a conservative estimate of visitation growth derived from this concept, and see the Cresta Valley Activity Centre as a potential major growth market as neighbouring Victorian alpine ski resorts reach capacity.

[6] Vision for Mount Buffalo, p. 23

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Concept 6. Dingo Dell Outdoor Centre of Excellence

Description

The concept proposed for Dingo Dell includes re-purposing the existing AW Keown Lodge into an outdoor educational facility that meets the needs of the education sector. The education sector is considered to include primary and secondary students (public and private schools), and could also provide nature-based experience opportunities to disabled, socio-economically disadvantaged and disengaged youth.

The concept also includes the construction of a new building to provide student and staff with nearby accommodation in the Dingo Dell area. It is envisaged that any accommodation vacancies outside of the school year schedule has the potential to service other mountain visitors, such as corporate and tour group bookings, presenting additional commercial opportunities for this activation.

In addition, Mount Buffalo has a rich Aboriginal heritage inherently connected to the Taungurung Clans, the Traditional Owners of the land on which Mount Buffalo National Park is located. Working with the Taungurung Clans Aboriginal Corporation presents strong opportunities for cultural heritage education, ongoing Aboriginal employment and the potential opportunity for commercial investment.[7] (Refer to Appendix E – Taungurung Clans Letter of Support).

Bogong Outdoor Education Centre

Existing AW Keown Lodge

Existing AW Keown Lodge

Visitor Economy

Developing an educational centre on Mount Buffalo will enable an increase in student visitation to the National Park, providing opportunities for day trip education, and camp-style offerings (i.e. one week stay). The overnight education offering is estimated to generate a direct revenue of $1,242,000 in year 1. Whilst the outdoor education day centre is not expected to generate direct revenue, broader social and environmental benefits exist. The benefit cost ratio is calculated to be >1 (assuming a non-use valued of $0.08 per year per Victorian adult resident and $44 education benefit per user of either education concept).

Cost

Building Cost	$8,169,000
Utilities Cost	$5,450,000
Total Capital Cost	**$13,619,000**

Costs are exclusive of GST. Figures have been rounded to the nearest '000

Concept Feasibility Snapshot

Capital Cost (year 0)	$13,619,297
Total Revenue p.a. (year 1)	$1,241,815
Total Expenses p.a. (year 1)	($1,055,136)
Estimated Net Profit p.a. (yr 1)	$186,697
Net Present Value (NPV)	($10,727,141)

Opportunities Assessment

- Outdoor education in Victoria is currently vastly undersupplied. Therefore, building an education centre on Mount Buffalo will allow for an increase in student visitation.
- The Dingo Dell Outdoor School of Excellence and student accommodation provides opportunities for broader state-wide educational benefits, making this concept appealing for further Government consideration.
- Recent examples (i.e. Don Valley State School) highlight the possible interest in an outdoor education concept of this nature.
- This concept could also provide a healthy opportunity to students with limited access to outdoor education and nature-based experiences, including disabled, disadvantaged and disengaged youth.

[7] Vision for Mount Buffalo, p.25

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Concept 7. Mountain Gateway

Description

This concept assesses the feasibility of a proposed new mountain gateway at the base of Mount Buffalo, identified by a "landmark building." This building is intended to announce the visitor's arrival at the Mount Buffalo National Park, providing both a welcoming experience and useful information about the various aspects of the mountain's offering.[8]

Artist impression for the Mount Buffalo Visitor Information Centre.

Visitor Economy

Research shows that providing more visibility of local activities enabled new visitors the chance to discover opportunities and therefore they are more likely to stay longer and spend more in a region. A visitor centre arguably could provide this visibility for Mount Buffalo. Whilst construction of the new visitor centre will not directly increase visitor numbers, it could increase the nights spent on the mountain, and result in an increase in expenditure in the broader region.

Whilst there will be no direct revenue generated by the visitor centre, the incremental increase in broader regional visitor expenditure generated by this development is estimated to be $1,130,000 annually. The benefit cost ratio is calculated to be 0.7.

Costs

Building Cost	$9,321,000
Utilities Cost	$5,569,000
Total Capital Cost	**$14,890,000**

Costs are exclusive of GST. Figures have been rounded to the nearest '000

Concept Feasibility Snapshot

Capital Cost (year 0)	$14,890,300
Total Revenue p.a. (year 1)	$-
Total Expenses p.a. (year 1)	$373,093
Estimated Net Profit p.a. (yr 1)	($373,903)
Net Present Value (NPV)	($16,164,985)

Refer to Section 3.3.4 for detailed calculations.

Opportunities Assessment

- A Visitor Information Centre could provide additional visibility of local activities offered on Mount Buffalo.
- Whilst we recognise the importance of this concept as a formal arrival point to the mountain with critical amenities including toilets, we believe the Visitor Centre as currently proposed is too significant in scale.
- The Taskforce agree that a capital cost budget of $3M is likely to provide a positive visitor experience at the base of the mountain, and believe an even lower capital cost budget could be achievable for the successful delivery of this concept.

[8] Vision for Mount Buffalo, p. 30

Executive Summary

Summary of Findings

An opportunity exists to enhance the current offerings available to the visitors of Mount Buffalo. This analysis shows that the majority of the concepts proposed in the *Vision for Mount Buffalo* will require support and capital contribution in order to be developed.

The economic and commercial feasibility analysis has identified the potential demand and benefits that could be derived from each of the proposed concepts, and correspondingly, the material level of capital required to achieve the concepts outlined.

The findings of our market engagement critically identified that the whole-of-mountain activation concepts as detailed in the *Vision for Mount Buffalo* are, for the most part, considered appealing to the private sector, and would drive significant broader investment into the region. In spite of this, the market is clearly attuned to the complexities and risks that are associated with a development of these concepts.

Our market engagement has further unveiled that at this early stage of the whole-of-mountain development Vision, the private sector is unwilling to dedicate significant resources and investment due to the challenges associated with the mountain in its current state (i.e. planning environment, lease tenure and significant capital infrastructure requirements), and that a firm Government commitment to address these areas would be needed in order to attract private sector investment.

Some concepts as currently envisaged are more realisable and tangible than others (i.e. Cafe in the Chalet and Wilderness Eco-Pods) as the capital requirements are relatively low, the risks more controllable and the benefit to the region considerable – financially, socially and economically.

It is of our opinion that the logical path forward is to develop a staged approach to developing the Vision for Mount Buffalo, commencing with this initial package of selected activation concepts:

- Concept 3: Café in the Mount Buffalo Chalet
- Concept 4: Wilderness Eco-Pods;
- Concept 6: Dingo Dell Outdoor Centre of Excellence; and
- Concept 1: Gorge Skywalk

The food & beverage option in the front of the Chalet as the first immediate stage, combined with the Wilderness Eco-Pods are appealing both conceptually and commercially, and would be strong contributors to the local region. The Gorge Skywalk and Dingo Dell Outdoor Centre of Excellence, whilst they do not produce risk adjusted returns that would be considered highly appealing by the private sector, we see a prime opportunity for each of these concepts to drive broader visitation to the region that could then act as a catalyst and underpin further development of the Mount Buffalo Chalet at a future stage.

A preliminary economic assessment has been conducted on this initial package on concepts in the same manner as each of the individual concepts in section 3.1. As noted in Section 3.1.7, there may be some overlap in expenditure for food and beverage when combining concepts together (as some whole of region expenditure of visitors to the gorge skywalk or Eco-Pods may occur at the Chalet Café). To be conservative, therefore, a proportion of whole of region expenditure has been reduced when presented as a package, assuming that one rest of region meal for each new visitor to the skywalk and Eco-Pods would occur at the Chalet Café (however not for Dingo Dell as the overnight accommodation is assumed to be all inclusive). This preliminary economic assessment is presented over the page.

It should also be noted (as also discussed in Section 3.1.7) that investing in several concepts as a package may stimulate more demand than each individual component. This has not been included in the preliminary economic assessments, but should be explored for further analysis for a business case.

Executive Summary

	Combined package (Gorge Skywalk + Chalet Cafe + Eco-Pods + Dingo Dell)
Costs	
PV costs (capital and ongoing)	60,891,071
Use-value benefits	
Concept expenditure benefits only	PV benefit = 43,961,250 BCR = 0.7
Whole of region (concept + rest of region) expenditure benefits	PV benefit = 53,663,825 BCR = 0.9
Whole of region expenditure benefits + non-use value	BCR >1*
Non-use benefit gap analysis	
Cost benefit gap (present value)	7,227,246
Non-use benefit per year per adult Victorian	$0.05
Education surplus benefit per user	$29

* Potential BCR greater than one based on a reasonableness test on the non-use value.

This gap analysis shows that, for example, the benefits of this combined package of concepts will outweigh the costs, if each adult Victorian resident values the investment at $0.05 per year and each visitor to Dingo Dell receives an education surplus of $29. These represent minimal values indicating the non-use and education benefits delivered may likely exceed costs, which in turn could make this a feasible investment in broader economic terms.

In addition, a gap analysis test was undertaken on skywalk visitation, as this is the largest unknown (as it is highly dependent on the commercial operator of the concept). Annual skywalk visitation of approximately 37,900 annual visitors (compared with the conservative estimate used in this feasibility assessment of 25,400) would also mean this preliminary benefit cost ratio (of the combined package) would be greater than 1 before consideration of non-use benefits.

We believe this initial package of concepts noted above has a greater chance of gaining traction due to their broader government appeal, and would ultimately underpin further investment, increased visitation and activation of Mount Buffalo and the Chalet.

For any activation to be considered seriously by the private sector, our findings show that the market needs the support and commitment of government – both its capital contribution and its backing in terms of ongoing promotion and support.

1. Project Introduction

1. Project Introduction

1.1 Project Background

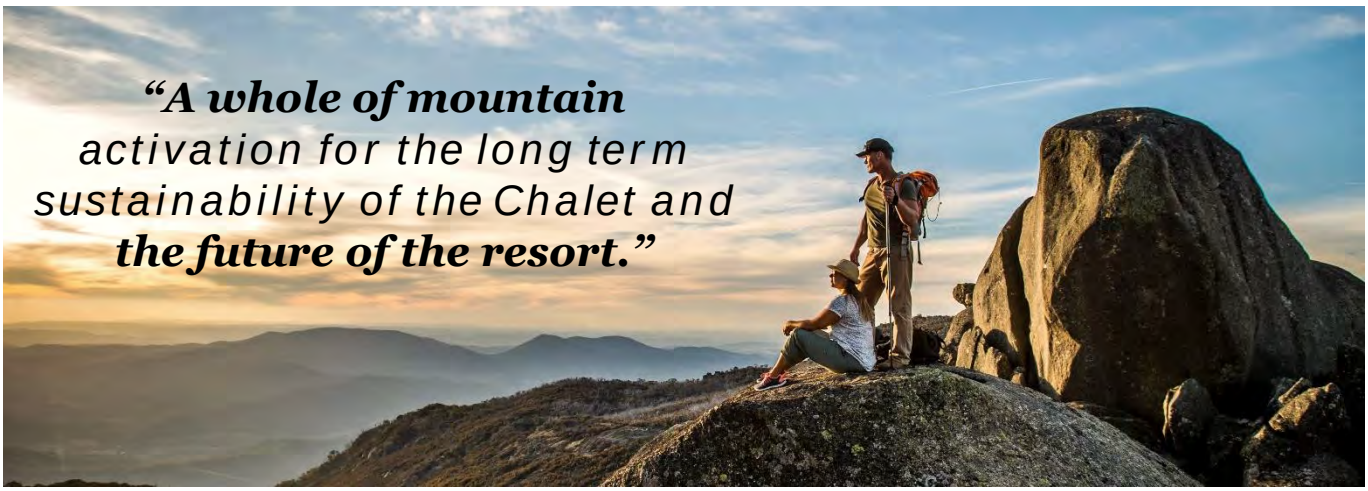
The Mount Buffalo Project Taskforce recognises that the Mount Buffalo National Park is a unique natural asset that is currently underutilised in its current condition. A 'whole of mountain' approach has been strategically designed to enable Mount Buffalo to develop into an iconic Victorian destination over time, driving positive and sustainable social, economic and environmental outcomes for the entire northeast region. The proposed activations focus on five key areas: business operations, training and employment opportunities, products, services and reinvestment.

Seven tourism concepts across five key visitor hubs have been developed by the community in collaboration with the Mount Buffalo Destination Advisory Group (MBDAG), and have been explored commercially through this Business Case Assessment and Activation Project.

1.2 Project Vision

There exists an opportunity to establish Mount Buffalo as a reinvigorated, year-round alpine destination that leverages its cultural, heritage and natural assets to become a unique centre for entrepreneurship, education, hospitality and tourism.

The *Vision for Mount Buffalo* sets out a 'whole of mountain' approach to the area, leveraging opportunities across various user groups to deliver a vibrant and sustainable Mount Buffalo for current and future generations.



1.3 Objectives of the Vision

Three primary objectives of the Mount Buffalo Activation Project have been identified. These objectives will be the underlying focus of the business case assessment.

1

Maintain and enhance the natural and cultural assets of the mountain for current and future generations.

2

Take a sustainable 'whole of mountain' approach to visitor economy activation, including the restoration and activation of the Chalet.

3

Enable Mount Buffalo to become a sustainable, all year round destination.

1. Project Introduction

1.4 Mount Buffalo Chalet – A Brief History

Mount Buffalo's striking natural landscape provides an idyllic backdrop to the destination's most renowned man-made asset – the magnificent Mount Buffalo Chalet.

The Mount Buffalo Chalet was built on the Mount Buffalo plateau in 1910 after the first road opened to the summit. With uninterrupted views across the valley from the Gorge, the Chalet has a spectacular and unique outlook that has attracted visitors for over 100 years, which has contributed to its status as a true Victorian heritage icon.

The Chalet was government-owned and managed by various private lessees between 1910 and 1924 before being transferred to the Railways Department, which managed the building until 1985, when it was passed back to the government under the auspices of the Tourism Commission. In 1993 it was leased privately once again.

The Chalet closed in 2006 following the bushfire event and what became an increasingly challenging business environment. After a failed attempt to secure a new lessee, management of the Chalet was handed back to the Victorian State government in 2009 and Parks Victoria has managed it ever since.

Whilst the Chalet is currently closed, Mount Buffalo still attracts over 204,000 visitors in 2017, many of whom are attracted by the Chalet building – a key driver to current mountain tourism as one of the largest Chalet complexes in Australia – and its exceptional heritage attributes.

1.5 Mount Buffalo Activation Taskforce

The Mount Buffalo Activation Taskforce was established in 2017 to help review and enable positive development opportunities in the Mount Buffalo National Park.

The Taskforce is comprised of representatives from both state and local government, and local community groups.

Representative Group / Organisation	Representative
Parliamentary Secretary for Tourism, Major Events and Regional Victoria	Danielle Green (Chair)
Regional Development Victoria – Regional Director Hume	Matt Nelson
Regional Development Victoria – Manager Economic Development Hume	Mark Byatt
Parks Victoria, Regional Director Eastern Victoria	Graeme Baxter
Parks Victoria, Executive Director Regional Victoria	Kylie Trott
Parks Victoria, District Manager North East	Ty Caling
DELWP – Regional Director Hume Region	Clare Kiely
Tourism North East - CEO	Amber Gardner
Taungurung Clans Aboriginal Corporation - CEO	Matthew Burns
Mount Buffalo Destination Advisory Group - Chair	Janelle Boynton
Community Action for the Chalet (CAC) - Chair	David Jacobson
Alpine Shire Council - CEO	Charlie Bird
Alpine Shire Council - Mayor	Cr Ron Janas

Table 1.5.1: Members of the Mount Buffalo Activation Taskforce

1. Project Introduction

1.6 Project Brief

The purpose of this business case assessment is to complete a concept feasibility assessment for each of the seven tourism concepts identified in the *Vision for Mount Buffalo* document; determining whether each tourism concept derives a commercial and economic return. The project will also explore commercial investment and project activation for all viable concepts.

The project has been divided into three key components.

Component A – Project Management and Communications

Project management and communications will include:

1. Development of a detailed project management plan

2. Development and implementation of a comprehensive, strong and responsive communication plan

3. Management and delivery of stakeholder relationships and engagement – including the community, local and State government, relevant departments and organisations, and commercial and industry groups

Component B – Concept Feasibility

The business case feasibility assessments will include:

1. Determination of potential demand and target markets

2. Determination of the commercial feasibility, including cost benefit analyses

3. Consideration of specific challenges and potential solutions, such as services infrastructure, road capacity, policy and legislative constraints regarding land use

Component C – Project Activation

The commercial investment and project activation will include:

1. Development of marketing prospectus for a portfolio of commercially viable concepts

2. Identification of potential commercial investors and operators for each viable concept

3. Realisation of commercial opportunities and investment for each viable concept

Mount Buffalo National Park at sunset.

1. Project Introduction

1.7 Mount Buffalo Site Visit

A site visit was conducted on 27 April 2018 to explore the seven concept activation sites.
Attendees of the site visit included:

- Select members of the Mount Buffalo Business Case Assessment Taskforce
- PwC
- WT Partnership
- Parks Victoria park ranger

Images taken by PwC on the date of the site visit can be seen below.

Mount Buffalo Chalet

Mount Buffalo Chalet - Level 1 Dining Room

Mount Buffalo Chalet – Mansfield Cafe

Gorge lookout

Existing walking trails

AW Keown Lodge, Dingo Dell

Dingo Dell – "Snow Play" area

Cresta Valley

2. Project Management and Communications Plan (Component A)

2. Project Management and Communications Plan

2.1 Brief

A Project Management and Project Communications Plan was developed by PwC in consultation with the Taskforce to inform members of the Taskforce how the business case assessment Project will be executed, monitored and controlled throughout the Project duration.

2.2 Objectives

Objectives of the Project Management and Communications Plan include:

1. Identification of a clear Project schedule including timeframes around each component of the project (A, B and C), and proposed dates for key deliverables;
2. Identification of key personnel committed to the project, and summary of their role in project delivery;
3. Identification of key risks associated with the Project, and actions required to manage and mitigate these risks.

Refer to Appendix B for a full copy of the Plan.

3. Feasibility Assessment (Component B)

3.1 Demand Analysis

3.2 Cost Estimates

3.3 Concept Feasibility

3.4 Challenges, Risks and Possible Solutions

3.1 Demand Analysis

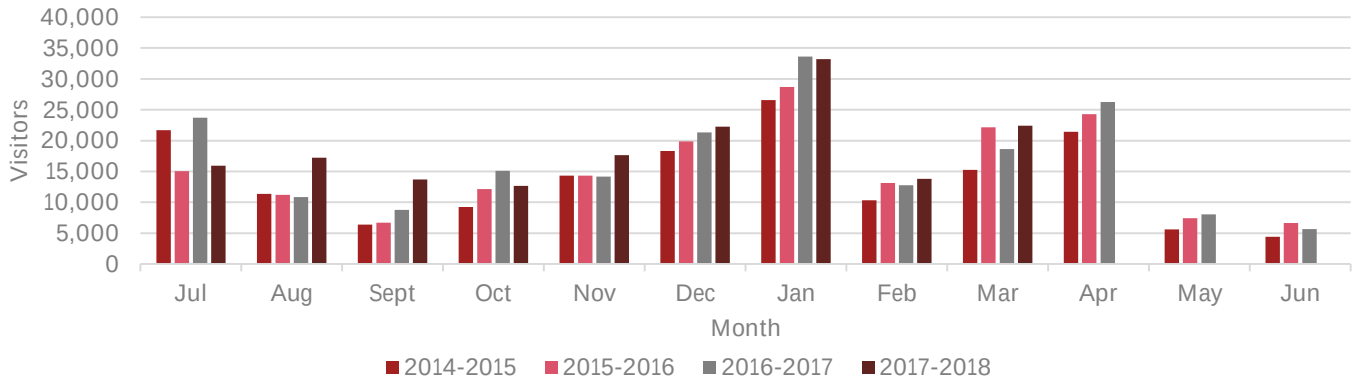
3.1 Demand Analysis

3.1.1 Current Visitation to Mount Buffalo

Mount Buffalo attracts more than 200,000 visitors per year and has a strong average annual growth rate of 5%.[9] Figure 3.1 shows that a majority of these visitors attend during the summer season, especially clustering around the holiday periods of Christmas, New Year and Easter. This strength in summer visitation at Mount Buffalo is unique in the region, where Victorian alpine areas are predominantly winter focussed, and demonstrates the potential of Mount Buffalo as a year round destination.

The natural assets of Mount Buffalo position it as an ideal location for outdoor enthusiasts. In summer, the primary activities undertaken at Mount Buffalo are bushwalking, hiking, sightseeing, cycling and camping, while in winter activities includes snow play, tobogganing and cross country skiing.

Figure 3.1: Total number of monthly visitors to Mount Buffalo (2014-2018)



Source: Parks Victoria visitors statistics provided to PwC

3.1.2 Importance of the Visitor Economy to the Region

Mount Buffalo and the broader Alpine Shire region relies on a healthy tourism visitor economy. Over $250 million was spent by visitors to Alpine Shire during 2017 (including airfares and transport costs). The region attracts more holiday makers than the state average (with 78% of visitors to the region stating the purpose of their travel was for 'holiday' reasons, compared with approximately 50% for all Victorian trips).[10] Holiday makers tend to spend more money than other types of visitors, which, together with the fact that a large majority of Alpine Shire's visitors arrive from interstate, means the region has strong visitor economy potential.

Within this region, however, Mount Buffalo is not contributing to the visitor economy to its fullest potential. Although Mount Buffalo is attracting significant and rising numbers of visitors, this is occurring while the mountain is offering limited amenities and yield-generating tourism experiences. This will constrain growth in visitor numbers, but more importantly, it is limiting the economic returns to the wider region achievable by this visitation.

3.1.3 Identified Need for Investment on Mount Buffalo

The visitor economy is a priority sector for Victoria and there is a core need to support and grow tourism in the region. However, a more compelling tourism product is required to increase visitation and yield in regional areas. Improving existing tourism facilities and services will enable visitor needs to be met and opportunities realised.

To realise this potential on Mount Buffalo, seven concepts for activation have been proposed that look to fundamentally change and improve the tourism offerings on the mountain and activate future growth and economic development. For example, one of these seven concepts is to enhance the food and beverage offerings on the mountain. Across Alpine Shire, the most popular activity for visitors is dining at a restaurant or café (with over 70% of visitors dining out during their trip).[10] However, limited food and beverage options on the mountain means Mount Buffalo is not able to benefit from this latent demand, suggesting this is one area in which development could increase on-mountain expenditure.

[9] Mount Buffalo Destination Advisory Group (February 2017) *Vision for Mount Buffalo*

[10] Alpine Shire Council (December 2017) *Travel to Alpine Shire* and Tourism Research Australia (2017) *National Visitor Survey*

3.1 Demand Analysis

3.1.4. Target Markets

The activation of Mount Buffalo should occur in alignment with an understanding of the current visitor profile, but also the target market for the region. For example, focus markets for Tourism North East are 'lifestyle leaders' – who seek experience driven destinations and take short breaks to locations for different experiences – and 'habituals' – who return to a regular location, for a familiar experience.[11] Lifestyle leaders will be drawn by iconic investments that offer unique experiences and change the attraction profile of the region. To continue to attract habituals, investment in maintaining the quality of supporting amenities and the character of the region is needed.

The vision for Mount Buffalo is thoughtful investment, made in accordance with sustainable eco-tourism management practices, that would establish Mount Buffalo as a vibrant nature-based hub, strengthening the current user market of nature based tourists, and opening the mountain up to new markets of luxury and experience driven users.

3.1.5 Demand Analysis Approach

Looking at the activation concepts proposed for Mount Buffalo, demand can increase in the region in two ways:

1. incremental increase in visitor numbers and associated spend;
2. for current visitors, an increase in per visitor spend.

Examining these two aspects allows us to measure the total new impacts to the regional economy resulting from the concept development.

The quantification of this benefit is usually split in to two components. Firstly, there is the visitor spend that occurs 'on site' at the new concept, which is the spending required to participate in the concept. This is labelled as 'concept expenditure' in the economic analysis below, and will be equal to the revenue generated by the concept, if none of this expenditure is substituted from existing experiences. Secondly, there is the spending that is induced by the visitor wanting to visit the concept, but is not spent on site. This is labelled as 'rest of region expenditure' throughout the report, and includes spending on transport, offsite food and beverage, and other average trip expenses, that would not have occurred except for the visitor taking a trip to participate in the new concept.

It is important to note that each concept has also been analysed individually using a 'triple bottom line' approach of economic, social and environmental benefit. Notably, the demand created by each concept has been analysed in isolation from the others, assuming each concept is a 'first mover' and therefore does not include the examination of any interdependencies.

3.1.6 Individual Concept Analysis and Assessment

Concept 1. Gorge Skywalk

National and global growth trends in nature based tourism exceeds visitor growth at Mount Buffalo, indicating demand for an increase of nature based activities in this region. The construction of a 'major attractor' such as the proposed gorge skywalk will induce nature based visitors and adventure seekers to the mountain and will encourage an increase in spend from current visitors.

It is assumed that the gorge skywalk will have two effects on increasing expenditure in the region:

- a proportion of current visitors (those who already engage in sightseeing) will increase their expenditure to experience the skywalk (by the amount of assumed ticket price equal to the average price of other skywalks, as explored below)
- the attraction will increase visitation to the region, and these new visitors will have an average spend (as per data provided Alpine Shire Council).

[11] SGS Economics & Planning for Tourism North East (August 2012) *North East Victoria Tourism Gap Analysis*

3.1 Demand Analysis

Approach to assessing potential economic benefits of a skywalk

To calculate the increase in visitation due to the skywalk we:

- examined the difference between the growth of visitation on Mount Buffalo and compared this to the global growth in nature based tourism (using data from Tourism North East)
- estimated the proportion of the gap in growth that can be closed through utilising the proportion of tourists who currently engage in sightseeing and the percentage that are likely to use the skywalk (as per survey data provided from a survey by *North East Victorian tourism gap 2012*)
- assumed the skywalk would be priced similar to other comparable offerings around Australia, including:
    - Tasmania Tahune Skywalk, 620m steel canopy walk over forest floor and the Huon River - $30/adult
    - Illawarra Fly Treetops Walk, 500m steel canopy walk concluding in a spiral tower and two swaying cantilevers. The centre also includes visitor information about the forest, the treetop experience and the broader region - $25/ adult
    - Otway Fly Treetops walk, 600m steel canopy walk over the rainforest floor and a cantilever above Young's Creek. The centre also hosts an interactive educational trail designed for children and a shuttle service to the visitor centre - $25/ adult
    - Daintree Aerial Walkway, 125m steel canopy walk over rainforest and McLean's Creek. The experience includes educational display on climate change, freshwater creek ecology and reptiles as well as an interpretive display centre of 410 square meters - $35/ adult

This results in a level of use of the skywalk (from current and new visitors to the region) equivalent to approximately 490 people using the skywalk per week on average over the year, a large majority will use it on the weekend.

Economic benefit

The expected economic benefit of the skywalk has been calculated using a scenario based on publically available and referenced data. The ticket price adopted for the gorge skywalk commercial feasibility assessment is $30 inclusive of GST ($27.27 ex GST).

The economic benefit results are shown in Table 3.1 below.

Table 3.1: Economic benefits from skywalk concept (year 1), ex GST values

Benefit	Visitors	Spend on skywalk	Increased value to rest of region	Total increase in expenditure
New demand	1,080	$29,000	$462,000	$492,000
Existing demand	24,358	$664,000	-	$664,000
Total demand	25,438	$694,000	$462,000	$1,156,000

Potential visitation to the gorge skywalk is highly dependent on the eventual operation and marketing by the operator, as it is not limited by capacity (as a accommodation or food offering may be). Therefore, the economic benefits displayed above will rely on the visitation a commercial operator is able to achieve. For example, a modest increase in estimated visitors to approximately 29,600 annual visitors (at the same proportion of new and existing demand as estimated) would result in a concept expenditure on the skywalk of $807,o00 and a rest of region spend of $572,000. This combined increase in whole of region expenditure would result in a preliminary use value only benefit cost ratio (as explored in Section 3.1.7) of greater than 1.

3.1 Demand Analysis

The tables below outline the key steps taken and data used in calculating development of a skywalk.

Table 3.2: Data and assumptions relied upon

Assumptions for calculating economic benefit		Source
Current visitor information		
Total visitors to Mount Buffalo	204,387	Parks Vic, calendar year 2017
Percentage of visitors to Mount Buffalo that stay overnight	54%	Tourism North East (October 2016) *Mount Buffalo Tourism Attraction*
Percentage of visitors to Mount Buffalo that are day visitors	46%	Tourism North East (October 2016) *Mount Buffalo Tourism Attraction*
Average High Country overnight visitors spend per night, ex GST	$198	Tourism Research Australia (2017) *National Visitor Survey, Table 10*
Alpine Shire overnight visitors average number of nights per trip	3.1	Alpine Shire Council (December 2017*) Travel to Alpine Shire*
Current average annual visitor growth	5%	Mount Buffalo Destination Advisory Group (February 2017) *Vision for Mount Buffalo*
High Country average day visitor spend, ex GST	$97	Tourism Research Australia (2017) *National Visitor Survey, table 10*
Potential for growth		
Overnight visitors that engage in sightseeing	43%	Alpine Shire Council (December 2017) *Travel to Alpine Shire*
Day visitors that engage in sightseeing	22.5%	Alpine Shire Council (December 2017) *Travel to Alpine Shire*
Survey respondents that would visit Mount Buffalo for the skywalk	63%	Tourism North East (August 2012) *North East Victorian Tourism Gap Analysis*
Survey respondents that find the skywalk concept appealing at $30	71%	Tourism North East (August 2012) *North East Victorian Tourism Gap Analysis*
Growth of nature based tourism globally	10%	Tourism North East (August 2012) *North East Victorian Tourism Gap Analysis*
Key assumptions		
Current visitor increased spend (cost of attraction) ex GST	$27.27	PwC assumption based on cost of Tasmania Tahune Skywalk
Likelihood of meeting survey respondents converting to visit	50%	PwC assumption on number of people that will follow through with response

3.1 Demand Analysis

Table 3.3: Calculation – induced demand from new visitors

Explanation	Calculation	Result
New day visitors = Current visitors * percent that are day visitors * percent of day visitors who sightsee * market gap * visitors that would find appealing * conversion rate for survey	204,387 * 46% * 22.5% * (10% - 5%) * 63% * 50%	333
New overnight visitors = Current visitors * percent that are overnight visitors * percent of overnight visitors who sightsee * market gap * visitors that would find appealing * conversion rate for survey	204,387 * 54% * 43% * (10 – 5%) * 63% * 50%	747
Induced visitors due to skywalk = new day visitors + new overnight visitors	333 + 747	1,080
New visitor whole of region expenditure = new day visitors * average day visitors spend + new overnight visitors * average overnight visitor spend * average stay)	333 * $97 + 747 * $198 * 3.1	~$492,000
New visitor concept expenditure = induced visitors * cost of skywalk ticket	(333 + 747) * $27.27	~ $29,000
New visitor rest of region expenditure = whole of region expenditure - concept expenditure	$492,000 - $29,000	~ $462,000

Table 3.4: Calculations – existing demand from current visitors

Explanation	Calculation	Result
Current day visitors that will use the skywalk = current visitors * percent that are day visitors * day visitors that engage in sight seeing* come for skywalk * survey conversion rate	204,387 * 46% * 22.5% * 71% * 50%	7,510
Overnight visitors that will use the skywalk = current visitors * percent that are overnight visitors * overnight visitors that engage in sightseeing * come for skywalk * survey conversion rate	204,387 * 54% * 43% * 71% * 50%	16,848
Current visitors that use the skywalk = current day visitors that use + current overnight visitors that use	7,510 + 16,848	24,358
Current visitor concept expenditure = current visitors that will use the skywalk * cost of skywalk ticket	24,358 * $27.27	~ $664,000

Social benefit

Social benefits to the community from the establishment of a skywalk include; the increased recreational enjoyment that it brings, health benefits from encouraging more nature based activity, and educational benefits. Education benefits will depend on the design and operation of the skywalk, but are likely since similar skywalks have incorporate an educational component to their entry package, displaying information and about environmental conservation, as well as the local flora and fauna of the area will give visitors the opportunity to gain a better understanding of nature. The net new benefits resulting from these benefits are difficult to quantify as visitors may be substituting a visit to the skywalk for some other outdoor activity.

Environmental benefit

Any construction in a National Park area is likely to bring some initial disturbance and environmental dis-benefit. Rigorous market sounding will be required to assess whether the benefits associated with the skywalk are large enough to continue with the development of a business case for this concept. Serious consideration must be given to community support for this development.

As the attraction's selling point is for nature based tourism, it is assumed this concept will be designed to fit in with the natural surroundings, therefore, once constructed the skywalk will have minimal future impact on the environment.

3.1 Demand Analysis

Concept 2. Mount Buffalo Chalet

The Mount Buffalo Chalet has been closed since 2006. Since then, the Chalet's ongoing deterioration over time has made investment into this opportunity difficult. However, despite it's closure over 12 years ago, the Chalet is still a major drawcard for visitors to the mountain. It is assumed that in it's current state, cultural and heritage-driven visitors are not being induced to visit the mountain to it's fullest potential. Restoring the Chalet can help access the potential market of historically driven tourists and therefore, increase visitation to the region.

In addition to restoring the Chalet as a tourist attraction, the redevelopment will also provide high-end year round accommodation, an option which is not currently provided on Mount Buffalo. This means that the target market for hotel accommodation is a market not currently serviced. Therefore, the tourists attracted by the initial addition of a boutique 42 room hotel can all be assumed to be net new visitors to the region and all their expenditure (both revenue to the hotel operator and associated spending across the mountain) can be seen as incremental.

Approach to assessing potential economic benefits of Chalet redevelopment

The redevelopment of the Chalet has a two-fold effect on demand:

a) restoring the Chalet as a major state-wide tourist attraction

b) providing for high-end accommodation

a) A tourist attraction

To quantify the increase in visitor numbers we compared:

- growth trends in cultural tourism (ABS data – *Arts and culture in Australia*)
- visitor growth in High Country and Mount Buffalo (local council data).

This showed a gap in visitor growth per year between High Country generally and Mount Buffalo specifically.

To calculate the increase in spend on the mountain we used average visitor expenditure in the region (as per data provided Alpine Shire Council).

b) High-end accommodation

The number of new visitors was calculated using:

- occupancy rate
- average length of stay
- average people per room.

The expenditure increase on the mountain was calculated assuming:

- rooms are priced equal to the market rate using research of similar offerings as well as direct market feedback (approximately $300 per room per night)
- visitors will spend an average amount on all other goods and services (using Tourism Research Australia data provided by Alpine Shire Council and from the *National Visitor Survey*).

Economic benefit

The expected economic benefit of the Chalet redevelopment has been estimated under two scenarios – a scenario calculating the benefit as an attraction; and a calculation of the benefit of the hotel. The economic benefit results are shown in Table 3.5 over the page.

3.1 Demand Analysis

Table 3.5: Economic benefits from Chalet concept (year 1), ex GST values

Benefit	Visitors	Spend on Chalet	Increased value to rest of region	Total increase in expenditure
Induced by attraction	2,225	-	$944,000	$944,000
Induced by hotel	3,731	$2,879,000	$1,059,000	$3,938,000
Total demand	5,956	$2,879,000	$2,003,000	$4,882,000

The tables below outline the key steps taken and data used in calculating the redevelopment of the Chalet and potential revenue and increase in on mountain spend.

Table 3.6: Data and assumptions relied upon

Assumptions for calculating economic benefit		Source
Current visitor information		
Total visitors to Mount Buffalo	204,387	Parks Vic, calendar year 2017
Percentage of visitors to Mount Buffalo that stay overnight	54%	Tourism North East (October 2016) *Mount Buffalo Tourism Attraction*
Percentage of visitors to Mount Buffalo that are day visitors	46%	Tourism North East (October 2016) *Mount Buffalo Tourism Attraction*
Average High Country overnight visitors spend per night, ex GST	$198	Tourism Research Australia (2017) *National Visitor Survey, Table 10*
Alpine Shire average number of nights per overnight trip	3.1	Alpine Shire Council (December 2017*) Travel to Alpine Shire*
Current Mount Buffalo average annual visitor growth	5%	Mount Buffalo Destination Advisory Group (February 2017) *Vision for Mount Buffalo*
Overnight visitors proportion of spend on accommodation	29%	Tourism Research Australia (2017) *National Visitor Survey, table 7*
High Country average day visitor spend, ex GST	$97	Tourism Research Australia (2017) *National Visitor Survey, table 10*
Assumptions used for Chalet as an attraction		
Growth in visitor numbers High Country (overnight) 2017	13.5%	Alpine Shire Council (December 2017) *Travel to Alpine Shire*
Growth in visitor numbers High Country (day) 2017	10.8%	Alpine Shire Council (December 2017) *Travel to Alpine Shire*
Domestic visitors participating in cultural heritage tourism	15%	ABS (2014) *Arts and Culture in Australia: a statistical overview, cat no 4172.0*
Assumptions used for Chalet hotel		
Number of high end suites	42	Mount Buffalo Destination Advisory Group (February 2017) *Vision for Mount Buffalo)*
Occupancy rate of accommodation in regional Victoria	50.3%	ABS (June 2016) *Survey of Tourist Accommodation Victoria*
Average people per room	1.5	PwC assumption based on 50% likelihood of two people and 50% likelihood of one person
Room rate per night, ex GST	$300	PwC assumption based on market research of similar offerings
Restaurant spend per room per night, ex GST	$73.33	PwC assumption based on market research of similar offerings

3.1 Demand Analysis

Table 3.7: Calculation – Increase in visitation and resultant expenditure due to Chalet as attraction

Explanation	Calculation	Result
Increase in day visitors = day visitor gap * day visitors * cultural tourist percent	(10.8% - 5%) * 204,387 *46% * 15%	818
Increase in overnight visitors = overnight visitor gap * cultural visitors	(13.5% - 5%) * 204,387 *54% * 15%	1,407
Total increase in visitors = increase in day visitors + increase in overnight visitors	818 + 1,407	2,225
Increase in rest of region expenditure = (overnight visitors * average length of stay * average spend) + (day visitors * average day send)	(1,407 * 3.1 * $198) + (800 * $97)	~ $944,000

Table 3.8: Calculations – Increase expenditure and visitation from the Chalet hotel

Explanation	Calculation	Result
Room nights sold = (number of rooms * days open * occupancy rate)	42 * 365 * 50.3%	7,711
Incremental new visitors = ((room nights sold *average people per room) / average stay)	(7,711 * 1.5) / 3.1	3,731
Concept expenditure on hotel accommodation = (room rate per night * room nights sold)	7,711 * $300	~ $2,313,000
Concept expenditure on hotel restaurant = room nights sold * restaurant spend per room per night	7,711 * $73.33	~ $565,000
Total concept expenditure = expenditure on hotel accommodation + expenditure on hotel restaurant	$2,313,000 + $565,000	~2,879,000
Increase in rest of region expenditure = (incremental new visitor * nights stayed * average overnight spend excluding accommodation spend) – concept expenditure on hotel restaurant	3,731 * 3.1 * (100% - 29%) * $198 - $565,000	~ $1,059,000
Total increase in whole of region expenditure = (hotel concept expenditure + restaurant concept expenditure + rest of region expenditure)	$2,313,000 + $565,000 + $1,059,000	~ $3,938,000

Social benefit

The redevelopment of the Chalet has been largely led through a collaborative effort between local and state government agencies and strong community effort to achieve an outcome. Therefore a large benefit will be realised by the community in terms of seeing the project realised. Whilst each individual will put a different value on the redevelopment, thereby making this benefit difficult to quantify, the premise of the benefit should be acknowledged.

Environmental benefit

Any construction in the region is likely to bring some initial disturbance and environmental dis-benefit. However, it is assumed due to the restorative nature of this investment, it will be designed and implemented in a sensitive manner that minimises any negative environmental impacts.

Opportunities also exist to showcase the region's leadership in moving towards a sustainable future for Mount Buffalo. The innovative sustainable technologies proposed for this project represent the latest in renewable energy technology, and could help to kick start further interest and investment into an 'off-grid' infrastructure solution for Mount Buffalo.

Refer to Appendix D for global benchmark case studies and alternative renewable energy solutions proposed for the mountain.

3.1 Demand Analysis

Concept 3. Food and beverage – Café in the Chalet

Currently, there are limited food and beverage options on the mountain, noticeably undersupplying what would be expected by the level of visitation. The addition of a café in the existing chalet lounge area would start to address this in the short term.

Approach to assessing potential economic benefits of food and beverage offerings

This demand analysis is based on serving the currently undersupplied market and therefore increasing the spend per visitor at current visitation levels. The food and beverage offerings are not assumed to increase visitation in and of themselves for this medium-term offering.

To understand this current undersupply of food and beverage offerings, the total market potential and current market size was estimated.

This estimation of the market potential relied on:

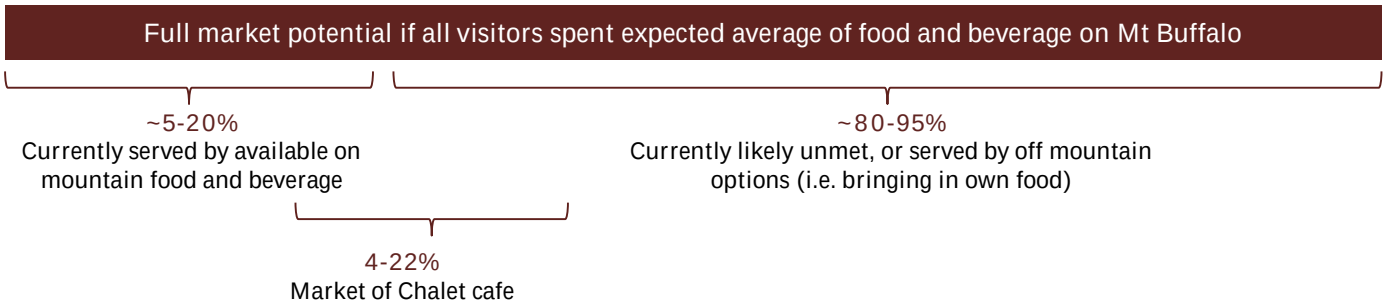
- current visitor numbers (as provided by Alpine Shire Council)
- average visitor food and beverage expenditure (as per Tourism Research Australia's *National Visitor Survey*)

We compared this to the current on-mountain offerings (van/café) visitor expenditure on food and beverages (estimated utilising IBIS World industry data for average revenues).

This shows a significant market gap (i.e. initial estimates demonstrated that only an approximate 5-20% of potential market demand is served).

If the Chalet café reaches revenue levels equivalent to the average Australian café of $581,000, this would translate to 27,000 annual day visitors or 12% of all current visitors to Mt Buffalo. This would mean the café would serve roughly 500 people per week.

If the café reaches revenue estimates based on benchmarks from other local businesses, this would translate to almost 35,000 annual day visitors, up to 1,400 a week in the high season. This would meet 7-20% of full market potential.



Economic benefit

The expected economic benefit of the café in the Chalet has been estimated under two scenarios – a conservative scenario based on publically available and referenced data; and a local specific scenario based on assumptions tested with local businesses. The economic benefit results are shown in Table 3.9 below.

Table 3.9: Economic benefits from food and beverage concept (year 1), ex GST values

Benefit	New visitors	Spend on F&B	Increased value to rest of region	Incremental increase in expenditure
Conservative public data (low scenario)	-	$581,000	-	$199,000
Local assumptions (high scenario)	-	$970,000	-	$584,000

3.1 Demand Analysis

The tables below outline the steps taken in calculating the food and beverage market potential on Mount Buffalo and the market percentage the addition of a Chalet café will service.

Table 3.10: Data and assumptions relied upon

Assumptions for calculating economic benefit		Source
Current visitor information		
Total visitors to Mount Buffalo	204,387	Parks Vic, calendar year 2017
Percentage of visitors to Mount Buffalo that stay overnight	54%	Tourism North East (October 2016) *Mount Buffalo Tourism Attraction*
Percentage of visitors to Mount Buffalo that are day visitors	46%	Tourism North East (October 2016) *Mount Buffalo Tourism Attraction*
Average High Country overnight visitors spend per night, ex GST	$198	Tourism Research Australia (2017) *National Visitor Survey, Table 10*
Alpine Shire overnight visitors average number of nights per trip	3.1	Alpine Shire Council (December 2017*) Travel to Alpine Shire*
Average High Country day visitor spend, ex GST	$97	Tourism North East (December 2017) *Travel to High Country from the period Jan 2017 -Dec 2017*
Data used for food and beverage		
Days new café will be operating	365	
Number of days in high season	93	PwC assumption based on current visitation provided by Parks Vic
Days current van operates	240	Based on Mt Buffalo website
Average revenue café and coffee shop	$580,988	IBISWorld (2018) *Australia Industry Reports – Cafes and coffee shops*
Proportion of average spend on food (overnight visitors)	17%	Tourism Research Australia (2017) *National Visitor Survey, Table 7*
Proportion of average spend on food (day visitors)	22%	Tourism Research Australia (2017) *National Visitor Survey, Table 7*
Café opening hours – high season	8	10am-6pm, PwC assumption
Café opening hours – low season	6	10am-4pm, PwC assumption
Café seating capacity	50	Mid point of proposed 40-60 seats
Local assumption spend per person – high season, ex GST	$30	Local stakeholder consultation
Local assumption spend per person – low season, ex GST	$25	Local stakeholder consultation

Table 3.11: Calculation of market potential

Explanation	Calculation	Result
Market potential (high) = (current visitors * percentage that are day visitors * average day visitor spend * percentage of overnight spend on food) + (current visitors * percentage that are overnight visitors * average stay * average overnight visitor spend * percentage of day spend on food)	(204,387 * 46% * $97 * 22%) + (204,387 * 54% * 3.1 * $198 * 17%)	~ $13,410,000
Market potential (low) = (all visitors * average day visitor spend * percentage day spend on food)	204,387 * $97 * 22%	~ $4,374,000

3.1 Demand Analysis

Table 3.12: Conservative scenario calculation

Explanation	Calculation	Result
Incremental increase in visitor expenditure from Chalet café = (potential future spend - current spend)	$581,000 - (240/365) * $581,000	~ $199,000
Concept expenditure at Chalet café = average revenue café	~$581,000	~$581,000
Market potential served by cafe (high potential) = (spend at café / market potential served (high))	$581,000 / $13,410,000	4%
Market potential served by cafe (low potential) = (spend at café / market potential served (low))	$581,000 / $4,374,000	13%

Local benchmark data was provided to us in confidence, so details cannot be provided here. The patronage at local businesses, together with their opening hours and seating capacity was used to calculate an average number of people served per seat, per hour in each season. For example, a 100 seat restaurant serving 500 people over a 10 hour day would result in a benchmark of 0.5 people served per seat, per hour. Note that less than one person served per seat, per hour does not necessarily translate into empty seats, but can mean longer stays (i.e. a two hour sitting for dinner). This benchmark was then applied to the 'pop up' café specifications in the analysis (see Table 3.13).

Table 3.13: Local assumptions scenario (high scenario)

Explanation	Calculation	Result
People served at Chalet café per day (high season) = Local benchmark * café opening hours * café seating capacity	0.5 * 8 * 50	200
People served at Chalet café per day (low season) = Local benchmark * café opening hours * café seating capacity	0.2 * 6 * 50	60
Revenue per day (high season) = people served * spend per person	200 * $30	$6,000
Revenue per day (low season) = people served * spend per person	60 * $25	$1,500
Annual revenue = number of high season days * revenue per day (high season) + remaining days * revenue per day (low season)	93 * $6,000 + 272 * $1,500	~ $970,000
Incremental increase in concept expenditure = (potential future spend - current spend)	$970,000 – (240/365) * $580,988	~ $584,000
Market potential served by cafe (high potential) = (spend at café / market potential served (high))	$970,000 / $13,410,000	7%
Market potential served by cafe (low potential) = (spend at café / market potential served (low))	$970,000 / $4,374,000	22%

Social benefit

The addition of a new café inside the Chalet in the short term will have benefits beyond the in-café expenditure. Using local produce will benefit the community through flow on effects, as most of the 'in café' expenditure will circulate through the local region. The café will also provide an opportunity to showcase local food and beverage producers to a wider market of interstate and international visitors.

3.1 Demand Analysis

Environmental benefit

This concept will not likely have any environmental benefits or dis-benefits, as activation is proposed to be contained within the existing Chalet building.

Opportunities do exist, however, to showcase the region's leadership in moving towards a sustainable future for Mount Buffalo. The innovative sustainable technologies proposed for this concept represent the latest in renewable energy technology, and could help to kick start further interest and investment into an 'off-grid' infrastructure solution for Mount Buffalo. Refer to Appendix D for global benchmark case studies contained within Sustainable Energy Assessment Report, and specific recommendations for this activation project.

Concept 4. Wilderness Eco-Pods

Sustainable eco-pod type accommodation options are not currently provided at Mount Buffalo, indicating the target market for this high-end offering is a market not currently serviced. Therefore, the type of tourist attracted by the addition of 10 self contained eco-pods can all be assumed to be net new visitors to the region and all their expenditure (both revenue to the eco-pod operator and associated spending across the mountain) can be seen as incremental.

Approach to assessing potential economic benefits of eco-pod offering

The demand analysis is based on servicing a new market of visitors to the mountain, as a result increasing on mountain expenditure.

The number of new visitors was calculated using:

- occupancy rate
- average length of stay
- average people per pod.

Depending on the assumptions used (presented as two scenarios below), 10 double pods are estimated to add approximately 1,800-2,000 room nights to the region.

The expenditure increase on the mountain was calculated assuming:

- pods are priced equal to the market rate using research of similar offerings (approximately $260 per night, plus $50 food hamper offerings, ex GST)
- visitors will spend an average amount on all other goods and services (using Tourism Research Australia data provided by Alpine Shire Council and from the *National Visitor Survey*).

Approximately 60% of the increase in tourism expenditure is expected to flow as revenue to the eco-pod operator with the rest spent across the region.

Economic benefit

The expected economic benefit of the eco-pod operation has been estimated under two scenarios – a specific scenario based on assumptions around occupancy and average stay (scenario 2), and a scenario based on publically available and referenced data (scenario 1). For the purpose of the feasibility assessment, scenario 1 outputs have been relied upon.

Table 3.14: Economics benefits from eco-pod concept (year 1), ex GST values

Benefit	New visitors	Spend on Eco-Pods	Increased value to rest of region	Incremental increase in expenditure
Scenario 1 (low)	888	$507,000	$372,000	$879,000
Scenario 2 (high)	1,981	$581,000	$385,000	$966,000

3.1 Demand Analysis

Table 3.15: Data and assumptions relied upon

Assumptions for calculating economic benefit		Source
Current visitor information		
Total visitors to Mount Buffalo	204,387	Parks Vic, calendar year 2017
Percentage of visitors to Mount Buffalo that stay overnight	54%	Tourism North East (October 2016) *Mount Buffalo Tourism Attraction*
Percentage of visitors to Mount Buffalo that are day visitors	46%	Tourism North East (October 2016) *Mount Buffalo Tourism Attraction*
Average High Country overnight visitors spend per night, ex GST	$198	Tourism Research Australia (2017) *National Visitor Survey, Table 10*
Alpine Shire average number of nights per overnight trip	3.1	Alpine Shire Council (December 2017*) Travel to Alpine Shire*
Current average annual visitor growth	5%	Mount Buffalo Destination Advisory Group (February 2017) *Vision for Mount Buffalo*
Overnight visitors proportion of spend on accommodation	29%	Tourism Research Australia (2017) *National Visitor Survey, table 7*
Overnight visitors proportion of spend on takeaway or restaurant food	17%	Tourism Research Australia (2017) *National Visitor Survey, table 7*
Assumptions used for eco-pod		
Pods available	10	Provided to PwC by Mount Buffalo Destination Advisory Group
Nights operating per year	365	
Cost per night, ex GST	$260	PwC assumption based on market research on similar offerings in Victoria
Average people per eco-pod	1.5	PwC assumption based on 50% likelihood of two people and 50% likelihood of one person
Accommodation average length of stay (scenario 1)	3.1	Alpine Shire Council (December 2017*) Travel to Alpine Shire*
Accommodation specific average length of stay (scenario 2)	1.5	PwC based on analysis of offering (mid point average of one night stays and two night stays)
Hamper cost, ex GST	$50	PwC assumption based off market research of similar offerings in Victoria
Days of food replaced by hamper	0.5	PwC assumption
Average occupancy rate (scenario 1)	50.3%	ABS (June 2016) *Survey of Tourist Accommodation Victoria*
Specific occupancy rate (scenario 2)	54.3%	PwC assumption base on 100% occupancy on Friday and Saturday, 60% on Thursday and Sunday and 20% the rest of the week

3.1 Demand Analysis

Table 3.16: Scenario 1 calculation

Explanation	Calculation	Result
Room nights sold = nights per year * average occupancy rate * pods available	365 * 50.3%* 10	1,836
Incremental new visitors = (room nights sold * average people per room) / average stay	(1,836 * 1.5) / 3.1	888
Concept expenditure on eco-pod = room nights sold * cost per night	1,836 * $260	~ $477,000
Concept expenditure on hamper = (room nights sold / average stay) * cost of hamper	(1,836 / 3.1) * $50	~ $30,000
Total concept expenditure = room expenditure + hamper expenditure	$477,000 + $30,000	~$507,000
Per person whole trip rest of region expenditure = (average expenditure per night * (100% - proportional spend on accommodation) * length of stay) – (average expenditure per night * proportional spend on food * 0.5)	($198 - ($198 * 29%)) * 3.1 – ($198 * 17% * 0.5)	$419
Total increase in rest of region expenditure = (incremental new visitor * whole trip rest of region expenditure)	888 * $419	~$372,000

A sensitivity test was undertaken using specific expected occupancy and length of stay tailored to the eco-pods (rather than public estimates for the whole region). This assumed 100% occupancy on Friday and Saturday nights, 60% on Sunday and Thursdays, and 20% for the rest of the week, giving a weekly average specific occupancy rate of 54.3%. This is slightly higher than the average occupancy rate in regional Victoria of 50.3%. The occupancy rate of 54.3% has been adopted for the feasibility assessment.

Table 3.17: Scenario 2 calculation

Explanation	Calculation	Result
Room nights sold = nights per year * specific occupancy rate * pods available	365 * 54.3%* 10	1,981
Incremental new visitors = (room nights sold * average people per room) / average stay	(1,981 * 1.5) / 1.5	1,981
Concept expenditure on eco-pod = (room nights sold * cost per night)	1,981 * $260	~ $515,000
Concept expenditure on hamper = ((room nights sold / average stay) * cost of hamper)	(1,981 / 1.5) * $50	~ $66,000
Total concept expenditure = expenditure on eco-pod + expenditure on hamper	$515,000 + $66,000	~ $581,000
Per person whole trip rest of region expenditure = (average expenditure per night * (100% - proportional spend on accommodation) * length of stay) – (average expenditure per night * proportional spend on food * 0.5)	($198- ($198 * 29%)) * 1.5 – ($198 * 17% * 0.5)	$194
Total increase in rest of region expenditure = (incremental new visitor * whole trip rest of region expenditure)	1,981 * $194	~$385,000

Social benefits

Nature based tourism promotes a healthy lifestyle and this investment allows a new market (users of luxury accommodation) to participate at Mount Buffalo, expanding engagement in these activities. This increase in social benefit is difficult to quantify due to the fact that eco-pod visitors may have gone elsewhere and participated in similar activities leading to a shift in social benefit rather than a gain.

3.1 Demand Analysis

Environmental benefits

Any construction in a National Park area is likely to bring some initial disturbance and environmental dis-benefit. However, it is assumed that the eco-pods are prefabricated off site, and are installed in appropriate locations that are sensitive to the surrounding environment. The assumption is that the eco-pods are designed using low impact, sustainable principles, and minimise any negative environmental impacts both during installation and ongoing operation.

Concept 5. Cresta Valley activities and events

The popularity of current events in the region indicates there is demand for increasing the number of events on Mount Buffalo. The addition of one new event at Mount Buffalo will incrementally increase expenditure in the region.

The development of trails on the mountain and upgrade of supporting amenities will provide visitors with a greater variety of options. This will also encourage an increase in expenditure resulting from increased visitation.

Approach to assessing potential economic benefits of increasing activities and events

Visitor expenditure on the mountain from activities and events will depend on the type of event held and activities developed. To show an indicative increase in expenditure on the mountain caused by the development of activities and events we have assumed that:

- there is an increase of one additional event held at Mount Buffalo with a proportional increase in spend of the five current events
- a proportion of increased expenditure from upgrades in walking trails (as predicted by North East Track & Trails Optimisation) is spent on Mount Buffalo in line with the proportion of all visitors to High Country that visit Mount Buffalo
- increased expenditure from current visitors to engage in the wider variety of activities supported by a new Cresta Valley Activity Centre (incrementally above what is currently offered at Dingo Dell).

Economic benefit

The expected economic benefit increasing activity and event options has been calculated using two scenarios; both are based on publically available and referenced data. The economic benefit results are shown in Table 3.18 below.

Table 3.18: Economic benefits from activities and events concept (year 1), ex GST values

Benefit	New visitors	Spend on Activities & Events	Increased value to rest of region	Incremental increase in expenditure
Induced by event*	-	-	-	$240,000
Induced by activities	-	-	$298,000	$298,000
Induced by day lodge	-	$852,000	-	$852,000
Total*	-	$852,000	$298,000	$1,150,000

*Event benefits are not include in total cost benefit analysis as no associated costs have been included.

The following tables outline the key steps taken and data used in calculating the impact of increasing the number of activities and events on Mount Buffalo.

3.1 Demand Analysis

Table 3.19: Data relied upon

Assumptions for calculating economic benefit		Source
Data used for activities and events		
Proportion of Alpine Shire visitors engaging in bushwalks	37.9%	Alpine Shire Council (December 2017) *Travel to Alpine Shire*
North East Track & Trails Optimisation increased expenditure	$5,000,000	Tourism North East (December 2017) *North East Victorian Cycling Optimisation Masterplan*
High Country current domestic overnight visitors	1,700,000	Tourism North East (December 2017*) Travel to High Country from the period Jan 2017 – Dec 2017*
High Country current domestic day visitors	1,700,000	Tourism North East (December 2017*) Travel to High Country from the period Jan 2017 – Dec 2017*
High Country current international overnight visitors	32,600	Tourism North East (December 2017) *Travel to High Country from the period Jan 2017 – Dec 2017*
Current number of events	5	Mount Buffalo Destination Advisory Group (February 2017) *Vision for Mount Buffalo*
Expenditure generated by current events	$1,200,000	Mount Buffalo Destination Advisory Group (February 2017) *Vision for Mount Buffalo*
Total visitors to Mount Buffalo	204,387	Parks Vic, calendar year 2017
Assumptions used for Cresta Valley Lodge		
Average equipment hire fee, ex GST	$35	PwC assumption based on market research of similar offerings
Average incremental food and beverage spend (above what will be substituted from existing day lodge)	$10	PwC assumption to reflect substitution but acknowledge upgraded offering
Proportion of bushwalks who will attend Cresta Valley Lodge	50%	PwC assumption
Proportion of lodge users who will purchase food and beverages	80%	PwC assumption
Proportion of lodge users who will hire equipment	40%	PwC assumption

Table 3.20: Calculation for increased expenditure from events

Explanation	Calculation	Result
Incremental increase from 1 extra event = ((Expenditure form current events / number of events) * increase in events)	$1,200,000 / 5	$240,000

Table 3.21: Calculations for increased spend from activities

Explanation	Calculation	Result
Mount Buffalo visitors as a proportion of all High Country visitors = (Mount Buffalo visitors) / (High Country domestic day visitors + High Country domestic overnight + High Country international visitors)	204,387 / (1,700,000 + 1,700,000 + 32,600)	5.95%
Proportion of optimisation spend = (optimisation increased expenditure North East Track & Trails * proportion of Alpine Shire in High Country)	$5,000,000 * 5.95%	~ $298,000

Table 3.22: Calculations for increased expenditure at Cresta Valley Day Lodge

Explanation	Calculation	Result
Cresta Valley lodge users = Mount Buffalo visitors * proportion of visitors that are bushwalks * proportion of bushwalks that use the lodge	204,387 * 37.9% * 50%	38,731
Incremental concept expenditure on food and beverage = Lodge users * proportion of lodge users purchasing food and beverage * incremental food and beverage spend	38,731 * 80% * $10	$310,000
Incremental concept expenditure of equipment hire = Lodge users * proportion of lodge users hiring equipment * average equipment hire spend	38,731 * 40% * $35	$542,000
Total incremental concept expenditure = incremental food and beverage expenditure + incremental equipment hire expenditure	$310,000 +$542,000	$852,000

Social benefit

Increased participation in activities and events will lead to an increase in community and visitors benefit as members will derive recreational utility.

Environmental benefit

Environmental benefits have been considered. It is understood that increased visitation to National Parks can help increase awareness of the natural environment, therefore the Cresta Valley Day Lodge created an opportunity to provide exposure to those visitors who might not otherwise have visited Mount Buffalo. Visitation, events and visitor activities however will need to be managed appropriately to protect the surrounding environment.

Concept 6. Dingo Dell Outdoor Centre of Excellence

Outdoor education in Victoria is currently vastly undersupplied. Therefore, building an education centre on Mount Buffalo will allow for an increase in student visitation. These student currently are unable to participate in outdoor education and will provide an opportunity to:

a) experience a week away

b) an option for day trip education.

Approach to assessing potential economic benefits of an education centre

a) A student week away

To estimate the expenditure Mount Buffalo can gain by establishing itself as a provider of overnight outdoor education, we calculated the number of revenue students that would visit per year. This was done using:

- number of beds available (provided by Vision for Mount Buffalo document)
- assuming the cost of a week would be similar to that of education centres nearby (approximately $470 per week)
- assuming students stay a whole week (7 nights) during the school year and occupancy rates are high during this time (approximately 95%, due to current undersupply).

3.1 Demand Analysis

b) A student day trip

Additionally, upgrades to options for day trip education are expected to increase student visitor numbers. These students are likely to be zero spend visitors if they just attend for the day but will increase visitor numbers in the area.

To estimate the number of day trip students we used:

- the number of students in surrounding council areas (using ABS Census 2016, full time student by place of residence)
- an assumption that a proportion of these would visit once per year (approximately 50% of students) this equates approximately to an average of one class visiting per day.

The increased viability of Mount Buffalo to be used as an educational day trip destination is equivalent to 30 students visiting per day or approximately 1 class.

Economic benefit

The expected economic benefit of the education centre has been estimated under two scenarios – a scenario calculating the benefit from a student week away; and a calculation of the benefit from a student day trip, both are based on publically available and referenced data. The economic benefit results are shown in Table 23 below.

Table 3.23: Economic benefits from outdoor education centre concept (year 1), ex GST values

Benefit	New visitors	Spend on Education	Increased value to rest of region	Incremental increase in expenditure
Overnight education	2,642	$1,242,000	-	$1,242,000
Day education	6,516	-	-	-
Total	9,168	$1,242,000	-	$1,242,000

The tables below outline the key steps taken and data used in calculating the economic benefits of the outdoor education concept under the two scenarios.

Table 3.24: Data and assumptions relied upon

Assumptions for calculating economic benefit		Source
Data used for education centre		
Full time students aged 8-17 in catchment	13,032	ABS (2016) *Census, Counting persons (full time students) – Place of usual residence – aged five year groups by LGA (UR). LGAs included: Alpine, Wangaratta, Mansfield, Indigo, Towong, Wodonga*
Total beds	60	Provided to PwC by Mount Buffalo Destination Advisory Group
Cost per student per week, ex GST	$470	PwC assumption based on similar prices of outdoor education centres Victoria
Number of weeks open	52	
School weeks	40	
Occupancy during school year	95%	PwC assumption based on undersupply of outdoor education in Victoria
Non-school weeks	12	
Occupancy rate during non-school weeks	50.3%	ABS (June 2016) *Survey of Tourist Accommodation Victoria*

3.1 Demand Analysis

Table 3.25: Calculations for week away centre

Explanation	Calculation	Result
Week away student visitors = total beds * number of school weeks * occupancy during school year	60 * 40 * 95%	2,280
Week away school expenditure = student visitors * cost per week	2,280 * $470	~$1,072,000
Non student visitors in week away centre = total beds * non-school weeks * occupancy non- school weeks	60 * 12 * 50.3%	362
Non-school expenditure in week away centre = non-student visitors * cost per week	362 * $470	~ $170,000
Total increased visitors	2,280 + 362	2,642
Total concept expenditure	$1,072,000 + $170,000	~ $1,242,000

Table 3.26: Calculations for day education centre

Explanation	Calculation	Result
Increase in day education students = students in surrounding council area * chance of attending	13,032 * 50%	6,516

Social benefit

There is an increased educational benefit to the surrounding community as students will have more opportunities to participate in outdoor education when they previously might not have. This will positively affect the health of students in the area through encouraging more outdoor activity.

Environmental benefit

There is likely no immediate environmental benefit. However, school programs which feature environmental sustainability of local fauna and flora may have flow on effects resulting from students being more cognisant of the environment.

Concept 7. Mountain gateway

Research shows that having more visibility of local activities provides visitors the chance to discover opportunities and therefore they are more likely to stay longer and spend more in a region. A Visitor Information Centre (VIC) provides this visibility. Construction of a mountain gateway visitor information centre will not increase the number of visitors but it will increase nights spent on the mountain and result in an increase in spend.

Approach to assessing potential economic benefits of a mountain gateway

To calculate the increase we used:

- data on whether overnight visitors intended on spending an extra night or two as a result of visiting a visitor information centre (provided by a survey that was conducted by visitor information centres throughout Victoria)
- data on the number of people who currently use visitor information centres (Tourism Research Australia *State of industry 2016-17*)
- current average overnight visitor spend (Alpine Shire Council)

This results in a level of use of the gateway of over 16,000 visitors per year, or approximately 300 visitors per week, with most of these going through on the weekend.

3.1 Demand Analysis

Economic benefit

The expected economic benefit of a mountain gateway has been using a scenario based on publically available and referenced data. The economic benefit results are shown in the table below.

Table 3.27: Economic benefits from mountain gateway concept (average annual, current terms), ex GST values

Benefit	Visitors	Spend on gateway	Increased value to rest of region	Incremental increase in expenditure
Total mountain gateway	16,351	-	$1,130,000	$1,130,000

The tables below outline the key steps taken and data used in calculating the impact building a mountain gateway would have on the increase expenditure on Mount Buffalo.

Table 3.28: Data and assumptions relied upon

Assumptions for calculating economic benefit		Source
Current visitor information		
Total visitors to Mount Buffalo	204,387	Parks Vic, calendar year 2017
Percentage of visitors to Mount Buffalo that stay overnight	54%	Tourism North East (October 2016) *Mount Buffalo Tourism Attraction*
Percentage of visitors to Mount Buffalo that are day visitors	46%	Tourism North East (October 2016) *Mount Buffalo Tourism Attraction*
Average High Country overnight visitors spend per night, ex GST	$198	Tourism Research Australia (2017) *National Visitor Survey, Table 10*
Alpine Shire overnight visitors average number of nights per trip	3.1	Alpine Shire Council (December 2017*) Travel to Alpine Shire*
Current Mount Buffalo average annual visitor growth	5%	Mount Buffalo Destination Advisory Group (February 2017) *Vision for Mount Buffalo*
High Country average day visitor spend, ex GST	$97	Tourism Research Australia (2017) *National Visitor Survey, table 7*
Data used for mountain gateway		
Percentage of domestic visitors going to a visitor information centre on trip	8%	Tourism Research Australia (2017) State of Industry
Domestic visitors spend more than planned due to visitor information centre	61%	Colac Otway Shire (August 2010) *The Value of Visitor Information Centres to the Victorian Tourism Industry & the Local Economy*
Domestic visitors stay 1 day longer than planned due to visitor information centre	30%	Colac Otway Shire (August 2010) *The Value of Visitor Information Centres to the Victorian Tourism Industry & the Local Economy*
Domestic visitors stay 2 days longer than planned due to visitor information centre	17%	Colac Otway Shire (August 2010) *The Value of Visitor Information Centres to the Victorian Tourism Industry & the Local Economy*
Domestic visitors who spend more than planned without additional nights	14%	Colac Otway Shire (August 2010) *The Value of Visitor Information Centres to the Victorian Tourism Industry & the Local Economy*
Increased domestic visitor spend if no extra nights	10%	PwC assumption

3.1 Demand Analysis

Table 3.29: Calculations for economic benefit from mountain gateway

Explanation	Calculation	Result
Visitors that use gateway = current visitors to Mt Buffalo * % that visit visitor information centres	204,387 * 8%	16,351
Increase in nights stayed = visitors that use gateway * percent of overnight visitors * (percent planned to stay 2 nights longer due to gateway * 2 + percent planned to stay 1 night longer due to gateway)	16,351 * 54% * (17% * 2 + 30%)	5,651
Increase in rest of region expenditure from additional nights = increase in nights * average overnight visitor spend	5,651 * $198	~ $1,120,000
Increase in rest of region expenditure from no additional nights = visitors that use gateway * percent day visitors * percent that would spend more than planned without additional nights * average day spend * increased spend if no extra nights	16,351 *46% * 14% * $97 * 10%	~ $10,000
Increase in rest of region expenditure = increase overnight spend + increased day spend	$1,120,000 + $10,000	~$1,130,000

Social benefit

Development of a mountain gateway will increase visitor engagement with the mountain which in turn will increase their visitor enjoyment. An increase in engagement is likely to lead to educational benefits as the gateway will include information about the surrounding area.

Environmental benefit

It is likely that during construction there will be a temporary dis-benefit. Construction should be managed appropriately.

3.1 Demand Analysis

3.1.7 Preliminary Economic Assessment

A preliminary economic assessment pairs the benefits of a concept with the associated costs. For this initial feasibility assessment, the preliminary economic assessment is presented as a guide to inform further investigation and progress to the development 0f business cases. Specifically, no independent willingness to pay assessments or detailed modelling have been conducted on the seven proposed concepts.

The economic assessment of each concept (as per the direct tourism benefits in the previous sections) has been analysed in isolation from the others, assuming each concept is a 'first mover' and therefore does not include the examination of any interdependencies with other concepts that would impact benefits. Because of this, caution should generally be taken when considering these concepts together. This is because simply adding the concept benefits together could result in:

- double counting – in that a visitor induced to the region by the glamping offering, for example, has their entire region spend including in the glamping benefits (as it is all new and induced to the region) but part of that region spend may be made at one of the food and beverage offerings and also included in those benefits
- under counting – in that the inducement effect of bringing visitors to the mountain of several concepts may be greater than the sum of the parts. If there are no food offerings, sightseeing in the area may seem less inviting and conversely, a food offering without an activity may have less inducement. However, the combination of the two may unlock a larger market.

In general, therefore, this report does not add the concept benefit analyses together, and the total economic benefit of the development of all concepts should not be seen as obtained through summing the benefit of each concept individually.

Types of benefits to be included in a total economic assessment

The demand analysis presented in the previous pages shows how the concepts may stimulate direct tourism demand (and therefore benefits) in the region. Although this is a main economic benefit, demand for a concept is not the only benefit to be included in a total economic assessment.

Understanding and quantifying the total economic value that may be placed on a cultural, heritage and environment assets explored in these concepts, and therefore the benefit gained through protecting and accessing that asset, can be difficult. There are multiple approaches to understanding this type of investment which all involve primary research (generally surveys) and can be time and resource intensive. Although the research and literature varies on the value of cultural and heritage icons, it is broadly examined in use value and non-use value, each of which can have many sub-components.

Use value is the value the community places on the ability to access the building. The direct use values for each of the seven concepts may include:

- Recreation – after the proposed investment, the concepts will be places for people to come together and enjoy leisure time. This recreation value may involve food and beverage consumption, retail spending and the general enjoyment that the community gets out of these activities, particularly in the aesthetic environment the building provides. This use value has been explored in the demand analysis above, but it should be noted that the recreation use value can be higher than the revenue created onsite (i.e. consumer surplus of general enjoyment).
- Tourism – ability to visit cultural, heritage and nature based sites is a key driver for some tourists and therefore heritage assets have value through generating tourism demand for Victoria. Generation of tourism as a use value has been explored in detail in the demand analysis.
- Education – use value can also include the direct education benefit derived from visitors. This use value is likely to be gain through heritage sites, such as the Mount Buffalo Chalet, which help contribute to the understanding of the history of a city or area and can be used as part of broader educational programs and experiences. Additionally, the Dingo Dell concept is designed with education explicitly in mind, so is likely to have a significant education use benefit. This use value can be imprecise as it may depend on external organisations utilising the asset for this purpose, and the exact programs delivered.

3.1 Demand Analysis

Infrastructure that is available for public use (as all these concepts are) will generally have a use value attached to them. However, several of the concepts are likely to be of a cultural, heritage or environment nature that the value placed on the ability to access them will likely be moderately higher than other public buildings. This relatively high value may be signalled through the willingness to pay for these experiences that in a different location, or the willingness to travel further afield for that product or experience than a person would have otherwise. In this way, some of the use value will be captured through economic and financial analysis. However, it should not be discounted that consumers are likely have a social surplus above that use value, captured in the three non-use values outlined below.

Non-use values are generally examined in three areas:

- Existence value – it is well documented that the community places value on simply knowing that some assets, such as heritage, cultural and environmental assets, exist even if these assets are not directly consumed. Heritage research has stated that 'the simple existence of the place means that people would feel a quantifiable loss if it were destroyed'. [12]
- Option value – individuals place a value on preserving and maintaining heritage assets so that they have the option to visit or use the asset in the future.
- Bequest value – similar to option value, individuals place value on maintaining heritage assets so that these can be passed on to future generations.

The table below sets out how the proposed concepts will either increase (or prevent a reduction) of these economic values. The non-use values are particularly significant for the Mount Buffalo Chalet, as a heritage asset, as the population of Victoria will broadly place a value on the maintenance of this asset. This value is in both simple existence and in the option they, and their children, could visit it in the future. Additionally, maintenance of trails in activities and events is likely to have an existence value for Victorians who value outdoor experiences, and the existence of outdoor education is also likely to be valued by parents, even if their children do not explicitly experience it.

Table 3.30: Value types created by each concept

	Gorge Skywalk	Mount Buffalo Chalet	Food & Beverage	Wilderness Eco-Pods	Cresta Valley Activities & Events	Dingo Dell Education Centre of Excellence	Mountain Gateway
Use value	Yes (captured in demand)	Yes (partially captured in demand, further education use value likely)	Yes (captured in demand)	Yes (captured in demand)	Yes (captured in demand)	Yes (partially captured in demand, further education use value likely)	Yes (captured in demand)
Existence value	No	Yes	No	No	Yes for trail	Yes	No
Option value	Potential	Yes	No	No	Potential for trail	No	No
Bequest value	No	Yes	No	No	No	No	No

[12] The Allen Consulting Group (2005) *Valuing the Priceless: The Value of Heritage Protection in Australia*, Research Report 2, Heritage Chairs and Officials of Australia and New Zealand, Sydney.

3.1 Demand Analysis

The analysis presented in Table 3.31 below compared the use value benefits to the total costs over the useful life of each asset, at a standard 7% discount rate (detailed calculations for this analysis is over the next two pages).

Table 3.31: Preliminary benefit to cost ratio analysis

	Gorge skywalk	Mount Buffalo Chalet	Food & Beverage – Café in the Chalet	Wilderness Eco-Pods	Cresta Valley activities and events	Dingo Dell Education Centre of Excellence	Mountain gateway
Total present cost	17,633,966	71,585,826	9,170,010	7,089,797	21,806,640	26,997,298	19,630,992
Present whole of region use benefit	15,152,068	60,812,968	12,492,808	10,949,167	14,869,855	16,059,792	14,615,639
Preliminary benefit cost ratio	0.9	0.8	1.4	1.5	0.7	0.6	0.7

Heritage assets are generally considered to be irreplaceable once damaged or destroyed and therefore it could be argued that they are priceless. Nonetheless, we have conducted a cost benefit gap analysis of the Mount Buffalo Chalet heritage asset as well as the Cresta Valley Activities & Event Centre and the Dingo Dell Education Centre of Excellence. Although each of these concepts are not financially viable as demonstrated in Table 1, they each provide non-use economic benefits presented in Table 2, overleaf.

Private owners of heritage assets will usually invest in conservation of the asset up to the point where they can still realise returns from the investment. However, there are benefits from heritage assets that may not accrue to the direct owners of those places. These benefits may include the benefit of the place for a region, the benefits to the community of knowing heritage places are being preserved and the ability to access these place. For example, a report by The Allen Consulting Group in 20051 indicated that Australians place value in protecting heritage places including the upkeep of the condition and increasing accessibility of heritage places valued at $146.27 (in 2018 dollars) per person per year. Additionally, an Aboriginal Heritage Regulatory Impact Statement conducted by PwC in 2018 indicated a value of $296,739 per Aboriginal cultural heritage site in Victoria.

These observations indicate that there is justification for government involvement in the protection of heritage places and assets that generate non-use values generally. Further detailed analysis of the non-use values contributed by the Mount Buffalo Chalet, Cresta Valley Activities & Event Centre and the Dingo Dell Education Centre of Excellence concepts may be required to measure the specific benefits these bring to the region and Victoria more broadly.

Table 3.32: Breakeven value analysis

	Mount Buffalo Chalet	Cresta Valley activities and events	Dingo Dell Education Centre of Excellence
Cost benefit gap (present value)	10,772,858	6,936,785	10,937,506
Non-use benefit per year per Victorian resident aged over 15	$0.08	$0.11	$0.08
Education surplus benefit per user	$1.94 per Mount Buffalo visitor	-	$44 per user of either education concept

The exact level of these non-use benefits could be determined by further analysis in a business case process. However, the values presented above (which are minimum required non-use benefits for a BCR greater than 1) have been deemed as reasonably possible to be achieved by comparison to existing research proxies. For example, it has been found that:

- The public value a 1% increase in heritage places in good condition at $1.75 (in 2018 terms).[13]
- The public value a 1% increase in heritage places that are accessible at $4.66 (in 2018 terms).[13]

This gap analysis shows that, for example, the benefits of the Mount Buffalo Chalet concept will outweigh the costs, if each adult Victorian resident values the Chalet at $0.08 per year and each visitor to Mount Buffalo values the Chalet at $1.94 (in non-use terms). These represent minimal values indicating the heritage benefits delivered may likely exceed costs, which in turn could make this a feasible investment in broader economic terms.

[13] The Allen Consulting Group (2005) *Valuing the Priceless: The Value of Heritage Protection in Australia*, Research Report 2, Heritage Chairs and Officials of Australia and New Zealand, Sydney.

3.1 Demand Analysis

For the preliminary cost benefits analysis, the following assumptions have been used:

- in line with financial analysis total cost include; construction cost occur in year 0 and total expenses per annum start in year 1
- benefits and expenses increasing in line with prices, at an assumed 2% per annum from current (year 0) terms, but as most concepts are capacity limited, the benefits do not include any growth in visitor numbers (this is particularly conservative for the skywalk)
- benefits and expenses for each concept only occur for 21 years, in line with lease arrangements
- food and beverage benefits start from full levels, as this is significantly underserved currently and will be expected to immediately be taken up fully, while both skywalk and hotel benefits are assumed to have one year of reduced benefits as awareness and the market builds up
- the local (high) scenario for food and beverage concept benefits is used, and full concept expenditure is used, as this relates to a new offering (not an incremental offering to replace current food van)
- Mount Buffalo Chalet benefits include hotel expenditure as well as increase visitation in region due to the Chalet as an attraction
- eco-pods are assumed to have one year of reduced benefits as awareness and market builds up, other concepts start from full levels in year 1
- the lower scenario for the eco-pod concept benefits is used to be conservative
- all benefits and expenses occur for 21 years, in line with lease arrangements
- to align with costs, the benefits for Cresta Valley activities and events include trail updates and the upgrade of Cresta Valley Activity Centre.

3.2 Cost Estimates

3.2 Cost Estimates

3.2.1 Cost Summary

As Victoria's largest Quantity Surveying and Cost Management firm, WT Partnership ('WTP' or 'WT') were selected for this Project to provide well-informed cost planning services at this concept stage. Recent experience on similar sized projects across Australia has provided WT with access to benchmarking data that supports the accuracy of the concept cost estimate.

The below table summarises the estimated capital cost for each concept.

Table 3.2: Capital cost summary

Concept	Gorge Skywalk	Mount Buffalo Chalet Boutique Hotel	Food & Beverage – Café in the Chalet	Wilderness Eco-Pods	Cresta Valley Activities & Events	Dingo Dell Outdoor Centre of Excellence	Mountain Gateway
Building Cost	$11,349,000	$22,066,000	$1,189,000	$780,000	$4,911,000	$8,169,000	$9,321,000
Utility Services Cost	$881,000	$16,716,000	$813,000	$679,000	$7,604,000	$5,450,000	$5,569,000
Total Capital Cost	$12,231,000	$38,782,000	$2,002,000	$1,459,000	$12,516,000	$13,619,000	$14,890,000
Utilities Upgrade Level *(Refer to Appendix C – Detailed Cost Reports)*	Median	Median*	Custom	Minimal	Median	Median	Median

Note - Figures have been rounded to the nearest '000

** Median option scaled back for 42-room Chalet boutique hotel*

WT highlight that their estimate is classified as a Class 5 estimate (Concept Feasibility Cost Estimate) due to the conceptual natural of the design and the information provided in the *Vision for Mount Buffalo* document.

For the purpose of this concept costing phase, three levels of utilities cost estimates have been provided. The purpose of these reports is to provide a Minimum, Median and Ultimate level of utility services. The appropriate level of services upgrade has been selected by PwC for each concept.

Refer to Appendix C for detailed cost breakdown.

3.2.2 Documentation

This cost estimates provided in this report are supported by the following documentation:

- Vision for Mount Buffalo – Mount Buffalo Destination Advisory Group February, 2017 (Appendix A)
- HIP V. HYPE Sustainability – Sustainability Energy Assessment Report – July 2018 (Appendix D)
- GHD Infrastructure Capacity Report for Parks Victoria - September 2007
- GHD Mount Buffalo Chalet Redevelopment Stage 2 Infrastructure Services Report for Ernst & Young - May 2013
- Jackson Clements Burrows | Lovell Chen Mount Buffalo Community Chalet Redevelopment Concept Design Proposal
- GHD Infrastructure Mt Buffalo Chalet Complex Asbestos Resurvey for Parks Victoria - September 2009

3.2 Cost Estimates

3.2.3 Concept Assumptions / Adjustments

The seven activation concepts have been costed based on the descriptions provided in the *Vision for Mount Buffalo* document. Due to the conceptual nature of the brief, assumptions have been made to the concepts based on on-going discussions with the Project Taskforce. PwC has received approval from the Taskforce to make the following revised adjustments:

Food & Beverage

The *Vision for Mount Buffalo* proposes a short-term, medium-term and long-term (ultimately 'hatted') food and beverage offering. For the purpose of this concept feasibility, the longer term offering has been included in Concept 2 – Mount Buffalo Chalet, as a hotel restaurant. Concept 3 – Food & Beverage - assesses the feasibility of the medium-term proposal; a high quality café located within the front area of the Chalet. (Refer to page 59 of this report for activation area).

Mount Buffalo Boutique Chalet Hotel

WT have provided a cost estimate for the redevelopment of the Mount Buffalo Chalet and Village development, as described in its entirety in the *Vision for Mount Buffalo* document (refer to Appendix A). For the purpose of the concept feasibility assessment, the area schedule and associated cost estimate for a 42-room boutique Chalet hotel has been adopted. This reflects a likely staged approach to the redevelopment of the Mount Buffalo Chalet.

Wilderness Eco-Pods

The *Vision for Mount Buffalo* describes two possible accommodation offerings at Lake Catani, including "luxury glamping" and "wilderness huts". For the purpose of this assessment, we have analysed the commercial feasibility of the development of 10 individual, sustainable 2-person eco-cabins. The proposed location of these eco-cabins is Lake Catani, utilising existing amenities if required.

Dingo Dell Outdoor Centre of Excellence

Whilst the *Vision for Mount Buffalo* document describes the location of student accommodation to be located within the Mount Buffalo Chalet Hotel and Village redevelopment, market feedback has suggested a more optimal location is in close proximity to the proposed Outdoor Education Centre (refurbished AW Keown Lodge) at Dingo Dell. Therefore, the area schedule provided for student accommodation is assumed to be a 'new build', and is located at Dingo Dell, close to the existing building.

Market feedback to support this assumption this was obtained during Component C (early market sounding).

Utility Services

WT have provided three unique cost estimates based on the extensiveness of utility services upgrade opted for (Refer to Appendix C). For the purposes of the feasibility assessment, the Median option has been applied to the majority of concepts following discussions with the Project Taskforce.

The utilities upgrade selected for each activation concept has been based on the following factors:

- the Project Taskforce's desire to shift away from a heavy reliance on fossil fuels (i.e. diesel generators), and move towards a strong focus on renewable energy solutions for Mount Buffalo for the long-term sustainability of the mountain;
- estimated usage and energy demand profiles for each activation;
- the ability to enable maximum flexibility for future development (upscaling and downscaling).

In consultation with the Quantity Surveyors, we feel the level of services upgrade selected for each individual activation is appropriate.

3.2 Cost Estimates

3.2.4 Detailed Cost Assumptions and Estimates

Concept 1. Gorge Skywalk

Building Cost	Utilities Cost	Total Capital Cost
$11,349,000	$881,000	$12,231,000

Note – Cost Estimates exclude GST. Figures have been rounded to the nearest '000

BUILDING WORKS

DESCRIPTION	QTY	COST
Sub-Total - Trade		6,546,900
(Refer to Appendix C for detailed cost breakdown)		
Contractor's Indirect Costs & Margins		
Site Based Preliminaries	15%	982,035
Offsite Overheads & Profit	5%	376,447
Construction Cost		7,905,382
Locality factor allowance	5%	395,269
Program prolongation allowance	3.5%	276,688
Staging Allowance	1.5%	118,581
ESD Allowance	3.0%	237,161
Total Construction Costs		8,933,081
Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%	312,658
Parks Vic / Alpine Shire Fees	2%	178,662
Consultants Fees	10%	893,308
Total Design and Construction Costs		10,317,709
Authority Headworks & Charges		-
Risk / Contingency	10%	1,031,771
TOTAL PROJECT COST BUDGET (Excluding GST) - May 2018		11,349,480

UTILITY SERVICES TO SITE LOCATION

DESCRIPTION	QTY	COST
Sub-Total - Trade		466,000
(Refer to Appendix C for detailed cost breakdown)		
Contractor's Indirect Costs & Margins		
Site Based Preliminaries	15%	69,900
Offsite Overheads & Profit	5%	26,795
Construction Cost		562,695
Locality factor allowance	5%	28,135
Program prolongation allowance	3.5%	19,694
Staging Allowance	1.5%	8,440
ESD Allowance	3.0%	16,881
Total Construction Costs (Excluding GST)		635,845
Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%	22,255
Parks Vic / Alpine Shire Fees	2%	12,717
Consultants Fees	10%	63,585
Total Design and Construction Costs	-	734,401
Authority Headworks & Charges		
Risk / Contingency	20%	146,880
TOTAL PROJECT COST BUDGET (Excluding GST) – May 2018		881,282

Refer to Appendix C for detailed cost report.

Building Works Assumptions

- Gorge skywalk location - Crystal Brook.
- Steel framed cable stayed structure walkway including piled foundations & concrete works for abutments.
- Walkway to have span of 50 m x 4 m width (200 m2).
- HD glazed flooring & balustrades with stainless steel handrails & fixings.
- Allowance for 2 x 250 m long pedestrian footpath to skywalk including steps / ramps / retaining walls.
- 25 bay Car Parking & Ticket Booth included
- Male, female, disabled amenities block included
- Footpath Area to/from Skywalk – 2,000 m2

Utility Services Assumptions (Median Option)

- Sewer drainage connected to a septic sewerage storage system, which may be either a Conventional Septic, AWTS or Septic Tank with Sand Filter. The tank material will be plastic/poly and have enough capacity for a small amenities block. Also designed to take waste water from the proposed ticket booth/office.
- Potable water supply pipework consisting of 50mm poly supply pipework from Crystal Brook Creek, located approximately 100 m away.
- 2 bottled gas cylinders would supply the ticket booth & amenities to allow for heating of water.
- A standalone solar photovoltaic (PV) system of up to 50kW has been assumed for power supply.
- Backup water supply of 1 x 20,000 litre Poly above ground rainwater tank has been included for water storage, if the potable water supply is insufficient.

3.2 Cost Estimates

Concept 2. Mount Buffalo Boutique Chalet Hotel

Building Cost	Utilities Cost	Total Capital Cost
$22,066,000	$16,716,000	$38,788,000

Note – Cost Estimates exclude GST. Figures have been rounded to the nearest '000

BUILDING WORKS

DESCRIPTION	QTY		COST
Sub-Total - Trade			12,439,600
(Refer to Appendix C for detailed cost breakdown)			
Contractor's Indirect Costs & Margins			
Site Based Preliminaries, and Safeworking		15%	1,865,940
Offsite Overheads & Profit		5%	621,980
Construction Cost			14,927,520
Locality factor allowance		5%	746,376
Program prolongation allowance		3.5%	522,463
Allowance for removal of contaminated materials	1		500,000
Staging Allowance		1.5%	223,913
ESD Allowance		3.0%	447,826
Total Construction Costs			17,368,098
Cultural Heritage, Vegetation Offset, Flora Fauna		3.5%	607,883
Parks Vic / Alpine Shire Fees		2%	347,362
Consultants Fees		10%	1,736,810
Total Design and Construction Costs			20,060,153
Authority Headworks & Charges			-
Risk / Contingency		10%	2,006,015
TOTAL PROJECT COST BUDGET (Excluding GST) – May 2018			22,066,168

UTILITY SERVICES TO SITE LOCATION

DESCRIPTION	QTY	COST
Sub-Total - Trade		8,894,000
(Refer to Appendix C for detailed cost breakdown)		
Site Based Preliminaries, and Safeworking	15%	1,334,100
Offsite Overheads & Profit	5%	444,700
Construction Cost		10,672,800
Locality factor allowance	5%	533,640
Program prolongation allowance	3.5%	373,548
Staging Allowance	1.5%	160,092
ESD Allowance	3.0%	320,184
Total Construction Costs		12,060,264
Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%	422,109
Parks Vic / Alpine Shire Fees	2%	241,205
Consultants Fees	10%	1,206,026
Total Design and Construction Costs		13,929,605
Authority Headworks & Charges	0%	-
Risk / Contingency	20%	2,785,921
TOTAL PROJECT COST BUDGET (Excluding GST) – May 2018		16,715,526

Refer to Appendix C for detailed cost report.

Building Works Assumptions

- Chalet hotel redevelopment assumes utilising existing Chalet complex footprint.
- Concept includes 42 high-end hotel rooms located in the front section of the Chalet, as per schematic design provided by De Atelier architects *(Vision for Mount Buffalo, p. 16).*
- The cost of delivering this concept component would vary accordingly to scale, functionality, extent & quality of the construction. For the purpose of this feasibility assessment, the Chalet is assumed to be developed to a quality resembling a 4 star hotel.
- A long-term food & beverage offering located in Dining Room and Manfields Café are assumed to be included
- Includes Staff Amenities 680 m2 in existing building
- This concept does not include the following functions as proposed for the entire Chalet and village redevelopment in the *Vision for Mount Buffalo* document:
    - Refurbish Services Shed - 451 m2
    - Horse Paddock / Spa Hotel – 3,001 m2
    - New Build - Education Centre - 611 m2
    - School Accommodation 1,105 m2 within existing Chalet

Utility Services Assumptions (Median Option)

- Upgrade of existing sewer treatment plant assumed. The upgrade would be in the order of $2,845,000. This option is relatively energy intensive to operate due to the installation of a reverse osmosis plant that also would generate a brine that would need to be transported off the mountain for disposal.
- Potable Water to supply the Chalet has been assumed to be from the existing reservoir approximately (5,500 m) away on Crystal Brook. Water is assumed to flow down the Crystal Brook from the reservoir and across Hospice plain before being pumped up to the storage tanks at the Chalet. This is a rather inefficient form of water supply due to significant losses to the surrounding creek and snow plains, especially during summer.
- This cost estimate allows for 10 mid sized bottled gas cylinders including foundation for the Chalet LPG Boilers to provide heating. Biomass boiler system (700kW) should be further investigated during detailed design as a potential alternative sustainable heat source for the Chalet.
- Allowance for renewable solar photovoltaic system assumed in this cost estimate for power supply to the boutique Chalet.
- HV.H Sustainability recommends a servicing strategy to involve a combination of Micro-Hydro, Concentrated Solar Thermal (CST) and PV to provide redundancy of supply and improve reliability (Refer to Appendix D for further detail).

3.2 Cost Estimates

Concept 2. Mount Buffalo Boutique Chalet Hotel (cont.)

Proposed refurbishment area

Chalet Area Schedule
Lower Ground, Ground, First, Second

	Accomm.	Common/ Circulation	Admin.	Amenities	Hospitality FOH	Hospitality BOH	Activity / Retail	Parks Admin.	Day Lodge Café	Total
Total Area (sqm)	1,452	566	77	133	834	198	107	84	197	3,648

For detailed area schedule breakdown proposed in the Vision, refer to Appendix A – p. 18

3.2 Cost Estimates

Concept 3. Food and Beverage – Café in the Chalet

Building Cost	Utilities Cost	Total Capital Cost
$1,189,000	$813,000	$2,002,000

Note – Cost Estimates exclude GST. Figures have been rounded to the nearest '000

BUILDING AND UTILITY SERVICES WORKS			
DESCRIPTION	QTY/sqm		COST
Internal Fitout Works *(Refer to Appendix C for detailed cost breakdown)*	599	$	476,100
External Fitout Works	77	$	55,000
Utilities / Services		$	367,050
Sub-Total - Trade	599	$	898,150
Contractor's Indirect Costs & Margins			
Site Based Preliminaries, and Safeworking	15%	$	134,723
Offsite Overheads & Profit	5%	$	44,908
Construction Cost	676	$	1,077,780
Locality factor allowance	5%	$	53,889
Program prolongation allowance	3.5%	$	-
Allowance for removal of contaminated materials	1	$	-
Staging Allowance		$	-
ESD Allowance		$	-
Total Construction Costs	676	$	1,131,669
Cultural Heritage, Vegetation Offset, Flora Fauna	2.0%	$	22,633
Parks Victoria Project Management Fees	10.0%	$	113,167
Parks Victoria Expressions of Interest Fees	1	$	170,000
Permit application and regulatory fees (including Alpine Shire Council associated fees)	1	$	60,913
Consultant Fees	15%	$	169,750
Total Design and Construction Costs	676	$	1,668,133
Authority Headworks & Charges		$	-
Risk / Contingency	20%	$	333,627
TOTAL PROJECT COST BUDGET (Excl. GST as @ July 2018)	676	$	2,001,759

Refer to Appendix C for detailed cost report.

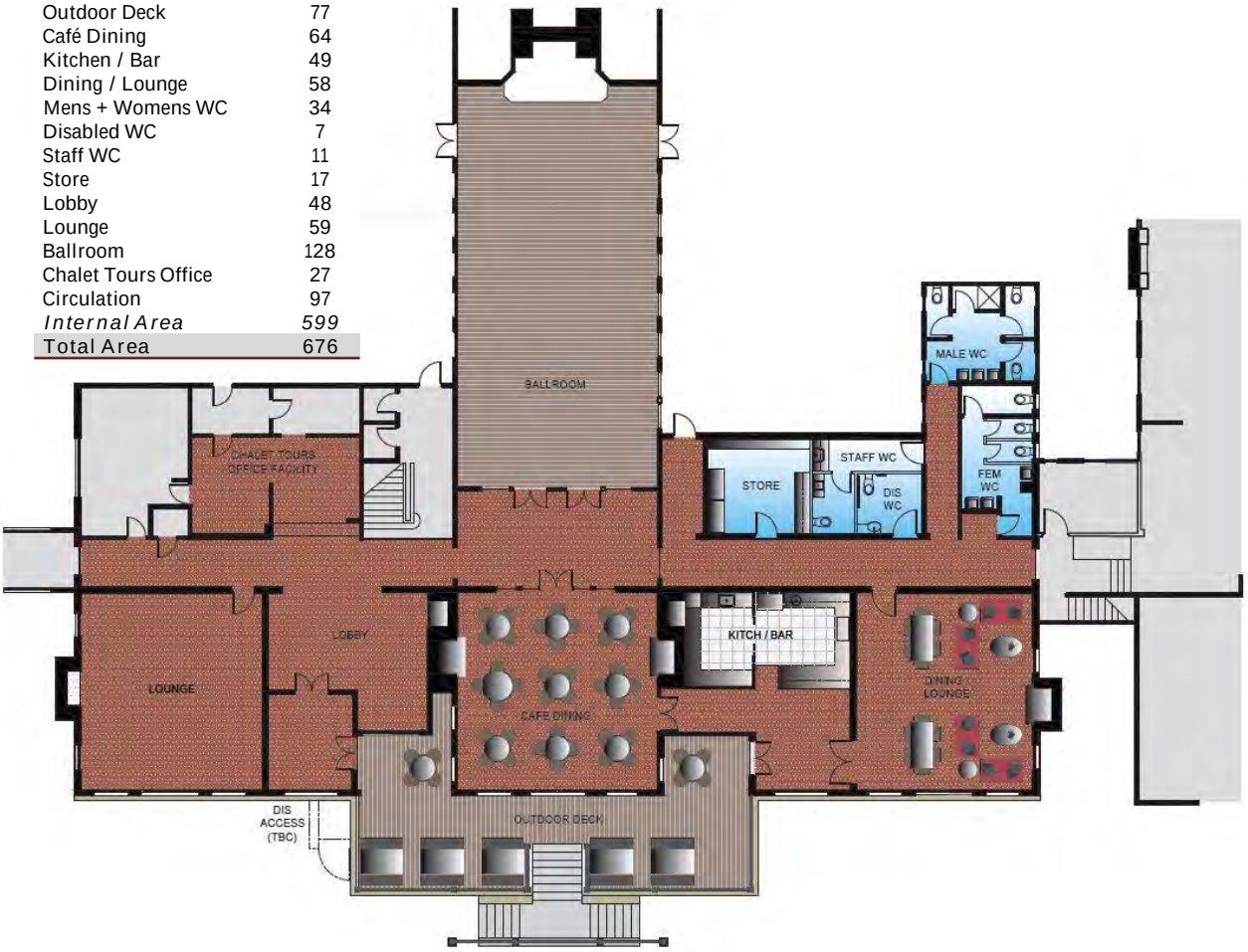
3.2 Cost Estimates

Concept 3. Food and Beverage – Café in the Chalet (cont.)

Activation Area

The cost estimate provided is reflective of the schematic design, as provided in the *Vision for Mount Buffalo*, and area schedule below.

Area Schedule	sqm
Outdoor Deck	77
Café Dining	64
Kitchen / Bar	49
Dining / Lounge	58
Mens + Womens WC	34
Disabled WC	7
Staff WC	11
Store	17
Lobby	48
Lounge	59
Ballroom	128
Chalet Tours Office	27
Circulation	97
Internal Area	*599*
Total Area	676



Concept	High quality café in the chalet (40-60 people) + self-guided tours and office facility.
Activation Area	599 square metres (internal area) 676 square metres (total)
Number of Rooms / Areas	9 key areas 1. Main Lounge 2. Bar Room 3. Drawing Room 4. Lobby 5. Lounge 6. Office facility 7. Ballroom 8. WC amenities (Men's, Women's, Staff, Disabled) 9. Corridor space

3.2 Cost Estimates

Concept 3. Food and Beverage – Café in the Chalet (cont.)

Key Assumptions – Building and Utilities Services

Item	Description
Offering	• Day visit Food & Beverage ('F&B') facility featuring local produce and great coffee. • An opportunity for guests to experience the inside of the Chalet without the requirement of a guided tour • Ability to host small events (eg. weddings, lunches) for additional revenue
Hours of Operation	• High Season (Dec-Feb) – 10am-6pm • Low Season (Mar-Nov) – 10am-4pm
Liquor Licence	• Assumes a liquor licence is applied for and obtained
Seating capacity	• 40 – 60 pax (internal)
Building access for visitors	• Front lobby and lounge rooms, drawing room, ballroom and reception area
DDA Compliance (Disability Discrimination Act)	• DDA Wheelchair lift access to veranda level • DDA disabled toilet amenities
Toilets Facilities	• Refurbish existing toilets to café, men's and women's facilities • New disabled and staff toilets
Heating	• Hydronic panel heating units
Fire Compliance	• Hardwire smoke detectors as per current annual maintenance plan (i.e. PV recurrent budget has programmed for 2018/19)
Alfresco dining areas	• On the veranda of the Chalet and on grassy landscaped plateaus. • No external upgrade works required for cafe (Furniture, Fixtures and Equipment ('FFE') only for veranda included in budget)
Office integration	• Office located in Chalet's original reception area, providing staff with direct connection to visitors and ability to monitor Chalet
Information, Interpretation & Education (II&E)	• Opportunity for increased interaction & learning with continued operation of guided tours to selected areas within the Chalet • Unguided tours to be contained within permitted area with additional information signage to provide educational benefits
Ongoing Maintenance	• The un-occupied Chalet building is currently costing Parks Victoria $200,000 per annum to maintain in its current state. It is assumed that this ongoing maintenance regime outside of the activation area will remain with PV.

3.2 Cost Estimates

Concept 4. Wilderness Eco-Pods

Building Cost	Utilities Cost	Total Capital Cost
$780,000	$679,000	$1,459,000

Note – Cost Estimates exclude GST. Figures have been rounded to the nearest '000

BUILDING WORKS DESCRIPTION

DESCRIPTION	QTY	COST
Accommodation		
Eco Pods (Inc. Services) - $1,500/m2		375,000
Lake Catani (Amenities) - Upgrade to Existing is Excluded		-
External Works		
Allowance for BBQ & picnic facilities	1	50,000
Allowance for works to walking trail head	1	25,000
Sub-Total - Trade		450,000
Contractor's Indirect Costs & Margins		
Site Based Preliminaries, and Safeworking	15%	67,500
Offsite Overheads & Profit	5%	25,875
Construction Cost		543,375
Locality factor allowance	5%	27,169
Program prolongation allowance	3.5%	19,018
Staging Allowance	1.5%	8,151
ESD Allowance	3.0%	16,301
Total Construction Costs		614,014
Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%	21,490
Parks Vic / Alpine Shire Fees	2%	12,280
Consultants Fees	10%	61,401
Total Design and Construction Costs		709,186
Authority Headworks & Charges		-
Risk / Contingency	10%	70,919
TOTAL PROJECT COST BUDGET (Excluding GST) – May 2018		780,104

UTILITY SERVICES TO SITE LOCATION

DESCRIPTION	QTY	COST
Sub-Total - Trade		359,000
Contractor's Indirect Costs & Margins		
Site Based Preliminaries, and Safeworking	15%	53,850
Offsite Overheads & Profit	5%	20,643
Construction Cost		433,493
Locality factor allowance	5%	21,675
Program prolongation allowance	3.5%	15,172
Staging Allowance	1.5%	6,502
ESD Allowance	3.0%	13,005
Total Construction Costs		489,847
Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%	17,145
Parks Vic / Alpine Shire Fees	2%	9,797
Consultants Fees	10%	48,985
Total Design and Construction Costs	-	565,773
Authority Headworks & Charges		-
Risk / Contingency	20%	113,155
TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)		678,927

Refer to Appendix C for detailed cost report.

Building Works Assumptions

- Assumes 10 x 25sqm standalone prefabricated eco-cabins placed on stumps.
- Location – Lake Catani
- The cabin would encompass a sleeping area, seating area and wash up area including an environmental chemical toilet.
- Power and lighting supplied via renewable energy sources.

Utility Services Assumptions (Minimal Option)

- Irrigation system to sand filter outflows
- Allowance for new Rainwater Tank
- Bottled gas to supply eco-cabins
- Power supplied via 10 independent standalone generators/solar kits for eco-cabins
- Existing services at Lake Catani are available for use if required

3.2 Cost Estimates

Concept 5. Cresta Valley Activities and Events

Building Cost	Utilities Cost	Total Capital Cost
$4,911,000	$7,604,000	$12,516,000

Note – Cost Estimates exclude GST. Figures have been rounded to the nearest '000

BUILDING WORKS

DESCRIPTION	QTY	COST
Cresta Day Lodge (New Build)		2,350,000
External Works - walking & bike trails		483,000
Sub-Total - Trade	750	2,833,000
Contractor's Indirect Costs & Margins		
Site Based Preliminaries, and Safeworking	15%	424,950
Offsite Overheads & Profit	5%	162,898
Construction Cost	750	3,420,848
Locality factor allowance	5%	171,042
Program prolongation allowance	3.5%	119,730
Staging Allowance	1.5%	51,313
ESD Allowance	3.0%	102,625
Total Construction Costs	750	3,865,558
Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%	135,295
Parks Vic / Alpine Shire Fees	2%	77,311
Consultants Fees	10%	386,556
Total Design and Construction Costs	750	4,464,719
Authority Headworks & Charges		-
Risk / Contingency	10%	446,472
TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	750	4,911,191

UTILITY SERVICES TO SITE LOCATION

DESCRIPTION	QTY	COST
Utility Services to Site Location		
Sub-Total - Trade		4,021,000
Contractor's Indirect Costs & Margins		
Site Based Preliminaries, and Safeworking	15%	603,150
Offsite Overheads & Profit	5%	231,208
Construction Cost		4,855,358
Locality factor allowance	5%	242,768
Program prolongation allowance	3.5%	169,938
Staging Allowance	1.5%	72,830
ESD Allowance	3.0%	145,661
Total Construction Costs		5,486,554
Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%	192,029
Parks Vic / Alpine Shire Fees	2%	109,731
Consultants Fees	10%	548,655
Total Design and Construction Costs	-	6,336,970
Authority Headworks & Charges		-
Risk / Contingency	20%	1,267,394
TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)		7,604,364

Refer to Appendix C for detailed cost report.

Building Works Assumptions

- Assumes the construction of a new Cresta Day Lodge 750m2
- Includes 3km of walking and bike trails - Alternate Levels of Difficulty

Utility Services Assumptions (Median Option)

- A packaged aerated wastewater treatment system or septic tank and sand filter system similar to Lake Catani Campground has been allowed. The advantage with this system is that conventional flushing toilets can be used, but the system requires the removal of sludge and can be quite wasteful of water.
- Potable Water Supply Pipework main from the Chalet (6,000 m of 150 mm diameter poly main) has been included.
- 4 x small/medium sized gas bottles have been included to supply the building
- Standalone solar photovoltaic system has been assumed for power supply. This system could service a large facility of up to 800m2.

3.2 Cost Estimates

Concept 6. Dingo Dell Outdoor School of Excellence

Building Cost	Utilities Cost	Total Capital Cost
$8,169,000	$5,450,000	$13,619,000

Note – Cost Estimates exclude GST. Figures have been rounded to the nearest '000

BUILDING WORKS

DESCRIPTION	QTY	COST
AW Keown Lodge (refurbishment of existing structure)		1,354,400
School accommodation (new build)		3,387,300
Sub-Total - Trade		4,741,700
Contractor's Indirect Costs & Margins		
Site Based Preliminaries, and Safeworking	15%	711,255
Offsite Overheads & Profit	5%	237,085
Construction Cost		5,690,040
Locality factor allowance	5%	284,502
Program prolongation allowance	3.5%	199,151
Staging Allowance	1.5%	85,351
ESD Allowance	3.0%	170,701
Total Construction Costs		6,429,745
Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%	225,041
Parks Vic / Alpine Shire Fees	2%	128,595
Consultants Fees	10%	642,975
Total Design and Construction Costs		7,426,356
Authority Headworks & Charges		-
Risk / Contingency	10%	742,636
TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	454	8,168,991

UTILITY SERVICES TO SITE LOCATION

DESCRIPTION	QTY	COST
Utility Services to Site Location		2,400,000
Utility Services to new build from existing site location		500,000
Sub-Total - Trade		2,900,000
Contractor's Indirect Costs & Margins		
Site Based Preliminaries, and Safeworking	15%	435,000
Offsite Overheads & Profit	5%	145,000
Construction Cost		3,480,000
Locality factor allowance	5%	174,000
Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%	121,800
Staging Allowance	1.5%	52,200
ESD Allowance	3.0%	104,400
Total Construction Costs		3,932,400
Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%	137,634
Parks Vic / Alpine Shire Fees	2%	78,648
Consultants Fees	10%	393,240
Total Design and Construction Costs	-	4,541,922
Authority Headworks & Charges		-
Risk / Contingency	20%	908,384
TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)		5,450,306

Refer to Appendix C for detailed cost report.

Building Works Assumptions

- AW Keown Lodge 454 m2 – Assumes the existing building / Café is refurbished for the purpose of an Outdoor Education Centre of Excellence
- New student and staff accommodation building 1,105 m2 – New Build (refer to area schedule on following page)

Utility Services Assumptions (Median Option)

- Sewer drainage would be connected to a septic sewerage storage system, which may be either a Conventional Septic, AWTS or Septic Tank with Sand Filter. The tank material will by plastic/poly and have enough capacity for a small amenities block and would also take waste water from the proposed building amenities.
- Potable Water Supply Pipework main from the Cresta Valley (5,000 m of 150 mm diameter poly main) has been included
- 10 small/medium sized gas bottles have been included to supply the building.
- The quantity of gas bottles could be reduced and fewer larger gas bottles could be supplied if required.
- A standalone solar photovoltaic system assumed for power supply for this option.
- The capacity of the system included would be sufficient for a building area of up to 250m2.

3.2 Cost Estimates

Concept 6. Dingo Dell Outdoor School of Excellence (cont.)

The area schedule provided for student accommodation in the Vision *for Mount Buffalo* document has been costed as a 'new build', and is proposed to be located at Dingo Dell, in close proximity to the existing building, AW Keown Lodge. The area schedule applied to the new building is presented below.

Area Schedule
School accommodation (new build)

	sqm
Ground Floor - Accommodation	387
Ground Floor - Circulation	132
Ground Floor - Admin.	10
Ground Floor - Amenities	44
Ground Floor - Hospitality FOH	101
Ground Floor - Hospitality BOH	69
1st Floor - Accommodation	278
1st Floor - Circulation	38
1st Floor - Amenities	46
Total	1,105

Bogong Outdoor Education Centre [14]

Existing AW Keown Lodge [15]

[14] http://a4le.org.au/awards/2014-awards/2014-victorian-chapter-awards/vic-chapter-2-new-individual-facility/envirocentre-bogong-outdoor-education-centre

[15] Image provided by Parks Victoria

3.2 Cost Estimates

Concept 7. Mountain Gateway

Building Cost	Utilities Cost	Total Capital Cost
$9,321,000	$5,569,000	$14,890,000

Note – Cost Estimates exclude GST. Figures have been rounded to the nearest '000

BUILDING WORKS

DESCRIPTION	QTY	COST
Visitors Centre - Building	500	2,726,680
External Works		1,325,000
Soft Landscaping		1,225,000
External Services		100,000
Sub-Total - Trade	500	5,376,680
Contractor's Indirect Costs & Margins		
Site Based Preliminaries, and Safeworking	15%	806,502
Offsite Overheads & Profit	5%	309,159
Construction Cost		6,492,341
Locality factor allowance	5%	324,617
Program prolongation allowance	3.5%	227,232
Staging Allowance	1.5%	97,385
ESD Allowance	3.0%	194,770
Total Construction Costs		7,336,345
Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%	256,772
Parks Vic / Alpine Shire Fees	2%	146,727
Consultants Fees	10%	733,635
Total Design and Construction Costs		8,473,479
Authority Headworks & Charges		-
Risk / Contingency	10%	847,348
TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)		9,320,827

UTILITY SERVICES TO SITE LOCATION

DESCRIPTION	QTY	COST
Utility Services to Site Location		
Sub-Total - Trade		2,945,000
Contractor's Indirect Costs & Margins		
Site Based Preliminaries, and Safeworking	15%	441,750
Offsite Overheads & Profit	5%	169,338
Construction Cost		3,556,088
Locality factor allowance	5%	177,804
Program prolongation allowance	3.5%	124,463
Staging Allowance	1.5%	53,341
ESD Allowance	3.0%	106,683
Total Construction Costs		4,018,379
Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%	140,643
Parks Vic / Alpine Shire Fees	2%	80,368
Consultants Fees	10%	401,838
Total Design and Construction Costs		4,641,228
Authority Headworks & Charges		-
Risk / Contingency	20%	928,246
TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)		5,569,473

Refer to Appendix C for detailed cost report.

Building Works Assumptions

- New Building located at base of Mountain
- Visitor / Information Centre - 500 m2 (as per schedule in *Vision for Mount Buffalo*)
- External works included - pavements, decking, planting - 5,000 m2
- 122,000 m2 of Grassing & Low Height Native Plants, and enhancing existing native vegetation

Utility Services Assumptions (Median Option)

- Sewer drainage connected to a septic sewerage storage system, which may be either a Conventional Septic, AWTS or Septic Tank with Sand Filter. Capacity for a small amenities block and would also take waste water from the proposed building amenities within the Information Centre.
- Potable Water Supply Pipework from Porepunkah township to Eurobin Picnic Grounds (6,000 m of 150 mm diameter poly mains).
- 4 small-medium sized gas bottles have been included to supply the Building.
- Low Voltage – Aerial / above ground Low Voltage Power Mains (incl. poles) has been identified at the site. Power has been assumed to be brought in from Porepunkah (6,000 m).

3.3 Concept Feasibility

3.3 Concept Feasibility

3.3.1 Concept Feasibility Overview

PwC has developed a concept feasibility utilising estimated visitation as determined during the 'determination of potential demand' stage (refer section 3.1) in order to calculate the potential returns resulting from the seven tourism concepts.

This feasibility assessment is based on a conceptual analysis of:

- estimated likely demand for each concept
- estimated direct revenue generated over the term of the lease
- estimated capital cost and ongoing operational costs (building and ongoing business operation)

It is important to note that we have analysed the proposed concepts through the lens of a third party private investor rather than from a whole-of-government perspective. No reversionary interest has been factored into the model.

3.3.2 Key Assumptions

Key Assumption	Input	Comments
Annual Total Visitors (2017) Base visitation value	204,387	As per Parks Victoria statistics provided.
Annual Visitor Growth Years 1-5	5.0%	As per Parks Victoria historical visitation statistics.
Annual Visitor Growth Years 5-21 (50 yrs for Chalet)	3.0%	Eco & Policy recommendation to adjust for compounding impact.
Annual Inflation	2.0%	CPI assumption based on Federal Budget long term average outlook. [16]
Rates and Insurances (% of Gross Rev)	2.0%	Based on relevant benchmarks for Hotel Insurance fees provided by PwC Valuations.
Ground Lease	8.0%	Calculated as % of Gross Revenue
Revenues	Excl. GST	All Total Revenues are GST exclusive

3.3.3 Our Approach

Feasibility Model

- Analysis through the lens of a third party investor rather than from a whole-of-government perspective. No reversionary interest has been factored into the model.
- Under Section 31AA of the Parks and Crown Land Legislation (Mount Buffalo) Act 2010, the Mount Buffalo Chalet is assumed to be granted a lease fro the Minister of up to 50 years given the "substantial nature" of the development.
- We have assumed a maximum lease term under the current National Parks Act will be granted for each of the other concept activations (21 years).
- The adoption of an appropriate discount rate for the specified tourist concept and the application of this rate, is considered fundamental in assessing the required return relative to the perceived risk of the each concept.
- PwC has adopted a discount rate for each concept that is reflective of:
    - Rates of return we believe the market would require relative to the risk profile they would present;
    - The level of upfront capital required and;
    - The return estimated over the lease period.
- A discount rate sensitivity analysis has been provided to show the impact of an investor's risk profile.
- The feasibility assessment does not take into account any proposed staging or delayed commencement.

[16] https://www.budget.gov.au/2018-19/content/bp1/download/BP1_full.pdf

3.3 Concept Feasibility

3.3.3 Individual Concept Feasibility Analysis

1. Gorge Skywalk

Key Assumptions

- Feasibility assessed over 21 years based on current maximum lease terms available under National Parks Act.
- Total ticket price adopted is $30 including GST as per benchmark analysis (Refer to section 3 – Demand Analysis).

Key Inputs	
Individual Ticket Price	$27.27
Participants (year 1)	25,438
Annual Visitor Growth (yrs 1-5)	5.0%
Annual Visitor Growth (yrs 6-21)	3.0%
Inflation	2.0%
Capital Cost	$12,230,762

Revenue and Expenses (year 1)

Revenue - Tickets		693,768	
Total Revenue		693,768	
Operating Expenses			
Staff Expenses	2 @ $60K pa	120,000	
Administration & General	1.5%	10,407	*% of Gross Revenue*
Advertising & Promotion	5%	34,688	*% of Gross Revenue*
Maintenance & Upgrades	1%	122,308	*1% of total capital cost per annum. Benchmark for new asset.*
Cleaning	2%	13,875	*% of Gross Revenue*
Utility & Services	8%	55,501	*% of Gross Revenue*
Total Operating Expenses		356,779	
Gross Operating Profit		336,989	
Non-Operating Expenses			
Lease	8%	55,501	
Rates & Insurance	2%	13,875	
Management Fee	0%	-	
Total Other Expenses		69,377	
Total Expenses		426,156	
Net Cashflow		267,612	
Profit Margin		39%	

Notes

Assumes 2 full time staff at $60,000 p.a.

3.3 Concept Feasibility

1. Gorge Skywalk

Feasibility Output
21 years

		Year							
Discounted Cash Flow	Input	-	1	2	3	4	5	20	21
Capital Cost	(12,230,762)	(12,230,762)	-	-	-	-	-		
Capital Contribution		-	-	-	-	-	-		
% Capital Contribution	0.0%								
Total Revenue		-	693,768	743,026	795,780	852,281	912,793	1,913,961	2,010,808
Total Expenses		-	426,156	456,413	488,819	523,525	560,695	1,175,676	1,235,165
Net Cash Flow		(12,230,762)	267,612	286,612	306,962	328,756	352,098	738,285	775,643

Discount Rate	12.00%
Net Present Value	(8,212,922)

Sensitivity Analysis

Impact of *discount rate* on NPV

Discount Rate	10.00%	12.00%	15.00%
Net Present Value $	(7,869,409)	(8,212,922)	(8,523,325)

Impact of *total participants* on NPV

Participants	25,438	40,000	50,000
Net Present Value $	(8,212,922)	(5,259,816)	(3,231,839)

Opportunities Assessment

- Whilst there does not appear to be sufficient revenue generation to sustain this concept feasibly and privately, the opportunities for broader regional and mountain visitation could make this “key market attractor” appealing for State government investment.
- The Taskforce feel that estimated annual visitation numbers in the PwC feasibility assessment are conservative, and the potential visitation increase to Mount Buffalo from this “key market attractor” could be much higher.
- An opportunity for a partnership between Traditional Owner groups, private investors and government would exist for this concept.
- Further community engagement would be required to be performed to validate community support for this proposed concept prior to any further activation taking place.

3.3 Concept Feasibility

2. Mount Buffalo Boutique Chalet Hotel

Key Assumptions

- Feasibility assessed over 50 years based on current maximum lease terms available for the Chalet under the National Parks Act.
- Assumed 3-year ramp up to maximum average occupancy of 50.3%.
- Level of finish in line with 5 star high-end regional hotel.

Key Inputs	Year 3
Total Number of Rooms	42
Average Daily Rate (ADR)	$300
Occupancy rate (annual average)	50.3%
RevPAR	$151
Total Available Rooms Nights (p.a.)	15,330
Double Occupancy Factor (person/room)	1.5
Average F&B Revenue / occupied room	$73 (55/head)
Capital Cost	$38,781,694

Revenue and Expenses (year 3)

Total Revenue			2,878,770	
Room Revenue			2,313,297	
Room Cost		35%	809,654	
Room Profit			1,503,643	
F&B Revenue	$	73	565,473	
F&B Cost		70%	395,831	
F&B Profit			169,642	
MOD Revenue	$	-	-	
MOD Cost		0%	-	
MOD Profit			-	
Rental & Other Income		-	-	
Gross Operating Income			1,673,285	
Administration & General (Overheads)		10.0%	287,877	*% of Gross Revenue*
Hotel IT Systems		1.0%	28,788	*% of Gross Revenue*
Sales & Marketing		5.0%	143,938	*% of Gross Revenue*
Property Operation & Maintenance (POM)		10.0%	287,877	*% of Gross Revenue*
Utility Costs		12.0%	345,452	*% of Gross Revenue*
Undistributed Expenses			1,093,932	
Gross Operating Profit			579,352	
Rates & Insurance		2.0%	57,575	
Ground Rent		8.0%	230,302	
Management Fee		0.0%	-	*Assumes owner-operator model*
Other Expenses			287,877	
Total Expenses			2,587,294	
Net Cashflow			291,475	
Profit Margin			10.1%	

3.3 Concept Feasibility

2. Mount Buffalo Boutique Chalet Hotel

Feasibility Output
50 years

		Year							
Discounted Cash Flow	Input	0	1	2	3	4	5	49	50
Capital Cost	(38,781,694)	(38,781,694)							
Capital Contribution		0.00%							
% Capital Contribution									
Total Revenue			1,716,960	2,289,280	2,878,770	2,936,345	2,995,072	7,158,381	7,301,549
Total Expenses			1,543,118	2,057,490	2,587,294	2,639,040	2,691,821	6,433,595	6,562,267
Net Cashflow		(38,781,694)	173,842	231,790	291,475	297,305	303,251	724,786	739,282

50 Year Feasibility Assessment	
Discount Rate	12.00%
Net Present Value	(32,271,575)

Sensitivity Analysis

Impact of *discount rate* on NPV

Discount Rate	10.00%	12.00%	15.00%
Net Present Value $	(32,273,890)	(32,271,575)	(31,969,782)

Opportunities Assessment

- At a total capital cost of $38.78M, the Chalet redevelopment concept does not produce a positive financial return in its own right.
- Despite the Chalet's closure over 12 years ago, the historic attraction still remains a major driver of visitors to the mountain.
- The benefits of this concept will outweigh the costs if each adult Victorian resident values the Chalet at $0.08 per year, and each visitor values the Chalet at $1.94 (in non-use terms).
- The development of an initial stage of works (42-room hotel & restaurant) would not detract from the future development of the entire Chalet hotel and Village development as described in the *Vision for Mount Buffalo,* and would act as a catalyst for further development.

3.3 Concept Feasibility

3. Food and Beverage – Café in the Chalet

Key Assumptions

- Feasibility assessed over 21 years based on current maximum lease terms available under National Parks Act.
- As noted in Section 3.1, two scenarios have been assessed:
    - a High Scenario: Data based on local / market tested view
    - a Low Scenario: Data based on publicly available information

Key Inputs	
Days Open	365
High Season (Dec-Feb) - days / yr	93
Low Season (Mar-Nov) - days / yr	272
Operating Hours - High season	10am - 6pm (8 hours)
Operating Hours - Low season	10am - 4pm (6 hours)
Ave. No. of Staff	6
Average Staff Hours / Day	$7.51
Hourly Rates (Mon-Fri)	$20.50
Hourly Rates (Saturday)	$25.00
Hourly Rates (Sunday)	$30.00
Capital Cost	$2,001,759

High Scenario (local specific / market tested)

Revenue & Profit	% G.Rev		Year 1	Comments / Assumptions
Gross Sales		$	970,000	*For detailed calculations, refer to demand profile report, Section 3 - High Scenario*
Cost of Goods	30.0%	$	291,000	
Gross Profit		$	679,000	
Operating Expenses				
Staff Wages	40%	$	388,000	*Industry benchmark 30-40% of Gross Sales. 40% for experienced staff. Includes 1 x manager, 1 x full-time chef, 2 x full-time FOH, 2 x casual staff.*
Cleaning	1.0%	$	9,700	*Majority of cleaning included in staff wages. Additional fee for major cleans.*
Marketing & Advertising	2.0%	$	19,400	*Social media & website mgmt. Marketing support provided by TNE + Alpine Shire.*
Legal & Accounting	1.0%	$	10,000	
Repairs & Maintenance	1.0%	$	10,000	
Utilities	2.6%	$	25,000	*Majority of cost associated with heating costs (biomass boiler fuel)*
Insurance	TBC	$	15,000	*Estimate: Insurance for activation area only. PV to retain whole of building insurance*
Liquor Licence		$	967	*Ongoing annual fee. Planning & registration fee included in capital cost.*
Miscellaneous	1%	$	9,700	
Chalet Lease	8%	$	77,600	*Industry benchmark 8% of Gross Revenue for remote areas.*
Total Operating Expenses		$	565,367	
Net Profit Before Tax		$	113,633	
Profit Margin			11.7%	

3.3 Concept Feasibility

3. Food and Beverage – Café in the Chalet

Low Scenario (Report-based statistics)

Revenue & Profit	% G.Rev		Year 1	Comments / Assumptions
Gross Sales		$	580,988	*For detailed calculations, refer to demand profile report, Section 3 - High Scenario*
Cost of Goods	30.0%	$	174,297	
Gross Profit		$	406,692	
Operating Expenses				
Staff Wages	40%	$	232,395	*Industry benchmark 30-40% of Gross Sales. 40% for experienced staff. Includes 1 x manager, 1 x full-time chef, 2 x full-time FOH, 2 x casual staff.*
Cleaning	1.0%	$	5,810	*Majority of cleaning included in staff wages. Additional fee for major cleans.*
Marketing & Advertising	2.0%	$	11,620	*Social media & website mgmt. Marketing support provided by TNE + Alpine Shire.*
Legal & Accounting	1.7%	$	10,000	
Repairs & Maintenance	1.7%	$	10,000	
Utilities	4.3%	$	25,000	*Majority of cost associated with heating costs (biomass boiler fuel)*
Insurance	TBC	$	15,000	*Estimate: Insurance for activation area only. PV to retain whole of building insurance.*
Liquor Licence		$	967	*Ongoing annual fee. Planning & registration fee included in capital cost.*
Miscellaneous	1%	$	5,810	
Chalet Lease	8%	$	46,479	*Industry benchmark 8% of Gross Revenue for remote areas.*
Total Operating Expenses		$	363,081	
Net Profit Before Tax		$	43,611	
Profit Margin			7.5%	

3.3 Concept Feasibility

3. Food and Beverage – Café in the Chalet

Feasibility Output
21 years

Low Scenario

		Year							
Discounted Cash Flow	Input	-	1	2	3	4	5	20	21
Capital Cost	(0)	(2,001,759)							
Capital Contribution									
% Capital Contribution	0.0%								
Total Revenue			580,988	592,608	604,460	616,550	628,881	846,390	863,318
Total Expenses			363,081	370,343	377,749	385,304	393,011	528,940	539,519
Net Cashflow		(2,001,759)	43,611	44,483	45,373	46,280	47,206	63,533	64,804

21 Year Feasibility Assessment	
Discount Rate	10.00%
Net Present Value	(1,425,703)

High Scenario

		Year							
Discounted Cash Flow	Input	-	1	2	3	4	5	20	21
Capital Cost		(2,001,759)							
Capital Contribution									
% Capital Contribution	0.0%								
Total Revenue			970,000	989,400	1,009,188	1,029,372	1,049,959	1,413,107	1,441,369
Total Expenses			565,367	576,674	588,208	599,972	611,971	823,633	840,106
Net Cashflow		(2,001,759)	113,633	412,726	420,980	429,400	437,988	589,474	601,263

21 Year Feasibility Assessment	
Discount Rate	10.00%
Net Present Value	1,596,075

Sensitivity Analysis

Impact of *Gross Sales* on NPV

Gross Sales (annual)	400,000	581,000	750,000	970,000	1,200,000
Net Present Value $	(1,720,084)	(1,425,684)	696,396	1,596,075	2,536,649

Opportunities Assessment

- This concept is envisioned to be the first critical step to realising the *Vision for Mount Buffalo*, and could start to address the current undersupply of food and beverage within a short time frame.
- The 'High' revenue scenario (based on local specific evidence) is estimated to produce a commercial return that would be considered attractive to an investor / operator.
- The key to success will be obtaining early input from an experienced hospitality operator for design, fitout and activation strategy.
- Attracting the 'right' operator, with experience in regional café operation, customer service and marketing expertise, will be critical to the café's ongoing success.

3.3 Concept Feasibility

4. Wilderness Eco-Pods

Key Assumptions

- Feasibility assessed over 21 years based on current maximum lease terms available under the National Parks Act.
- It is assumed that in it's first year of operation (year 1), this accommodation attraction will generate enough publicity to reach estimated average occupancy of 54.3% in first year of operation.

Key Inputs	Year 1
Total No of Pods	10
Average Daily Rate (ADR)	$260
Occupancy rate	54.3%
Room Nights Sold	1,981
Double Occupancy Factor (person/room)	1.5
Average Length of Stay	1.5
Annual Visitor Growth (yrs 1-5)	5.0%
Annual Visitor Growth (yrs 6-21)	3.0%
Inflation	2.0%
Capital Cost	$1,459,031

Revenue and Expenses			Year 1
Total Revenue			581,219
Room Revenue			515,171
Room Cost		30%	154,551
Room Profit			360,620
F&B Revenue	$	50	66,048
F&B Cost		60%	39,629
F&B Profit			26,419
Gross Operating Income			387,039
Administration & General (Overheads)		10.0%	58,122
Sales & Marketing		5.0%	29,061
Property Operation & Maintenance (POM)		8.0%	46,498
Utilities Costs		10.0%	58,122
Undistributed Expenses			191,802
Gross Operating Profit			195,237
Rates & Insurance		2.0%	11,624
Ground Rent		8.0%	46,498
Management Fee		0.0%	-
Other Expenses			58,122
Total Expenses			444,104
Net Cashflow			137,115
Profit Margin			23.6%

3.3 Concept Feasibility

4. Wilderness Eco-Pods

Feasibility Output
21 years

		Year							
Discounted Cash Flow	Input	0	1	2	3	4	5	20	21
Capital Cost	(1,459,031)	(1,459,031)							
Capital Contribution		-							
% Capital Contribution		0.0%							
Total Revenue			581,219	592,843	604,700	616,794	629,130	846,726	863,661
Total Expenses			444,104	452,986	462,046	471,287	480,713	646,976	659,915
Net Cashflow		(1,459,031)	137,115	139,857	142,654	145,507	148,418	199,750	203,745

21 Year Feasibility Assessment	
Discount Rate	10.00%
Net Present Value	(87,392)

Sensitivity Analysis

Impact of *discount rate* on NPV

Discount Rate	8.00%	10.00%	12.00%
Net Present Value $	127,906	(87,392)	(250,214)

Impact of *lease duration* (i.e. 10 year term) on NPV

		Year						
Discounted Cash Flow	Input	0	1	2	3	4	5	10
Capital Cost	(1,459,031)	(1,459,031)						
Capital Contribution		-						
% Capital Contribution		0.0%						
Total Revenue			581,219	592,843	604,700	616,794	629,130	694,611
Total Expenses			444,104	452,986	462,046	471,287	480,713	530,746
Net Cashflow		(1,459,031)	137,115	139,857	142,654	145,507	148,418	163,865

10 Year Feasibility Assessment	
Discount Rate	10.00%
Net Present Value	(500,548)

Opportunities Assessment

- Nature based tourism promotes a healthy lifestyle. This investment would enable a new market of visitors (users of luxury accommodation) to participate in the Mount Buffalo experience, expanding engagement in other activities.
- The Wilderness Eco-Pods produce a return that would be considered commensurate to the risks that exist to proceed with this commercial activation.
- This concept would be considered attractive to a private operator based on the unique outdoor experience it could offer visitors, and the relatively low level of capital commitment required.
- Cresta Valley is also considered by the Taskforce to be an ideal location for this remote accommodation offering.

3.3 Concept Feasibility

5. Cresta Valley Activities and Events

Key Assumptions

- Feasibility assessed over 21 years based on current maximum lease terms available under the National Parks Act
- Only accounts for direct revenue generated by equipment hire and F&B available inside Day Lodge.
- Does not take into account wider expenditure induced by increase in walking trails, riding or the addition of one new event per year. Similarly, operational costs of trail maintenance and event management have not been included in the below feasibility.
- Assumes one operator across F&B and Hire business

Key Inputs	
Average Cresta incremental spend - hire	$ 35
Average Cresta incremental spend - F&B	$ 10
% of bushwalk visitors attend Cresta	50%
% of Cresta users who hire	40%
% of Cresta users who purchase F&B	80%
Estimated visitors to Cresta (year 1)	38,731
Cresta visitors who will hire	15,493
Cresta visitors who buy F&B	30,985
Annual Visitor Growth (yrs 1-5)	5.0%
Annual Visitor Growth (yrs 6-21)	3.0%
Inflation	2.0%
Capital Cost	$12,515,555

Revenue and Expenses (year 1)

Revenue		
Cresta incremental spend - hire		542,239
Cresta incremental spend - F&B		309,851
Total Revenue		852,089
Annual Operating Expenses	% T.Rev	
Staff Expenses *(Equates to 4 full time staff at $52K pa)*	30%	255,627
Administration & General (Overheads)	2%	17,042
Sales & Marketing	5%	42,604
Property Maintenance & Upgrades	12%	102,251
Cleaning	2%	17,042
Utility Costs	20%	170,418
Miscelaneous	5%	42,604
Operating Expenses		647,588
Gross Operating Profit		204,501
Non-Operating Expenses		
Ground Rent	8%	68,167
Rates & Insurance	2%	17,042
Management Fee	0%	-
Other Expenses		85,209
Total Expenses		732,797
Net Cashflow		119,293
Profit Margin		14.0%

3.3 Concept Feasibility

5. Cresta Valley Activities and Events

Feasibility Output
21 years

		Year							
Discounted Cash Flow	Input	0	1	2	3	4	5	20	21
Capital Cost	(12,515,555)	(12,515,555)							
Capital Contribution		-							
% Capital Contribution		0.0%							
Total Revenue			852,089	894,694	939,429	986,400	1,035,720	1,613,618	1,662,027
Total Expenses			732,797	769,437	807,909	848,304	890,719	1,387,711	1,429,343
Net Cashflow		(12,515,555)	119,293	125,257	131,520	138,096	145,001	225,907	232,684

21 Year Feasibility Assessment	
Discount Rate	12.00%
Net Present Value	(10,134,284)

Sensitivity Analysis

Impact of *discount rate* on NPV

Discount Rate	10.00%	12.00%	15.00%
Net Present Value $	(10,143,900)	(10,134,284)	(10,058,189)

Opportunities Assessment

- This concept is predicted to be a greater catalyst for cumulative future visitation growth to Mount Buffalo.
- At a total capital cost of $12.5M, this concept does not produce a commercial return that would be considered reasonable by the private sector given the risks involved.
- However, this concept will drive greater regional economic benefits, producing a positive BCR.
- The Taskforce feel this is a conservative estimate of visitation growth derived from this concept, and see the Cresta Valley Activity Centre as a potential major growth market as neighbouring Victorian alpine ski resorts reach capacity.
- Further community engagement would be required to be performed to validate community support for this proposed concept prior to any further activation taking place.

3.3 Concept Feasibility

6. Dingo Dell Outdoor School of Excellence

Key Assumptions

- Feasibility assessed over 21 years based on current maximum lease terms available under National Parks Act.
- Occupancy rate at 95% during school weeks is representative of the current undersupply of student outdoor education facilities in Victoria.
- This facility is assumed to be open for bookings from multiple schools – public and private. It is not privately owned nor privately operated.

Key Inputs	
Total Beds	60
Revenue per student per week - excl. GST	$470
Number of weeks open	52
Number of school weeks	40
Occupancy rate during school weeks	95.0%
Non-school weeks	12
Occupancy during non-school weeks	50.3%
School revenue	1,071,600
Non-school revenue	170,215
Capital Cost	$13,619,297

Revenue & Expenses (year 1)

School revenue		1,071,600	
Non-school revenue		170,215	
Total Revenue		1,241,815	
Staff Wages	20%	248,363	*Assumes 5 full time staff at average wage of $63K p/year*
Food & Bev	18%	223,527	*$15 / day per student*
Cleaning	2%	24,836	*% Gross Revenue*
Administration & General (Overheads)	2%	24,836	*% Gross Revenue*
Sales & Marketing	5%	62,091	*% Gross Revenue*
Property Operation & Maintenance	1%	136,193	*1% of Total Capital Cost per annum*
Utilities Costs	15%	186,272	*% Gross Revenue*
Miscelaneous	2%	24,836	*% Gross Revenue*
Operating Expenses		930,955	
Gross Operating Profit		310,861	
Rates & Insurance	2%	24,836	
Ground Rent	8%	99,345	
Management Fee	0%	-	
Additional Expenses		124,182	
Total Expenses		1,055,136	
Net Cashflow		186,679	
Profit Margin		15.0%	

3.3 Concept Feasibility

6. Dingo Dell Outdoor School of Excellence

Feasibility Output
21 years

		Year							
Discounted Cash Flow	Input	0	1	2	3	4	5	20	21
Capital Cost	(13,619,297)	(13,619,297)							
Capital Contribution		-							
% Capital Contribution		0.0%							
Total Revenue			1,241,815	1,266,652	1,291,985	1,317,824	1,344,181	1,809,090	1,845,272
Total Expenses			1,055,136	1,076,239	1,097,764	1,119,719	1,142,113	1,537,134	1,567,877
Net Cashflow		(13,619,297)	186,679	190,413	194,221	198,105	202,067	271,956	277,395

21 Year Feasibility Assessment	
Discount Rate	12.00%
Net Present Value	(10,727,141)

Sensitivity Analysis

Impact of *discount rate* on NPV

Discount Rate	10.00%	12.00%	15.00%
Net Present Value $	(10,694,307)	(10,727,141)	(10,694,737)

Opportunities Assessment

- Outdoor education in Victoria is currently vastly undersupplied. Therefore, building an education centre on Mount Buffalo will allow for an increase in student visitation.
- The Dingo Dell Outdoor School of Excellence and student accommodation provides opportunities for broader state-wide educational benefits, making this concept appealing for further Government consideration.
- Recent examples (i.e. Don Valley State School) highlight the possible interest in an outdoor education concept of this nature.
- This concept could also provide a healthy opportunity to students with limited access to outdoor education and nature-based experiences, including disabled, disadvantaged and disengaged youth.
- Further community engagement would be required to be performed to validate community support for this proposed concept prior to any further activation taking place.

[17] *https://www.theage.com.au/national/victoria/timbertop-style-teaching-now-not-just-for-private-school-kids-20180524-p4zh6x.html*

3.3 Concept Feasibility

7. Mountain Gateway

Key Assumptions

- It is assumed that outside of a mini-canteen or gift store, we don't see the Visitor Centre as being a material revenue-generating proposition, and as such, the revenue assumptions for year 1 are estimated to be nil.
- The construction cost has been based on the area schedule provided in *Vision for Mount Buffalo* document.

Revenue and Expenses (year 1)		
Total Revenue		-
Annual Operating Expenses		
Staff Expenses		80,000
Administration & General (Overheads)		10,000
Sales & Marketing		-
Property Maintenance & Upgrades	1%	148,903
Cleaning		15,000
Utility Costs		100,000
Miscelaneous		20,000
Operating Expenses		373,903
Gross Operating Profit		(373,903)
Non-Operating Expenses		
Ground Rent	0%	-
Rates & Insurance	0%	-
Management Fee	0%	-
Other Expenses		-
Total Expenses		373,903
Net Cashflow		(373,903)
Profit Margin		0.0%

Opportunities Assessment

- A Visitor Information Centre could provide additional visibility of local activities offered on Mount Buffalo.
- Whilst we recognise the importance of this concept as a formal arrival point to the mountain with critical amenities including toilets, we believe the Visitor Centre as currently proposed is too significant in scale.
- The Taskforce agree that a capital cost budget of $3M is likely to provide a positive visitor experience at the base of the mountain, and believe an even lower capital cost budget could be achievable for the successful delivery of this concept.
- The below output shows the NPV of this concept over 21 years at a capital cost of $3,000,000.

Discounted Cash Flow	Input
Capital Cost	(3,000,000)
% Capital Contribution	
Total Revenue	
Total Expenses	
Net Cashflow	

21 Year Feasibility Assessment	
Discount Rate	12.00%
Net Present Value	(5,548,646)

Feasibility Output
21 years

		Year							
Discounted Cash Flow	Input	0	1	2	3	4	5	20	21
Capital Cost	(14,890,300)	(14,890,300)							
% Capital Contribution		0.0%							
Total Revenue			-	-	-	-	-	-	-
Total Expenses			373,903	381,381	389,009	396,789	404,725	544,706	555,600
Net Cashflow		(14,890,300)	(373,903)	(381,381)	(389,009)	(396,789)	(404,725)	(544,706)	(555,600)

21 Year Feasibility Assessment	
Discount Rate	12.00%
Net Present Value	(16,164,985)

3.4 Risks, Challenges and Possible Solutions

3.4 Risks, Challenges and Possible Solutions

3.4.1 Overview

One of Mount Buffalo's most appreciated features is its remoteness – this however also creates a number of significant challenges including the lack of basic infrastructure, policy and legislative constraints and other essential elements that would enable investment and activation to occur.

In order to attract suitable investment to the mountain in its current state, a number of policy and legislative requirements need to be carefully navigated and a firm commitment from Government is critical to the future success of Mount Buffalo.

3.4.2 Leasehold History of the Chalet

The Mount Buffalo Chalet is situated on Crown Land (reserved under the National Parks Act 1975). In the past, the National Parks Act has only enabled a maximum of 21 year lease terms for the Chalet. This has limited the potential for private capital investment for operators.

Since the early leaseholds (and the periods of management by Victorian Railways), there have been 3 changes of the lease of Mount Buffalo Chalet since the hotel's closure in 2006.

The leasehold period extending from the early 1990's to January 2002 was widely regarded as 'successful' (from a guest viewpoint). During this period, the lessees operated the Chalet as a guest-house experience, with a focus on giving people a holistic integrated experience of the mountain. In January 2002, the lease was transferred to a new operator who was significantly impacted by the 2003 bushfires. Between May and September 2004, the lease was held by an administrator. The lease was taken over by a new lease holder in September 2004 and continued until the Chalet's closure in December 2006.

In 2010, the State Government passed the Parks and Crown Lands Legislation (Mount Buffalo) Act 2010. This legislation has amended the National Parks Act 1975 to enable leases of up to 50 years in Mt Buffalo National Park.

3.4.3 Current Legislative Environment

The National Parks Act 1975

Mt Buffalo National Park is managed in accordance with the National Parks Act 1975, which includes the following aims for national and state parks:

- the preservation and protection of the natural environment including wilderness areas and remote and natural areas in those parks;
- the protection and preservation of indigenous flora and fauna and of features of scenic or archaeological, ecological, geological, historic or other scientific interest in those parks; and
- the study of ecology, geology, botany, zoology and other sciences relating to the conservation of the natural environment in those parks.

The Act also states that management will "make provision in accordance with the foregoing for the use of parks by the public for the purposes of enjoyment, recreation or education and for the encouragement and control of that use."

The Act requires a plan of management to be prepared for all national and state parks via Section 17 (2) (d). The development and use of the park must then be in accordance with these plans. The current plan of management is the Greater Alpine National Parks Management Plan 2016.

3.4 Risks, Challenges and Possible Solutions

The Greater Alpine National Park Management Plan – Mount Buffalo Management Area

The Greater Alpine National Parks Management Plan includes the following zones for the park:

- Reference Area Zone – Area in west of plateau proclaimed under the Reference Areas Act 1978 – no access or development permitted as per Reference Areas Act.
- Conservation Zone – covering the alpine plateau area; area of high natural value – priority area for ecological protection and programs; recreation permitted subject to close management
- Conservation and Recreation Zone – covering the lower slopes of Mt Buffalo – general park management principles apply
- Recreation Development Zone – four small areas where a high level of development has already occurred, being The Chalet, Lake Catani, Dingo Dell and Cresta Valley – provide facilities that can cater for large numbers of visitors

In addition to the Zones, Overlays have been mapped to provide additional management guidance (Refer to Map 2B of the Plan and pages 26-7 and page 88)

- Remote and Natural Area Overlay – as defined in the National Parks Act, covering the northern half of the plateau – low level of facilities are provided; no new developments are permitted
- Visitor Experience Area (VEA) Overlays– two VEAs have been defined to manage defined visitor experiences (page 88 of the plan). These include Mt McLeod and Buffalo Plateau.

Relevant here is the detail of the visitor experiences and activities outlined in the Buffalo Plateau VEA.

Planning Scheme

Under the planning regime, Mount Buffalo and the areas as considered in the *Vision for Mount Buffalo,* including; The Gorge and Chalet Village, Lake Catani, Dingo Dell and Cresta Valley are zoned Public Conservation and Resource Zone (PCRZ) (Refer to Appendix H and Appendix I).

The purpose of this zone is as follows:

- To protect and conserve the natural environment and natural processes for their historic, scientific, landscape, habitat or cultural values.
- To provide facilities which assist in public education and interpretation of the natural environment with minimal degradation of the natural environment or natural processes.
- To provide for appropriate resource based uses.

The permitted uses, as detailed under the Planning Scheme, are relevant for any development and use. Under the PCRZ, a permit is required to construct a building or construct or carry out work and the proposed uses of restaurant and accommodation are not listed in the table of uses where permits are required or not required, and are therefore prohibited.

The overlays that are applicable include the Bushfire Management Overlay, Heritage Overlay and Significant Landscape Overlay.

For any development:

- Under the BMO (Bushfire Management Overlay), a permit is required to construct a building or construct or carry out works associated with the uses including restaurant and accommodation.
- Under the SLO-4 (The Significant Landscape Overlay), a permit is required for alterations or extensions to existing buildings, if the total floor area including the existing building is more than 100sqm.
- Under the HO21 (Heritage Overlay), a permit is required to construct a building or construct or carry out works.

With the existing zoning, a permit for use and or development would require an incorporated plan to be scheduled in the PCRZ, or an amendment to the Planning Scheme.

The Alpine Shire is the responsible authority for the Alpine Shire Planning Scheme.

3.4 Risks, Challenges and Possible Solutions

Mount Buffalo Chalet – Heritage Overlay

The Mount Buffalo Chalet is identified as HO21 in the Heritage Overlay Schedule to the Alpine Shire Planning Scheme. The objectives of the Heritage Overlay are *inter alia*

- To conserve and enhance heritage places of natural or cultural significance;
- To conserve and enhance those elements which contribute to the significance of heritage places;
- To ensure that development does not adversely affect the significance of heritage places;
- To encourage the retention, reuse and recycling of significant and contributory heritage places in the Heritage Overlay in a manner which conserves and does not detract from the surrounding character.

Planning permits will be required for subdivision, new buildings and works to the Chalet.

The Chalet is within an area zoned PCRZ (Public Conservation and Resource Zone). The purpose of a PCRZ is

- To protect and conserve the natural environment and natural processes for their historic, scientific, landscape, habitat or cultural values.
- To provide facilities which assist in public education and interpretation of the natural environment with minimal degradation of the natural environment or natural processes.
- To provide for appropriate resources based uses.

Heritage Listings

Victorian Heritage Register

The Mount Buffalo Chalet was included on *the Victorian Heritage Register*, maintained by the Victorian Heritage Council, as H901 (File number 603998). The extent of registration includes:

- the Mount Buffalo Chalet, chalet garage, engine room, firewood store, carpenter's shop, tractor shed, lockup garages, staff amenities building (but excluding communications towers and sheds Nos. 1 and 2, pump house, swimming pool, courts, and staff quarters), and the land as defined by the Heritage Council.
- Permits will be required from Heritage Victoria for subdivision, new buildings and works.
- A letter of support supplied by Heritage Victoria for the re-opening of the Chalet for the purpose of a café activation can be found in Appendix G.

Register of the National Estate

The Mount Buffalo Chalet was included on the *Register of the National Estate*, maintained by the Australian Heritage Commission, on 21 October, 1980, as an historic place (Database Number: 101887, File Number: 2/08/233/0029). There are no statutory requirements as a consequence of this registration.

Mount Buffalo National Park and adjacent areas, Porepunkah VIC. were registered as a natural place at the same time as the Chalet. (Database Number: 004573, File Number: 2/08/233/0001).

The database also includes an entry for the park as an indicative place (Database Number: 015515, File Number: 2/08/233/0001).

National Trust of Australia (Victoria)

The Chalet building was registered by the National Trust of Australia (Vic) on 12 June, 1991 as a building of state significance (File No: B5699). There are no statutory requirements as a consequence of this registration.

3.4 Risks, Challenges and Possible Solutions

Provisions for Leasing under the National Park Act

Section 31AA of the Act provides specifically for leases within Mt Buffalo National Park, stating that any lease must not be "detrimental to the protection of the park, including its natural, indigenous, historic, cultural, landscape and recreational values". Leases can be granted for up to 21 years or up to 50 years where the Minister is satisfied that "the proposed use, development, improvements or works that are to be the subject of the lease are of a substantial nature and of a value which justifies a longer-term lease" and that "the granting of a longer term lease is in the public interest."

All leases at Mt Buffalo are subject to consultation with the National Parks Advisory Council (NPAC).

Where a lease is granted under Section 31AA, the Minister may also grant a licence to that leaseholder. The licence is restricted to activities associated with the lease and, as per the lease, cannot be detrimental to the protection of the park. (Similar provisions apply for licences granted in relation to leases in other parks – refer to Section 19K of the Act).

The Secretary may also grant Tour Operator Licences to allow for organisations to provide guided tours and activities within a park. These are granted in accordance with Division 3A of the Act. This Division applies to all parks.

Leasing Options and Mechanisms to Attract Proponents

DELWP and the Department of Treasury and Finance are the lead government agencies accountable for managing Private Investment on National Parks.

Guidelines and advice can be located at the following links:

Guidance note for tourism leases in national parks:

https://www.forestsandreserves.vic.gov.au/land-management/crown-land-leases-licences-and-permits

Guidance notes on Market Led Proposals:

https://www.dtf.vic.gov.au/infrastructure-investment/market-led-proposals

Market Ready, Small scale investment – **Parks Victoria's EOI essentials**

http://parkweb.vic.gov.au/about-us/doing-business-with-us/expressions-of-interest

3.4 Risks, Challenges and Possible Solutions

3.4.4 The Challenges and Possible Solutions

Attracting Private Sector Investment

The Challenge

Regional Victoria is seen as a destination for spa and wellness, food and wine, touring and cycling, and golf, based on a diverse range of private and public regional products and services that help drive visitation and spend. [18]

Accordingly, the visitor economy is particularly important to regional and rural Victoria, with 56 per cent of Victoria's total tourism employment located in the regions[18]. Governments have an important role in creating an environment for investment to occur. It has been identified that potential investment opportunities are not being realised due to some of the regulatory settings related to permitted land use, planning policy and public land zones. Investors often face government processes that are incredibly complex to navigate. Governments also play an important role in investing directly in key assets, and using this investment to encourage greater private sector investment. This Project has validated our opinion that more needs to be done to proactively facilitate appropriate development.

Mount Buffalo's recent history and the learnings from our discussions with the market as part of Component C (Market Activation) indicate that in order to attract suitable private sector investment and operator expertise, significant assistance and a firm commitment from the Government is required.

The primary reason it has been difficult to date to attract private sector investment is due to the risks and complexities associated with the development of tourism ventures in regional Victoria, like those considered in the *Vision for Mount Buffalo.*

The Solution

In order to attract the required level of private sector investment, a firm commitment and a capital contribution from the Government needs to be obtained. This can be sought through the submission of a business case for a package of appropriate activations. (Refer to Section 5).

Planning Framework

The Challenge

A key element to attracting private sector investment is to provide certainty with regards to the planning policy framework at Mount Buffalo. As noted in Section 3.4.3, Mount Buffalo is currently classified as PCRZ (refer to Appendix H), and the activities as considered in the *Vision for Mount Buffalo* are currently not a permitted use under the planning policy. As such, this creates further complexities with the attraction of private sector investment due to the uncertainty the existing legislative environment creates. The zoning is contrary to the long term use of the land, the intended use of the Chalet and surrounding activity areas.

The Solution

In consideration of the above, a solution is to seek an amendment to the planning scheme to a re-zoning in which operation of appropriate uses can be permitted. We propose that a Ministerial Amendment pursuant to S20(4) of the Planning and Environment Act 1987 should be sought for appropriate areas of the mountain.

[18] Victorian Visitor Economy Strategy (2016)

3.4 Risks, Challenges and Possible Solutions

Services Infrastructure & Sustainability

The Challenge

One of the historic challenges for the Chalet has been the fact that it is not connected to the National Electricity Grid. Over the past 12 years, a number of independent and community-driven assessments have been undertaken to understand the options available in order to determine an operational solution for the Chalet.

As noted as part of our analysis in Component B (Costs and Concept Feasibility Assessment), in order for each of the concepts to cater for the level of visitation that is expected to be generated, significant infrastructure upgrades to the mountain are required. The costs associated with delivering these infrastructure upgrades along with the risk premium that would be required by private investors due to the remote location, as well as the requirement to attract new customers, makes it very difficult to achieve a satisfactory commercial return.

It is a goal of the Project Taskforce to ensure that the Chalet's infrastructural upgrades reflect (and continue to reflect) world's best-practice in sustainable and renewable energy system solutions, and are progressively upgraded to embrace new proven energy technologies as these emerge.

The cost option of supplying in-ground high voltage mains power to the Chalet has been investigated as part of this assessment (Appendix C – 'Ultimate' Cost Report). The nearest HV electrical infrastructure is located at Porepunkah, a distance of approximately 25km from the Chalet. WT have estimated the order of cost for trenching, backfilling, heavy duty PVC conduit, draw pits and an allowance for rock would result in a total trade-cost only of approximately $11.025m (excluding GST, overheads, profit, margins and contingency) for provision of power supply to the Chalet (NB: final costing subject to detailed field survey and design).

The grid connection option is not proposed in this feasibility assessment due to the significant capital costs, and the opportunity to use more innovative renewable energy solutions – and is not considered an appropriate solution.

The Solution

The renewable energy solutions analysis performed by HIP V. HYPE Sustainability (Appendix D) infers that it is possible to service each activation concept using locally-generated sustainable energy. Further design work, however, would be required to determine exact demand loads and associated generation required for each activation.

For the Chalet refurbishment concept, energy usage will depend significantly upon the level of upgrade applied to the building's thermal envelope, and hence the building's passive performance. The lower the energy demand, the more likely the owner / operator will be able to service the building with minimal maintenance, while maximising occupant comfort.

A 'passive haus' standard building is estimated to use approximately 30% of the overall energy of a minimum compliance building, which will have a significant impact on the ability to service the building off grid.

The generation of energy could provided in the combined form of sustainable energy systems that operate together, and include the use of a biomass boiler (utilising recycled wood chips from a local timber mill), solar power, battery powerwall storage, micro-hydro and Concentrated Thermal Solar (CTS). (Refer to Appendix D for further detail).

Should activation of each concept proceed to the next step, more detailed testing would need to be performed in order to validate assumptions used in the analysis.

4. Project Activation (Component C)

4. Project Activation

4.1 Project Activation Objectives

The objectives of 'Project Activation' was to identify and drive commercial interest/opportunities and if possible, investment at Mount Buffalo.

It should be noted that the initial project scope called for the 'development of a marketing prospectus for a portfolio of commercially viable options'. In conjunction with the Project Taskforce, it was determined that a marketing prospectus was not needed and that effort should be focused to identifying and engaging with the private sector where possible to stimulate interest and possible future investment.

4.2 Identifying Potential Private Sector Investors and Operators

PwC conducted a comprehensive market sounding exercise throughout the Project. The results can be found in sections 4.3 and 4.4.

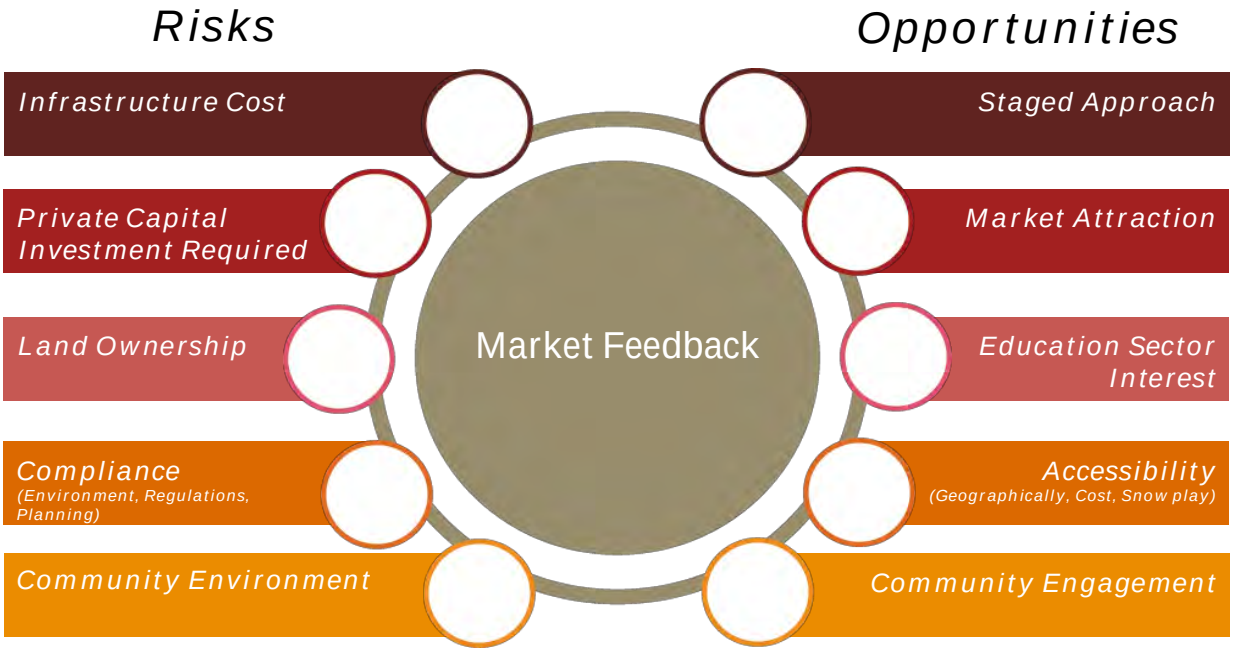
The purpose of this process was to inform the Taskforce of market interest in the proposed tourism concepts in this pre-investment phase, and report on the following information:

- level of interest from key tourism market operators on the *Vision for Mount Buffalo*;
- level of interest for each tourism concept, and an assessment on which concepts may need to be reassessed in order to increase level of interest;
- Obtain an understanding of each proponent's alpine mountain and/or visitor entertainment experience (i.e. what works, what doesn't work, where is the tourism market moving)
- Obtain a thorough understanding of the key risks and opportunities associated with each activation concept prior to undertaking a commercial feasibility assessment.

4.3 Summary of Market Responses

Market sounding with select organisations took place between May – August 2018. The organisations were contacted due to their experience in either tourism, alpine mountain operations, educational or visitor entertainment experience.

Detailed below is an overview of the key messages of these discussions.



4. Project Activation

4.4 Private Market Responses

Detailed feedback from the private market can be seen below. For the purpose of respondent confidentiality, organisations who participated in the market sounding have been kept anonymous.

Org.	Engagement Date	Feedback
A	7 April 2018	• An opportunity exists in the northeast region to have a 'destination driver' – eg Gorge Skywalk. • Being close to water is a critical tourism driver over summer months for Australians. • This is a risk to the activations proposed for Mount Buffalo (excluding camping at Lake Catani). • Cost of infrastructure is a major risk to any investor / operator. Without any certainty of government investment, investor / operator is unlikely to commit.
B	6 May 2018	• Expressed interested in outdoor education camp for year 8 students. • Sees the opportunity to use the existing Dingo Dell structure as a base building for outdoor student education. • Parents & family to attend a weekend at Mount Buffalo at the end of the student camp, driving additional visitors to the mountain. • Sees this as a sustainable visitation model for the mountain.
C	11 May 2018	• Organisation sees potential in the whole-of-mountain activation approach proposed. • Success fundamentally comes down to the likely demand– will there be demand for activities / concepts proposed? • Expressed interest in who is going to market the project more broadly, and how this will be done. • Uncertainty around upfront capital investment from developers / operators.
D	16 May 2018	• Expressed view that the Buffalo Chalet Hotel business model works and can be done again. • The greatest risks are power and sewage. • Renewable energy sources should be explored moving forward. • A staged approach seems suitable and more viable. • People are seeking a pristine, nature-based, adventurous experience at Mount Buffalo. • Does not believe five star luxury resort (including spa concept) is suitable for Buffalo's target market.
E	8 May 2018	• Organisation currently has 3 projects underway around Australia. • Actively involved in outdoor tourism sector. • Not interested in the Mount Buffalo opportunity due to current capacity.
F	5 July 2018	• Discussed the organisation's focus on short to medium term investment in existing ski activities in the region. • Accommodation and F&B are not their business focus or area of expertise. • Expressed interest in the operation of the Gorge Skywalk – more closely aligned with their business structure, expertise and current operations. • Could see this activation being successful at Mount Buffalo.

4. Project Activation

4.4 Private Market Responses (continued)

Org.	Engagement Date	Feedback
G	23 May 2018	• In comparison to the organisation's existing operations, Mount Buffalo is a relatively "accessible" region geographically. • From a market generation perspective, Buffalo as a destination that will attract many key markets, and will complement and grow the wider region. • Inhibitors as identified by the organisation include: o Cost of investment for private sector; o Infrastructure services must be in place to ensure success; o Compliance (eg, policy, legislative, planning, environmental) o Environmental political landscape; o Potential for adversity to change from key community members and stakeholders; o Working with Indigenous traditional owners through land use agreements – lengthy and uncertain process. • Expressed a necessity for any private developer / operator to be involved in the process *during* the design stage, to ensure practicality from an operational perspective. • A head lease was the most practical way forward for this organisation, rather than multiple interested parties. • Wanted to understand next steps, and to be kept up to date on the project progress.
H	30 June 2018	• The organisation identified Mount Buffalo as a destination that "ticked the boxes" • Victorian state significance • Mountain's accessible location within the High Country • Major attraction • The organisation disclosed that operationally, regional hotels are not a profitable component of the business, and are marginal at best. • Suggested a partner may need to be involved with the Buffalo activation due to development size. • A commitment from state government (eg, infrastructure upgrade) would get significant attention from the organisation, and could be the catalyst for thorough due diligence of the project opportunity. • Questioned if there may be an opportunity to wrap this project up with another state government asset in need of commercial activation, for efficiencies for the organisation. I.e. a packaged deal. • A competitive tender process ran by government with a commitment to invest would not worry the organisation. Believe there are very few organisations able to take on this opportunity.
I	13 June 2018	• Expressed interest in the Wilderness Eco-Cabins business opportunity. • Attracted to the relatively low level of capital required, and potential returns. • Lower-risk proposition

4. Project Activation

4.5 Engaged Community Member Responses

Key community members have been engaged through the early market sounding stage of the project in order to understand their position and insights on the *Vision for Mount Buffalo* proposal, and to gain further understanding from their experiences within the region.

For the purpose of respondent confidentiality, community members & local businesses who participated in the market sounding have been kept anonymous.

Community Member	Date	Feedback
A	9 May 2018	• Advised PwC to liaise with another active community member on behalf of respondent.
B	14 May 2018	• Key concern is the Vision for Mount Buffalo published by MBDAG does not reflect the community's position and opinion. • Key priority is to restore Chalet to it's original state. • Believes the Gorge Skywalk concept will negatively impact the natural beauty of the gorge.
C	19 June 2018	• Believes the wider community was not consulted through the creation of the Vision for Mount Buffalo document. Selected community members only from the immediate community - Bright / Porepunkah region. • Local outdoor tourism operators not invited into discussions. • Key sentiment expressed - "National Parks owned by all Victorians, not just locals." • Support the redevelopment of the Chalet, and was in support of the MGS plans in 2013 to demolish parts of existing building. • Believes the Chalet is better suited for budget accommodation, kids, students – not a high end market. • Keen to see adaptive re-use of existing buildings (eg, Dingo Dell) • Development sensitive to it's immediate context. • Asked the Taskforce to consider the wider environmental impacts of Mount Buffalo activation. • Noted there are over 4,000 commercial cafés in National Parks around Victoria. Why does a National Park need to be profitable? • Recent Point Nepean Master Plan provided a good case study for activation within a park. Not one head lease, multiple, mixed use activity, focus on visitor experience.
D	27 April 2018	• Uncertainty exists in the market around land tenure & capital investment. • These two items are the major obstacles for commercial investors / developers.
E	11 May 2018	• Eco-pods a great idea, and stronger offering than "glamping" – doesn't feel the need to compete with what is already a fantastic and very successful camp site offering at Lake Catani. • Adventure-based tourism is needed for the region. • Proposed extending the road to the Horn for road cyclists – increase cycling route popularity. • Suggested integrating F&B into the Gorge Skywalk activity. This would attract higher level of F&B.
F	10 June 2018	• Supported decision of the Baw Baw RMB to shift from government-run management to private operator. • Sees opportunities for private enterprise to invest in mountain resort. • Consider safety of road cyclists with additional vehicular traffic on Mount Buffalo. • Promotion of event calendar critical to success of mountain activation – regionally, domestically and globally.

4. Project Activation

4.6 Target Proponent Groups

The following key categories and industries have been identified as target proponents for the Mount Buffalo 'whole of mountain' market activation.

Due to the sensitive nature of this information, specific company names have been excluded from the list below.

Hotel & Tourism Operators

Opportunity

- Whole of Mountain
- Chalet / Eco Pods
- F&B
- Gorge Skywalk

Hotel & Resort Developers

Opportunity

- Whole of Mountain
- Chalet / Eco Pods
- F&B
- Gorge Skywalk

Ski Resort Owners / Operators

Opportunity

- Whole of Mountain investment
- Mt Buffalo Chalet
- Activity & Events at Cresta

Eco-Tourism Industry

Opportunity

- Whole of Mountain
- Gorge Skywalk
- Glamping / Eco Pods
- F&B
- Events & Activities at Cresta

Restaurant / Entertainment Developers

Opportunity

- F&B opportunity - Chalet
- Mt Buffalo Chalet Hotel
- Events & Activities

Tertiary Education

Opportunity

- Dingo Dell Outdoor Education Centre of Excellence
- New student accommodation at Dingo Dell

Victorian Public & Private Schools

Opportunity

- Dingo Dell Outdoor Education Centre of Excellence
- New student accommodation at Dingo Dell

Key Community Members

Opportunity

- Connection to Developers / Operators for investment and business opportunity

Investment Houses

Opportunity

- Whole of Mountain investment
- Select tourism activities

Local Food & Bev Providers

Opportunity

- Mt Buffalo Chalet
- Glamping / Eco-Cabins
- F&B
- Events & Activities

High Net Worth Families

Opportunity

- Whole of Mountain investment
- Select tourism activities

Relevant Consultants

Opportunity

- Connection to Developers / Operators for investment and business opportunity

5. Summary of Findings

5. Summary of Findings

Summary of Findings

An opportunity exists to enhance the current offerings available to the visitors of Mount Buffalo. This analysis shows that the majority of the concepts proposed in the *Vision for Mount Buffalo* will require support and capital contribution in order to be developed.

The economic and commercial feasibility analysis has identified the potential demand and benefits that could be derived from each of the proposed concepts, and correspondingly, the material level of capital required to achieve the concepts outlined.

The findings of our market engagement critically identified that the whole-of-mountain activation concepts as detailed in the *Vision for Mount Buffalo* are, for the most part, considered appealing to the private sector, and would drive significant broader investment into the region. In spite of this, the market is clearly attuned to the complexities and risks that are associated with a development of these concepts.

Our market engagement has further unveiled that at this early stage of the whole-of-mountain development Vision, the private sector is unwilling to dedicate significant resources and investment due to the challenges associated with the mountain in its current state (i.e. planning environment, lease tenure and significant capital infrastructure requirements), and that a firm Government commitment to address these areas would be needed in order to attract private sector investment.

Some concepts as currently envisaged are more realisable and tangible than others (i.e. Cafe in the Chalet and Wilderness Eco-Pods) as the capital requirements are relatively low, the risks more controllable and the benefit to the region considerable – financially, socially and economically.

It is of our opinion that the logical path forward is to develop a staged approach to developing the Vision for Mount Buffalo, commencing with this initial package of selected activation concepts:

- Concept 3: Café in the Mount Buffalo Chalet
- Concept 4: Wilderness Eco-Pods;
- Concept 6: Dingo Dell Outdoor Centre of Excellence; and
- Concept 1: Gorge Skywalk

The food & beverage option in the front of the Chalet as the first immediate stage, combined with the Wilderness Eco-Pods are appealing both conceptually and commercially, and would be strong contributors to the local region. The Gorge Skywalk and Dingo Dell Outdoor Centre of Excellence, whilst they do not produce risk adjusted returns that would be considered highly appealing by the private sector, we see a prime opportunity for each of these concepts to drive broader visitation to the region that could then act as a catalyst and underpin further development of the Mount Buffalo Chalet at a future stage.

A preliminary economic assessment has been conducted on this initial package on concepts in the same manner as each of the individual concepts in section 3.1. As noted in Section 3.1.7, there may be some overlap in expenditure for food and beverage when combining concepts together (as some whole of region expenditure of visitors to the gorge skywalk or Eco-Pods may occur at the Chalet Café). To be conservative, therefore, a proportion of whole of region expenditure has been reduced when presented as a package, assuming that one rest of region meal for each new visitor to the skywalk and Eco-Pods would occur at the Chalet Café (however not for Dingo Dell as the overnight accommodation is assumed to be all inclusive). This preliminary economic assessment is presented over the page.

It should also be noted (as also discussed in Section 3.1.7) that investing in several concepts as a package may stimulate more demand than each individual component. This has not been included in the preliminary economic assessments, but should be explored for further analysis for a business case.

5. Summary of Findings

	Combined package (Gorge Skywalk + Chalet Cafe + Eco-Pods + Dingo Dell)
Costs	
PV costs (capital and ongoing)	60,891,071
Use-value benefits	
Concept expenditure benefits only	PV benefit = 43,961,250 BCR = 0.7
Whole of region (concept + rest of region) expenditure benefits	PV benefit = 53,663,825 BCR = 0.9
Whole of region expenditure benefits + non-use value	BCR >1*
Non-use benefit gap analysis	
Cost benefit gap (present value)	7,227,246
Non-use benefit per year per adult Victorian	$0.05
Education surplus benefit per user	$29

* Potential BCR greater than one based on a reasonableness test on the non-use value.

This gap analysis shows that, for example, the benefits of this combined package of concepts will outweigh the costs, if each adult Victorian resident values the investment at $0.05 per year and each visitor to Dingo Dell receives an education surplus of $29. These represent minimal values indicating the non-use and education benefits delivered may likely exceed costs, which in turn could make this a feasible investment in broader economic terms.

In addition, a gap analysis test was undertaken on skywalk visitation, as this is the largest unknown (as it is highly dependent on the commercial operator of the concept). Annual skywalk visitation of approximately 37,900 annual visitors (compared with the conservative estimate used in this feasibility assessment of 25,400) would also mean this preliminary benefit cost ratio (of the combined package) would be greater than 1 before consideration of non-use benefits.

We believe this initial package of concepts noted above has a greater chance of gaining traction due to their broader government appeal, and would ultimately underpin further investment, increased visitation and activation of Mount Buffalo and the Chalet.

For any activation to be considered seriously by the private sector, our findings show that the market needs the support and commitment of government – both its capital contribution and its backing in terms of ongoing promotion and support.

Mount Buffalo Business Case Assessment

Appendices

September 2018

Presented to: Mount Buffalo Business Case Assessment Taskforce

A. Vision for Mount Buffalo document

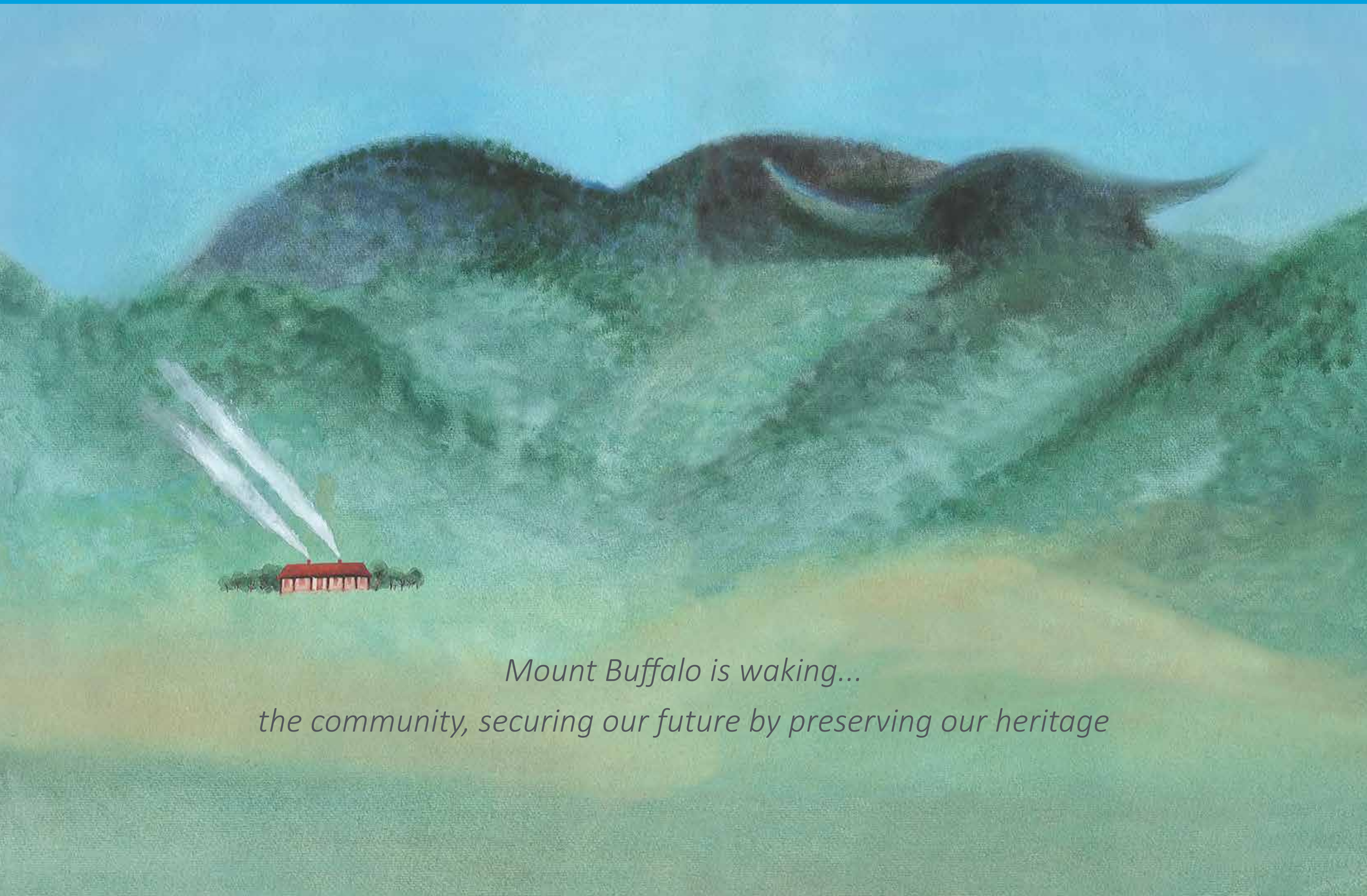
VISION FOR MOUNT BUFFALO

Mount Buffalo is waking...a community driven concept plan

MOUNT BUFFALO DESTINATION ADVISORY GROUP

FEBRUARY 2017

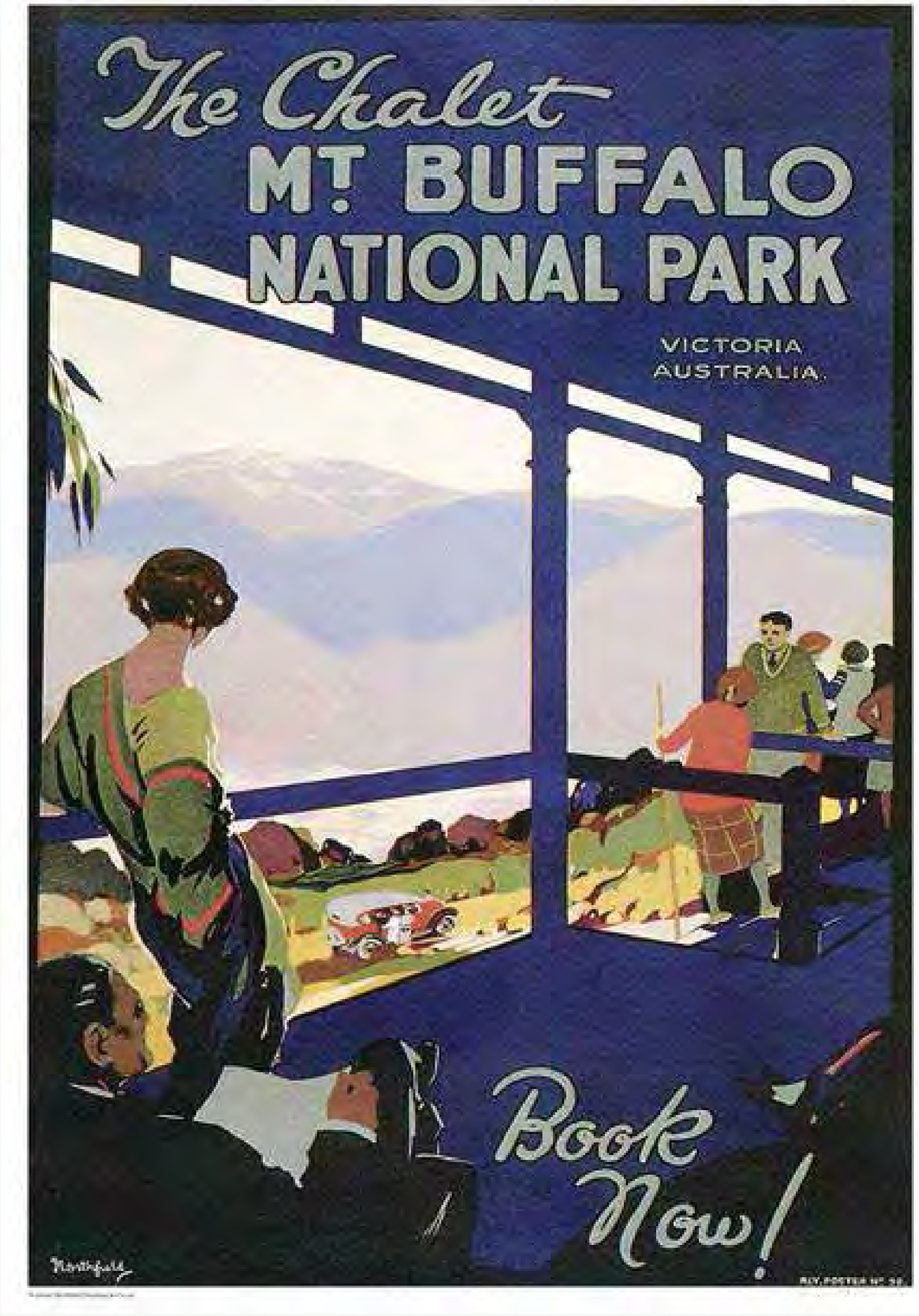
Vision for Mount Buffalo



Mount Buffalo is waking...

the community, securing our future by preserving our heritage

Contents



Vision for Mount Buffalo

Foreword

"We can see the future...and it's exciting. We can't promise it will be easy, but many of our Nation's iconic achievements have taken courage, imagination and an entrepreneurial vision.

Having said that, on behalf of the Mount Buffalo Destination Advisory Group (MBDAG), we are delighted to present this 'Vision for Mount Buffalo' as a gift from the community; for a mountain that is as geologically and culturally significant as Uluru, with heritage values as old as Flinders Street Station, and High Country adventure activities as spectacular as anywhere in Australia.

As you read, we ask you to understand that this has been produced entirely by individuals who have donated their time with no funding support, to set the scene as a new way for community to drive sensational outcomes in partnership with government.

It is fresh 'blue sky' thinking that came about due to various unsuccessful attempts to find a solution for the Chalet. Over the past decade, a significant number of people have had a worthy vision but their plans were never coordinated as one whole-of-mountain vision. Our analogy is that plenty of people were playing instruments in their bedrooms, a few meeting up in the garage for a jam, but no one ever invited them to the auditorium to play music together. The MBDAG has been the conductor that tapped the lectern and this is what we have produced: A vision to make the whole of Mount Buffalo a thriving destination, incorporating sound economic strategies to ensure the security of the investment.

This vision has been produced by more than 200 active volunteer participants, along with the inclusion of vital documents and studies from the past decade; strategies and possibilities that were prepared at different times for different interest groups but never quite captivated the attention of the leaders of our successive governments.

So, what are we asking? We are asking that Government acts in its powerful position to provide leadership to this whole-of-mountain vision. The only concerns we have heard may be summarised as: "It's a Government-owned building and its responsibility, what can we do?" Well, we can provide the blueprint for Government to drive an 'all-of-mountain' vision, based on a Public Private Partnership, with a strong ethic of maintaining the significant cultural heritage and nature based assets while looking to inspire a key regional centre for entrepreneurial education, hospitality and nature based tourism.

Please read this as a commitment from our community to following the State Government's policies to listen to communities about what they want, and for us then to work together to deliver it."

Janelle Boynton, Chair, Mount Buffalo Destination Advisory Group

1.0 Our Vision – a Whole of Mountain Approach

Our plan aims to establish Mount Buffalo as a reinvigorated, year-round alpine destination that leverages its cultural, heritage and natural assets to become a unique centre for entrepreneurship, education, hospitality and tourism. In doing this, it is envisaged that Mount Buffalo will become a destination icon, driving positive social, economic and environmental outcomes for the entire region. This will be delivered through a focus on:

- Business operations;
- Training and employment opportunities;
- Products;
- Services; and
- Reinvestment.

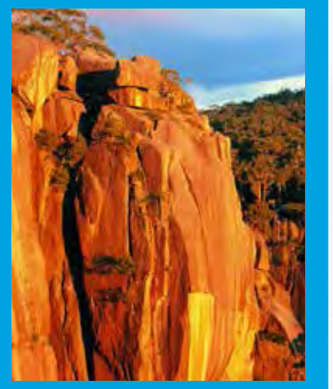
This plan looks to provide a framework through which this vision can be realised by community working with the Victorian Government. It identifies the various components required to activate, connect and grow the mountain offering and in doing so proposes a whole-of-mountain approach to the enhancement and development of the destination.

This approach recognises that there is no one individual initiative that will transform Mount Buffalo. Instead, a number of diverse and complementary solutions are required to change the future of this unique destination, leveraging opportunities across various user groups and sectors to deliver a vibrant and sustainable Mount Buffalo.

Section 4 of this document addresses the various components of the Mount Buffalo offering, providing concepts for each part of the mountain experience. These components geographically align with four key visitor hubs or nodes that are consistent with Parks Victoria's own current approach to the future of the destination. This includes the development of:

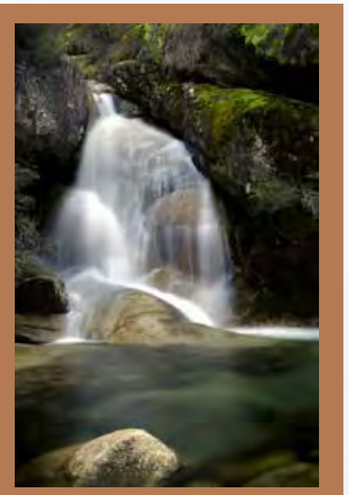
- The Gorge and Chalet Village precinct as the primary visitor area, containing a range of tourism experiences;
- Lake Catani as the area that allows visitors to immerse themselves in the natural surrounds byway of a range of standard and high-end camping options;
- Dingo Dell as the destination's new centre for outdoor education; and
- Cresta Valley as the mountain's day lodge and activity precinct.

Gorge & Chalet Village Precinct



- Chalet Day Visitor Lodge & Cafe;
- Mount Buffalo Gorge & Glass Bottomed Sky-walk
- Parks Information Centre;
- Accommodation & Function facilities;
- Spa & Wellness Centre;
- Hospitality Education Centre;
- Ice & Roller Skating Rink;
- Restaurants & Bars;
- Retail & Activity Operators.

To Bright / Porepunkah

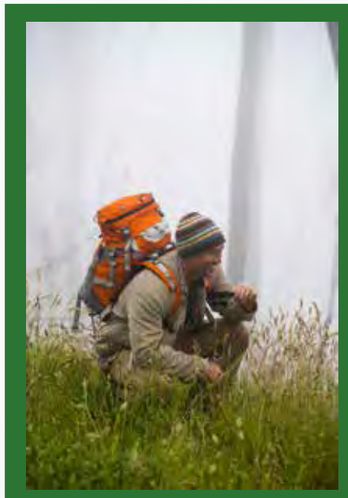


Mountain Gateway

- Parks Victoria Office;
- Visitor Information Centre;
- Virtual Reality Visitor Experience Cinema;
- Walking Trail Head

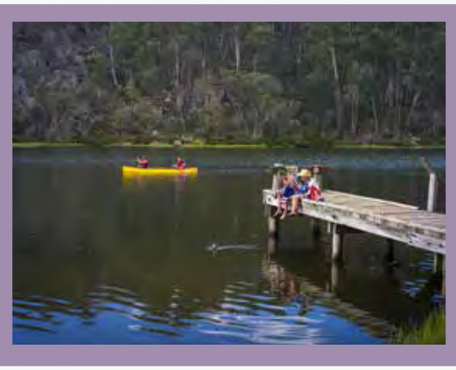
Transport Hub

- Resort Overnight Parking;
- Resort Pick-up/ Drop-off Terminal;
- Park Maintenance Facilities Depot & Offices.



Dingo Dell Outdoor Education Centre

- Outdoor Education Training Centre;
- Environmental Education Centre.



Lake Catani Camping Ground

- Camping;
- 'Glamping';
- Fishing;
- Canoeing;
- Swimming;
- BBQ & Picnic Facilities;
- Walking & Biking Trail Heads.

Cresta Valley Day Lodge & Alpine Centre

- Day Lodge & Visitor Information Centre;
- Cresta Cafe;
- Snow play & equipment hire;
- Nature-based activities;
- Walking Trail Head;
- Day Parking & Pick-up/ Drop-off.

Map Key

- Existing Trails
- Future Linkages
- Roads
- Tourism / Activity Nodes

2.0 Introduction - MDAG

DETERIORATING: Members of the Community Action for the Chalet group are concerned the Mt Buffalo Chalet won't hold up against the mountain's harsh elements for much longer and are pushing for redevelopment works to start as soon as possible. PHOTO: David Jacobson

Group aiming to give Buffalo Chalet a voice

The Alpine Observer, 5th August 2015

The Mount Buffalo Destination Advisory Group (MBDAG) was established in November 2015 to work collaboratively with Parks Victoria to provide strategic recommendations about the future of Mount Buffalo. MBDAG acts as a conduit between Parks Victoria, other government entities and local business and community members with an interest in the revitalisation of the destination, particularly efforts associated with the iconic Mount Buffalo Chalet.

The Group was appointed by the Minister for Energy, Environment and Climate Change, and includes members from Alpine Shire Council, Community Action for the Chalet, Tourism North East, Taungurung Clans Aboriginal Corporation and an independent local heritage building specialist. This group works collectively to establish Mount Buffalo as a thriving and sustainable alpine destination with unique cross-sector appeal.

In order to realise this goal, MBDAG has adopted a 'blue sky' approach to Mount Buffalo, engaging a broad range of commercial, community and government representatives (outside of the Parks Victoria framework) who have the skills and experience required to develop innovative solutions for the enhancement of the destination.

MBDAG has worked diligently with this network over the past six months to develop game-changing ideas that have the power to transform and reinvigorate Mount Buffalo. These efforts have culminated in the development of the *Vision for Mount Buffalo* concept – a holistic, solutions-based approach to the future of Mount Buffalo that considers all aspects of the destination and potential market opportunities. This concept is unique in that it adopts a whole-of-mountain approach, linking natural, heritage and man-made assets and considers cross-sector applicability. This differs from past efforts that focused exclusively on the development of the Mount Buffalo Chalet in isolation from the rest of the destination.

This concept has been produced on an entirely voluntary basis by more than 200 proactive and committed stakeholders who are looking to establish a new dynamic between community and government. Mount Buffalo represents a world class platform for the development and delivery of a sustainable, community-led economic and social transformation.

This proposal describes a series of interlocking opportunities which could combine to deliver a range of powerfully positive outcomes throughout the region. Importantly, it presents a case for government to support a new and sustainable vision for Mount Buffalo National Park.

Our Partners sharing the vision...

Mount Buffalo
a world apart

3.0 Mount Buffalo - an overview

3.1 Natural Attractions – A World Apart

Mount Buffalo is a tall mountain plateau located 325 kilometres northeast of Melbourne, situated within the Mount Buffalo National Park in the Australian Alps. Managed by Parks Victoria, Mount Buffalo National Park covers 31,000ha, representing a significant component of the State's park system that contains outstanding natural values.

The mountain features giant granite boulders, deep gorges, tumbling waterfalls, snow gum woodlands and masses of wildflowers, which combine with views of the nearby Alps to provide an unforgettable experience for visitors.

During summer, visitors enjoy bushwalking, canoeing, swimming, picnicking, sightseeing and mountain biking, along with adventure activities like rock climbing, abseiling and hang gliding. In winter, snow blankets most of the plateau and attracts families for back country touring, tobogganing, snow play and cross-country skiing.

3.2 Mount Buffalo Chalet – an Undisputed Icon

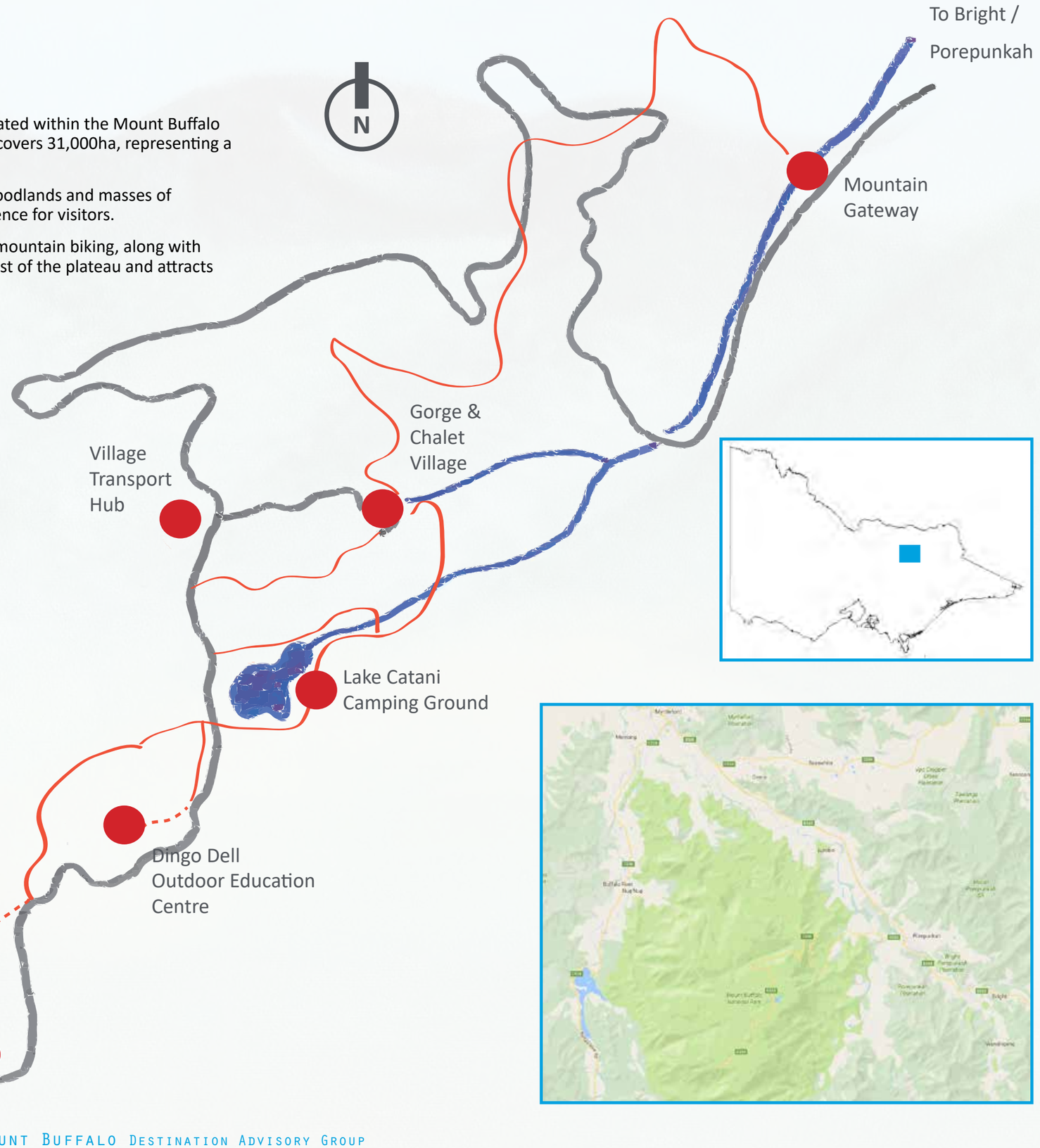
Mount Buffalo's striking natural landscape provides an idyllic backdrop to the destination's most renowned man-made asset – the magnificent Mount Buffalo Chalet.

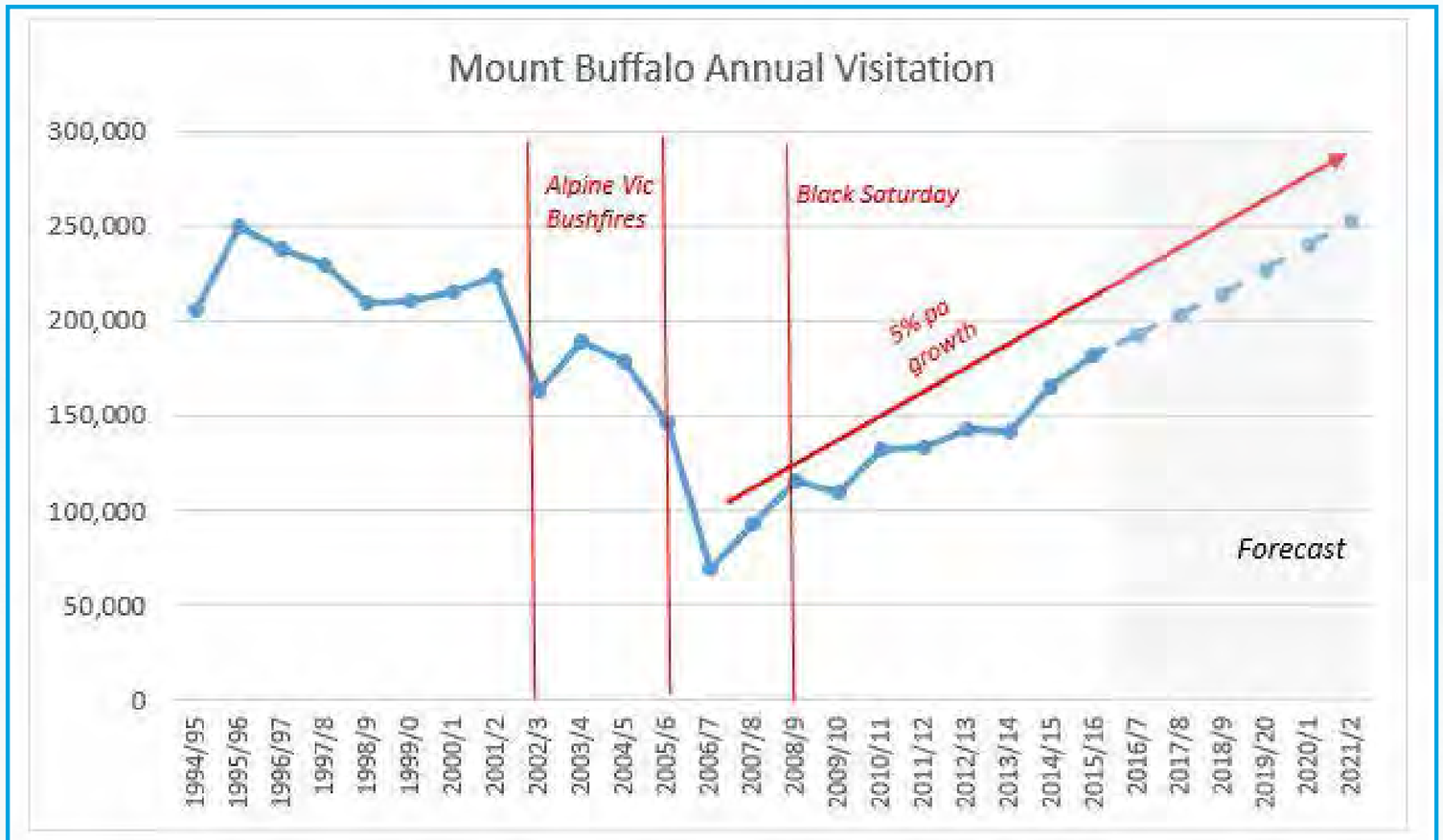
The Mount Buffalo Chalet was built on the Mount Buffalo plateau in 1910 after the first road opened to the summit. With uninterrupted views across the valley from the Gorge, the Chalet has a spectacular and unique outlook that has attracted visitors for over 100 years, which has contributed to its status as a true Victorian heritage icon.

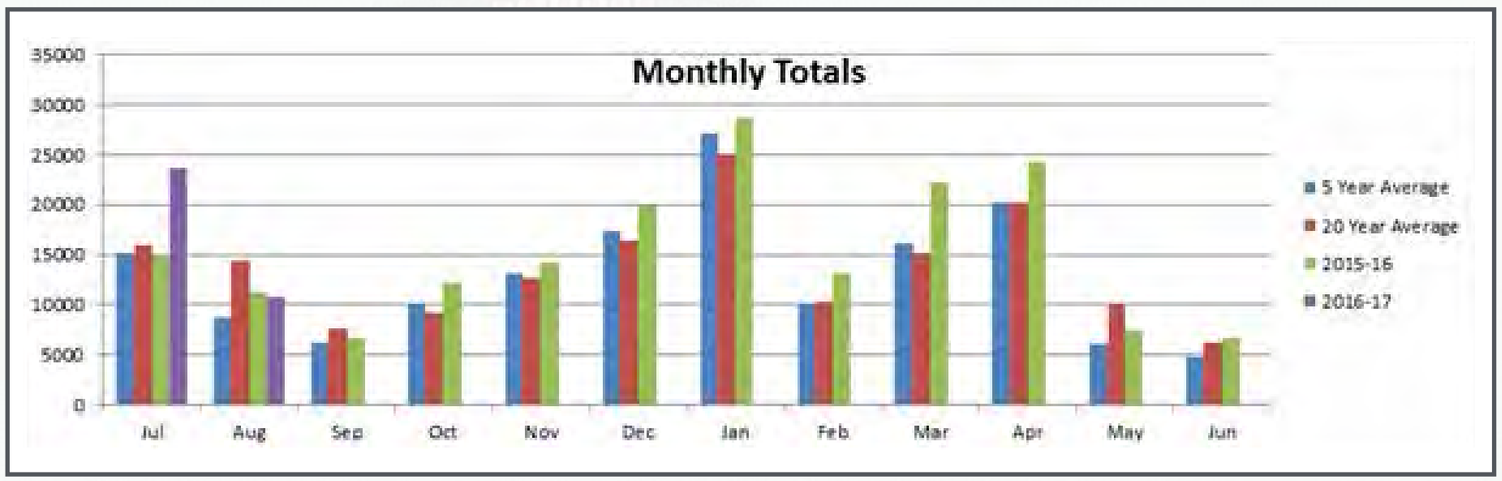
The Chalet was government-owned and managed by various private lessees between 1910 and 1924 before being transferred to the Railways Department, which managed the building until 1985, when it was passed back to the government under the auspices of the Tourism Commission. In 1993 it was leased privately once again.

The Mount Buffalo Chalet closed in 2007 following the bushfire event and what became an increasingly challenging business environment. After a failed attempt to secure a new lessee, management of the Chalet was handed back to the Victorian State Government in 2009 and Parks Victoria has managed it ever since.

While it is currently closed, the Mount Buffalo Chalet still attracts crowds of visitors who are intrigued by the building – one of the largest Chalet complexes in Australia – and its exceptional heritage attributes.







3.3 Growing Visitation

Mount Buffalo attracts 181,000 visitors per year despite offering limited facilities and amenities, or yield-generating tourism experiences. Importantly, this visitation continues to grow at an impressive rate of 5% per annum, presenting unique leverage opportunities for government, commercial and community operations.

The most recent peak visitation to Mount Buffalo was in 1995/96, when some 250,000 people visited the mountain. However, after the Victorian Alpine fires of January 2003 and 2006, and the loss of Cresta Lodge, the mountain experienced a steep decline in visitation that contributed to the closure of the Mount Buffalo Chalet in 2007.

Whilst visitor numbers remain lower than those of pre-2003, visitation continues to consistently increase, demonstrating the strong appeal of the destination amongst current visitor markets. If an annual growth rate of 5% is maintained, it is expected that visitation levels of 250,000 could well be reached again, delivering a significant boost to the regional economy provided that appropriate infrastructure is put in place to nurture and capture it.

3.4 Destination Development – Opportunities Missed

For over 100 years, development at Mount Buffalo National Park, while extensive, has not been well planned or coordinated. Various proposals for investment, while passionate and articulate, have not delivered an operating model which would deliver and sustain the stream of benefits that the mountain promises. There has never been a coordinated master plan that links all of the natural and man-made assets, including the Chalet. As a consequence, the vital interconnection between these assets has been missing, negatively impacting the destination's tourism potential.

Over the last ten years, various private and government-driven projects have been launched and have unfortunately failed. It is a widely-held view that many opportunities have been lost because the business models have never been appropriate. There has been an absence of coordination, cooperation, goodwill and trust between community and governments, which has led to a regrettable loss of regional development in this jewel of Victoria.

4.0 The Concept - Hubs and Precincts

4.1 Tourism Attraction – the Gorge Skywalk

Overview

While Mount Buffalo currently attracts 181,00 visitors annually, they generate little to no yield for the destination. Without a viable revenue stream, investment in broader destination development is difficult to justify and/or sustain. With this in mind, the development of a major tourism attraction is proposed for Mount Buffalo that can drive significant visitation and yield outcomes for the mountain, and sustain future destination growth.

The development of a large-scale tourism attraction would provide a valid revenue stream for Mount Buffalo, and drive the level of visitation volume required to support investment in other destination facilities and services. In this way, the development of an attraction is seen as the lynch-pin for activation of the entire destination.

A high-profile attraction developed in accordance with sustainable eco-tourism management practices would establish Mount Buffalo as a vibrant nature-based hub that acts as an iconic tourism drawcard for the entire region.

Concept

In 2012, Tourism North East commissioned research[1] into the tourism product gaps that existed in the High Country. This research identified 'facilitated nature-based activities' as a priority product gap and tested a range of tourism concepts that had potential to address this void.

Of the concepts tested, the Mount Buffalo Gorge Walk – a glass bottomed walkway allowing visitors to traverse 50 metres across the granite rock gorge of Mount Buffalo (similar to the Grand Canyon Skywalk adjacent to right) generated the highest levels of potential regional visitation, with 63% of respondents claiming they would travel specifically to the region to experience the attraction. The appeal of this concept was driven by its celebration of the region's natural beauty and its uniqueness. Mount Buffalo is an iconic nature-based destination and a cantilevered walkway strongly appealed to the audience's desire for an easily arranged/facilitated activity that was invigorating and exhilarating.

As various glass-bottomed attractions can be found globally, there must be consideration for what can be incorporated into the Mount Buffalo offering to distinguish it from competitors, and even take the lead in this space. Options include attachments to the skywalk that offer adrenaline fuelled experiences – like a bungee experience or a giant swing, or even an 'in-air' dining option that capitalises on the uninterrupted views – all of which could further enhance the profile of the offering, broaden its market appeal, and create additional revenue opportunities.

Market testing indicates that a major tourism attraction like the Mount Buffalo Gorge Walk would become a 'must do' activity for visitors to the High Country. It is expected to become an iconic product that acts as a true regional drawcard that would deliver a significant uplift to the visitor economy. It has the potential to act as a lynch-pin to the ongoing development of Mount Buffalo as a leading nature-based tourism destination, as well as advancing the activation of the entire north-east of Victoria, drawing visitors from across the State and beyond.

urcham. ©2013 *All Rights Reserved.*

SGS Economics and Planning, Aug 2012: *North East Victoria Tourism Gap Analysis* 1

The impressive visual impact and associated experience that such an attraction would offer would ensure high levels of media attention, social media exposure and word-of-mouth promotion. This would drive sustained interest and participation in Mount Buffalo NP and would also raise awareness of the greater High Country tourism offering – a current impediment for potential visitors to travelling outside of Melbourne.

As such, investment in a high-profile tourism experience is likely to deliver significant and ongoing returns to regional Victoria. It would also align with State strategy associated with achieving a leading position in the nature-based tourism market, through the development of sustainable tourism offerings that are supported by public and private efforts and deliver experiences that ensure high levels of visitor engagement.

In order to progress this opportunity, the scoping of the concept is recommended with consideration given to:

- Analysis of world's best practice cantilevered tourism products detailing key success factors, planning design and construction, visitation, tourism spending and economic benefits. This includes consideration of capital and operational costs, management and marketing strategies;
- Concept design including an assessment of site suitability/viability;
- Full design and construction costing estimates, along with ongoing maintenance costs;
- Associated amenity planning, design and costing – like toilets, parking, walkways and signage;
- Economic Impact Assessment – price point assessment, revenue projections, cost-benefit ratio and return on investment calculations; and
- Risk analysis.

4.2 Mount Buffalo Chalet and Village

Overview

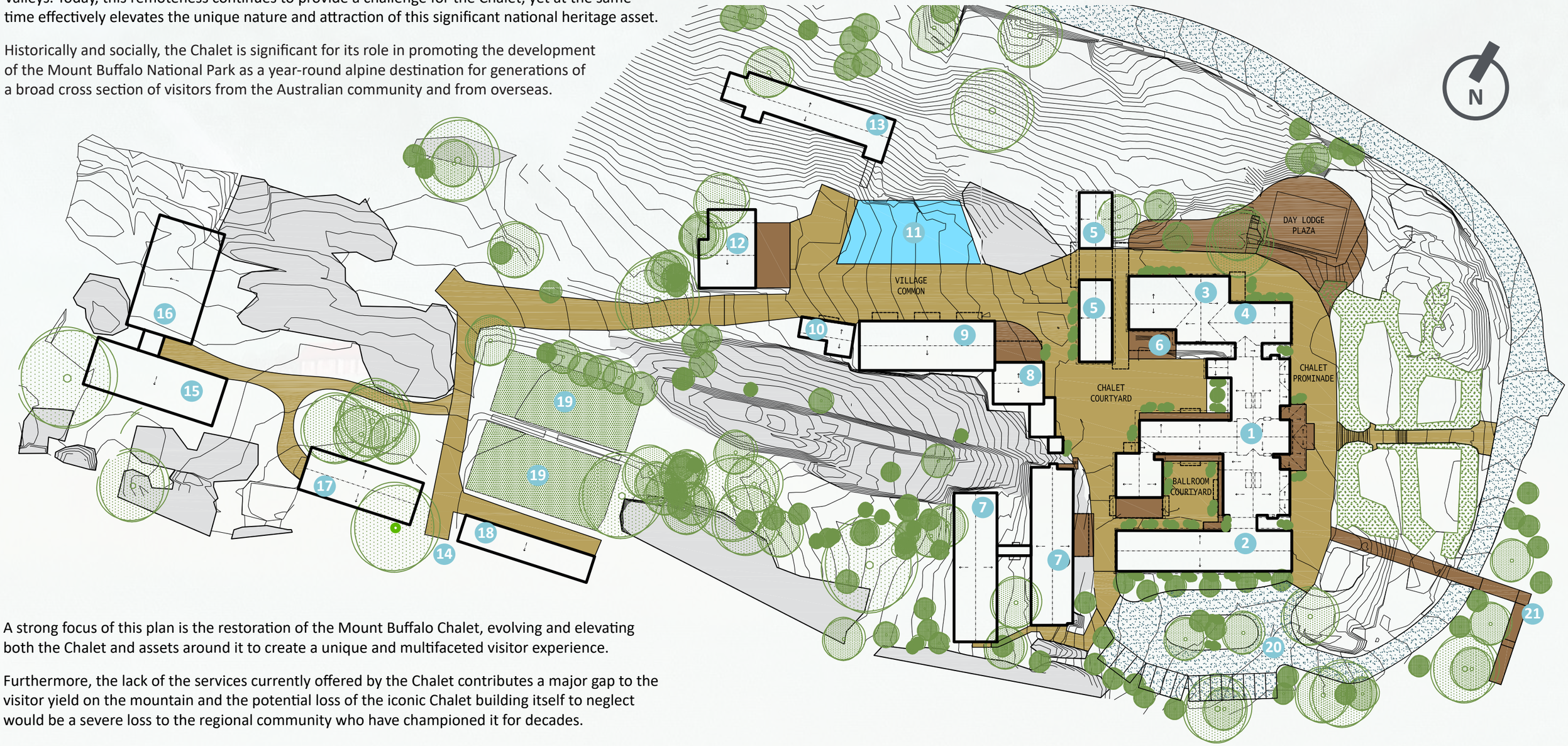
The Mount Buffalo Chalet provides a unique natural and cultural experience with breathtaking views and a sense of history that is unmatched by any other site in Australia. The setting of the historic building and its manicured terraced garden, which sit amongst granite outcrops, provides a unique experience that is unsurpassed in the region.

The remote location of the site is extraordinary, perched on an immense shear granite cliff face of The Gorge, with exceptional views of the Great Dividing Range and the Buckland and Ovens Valleys. Today, this remoteness continues to provide a challenge for the Chalet, yet at the same time effectively elevates the unique nature and attraction of this significant national heritage asset.

Historically and socially, the Chalet is significant for its role in promoting the development of the Mount Buffalo National Park as a year-round alpine destination for generations of a broad cross section of visitors from the Australian community and from overseas.

Plan Legend

1. *Mt Buffalo Chalet*
2. *Chalet Suites*
3. *Day Lodge*
4. *Park Office*
5. *Mt Buffalo Training Centre*
6. *Courtyard Performance Space*
7. *Mt Buffalo Hostel*
8. *Pump House Bar & Cafe*
9. *Retail & Activity Centre*
10. *Chalet Ice Skating*
11. *Skating Rink*
12. *Mechanics Bar & Function Centre*
13. *Staff Accommodation*
14. *Village Trail Tead*
15. *Day Spa & Pool*
16. *Mt Buffalo Spa Hotel*
17. *Stables Chapel & Function Room*
18. *Storage Sheds*
19. *Tennis Courts*
20. *Staff Accommodation Drop-off & Short Term Parking*
21. *Gorge Pedestrian Overpass & Universal Ramp*



A strong focus of this plan is the restoration of the Mount Buffalo Chalet, evolving and elevating both the Chalet and assets around it to create a unique and multifaceted visitor experience.

Furthermore, the lack of the services currently offered by the Chalet contributes a major gap to the visitor yield on the mountain and the potential loss of the iconic Chalet building itself to neglect would be a severe loss to the regional community who have championed it for decades.

Artists Impression
Day Lodge Plaza
by DE atelier Architects

Artists Impression
Chalet Courtyard
by DE atelier Architects

Concept

Mount Buffalo Chalet

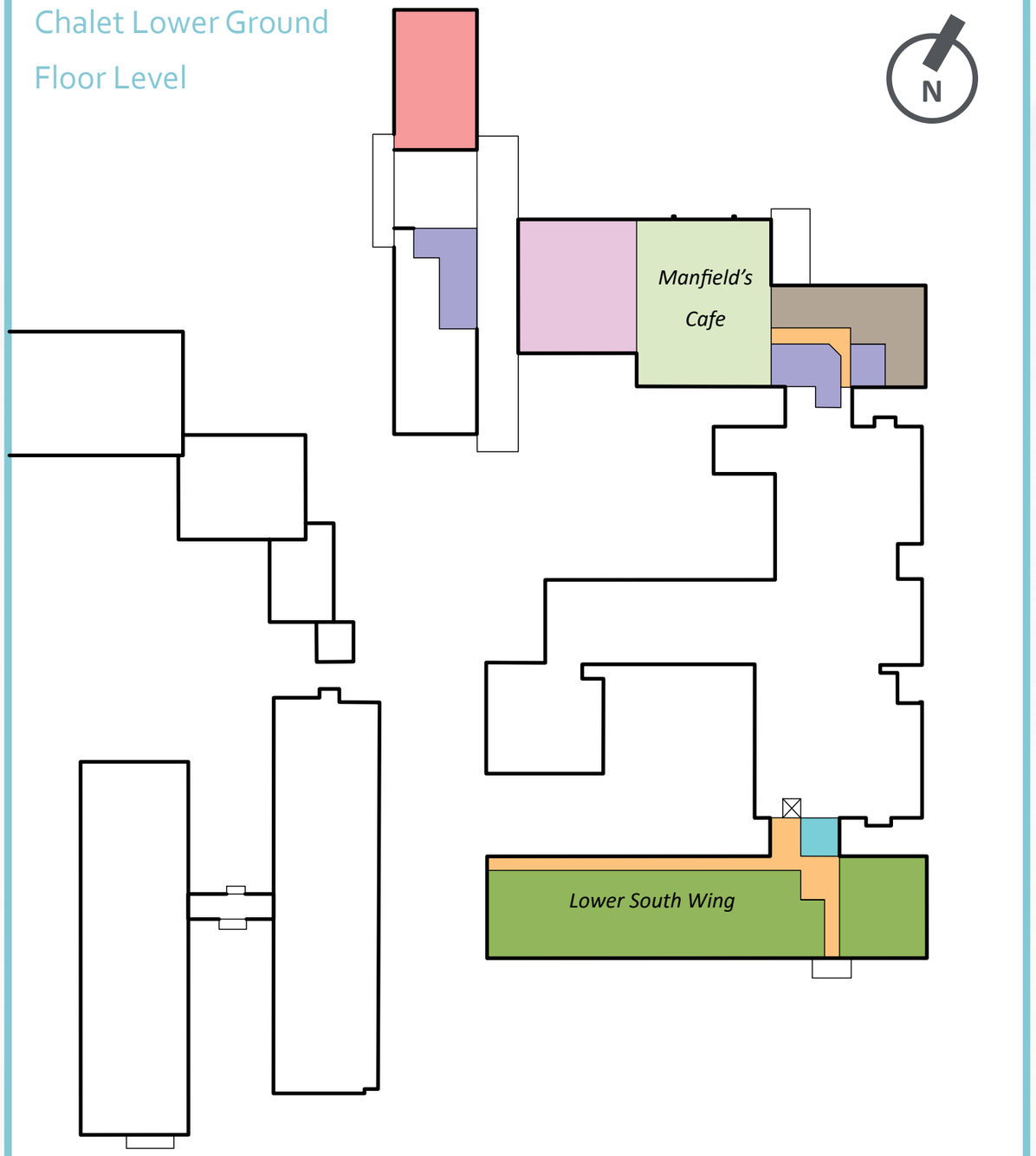
The Mount Buffalo Chalet acts as a significant tourism drawcard in its own right. Properly activated, it has the potential to make a viable contribution to the visitor experience and mountain economy. Furthermore, the implementation of a large-scale tourism attraction like the Gorge Walk would necessitate the development of supporting amenities and services for both day and overnight visitors, which would be ideally placed within the Mount Buffalo Chalet.

As such, this concept calls for a repurposing of up to 95% of the Chalet's existing building infrastructure, reactivating it as an accommodation and day lodge facility. This includes:

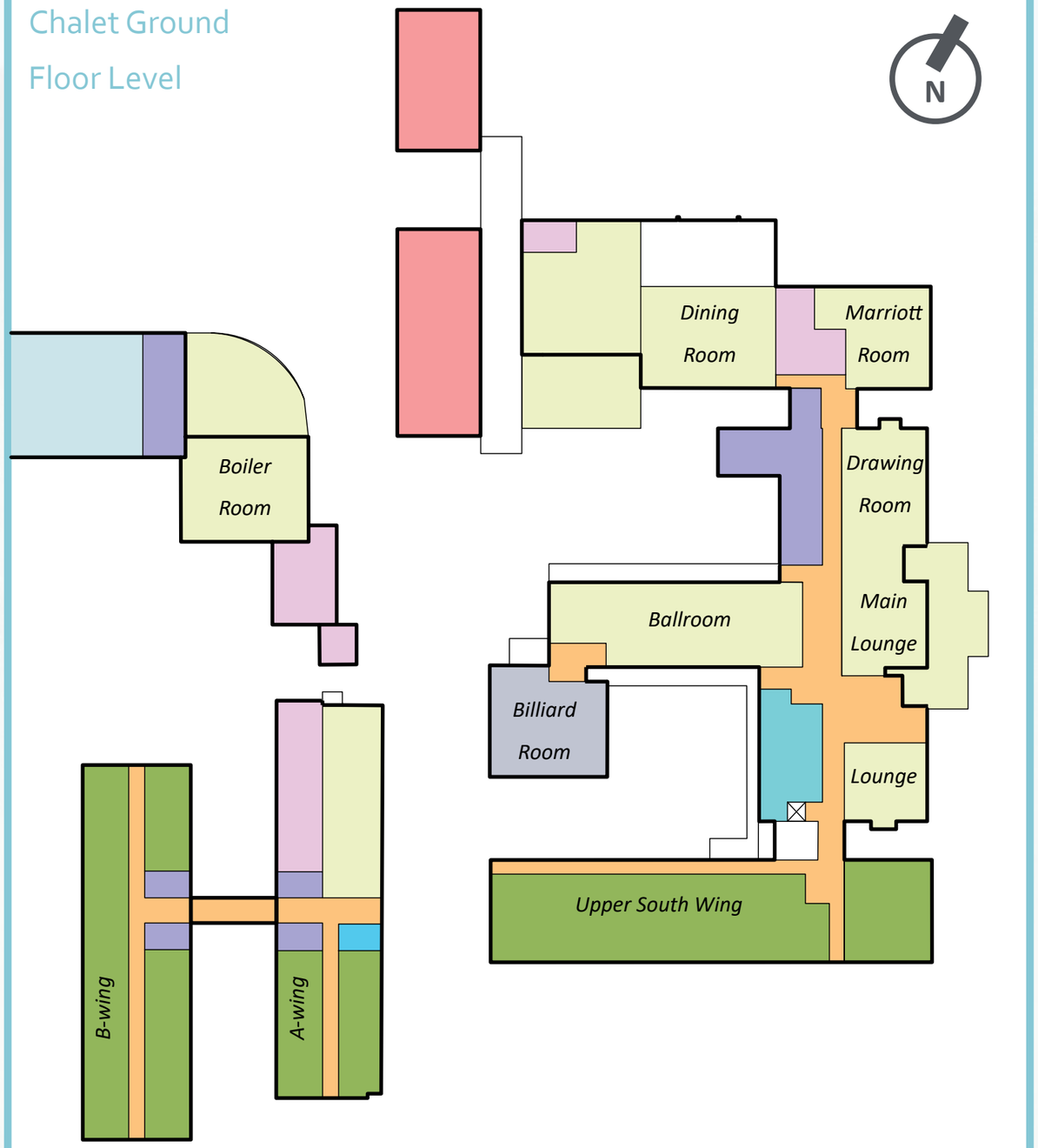
- Redeveloping the South Wing of the Chalet to offer high-end suites, including utilisation of the significant attic space in this area to create an additional level. This would create 42 full-size, well-appointed rooms with ensuites, all enjoying a coveted external view;
- Separating and transforming A and B Blocks ('Siberia') into the Mount Buffalo Hostel, utilising the original design of compact rooms and communal bathrooms to offer economical school and group accommodation. Comprising 32 rooms and its own kitchen and living space, this self-contained redevelopment also incorporates an extra level, as a roof attic;
- Offering a day lodge in the former Manfield's Café, with an external north-facing alfresco terrace. This would provide amenities and improved day visitor experience in the form of food and beverage, relaxation, shelter and information;
- Developing a Parks Victoria office in proximity of the Day Lodge that provides the organisation with an effective on-mountain presence and the ideal location for visitor interaction; and
- Converting the north-western former staff accommodation building into open learning and collaborative space – a versatile training centre to support a broad range of training programs, seminars and conferences offered across government, private enterprise, educational institutes and special interest groups. This would effectively complement the proposed accommodation offering.

Vision for Mount Buffalo

Chalet Lower Ground Floor Level



Chalet Ground Floor Level



Accommodation

Circulation / Store

Administration

Amenity

Day Lodge

Parks Administration

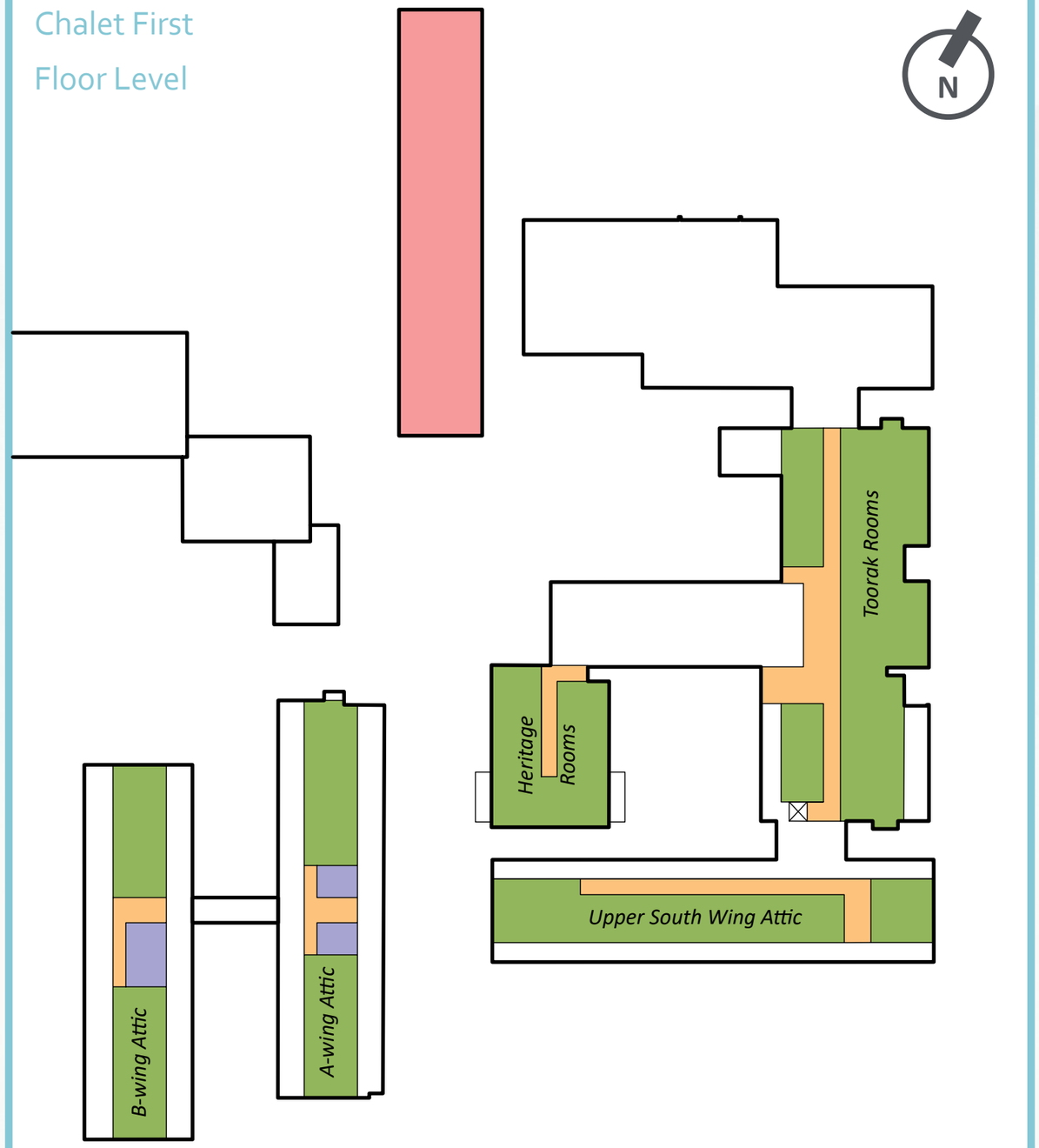
Hospitality (Front of House)

Hospitality (Back of House)

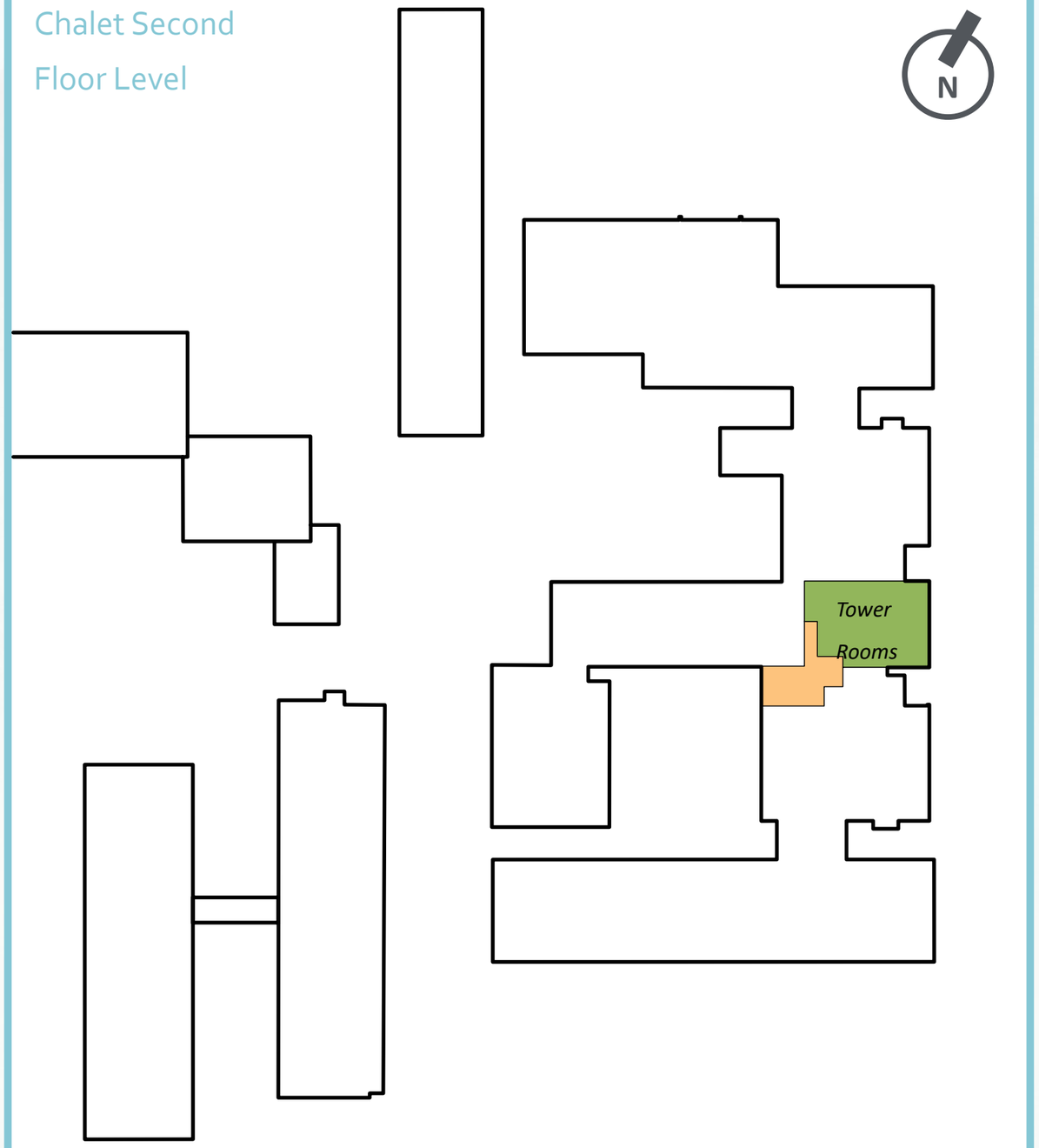
Activity / Retail

Training

Chalet First Floor Level



Chalet Second Floor Level



Accommodation

Circulation / Store

Administration

Amenity

Day Lodge

Parks Administration

Hospitality (Front of House)

Hospitality (Back of House)

Activity / Retail

Training

Vision for Mount Buffalo

Mount Buffalo Village Activation – Existing Buildings

Rather than redevelop this 'grand old lady' in isolation, the renewal and repurposing of existing buildings located on the Chalet site is recommended, fully utilising land than has already been disturbed and developed.

Existing ancillary buildings are proposed to be adapted to accommodate new visitor services, creating an integrated pedestrian focused mountain experience that would essentially form a Mount Buffalo Village. The activation of existing buildings would create a frame for new public areas that allow the Mount Buffalo Chalet to be experienced and appreciated from a new perspective.

The development of a Village offering would also ensure the more effective servicing of existing and potential visitors, as well as stimulating a new range of commercial opportunities.

Key to this concept is the development of a Village centre to the rear of the Chalet that would maximise the use of existing ancillary buildings, including (but not limited to):

- Transforming the existing mechanics workshop into a barn-style bar and function centre that offers a unique point of difference;
- Developing the existing stable site into an events space, possibly including a chapel to support hosting on-site weddings;
- Creating boutique commercial opportunities within garages, sheds and other site features and small scale intimate retail experiences at the village centre – ideal for tourism operators, food and beverage, arts and culture and retail outlets;
- Creating a performance stage in the original courtyard garden setting that could be used to support live entertainment or other functions;
- Providing expanded recreational facilities around the tennis courts and surrounding areas; and
- Utilising the former 'Treetops' staff facility for staff accommodation.

Additional activation in support of the Village centre could include upgrading the existing tennis courts, developing an outdoor, year-round ice skating/roller blading rink and establishing limited-use parking for accommodation guests.

While previous plans for the Chalet site looked to demolish up to 70% of the surrounding buildings, this plan looks to utilise 90-95% of the entire Chalet complex footprint. The cost of delivering this concept component would vary according to scale, functionality, extent and quality of the construction.

INTERNAL BUILDING AREAS

	Accomm.	Common/ Circulation	Admin.	Amenities	Hospitality FOH	Hospitality BOH	Activity/ Retail	Training Spaces	Parks Admin.	Day Lodge Café (FOH)	TOTAL
CHALET											
Lower Ground	333	94	13	44		140			84	197	**905**
Ground	333	263	64	89	834	58	107				**1748**
First	699	176									**875**
Second	87	33									**120**
TOTAL	1452	566	77	133	834	198	107	0	84	197	**3648**
EDUCATION CENTRE*											
Ground				40				103			**143**
First				42				270			**312**
Second (in existing. roof space)								156			
TOTAL	**0**	**0**	**0**	**82**	**0**	**0**	**0**	**529**	**0**	**0**	**455**
SCHOOL ACCOMM/HOSTEL											
Ground (existing)	387	132	10	44	101	69					**743**
First (in existing. roof space)	278	38		46							**362**
TOTAL	**665**	**170**	**10**	**90**	**101**	**69**	**0**	**0**	**0**	**0**	**1105**
OTHER BUILDINGS											
Service Sheds Retail				47			404				**451**
Pump House Bar/Cafe					117	64					**181**
Mechanics Garage Restaurant				35	135	62					**232**
Stables Chapel/Function Rm					287						**287**
Art Deco Garages			180	26							**206**
Horse Paddocks Spa & Hotel (NEW)	1750	300	50	75	225	50	550				**3000**
Staff Accommodation Building											**680**
AW Keown Lodge (Dingo Dell)			56	56		32		310			**454**
Gateway Building (NEW)				50	50	35	290		75		**500**
Cresta Day Lodge (NEW)		50	50	100	300		125	90	35		**750**
Transport Hub (NEW)			200	50					150		**400**
Lake Catani Cabins	250			60							**310**

OTHER	Area (sq.m)	Length (m)
Village Pedestrian Paved Areas	4985	
Village Day Plaza Deck	805	72
Pedestrian Bridge to Gorge	210	
Tennis Courts	105	
Ice Rink	45	

* Village Education Centre not yet planned.
Anticipated spaces will include various size flexible teaching spaces, circulation & office

Chalet Accommodation Summary	
Lower Ground	9
Ground	9
First	22
Second	2
Chalet Rooms - TOTAL	**42**
Spa Hotel Accommodation	
Estimate room average (sq.m)	37
Estimate no. rooms in existing GF area	**47**
Chalet & Hotel Rooms - TOTAL	**89**
Hostel/Student Accommodation A-B Wings	
Estimate room average (sq.m)	12
First Floor Dorm Rooms (avg size sq.m)	69.5
Estimate no. rooms in existing GF area	**32**
Accommodation - TOTAL ROOMS	**121**

New Village Development – Mount Buffalo Spa Retreat and Hotel

While the redevelopment of existing buildings ensures full utilisation of existing mountain assets, the development of new infrastructure – in the form of a Spa Retreat and Hotel – would complete the visitor experience.

Located about the old Horse Paddocks above the Mount Buffalo Chalet Village, the Mount Buffalo Spa Retreat Hotel would provide a wellness and health sanctuary, with stunning views, in a private and peaceful setting. This location is considered as pre-existing disturbed land, sitting at the Western end of the existing lease perimeter and does not, therefore, interfere with the heritage significance of the original Chalet complex.

This facility would complement the Chalet offering through the provision of an all-season visitor and activity venue that includes an indoor swimming pool, wet and dry saunas and relevant support services and classes (like yoga and pilates). The additional 47 hotel rooms included within the facility would ensure that the Mount Buffalo Village would have sufficient luxury accommodation to provide the critical mass for ongoing successful operation -a total of 89 premium rooms and 32 group/hostel rooms within the Mount Buffalo Village.

The Spa & Hotel offering is envisaged as a modern facility, providing a contrasting but complementary experience to the historic Mount Buffalo Chalet.

Building Lease

Historically, the Mount Buffalo Chalet operated under a lease whereby the lessee rented the space for a predetermined usage for an extended period. While such leases have traditionally been for a period no longer than 21 years, in 2010 Parliament implemented a new Act (the National Parks Act) that allowed for the Chalet lease to be extended to 50 years and then 99 years, all with special Ministerial approval. This was amended in 2015 to a maximum lease term of 50 years, through the *National Parks Amendment (No 99 Year Leases) Act 2015.*

While the extensions were welcomed, this type of lease is poorly suited to the operation of the Mount Buffalo Chalet, providing a level of uncertainty that poses too much of a risk for operators and potential financiers, particularly considering ongoing building maintenance and running costs. As such, a fit for purpose leasing arrangement that is more in line with the Alpine Resort's Leasing Policy is recommended.

In 2002 the Victorian State Government implemented the Alpine Resorts Leasing Policy which was, in part, to provide consistent framework for the leasing of Crown Land in Victoria's Alpine Resorts of Falls Creek, Mount Hotham, Lake Mountain, Mount Baw Baw, Mount Buller and Mount Stirling. While called a 'lease' it differs from the Mount Buffalo option in that it allows investors to own the improvements on their land. A lessee's interest in the land is then on the title held at the titles office.

This type of lease would provide greater certainty for potential Mount Buffalo Chalet lessees, enabling them to buy, maintain, expand and ultimately sell their property should they so choose. It would also place a lessee in a position to sublease part of their building to another party, in effect giving ownership of a building or part thereof to operate, live in or rent out (for example, Manfield's Café could be a sublease under the Chalet's head-lease).

If the parcel of land that contains the Mount Buffalo Chalet was excised out of the National Park and made available to lease under this Policy, 'ownership' of the asset could be created. With ownership comes certainty, which paves the way for investment.

Artists Impression

Mount Buffalo Spa Retreat & Hotel

by DE atelier Architects

4.3 Food and Beverage Economy Reactivation

Overview

An attractive tourism destination, particularly a remote one like Mount Buffalo, requires an appropriate food and beverage offering to properly service visitors. At present, Mount Buffalo's offering in this space is very limited comprising a café at Dingo Dell that only operates in peak times (predominantly in winter), and a year-round coffee cart at the Gorge car park serving drinks and basic snacks. Neither of these food and beverage offers adequately meet the needs of the region's target visitor market.

To address this product gap, this concept proposes the development of a vibrant food offering and associated economy at Mount Buffalo that not only enriches the visitor experience but acts as an attraction in its own right.

Concept

In order to establish a vibrant food economy on Mount Buffalo, a diverse visitor offering including mobile food vans, cafes and a restaurant/bar is required to ensure broad market appeal. A priority in this space is the revitalisation of The Gorge and Mount Buffalo Chalet hub to become a flagship food and beverage attraction.

Short-term

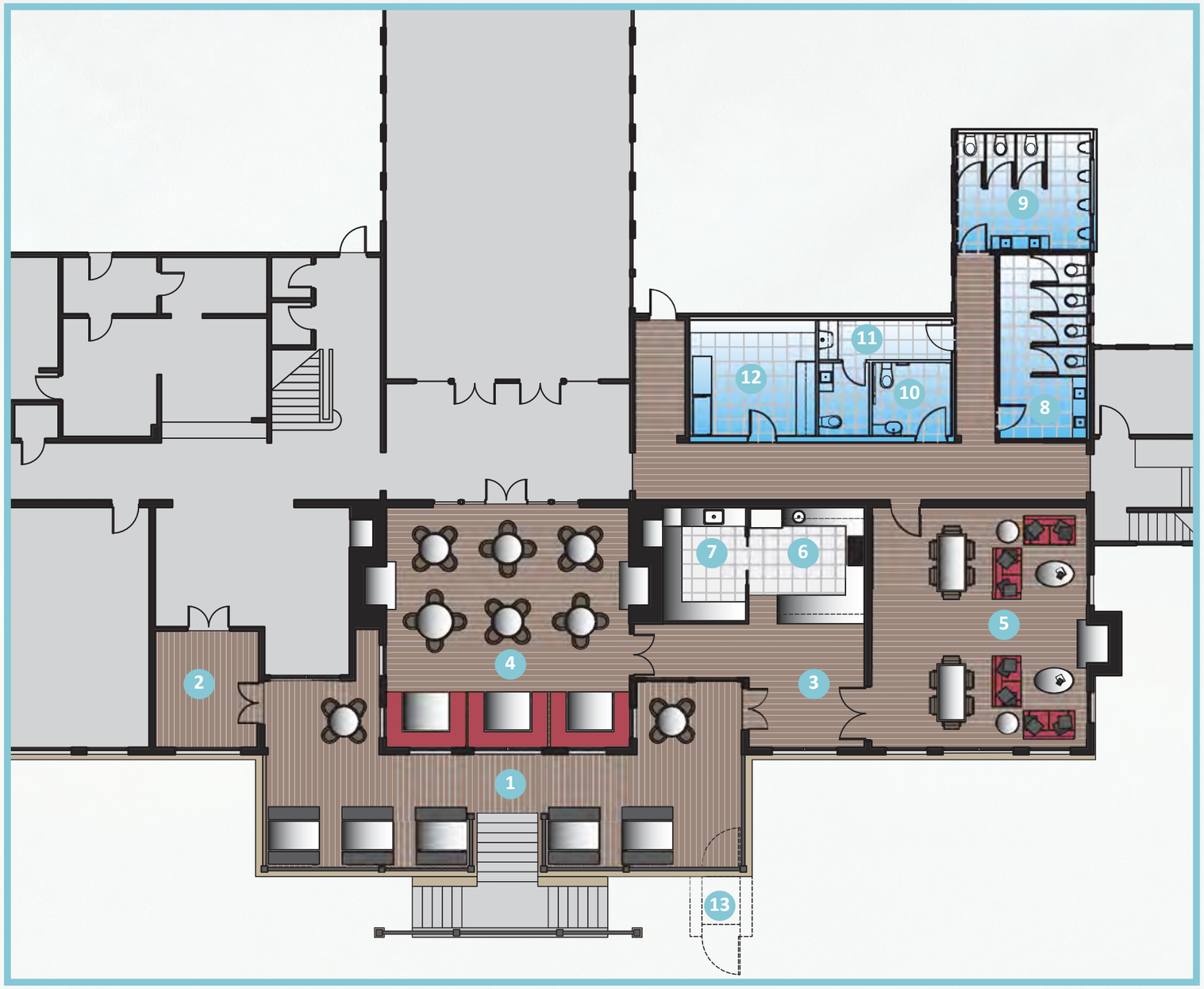
The short-term view is to replace the coffee cart that currently operates at the Gorge with a food van that offers a cafe-style lunch menu, serviced by a collective of local food and beverage producers offering a range of quality regional produce. This would be set-up in close proximity to the Chalet with (temporary) outdoor tables and seating offered in its garden area, providing a relaxed and ambient atmosphere that celebrates the surrounding environment and heritage.

Medium-term

Completion of current repair and maintenance works to the Chalet present a unique opportunity, in the medium term, to accommodate food and beverage options in the Chalet itself (while maintaining an outdoor element), maximising its appeal to visitors.

Plan Legend

1. *Chalet Portico Outdoor Dining Area*
2. *Mount Buffalo Resort Redevelopment Information Area*
3. *Cafe Entry & Waiting Area*
4. *Cafe Dining Room*
5. *Cafe Lounge*
6. *Cafe Serving Area*
7. *Cafe Preparation Area*
8. *Female Washroom*
9. *Male Washroom*
10. *Universal Washroom / Baby Change Area*
11. *Staff Changeroom & Washroom*
12. *Store Room & Office*
13. *Wheelchair Lift (Indicative option)*



Such an activation could be readily located in suitable areas within the Chalet and would provide visitors to the mountain with the opportunity to engage and re-engage with this historic building, while broader building plans are explored. Investment of funds in this area may also provide additional impetus and benefit to the overall restoration and activation of the Chalet.

Re-engagement will provide an ability to actively demonstrate the value and nature of restoration/preservation works already undertaken and provide a valuable marketing/publicity stage (in both senses) for the ongoing Mount Buffalo Chalet re-development.

There is a clearly identified desire within the broader vision to 'de-intensify' development in and around key natural assets, such as the Gorge. A stand-alone and permanent food and beverage option at the Gorge could result in the unintended outcome of separating the Chalet & Gorge attractions. An outcome where visitors view the Chalet & Gorge as separate and distinct attractions would be counterproductive to the concept of a Gorge and Chalet Village precinct. Working towards the centralisation of public facilities within the Chalet and the proposed Mount Buffalo Village area is consistent with the conceptual direction of this Plan.

It is anticipated that this impetus would lead to a broader activation of the Chalet and lead onto the Chalet Day Lodge re-development, earmarked for Manfield's Café.

Long-term

The long-term food and beverage outlook incorporates a hatted restaurant and bar into a restored Mount Buffalo Chalet, operating alongside an accommodation offering to enable the overnight market to provide a revenue base for this type of operation.

Supporting this activation is the redevelopment of the Dingo Dell Café, so that it provides a more ambient and amenable experience to visitors and the potential for food vans servicing other hub areas like Lake Catani or Cresta.

This concept ensures that no matter what mountain visitors are looking for – drinks/snacks, a relaxed café-style meal or a fine dining experience – their needs are catered for.

4.4 Lake Catani Camping, Glamping and Wilderness Huts

Overview

Research commissioned by Tourism North East identified demand for accommodation that was unique and located within natural surrounds – a current gap in the regional product offering. This accommodation might take the form of remote yet luxurious treehouse accommodation, glamping facilities set in forest or mountain locations, or forest huts or suspended tents, however it must enable the visitor to feel immersed with the natural environment.

Looking to fill this gap, a range of glamping and wilderness hut options could be developed at picturesque Lake Catani, which is already a popular camping ground at Mount Buffalo, currently generating 15,000 visitor nights – a figure that continues to grow consistently year-on-year.

Such an offering provides the opportunity to leverage existing market interest in camping at this site and also appeal to new demographics.

Concept

Glamping

Luxury camping is a growing segment of the $1.3billion Victorian camping and caravan sector and has a market sweet spot at the intersection of a high standard of service and comfort with an impressive natural setting. There is strong opportunity for Mount Buffalo to investigate this light-footprint option as part of a suite of actions to raise yield and engagement with the mountain.

The potential yield from a high quality site such as Lake Catani or others across Mount Buffalo is illustrated by the rates which are achieved by 'luxury camping' or 'glamping' companies which have emerged over the past few years. Two market leaders are Cosy Tents[2][8] which charges between $225 and $295 per night for their accommodation at Yandoit, north of Daylesford and Happy Glamper[3][9], which offers 5M bell tents for $400 for two nights, or $460 for a 6M Bell tent.

The luxury glamping experience would provide an additional and compatible use within this area, allowing a full appreciation of the natural setting at Mount Buffalo and exposure to a broader tourism market.

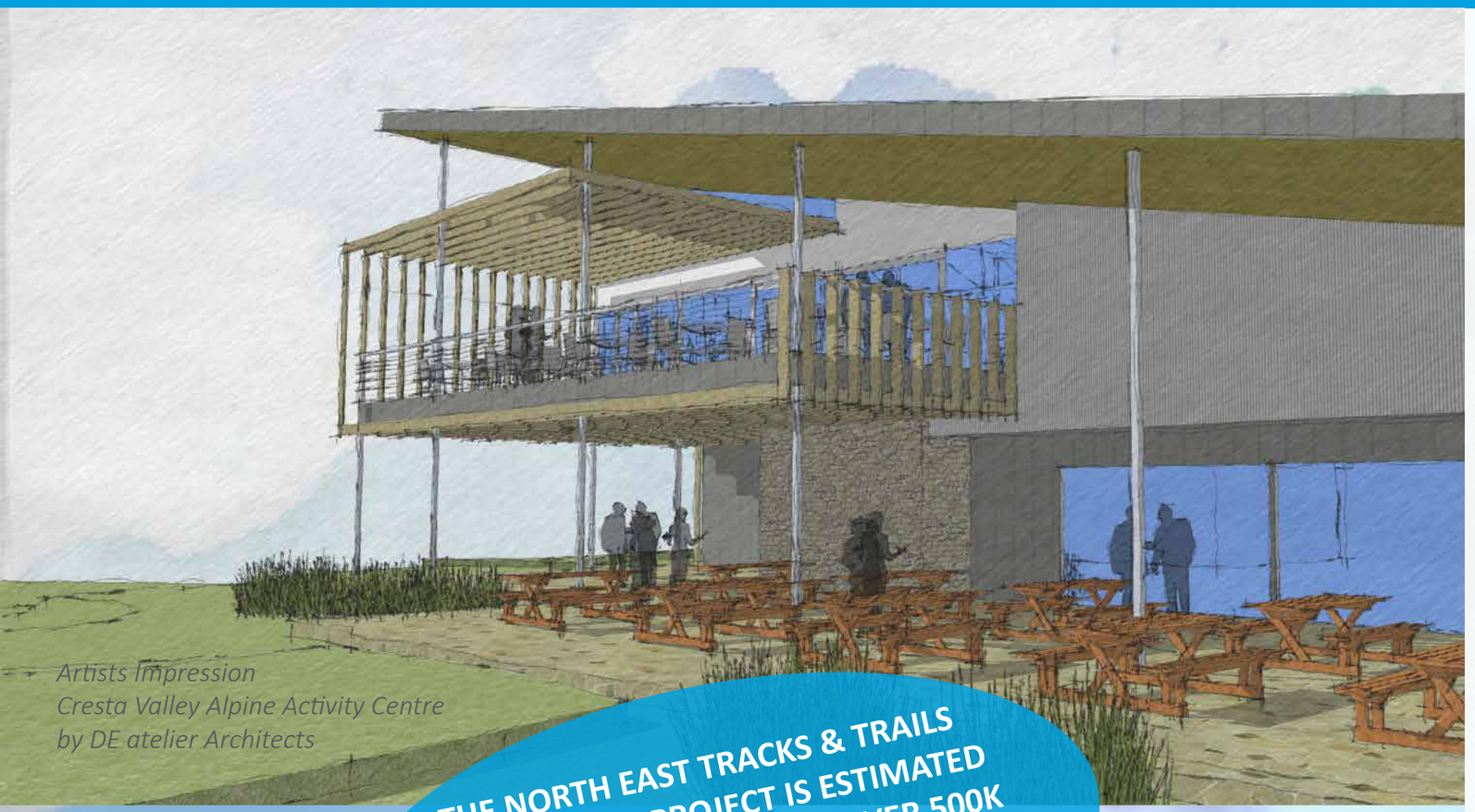
Wilderness Huts

Lake Catani also has capacity to support the development of wilderness huts. These huts would be eco-friendly and based on a similar design to other similar structures found throughout the Alpine National Park.

The Department of Justice is interested in piloting a program at Mount Buffalo that would see prisoners construct these huts on behalf of the destination. This program would provide prisoners with practical opportunities to apply their learnings in this space, as well as provide a tourism drawcard for people wishing to try something different and embark on a socially responsible camping experience. Other such projects may be possible.

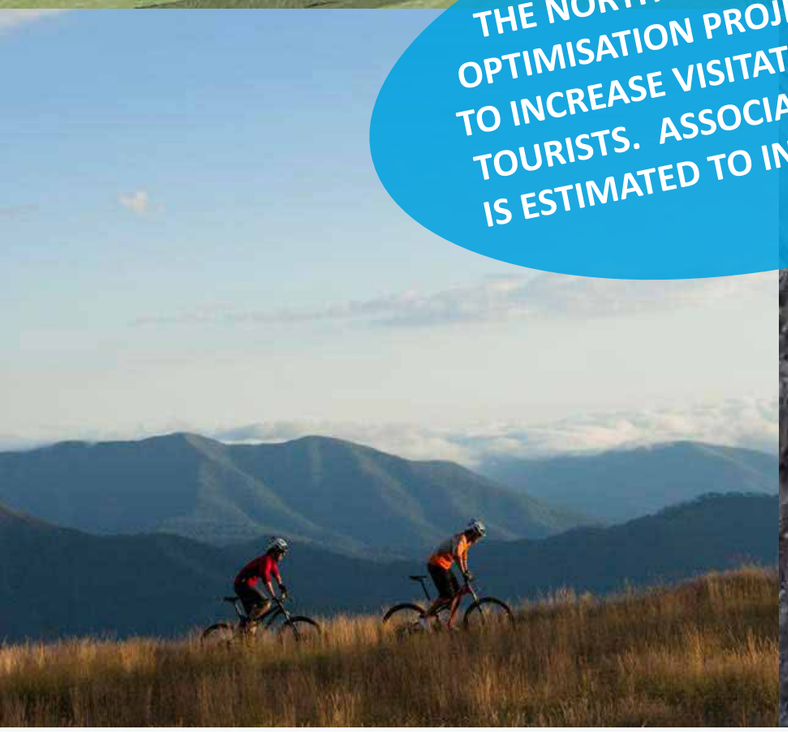
See www.cosytents.com.au [8] 2

See www.happyglamper.com.au [9] 3



Artists Impression
Cresta Valley Alpine Activity Centre
by DE atelier Architects

THE NORTH EAST TRACKS & TRAILS OPTIMISATION PROJECT IS ESTIMATED TO INCREASE VISITATION BY OVER 500K TOURISTS. ASSOCIATED EXPENDITURE IS ESTIMATED TO INCREASE BY $5M PA



4.5 Activities and Events

Overview

The vast natural assets of Mount Buffalo ensure it is the ideal location for outdoor enthusiasts. In summer, the primary activities undertaken at the destination are bushwalking, sightseeing and bike riding, while in winter it is snowplay, tobogganing and cross country skiing.

To cater for the needs of current visitors as well as enhance future visitation potential, it is essential to both enhance and diversify Mount Buffalo's activity and event offering. Activation in this space would generate positive economic outcomes and contribute to meeting current Government targets associated with wellness, not to mention Parks Victoria's own commitment to 'healthy parks, healthy people.'

Concept

Activities

The provision of premium adventure experiences to the high-end market is rightly placed at Mount Buffalo, which is an exemplar of a world-class setting for this type of products. For instance, one of the current key activity attractions is the portaledge picnic, where participants enjoy a gourmet picnic while suspended 300m above the valley floor, along with portaledge camping – the world's highest cliff camping experience and the first activity of its kind in Australia.

Infrastructure development would allow for the provision of other attractive, high-calibre products in this space including:

Cresta Valley Alpine Activity Centre

The redevelopment of Cresta into a day lodge and alpine activity centre would see this site become the mountain's primary recreational hub. It would offer a range of day-visitor facilities including shelter, food and beverage, amenities and mountain information. It would also offer recreational services and equipment hire, acting as base for walking and bike riding in summer, and a high-quality snow experience in winter. Furthermore, it could offer new interpretive opportunities and would also assist in addressing some of the day-visitor capacity issues experienced at the Gorge in peak season, providing an improved and enhanced experience for visitors.

Expanded Hero Walks

The creation of a hero walking product that leverages existing visitation from bush walkers/hikers has obvious potential. This could include a 'Great Granite Plateau Walk' that links key mountain sites, achieved by re-opening the 2km track linking Macs Point Track to Cresta, which then opens up a bush-walking track from The Entrance to The Horn via The Gorge. A short link into Dingo Dell from Long Plain would also incorporate that site into the walk network.

Mountain Bike Trail Development

There is potential to develop purpose-built mountain bike trails that leverage regional product strengths in this space. The uniqueness of the Mount Buffalo site, the views and availability of engaging, rocky terrain would act as a real point-of-difference for mountain bike trail development.

Vision for Mount Buffalo

Integrated Cultural Tourism Experiences

Working with the Taungurung Clan, there are strong opportunities to create cultural tourism products and activities that recognise the intertwined histories of both indigenous and European cultures on the mountain. This type of offering could also have the potential to generate further ongoing training and employment opportunities.

Events

Mount Buffalo's unique landscape also ensures that it can support a broad range of events. Events have the power to drive visitation and yield opportunities for the mountain, as well as generate exposure and awareness for the broader mountain offering.

Ongoing destination development places Mount Buffalo in an ideal position to attract new events associated with wellness, bike riding, orienteering, multi-disciplinary and food/wine, as well as leverage existing valley events (like the Tour of Bright).

Currently five events are hosted on Mount Buffalo annually, generating over $1.2million in visitor spend for the region – a figure that would be bolstered by securing new events. Importantly, a new range of facilities and services on mountain would ensure that yield is generated on Mount Buffalo, creating important revenue opportunities for the destination.

4.6 Dingo Dell Outdoor Education Centre of Excellence

Overview

While the potential of Mount Buffalo has largely been considered within a tourism context thus far, the destination also holds strong cross sector appeal, with significant opportunities presenting within the education space.

Currently, there is a chronic under supply of residential outdoor schooling across Victoria. In 2016 alone, there were some 1,500 public schools in Victoria with combined enrolments of almost 600,000 students and yet there were only 68,200 bed nights available across the state from seven public outdoor schools. Publicly-funded outdoor education facilities have had no spare capacity for over 10 years, with the degree of excess demand increasing year on year. Mount Buffalo is well positioned to meet this demand.

In addition, Mount Buffalo has a rich Aboriginal heritage inherently connected to the Taungurung Clan, the Traditional Owners of the land on which Mount Buffalo National Park is located. Working with the Taungurung Clan Aboriginal Corporation presents strong opportunities for cultural heritage education and ongoing Aboriginal employment.

Concept

Mount Buffalo is perfectly positioned to become an outdoor education centre of excellence that is of a world-class standard. This includes becoming a base for short term outdoor school education (consistent with the Victorian School Camp model) as well as vocational training with an emphasis on hospitality and outdoor education to address regional skill gaps and help to raise the retention of students regionally post year 12.

Dingo Dell, nestled in the heart of the alpine environment, would provide the ideal location for such an offering. The existing building and its surrounds could be repurposed to meet the needs of the education sector, as well as offer a complementary interpretive offering that would be ideal for both students and destination visitors alike.

The concept of a multi-purpose educational institution of this form was developed as part of the 'Zero3' model in 2007, which was to be delivered as an option for renewal of the Bogong Outdoor Education Centre (although never implemented). Zero3 was designed to offer a market-leading, specialist residential school (for primary through to tertiary and vocational) that utilised the natural surrounds for fieldwork and complementary program activities. The name of the program stemmed from its design principles – of using zero fossil fuel energy, generating zero waster and having zero adverse environmental impact.

A facility like this would introduce new markets to the mountain, drive year-round visitation opportunities and generate awareness of the broader destination offering. Any accommodation vacancies outside of the schooling schedule could also service other resort visitors, like corporate and tour group bookings, presenting additional commercial opportunities for Buffalo.

The centre could also support other activities on the mountain as it would have a 24/7 presence with Mount Buffalo personnel potentially staying in residence.

The following actions are recommended in regards to this concept:

- Review and revitalise the Zero3 model with a view to assessing applicability to Mount Buffalo;
- To engage with the Victorian Department of Education and Training to determine the scope and timing for the development of a short stay outdoor school campus on the mountain, utilising existing infrastructure where possible;
- To determine the infrastructure requirements for the establishment of a VET / TAFE vocational training presence on the mountain, suited to address vocational needs of the local region.

Vision for Mount Buffalo

Primary Schools	*Secondary Schools*	*TAFE*	*Tertiary*
School camps – Zero 3 model The Vision for Mount Buffalo includes the potential development of a Victorian School Camp on Mount Buffalo, providing access for an overnight experience on the mountain. Using the existing model of outdoor recreation camps across Victoria there is a potential to establish a centre on the mountain at one of the existing facilities. A study has previously been commissioned along these lines and it could be revisited in this project.	**School camps – Zero 3 model** Programs including personal and social learning will be key pillars of the experience at Zero3. This is a particularly important focus during the .middle years, levels 5 to 9 • Flexible, ICT enabled classrooms and science labs for 60 students; • Small meeting and workshop rooms; • Accommodation for 60 students, Zero 3 staff and guest teachers; • A strikingly designed, interactive, interpretive centre – focused on sustainable living and technologies; • 'Timbertop' experience model.	**VET – site based apprenticeships** • Potential to build on existing research for a 'school camp' based on the mountain; • Employment opportunities are envisaged in the tourism, hospitality and camps sectors; • Full-year operation hosting schools, community groups, tourists, researchers, and families; • The concept would include an investment in a school camp akin to the Bogong or 15 Mile Creek facilities; • High demand is experienced for similar operations in the region to the point of oversubscription; • A full business plan and model of operation would be developed; • The opportunity is for a networked facility working in conjunction with other operators across Victoria.	**Centre of Excellence** *Outdoor Education* *Hospitality* *Language* <u>Areas of study:</u> State Emergency Services • Hospitality; • Ecology; • Environment; • Business studies.
Partners (but not limited to*)*			
Public & Private Schools	Public & Private Schools	Wodonga TAFE	LaTrobe University – Marketing RMIT – Communications and PR Deakin – Architecture
		Refer: Industry engagement framework	Victorian Skills Commission

Educational Opportunities Summary

4.7 Servicing the Mountain

Overview

The creation of new or revitalised mountain assets leads to a need for matched services, with consideration required for power, water, energy and heating supply. However, there are currently minimal operational services on the mountain and those that do exist are patched together, old, inefficient, non-compliant, or not ideally located. Furthermore, Mount Buffalo is a remote site with no existing off-mountain services connections, meaning that it must be self-reliant.

With this in mind, embracing the existing 'off-the-grid' approach to service design is proposed, optimising existing services, as well as creating new, highly efficient and modular systems to allow flexibility for future growth and staged development. This approach balances capital expenditure with staged demand and maximises operational flexibility and efficiency.

The required services for each hub on the mountain would be delivered under a single model utilising similar technical solutions to keep engineering systems as simple as possible; reducing capital operational and maintenance costs.

Infrastructure and engineering services must be designed to provide appropriate levels of comfort for the user. All these elements must be finely balanced to ensure appropriate environmental outcomes as well as not imposing undue financial burden on the success of Mount Buffalo operating as a thriving destination.

Concept

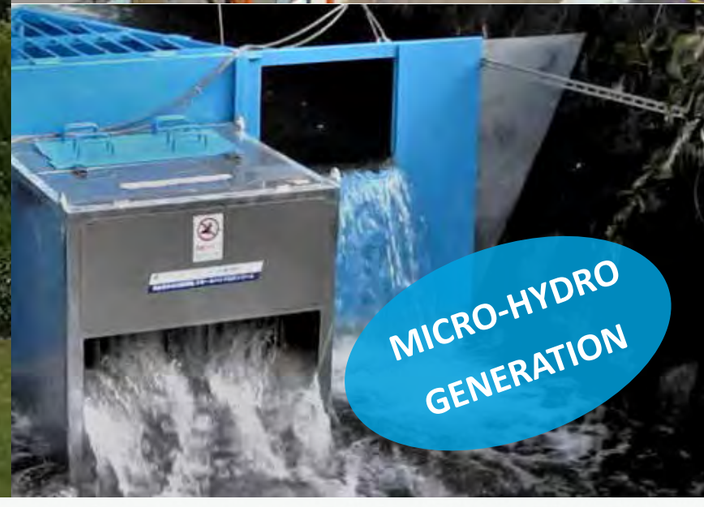
With four visitor hubs proposed for the mountain – at the Chalet, Lake Catani, Dingo Dell and Cresta Valley – the same number of separate (albeit similar) standalone service solutions are required that can be implemented and scaled, based on the proposed development. This concept aims to provide highly efficient, renewably powered services matched to each location's requirements, which generate minimal waste or greenhouse gas emissions.

Power

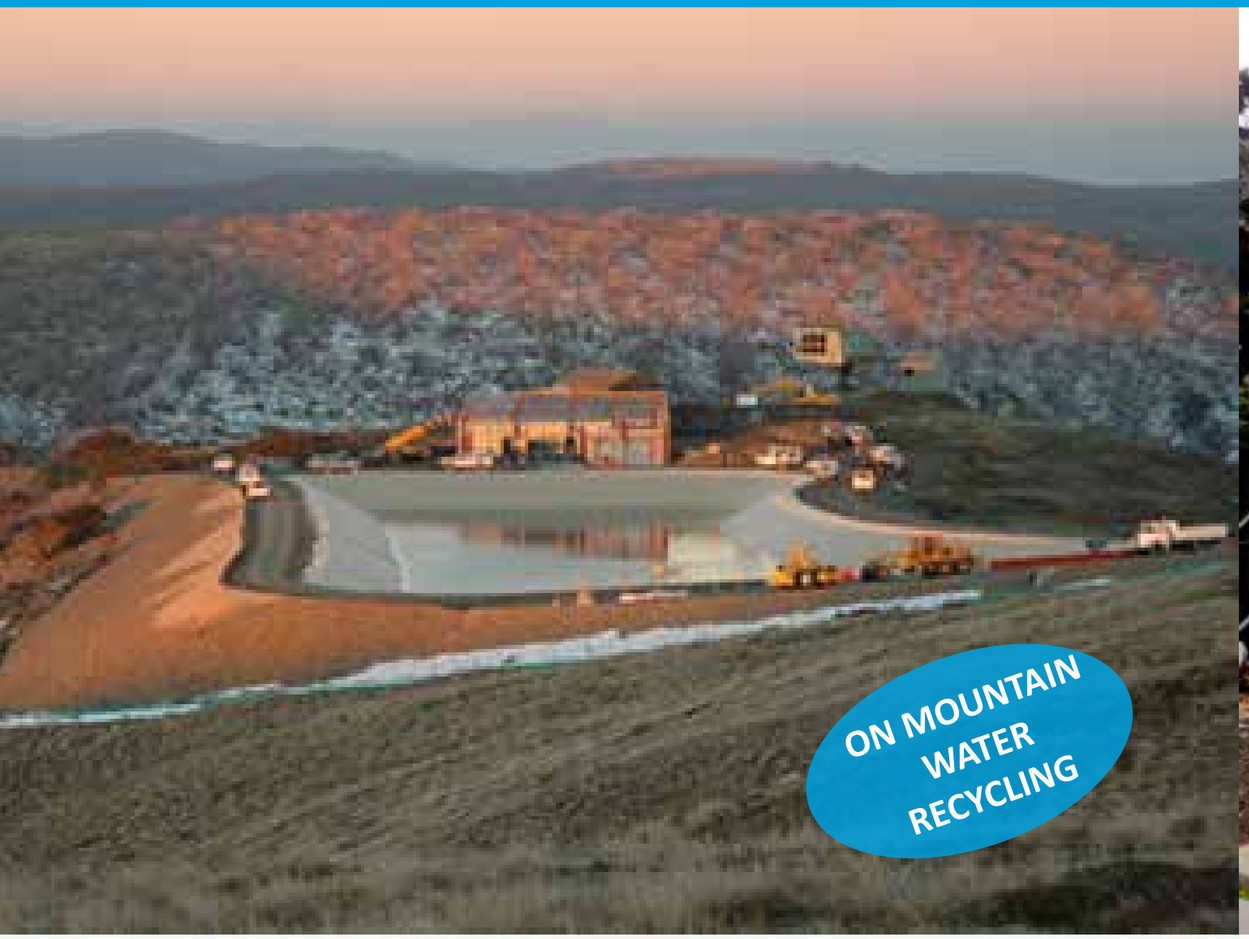
Provision of electrical power for each hub would be via suitably sized installations, using a combination of solar energy with battery storage, plus gas fired cogeneration systems (as required). These systems are modular and can be planned in a manner to allow future expansion. Smart controls can be used to optimise the renewable energy inputs into the system. End user education would be critical for success.

Heating

Efficiency of a building fabric is critical to minimising heating energy demand and especially important in an off-grid location where energy provision is expensive regardless of approach. Any new permanent buildings on Mount Buffalo should meet Best Practice thermal energy efficiency levels (Passive House Standard – MBCE 2011), particularly those operational during winter season. For existing buildings, high efficiency LPG boilers would allow for site heating. In the case of the Chalet, the boiler would be of modular design to allow for staged expansion.



Vision for Mount Buffalo



Waste Water

The Chalet has an existing waste water treatment plant and EPA license that could be replaced with a new modular, staged treatment system. Utilisation of the existing EPA license agreement minimises capital costs and potential difficulties with environmental approvals for additional waste water disposal on the mountain. Storage facilities would only be needed at other locations, with waste water transported to the nearby Chalet for treatment either via a truck or via the construction of a new pipeline that follows existing walking tracks or roads.

Water Supply and Efficiency

Non-potable water is provided at Lake Catani, Dingo Dell and The Gorge toilets, however there are currently no potable water supplies on the mountain.

The existing, intact Reservoir – 7km upstream on Crystal Brook – supplied potable water to the Chalet for decades. Its dam wall was refurbished about 12 years ago and could possibly be re-commissioned. The water supply line from Crystal Brook to the Chalet is included in the current $2.8m maintenance works.

Alternatively, each hub could be supplied with potable water through raw water storage and micro treatment plants delivering potable water, which would be modular in design to allow for future expansion.

In terms of water efficiency, existing buildings would need to be retrofitted to achieve best practice levels of water efficiency to minimise demand, waste water generated and associated energy required for treatment and disposal.

- The following immediate actions are recommended in regards to delivering a viable solution to the supply of mountain services:
- Understand the likely initial type and level of development and where it is to occur;
- Confirm the servicing strategy for this initial stage plus allowance for future expansion. This would involve integrating the servicing strategy into the overall strategy for the mountain;
- Confirm costs of proposed servicing solutions; and
- Conduct any required on-site investigations to confirm suitability of siting for plant rooms, PV arrays and key infrastructure.

4.8 Transport Solutions – Hub and Spokes

Overview

The realisation of the various components associated with the Mount Buffalo Vision would lead to a marked increase in the number of people on-mountain and subsequent vehicular traffic.

While the road network is largely sound, it currently experiences capacity issues during peak season. This necessitates the exploration of a public transport system for Mount Buffalo that operates between the valley and the mountain and among the various destination hubs. Particular parking and transport options would need to be explored if a tourism attraction was implemented at the Gorge.

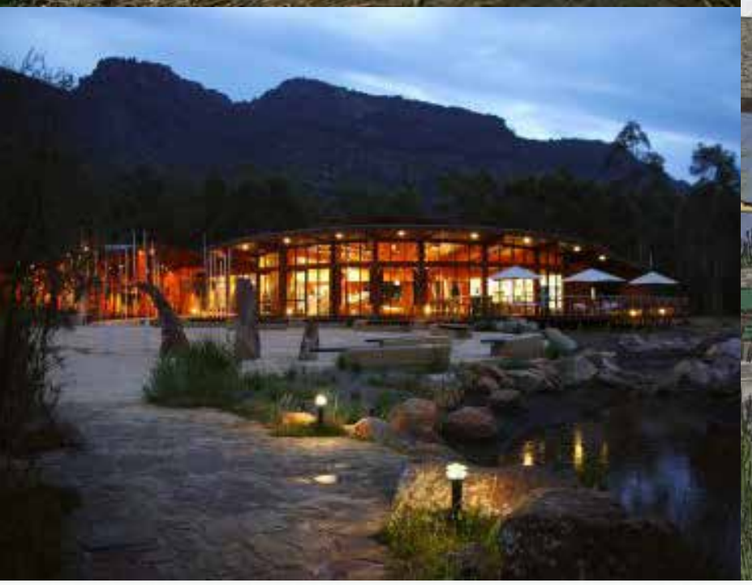
Concept

This concept proposes the development of a Village transport hub, centred around a remote and secure car parking area and associated transfer service. This approach is required to support the pedestrian-focused Mount Buffalo village explored in item 3.3.

The development of a key logistics hub near the VicRoads and Parks Victoria depots would provide a centralised car parking and logistical point for visitors. The hub would include:

- A centralised and managed transport hub to minimise the impact of traffic and congestion at key points of interest around the mountain;
- Establishment of a village transport solution to transfer visitors from the hub to their accommodation and points of interest;
- Solar-based charging stations catering for visitors and village electric cars/vehicles; and
- Longer term consideration of a driverless village transport system allowing for a 24/7 village transfer system.

The long-term aim is to develop the Gorge and Chalet precinct as a pedestrian-orientated village by reclaiming The Gorge car parking area to provide an improved visitor experience. This would also minimise the scope of further disruption, by obviating the need to provide additional visitor car parking to other areas within the Mount Buffalo National Park.



4.9 Mountain Gateway – a Preview

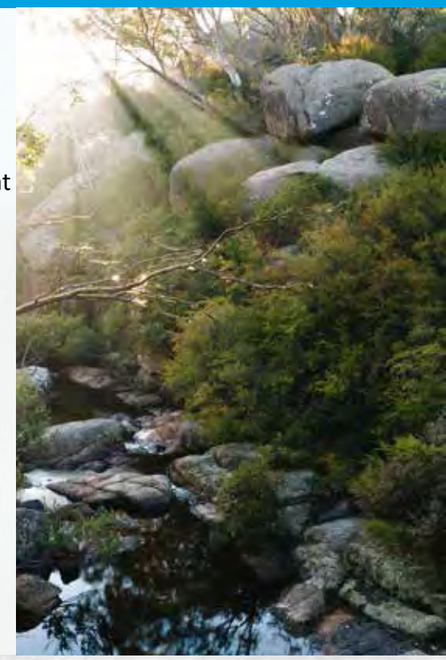
Overview

While the focus of this plan is the development of the on-mountain experience, the arrival point for visitors and the start of their mountain journey commences at the base of the mountain. Therefore, consideration must be given to offering more at the Mount Buffalo gate.

Concept

This concept advocates the development of a mountain gateway at the base of Mount Buffalo, identified by a landmark building. This building would effectively announce the visitor's arrival at the Mount Buffalo National Park, providing both a welcome and useful information about the various aspects of the mountain experience. This centre would:

- Create a welcoming visitor experience;
- Introduce and orientate visitors to all opportunities available on the mountain;
- Provide a gateway experience, including opportunities for short walks to local landmarks;
- Offer shelter, information, retail and amenities; and
- Educate visitors about the environmental, cultural and historical importance of the mountain.



Artists Impression
Mount Buffalo
Gateway Building
by DE atelier Architects

5.0 Strategic Policy Alignment - Ticking all the Boxes

There are numerous State Government policies which are aligned with this plan in terms of activating Mount Buffalo to capture its natural values and deliver a sustainable tourism yield that can be applied to a range of socially and economically beneficial outcomes.

A selection of recent, relevant government policies is as follows:

Policy	*Linkage with the current project*
Parks Victoria, Strengthening our Parks Strategy (2016) Strengthening Parks Victoria is a project about celebrating the spectacular landscapes, habitats and places we have managed for nearly 20 years, and understanding how we must change to deliver the best outcomes for Victorians, visitors, our economies, and the Country we care for.	The current project proposes to deliver a connected set of sustainable solutions which will enhance Victorian's understanding of and access to the Mount Buffalo NP, Victoria's oldest. The solutions will increase the yield from visitation to the NP, which will be reinvested towards social, economic and environmental improvements to benefit current & future generations.
Victorian Regional Statement (2016) The Statement is about creating jobs, providing a better start for young people, and supporting a brighter future for families and communities. It signals our understanding that some regions are experiencing significant population growth, while others are facing population adjustment and decline. That regional communities have their own character, their own aspirations, and their own common sense understanding of the challenges and opportunities that they face.	Mount Buffalo NP is an asset of enormous potential economic and social significance to the Alpine and wider regions of Victoria. This proposal will capture and celebrate this value to address long term population and productivity decline throughout the Alpine Shire and act as a beacon to develop similar opportunities throughout the state.
Victorian Government Social Enterprise Strategy (2016) Victoria's inclusive growth is supported by thriving and sustainable social enterprises. The Future of Social Enterprise in Victoria - Our Vision "Victoria's inclusive growth is supported by thriving and sustainable social enterprises." Aims and Outcomes: • Raise the profile of social enterprises; • Build social enterprise business capacity; • Enable better market access.	The key delivery and ownership platform envisaged for Mount Buffalo is a social enterprise, where net revenues are carefully reinvested to optimise social, economic and environmental outcomes for the benefit of current and future generations, rather than returned to investors as a dividend payment. The Mount Buffalo Vision will directly increase Social Enterprise business capacity within the region and act as an example for other communities and regions to follow.
Regional Partnerships (2010) Nine new Regional Partnerships have been established by the Victorian Government across the State to give regional communities greater say about what matters to them and ensure their voices reach the heart of government. Partnerships will significantly increase collaboration between communities, industry, businesses and government to address the most important challenges and opportunities in each region.	The Mount Buffalo development proposal is the product of a coalition of partners across business, local government, state government and not for profit organisations. It is a strong example of what is able to be achieved through constructive, collaborative participation toward a long standing goal/challenge.

Policy	*Linkage with the current project*
Victoria's Climate Change Adaptation Plan (2017- 2020) (2016 Directions Paper pending final) Adaptation policy responses build on and learn from the diverse experience of regions, sectors, communities and industry in climate change adaptation, to ensure Victorian Government efforts complement existing and planned adaptation work. Strategies that reduce vulnerability to climate risk should contribute to and be compatible with the state's efforts to reduce greenhouse gas emissions and other local, national and international efforts. Decision-makers consider the costs of climate change, including externalities and long-term costs, in developing business cases and budget planning.	The Mount Buffalo Vision is for a resilient, adaptable and diverse range of products and services to become established which will reduce the region's otherwise high vulnerability to climate change. The initiatives being considered are themselves measured by their own environmental footprint, as well as the degree to which they would remain viable and prosperous in an era of more advanced climate change.
Hume Regional Strategy (RDV, 2010) The Hume Region will be resilient, diverse and thriving. It will capitalise on the strengths and competitive advantages of the four sub regions, to harness growth for the benefit of the region and to develop liveable and sustainable communities. The landscapes of the Central Hume sub region are major tourist drawcards, including the Australian Alps National Parks - a National Landscape and National Heritage listed area that includes both the Alpine and Mount Buffalo National Parks. The National Landscapes Initiative, a partnership program of Tourism Australia and Parks Australia, also presents opportunities to preserve mountain landscapes that are crucial to a sustainable nature based tourism industry and to future generations of Victorians.	This proposal directly taps into the Hume Regional Strategy by directly addressing the need for programs to enhance employment and workforce participation, as well as increase the productivity and size of the local economy through diversification and 'playing to its strengths'. Mount Buffalo is a natural asset of national significance, and this proposal is intended to propel it also to becoming an asset of state-wide if not national social and economic significance as well.
Hume Region Significant Tracks and Trails Strategy (2014-2023) The purpose of the Strategy is to improve existing regionally significant tracks and trails, identify any new significant tracks and trails or extensions required, and identify ways to encourage greater use and awareness of the tracks and trails. The Strategy identifies new or upgraded tracks and trails likely to produce the most benefits within the Hume region. Each of the priority tracks and trails identified is likely to bring increased revenue into in the region, either by providing a completely new experience, or by providing additional experiences or improvements to existing tracks and trails to encourage walkers, cyclists, horse riders and canoeists to stay in the region longer.	The whole of mountain development strategy which is envisaged will enhance the visitor experience by linking existing attractions and add to them both geographically and qualitatively.

Vision for Mount Buffalo

Policy	*Linkage with the current project*
Hume RDA Workforce Development Plan (2015 – 2018) There is a clear need to undertake workforce planning and development within the Hume Region that will: • build the skills, capacity and capability of current industry participants; and • attract new entrants across the supply chain.	This proposal directly supports the Workforce Development Plan by directly addressing the need for programs to enhance employment and workforce participation, as well as increase the productivity and size of the local economy through targeted investment.
Victoria's Future Industries Food and Fibre Sector Strategy (2016) We will support the implementation of local collaborative approaches that will contribute to the growth of existing and new food and beverage manufacturing businesses and create jobs.	This proposal will provide an additional platform for marketing and promotion of the food and beverage produced in the Alpine regions through tourism and other allied channels, year round. Provision of hospitality training, which is currently a missing link in many respects in the region, will also support the food sector at the retail part of the supply chain, catering to local, interstate and international visitors.
Victoria's High Country Destination Management Plan 2013-2023 (March 2016 update) This strategy includes priority actions to: • Develop a long-term vision for Mount Buffalo as an attractive and engaging tourism destination including planning for the future of the Mount Buffalo Chalet and business case development for the Gorge; • Increase quality accommodation options to fill the identified gap in unique accommodation in sympathy with nature; • Reinvent cultural heritage experiences to meet visitor expectations.	This proposal will directly address this declared need by restoring the destination status of the Mount Buffalo National Park, potentially incorporating various forms of short-stay accommodation which will both capture vital tourism yield and contribute to the brand of the area. The opportunity to complement the natural grandeur of the mountain with quality accommodation is well recognised at Mount Buffalo.
Tourism Victoria (2008): Victoria's Nature-based Tourism Strategy 2008-12 The strategy aims to stimulate and grow nature-based tourism by: • addressing barriers to growth to attract public and private investment; • increasing the sustainability and viability of the nature-based tourism industry; • encouraging the industry to limit its carbon footprint; • raising visitor expenditure and tourism yield for provincial Victoria; and • heightening nature-based tourism consumer awareness of Victoria.	This proposal would directly enhance the nature based tourism offering on Mount Buffalo, eventually raising it to becoming one of the premier nature based tourism destinations in Victoria, in line with the uniqueness and grandeur of its physical setting.

Policy	*Linkage with the current project*
Department of Education and Training (2015) Education State Ten school targets have been developed as part of the Education State vision to focus our efforts on the rangeof factors that support students to develop and be their best. These targets are organised under four themes: • Learning for Life; • Happy, healthy, resilient kids; • Breaking the link; and • Pride and Confidence in our Schools.	The Vision for the whole of mountain includes a deliberate focus on school, vocational and further education, and the enduring socioeconomic benefits that would be shared between students and the local region from well-placed education resources. The High Country is already well known for its outdoor education resources and this proposal would enable these to reach more students at different levels of their education and also address key vocational shortages.
National Public Private Partnerships Policy Framework (2016) The Partnerships Victoria framework provides an overarching framework for developing contractual relationships between the State and private sector for the delivery of public infrastructure and related services. Value for money and the public interest test are keyelements of this framework and must be satisfied in order for private sector delivery to occur.	The proposal for development within Mount Buffalo National Park will consider the opportunity to be delivered as a PPP where this option delivers an appropriate application of delivery and operating risk to both the State and the proponent.

6.0 Funding

6.1 Funding Model – Multiple Sources

This concept for Mount Buffalo advocates the establishment of a sustainable funding model that supports the restoration and ongoing maintenance requirements of the Chalet and the proposed Village, as well as expanding and enhancing new capacity and capability on the mountain to increase yield and socioeconomic impact.

This approach involves development of an innovative model that incorporates philanthropic, community and business partnerships so that the cost to government is significantly reduced and 'leakage' of profits are off the mountain are replaced with a reinvestment flow. The overall funding model to be scoped and explored in detail includes:

- Short-term high-impact financial injection models;
- Models that leverage resources by partnering with community, corporate and philanthropic organisations;
- Investment strategies to deliver long-term sustainable support; and
- Blue-sky partnerships with government entities to develop growth in the region.

In this way, this plan acknowledges that no single funding source will be able to fund its vision; rather, a combination of funding options is required to share in efforts of bringing this concept to fruition and ensuring ongoing operational investment. Options to this effect include a combination of the following:

Funding Type	*Detail*
Social enterprise/ ongoing recurrent funding	Development of a series of viable businesses that: • Trade to fulfil their mission and generate an income, with most of that income coming from trade associated with Mount Buffalo; • Have a clear mission to achieve a social, cultural, community and/or environmental benefit through tackling one or more problems or issues; • Create systems changing solutions – tackling problems/ needs in new and creative ways.
Crowd/group funding	The inclusion of crowd funding to support specific elements of the project rollout will: • Significantly reduce cost to government via the inclusion of philanthropic, community and business partnerships; • Enable a passionate community to financially support mountain growth; • Build a sustainable pool of funds to support the ongoing restoration and reopening of the Mount Buffalo Chalet and Village precinct; • Deliver an inclusive approach to concept funding; • Engage with all who have passionately been involved with championing Mount Buffalo.
Shareholder vacation ownership model	Development of a 'heritage custodian' vacation ownership model to: • Advance the delivery of a community ownership model built on social enterprise principles and based on large scale business ownership; • Support collaboration between the community, industry, business and government; • Create positive social, community and environmental outcomes; • Reinvigorate and revitalise Buffalo's heritage buildings; • Engage a range of key stakeholders including State and local government agencies, company directors and community owners.
National Trust/pledge funding	Establishment of partnerships to deliver on specific appeals and fund specific components of the restoration of Mount Buffalo Chalet and /or other projects as identified. For example, establishing a weatherboard appeal in partnership with organisations such as National Trust to acquire additional weatherboards that are critical to weather proofing the Chalet prior to Winter 2017.
Government Sector Specific Funding	Partnerships with government departments such as: • The Department of Education and Training and Regional Development Victoria to provide industry-led skills training and career progression opportunities; • Department of Sport and Recreation supporting the important role it plays in the lives of individual Victorians to help shape community identity and provide settings for social interaction, sharing common interests and enhancing a sense of community.
Private Sector investment	Private sector engagement is key to the realisation of this concept plan. This vision provides a clear framework through which to explore private sector opportunities, particularly with entities with experience in the accommodation space.
Philanthropic/bequests	Drawing on the strong emotional connection that many of the general public have with the Mount Buffalo Village, the Vision for Mount Buffalo will extend the community based funding model to include partner organisations such as: • Philanthropy Australia - whose mission is to represent, grow and inspire an effective and robust philanthropic sector for the community; • Into Our Hands Foundation, a local project funder and facilitator already committed to the Mount Buffalo vision.
Passive superannuation lending	Depending upon the final ownership structure, a potential additional funding source could be via passive superannuation investment. While 'actively' managed funds aim to better the returns of a given investment market, 'passively' managed funds are designed to match the returns of a specific market as measured by a particular index.

6.2 Social Enterprise – Community Sharing Responsibility

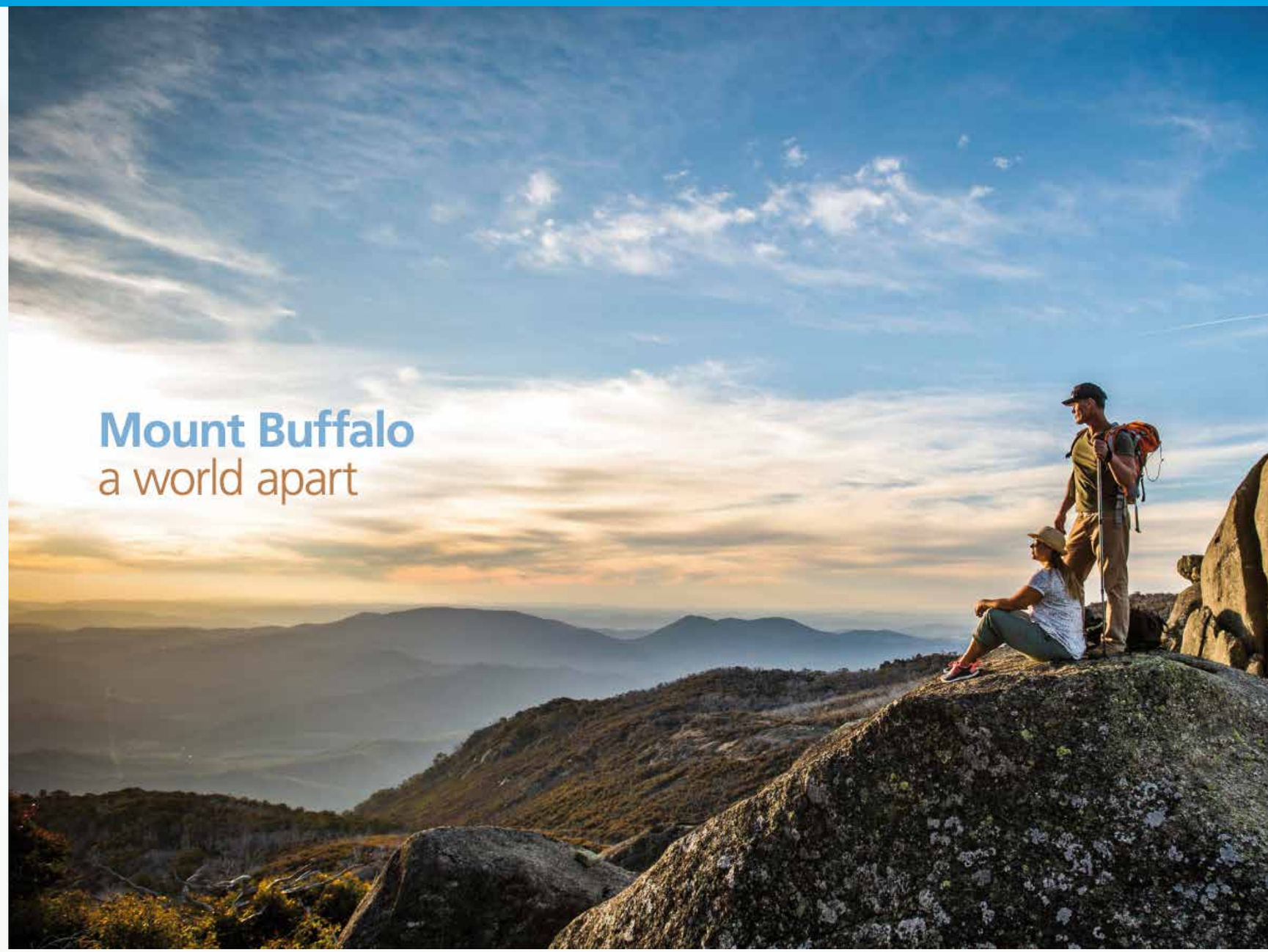
While various funding contributions are required to realise the Vision for Mount Buffalo, a social enterprise approach is expected play a significant role in concept implementation. Social enterprise provides a powerful mechanism for the reinvestment of community effort and success in a sustainable and self-reinforcing manner.

Under this model, net revenues from viable businesses on the mountain and in surrounding towns are reinvested in regional projects which have a net social, cultural or community benefit, rather than taken as dividends.

The Mount Buffalo activation project, which is seeking to simultaneously address several regional socioeconomic and other challenges, is looking to embrace the social enterprise model as a means of generating and protecting the gains that it makes and to demonstrate the power of the model to other communities and regions across Victoria.

This intervention would see the establishment and agreement on of a set of social enterprise principles which would apply to a range of proposed operations within the National Park, to complement them and enhance their likelihood of sustainable, enduring impact. Other benefits include:

- Alignment with Victorian Government social enterprise strategic framework and other strategies;
- An increase in the success rate of enterprises through shared planning, design, operation and evaluation of social enterprises by community, business and education providers;
- The ability to repurpose existing funds into new models of enterprise delivery;
- Positive outcomes associated with significantly contributing to community and economic development;
- The opportunity to leverage value from existing, new and future assets;
- The opportunity to leverage the trend in people wanting to make a positive impact while earning an income.



The relationship of Mount Buffalo to surrounding townships is very different from the relationship of the same townships to other alpine resorts. Mount Buffalo provides an accessible experience to not only visitors from the immediate townships of Bright and Myrtleford but is easily accessible to townships further afield such as Beechworth and Wangaratta. The Chalet is highly valued by the local community, as is evidenced by the many advocates who have raised their voices in support of the building's future.

It is worth noting that a social enterprise model has recently been deployed in-region when a group of local and Melbourne-based residents purchased the historic Beechworth Gaol. Their aim is to restore it as a community-based cultural hub, with proceeds from viable businesses on the 3.5 hectare site supporting other community activities, demonstrating that the social enterprise model works.

7.0 Unlimited Benefits

Resolving the challenges associated with Mount Buffalo National Park and its wider environs will result in the delivery of a series of interconnected and self-reinforcing benefits. Primary benefits generated for the region (and the state) include:

Economic diversification and resilience

The economy of Alpine Shire is highly centralised both geographically and at an industry level. The development of additional, community-led sustainable tourism and non-tourism businesses which complement the natural year-round attractions of the mountain would contribute to diversification and growth of the regional economy.

It is acknowledged that workforce sustainability is an issue in some parts of the region. The impending retirement of many existing workers and the difficulty of finding appropriate replacements is a challenge for some skill areas, particularly in smaller towns and settlements. The construction, accommodation, cafe and restaurant sectors have the highest proportion of unfilled jobs in Central Hume and developing initiatives that attract, retain and grow the sub region's workforce will provide for the current and future needs of these industries.

A program that enhances vocational training on the mountain, in concert with regional providers such as Wodonga TAFE and others, would help to address key gaps in the local labour supply, including those in the hospitality sector which have held numerous vacancies at least since 2010. For the sector to grow and realise its enormous potential for growth from tourism associated with nature and food and beverage, the labour market linkage – in the form of hospitality training and placement, needs to grow in response or the yield will never be realised.

Increased employment

Summertime activities at Falls Creek and Mount Hotham account for some 378 full time employment positions in Alpine Shire, or 15% of total LGA employment. Despite current visitation of some 181,000 people per annum, Mount Buffalo is currently directly supporting virtually no employment on an ongoing basis, with all positions related to businesses which are not exclusively or permanently located on the mountain.

Based on typical expenditure multipliers developed for the Alpine Resorts during summertime[1], conservative expenditure of $50 per person, or $9.05m would translate to direct employment of some 90 people. Average expenditure of $88 per visitor, which was the average spend across the High Country among all visitors in 2015/16[2] would result in employment of 160 people and with compound growth in visitor numbers over 6 years, the total regional employment impact would be some 220 positions. This average per-visitor expenditure would be strongly influenced by the addition of a major attraction (as described below) or significant accommodation options.

Address excess demand for outdoor education

The provision of additional outdoor education resources at Mount Buffalo would help to address the longstanding under-provision of outdoor learning. In 2016, there were some 1,500 public schools in Victoria with combined enrolments of almost 600,000 students, with some 200,000 students in the year 7-10 levels which are the key years for short stay outdoor education.[3] The degree of excess demand for places in outdoor education is very significant. In 2012, the Bogong Outdoor Education Centre (BOEC) in Alpine Shire near Falls Creek, booked some 45 schools and received requests from an additional 30 that it couldn't accommodate. In 2016, it also booked 45 schools, and received more than 80 additional requests that it couldn't accommodate, an effective demand of 177% of available supply.[4]

1 NIEIR (2013)
2 TNE (2016)
3 DET (2016).
4 Source: A Keeble, Principal Bogong Outdoor Education Centre, personal communication

Vision for Mount Buffalo

The supply of outdoor education resources is reliant on both 'per bed night' funding from the Department of Education and Training, and available infrastructure (accommodation, meals facilities, ablutions and classroom facilities).

A holistic, community-led programme of works to strengthen and activate the National Park should involve plans to address tourism accommodation infrastructure and outdoor educational infrastructure *simultaneously*. Such an approach would serve the multiple aims of delivering additional, badly sought after outdoor education space, as well as providing a foundation of demand (and therefore reliable revenue) for a mixed use, mix-purpose facility on the Mountain which would in essence de-risk other parts of a proposed development.

Improved protection of built heritage

The Mount Buffalo Chalet is of historical significance for its association with the history of leisure in Victoria and the development of the Mount Buffalo National Park, and for its provision of an environment that has remained relatively unchanged since its construction in 1910. Its continual operation as a government-run tourist destination for over ninety years, and its association with the Victorian Railways from 1924, with its unique way of operating such a facility, is of historical importance.

The Chalet is of architectural significance as one of the largest chalet complexes in Victoria. Its isolated location has prevented the intrusion of later developments usually associated with alpine resorts. The consistency of the style in the development of the main building, particularly over the first 30 years, the domestic scale and character imparted by the bungalow style, and the retention of pre-1940 outbuildings, add to the Chalet's importance.

It is listed on the Victorian Heritage Register (Heritage Register Number H0901) and is also classified by the National Trust and included on the Register of the National Estate.

Addressing the challenges at Mount Buffalo would involve direct and indirect measures to rectify and protect existing heritage structures which exist within the National Park, notably the Mount Buffalo Chalet. Restoration and safeguarding the Chalet from the seasonal effects of weathering and bushfire, would deliver benefits to a wide array of Victorians who have visited the Chalet and connect new generations of visitors to Mount Buffalo.

Visitor Economy Growth

Over the past five years, Mount Buffalo has attracted three times as many visitors through the summer season[5] as in winter season, making it unique within the Victorian alpine region where the reverse is more typical.

In the absence of any other action, the restoration and reactivation of the iconic Mount Buffalo Chalet would no doubt increase visitor numbers. It would provide opportunities for private operators at the Chalet and through the Park, increase length of visitor stay in the region, provide increase to the local economy as well as create various employment opportunities in hospitality, retail and related fields.

The potential tourism yield for Mount Buffalo will depend on the capacity and type of attractions and accommodation which is provided to meet market needs. A survey of visitor expenditure across the Victorian Alpine Resorts in summer 2011 (NIEIR, 2013) found that on average, visitors spent $254 per visitor-day in the region, across all expenditure areas of general spending, lift passes, travel (to reach the Alpine region) and accommodation.

The total summer season expenditure was roughly 15% of the corresponding wintertime spend (some $636.2M for the same year). This summer time expenditure and the indirect flow-on spending employed an estimated 956 residents across the region, (compared with estimated 9,754 people employed across the winter season).

Given the lack of downhill skiing infrastructure on Mount Buffalo, and its popularity during summer, typical regional summer season expenditure is more informative of potential tourism yield for the mountain than the winter season equivalent.

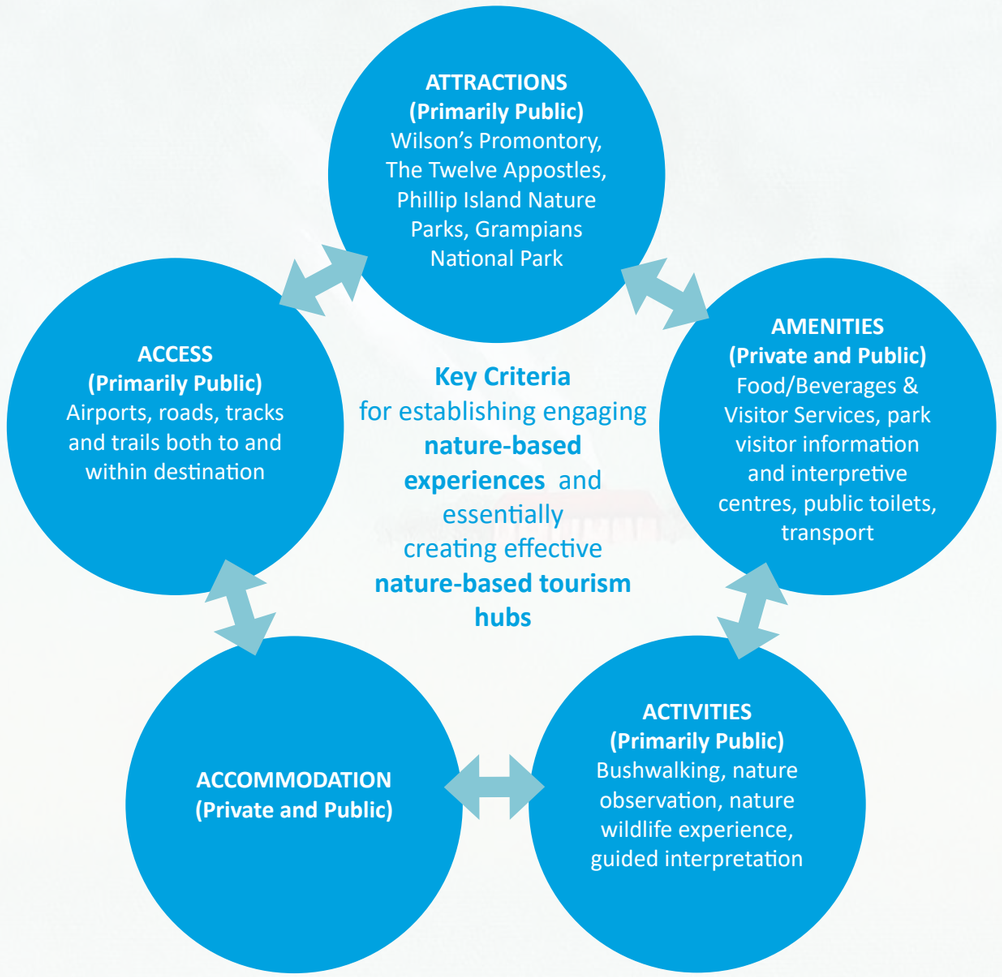
5 .Defined as running October – April, with the winter season representing the balance of the year

8.0 Critical Next Steps

This documents provides Government with a concept plan for the future of Mount Buffalo. While developed free-of-charge, the skills and experience behind much of its development is considerable. However, in order to take this concept to the next level, dedicated project resource is required to finesse, scope, cost and coordinate the various initiatives contained in this body of work, and supporting concept documentation.

MBDAG requests that Government finance and commit the required resource to this endeavour, advocating a cross-departmental approach to maximise opportunities associated with this concept and Mount Buffalo as a destination.

We are asking our Government to listen to our community, as it has promised faithfully to do.



Current Rectification works

Works currently underway to preserve the Mount Buffalo Chalet and repair critical areas to provide protection from the weather are fully consistent with the proposed vision for Mount Buffalo Village presented as part of this report.

Acknowledgments & Appendices

The Content:

This brand-new Vision has been produced by more than 200 active volunteer participants, along with the inclusion of vital documents and studies from the past decade, worthy strategies and possibilities that were prepared for different interest groups, by many people, all searching for an elusive long-term solution for Mount Buffalo and the Chalet.

The Mount Buffalo Destination Advisory Group wishes to acknowledge the great work done by each and every person who has indeed contributed to this exciting Vision for Mount Buffalo. We extend our sincere appreciation to them all.

Special Thanks:

We wish to gratefully acknowledge the generosity of the artist, Mr Jiri Tibor Novak, for his very kind permission to display his watercolour image, originally published in the book, 'When the Buffalo Wakes' (by Penelope Johnson, Roland Harvey Books, 2000; ISBN: 0949714704).

The Mount Buffalo Destination Advisory Group extends its sincere thanks, for enabling us to match this beautiful image to our catch-phrase, The Buffalo is Waking.

Appendix A

Mount Buffalo Activation Strategic Assessment
January 2017 – AALTO

(See Separate Document)

Appendix B

Mount Buffalo Tourism Attraction,
13/10/16; Amber Gardner, CEO Tourism North East

(See Separate Document)

Appendix C

TNE Product Gap Analysis Report
August 2012; Tourism North East

(See Separate Document)

Image References

Page	Description	Source, URL, etc.
	Watermark	Jiri Tibor Novak
1	Front Cover Image	Mount Buffalo Branding Toolkit (TNE & Parks Victoria)
2	The Buffalo is Waking	Jiri Tibor Novak
3	Historic Mt Buffalo Poster	www.visionsofvictoria.com
4	Branding Image	Mount Buffalo Branding Toolkit (TNE & Parks Victoria)
5	Branding Image	Mount Buffalo Branding Toolkit (TNE & Parks Victoria)
6	Branding Image	Mount Buffalo Branding Toolkit (TNE & Parks Victoria)
7	Key Images	Mount Buffalo Branding Toolkit (TNE & Parks Victoria) www.visionsofvictoria.com
8	Newspaper clipping	North East Media Photographer: David Jacobson
	Base Image	www.visionsofvictoria.com
9	Branding Image	Mount Buffalo Branding Toolkit (TNE & Parks Victoria)
10	Park Image	www.visionsofvictoria.com
	Historic Chalet Image	www.visionsofvictoria.com
11	Graphs	Parks Victoria & AALTO
	Theme Image	Mount Buffalo Branding Toolkit (TNE & Parks Victoria)
12	Grand Canyon Skywalk	www.grandcanyon-nationalpark.org
	Glacier Skywalk, Jasper National Park, Alberta, Canada	www.canadianarchitect.com/features/governor-generals-glacier-skywalk (Photograph: Robert Lemermeyer)
13	Portaledge Image	Mount Buffalo Branding Toolkit (TNE & Parks Victoria)
	Giant Swing Elm Mountain Sport Resort, Switzerland	www.sportbahnenelm.ch
14	Chalet Village Plan	DE atelier Architects
15	Mount Buffalo Chalet	DE atelier Architects
16	Chalet Plans	DE atelier Architects
17	Chalet Plans	DE atelier Architects
18	Ancillary Building Image	Photograph: Parks Victoria
19	Spa Images	www.visionsofvictoria.com
	Mt Buffalo Spa Hotel Impression	DE atelier Architects
20	Chalet Plan	DE atelier Architects
21	Theme Images	Mount Buffalo Branding Toolkit (TNE & Parks Victoria) www.visionsofvictoria.com
22	Theme Images	Mount Buffalo Branding Toolkit (TNE & Parks Victoria) www.visionsofvictoria.com
	Rolling Huts designed by Tom Kundig of Olson Kundig Architects	www.archdaily.com/24959/rolling-huts-oska-architects
	Glamping Garden Village; Bled, Slovenia	www.gardenvillagebled.com
	Nightfall, Lamington National Park Queensland	www.nightfall.com.au
	Wild Retreat; Tofino, British Columbia, Canada	www.wildretreat.com

Page	Description	Source, URL, etc.
23	Cresta Valley Alpine Activity Centre	DE atelier Architects
	Mountain Biking High Country	www.australiangeographic.com.au/outdoor/adventure
	Via Ferrata Cumbria	http://www.leeabbamonte.com (Photograph: Lee Abbamonte)
24	Event Images	Mount Buffalo Branding Toolkit (TNE & Parks Victoria) www.visionsofvictoria.com
25	Dingo Dell	www.film.vic.gov.au
	Theme Images	(Mount Buffalo Branding Toolkit (TNE & Parks Victoria www.visionsofvictoria.com
26	Theme Images	Mount Buffalo Branding Toolkit (TNE & Parks Victoria) www.visionsofvictoria.com
27	Wind Turbine Tree	www.all-that-is-interesting.com/wind-turbine
	Toyota PV Yellowstone	www.businesswire.com/news/home/20150512005740/en/Toyota-Flips-Switch-Sustainable-Power-Yellowstone-National
	Micro Hydro	www.thegreenage.co.uk/tech/micro-hydro-electric/
28	Mt Hotham Reservoir	www.eslers.com.au/mt-hotham-reservoir/
	Waste Treatment Works Torres Del Paine National Park, Patagonia, Chile	www.news.wef.org/going-to-the-worms/
29	Driverless Car	www.newscientist.com/article/mg23030732-600-london-to-see-fleet-of-driverless-cars-on-public-roads-this-year
	Driverless Bus	www.mobilize.org.br/noticias/9433/transporte-publico-de-beverly-hills-tera-veiculos-autonomos.html
	Hamburg Bus Station by Blunck+Morgen Architekten	www.aasarchitecture.com/2013/05/bus-station-by-blunckmorgen-architekten.htm
	Bike Exchange	www.newnownext.com/new-york-hotels-with-free-bike/06/2013/
30	Belair National Park Entry Building, SA by Shannon Architects	http://shannonarchitects.com.au/project/view/1/19
	Bowali Visitors Information Centre, Kakadu National Park, NT by Glen Murcutt & Troppo Architects	http://www.elcroquis.es/Shop/Issue/Details/74?ptID=1&shPg=4&artID=2236
	Mount Buffalo Gateway Building	DE atelier Architects
32	Theming Image	Mount Buffalo Branding Toolkit (TNE & Parks Victoria)
34	Branding Image	Mount Buffalo Branding Toolkit (TNE & Parks Victoria)
35	Branding Images	Mount Buffalo Branding Toolkit (TNE & Parks Victoria)
36	Theming Image	Mount Buffalo Branding Toolkit (TNE & Parks Victoria)
37	Chalet Rectification Works	Photographs: Parks Victoria
38	Theming Image	Mount Buffalo Branding Toolkit (TNE & Parks Victoria)
40	Rear Cover Image	Mount Buffalo Branding Toolkit (TNE & Parks Victoria)

Mount Buffalo is waking...the community, securing our future by preserving our heritage

Mount Buffalo Destination Advisory Group

February 2017

B. Project Management and Project Communications Plan (Component A)

Project Management & Communications Plan

Mount Buffalo Business Case Assessment and Activation Project

[Final Version for Issue with Final Report]

PwC

6 September 2018

Contents

Part 1 - Project Introduction

Project Vision

"A Whole of Mountain activation for the long term sustainability of the Chalet and ***the future of the resort."***

There exists an opportunity to establish Mount Buffalo as a reinvigorated, year-round alpine destination that leverages its cultural, heritage and natural assets to become a unique centre for entrepreneurship, education, hospitality and tourism.

The Vision for Mount Buffalo sets out a 'Whole of Mountain' approach to the *area, leveraging opportunities across various user groups to deliver a vibrant and sustainable Mount Buffalo for current and future generations.*

Project Background

The Alpine Shire Council recognises that the Mount Buffalo National Park is a unique natural asset that is currently underutilised in its current condition. A Whole of Mountain approach has been strategically designed to enable Mount Buffalo to become an iconic Victorian destination, driving positive and sustainable social, economic and environmental outcomes for the entire northeast region. The activation will focus on five key areas: business operations, training and employment opportunities, products, services and reinvestment.

Seven tourism concepts across five key visitor hubs have been developed by the community in collaboration with the Mount Buffalo Destination Advisory Group (MBDAG), and are sought to be explored commercially through this Business Case Assessment and Activation Project.

Project Objectives

Extensive collaborative work has been undertaken by the Mount Buffalo Destination Advisory Group in consultation with the community and key stakeholders to produce a new Vision for Mount Buffalo. Three primary objectives of the Mount Buffalo activation Project have been identified. These objectives will be the underlying focus of the Business Case Assessment.

1

Maintain and enhance the natural and cultural assets of the mountain for current and future generations.

2

Take a sustainable 'Whole of Mountain' approach to visitor economy activation, including the restoration and activation of the Chalet.

3

Enable Mount Buffalo to become a sustainable, all year round destination.

Part 1 - Project Introduction

Project Scope

The project includes an analysis of seven tourism concepts across five key visitor hubs:

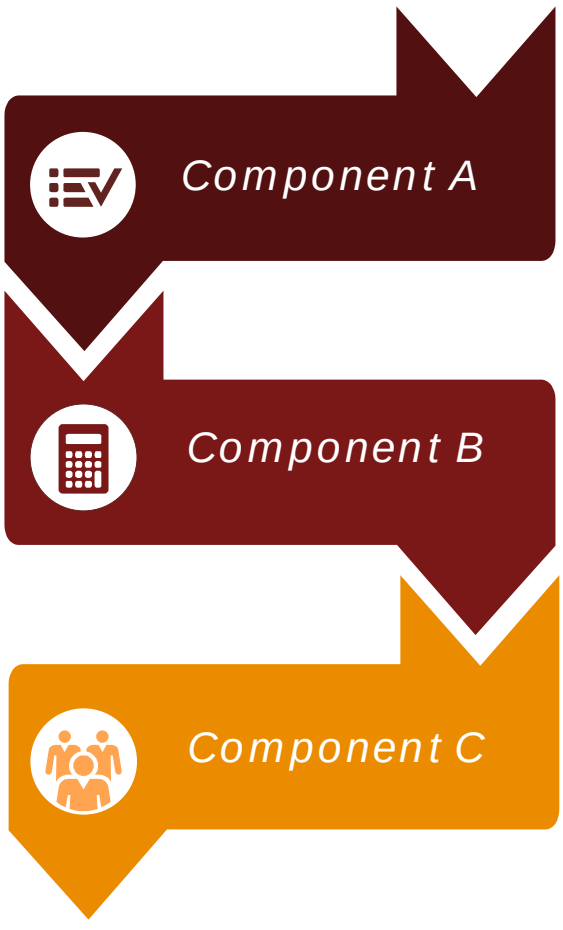
- The Gorge and Chalet Village precinct as the primary visitor area, containing a range of tourism experiences
- Lake Catani as the area for camping
- Dingo Dell as the destination's new centre for outdoor education
- Cresta Valley as the mountain's day lodge and activity precinct
- The base of the mountain for a Mountain Gateway visitor centre.

The seven proposed tourism concepts include:

1. Gorge Skywalk Tourism Attraction: 50 m walkway across the granite rock gorge of Mount Buffalo;
2. Mount Buffalo Chalet and Village: Potential restoration of the Mount Buffalo Chalet and the reuse of surrounding buildings for commercial activities such as accommodation, spa retreat, hotel, retail, training and events
3. Food and Beverage Offering: Opportunities for provision of food and beverage services, including at the Gorge and front section of the Chalet
4. Glamping and Wilderness Huts at Lake Catani
5. Enhancement of Activity and Event Offering: Redevelopment of Cresta Valley into an alpine activity centre, expanded walks, mountain bike trail development
6. Dingo Dell: Potential development as an Outdoor Education Centre of Excellence
7. Mountain Gateway: Development of a visitor centre at the base of the mountain.

Please refer to the *Vision for Mount Buffalo, February 2017* prepared by the Mount Buffalo Destination Advisory Group for further detail on each concept.

The Project has been staged into three distinct components as follows:



A - Project management and communications strategy

- Development of a detailed project management plan & communications plan;
- Management and delivery of stakeholder relationships and engagement.

B - Concept feasibility

- Determination of potential demand and target markets;
- Determination of commercial feasibility of tourism concepts;
- Consideration of specific challenges and potential solutions associated with activation plan.

C - Project activation

- Development of marketing prospectus for a portfolio of commercially viable options;
- Identification of potential commercial investors and operators;
- Realisation of commercial opportunities and investment for each viable concept.

Project Management Plan Introduction

A Project Management Plan has been developed to inform members of the Taskforce how the Project will be executed, monitored and controlled throughout the Project duration.

Objectives

Objectives of the Project Management Plan include:

1. Identification of a clear Project schedule including timeframes around each component of the project (A, B and C), and proposed dates for key deliverables (Refer to Appendix C for Detailed Project Schedule);
2. Identification of key personnel committed to the project, and summary of their role in project delivery;
3. Identification of key risks associated with the Project, and actions required to manage and mitigate these risks.

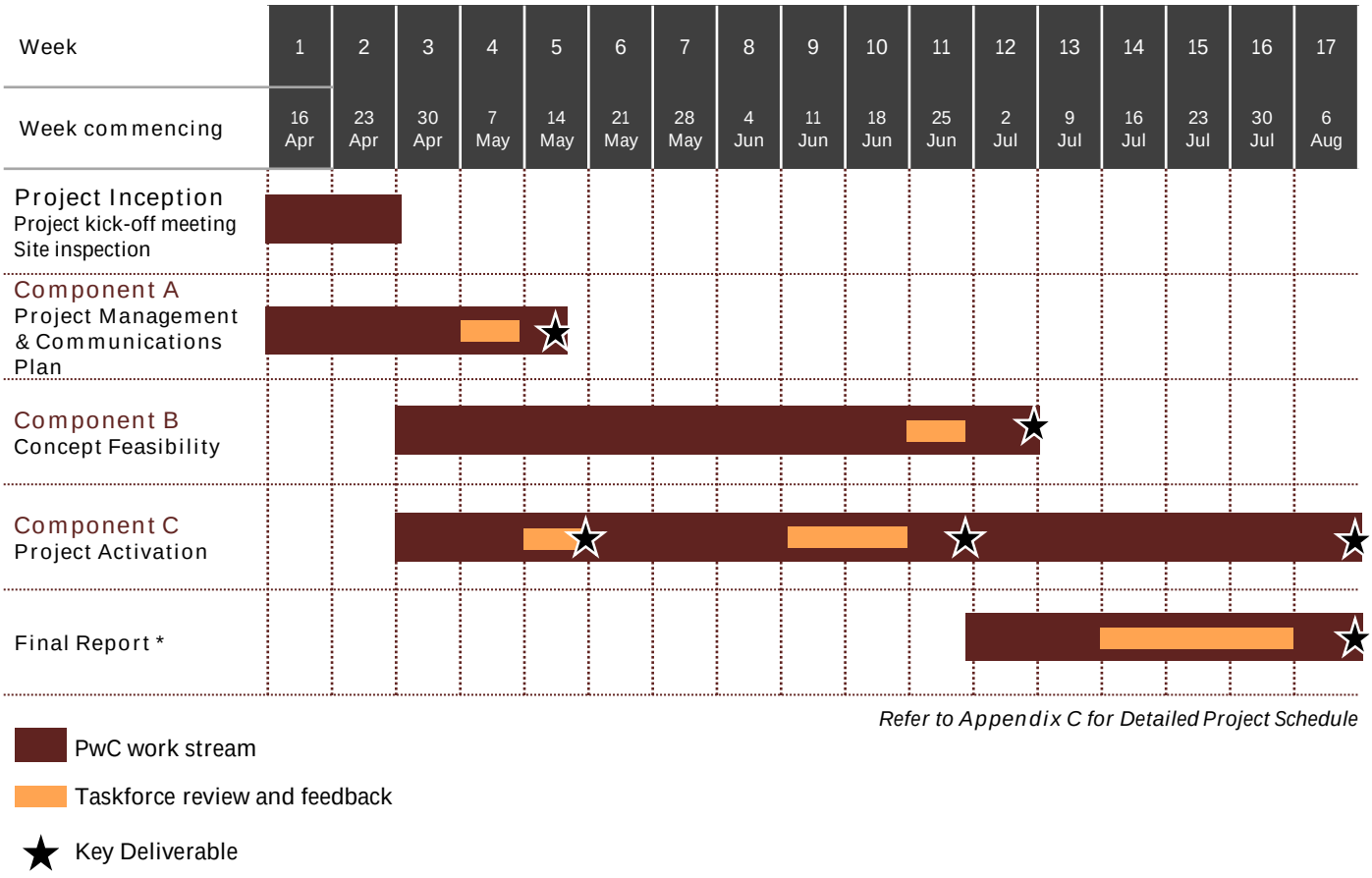
Project Methodology

The following project methodology has been established to achieve the objectives of the Project:

Refer to Appendix A for a detailed description on Project Methodology and key deliverables.

Project Schedule

The following Project Schedule outlines staging of each of the Project components.
Refer to Appendix C for Detailed Project Schedule, which includes proposed dates for key deliverables in throughout each stage of the Project.



Refer to Appendix C for Detailed Project Schedule

PwC work stream

Taskforce review and feedback

Key Deliverable

** This schedule is subject to vary depending on external market factors and stakeholder feedback.*

Part 2 - Project Management Plan

Key Personnel

PwC have compiled a bespoke team of professionals across Real Estate Advisory, Economics & Policy and Quantity Surveying that will work collaboratively to meet the requirements of the Project.

Independent Consultant	Project Responsibility
PwC - Real Estate Advisory	• PwC to assume overall responsibility for the Project • PwC's expertise lies in advising all levels of government and understanding the risks, complexities and opportunities associated with the Project. • PwC will assume day-to-day responsibility for the Project, co-ordinating inputs and liaising with the Taskforce via the Alpine Shire Council to ensure Project objectives and milestones are met. • PwC will be responsible for delivering the Final Business Case Assessment Report to the Taskforce.
PwC - Economics & Policy	• PwC Economics & Policy will lead the demand analysis and direct economic benefits evaluation for Component B - Feasibility Analysis.
WT Partnership (WTP)	• WTP will assume overall responsibility for the cost analysis component of the Project. • WTP will attend the Mount Buffalo site visit, and will conduct the cost analysis review on each of the seven activation concepts for the purpose of the feasibility analysis.

The Alpine Shire Council will act as Project Lead, and will be the primary point of contact for PwC throughout the duration of the Project.

Project Representatives	Position	Team	Project Responsibility
Charlie Bird	CEO	Alpine Shire Council	• Project Sponsor and member of the Taskforce. • Charlie will assume overall responsibility for the Project as Project Sponsor.
Will Jeremy	Director - Assets	Alpine Shire Council	• Project Lead. • Primary point of contact on behalf of the Project for PwC.

Part 2 - Project Management Plan

Risk Management

The following risks have been identified as key Project risks. Actions to manage these risks throughout the Project have been identified below:

Project Risk	Management Action
Land Ownership	
Traditional Ownership Settlement Act negotiations between Taungurung Clans Aboriginal Corporation and State government for Mount Buffalo National Park land needs to be fully explored and understood by the Taskforce. Timing of Recognition and Settlement Agreement, opportunities to collaborate with the Taungurung Clan, and any implications are to be explored.	• The Taungurung Clans Aboriginal Corporation to be consulted throughout the Project via Taskforce representative to ensure transparency of all Project activities and project limitations and opportunities. Taungurung Board to be consulted early to understand position and collaborative Project opportunities.
Complex stakeholder and task environment	
Navigation and management of a complex web of relationships, characterised by multiple government and non-government organisations delivering activities and outputs to meet Project objectives. There is a risk that multiple and various stakeholders may lead to misunderstandings or Project objectives misalignment.	• An integrated approach with multiple stakeholder groups to enable the alignment of engagement activity. • Implementation of a considered and tailored Communications Plan to ensure mutual understanding of Project objectives and key messages. • Each Taskforce representative to provide transparent communications in and out, and adhering to the overarching Project communications plan. *
Community opposition	
Select members of the community may have an alternate position on the future of Mount Buffalo to the position outlined in the Vision document. A risk exists that the position of a perceivable few may influence the wider community, and damage the reputation of the Project. This risk may influence future commercial investor decisions.	• PwC to engage with identified community members early in the process to understand their position, and look to collaborate on Project opportunities. • Strong proactive media management strategy.
Government relationships	
The relationship between State government agencies (ie, DELWP, Parks Victoria, RDV, Minister's Offices) has been tested in previous attempts to invest in the redevelopment of the Mount Buffalo Chalet.	• An active engagement and communication process throughout the Project via key Taskforce members will enable key stakeholder to understand the project status. • Reiteration of the revised 'Whole of Mountain' Vision for the resort.
Flexibility and security	
Flexibility around tenure of Crown Land will be a critical factor in attracting the right commercial investor(s) to the Project. A suitable lease structure (including tenure and terms) will be key to providing flexibility and assurance to potential investors and operators.	• Closely monitor the status of negotiations with TCAC under the Traditional Owner Settlement Act, whilst simultaneously engaging with Taungurung Clan. • Monitor any other legislative changes, and engage with Parks Victoria to understand what impacts these may have on future land tenure. • Engagement with private sector to understand flexibility and assurance requirements.
Investment complexities	
There is an opportunity to have multiple parties invest in the mountain activation. The 'Whole of Mountain' approach recognises that there is no one individual initiative that will transform the mountain. Instead, a number of diverse and complementary solutions may be possible, leveraging opportunities across various user groups.	• A governance model that will enable practical co-ordination of multiple parties must be considered in this circumstance. • Engagement with private sector to understand optimal investment arrangements (finance, tenure and operation).
Alignment on future direction of the Chalet	
The Mount Buffalo Chalet has significant heritage importance to the local community, the region and statewide. The pathway forward for the Chalet redevelopment is not currently aligned for all stakeholders.	• The cost of rebuilding and maintaining the Chalet will influence the thinking of key investors in terms of the future of the site. • Early engagement throughout the Feasibility Analysis and Market Activation phases may provide an opportunity to reach alignment.
Project positioning in public eye	
Positioning the Project as a 'Whole of Mountain' activation within the whole of region of NE Victoria will be essential to ensure the project is seen to complement the existing businesses and cultural, environmental and economic values that people visit and live in the region for.	• A strategic External Communications Response Plan* has been devised to ensure key messages are delivered with consistency and continuity across relevant stakeholder groups. • Key stakeholders to work closely with Alpine Shire communications team to craft consistent messaging.
Time	
The Project site is large and the activation concepts extensive. Lengthy development staging is likely. The elements of public relations, communications and continual engagement with stakeholders will need to be well planned and capable of change during this period over a number of years.	• Public relations, communications and engagement with stakeholders will need to be planned and managed with effective change control processes over a period of time.

** Refer to page 12 for External Communications Response Plan.*

Communications Plan Introduction

The sensitive nature of the Mount Buffalo National Park combined with the high profile nature of this Project requires a robust and structured approach to engaging and aligning key stakeholders throughout the duration of the Project. Ensuring clear and consistent messaging that will lead to positive engagements with critical stakeholders will be a critical ingredient to success.

Purpose

The purpose of the Communications Plan is to develop a common approach of communication principles and strategies that can be administered by the Project Taskforce members to key stakeholder groups in service of the Project's vision, mission and strategic priorities.

Objectives

Effective stakeholder engagement requires an understanding of stakeholders' interests, their impact on and importance to the Project, and the appropriate mechanism to engage with them.

Objectives of this Communications Plan include:

1. To establish a common approach with consistent messaging to support achievement of Project objectives;
2. To build a positive image of the activation Project, and the Vision for Mount Buffalo that has been developed by the local community;
3. To improve the quality and accuracy of external publications and media reporting;
4. To increase positive perception of the Project plan and stakeholders responsible for implementing the plan;
5. To mitigate conflict of interests and expectations that can put the Project outcomes at risk;
6. To strengthen community confidence in the Project in general, including confidence of potential investors and operators;
7. To strengthen partnership with local community through the Project.

Communications must be underpinned by a comprehensive understanding of each of the key stakeholder groups, their relationship to the project, their ability to influence Project outcomes.

Our outlined engagement principles drive a strategic direction for all external communications.

Engagement Principles

The following principles will form the foundation of engagement with stakeholders to deliver this Project:

- *Consistency of key message.* Providing stakeholders with clear and consistent messaging will enable continuity, and will reduce the risk of confusion or message distortion.
- *Prioritise what matters.* Build engagement and momentum by targeting the key information, activities and initiatives ongoing throughout the Project. This is particularly pertinent in managing key messages across the Project Taskforce.
- *See the bigger picture.* Focus on the outcomes you need through an integrated program perspective. The Mount Buffalo Activation activities are part of a broader vision for Victoria's north eastern region. An in-depth understanding of the full context of Mount Buffalo, demands and opportunities leads to stakeholders being engaged at a heightened level.
- *Use data to iterate.* When possible, provide an evidence-based approach to engagement that demonstrates the benefits the Project will bring to the region and the local community, and responds directly to feedback provided from years of intensive community consultation.
- *Clear accountability.* Achieve clear channels of communication and stakeholder management through agreed roles and responsibilities to ensure consistent and swift information flows. This is important where there are multiple touch points among agencies and stakeholders, to keep the engagement focused on agreed outcomes.
- *Clear communication channels.* Use communication channels and tools that are most appropriate for the audience, and to ensure the right messages are disseminated.

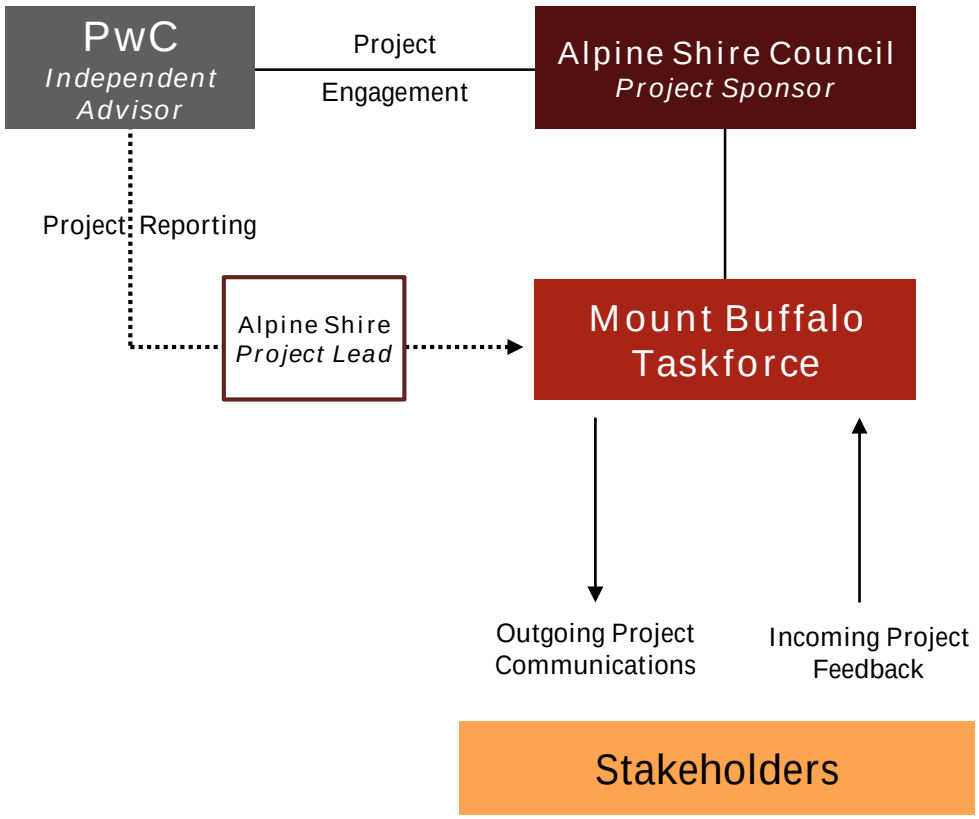
Mount Buffalo Business Case Assessment Taskforce

The Mount Buffalo Business Case Assessment Taskforce* has been established for the duration of the Project, and will meet to discuss every eight weeks. Members of the Project Taskforce include:

Taskforce Member	Key Contact
Parliamentary Secretary for Tourism, Major Events and Regional Victoria	Danielle Green (Chair)
Regional Development Victoria – Regional Director Hume	Matt Nelson
Regional Development Victoria – Manager Economic Development Hume	Mark Byatt
Parks Victoria, Regional Director Eastern Victoria	Graeme Baxter
Parks Victoria, Regional Director Regional Victoria	Kylie Trott
Parks Victoria, District Manager North East	Ty Caling
DELWP – Regional Director Hume Region	Clare Kiely
Tourism North East - CEO	Amber Gardner
Taungurung Clans Aboriginal Corporation - CEO	Matthew Burns
Mount Buffalo Destination Advisory Group - Chair	Janelle Boynton
Community Action for the Chalet (CAC) - Chair	David Jacobson
Alpine Shire Council – CEO (Project Sponsor)	Charlie Bird
Alpine Shire Council – Mayor (Project Sponsor)	Cr Ron Janas

** Throughout this document, "Taskforce" refers to the Mount Buffalo Business Case Assessment Taskforce.*

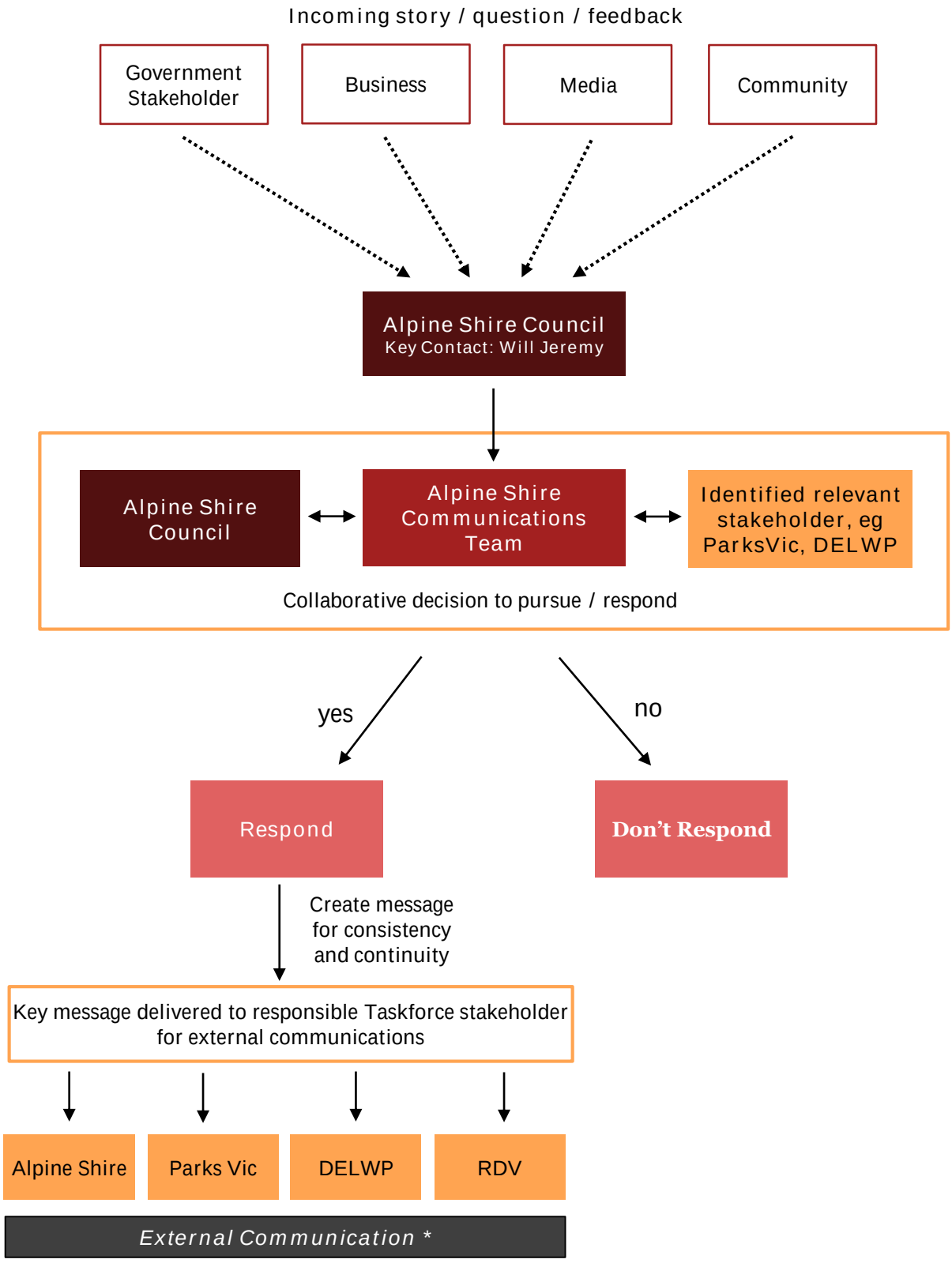
Internal Communications & Reporting Pipeline



- The Mount Buffalo Business Case Assessment and Activation Project is being funded by the Victorian government.
- The Alpine Shire Council is the Project Sponsor, and will act as Project Lead.
- PwC has been engaged as an independent consultant to complete the components of the Project in consultation and collaboration with the Alpine Shire Council and the Taskforce.
- PwC will report to the Mount Buffalo Business Case Assessment Taskforce (Taskforce) via the Alpine Shire Project Lead representatives.
- The Taskforce will meet every eight weeks, and includes multiple stakeholders including state government agencies, local council and community representatives.
- Please refer to Page 10 for a full list of the Taskforce members.

Part 3 - Communications Plan

External Communications Response Plan



* Appropriate channel of external communication to be agreed upon between relevant stakeholder and the Alpine Shire.

Part 3 - Communications Plan

Stakeholder Identification

Stakeholders have been divided into three distinct groups, A B and C, representing each group's relationship with the Project and their level of influence over Project outcomes. Stakeholder members with groups have been identified on the following pages.

Group A — *Key Decision Makers*

Group B — *Investors / Operators*

Group C — *Park Users and Community*

Group A – Key Decision Makers

Group A

These stakeholders have been identified to have a role in decision making on the outcome of the Taskforce's activities. Engagement with these key stakeholders should be lead by the responsible relationship from the Taskforce.

Stakeholder Group	TF	Area of Influence	Engagement	Primary Responsibility
Taungurung people and the Taungurung Clans Aboriginal Corporation (TCAC)	●	Land Justice - Traditional Owners of the Land and likely settlement outcomes under a Recognition and Settlement Agreement (Traditional Owner Settlement Act). Potential business opportunities. Active consultation required.	Collaborate – direct engagement and seek to bring along the journey	Alpine Shire, Parks Victoria, Taskforce
Mount Buffalo Business Case Assessment Taskforce	●	Key project direction and decision making. To be informed of project status at regular intervals.	Inform and consult	Alpine Shire + PwC
Local State Member – Mr Tim McCurdy		State government decision making	Involve and inform	Alpine Shire
Federal Member – Ms Cathy McGowan		Federal government decision making.	Involve and inform	Alpine Shire
Alpine Shire Council	●	Local Government Area, Project Sponsor and Communications Lead.	Project Lead	
Adjacent Shires – Indigo, Wangaratta, Benalla, Wodonga, Mansfield		Whole of region approach is a stronger voice. Integration with other North East tourism initiatives.	Consult and seek to collaborate	Alpine Shire
Parks Victoria Board	●	Parks Vic strategic direction, budget spend – particularly for projects over $2M. Potential avenue for future funding.	Inform of Vision, seek to involve in major decisions	Parks Victoria
Ovens Murray Regional Partnership		Provides advice to RDV on priority of government spending in the region. Timing of engagement to be aligned with budgetary cycle.	Inform of Vision, seek to involve in major decisions	RDV
Regional Development Victoria (RDV)	●	State's lead agency in developing rural and regional Victoria. Statutory agency within DEDJTR.	Inform of Vision, seek to involve in major decisions	RDV
Regional Development Australia (RDA)		Brings together all levels of government to enhance the development of Australia's regions.	Inform	RDV
Tourism North East Board	●	One of eleven regional tourism boards established by Visit Victoria	Consult	Tourism North East
Department of Environment Land, Water and Planning (DELWP)	●	State government department responsible for protecting the environment, managing water resources, planning, fire and emergencies.	Consult	Alpine Shire + Taskforce
North East Catchment Management Authority		Works with community, government and funding organisations to protect and enhance land, water and biodiversity.	Consult	DELWP
Environmental Protection Agency (EPA)		Ensures protection of beneficial uses of the environment from adverse impacts of waste and unwanted noise.	Consult	DELWP
Heritage Victoria		Mount Buffalo Chalet listed on the Heritage Register	Consult for any Chalet and other heritage-related project work	DELWP
Victorian Ministers	●	Government prioritisation and decision making	Consult	Danielle Greene
Opposition Ministers		Aim to promote bipartisan approach	Consult	Danielle Greene

TF = Represented on the Mount Buffalo Business Case Assessment Taskforce

Group B – Investors / Operators

These stakeholders could have a role in investing and/or developing the activation project activities.

Group B

Stakeholder Group	Area of Influence	Engagement	Primary Responsibility
Early Market Sounding target list – Developers, Owners, Operators	Opportunity for early engagement in Project. PwC to understand interest and potential project involvement. Understanding of opportunities and risks of tourism concepts.	Consult – direct early engagement	PwC + Alpine Shire
Target Developers, Investors and Operators	Potential business investment / operation opportunities.	Consult – direct engagement	PwC + Alpine Shire + MBDAG
Any other proponent who has expressed interest in developing a business in line with the project vision	Potential business investment / operation opportunities.	Consult – direct engagement	PwC + Alpine Shire
Bright and District Chamber of Commerce (and equivalents)	Ability to seek interest from potential businesses for the different activation areas.	Consult – direct engagement	Alpine Shire + PwC
Technology and Service Providers	Seek to showcase new technologies (power, water waste, solar etc.)	Collaborate, inform, empower	Alpine Shire + PwC
Existing Mount Buffalo businesses	May have little influence but deserve respect of being kept informed and on side. Maintain awareness of Project status.	Consult	Alpine Shire + PwC
Existing regional businesses	New development could impact their current business. Maintain awareness of Project status.	Inform	Alpine Shire

Group C – Park Users and Community

Group C

These stakeholders have a role in influencing demand on the use and development of the Mount Buffalo 'Whole of Mountain' activation. The timing of engagement will be influenced by the progress on the activation activities.

Stakeholder Group	TF	Area of Influence	Engagement	Primary Responsibility
Mount Buffalo Destination Advisory Group (MBDAG)	●	Direct engagement in development of Vision. Consultation group with community.	Consult	MBDAG Chair – Janelle Boynton
Park visitors & users – walkers, hikers, cyclists, campers		Various. Council to communicate through social media & website updates. PV to communicate through physical notice boards, website updates and Chalet tour guides.	Inform. Council to communicate through social media & website updates. PV to communicate through website updates and Chalet tour guides.	Alpine Shire + Parks Victoria
Community Action for the Chalet	●	Various	Inform	CAC Chair – David Jacobson
Local residents and future residents		People who may be directly affected by any development (eg, increased road use, increased visitation, amenity use etc.)	Inform and move to consult when development projects identified.	Alpine Shire Council
Victorian National Parks Association		Non-government environmental agency. Strong links to government.	Consult. Acknowledge any concerns and identify common objectives.	Alpine Shire + Parks Victoria
Mt Hotham + Falls Creek Resort Management Boards		Influence on decision makers	Consult. How to promote Mount Buffalo developments as complementary to their developments.	Alpine Shire
Local businesses – Tourism, Food & Bev		Strong voice in community. Have the ability to influence a positive outcome for the project.	Inform	Alpine Shire
General Public		Generate interest and understanding of the Vision. Promote use of existing facilities. Positive PR – influence on the market.	Inform. Existing Alpine Shire communication channels. Website, social media, local media.	Alpine Shire
Current accredited commercial on-mountain operators (ie, Dingo Dell and car park cafés, outdoor ed operators)		May have little influence but deserve respect in understanding what's going on.	Inform	Alpine Shire + Parks Vic
Education community (local universities, schools, TAFE's etc.)				
Media		Generate interest and understanding of the Vision.	Inform. PR consultant to manage key message, in collaboration with Alpine Shire and responsible stakeholder.	PR consultant + Alpine Shire + Responsible Stakeholder

TF = Represented on the Mount Buffalo Business Case Assessment Taskforce

Part 3 - Communications Plan

Example Scenarios

The following scenarios have been identified as likely scenarios to be questioned by stakeholder groups throughout the duration of the Project. Understanding how to respond to these scenarios in a clear and consistent manner will be critical in ensuring the right message is communicated.

Questions relating to the Project or Whole-of-Mountain activity – Any questions relating to the seven tourism activation concepts outlined in Part 1 of this report, or to any part of the Whole-of-Mountain approach, Alpine Shire in consultation with relevant Taskforce member are responsible for creating the key message.

Existing / Ongoing Projects - For any queries relating to existing projects currently underway within the Mount Buffalo National Park, key messaging and communications delivery is to be the responsibility of the relevant authority.

		Scenario	Key Message	Responsible for message delivery
Project or Whole-of-Mountain related queries	01	Gorge skywalk development.	Alpine Shire Communications Team in consultation with relevant Taskforce representative to decide on key message.	Alpine Shire
	02	Chalet Refurbishment / Redevelopment.	Alpine Shire Communications Team in consultation with relevant Taskforce representative to decide on key message.	Parks Vic
	03	New Glamping & Eco-Cabins at Lake Catani.	Alpine Shire Communications Team in consultation with relevant Taskforce representative to decide on key message.	Parks Vic
	04	Increase in level of development. Visitation, traffic, noise, visual and environmental impacts	Alpine Shire Communications Team in consultation with relevant Taskforce representative to decide on key message.	DELWP
	05	Existing operators on the mountain feeling threatened.	Alpine Shire Communications Team in consultation with relevant Taskforce representative to decide on key message.	Parks Vic
	06	Land Tenure is uncertain. Issues arising with relation to Traditional Land Ownership.	Alpine Shire Communications Team in consultation with relevant Taskforce representative to decide on key message.	Taungurung Alpine Shire Parks Vic
Existing Projects	07	Removal of Ski Lifts at Cresta Project.	For specific on-mountain activities that fall outside of the Project, communications to be delivered directly from relevant authority (PV).	Parks Vic
	08	Chalet - Current status, ongoing refurbishment project and general maintenance.	For specific project activities that fall outside of the Project, communications to be delivered directly from relevant authority (PV).	Parks Vic

Part 3 - Communications Plan

Key Messaging

Key messages have been designed to lead the communication for the independent PR consultant, Alpine Shire and key stakeholder representatives. Each group of stakeholders will have a unique key message specific to their relationship with the Project.

	Group A *Key Decision Makers*	Group B *Investors / Operators*	Group C *Park Users and Community*
Key Message	• There is a Community-lead Vision for a Whole of Mountain activation. • The Vision has benefits for the wider region, including potential for job creation across multiple sectors: tourism, regional development, education and services. • An opportunity to showcase the government's agenda to connect community to the environment. • A multi-department taskforce has been established to develop an action a plan that acts on the significant amount of community engagement performed over the past 5-10 years.	• Direct engagement and consultation with Taskforce and Independent Consultant. • PwC are conducting market engagement to understand interest in activation concepts. • Flexibility exists for interested parities around detailed delivery of activation concepts in their current state.	• After years of community consultation, a Whole of Mountain Vision for Mount Buffalo has been identified. • Council is supporting government to take the community-lead Vision through to the next steps. • Council has engaged an independent consultant, PwC. to undertake an assessment of the financial viability of the activation options. • The Project Taskforce has been established with key stakeholders to provide a pathway into government to enable action. • A process is now underway to seek private sector engagement from parties who wish to invest in the Whole of Mountain Project plan. • If you are interested in a business opportunity that aligns with one of the seven activation concepts described in the Vision document, we would like to hear from you. • You can find more information here: XXX
Request	• Where a viable business exists with active engagement from the private sector, collaborate with Taskforce and assist in supporting the realisation of the Project.	• Inform the Taskforce of interest in actively being involved in one or more of the proposed activation projects. • Actively engage with PwC to realise a beneficial outcome for all key stakeholder groups.	• Remain engaged in the process, share feedback with the Mount Buffalo Destination Advisory Group regarding the project, and continue to visit Mount Buffalo.
Frequently of communications	• PwC propose that a regular update email is sent to key government stakeholders around key Project activities. • Update and message to be crafted by the Taskforce in consultation with Alpine Shire Council communications team.	• Early market sounding conducted at beginning of Project (May) • Once concepts have been tested for viability, an Information Memorandum will be distributed and communication with interested parties will be managed on an individual basis as required.	• PwC propose that Alpine Shire and relevant members of the Taskforce take a proactive approach in information distribution. • Message and relevant channels to be crafted by the Taskforce in consultation with Alpine Shire Council communications team.

Part 3 - Communications Plan

Early Market Sounding

PwC will conduct market sounding in the early stages of the project.
The purpose of this process is to inform the Taskforce of market interest in the Project in its early phases, and provide the following information:

- Gauge level of interest from key tourism market operators on the Vision for Mount Buffalo;
- Gauge level of interest for each tourism concept, and make an assessment on which concepts may need to be reassessed in order to increase level of interest;
- Obtain an understanding of each proponent's alpine mountain and/or visitor entertainment experience (i.e. what works, what doesn't work, where is the tourism market moving)

PwC will seek approval from the Taskforce on which groups are to be included on the target list for early market sounding.

Appendix

Mount Buffalo Business Case Assessment and Activation Project

Appendix A – Detailed Project Methodology

	Project Kick-off	Project Management and Communications Plan	Demand Analysis & Concept Feasibility	Project Activation	Project close-out
Overview	We will attend the Project kick-off meeting with key Project Taskforce members to commence the Project. Key objectives of this meeting with be to confirm project scope and expectations along with deliverables and timelines.	We will develop Project Management and Communication Plans that capture the interests of stakeholders, their impact on and the importance to the Project, and definition around the option on how best to engage with stakeholders. At the heart of the engagement is an understanding that there is no one-size-fits-all approach, and establishing a series of trusted relationships, where all parties have a common understanding to support achievement of the Project outcomes. At an operational level this involves active planning and management of stakeholder engagement with regular review of stakeholder sentiment and adjustment of engagement plans accordingly. PwC and its partners bring a depth of stakeholder engagement experience, which is enhanced by our technical expertise and advisory skills that will enable deep understanding of the Project's stakeholder landscape.	Utilising PwC methodology the team will: • Determine potential demand and target markets that will occur through project activation • Determine the commercial feasibility, considering each of the 7 tourism concepts individually and the implications of combining all concepts. • Other concepts that arise from private sector engagement throughout the process (eg, rock climbing, via ferrata) should not be ruled out. • Consider the specific challenges and potential solutions associated with each concept and the broader Mount Buffalo location and infrastructure requirements.	Marketing Materials Utilising PwC's expertise in developing project marketing materials and leveraging the Project Taskforce's passion and understanding of the Project, develop key materials for project activation, including a marketing prospectus. Market Identification We will perform a targeted process, including early market sounding, to identify commercial investors and operators for each viable concept and/or consortium that can deliver one, some or all concepts. Commercial Realisation We will conduct an initial market engagement campaign within the Taskforce approved listing of selected investors/operators/consortium.	In line with our commitment to deliver a positive outcome for the Alpine Shire Council, we propose a close-out session with all relevant stakeholders to capture lessons learned and share knowledge and experience.
Output	Directions Paper Scheduled Meetings	Project Management & Communications Plan	A report on potential demand and identified target markets Feasibility analysis Cost benefit analysis Risk and challenge identification Solution and cost assessment	Target List of investors/operators/consortium Marketing Prospectus	All project documentation presented and discussed through a feedback session
Key Tasks	• Meet with Project team to discuss and agree objectives, scope and requirements. Confirmation of key stakeholders and agree engagement strategy • On-site inspection at Mount Buffalo with wider consultant team and stakeholders to walk the site and get a collective understanding of the opportunities and constraints the seven tourism concepts present. • Review the proposed hubs and precincts, existing services and immediate surrounds to assess requirements to have comprehensive understanding of the development of these seven concepts.	The Project Management Plan will be finalised after the initial kick off meeting with the Project Taskforce, detailing key milestones, expectations and deliverables. Project Management Plan The Project Management Plan will be delivered in a report format, and will detail: • Defined objectives • Agreed deliverables • Report review dates (both draft and final) • Key milestone dates • Key personnel • Risk management This information will be presented in a 'Status Tracker' that will document weekly status against stated objectives and deliverables Communications Plan The Communication Plan will be delivered in a report format, and will detail: • Stakeholder roles • Identified stakeholder groups • External communication protocol • Methods of communication	Refer to Appendix B for **review of detailed 'Demand Analysis and Concept Methodology'**	Refer to Appendix D for review of detailed Project Activation Strategy & Plan	Workshop with key Project team members to share knowledge and experiences.
Assumptions	• All relevant Project documentation provided at, or prior to, kick-off meeting • Project Taskforce to facilitate stakeholder engagement sessions • Site visit is attended by key Project Stakeholders	• Stakeholders will be available throughout the Project period	Refer to Appendix B	Refer to Appendix D	Workshop with key Project team members to share knowledge and experiences.

Appendix B – Demand Analysis & Concept Feasibility Methodology

Determination of potential demand and target markets

Key issues we will seek to qualify and address:

Understand the depth, breadth and level of quality of data that can be made available to us to assist us in analysing the potential demand and target markets of interest.

Activities:

As part of this phase, we will seek and review any available information from the Alpine Shire council on the level of current visitation in the region.

The data requirements for demand modelling will examine the induced tourism created in the region as a result of the proposed 7 tourism concepts as follows:

- Gorge skywalk tourism attraction
- Mount Buffalo Chalet and Village
- Food and beverage offering
- Glamping and Wilderness Huts at Lake Catani
- Enhancement of Activity and Event Offering
- Dingo Dell Outdoor Education Centre of Excellence
- Mountain Gateway Visitor Centre

For example, we will need to estimate the number of new visitors to the region.

To build up this profile of increased visitation and potential target market we will:

- review available tourism industry information for the region, including any available data in relation to the profile of visitors;
- review publically available tourism information (such as profiling the types of visitors e.g. intrastate, interstate, and international from Tourism Research Australia) coupled with a high-level tourism demand forecast.

Inputs

During this phase, we will collect and analyse appropriate inputs which capture the unique aspects of this development, particularly ensuring that unique activities, such as the Chalet spa facilities, entrance to the Skywalk and, glamping are incorporated as part of visitor uplift to the region.

Outputs:

The outputs from this analysis will provide Alpine Shire Council with an aggregated total likely increase in the number of visitors to the region including associated commentary on the potential target market resulting from the 7 tourism concepts.

Key assumptions:

Key relevant stakeholders will be available to discuss data availability and to test any assumptions we may employ as part of our modelling exercise.

Appendix B – Demand Analysis & Concept Feasibility Methodology

Determination of the commercial feasibility, including cost benefit analysis

Key issues we will seek to qualify and address:

Understand the depth, breadth and level of quality of cost data that can be made available to us in relation to the development/re-development of the 7 tourism concepts.

Activities:

Task 1 – Commercial feasibility

The commercial feasibility assessment will be performed through the application of the following:

- WT Partnership will leverage any available data you may be able to provide on costs to develop/re-develop the 7 tourism concepts and perform a cost estimate, based on the plans and drawings that exist, with appropriate contingencies for infrastructure developments and improvements.
- PwC will develop a high level revenue model utilising estimated visitation as developed during the "determination of potential demand" stage to estimate the potential returns resulting from the 7 tourism concepts.
- Assessing the costs against the revenue as outlined above will provide for the ability to conduct a commercial feasibility assessment.

Task 2 – cost benefit analysis

We will conduct a benefits analysis across qualitative and where possible quantitative, economic, social and environmental factors as an aggregate across all 7 tourism concepts.

We will utilise the previous build up of increased visitation (as outlined on the previous slide) and develop an expenditure profile by type of visitor e.g. intrastate, interstate, and international visitation utilising any information the Alpine Shire Council may hold to this effect, and coupling this with publicly available information e.g. Tourism Research Australia data.

We will then undergo a benefit/cost ratio utilising cost data in either options 1 or 2 above.

Key assumptions:

The benefits analysis will be heavily qualitative across social and environmental factors based on the nature that these factors are inherently difficult to quantify. However, to the extent possible within the fixed budget and timeframes, we will seek to quantify some of these aspects. On the other hand, economic benefits are relatively more easily quantifiable and our analysis will rely more heavily on economic factors.

Appendix C – Detailed Project Schedule

Please refer to the following page for a detailed Project Schedule.

Project Plan

Week Number	1	2	3	4	5	6	7	8	9	10	11	12	13
Week Commencing	16-Apr-18	23-Apr-18	30-Apr-18	07-May-18	14-May-18	21-May-18	28-May-18	04-Jun-18	11-Jun-18	18-Jun-18	25-Jun-18	02-Jul-18	09-Jul-18
Project Inception													
Taskforce Meeting #3, Bright		*Fri 20 Apr*											
Site Tour - Mount Buffalo			*Fri 27 Apr*										
Component A - Project Management & Comms Plan													
Collation of relevant project information													
Draft early market sounding proponent list				*Tue 1 May*									
Draft Project Management & Communications Plan				*Fri 4 May*									
Taskforce review - 1 week													
Final Deliverable: Project Management & Communications Plan					*Wed 16 May*								
Component B - Concept Feasibility													
Draft Feasibility Report										*Fri 15 June*			
Taskforce review of report - 1 week													
Final Deliverable: Feasibility Report												*(Finalise)*	*Fri 6 July*
Component C - Project Activation													
PwC to conduct market sounding with shortlist of Proponents													
Collate Target List of Proponents													
Issue Draft Target List					*Mon 14 May*								
Taskforce Review of Target List - 5 days													
Deliverable: Final Target List					*Fri 18 May*								
Collate Marketing Prospectus based on early market sounding feedback													
Draft Marketing Prospectus									*Fri 8 June*				
Taskforce Review of Marketing Prospectus - 2 weeks									*Feedback / Changes*				
Deliverable: Final Marketing Prospectus											*(Finalise)*	*Fri 29 June*	
Market Engagement													
Final Report													
Draft Report													
Taskforce Review, Feedback & Changes of Report													
Final Deliverable: Final Report													
Project Reporting													
Project Taskforce Meeting (every 8 weeks)									*Tue 12 June*				
Taskforce Project Update (every 2 weeks)													

Appendix D –Project Activation Strategy & Plan

Please refer to the following page for a detailed Project Activation Strategy & Plan.

Project Activation Strategy & Plan

Step 1:

Prepare early market sounding shortlist

PwC to meet with select Proponents to understand market interest in opportunity

Market findings to help inform Component 2 and 3 - Feasibility Report and Market Activation

Step 2:

- Review the Target List prepared by PwC and validate contact details.
- Add other potential interest parties onto the List, i.e. contacts provided by Taskforce.
- Utilise PwC global network including Partners to complete List.

→ **Consolidated Target List**

Step 3:

- PwC to prepare Marketing Prospectus with inputs from Taskforce → ***Marketing Flyer***
- PwC to coordinate and arrange design/advertisement → Advertisements (to be discussed)
- Project Taskforce to coordinate media release with PR Consultant → Media release
- Alpine Shire Council, Parks Victoria and other relevant stakeholders to update website → Website

Step 4:

PwC to distribute Marketing Prospectus to the agreed Consolidated Target List

C. Detailed Cost Reports

WT Partnership

1. Median Utility Services - Concept Feasibility Cost Estimates
2. Minimal Utility Services - Concept Feasibility Cost Estimates
3. Ultimate Utility Services - Concept Feasibility Cost Estimates
4. Adjusted Food & Beverage – Café in the Chalet – Detailed Cost Estimate
5. Adjusted Boutique Mount Buffalo Chalet Hotel (42-Room) Cost Estimate
6. Adjusted Dingo Dell Cost Estimate – including new Student Accommodation building and associated infrastructure

WT PARTNERSHIP

wtpartnership.com.au

9 August 2018

PricewaterhouseCoopers (PWC) Australia
2 Riverside Quay
SOUTHBANK VIC 3006
Attention: Ms Katya Crema katya.crema@pwc.com

Dear Katya

MOUNT BUFFALO ACTIVATION
CONCEPT FEASIBILITY COST ESTIMATES - MEDIAN UTILITY SERVICES

We are pleased to provide our Concept Feasibility Cost Estimates No. 1 dated 9 August 2018 for the associated seven concepts outlined in the Vision for Mount Buffalo document dated February 2017.

This estimate includes for an Median Scenario of Utility Services which will supply the Mount Buffalo Chalet and surrounding precincts. 'Median' level of utilities for the proposed development works encompasses an intermediate level of services capacity for all precincts including partial future proofing of selected precincts.

Do not hesitate to contact the undersigned to discuss any aspect which requires clarification or amendment to the assumed scope of works on our part.

Yours faithfully
WT Partnership

L R WEATHERELL
Associate

WT REF: 183652-05

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CONCEPT FEASIBILITY COST ESTIMATES - MEDIAN UTILITY SERVICES

MOUNT BUFFALO ACTIVATION

9 August 2018

CONTENTS

APPENDICES

1 ESTIMATE SUMMARY

WT Partnership (WT) estimates the Total Project Cost for the Seven Cost Options in the amount outlined in the table below. Prices are Exclusive of GST and are at current day. High Level and Detailed summaries are tabled below and the full estimate summary can be found within the appended (refer Appendix A).

We highlight that this a Class 5 estimate (Concept Feasibility Cost Estimate) due to the conceptual natural of the design. The estimates should be taken at an accuracy level of **+40% - 40%**.

This Concept Feasibility Cost Estimates No. 1 which includes an ***Median Utility Services Supply*** dated 9 August 2018 can be Summarized as follows:

High Level Summary

WORK PACKAGE	BUILDING COST $ (EXCL GST)	MEDIAN UTILITY SERVICES COST $ (EXCL GST)	TOTAL PROJECT COST $ (EXCL GST)
Gorge Skywalk	11,349,480	881,282	12,230,762
02 - Mount Buffalo Chalet	60,735,375	21,948,830	82,684,205
03 - Food and Beverage Offering	2,862,463	0	2,862,463
04 - Glamping (Eco Pods)	780,104	4,578,504	5,358,608
05 - Enhancement of Activity Event Offering	4,911,191	7,604,364	12,515,555
06 - Dingo Dell	2,347,941	4,538,790	6,886,731
07 - Mountain Gateway	9,320,827	5,569,473	14,890,300
TOTAL PROJECT COST	$92,307,381	$45,121,243	$137,428,624

Detailed Level Summary is as follows:

WORK PACKAGE	BUILDING COST $ (EXCL GST)	MEDIAN UTILITY SERVICES COST $ (EXCL GST)	TOTAL PROJECT COST $ (EXCL GST)
01 - Gorge Skywalk	6,546,900	466,000	7,012,900
02 - Mount Buffalo Chalet	34,705,150	11,606,000	46,311,150
03 - Food and Beverage Offering	1,651,200	-	1,651,200
04 - Glamping (Eco Pods)	450,000	2,421,000	2,871,000
05 - Enhancement of Activity Event Offering	2,833,000	4,021,000	6,854,000
06 - Dingo Dell	1,354,400	2,400,000	3,754,400
07 - Mountain Gateway	5,376,680	2,945,000	8,321,680

WORK PACKAGE	BUILDING COST $ (EXCL GST)	MEDIAN UTILITY SERVICES COST $ (EXCL GST)	TOTAL PROJECT COST $ (EXCL GST)
Subtotal Direct Cost	**52,917,330**	**23,859,000**	**76,776,330**
Site Based Preliminaries	$7,937,599	$3,578,850	**11,516,449**
Offsite Overhead & Profit	$3,042,746	$1,371,893	**4,414,639**
Subtotal Construction Cost	**63,897,675**	**28,809,743**	**92,707,418**
Locality factor allowance	$3,194,884	$1,440,487	**4,635,371**
Program prolongation allowance	$2,236,419	$1,008,341	**3,244,760**
Allowance for removal of Hazardous materials	$450,000	$-	**450,000**
Staging Allowance	$958,465	$432,146	**1,390,611**
ESD Allowance	$1,916,930	$864,293	**2,781,223**
Cultural Heritage, Vegetation Offset, Flora Fauna	$2,542,903	$1,139,425	**3,682,328**
Parks Vic / Alpine Shire Fees	$1,453,088	$651,100	**2,104,188**
Consultants Fees	$7,265,437	$3,255,501	**10,520,938**
Subtotal Project Cost	**83,915,801**	**37,601,036**	**121,516,837**
Authority Headworks & Charges	$-	$-	
Risk / Contingency	$8,391,580	$7,520,207	**15,911,787**
TOTAL PROJECT COST	**$92,307,381**	**$45,121,243**	**$137,428,623**

Cost Option – 04 - Glamping

In lieu of Item 04 – Glamping (Eco Pods), which includes for 10 No. Eco Pods, a cheaper cost option 04a Glamping Bell Tents has been provided. The Bell Tent Cost Option includes for 10 No. Bell Tents. Costs Option 4a is as follows:

WORK PACKAGE	BUILDING COST $ (EXCL GST)	MEDIAN UTILITY SERVICES COST $ (EXCL GST)	TOTAL PROJECT COST $ (EXCL GST)
04a – Glamping (Bell Tents)	$130,017	$4,578,504	**$4,708,521**

2 PROJECT DEFINITION

The project comprises the feasibility study of Mt Buffalo Resort development, which will include 7 Separate key precincts of work areas including building and associated utility services requirement. The 7 key precinct areas are as follows:

01. Gorge Skywalk Tourism Attraction: 50 m glass bottom walkway across the granite rock gorge of Mount Buffalo
02. Mount Buffalo Chalet and Village: Potential restoration of the Mount Buffalo Chalet and the reuse of surrounding buildings for commercial activities such as accommodation, spa retreat, hotel, retail, training and events
03. Food and Beverage Offering: Opportunities for provision of food and beverage services, including at the Gorge and front section of the Chalet
04. Glamping and Wilderness Huts at Lake Catani: Basic camping provided at the site currently generates 15,000 visitor nights. The Vision identifies opportunities to grow the market for high standard camping options
05. Enhancement of Activity and Event Offering: Redevelopment of Cresta Valley into an alpine activity centre, expanded walks, mountain bike trail development
06. Dingo Dell: Potential development as an Outdoor Education Centre of Excellence
07. Mountain Gateway (Visitors Centre) at the base of Mount Buffalo

3 SCHEDULE OF MAJOR QUANTITIES

The estimate is based on the following schedule of major quantities which have been extrapolated from the schedule of areas outlined in the Mount Buffalo Destination Advisory Group (February 2017), "Vision for Mount Buffalo" document – page 18:

MAJOR QUANTITIES – BUILDING AREAS	QUANTITY
Gorge Skywalk	
Gorge Skywalk (50m long x 4m wide)	200 m^2
Mt Buffalo Chalet	
Mt Buffalo Chalet – (Refurbish Existing)	3,648 m^2
Mt Buffalo Chalet – Services Shed (Fit Out Only)	451 m^2
Mt Buffalo Chalet – Stables Chapel / Function Rm (Fit Out Only)	493 m^2
Mt Buffalo Chalet – Horse Paddocks Spa / Hotel (New Build)	3,000 m^2
Mt Buffalo Chalet – Education Centre (New Build)	611 m^2
Mt Buffalo Chalet – School Accommodation (Within Refurbished Chalet)	1,105 m^3
Mt Buffalo Chalet – Staff Accommodation Building (New Build)	680 m^2
Mt Buffalo Chalet – Transport Hub (New Build)	400 m^2
Food & Beverage Offering	
Pump House Bar / Cafe	181 m^2
Mechanics Garage Restaurant	232 m^2
Glamping & Wilderness Huts (Lake Catani)	
Lightweight Bell Tents (In 10 No.)	250 m^2

MAJOR QUANTITIES – BUILDING AREAS	QUANTITY
Enhance Activity & Event Offering (Cresta Valley)	
Cresta Day Lodge (New Build)	750 m^2
Dingo Dell	
AW Keown Lodge - (Refurbish Existing)	454 m^2
Mountain Gateway	
Visitor Centre (New Build)	500 m^2
MAJOR QUANTITIES – EXTERNAL AREAS	
Gorge Skywalk	
Shared user path (4 m wide)	2,000 m^2
Carparking	750 m^2
Mt Buffalo Chalet	
Ice & roller skating rink	45 m^2
Chalet overnight parking	3,000 m^2
Transport Hub - pick up / drop off pavement	200 m^2
Village ped paved areas	4,985 m^2
Village day plaza deck	805 m^2
Pedestrian overpass / ramp (to gorge)	210 m^2
Tennis courts (105m^2) including associated recreational facilities	105 m^2
Performance stage (to existing courtyard)	100 m^2
Food & Beverage Offering	
External Deck & Outdoor Dining Areas	500 m^2
Glamping & Wilderness Huts (Lake Catani)	
Amenities Block – Nil	0 m^2
Enhance Activity & Event Offering (Cresta Valley)	
Day parking & pick up / drop off pavement	200 m^2
Allowance for walking trail 1500 wide (granite walk) - low difficulty terrain	1,950 m
Allowance for mountain bike trail 1500 wide - low difficulty terrain	1,950 m
Allowance for walking trail 1500 wide (granite walk) - med. difficulty terrain	900 m
Allowance for mountain bike trail 1500 wide - med. difficulty terrain	900 m
Allowance for walking trail 1500 wide (granite walk) - high difficulty terrain	150 m
Allowance for mountain bike trail 1500 wide - high difficulty terrain	150 m
Dingo Dell	
No External Works Included	0 m^2

MAJOR QUANTITIES – BUILDING AREAS	QUANTITY
Mountain Gateway	
Deceleration Lane, Carpark, Boardwalk, Decking, Paths	5,000 m^2
Soft Landscaping	122,500 m^2

4 DOCUMENTATION

This estimate is based on the following documentation:

- Documentation / Information
  - Vision for Mount Buffalo – Mount Buffalo Destination Advisory Group February 2017
  - HIP B. HYPE Sustainability – Sustainability Energy Assessment Report – July 2018
  - GHD Infrastructure Capacity Report for Parks Victoria September 2007
  - GHD Mount Buffalo Chalet Redevelopment Stage 2 Infrastructure Services Report for Ernst & Young May 2013
  - Jackson Clements Burrows | Lovell Chen Mount Buffalo Community Chalet Redevelopment Concept Design Proposal
  - GHD Infrastructure Mt Buffalo Chalet Complex Asbestos Resurvey for Parks Victoria September 2009
  - PWC Buffalo Activation Staging - DRAFT

5 SPECIFIC ASSUMPTIONS

The Estimate assume competitive lump sum tender for the whole of the Works from suitably qualified contractors.

The Estimate are based on the documents outlined in Section 4.

The following Inclusions/Assumptions has been made for the following key precincts:

BUILDING WORK ASSUMPTIONS

Gorge Skywalk (Crystal Brook)

- Assume steel framed cable stayed structure walkway including piled foundations & concrete works for abutments.
- Assume walkway to have span of 50 m x 4 m width (200 m^2).
- Assume HD glazed flooring & balustrades with stainless steel handrails & fixings.
- Allowance for 2 No. x 250 m long pedestrian footpath to skywalk including steps / ramps / retaining walls.
- 25 Bay Carparking & Ticket Booth included
- Male, female, disabled amenities block included
- Footpath Area to/from Skywalk – 2,000 m^2
-

Chalet

- Chalet site redevelopment assumes utilizing 90-95% of the entire chalet complex footprint. The cost of delivering this concept component would vary accordingly to scale, functionality, extent & quality of the construction.
- Refurbish Chalet Area- 3,648 m^2
- Refurbish Services Shed - 451 m^2
- New Build - Horse Paddock / Spa Hotel – 3,001 m^2
- New Build - Education Centre - 611 m^2
- School Accommodation 1,105 m^2 within existing chalet
- Art Deco Garages have recently Renovated by Parks Victoria hence allowance to fitout only
- Staff Amenities 680 m^2
- Medium term food & beverage assumed included in above areas

Food & Beverage Offering (Chalet)

- Refurbished Pump House & Mechanics Garage to Food/Beverage 413 m^2
- Allowance for Outdoor Deck / Dining Area of $100,000 included

Glamping & Wilderness Huts (Lake Catani)

- Base Cost - Lake Catani - 250 m^2 - Bell Tents (Assume 10 No.)
- Option 1 (provided Separately) - Lake Catani – 250 m^2 - Wilderness Huts or Eco Pods (Assume 10 No.) would be Standalone prefabricated buildings placed on stumps. The building would encompass a sleeping area, seating area and wash up area including an environmental chemical toilet. Minimal power and lighting would be supplied including a small rainwater tank for non potable water.

Enhanced Activity & Events (Cresta Valley)

- Cresta Day Lodge 750m^2
- 3km of walking / bike trails included - Alternate Levels of Difficulty

Education Centre / School Accommodation Centre (Dingo Dell)

- AW Keown Lodge 454 m^2 - Assume Existing Café used and refurbished

Mountain Gateway (Base of Mountain)

- New Visitor / Information Centre - 500 m^2
- External works, including pavements, decking, planting - 5,000 m^2
- 122,000 m^2 of Grassing & Low Height Native Plants, and enhancing existing native vegetation

UTILITY SERVICES ASSUMPTION - (ULTIMATE OPTION)

Gorge Skywalk

- Sewer drainage connected to a septic sewerage storage system, which may be either a Conventional Septic, AWTS or Septic Tank with Sand Filter. The tank material will by plastic/poly and have enough capacity for a small amenities block and would also take waste water from the proposed ticket booth/office.
- Potable Water Supply Pipework consisting of 50mm poly supply pipeworks from Crystal Brook Creek approximately 100 m away.
- 2 No. bottled gas cylinders would supply the ticket booth & amenities to allow for heating of water.
- A standalone solar photovoltaic system of up to 50kW has been assumed for power supply
- Backup water supply of 1 No. 20,000 litre Poly above ground rainwater tank has been included for water storage, if the potable water supply is insufficient.

Chalet

- Upgrade of existing sewer treatment plant assumed. A four stage upgrade is suggested for the existing treatment. The upgrade would be expensive, in the order of $2,845,000. This option is relatively energy intensive to operate due to the installation of a reverse osmosis plant that also would generate a brine that would need to be transported off the mountain for disposal. Waste brine is not easily discharged due to its very high salt content and may need to be carted some distance to a suitable disposal facility.

  Sludge from the initial treatment stages of the system also has to be periodically transported off the mountain for disposal, however disposal would be irregular due to access limitations over winter months with sufficient storage designed into the solution.
- Potable Water to Supply the chalet has been assumed to be an above ground pipework from the existing reservoir approximately (5,500 m) away. The existing water supply to the Chalet is from an existing reservoir located approximately 5.5 km to thesouth West on Crystal Brook. Water is allowed to flow down the Crystal Brook from the reservoir and across Hospice plain before being pumped up to the storage tanks at the Chalet. This is an extremely inefficient form of water supply due to significant losses to the surrounding creek and snow plains, especially during summer.
- Allowance for 10 No. mid sized bottled gas cyclinders including foundation have been included for the Chalet LPG Boilers to provide heating.
- We have allowed for electrictiy grid connected power and renewable solar photovoltaic system (475kW) assumed for power supply which would be suitable for the powering the Chalet. This option would enable enough energy to supply up to a 200 room Chalet up to 12,000m^2. Renewable energy systems can be connected to the electricity grid, where the electricity grid is effectively used as energy storage. Grid connected systems have significantly less capital cost as no batteries or other energy storage medium are needed.

Food & Beverage (Chalet)

- All Services included within Chalet Utilities Section

Glamping & Wilderness Huts (Bell Tents)

- Sewerage drainage assumed to be composting / worm farm waste system in which waste and grey water enter an underground tank which is connected to the septic drainage. Worms then process the solids and aerobic bacteria treat the water. The treated water is then filtered via a plastic micro filter. The final product is then pumped to a desigated irrigation area.
- Potable Water Supply Pipework will be piped from the Chalet to Lake Catani via a gravity feed above ground 50mm diameter poly pipe.
- 4 No. small/medium sized gas bottles have been included to Supply the 10 No. Bell Tents
- There is an existing small solar photovoltaic array servicing the on site caravan for the campground supervisor. This option includes for a grid connected (from the Chalet) upgraded solar photovoltaic system for power supply.

Enhanced Activity & Event Offering (Cresta Valley)

- A packaged aerated wastewater treatment system or septic tank and sand filter system similar to Lake Catani Campground has been allowed. The advantage with this system is that conventional flushing toilets can be used, but the system requires the removal of sludge and can be quite wasteful of water.
- Potable Water Supply Pipework main from the Chalet (6,000 m of 150 mm diameter poly main) has been included.
- 4 No. small/medium sized gas bottles have been included to Supply the Building
- Standalone solar photovoltaic system has been assumed for power supply. This system could servce a large facility of up to 800m^2.

AW Keown Log (Dingo Dell)

- Sewer drainage would be connected to a septic sewerage storage system, which may be either a Conventional Septic, AWTS or Septic Tank with Sand Filter. The tank material will by plastic/poly and have enough capacity for a small amenities block and would also take waste water from the proposed building amenities.
- Potable Water Supply Pipework main from the Cresta Valley (5,000 m of 150 mm diameter poly main) has been included
- 10 No. small/medium sized gas bottles have been included to Supply the Building. The quantity of gas bottles could be reduced and fewer larger gas bottles could be supplied if required.
- A standalone solar photovoltaic system assumed for power supply for this option. The capacity of the system included would be sufficient for a building area of up to 250m^2, but no capacity is included for the ski lift equipment.

Mountain Gateway

- Sewer drainage would be connected to a septic sewerage storage system, which may be either a Conventional Septic, AWTS or Septic Tank with Sand Filter. The tank material will by plastic/poly and have enough capacity for a small amenities block and would also take waste water from the proposed building amenities within the Information Centre.
- Potable Water Supply Pipework from Porpunkah township to Eurobin Picnic Grounds (6,000 m of 150 mm diameter poly mains).
- 4 No. small/medium sized gas bottles have been included to Supply the Building.
- LV – Aerial / above ground Low Voltage Power Mains (incl. poles). Power has been assumed to be brought in from Porpunkah (6,000 m).

6 SPECIFIC EXCLUSIONS

The estimate excludes the following:

- FFE Kitchen/Laundry & Special Equipment
- Tenancy Fitout (Shell & Core provided only)
- Current Chalet car parking upgrade / extension (by others)
- Annual maintenance plan (cost associated with Parks Vic - approx. $280,000 p.a.)
- Chalet heritage facade upgrades
- Leasing agreements
- Mobile Food Vans to Chalet Carpark
- Future long term food & beverage - hatted restaurant & bar
- Cresta activity & events (by others)
- Waste water / sewer mains (new sewer pipelines between nodes & chalet treatment plant - trucking assumed)
- Major structural rectification works for existing chalet - GHD Capability Report States $400,000 to replace foundations
- Authorities Headworks & Charges
- Financing Costs
- Cost escalation beyond May 2018.
- GST

7 SPECIFIC INCLUSIONS

The Estimates assumes competitive lump sum tenders for the whole of the Works from suitably qualified civil works contractors.

The Estimates are inclusive of the following allowances:

- Locality Factor Allowance of 5%
- Program prolongation allowance (Shutdown due to Accessibility Issues i.e. Winter) of 3.5%

- Allowance for removal of contaminated materials $450,000
- Staging Allowance of 1.5%
- ESD Allowance of 3% - This allowance for Ecological Sustainable Development across both building and utility services costs would be sufficient to enable future design to encorporate the following types of works:
  - Re-Insulation of External Walls & Roof Space to reduce heat/cooling loss.
  - Rainwater harvesting via tanks
  - Window tinting to prevent heat/cooling loss.
  - Etc.
- Parks Vic / Alpine Shire Fees 2%
- Cultural Heritage, Vegetation Offset, Flora Fauna allowance of 3.5%
- Consultants Fees of 10%
- Risk / Contingency 10% for Building Works & 20% for Utility Services

8 CONCLUSION / DISCLAIMER

We highlight that due to the preliminary nature of the documentation, our Estimates should be viewed as indicative and a preliminary opinion of the probable order of cost based on a concept without definition of design scope or quality.

Where WT has not been provided with sufficient information, we have made assumptions and allowances which will require detailed review once the design is developed.

Please review the detail of our Estimates, in particular the many assumptions as to scope, quality, performance and finishes of the current design intent to ensure it generally reflects the requirements.

The estimate has been prepared expressly for PricewaterhouseCoopers (PWC) Australia for the purpose of preparing a Reference design estimate and is not to be used for any other purpose or distributed to any third party.

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APPENDIX A

CONCEPT FEASIBILITY COST ESTIMATES NO. 1 – 9 AUGUST 2018 – MEDIAN UTILITY SERVICES

HIGH LEVEL SUMMARY (MEDIAN UTILITIES)

VISION FOR MOUNT BUFFALO

CODE	WORK PACKAGE	BUILDING COST (Excluding GST)	UTILITY SERVICES COST (Excluding GST)	TOTAL PROJECT COST (Excluding GST)
01	**GORGE SKYWALK** 50m Glass Bottom Walkway	$ 11,349,480	$ 881,282	$ 12,230,762
02	**MT BUFFALO CHALET** Restoration of Chalet & Re-use surrounding buildings, plus new buildings	$ 60,735,375	$ 21,948,830	$ 82,684,206
03	**FOOD & BEVERAGE OFFERING** Food & Beverage Services to Chalet & Gorge	$ 2,862,463	$ -	$ 2,862,463
04	**GLAMPING & ECO PODS** High End Camping at Lake Catani - Eco Pods (10 No.) inc. services	$ 780,104	$ 4,578,504	$ 5,358,609
05	**ENHANCEMENT OF ACTIVITY AND EVENT OFFERING** Re-development of Cresta Valley into Alpine Activity Centre	$ 4,911,191	$ 7,604,364	$ 12,515,555
06	**DINGO DELL** Outdoor Education Centre of Excellence	$ 2,347,941	$ 4,538,790	$ 6,886,731
07	**MOUNTAIN GATEWAY** Development of a Visitor Centre at the Base of the Mountain	$ 9,320,827	$ 5,569,473	$ 14,890,300
	Capex Total Cost - Most Likely	**$ 92,307,382**	**$ 45,121,243**	**$ 137,428,624**

04a	**GLAMPING & WILDERNESS HUTS (Option 1)** High End Camping at Lake Catani - Bell Tents (10 No.) excl. services	$ 130,017	$ 4,578,504	$ 4,708,521

DETAILED SUMMARY (MEDIAN UTILITIES)

VISION FOR MOUNT BUFFALO

CODE	WORK PACKAGE	BUILDING COST (Excluding GST)	UTILITY SERVICE COST (Excluding GST)	TOTAL PROJECT COST (Excluding GST)
01	**GORGE SKYWALK** 50m Glass Bottom Walkway	$ 6,546,900	$ 466,000	$ 7,012,900
02	**MT BUFFALO CHALET** Restoration of Chalet including Services Shed, Stables Chapel/Function Room, Horse Paddocks Spa & Hotel, Education Centre, School Accomodation, Staff Accomodation	$ 34,705,150	$ 11,606,000	$ 46,311,150
03	**FOOD & BEVERAGE OFFERING** Food & Beverage Services to Chalet & Gorge	$ 1,651,200	$ -	$ 1,651,200
04	**GLAMPING & ECO PODS** High End Camping at Lake Catani - Eco Pods (10 No.) incl. services	$ 450,000	$ 2,421,000	$ 2,871,000
05	**ENHANCEMENT OF ACTIVITY AND EVENT OFFERING** Re-development of Cresta Valley into Alpine Activity Centre	$ 2,833,000	$ 4,021,000	$ 6,854,000
06	**DINGO DELL** Outdoor Education Centre of Excellence (Fitout of Existing Building)	$ 1,354,400	$ 2,400,000	$ 3,754,400
07	**MOUNTAIN GATEWAY** Development of a Visitor Centre at the Base of the Mountain	$ 5,376,680	$ 2,945,000	$ 8,321,680
	Sub-Total Trade Cost	**$ 52,917,330**	**$ 23,859,000**	**$ 76,776,330**
	Contractor's Indirect Costs & Margins			
	Site Based Preliminaries	$ 7,937,599	$ 3,578,850	$ 11,516,449
	Offsite Overheads & Profit	$ 3,042,746	$ 1,371,893	$ 4,414,639
	Construction Cost	**$ 63,897,676**	**$ 28,809,743**	**$ 92,707,418**
	Locality factor allowance	$ 3,194,884	$ 1,440,487	$ 4,635,371
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	$ 2,236,419	$ 1,008,341	$ 3,244,760
	Allowance for removal of Hazardous materials	$ 450,000	$ -	$ 450,000
	Staging Allowance	$ 958,465	$ 432,146	$ 1,390,611
	ESD Allowance	$ 1,916,930	$ 864,292	$ 2,781,223
	Cultural Heritage, Vegetation Offset, Flora Fauna	$ 2,542,903	$ 1,139,425	$ 3,682,328
	Parks Vic / Alpine Shire Fees	$ 1,453,087	$ 651,100	$ 2,104,188
	Consultants Fees	$ 7,265,437	$ 3,255,501	$ 10,520,938
	Sub-total	**$ 83,915,802**	**$ 37,601,035**	**$ 121,516,837**
	Authority Headworks & Charges	$ -	$ -	$ -
	Risk / Contingency	$ 8,391,580	$ 7,520,207	$ 15,911,787
	TOTAL - TCE	**$ 92,307,382**	**$ 45,121,243**	**$ 137,428,624**
04a	**GLAMPING & WILDERNESS HUTS (Option 1)** High End Camping at Lake Catani - Bell Tents (10 No.) excl. services	$ 130,017	$ 4,578,504	$ 4,708,521

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
01 - GORGE SKYWALK						
Building Works						
	Demolition	1	item	100,000	100,000	
	Earthworks	1	item	260,000	260,000	
	Piling	1	item	232,700	232,700	
	Concrete Structure (Foundations / Abutments / Retaining Walls)	1	item	775,850	775,850	
	Structural Steelwork & Stay Cables	1	item	2,103,350	2,103,350	
	Feature Cladding to Skywalk	1	item	225,000	225,000	
	Metalwork / Glazing (Deck & Balustrade)	1	item	525,000	525,000	
	Lighting	1	item	115,000	115,000	
	Landscaping	1	item	100,000	100,000	
	Shared User Path (On Grade)	1	item	1,265,000	1,265,000	
	Services to Skywalk	1	item	270,000	270,000	
	Carparking & Ticket Booth	1	item	425,000	425,000	
	Amenities Block	1	item	150,000	150,000	
	Sub-Total - Trade	**200**	**m2**	**32,735**	**6,546,900**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries	15%			982,035	
	Offsite Overheads & Profit	5%			376,447	
	Construction Cost	**200**	**m2**	**39,527**	**7,905,382**	
	Locality factor allowance	5%			395,269	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			276,688	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			118,581	
	ESD Allowance	3.0%			237,161	
	Total Construction Costs (Excluding GST) as @ May 2018	**200**	**m2**	**44,665**	**8,933,081**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			312,658	
	Parks Vic / Alpine Shire Fees	2%			178,662	
	Consultants Fees	10%			893,308	
	Total Design and Construction Costs	**200**	**m2**	**51,589**	**10,317,709**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			1,031,771	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**200**	**m2**	**56,747**	**11,349,480**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
01 - GORGE SKYWALK (MEDIAN UTILITIES)						
	Utility Services to Site Location					
	Sewer Mains (Septic Storage System)	1	Item	37,500	37,500	
	Sewer Treatment Plant (STP inc. in Chalet)		*Excl*		-	
	Septic storage system	*1*	*item*	*37,500*	*37,500*	
	Pumping Station	*1*	*No*		-	
	Sewer Reticulation (incl. above)	1	Item	-	-	
	100 diameter sewer reticulation to service amenities block		*m*	*250*	-	
	Potable Water (assumed piped from Crystal Brook Creek)	1	Item	50,000	50,000	
	Potable Water Reticulation Pipework	*100*	*m*	*500*	*50,000*	
	Pumps - N/R - Gravity Fed from Chalet		*Note*			
	Recycled Water		Excl		-	
	Gas	1	Item	3,000	3,000	
	Gas Mains		*Excl*			
	Bottled Gas (Bottle Supply + Foundation)	*2*	*No*	*1,500*	*3,000*	
	Power (stand alone solar photovoltaic system)	1	Item	300,000	300,000	
	Substation	-	*No*		-	
	Kiosk	-	*No*		-	
	Main Switchboard		*No*	*3,500*	-	
	HV - Mains Power	-	*m*		-	
	LV - Mains Power - Assume from Chalet (aerial) inc. poles		*m*	*500*	-	
	Stand alone solar photovoltaic system (5 No.)	*1*	*item*	*300,000*	*300,000*	
	Telecommunications (Included in Chalet)		Excl		1,500	
	Activity Centre (Tower/Comms Room) - Inc. in chalet cost		***Excl***		-	
	Fibre Optic Cable - Presume from Chalet		*m*	*250*	-	
	Wi-Fi (Modem/Computer) in ticket booth	*1*	*Item*	*1,500*	*1,500*	
	Stormwater	1	Item	74,000	74,000	
	Stormwater Mains (Locally Drained into creek/lake)	*100*	*m*	*450*	*45,000*	
	Drainage Pits / Wetland Planting/Landscaping	*1*	*Item*	*5,000*	*5,000*	
	Rainwater Tanks	*20,000*	*Ltr*	*1.2*	*24,000*	
	Sub-Total - Trade				**466,000**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries	15%			69,900	
	Offsite Overheads & Profit	5%			26,795	
	Construction Cost				**562,695**	
	Locality factor allowance	5%			28,135	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			19,694	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			8,440	
	ESD Allowance	3.0%			16,881	
	Total Construction Costs (Excluding GST) as @ May 2018				**635,845**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			22,255	
	Parks Vic / Alpine Shire Fees	2%			12,717	
	Consultants Fees	10%			63,585	
	Total Design and Construction Costs	-			**734,401**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	20%			146,880	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)				**881,282**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
02 - MT BUFFALO CHALET						
	Functional Area Estimates					
	Refurbishment of Existing Chalet					
	Chalet - Lower Ground Floor - Accommodation	333	m2	2,800	932,400	
	Chalet - Lower Ground Floor - Circulation	94	m2	2,000	188,000	
	Chalet - Lower Ground Floor - Admin.	13	m2	2,400	31,200	
	Chalet - Lower Ground Floor - Amenities	44	m2	4,000	176,000	
	Chalet - Lower Ground Floor - Hospitality BOH	140	m2	4,000	560,000	
	Chalet - Lower Ground Floor - Parks Admin.	84	m2	2,800	235,200	
	Chalet - Lower Ground Floor - Day Lodge Cafe	197	m2	4,000	788,000	
	Chalet - Ground Floor - Accommodation	333	m2	2,800	932,400	
	Chalet - Ground Floor - Circulation	263	m2	2,000	526,000	
	Chalet - Ground Floor - Admin.	64	m2	2,400	153,600	
	Chalet - Ground Floor - Amenities	89	m2	4,000	356,000	
	Chalet - Ground Floor - Hospitality FOH	834	m2	3,600	3,002,400	
	Chalet - Ground Floor - Hospitality BOH	58	m2	4,000	232,000	
	Chalet - Ground Floor - Activity / Retail	107	m2	2,400	256,800	
	Chalet - 1st Floor - Accommodation	699	m2	2,800	1,957,200	
	Chalet - 1st Floor - Circulation	176	m2	2,000	352,000	
	Chalet - 2nd Floor - Accommodation	87	m2	2,800	243,600	
	Chalet - 2nd Floor - Circulation	33	m2	2,000	66,000	
	Medium term food & beverage assumed included above in Hospitality areas		Note			
	Futrure long term food & beverage - hatted restaurant & bar (Excluded)		Note			
	Fittings, Furniture & Equipment (FFE)		m2	250	-	
	Services Shed (Fit Out Cost)					
	Services Shed Retail - Amenities	47	m2	4,000	188,000	
	Services Shed Retail - Activity / Retail	404	m2	2,400	969,600	
	Stables Chapel/Function Room (Fit Out Cost)					
	Stables Chapel/Function Rm - Hospitality FOH	287	m2	3,600	1,033,200	
	Art Deco Garages - Admin.	180	m2	1,800	324,000	
	Art Deco Garages - Amenities	26	m2	4,000	104,000	
	Horse Paddocks Spa & Hotel (New Build)					
	47 hotel rooms		Note			
	Horse Paddocks Spa & Hotel - Accommodation	1,750	m2	4,000	7,000,000	
	Horse Paddocks Spa & Hotel - Circulation	300	m2	2,400	720,000	
	Horse Paddocks Spa & Hotel - Admin.	50	m2	2,400	120,000	
	Horse Paddocks Spa & Hotel - Amenities	75	m2	4,400	330,000	
	Horse Paddocks Spa & Hotel - Hospitality FOH	225	m2	3,600	810,000	
	Horse Paddocks Spa & Hotel - Hospitality BOH	50	m2	4,000	200,000	
	Horse Paddocks Spa & Hotel - Activity / Retail	550	m2	2,400	1,320,000	
	Extra over for indoor pool / wet & dry saunas	1	item			
	Education Centre (New Building)					
	Education Centre - Ground Floor - Amenities	40	m2	4,000	160,000	
	Education Centre - Ground Floor - Training Spaces	103	m2	2,800	288,400	
	Education Centre - 1st Floor - Amenities	42	m2	4,000	168,000	
	Education Centre - 1st Floor - Training Spaces	270	m2	2,800	756,000	
	Education Centre - 2nd Floor - Training Spaces	156	m2	2,800	436,800	
	School Accommodation (Within Existing Refurbished Chalet)					
	School Accomm. - Ground Floor - Accommodation	387	m2	2,800	1,083,600	
	School Accomm. - Ground Floor - Circulation	132	m2	2,000	264,000	
	School Accomm. - Ground Floor - Admin.	10	m2	2,400	24,000	
	School Accomm. - Ground Floor - Amenities	44	m2	4,000	176,000	
	School Accomm. - Ground Floor - Hospitality FOH	101	m2	3,600	363,600	
	School Accomm. - Ground Floor - Hospitality BOH	69	m2	4,000	276,000	
	School Accomm. - 1st Floor - Accommodation	278	m2	2,800	778,400	
	School Accomm. - 1st Floor - Circulation	38	m2	2,000	76,000	
	School Accomm. - 1st Floor - Amenities	46	m2	4,000	184,000	

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
02 - MT BUFFALO CHALET						
Staff Accommodation Building						
	Staff Accommodation Building - Accommodation	680	m2	2,800	1,904,000	
Transport Hub						
	Transport Hub - Admin.	200	m2	2,400	480,000	
	Transport Hub - Amenities	50	m2	4,000	200,000	
	Transport Hub - Parks Admin.	150	m2	2,800	420,000	
External Works						
	Ice & roller skating rink	1	item	75,000	75,000	
	Chalet overnight parking	1	item	750,000	750,000	
	Transport Hub - pick up / drop off pavement	1	item	50,000	50,000	
	Village ped paved areas	4,985	m2	150	747,750	
	Village day plaza deck	805	m2	200	161,000	
	Pedestrian overpass / ramp (to gorge)	210	m2	2,500	525,000	
	Tennis courts (105m2) including associated recreational facilities	1	item	100,000	100,000	
	Performance stage (to existing courtyard)	1	item	150,000	150,000	
	Sub-Total - Trade	**10,389**	**m2**	**3,341**	**34,705,150**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			5,205,773	
	Offsite Overheads & Profit	5%			1,995,546	
	Construction Cost (Excluding GST) as @ May 2018	**10,389**	**m2**	**4,034**	**41,906,469**	
	Locality factor allowance	5%			2,095,323	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			1,466,726	
	Allowance for removal of contaminated materials (per GHD Asbestos Report 92411) - Table 2 Prevent Access / Remove Immediately (Type P1) & (P4 Bathroom walls & ceilings) only	1	item	450,000	450,000	
	Staging Allowance	1.5%			628,597	
	ESD Allowance	3.0%			1,257,194	
	Total Construction Costs (Excluding GST) as @ May 2018	**10,389**	**m2**	**4,601**	**47,804,310**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			1,673,151	
	Parks Vic / Alpine Shire Fees	2%			956,086	
	Consultants Fees	10%			4,780,431	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	**10,389**	**m2**	**5,315**	**55,213,978**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			5,521,398	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**10,389**	**m2**	**5,846**	**60,735,375**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
02 - MT BUFFALO CHALET (MEDIAN UTILITIES)						
Utility Services to Site Location						
	Sewer Mains (upgrade of existing sewer treatment plant - rate as per GHD)	1	Item	2,845,000	2,845,000	
	Sewer Treatment Plant (STP inc. in Chalet)		*Excl*		-	
	Sewer Trunk Main - Assume 300 diameter inground - Assumed Length to Chalet		*m*	*500*	-	
	Pumping Station		*No*	*50,000*	-	
	Upgrade of existing sewer treatment plant - rate as per GHD	*1*	*item*	2,845,000	*2,845,000*	
	Sewer Reticulation (incl. above)	1	Item	-	-	
	100 diameter sewer reticulation to service amenities block		*m*	*250*	-	
	Potable Water (Alignment along reservoir & chalet roads - rate as per GHD)	1	Item	564,000	564,000	
	Alignment along reservoir & chalet roads(assume 5.5km above ground) - rate as per GHD	*1*	*item*	*564,000*	*564,000*	
	Pumps - N/R - Gravity Fed from Chalet		*Note*			
	Recycled Water		Excl		-	
	Gas	1	Item	80,000	80,000	
	Gas Mains		*Excl*			
	Bottled Gas (Bottle Supply + Foundation)	*10*	*No*	*3,000*	*30,000*	
	LPG boilers (modular design)	*1*	*item*	*50,000*	*50,000*	
	Power (Grid connected solar photovoltaic system - rate as per GHD)	1	Item	7,722,000	7,722,000	
	Substation		*No*		-	
	Kiosk		*No*		-	
	Main Switchboard		*No*	*3,500*	-	
	HV - Mains Power (from Visitor Centre)		*m*	*1,000*	-	
	LV - Mains Power - Assume from Chalet (aerial) inc. poles		*m*	*75*	-	
	Grid connected solar photovoltaic system - rate as per GHD	*1*	*item*	*7,722,000*	*7,722,000*	
	Telecommunications	1	Item	-	-	
	Stormwater	1	Item	395,000	395,000	
	Sub-Total - Trade				**11,606,000**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			1,740,900	
	Offsite Overheads & Profit	5%			667,345	
	Construction Cost (Excluding GST) as @ May 2018				**14,014,245**	
	Locality factor allowance	5%			700,712	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			490,499	
	Allowance for removal of contaminated materials	1	item		-	
	Staging Allowance	1.5%			210,214	
	ESD Allowance	3.0%			420,427	
	Total Construction Costs (Excluding GST) as @ May 2018				**15,836,097**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			554,263	
	Parks Vic / Alpine Shire Fees	2%			316,722	
	Consultants Fees	10%			1,583,610	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	-			**18,290,692**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	20%			3,658,138	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)				**21,948,830**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
03 - FOOD & BEVERAGE OFFERING						
	Functional Area Estimate					
	Chalet					
	Chalet - Hospitality Areas (included in Section 02 - Mt Buffalo Chalet)		Note			
	Pump House Bar/Café					
	Pump House Bar/Café - Hospitality FOH	117	m2	3,600	421,200	
	Pump House Bar/Café - Hospitality BOH	64	m2	4,000	256,000	
	Mechanics Garage Restaurant					
	Mechanics Garage Restaurant - Amenities	35	m2	4,000	140,000	
	Mechanics Garage Restaurant - Hospitality FOH	135	m2	3,600	486,000	
	Mechanics Garage Restaurant - Hospitality BOH	62	m2	4,000	248,000	
	External Works					
	Allowance for mobile food vans		Excl.		-	
	External deck & outdoor dining area	1	item	100,000	100,000	
	Sub-Total - Trade	**413**	**m2**	**3,998**	**1,651,200**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			247,680	
	Offsite Overheads & Profit	5%			94,944	
	Construction Cost (Excluding GST) as @ May 2018	**413**	**m2**	**4,828**	**1,993,824**	
	Locality factor allowance	5%			99,691	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			69,784	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			29,907	
	ESD Allowance	3.0%			59,815	
	Total Construction Costs (Excluding GST) as @ May 2018	**413**	**m2**	**5,455**	**2,253,021**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			78,856	
	Parks Vic / Alpine Shire Fees	2%			45,060	
	Consultants Fees	10%			225,302	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	**413**	**m2**	**6,301**	**2,602,239**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			260,224	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**413**	**m2**	**6,931**	**2,862,463**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
03 - FOOD & BEVERAGE OFFERING (MEDIAN UTILITIES)						
	Utility Services to Site Location					
	Sewer Mains (included in Section 02 Mt Buffalo Chalet)		Item		-	
	Sewer Reticulation (included in Section 02 Mt Buffalo Chalet)		Item		-	
	Potable Water (included in Section 02 Mt Buffalo Chalet)		Item		-	
	Recycled Water		Excl		-	
	Gas (included in Section 02 Mt Buffalo Chalet)		Item		-	
	Power (included in Section 02 Mt Buffalo Chalet)		Item		-	
	Telecommunications (included in Chalet)		Excl		-	
	Stormwater (included in Section 02 Mt Buffalo Chalet)		Item		-	
	Sub-Total - Trade				-	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			-	
	Offsite Overheads & Profit	5%			-	
	Construction Cost (Excluding GST) as @ May 2018				-	
	Locality factor allowance	5%			-	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			-	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			-	
	ESD Allowance	3.0%			-	
	Total Construction Costs (Excluding GST) as @ May 2018				-	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			-	
	Parks Vic / Alpine Shire Fees	2%			-	
	Consultants Fees	10%			-	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	-			-	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	20%			-	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)				-	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
04a - GLAMPING & WILDERNESS HUTS - LAKE CATANI (OPTION 1)						
	Functional Area Estimate - Bell Tent (no power)					
	Lake Catani Accommodation					
	Lightweight Bell Tent (No Services)	250	m2	300	75,000	No Services - Assume 10 No. 25m2 Tents
	Lake Catani (Amenities) - Upgrade to Existing is Excluded		Excl.		-	
	External Works					
	Allowance for BBQ & picnic facilities - Inc. in Option 4b		Inc.		-	
	Allowance for works to walking trail head - Inc. in Option 4b		Inc.		-	
	Sub-Total - Trade	**310**	**m2**	**242**	**75,000**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			11,250	
	Offsite Overheads & Profit	5%			4,313	
	Construction Cost (Excluding GST) as @ May 2018	**310**	**m2**	**292**	**90,563**	
	Locality factor allowance	5%			4,528	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			3,170	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			1,358	
	ESD Allowance	3.0%			2,717	
	Total Construction Costs (Excluding GST) as @ May 2018	**310**	**m2**	**330**	**102,336**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			3,582	
	Parks Vic / Alpine Shire Fees	2%			2,047	
	Consultants Fees	10%			10,234	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	**310**	**m2**	**381**	**118,198**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			11,820	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**310**	**m2**	**419**	**130,017**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
04b - GLAMPING & ECO PODS - LAKE CATANI						
	Functional Area Estimate - Prefabricated Eco Pods (inc. Power, Water, Lighting, Heating, Solar etc.)					
	Lake Catani Accommodation					
	Eco Pods (Inc. Services) - $1,500/m2 less bell tents @ $300/m2	250	m2	1,500	375,000	Assume 10 No. 25m2 Eco Pods
	Lake Catani (Amenities) - Upgrade to Existing is Excluded		Excl.		-	
	External Works					
	Allowance for BBQ & picnic facilities	1	item	50,000	50,000	
	Allowance for works to walking trail head	1	item	25,000	25,000	
	Sub-Total - Trade	**310**	**m2**	**1,452**	**450,000**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			67,500	
	Offsite Overheads & Profit	5%			25,875	
	Construction Cost (Excluding GST) as @ May 2018	**310**	**m2**	**1,753**	**543,375**	
	Locality factor allowance	5%			27,169	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			19,018	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			8,151	
	ESD Allowance	3.0%			16,301	
	Total Construction Costs (Excluding GST) as @ May 2018	**310**	**m2**	**1,981**	**614,014**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			21,490	
	Parks Vic / Alpine Shire Fees	2%			12,280	
	Consultants Fees	10%			61,401	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	**310**	**m2**	**2,288**	**709,186**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			70,919	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**310**	**m2**	**2,516**	**780,104**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
04b - GLAMPING & ECO PODS - LAKE CATANI (MEDIAN UTILITIES)						
	Utility Services to Site Location					
	Sewer Mains (allow Composting / worm farm waste system)	1	Item	204,000	204,000	
	Sewer Reticulation (incl. above)		Item		-	
	Potable Water (supplied from Mt Buffalo Chalet location - rate as per GHD)	1	Item	542,000	542,000	
	Recycled Water		Excl		-	
	Gas	1	Item	6,000	6,000	
	Power (Grid connected solar photovoltaic system - rate as per GHD)	1	Item	1,609,000	1,609,000	
	Telecommunications	1	Item	10,000	10,000	
	Stormwater	1	Item	50,000	50,000	
	Sub-Total - Trade				**2,421,000**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			363,150	
	Offsite Overheads & Profit	5%			139,208	
	Construction Cost (Excluding GST) as @ May 2018				**2,923,358**	
	Locality factor allowance	5%			146,168	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			102,318	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			43,850	
	ESD Allowance	3.0%			87,701	
	Total Construction Costs (Excluding GST) as @ May 2018				**3,303,394**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			115,619	
	Parks Vic / Alpine Shire Fees	2%			66,068	
	Consultants Fees	10%			330,339	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	-			**3,815,420**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	20%			763,084	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)				**4,578,504**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
05 - ENHANCE ACTIVITY & EVENT OFFERING - CRESTA VALLEY						
	Functional Area Estimate					
	Cresta Day Lodge (New Build)					
	Cresta Day Lodge - Circulation	50	m2	2,000	100,000	
	Cresta Day Lodge - Admin.	50	m2	2,400	120,000	
	Cresta Day Lodge - Amenities	100	m2	4,000	400,000	
	Cresta Day Lodge - Hospitality FOH	300	m2	3,600	1,080,000	
	Cresta Day Lodge - Activity / Retail	125	m2	2,400	300,000	
	Cresta Day Lodge - Training Spaces	90	m2	2,800	252,000	
	Cresta Day Lodge - Parks Admin.	35	m2	2,800	98,000	
	External Works					
	Day parking & pick up / drop off pavement	1	Item	50,000	50,000	
	Allowance for works to walking trail head	1	item	25,000	25,000	
	Allowance for walking trail (granite walk) - low difficulty terrain	1,950	m	20	39,000	
	Allowance for moutain bike trail - low difficulty terrain	1,950	m	20	39,000	
	Allowance for walking trail (granite walk) - med. difficulty terrain	900	m	100	90,000	
	Allowance for moutain bike trail - med. difficulty terrain	900	m	100	90,000	
	Allowance for walking trail (granite walk) - high difficulty terrain	150	m	500	75,000	
	Allowance for moutain bike trail - high difficulty terrain	150	m	500	75,000	
	Sub-Total - Trade	**750**	**m2**	**3,777**	**2,833,000**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			424,950	
	Offsite Overheads & Profit	5%			162,898	
	Construction Cost (Excluding GST) as @ May 2018	**750**	**m2**	**4,561**	**3,420,848**	
	Locality factor allowance	5%			171,042	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			119,730	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			51,313	
	ESD Allowance	3.0%			102,625	
	Total Construction Costs (Excluding GST) as @ May 2018	**750**	**m2**	**5,154**	**3,865,558**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			135,295	
	Parks Vic / Alpine Shire Fees	2%			77,311	
	Consultants Fees	10%			386,556	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	**750**	**m2**	**5,953**	**4,464,719**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			446,472	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**750**	**m2**	**6,548**	**4,911,191**	

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
05 - ENHANCE ACTIVITY & EVENT OFFERING - CRESTA VALLEY (MEDIAN UTILITIES)						
	Utility Services to Site Location					
	Sewer Mains (aerated waste water treatment system - rate as per GHD)	1	Item	204,000	204,000	
	Sewer Reticulation (incl. above)		Item		-	
	Potable Water (supplied from Mt Buffalo Chalet location - 150mm main)	1	Item	1,800,000	1,800,000	
	Recycled Water		Excl		-	
	Gas	1	Item	6,000	6,000	
	Power (Stand alone solar photovoltaic system - rate as per GHD)	1	Item	1,951,000	1,951,000	
	Telecommunications	1	Item	10,000	10,000	
	Stormwater	1	Item	50,000	50,000	
	Sub-Total - Trade				**4,021,000**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			603,150	
	Offsite Overheads & Profit	5%			231,208	
	Construction Cost (Excluding GST) as @ May 2018				**4,855,358**	
	Locality factor allowance	5%			242,768	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			169,938	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			72,830	
	ESD Allowance	3.0%			145,661	
	Total Construction Costs (Excluding GST) as @ May 2018				**5,486,554**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			192,029	
	Parks Vic / Alpine Shire Fees	2%			109,731	
	Consultants Fees	10%			548,655	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	-			**6,336,970**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	20%			1,267,394	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)				**7,604,364**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
06 - DINGO DELL						
	Functional Area Estimate					
	AW Keown Lodge (Assume Refurbishment of Existing Dingo Dell Café)					
	AW Keown Lodge (Dingo Dell) - Admin.	56	m2	2,400	134,400	
	AW Keown Lodge (Dingo Dell) - Amenities	56	m2	4,000	224,000	
	AW Keown Lodge (Dingo Dell) - Hospitality	32	m2	4,000	128,000	
	AW Keown Lodge (Dingo Dell) - Training Spaces	310	m2	2,800	868,000	
	Sub-Total - Trade	**454**	**m2**	**2,983**	**1,354,400**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			203,160	
	Offsite Overheads & Profit	5%			77,878	
	Construction Cost (Excluding GST) as @ May 2018	**454**	**m2**	**3,602**	**1,635,438**	
	Locality factor allowance	5%			81,772	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			57,240	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			24,532	
	ESD Allowance	3.0%			49,063	
	Total Construction Costs (Excluding GST) as @ May 2018	**454**	**m2**	**4,071**	**1,848,045**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			64,682	
	Parks Vic / Alpine Shire Fees	2%			36,961	
	Consultants Fees	10%			184,804	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	**454**	**m2**	**4,702**	**2,134,492**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			213,449	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**454**	**m2**	**5,172**	**2,347,941**	

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
06 - DINGO DELL (MEDIAN UTILITIES)						
Utility Services to Site Location						
	Sewer Mains (septic sewerage storage system)	1	Item	30,000	30,000	
	Sewer Reticulation	1	Item	25,000	25,000	
	Potable Water (supplied from Cresta Valley location - 150mm main)	1	Item	1,500,000	1,500,000	
	Recycled Water		Excl		-	
	Gas	1	Item	15,000	15,000	
	Power (Stand alone solar photovolatic system - rate as per GHD)	1	Item	610,000	610,000	
	Telecommunications	1	Item	20,000	20,000	
	Stormwater	1	Item	200,000	200,000	
	Sub-Total - Trade				**2,400,000**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			360,000	
	Offsite Overheads & Profit	5%			138,000	
	Construction Cost (Excluding GST) as @ May 2018				**2,898,000**	
	Locality factor allowance	5%			144,900	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			101,430	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			43,470	
	ESD Allowance	3.0%			86,940	
	Total Construction Costs (Excluding GST) as @ May 2018				**3,274,740**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			114,616	
	Parks Vic / Alpine Shire Fees	2%			65,495	
	Consultants Fees	10%			327,474	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	-			**3,782,325**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	20%			756,465	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)				**4,538,790**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
07 - MOUNTAIN GATEWAY						
	Elemental Estimate					
	Visitors Centre - Building					
	Substructure (Slab on Ground)	500	m2	384	191,820	
	Columns	500	m2	75	37,500	
	Roof	650	m2	482	313,509	
	External Walls / Windows / Doors	741	m2	597	442,571	
	Internal Walls / Screens / Doors	419	m2	234	98,045	
	Floor Finishes	500	m2	112	55,921	
	Wall Finishes	1,660	m2	38	62,339	
	Ceiling Finishes	500	m2	123	61,664	
	Fitments	500	m2	419	209,497	
	Shop Fitout		Excl		-	
	Special Equipment (Commercial Café Equipment)	1	Item	150,000	150,000	
	Sanitary Fixtures & Plumbing	500	m2	305	152,443	
	Electrical Light & Power + Comms	500	m2	375	187,500	
	Fire Services (Fire Hose Reel)	500	m2	13	6,374	
	Fire Services (Sprinklers)		Excl		-	
	Mechanical (Heating / Cooling)	500	m2	515	257,496	
	Extra over for cinema (visitor experience centre)	1	Item	500,000	500,000	
	External Works					
	Earthworks, Deceleration Lane, Car parking, Boardwalk, Decking, Furniture, Fencing, Signage, walking trail head etc.	5,000	m2	265	1,325,000	
	Soft Landscaping					
	Grassing & Low Height Native Plants, and enhancing existing native vegetation	122,500	m2	10	1,225,000	
	External Services					
	Allow for sewer / septic / interceptor		Note		-	Included in Utilities Services Section
	Allow for stormwater		Note		-	Included in Utilities Services Section
	Allow for external lighting to carpark & entry (minimal)	1	Item	100,000	100,000	
	Allow for fire tanks, pumps & reticulation		Excl		-	
	Allow for sewer connection to Existing system (indicative costing)		Note		-	Included in Utilities Services Section
	Allow for pumping station for potable water from Existing system (indicative costing)		Note		-	Included in Utilities Services Section
	Sub-Total - Trade	**500**	**m2**	**10,753**	**5,376,680**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			806,502	
	Offsite Overheads & Profit	5%			309,159	
	Construction Cost (Excluding GST) as @ May 2018	**500**	**m2**	**12,985**	**6,492,341**	
	Locality factor allowance	5%			324,617	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			227,232	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			97,385	
	ESD Allowance	3.0%			194,770	
	Total Construction Costs (Excluding GST) as @ May 2018	**500**	**m2**	**14,673**	**7,336,345**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			256,772	
	Parks Vic / Alpine Shire Fees	2%			146,727	
	Consultants Fees	10%			733,635	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	**500**	**m2**	**16,947**	**8,473,479**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			847,348	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**500**	**m2**	**18,642**	**9,320,827**	

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
07 - MOUNTAIN GATEWAY (MEDIAN UTILITIES)						
Utility Services to Site Location						
	Sewer Mains (septic sewerage storage system)	1	Item	30,000	30,000	
	Sewer Reticulation	1	Item	25,000	25,000	
	Potable Water (assumed from Eurobin Picnic Ground to Porepunkah - 150mm main)	1	Item	1,880,000	1,880,000	
	Recycled Water		Excl		-	
	Gas	1	Item	6,000	6,000	
	Power (Assume aerial LV power lines from Eurobin Picnic Ground to Porepunkah inc. poles)	1	Item	803,500	803,500	
	Telecommunications	1	Item	20,000	20,000	
	Stormwater	1	Item	180,500	180,500	
	Sub-Total - Trade				**2,945,000**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			441,750	
	Offsite Overheads & Profit	5%			169,338	
	Construction Cost (Excluding GST) as @ May 2018				**3,556,088**	
	Locality factor allowance	5%			177,804	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			124,463	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			53,341	
	ESD Allowance	3.0%			106,683	
	Total Construction Costs (Excluding GST) as @ May 2018				**4,018,379**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			140,643	
	Parks Vic / Alpine Shire Fees	2%			80,368	
	Consultants Fees	10%			401,838	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	-			**4,641,228**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	20%			928,246	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)				**5,569,473**	

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9 August 2018

PricewaterhouseCoopers (PWC) Australia
2 Riverside Quay
SOUTHBANK VIC 3006
Attention: Ms Katya Crema katya.crema@pwc.com

Dear Katya

MOUNT BUFFALO ACTIVATION
CONCEPT FEASIBILITY COST ESTIMATES - MINIMAL UTILITY SERVICES

We are pleased to provide our Concept Feasibility Cost Estimates No. 1 dated 9 August 2018 for the associated seven concepts outlined in the Vision for Mount Buffalo document dated February 2017.

This estimate includes for a Minimal Scenario of Utility Services which will supply the Mount Buffalo Chalet and surrounding precincts. 'Minimal' level of utilities for the proposed development works encompasses a basic / functional level of services capacity for all precincts and excludes any future proofing.

Do not hesitate to contact the undersigned to discuss any aspect which requires clarification or amendment to the assumed scope of works on our part.

Yours faithfully
WT Partnership

L R WEATHERELL
Associate

WT REF: 183652-04

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CONCEPT FEASIBILITY COST ESTIMATES - MINIMAL UTILITY SERVICES

MOUNT BUFFALO ACTIVATION

9 AUGUST 2018

CONTENTS

APPENDICES

1 ESTIMATE SUMMARY

WT Partnership (WT) estimates the Total Project Cost for the Seven Cost Options in the amount outlined in the table below. Prices are Exclusive of GST and are at current day. High Level and Detailed summaries are tabled below and the full estimate summary can be found within the appended (refer Appendix A).

We highlight that this a Class 5 estimate (Concept Feasibility Cost Estimate) due to the conceptual natural of the design. The estimates should be taken at an accuracy level of **+40% - 40%**.

This Concept Feasibility Cost Estimates No. 1 which includes a ***Minimum Utility Services Supply*** dated 9 August 2018 can be Summarized as follows:

High Level Summary

WORK PACKAGE	BUILDING COST $ (EXCL GST)	MINIMAL UTILITY SERVICES COST $ (EXCL GST)	TOTAL PROJECT COST $ (EXCL GST)
Gorge Skywalk	11,349,480	571,131	11,920,611
02 - Mount Buffalo Chalet	60,735,375	7,367,969	68,103,344
03 - Food and Beverage Offering	2,862,463	-	2,862,463
04 - Glamping (Eco Pods)	780,104	678,927	1,459,031
05 - Enhancement of Activity Event Offering	4,911,191	1,753,107	6,664,298
06 - Dingo Dell	2,347,941	1,399,460	3,747,401
07 - Mountain Gateway	9,320,827	1,345,562	10,666,389
TOTAL PROJECT COST	$92,307,381	$13,116,156	$105,423,537

Detailed Level Summary is as follows:

WORK PACKAGE	BUILDING COST $ (EXCL GST)	MINIMAL UTILITY SERVICES COST $ (EXCL GST)	TOTAL PROJECT COST $ (EXCL GST)
01 - Gorge Skywalk	6,546,900	302,000	6,848,900
02 - Mount Buffalo Chalet	34,705,150	3,896,000	38,601,150
03 - Food and Beverage Offering	1,651,200	-	1,651,200
04 - Glamping (Eco Pods)	450,000	359,000	809,000
05 - Enhancement of Activity Event Offering	2,833,000	927,000	3,760,000
06 - Dingo Dell	1,354,400	740,000	2,094,400
07 - Mountain Gateway	5,376,680	711,500	6,088,180

WORK PACKAGE	BUILDING COST $ (EXCL GST)	MINIMAL UTILITY SERVICES COST $ (EXCL GST)	TOTAL PROJECT COST $ (EXCL GST)
Subtotal Direct Cost	**52,917,330**	**6,935,500**	**59,852,830**
Site Based Preliminaries	7,937,599	1,040,325	**8,977,924**
Offsite Overhead & Profit	3,042,746	398,791	**3,441,538**
Subtotal Construction Cost	**63,897,675**	**8,374,616**	**72,272,292**
Locality factor allowance	3,194,884	$418,731	**$3,613,615**
Program prolongation allowance	2,236,419	$293,112	**$2,529,530**
Allowance for removal of Hazardous materials	450,000	$-	**$450,000**
Staging Allowance	958,465	$125,619	**$1,084,084**
ESD Allowance	1,916,930	$251,238	**$2,168,169**
Cultural Heritage, Vegetation Offset, Flora Fauna	2,542,903	$331,216	**$2,874,119**
Parks Vic / Alpine Shire Fees	1,453,087	$189,266	**$1,642,354**
Consultants Fees	7,265,437	$946,332	**$8,211,769**
Subtotal Project Cost	**83,915,800**	**10,930,130**	**94,845,932**
Authority Headworks & Charges	-	-	
Risk / Contingency	8,391,580	2,186,026	**10,577,606**
TOTAL PROJECT COST	**$92,307,380**	**$13,116,156**	**$105,423,538**

Cost Option – 04 - Glamping

In lieu of Item 04 – Glamping (Eco Pods), which includes for 10 No. Eco Pods, a cheaper cost option 04a Glamping Bell Tents has been provided. The Bell Tent Cost Option includes for 10 No. Bell Tents. Costs Option 4a is as follows:

WORK PACKAGE	BUILDING COST $ (EXCL GST)	MINIMAL UTILITY SERVICES COST $ (EXCL GST)	TOTAL PROJECT COST $ (EXCL GST)
04a – Glamping (Bell Tents)	130,017	678,927	**$808,944**

2 PROJECT DEFINITION

The project comprises the feasibility study of Mt Buffalo Resort development, which will include 7 Separate key precincts of work areas including building and associated utility services requirement. The 7 key precinct areas are as follows:

01. Gorge Skywalk Tourism Attraction: 50 m glass bottom walkway across the granite rock gorge of Mount Buffalo
02. Mount Buffalo Chalet and Village: Potential restoration of the Mount Buffalo Chalet and the reuse of surrounding buildings for commercial activities such as accommodation, spa retreat, hotel, retail, training and events
03. Food and Beverage Offering: Opportunities for provision of food and beverage services, including at the Gorge and front section of the Chalet
04. Glamping and Wilderness Huts at Lake Catani: Basic camping provided at the site currently generates 15,000 visitor nights. The Vision identifies opportunities to grow the market for high standard camping options
05. Enhancement of Activity and Event Offering: Redevelopment of Cresta Valley into an alpine activity centre, expanded walks, mountain bike trail development
06. Dingo Dell: Potential development as an Outdoor Education Centre of Excellence
07. Mountain Gateway (Visitors Centre) at the base of Mount Buffalo

3 SCHEDULE OF MAJOR QUANTITIES

The estimate is based on the following schedule of major quantities which have been extrapolated from the schedule of areas outlined in the Mount Buffalo Destination Advisory Group (February 2017), "Vision for Mount Buffalo" document – page 18:

MAJOR QUANTITIES – BUILDING AREAS	QUANTITY
Gorge Skywalk	
Gorge Skywalk (50 m long x 4 m wide)	200 m^2
Mt Buffalo Chalet	
Mt Buffalo Chalet – (Refurbish Existing)	3,648 m^2
Mt Buffalo Chalet – Services Shed (Fit Out Only)	451 m^2
Mt Buffalo Chalet – Stables Chapel / Function Rm (Fit Out Only)	493 m^2
Mt Buffalo Chalet – Horse Paddocks Spa / Hotel (New Build)	3,000 m^2
Mt Buffalo Chalet – Education Centre (New Build)	611 m^2
Mt Buffalo Chalet – School Accommodation (Within Refurbished Chalet)	1,105 m^3
Mt Buffalo Chalet – Staff Accommodation Building (New Build)	680 m^2
Mt Buffalo Chalet – Transport Hub (New Build)	400 m^2
Food & Beverage Offering	
Pump House Bar / Café	181 m^2
Mechanics Garage Restaurant	232 m^2
Glamping & Wilderness Huts (Lake Catani)	
Lightweight Bell Tents (In 10 No.)	250 m^2

MAJOR QUANTITIES – BUILDING AREAS	QUANTITY
Enhance Activity & Event Offering (Cresta Valley)	
Cresta Day Lodge (New Build)	750 m^2
Dingo Dell	
AW Keown Lodge - (Refurbish Existing)	454 m^2
Mountain Gateway	
Visitor Centre (New Build)	500 m^2
MAJOR QUANTITIES – EXTERNAL AREAS	
Gorge Skywalk	
Shared user path (4 m wide)	2,000 m^2
Carparking	750 m^2
Mt Buffalo Chalet	
Ice & roller skating rink	45 m^2
Chalet overnight parking	3,000 m^2
Transport Hub - pick up / drop off pavement	200 m^2
Village ped paved areas	4,985 m^2
Village day plaza deck	805 m^2
Pedestrian overpass / ramp (to gorge)	210 m^2
Tennis courts (105m2) including associated recreational facilities	105 m^2
Performance stage (to existing courtyard)	100 m^2
Food & Beverage Offering	
External Deck & Outdoor Dining Areas	500 m^2
Glamping & Wilderness Huts (Lake Catani)	
Amenities Block – Nil	0 m^2
Enhance Activity & Event Offering (Cresta Valley)	
Day parking & pick up / drop off pavement	200 m^2
Allowance for walking trail 1500 wide (granite walk) - low difficulty terrain	1,950 m
Allowance for mountain bike trail 1500 wide - low difficulty terrain	1,950 m
Allowance for walking trail 1500 wide (granite walk) - med. difficulty terrain	900 m
Allowance for mountain bike trail 1500 wide - med. difficulty terrain	900 m
Allowance for walking trail 1500 wide (granite walk) - high difficulty terrain	150 m
Allowance for mountain bike trail 1500 wide - high difficulty terrain	150 m
Dingo Dell	
No External Works Included	0 m^2

MAJOR QUANTITIES – BUILDING AREAS	QUANTITY
Mountain Gateway	
Deceleration Lane, Carpark, Boardwalk, Decking, Paths	5,000 m^2
Soft Landscaping	122,500 m^2

4 DOCUMENTATION

This estimate is based on the following documentation:

- Documentation / Information
  - Vision for Mount Buffalo – Mount Buffalo Destination Advisory Group February 2017
  - HIP B. HYPE Sustainability – Sustainability Energy Assessment Report – July 2018
  - GHD Infrastructure Capacity Report for Parks Victoria September 2007
  - GHD Mount Buffalo Chalet Redevelopment Stage 2 Infrastructure Services Report for Ernst & Young May 2013
  - Jackson Clements Burrows | Lovell Chen Mount Buffalo Community Chalet Redevelopment Concept Design Proposal
  - GHD Infrastructure Mt Buffalo Chalet Complex Asbestos Resurvey for Parks Victoria September 2009
  - PWC Buffalo Activation Staging - DRAFT

5 SPECIFIC ASSUMPTIONS

The Estimate assume competitive lump sum tender for the whole of the Works from suitably qualified contractors.

The Estimate are based on the documents outlined in Section 4.

The following Inclusions/Assumptions has been made for the following key precincts:

BUILDING WORK ASSUMPTIONS

Gorge Skywalk (Crystal Brook)

- Assume steel framed cable stayed structure walkway including piled foundations & concrete works for abutments.
- Assume walkway to have span of 50 m x 4 m width (200 m^2).
- Assume HD glazed flooring & balustrades with stainless steel handrails & fixings.
- Allowance for 2 No. x 250 m long pedestrian footpath to skywalk including steps / ramps / retaining walls.
- 25 Bay Carparking & Ticket Booth included
- Male, female, disabled amenities block included
- Footpath Area to/from Skywalk – 2000 m^2

Chalet

- Chalet site redevelopment assumes utilizing 90-95% of the entire chalet complex footprint. The cost of delivering this concept component would vary accordingly to scale, functionality, extent & quality of the construction.
- Refurbish Chalet Area- 3,648 m^2
- Refurbish Services Shed – 451 m^2
- New Build - Horse Paddock / Spa Hotel – 3001 m^2
- New Build - Education Centre – 611 m^2
- School Accommodation 1,105 m^2 within existing chalet
- Art Deco Garages have recently Renovated by Parks Victoria hence allowance to fitout only
- Staff Amenities 680 m^2
- Medium term food & beverage assumed included in above areas

Food & Beverage Offering (Chalet)

- Refurbished Pump House & Mechanics Garage to Food/Beverage 413 m^2
- Allowance for Outdoor Deck / Dining Area of $100,000 included

Glamping & Wilderness Huts (Lake Catani)

- Base Cost - Lake Catani – 250 m^2 - Bell Tents (Assume 10 No.)
- Option 1 (provided Separately) - Lake Catani – 250 m^2 - Wilderness Huts or Eco Pods (Assume 10 No.) would be Standalone prefabricated buildings placed on stumps. The building would encompass a sleeping area, seating area and wash up area including an environmental chemical toilet. Minimal power and lighting would be supplied including a small rainwater tank for non potable water.

Enhanced Activity & Events (Cresta Valley)

- Cresta Day Lodge 750 m^2
- 3 km of walking / bike trails included - Alternate Levels of Difficulty

Education Centre / School Accommodation Centre (Dingo Dell)

- AW Keown Lodge 454 m^2 - Assume Existing Café used and refurbished

Mountain Gateway (Base of Mountain)

- New Visitor / Information Centre – 500 m^2
- External works, including pavements, decking, planting - 5,000 m^2
- 122,000 m^2 of Grassing & Low Height Native Plants, and enhancing existing native vegetation

UTILITY SERVICES ASSUMPTION - (MINIMAL OPTION)

Gorge Skywalk

- Use of existing sewer system
- Potable Water Mains Excluded – Use of bottled water
- Bottle Gas Supply to ticket booth
- New 300kW Diesel Generator to supply power to Ticket Booth
- 1 No. 20,000 lt Rainwater Tank

Chalet

- New Biomethane Sewer Treatment System which uses anaerobic decomposition of sewerage to generate and capture methane (natural gas). This is the primary treatment and and includes modifications to existing treatment plant.
- Potable Inground Water Supply Pipework from existing pipeline at Crystal Brook, plus new rainwater/storage tank and dosing system.
- Bottled Gas for LPG Boilers
- Power Supplied from 2 No. new 300kW Diesel Generators
- 1 No. 100,000 lt Rainwater Tank

Food & Beverage (Chalet)

- Major Services included within Chalet Utilities Section

Glamping & Wilderness Huts (Bell Tents)

- Irrigation system to sand filter outflows
- Allowance for new Rainwater Tank
- Bottle Gas to Supply Bell Tents
- Power via 10 No. independent Standalone generators/solar kits for Eco Pods

Enhanced Activity & Event Offering (Cresta Valley)

- Aerated Water Treatment Sewer System
- Potable Water Supply via rainwater tank and dosing treatment system
- Bottle Gas to Supply Building
- Power supply via Diesel New 300kW Generators

AW Keown Log (Dingo Dell)

- Septic Tank Sewer System
- Potable Water Supply via rainwater tank and dosing treatment system
- Bottle Gas to Supply Building
- Power Supplied from New 300kW Diesel Generators

- 1 No. 50,000 lt Rainwater Tank

Mountain Gateway

- Septic Tank Sewer System
- Potable Water Supply via rainwater tank and dosing treatment system
- Bottle Gas to Supply Building
- Power Supplied from New 300kW Diesel Generators
- 2 No. 20,000 lt Rainwater Tanks

6 SPECIFIC EXCLUSIONS

The estimate excludes the following:

- FFE. Kitchen/Laundry & Special Equipment
- Tenancy Fitout (Shell & Core provided only)
- Current Chalet car parking upgrade / extension (by others)
- Annual maintenance plan (cost associated with Parks Vic - approx. $280,000 p.a.)
- Chalet heritage façade upgrades
- Leasing agreements
- Mobile Food Vans to Chalet Carpark
- Future long term food & beverage - hatted restaurant & bar
- Cresta activity & events (by others)
- Waste water / sewer mains (new sewer pipelines between nodes & chalet treatment plant - trucking assumed)
- Major structural rectification works for existing chalet - GHD Capability Report States $400,000 to replace foundations
- Authorities Headworks & Charges
- Financing Costs
- Cost escalation beyond May 2018
- GST

7 SPECIFIC INCLUSIONS

The Estimates assumes competitive lump sum tenders for the whole of the Works from suitably qualified civil works contractors.

The Estimates are inclusive of the following allowances:

- Locality Factor Allowance of 5%
- Program prolongation allowance (Shutdown due to Accessibility Issues i.e. Winter) of 3.5%
- Allowance for removal of contaminated materials $450,000
- Staging Allowance of 1.5%
- ESD Allowance of 3% - This allowance for Ecological Sustainable Development across both building and utility services costs would be sufficient to enable future design to encorporate the following types of works:
  - Re-Insulation of External Walls & Roof Space to reduce heat/cooling loss.
  - Rainwater harvesting via tanks
  - Window tinting to prevent heat/cooling loss.
  - Etc.
- Parks Vic / Alpine Shire Fees 2%
- Cultural Heritage, Vegetation Offset, Flora Fauna allowance of 3.5%
- Consultants Fees of 10%
- Risk / Contingency 10% for Building Cost & 20% for Utility Services

8 CONCLUSION / DISCLAIMER

We highlight that due to the preliminary nature of the documentation, our Estimates should be viewed as indicative and a preliminary opinion of the probable order of cost based on a concept without definition of design scope or quality.

Where WT has not been provided with sufficient information, we have made assumptions and allowances which will require detailed review once the design is developed.

Please review the detail of our Estimates, in particular the many assumptions as to scope, quality, performance and finishes of the current design intent to ensure it generally reflects the requirements.

The estimate has been prepared expressly for PricewaterhouseCoopers (PWC) Australia for the purpose of preparing a Reference design estimate and is not to be used for any other purpose or distributed to any third party.

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APPENDIX A

CONCEPT FEASIBILITY COST ESTIMATES NO. 1 - 9 AUGUST 2018 – MINIMAL UTILITY SERVICES

HIGH LEVEL SUMMARY (MINIMAL UTILITIES)

VISION FOR MOUNT BUFFALO

CODE	WORK PACKAGE	BUILDING COST (Excluding GST)	UTILITY SERVICES COST (Excluding GST)	TOTAL PROJECT COST (Excluding GST)
01	**GORGE SKYWALK** 50m Glass Bottom Walkway	$ 11,349,480	$ 571,131	$ 11,920,611
02	**MT BUFFALO CHALET** Restoration of Chalet & Re-use surrounding buildings, plus new buildings	$ 60,735,375	$ 7,367,969	$ 68,103,344
03	**FOOD & BEVERAGE OFFERING** Food & Beverage Services to Chalet & Gorge	$ 2,862,463	$ -	$ 2,862,463
04	**GLAMPING & ECO PODS** High End Camping at Lake Catani - Eco Pods (10 No.) inc. services	$ 780,104	$ 678,927	$ 1,459,032
05	**ENHANCEMENT OF ACTIVITY AND EVENT OFFERING** Re-development of Cresta Valley into Alpine Activity Centre	$ 4,911,191	$ 1,753,107	$ 6,664,299
06	**DINGO DELL** Outdoor Education Centre of Excellence	$ 2,347,941	$ 1,399,460	$ 3,747,401
07	**MOUNTAIN GATEWAY** Development of a Visitor Centre at the Base of the Mountain	$ 9,320,827	$ 1,345,562	$ 10,666,389
	Capex Total Cost - Most Likely	**$ 92,307,382**	**$ 13,116,156**	**$ 105,423,538**

04a	**GLAMPING & WILDERNESS HUTS (Option 1)** High End Camping at Lake Catani - Bell Tents (10 No.) excl. services	$ 130,017	$ 678,927	$ 808,945

DETAILED SUMMARY (MINIMAL UTILITIES)

VISION FOR MOUNT BUFFALO

CODE	WORK PACKAGE	BUILDING COST (Excluding GST)	UTILITY SERVICE COST (Excluding GST)	TOTAL PROJECT COST (Excluding GST)
01	**GORGE SKYWALK** 50m Glass Bottom Walkway	$ 6,546,900	$ 302,000	$ 6,848,900
02	**MT BUFFALO CHALET** Restoration of Chalet including Services Shed, Stables Chapel/Function Room, Horse Paddocks Spa & Hotel, Education Centre, School Accomodation, Staff Accomodation	$ 34,705,150	$ 3,896,000	$ 38,601,150
03	**FOOD & BEVERAGE OFFERING** Food & Beverage Services to Chalet & Gorge	$ 1,651,200	$ -	$ 1,651,200
04	**GLAMPING & ECO PODS** High End Camping at Lake Catani - Eco Pods (10 No.) incl. services	$ 450,000	$ 359,000	$ 809,000
05	**ENHANCEMENT OF ACTIVITY AND EVENT OFFERING** Re-development of Cresta Valley into Alpine Activity Centre	$ 2,833,000	$ 927,000	$ 3,760,000
06	**DINGO DELL** Outdoor Education Centre of Excellence (Fitout of Existing Building)	$ 1,354,400	$ 740,000	$ 2,094,400
07	**MOUNTAIN GATEWAY** Development of a Visitor Centre at the Base of the Mountain	$ 5,376,680	$ 711,500	$ 6,088,180
	Sub-Total Trade Cost	**$ 52,917,330**	**$ 6,935,500**	**$ 59,852,830**
	Contractor's Indirect Costs & Margins			
	Site Based Preliminaries	$ 7,937,599	$ 1,040,325	$ 8,977,924
	Offsite Overheads & Profit	$ 3,042,746	$ 398,791	$ 3,441,538
	Construction Cost	**$ 63,897,676**	**$ 8,374,616**	**$ 72,272,292**
	Locality factor allowance	$ 3,194,884	$ 418,731	$ 3,613,615
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	$ 2,236,419	$ 293,112	$ 2,529,530
	Allowance for removal of Hazardous materials	$ 450,000	$ -	$ 450,000
	Staging Allowance	$ 958,465	$ 125,619	$ 1,084,084
	ESD Allowance	$ 1,916,930	$ 251,238	$ 2,168,169
	Cultural Heritage, Vegetation Offset, Flora Fauna	$ 2,542,903	$ 331,216	$ 2,874,119
	Parks Vic / Alpine Shire Fees	$ 1,453,087	$ 189,266	$ 1,642,354
	Consultants Fees	$ 7,265,437	$ 946,332	$ 8,211,769
	Sub-total	**$ 83,915,802**	**$ 10,930,130**	**$ 94,845,932**
	Authority Headworks & Charges	$ -	$ -	$ -
	Risk / Contingency	$ 8,391,580	$ 2,186,026	$ 10,577,606
	TOTAL - TCE	**$ 92,307,382**	**$ 13,116,156**	**$ 105,423,538**
04a	**GLAMPING & WILDERNESS HUTS (Option 1)** High End Camping at Lake Catani - Bell Tents (10 No.) excl. services	$ 130,017	$ 678,927	$ 808,945

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
01 - GORGE SKYWALK						
Building Works						
	Demolition	1	item	100,000	100,000	
	Earthworks	1	item	260,000	260,000	
	Piling	1	item	232,700	232,700	
	Concrete Structure (Foundations / Abutments / Retaining Walls)	1	item	775,850	775,850	
	Structural Steelwork & Stay Cables	1	item	2,103,350	2,103,350	
	Feature Cladding to Skywalk	1	item	225,000	225,000	
	Metalwork / Glazing (Deck & Balustrade)	1	item	525,000	525,000	
	Lighting	1	item	115,000	115,000	
	Landscaping	1	item	100,000	100,000	
	Shared User Path (On Grade)	1	item	1,265,000	1,265,000	
	Services to Skywalk	1	item	270,000	270,000	
	Carparking & Ticket Booth	1	item	425,000	425,000	
	Amenities Block	1	item	150,000	150,000	
	Sub-Total - Trade	**200**	**m2**	**32,735**	**6,546,900**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries	15%			982,035	
	Offsite Overheads & Profit	5%			376,447	
	Construction Cost	**200**	**m2**	**39,527**	**7,905,382**	
	Locality factor allowance	5%			395,269	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			276,688	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			118,581	
	ESD Allowance	3.0%			237,161	
	Total Construction Costs (Excluding GST) as @ May 2018	**200**	**m2**	**44,665**	**8,933,081**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			312,658	
	Parks Vic / Alpine Shire Fees	2%			178,662	
	Consultants Fees	10%			893,308	
	Total Design and Construction Costs	**200**	**m2**	**51,589**	**10,317,709**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			1,031,771	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**200**	**m2**	**56,747**	**11,349,480**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
01 - GORGE SKYWALK (MINIMAL UTILITIES)						
	Utility Services to Site Location					
	Sewer Mains (assume no toilets)		Item		-	
	Sewer Treatment Plant (STP inc. in Chalet)		*Excl*		-	
	Sewerage storage facility		*item*	*25,000*	-	
	Pumping Station	*1*	*No*		-	
	Sewer Reticulation (assume no toilets)		Item		-	
	100 diameter sewer reticulation to service amenities block		*m*	*250*	-	
	Potable Water (rainwater tank including associated pipework)	1	Item	25,000	25,000	Assume provision of bottled water by tenant
	Potable Water Reticulation Pipework		*m*	*500*	-	
	Rainwater tank	*1*	*item*	*25,000*	*25,000*	
	Recycled Water		Excl		-	
	Gas	1	Item	3,000	3,000	
	Gas Mains		*Excl*			
	Bottled Gas (Bottle Supply + Foundation)	*2*	*No*	*1,500*	*3,000*	
	Power (Diesel Generators)	1	Item	200,000	200,000	
	Substation	-	*No*		-	
	Kiosk	-	*No*		-	
	Diesel generators (New)	*1*	*item*	*200,000*	*200,000*	
	HV - Mains Power	-	*m*		-	
	LV - Mains Power - Assume from Chalet (aerial) inc. poles		*m*	*500*	-	
	Solar Panels / Battery Backup - (Ticket Booth Roof)		*No*	*2,500*	-	
	Telecommunications (Included in Chalet)		Excl			
	Activity Centre (Tower/Comms Room) - Inc. in chalet cost		***Excl***		-	
	Fibre Optic Cable - Presume from Chalet		*m*	*250*	-	
	Wi-Fi (Modem/Computer) in ticket booth		*Item*	*1,500*	-	
	Stormwater	1	Item	74,000	74,000	
	Stormwater Mains (Locally Drained into creek/lake)	*100*	*m*	*450*	*45,000*	
	Drainage Pits / Wetland Planting/Landscaping	*1*	*Item*	*5,000*	*5,000*	
	Rainwater Tanks	*20,000*	*Ltr*	*1.2*	*24,000*	
	Sub-Total - Trade				**302,000**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries	15%			45,300	
	Offsite Overheads & Profit	5%			17,365	
	Construction Cost				**364,665**	
	Locality factor allowance	5%			18,233	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			12,763	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			5,470	
	ESD Allowance	3.0%			10,940	
	Total Construction Costs (Excluding GST) as @ May 2018				**412,071**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			14,423	
	Parks Vic / Alpine Shire Fees	2%			8,241	
	Consultants Fees	10%			41,207	
	Total Design and Construction Costs	-			**475,943**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	20%			95,189	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)				**571,131**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
02 - MT BUFFALO CHALET						
	Functional Area Estimates					
	Refurbishment of Existing Chalet					
	Chalet - Lower Ground Floor - Accommodation	333	m2	2,800	932,400	
	Chalet - Lower Ground Floor - Circulation	94	m2	2,000	188,000	
	Chalet - Lower Ground Floor - Admin.	13	m2	2,400	31,200	
	Chalet - Lower Ground Floor - Amenities	44	m2	4,000	176,000	
	Chalet - Lower Ground Floor - Hospitality BOH	140	m2	4,000	560,000	
	Chalet - Lower Ground Floor - Parks Admin.	84	m2	2,800	235,200	
	Chalet - Lower Ground Floor - Day Lodge Cafe	197	m2	4,000	788,000	
	Chalet - Ground Floor - Accommodation	333	m2	2,800	932,400	
	Chalet - Ground Floor - Circulation	263	m2	2,000	526,000	
	Chalet - Ground Floor - Admin.	64	m2	2,400	153,600	
	Chalet - Ground Floor - Amenities	89	m2	4,000	356,000	
	Chalet - Ground Floor - Hospitality FOH	834	m2	3,600	3,002,400	
	Chalet - Ground Floor - Hospitality BOH	58	m2	4,000	232,000	
	Chalet - Ground Floor - Activity / Retail	107	m2	2,400	256,800	
	Chalet - 1st Floor - Accommodation	699	m2	2,800	1,957,200	
	Chalet - 1st Floor - Circulation	176	m2	2,000	352,000	
	Chalet - 2nd Floor - Accommodation	87	m2	2,800	243,600	
	Chalet - 2nd Floor - Circulation	33	m2	2,000	66,000	
	Medium term food & beverage assumed included above in Hospitality areas		Note			
	Futrure long term food & beverage - hatted restaurant & bar (Excluded)		Note			
	Fittings, Furniture & Equipment (FFE)		m2	250	-	
	Services Shed (Fit Out Cost)					
	Services Shed Retail - Amenities	47	m2	4,000	188,000	
	Services Shed Retail - Activity / Retail	404	m2	2,400	969,600	
	Stables Chapel/Function Room (Fit Out Cost)					
	Stables Chapel/Function Rm - Hospitality FOH	287	m2	3,600	1,033,200	
	Art Deco Garages - Admin.	180	m2	1,800	324,000	
	Art Deco Garages - Amenities	26	m2	4,000	104,000	
	Horse Paddocks Spa & Hotel (New Build)					
	47 hotel rooms		Note			
	Horse Paddocks Spa & Hotel - Accommodation	1,750	m2	4,000	7,000,000	
	Horse Paddocks Spa & Hotel - Circulation	300	m2	2,400	720,000	
	Horse Paddocks Spa & Hotel - Admin.	50	m2	2,400	120,000	
	Horse Paddocks Spa & Hotel - Amenities	75	m2	4,400	330,000	
	Horse Paddocks Spa & Hotel - Hospitality FOH	225	m2	3,600	810,000	
	Horse Paddocks Spa & Hotel - Hospitality BOH	50	m2	4,000	200,000	
	Horse Paddocks Spa & Hotel - Activity / Retail	550	m2	2,400	1,320,000	
	Extra over for indoor pool / wet & dry saunas	1	item			
	Education Centre (New Building)					
	Education Centre - Ground Floor - Amenities	40	m2	4,000	160,000	
	Education Centre - Ground Floor - Training Spaces	103	m2	2,800	288,400	
	Education Centre - 1st Floor - Amenities	42	m2	4,000	168,000	
	Education Centre - 1st Floor - Training Spaces	270	m2	2,800	756,000	
	Education Centre - 2nd Floor - Training Spaces	156	m2	2,800	436,800	
	School Accommodation (Within Existing Refurbished Chalet)					
	School Accomm. - Ground Floor - Accommodation	387	m2	2,800	1,083,600	
	School Accomm. - Ground Floor - Circulation	132	m2	2,000	264,000	
	School Accomm. - Ground Floor - Admin.	10	m2	2,400	24,000	
	School Accomm. - Ground Floor - Amenities	44	m2	4,000	176,000	
	School Accomm. - Ground Floor - Hospitality FOH	101	m2	3,600	363,600	
	School Accomm. - Ground Floor - Hospitality BOH	69	m2	4,000	276,000	
	School Accomm. - 1st Floor - Accommodation	278	m2	2,800	778,400	
	School Accomm. - 1st Floor - Circulation	38	m2	2,000	76,000	
	School Accomm. - 1st Floor - Amenities	46	m2	4,000	184,000	

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
02 - MT BUFFALO CHALET						
Staff Accommodation Building						
	Staff Accommodation Building - Accommodation	680	m2	2,800	1,904,000	
Transport Hub						
	Transport Hub - Admin.	200	m2	2,400	480,000	
	Transport Hub - Amenities	50	m2	4,000	200,000	
	Transport Hub - Parks Admin.	150	m2	2,800	420,000	
External Works						
	Ice & roller skating rink	1	item	75,000	75,000	
	Chalet overnight parking	1	item	750,000	750,000	
	Transport Hub - pick up / drop off pavement	1	item	50,000	50,000	
	Village ped paved areas	4,985	m2	150	747,750	
	Village day plaza deck	805	m2	200	161,000	
	Pedestrian overpass / ramp (to gorge)	210	m2	2,500	525,000	
	Tennis courts (105m2) including associated recreational facilities	1	item	100,000	100,000	
	Performance stage (to existing courtyard)	1	item	150,000	150,000	
	Sub-Total - Trade	**10,389**	**m2**	**3,341**	**34,705,150**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			5,205,773	
	Offsite Overheads & Profit	5%			1,995,546	
	Construction Cost (Excluding GST) as @ May 2018	**10,389**	**m2**	**4,034**	**41,906,469**	
	Locality factor allowance	5%			2,095,323	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			1,466,726	
	Allowance for removal of contaminated materials (per GHD Asbestos Report 92411) - Table 2 Prevent Access / Remove Immediately (Type P1) & (P4 Bathroom walls & ceilings) only	1	item	450,000	450,000	
	Staging Allowance	1.5%			628,597	
	ESD Allowance	3.0%			1,257,194	
	Total Construction Costs (Excluding GST) as @ May 2018	**10,389**	**m2**	**4,601**	**47,804,310**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			1,673,151	
	Parks Vic / Alpine Shire Fees	2%			956,086	
	Consultants Fees	10%			4,780,431	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	**10,389**	**m2**	**5,315**	**55,213,978**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			5,521,398	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**10,389**	**m2**	**5,846**	**60,735,375**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
02 - MT BUFFALO CHALET (MINIMAL UTILITIES)						
Utility Services to Site Location						
	Sewer Mains (Pumping of effluent down mountain & connection to treatment plant at base of mountain - rate as per GHD)	1	Item	2,710,000	2,710,000	
	Sewer Treatment Plant (STP inc. in Chalet)		*Excl*		-	
	Sewer Trunk Main - Assume 300 diameter inground - Assumed Length to Chalet		*m*	*500*	-	
	Pumping Station		*No*	*50,000*	-	
	Biomethane System (Primary Treatment & Modification to Existing Treatment Plant)	*1*	*item*	*2,710,000*	*2,710,000*	
	Sewer Reticulation (incl. above)		Item		-	
	100 diameter sewer reticulation to service amenities block		*m*	*250*	-	
	Potable Water (retain existing pipeline from Crystal Brook with additional rainwater tank incl. dosing treatment system)	1	Item	304,000	304,000	
	Potable Water Reticulation Pipework		*m*	*500*	-	
	Rainwater tank	*1*	*item*	*204,000*	*204,000*	
	Dosing system	*1*	*item*	*100,000*	*100,000*	
	Recycled Water		Excl		-	
	Gas	1	Item	80,000	80,000	
	Gas Mains		*Excl*			
	Bottled Gas (Bottle Supply + Foundation)	*10*	*No*	*3,000*	*30,000*	
	LPG boilers (modular design)	*1*	*item*	*50,000*	*50,000*	
	Power (new diesel generators)	1	Item	407,000	407,000	
	Substation		*No*		-	
	Kiosk		*No*		-	
	Main Switchboard		*No*	*3,500*	-	
	HV - Mains Power (from Visitor Centre)		*m*	*1,000*	-	
	LV - Mains Power - Assume from Chalet (aerial) inc. poles		*m*	*75*	-	
	Diesel generators (new)	*1*	*item*	*407,000*	*407,000*	
	Telecommunications	1	Item	-	-	What's Existing tower? What Services needed
	Stormwater	1	Item	395,000	395,000	
	Sub-Total - Trade				**3,896,000**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			584,400	
	Offsite Overheads & Profit	5%			224,020	
	Construction Cost (Excluding GST) as @ May 2018				**4,704,420**	
	Locality factor allowance	5%			235,221	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			164,655	
	Allowance for removal of contaminated materials	1	item		-	
	Staging Allowance	1.5%			70,566	
	ESD Allowance	3.0%			141,133	
	Total Construction Costs (Excluding GST) as @ May 2018				**5,315,995**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			186,060	
	Parks Vic / Alpine Shire Fees	2%			106,320	
	Consultants Fees	10%			531,599	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	-			**6,139,974**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	20%			1,227,995	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)				**7,367,969**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
03 - FOOD & BEVERAGE OFFERING						
	Functional Area Estimate					
	Chalet					
	Chalet - Hospitality Areas (included in Section 02 - Mt Buffalo Chalet)		Note			
	Pump House Bar/Café					
	Pump House Bar/Café - Hospitality FOH	117	m2	3,600	421,200	
	Pump House Bar/Café - Hospitality BOH	64	m2	4,000	256,000	
	Mechanics Garage Restaurant					
	Mechanics Garage Restaurant - Amenities	35	m2	4,000	140,000	
	Mechanics Garage Restaurant - Hospitality FOH	135	m2	3,600	486,000	
	Mechanics Garage Restaurant - Hospitality BOH	62	m2	4,000	248,000	
	External Works					
	Allowance for mobile food vans		Excl.		-	
	External deck & outdoor dining area	1	item	100,000	100,000	
	Sub-Total - Trade	**413**	**m2**	**3,998**	**1,651,200**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			247,680	
	Offsite Overheads & Profit	5%			94,944	
	Construction Cost (Excluding GST) as @ May 2018	**413**	**m2**	**4,828**	**1,993,824**	
	Locality factor allowance	5%			99,691	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			69,784	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			29,907	
	ESD Allowance	3.0%			59,815	
	Total Construction Costs (Excluding GST) as @ May 2018	**413**	**m2**	**5,455**	**2,253,021**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			78,856	
	Parks Vic / Alpine Shire Fees	2%			45,060	
	Consultants Fees	10%			225,302	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	**413**	**m2**	**6,301**	**2,602,239**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			260,224	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**413**	**m2**	**6,931**	**2,862,463**	

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
03 - FOOD & BEVERAGE OFFERING (MINIMAL UTILITIES)						
Utility Services to Site Location						
	Sewer Mains (included in Section 02 Mt Buffalo Chalet)		Item		-	
	Sewer Reticulation (included in Section 02 Mt Buffalo Chalet)		Item		-	
	Potable Water (incl. in Chalet)		Item			
	Recycled Water		Excl		-	
	Gas (included in Section 02 Mt Buffalo Chalet)		Item		-	
	Power (incl. in Chalet)		Item		-	
	Telecommunications (included in Chalet)		Excl		-	
	Stormwater (included in Section 02 Mt Buffalo Chalet)		Item		-	
	Sub-Total - Trade				-	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			-	
	Offsite Overheads & Profit	5%			-	
	Construction Cost (Excluding GST) as @ May 2018				-	
	Locality factor allowance	5%			-	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			-	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			-	
	ESD Allowance	3.0%			-	
	Total Construction Costs (Excluding GST) as @ May 2018				-	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			-	
	Parks Vic / Alpine Shire Fees	2%			-	
	Consultants Fees	10%			-	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	-			-	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	20%			-	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)				-	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
04a - GLAMPING & WILDERNESS HUTS - LAKE CATANI (OPTION 1)						
	Functional Area Estimate - Bell Tent (no power)					
	Lake Catani Accommodation					
	Lightweight Bell Tent (No Services)	250	m2	300	75,000	No Services - Assume 10 No. 25m2 Tents
	Lake Catani (Amenities) - Upgrade to Existing is Excluded		Excl.		-	
	External Works					
	Allowance for BBQ & picnic facilities - Inc. in Option 4b		Inc.		-	
	Allowance for works to walking trail head - Inc. in Option 4b		Inc.		-	
	Sub-Total - Trade	**310**	**m2**	**242**	**75,000**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			11,250	
	Offsite Overheads & Profit	5%			4,313	
	Construction Cost (Excluding GST) as @ May 2018	**310**	**m2**	**292**	**90,563**	
	Locality factor allowance	5%			4,528	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			3,170	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			1,358	
	ESD Allowance	3.0%			2,717	
	Total Construction Costs (Excluding GST) as @ May 2018	**310**	**m2**	**330**	**102,336**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			3,582	
	Parks Vic / Alpine Shire Fees	2%			2,047	
	Consultants Fees	10%			10,234	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	**310**	**m2**	**381**	**118,198**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			11,820	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**310**	**m2**	**419**	**130,017**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
04b - GLAMPING & ECO PODS - LAKE CATANI						
	Functional Area Estimate - Prefabricated Eco Pods (inc. Power, Water, Lighting, Heating, Solar etc.)					
	Lake Catani Accommodation					
	Eco Pods (Inc. Services) - $1,500/m2 less bell tents @ $300/m2	250	m2	1,500	375,000	Assume 10 No. 25m2 Eco Pods
	Lake Catani (Amenities) - Upgrade to Existing is Excluded		Excl.		-	
	External Works					
	Allowance for BBQ & picnic facilities	1	item	50,000	50,000	
	Allowance for works to walking trail head	1	item	25,000	25,000	
	Sub-Total - Trade	**310**	**m2**	**1,452**	**450,000**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			67,500	
	Offsite Overheads & Profit	5%			25,875	
	Construction Cost (Excluding GST) as @ May 2018	**310**	**m2**	**1,753**	**543,375**	
	Locality factor allowance	5%			27,169	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			19,018	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			8,151	
	ESD Allowance	3.0%			16,301	
	Total Construction Costs (Excluding GST) as @ May 2018	**310**	**m2**	**1,981**	**614,014**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			21,490	
	Parks Vic / Alpine Shire Fees	2%			12,280	
	Consultants Fees	10%			61,401	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	**310**	**m2**	**2,288**	**709,186**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			70,919	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**310**	**m2**	**2,516**	**780,104**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
04b - GLAMPING & ECO PODS - LAKE CATANI (MINIMAL UTILITIES)						
	Utility Services to Site Location					
	Sewer Mains (Irrigation system to sand filter outflows - rate as per GHD)	1	Item	68,000	68,000	
	Sewer Treatment Plant (STP inc. in Chalet)		*Excl*		-	
	Sewerage storage facility		*item*	*10,000*	-	
	Irrigation system to sand filter outflows	*1*	*No*	*68,000*	*68,000*	
	Sewer Reticulation (incl. above)		Item		-	
	100 diameter sewer reticulation to service amenities block		*m*	*250*	-	
	Potable Water (rainwater tank including associated pipework)	1	Item	25,000	25,000	
	Potable Water Reticulation Pipework		*m*	*500*	-	
	Rainwater tank	*1*	*item*	*25,000*	*25,000*	
	Recycled Water		Excl		-	
	Gas	1	Item	6,000	6,000	
	Power (Solar kit for Eco Pods)	1	Item	200,000	200,000	
	Substation		*No*		-	
	Kiosk		*No*		-	
	Main Switchboard		*No*	*3,500*	-	
	HV - Mains Power		*m*		-	
	LV - Mains Power - Assume from Chalet (aerial) inc. poles		*m*	*500*	-	
	Solar kits for Eco Pods	*10*	*No.*	*20,000*	*200,000*	
	Telecommunications	1	Item	10,000	10,000	
	Stormwater	1	Item	50,000	50,000	
	Sub-Total - Trade				**359,000**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			53,850	
	Offsite Overheads & Profit	5%			20,643	
	Construction Cost (Excluding GST) as @ May 2018				**433,493**	
	Locality factor allowance	5%			21,675	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			15,172	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			6,502	
	ESD Allowance	3.0%			13,005	
	Total Construction Costs (Excluding GST) as @ May 2018				**489,847**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			17,145	
	Parks Vic / Alpine Shire Fees	2%			9,797	
	Consultants Fees	10%			48,985	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	-			**565,773**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	20%			113,155	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)				**678,927**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
05 - ENHANCE ACTIVITY & EVENT OFFERING - CRESTA VALLEY						
	Functional Area Estimate					
	Cresta Day Lodge (New Build)					
	Cresta Day Lodge - Circulation	50	m2	2,000	100,000	
	Cresta Day Lodge - Admin.	50	m2	2,400	120,000	
	Cresta Day Lodge - Amenities	100	m2	4,000	400,000	
	Cresta Day Lodge - Hospitality FOH	300	m2	3,600	1,080,000	
	Cresta Day Lodge - Activity / Retail	125	m2	2,400	300,000	
	Cresta Day Lodge - Training Spaces	90	m2	2,800	252,000	
	Cresta Day Lodge - Parks Admin.	35	m2	2,800	98,000	
	External Works					
	Day parking & pick up / drop off pavement	1	Item	50,000	50,000	
	Allowance for works to walking trail head	1	item	25,000	25,000	
	Allowance for walking trail (granite walk) - low difficulty terrain	1,950	m	20	39,000	
	Allowance for moutain bike trail - low difficulty terrain	1,950	m	20	39,000	
	Allowance for walking trail (granite walk) - med. difficulty terrain	900	m	100	90,000	
	Allowance for moutain bike trail - med. difficulty terrain	900	m	100	90,000	
	Allowance for walking trail (granite walk) - high difficulty terrain	150	m	500	75,000	
	Allowance for moutain bike trail - high difficulty terrain	150	m	500	75,000	
	Sub-Total - Trade	**750**	**m2**	**3,777**	**2,833,000**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			424,950	
	Offsite Overheads & Profit	5%			162,898	
	Construction Cost (Excluding GST) as @ May 2018	**750**	**m2**	**4,561**	**3,420,848**	
	Locality factor allowance	5%			171,042	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			119,730	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			51,313	
	ESD Allowance	3.0%			102,625	
	Total Construction Costs (Excluding GST) as @ May 2018	**750**	**m2**	**5,154**	**3,865,558**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			135,295	
	Parks Vic / Alpine Shire Fees	2%			77,311	
	Consultants Fees	10%			386,556	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	**750**	**m2**	**5,953**	**4,464,719**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			446,472	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**750**	**m2**	**6,548**	**4,911,191**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
05 - ENHANCE ACTIVITY & EVENT OFFERING - CRESTA VALLEY (MINIMAL UTILITIES)						
	Utility Services to Site Location					
	Sewer Mains (aerated waste water treatment system)	1	Item	204,000	204,000	
	Sewer Reticulation (incl. above)	1	Item	-	-	
	100 diameter sewer reticulation to service amenities block		*m*	*250*	-	
	Potable Water (rainwater tanks incl. dosing treatment system)	1	Item	250,000	250,000	
	Potable Water Reticulation Pipework		*m*	*500*	-	
	Rainwater tank	*1*	*item*	*150,000*	*150,000*	
	Dosing system	*1*	*item*	*100,000*	*100,000*	
	Recycled Water		Excl		-	
	Gas	1	Item	6,000	6,000	
	Gas Mains		*Excl*			
	Bottled Gas (Bottle Supply + Foundation)	*4*	*No*	*1,500*	*6,000*	
	Power (New diesel generator - rate as per GHD)	1	Item	407,000	407,000	
	Substation		*No*		-	
	Kiosk		*No*	*250,000*	-	
	Main Switchboard		*No*	*3,500*	-	
	HV - Mains Power		*m*		-	
	LV - Mains Power - Assume from Chalet (aerial) inc. poles		*m*	*500*	-	
	Diesel generators (New) - as per GHD	*1*	*item*	*407,000*	*407,000*	
	Telecommunications	1	Item	10,000	10,000	
	Activity Centre (Tower/Comms Room) - Inc. in chalet cost		***Excl***		-	
	Fibre Optic Cable - Presume from Chalet		*m*	*250*	-	
	Wi-Fi (Modem/Computer)	*1*	*Item*	*10,000*	*10,000*	
	Stormwater	1	Item	50,000	50,000	
	Stormwater Mains (Locally Drained into creek/lake)	*100*	*m*	*450*	*45,000*	
	Drainage Pits / Wetland Planting/Landscaping	*1*	*Item*	*5,000*	*5,000*	
	Rainwater Tanks		*Ltr*	*1.2*	-	
	Sub-Total - Trade				**927,000**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			139,050	
	Offsite Overheads & Profit	5%			53,303	
	Construction Cost (Excluding GST) as @ May 2018				**1,119,353**	
	Locality factor allowance	5%			55,968	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			39,177	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			16,790	
	ESD Allowance	3.0%			33,581	
	Total Construction Costs (Excluding GST) as @ May 2018				**1,264,868**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			44,270	
	Parks Vic / Alpine Shire Fees	2%			25,297	
	Consultants Fees	10%			126,487	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	-			**1,460,923**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	20%			292,185	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)				**1,753,107**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
06 - DINGO DELL						
	Functional Area Estimate					
	AW Keown Lodge (Assume Refurbishment of Existing Dingo Dell Café)					
	AW Keown Lodge (Dingo Dell) - Admin.	56	m2	2,400	134,400	
	AW Keown Lodge (Dingo Dell) - Amenities	56	m2	4,000	224,000	
	AW Keown Lodge (Dingo Dell) - Hospitality	32	m2	4,000	128,000	
	AW Keown Lodge (Dingo Dell) - Training Spaces	310	m2	2,800	868,000	
	Sub-Total - Trade	**454**	**m2**	**2,983**	**1,354,400**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			203,160	
	Offsite Overheads & Profit	5%			77,878	
	Construction Cost (Excluding GST) as @ May 2018	**454**	**m2**	**3,602**	**1,635,438**	
	Locality factor allowance	5%			81,772	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			57,240	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			24,532	
	ESD Allowance	3.0%			49,063	
	Total Construction Costs (Excluding GST) as @ May 2018	**454**	**m2**	**4,071**	**1,848,045**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			64,682	
	Parks Vic / Alpine Shire Fees	2%			36,961	
	Consultants Fees	10%			184,804	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	**454**	**m2**	**4,702**	**2,134,492**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			213,449	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**454**	**m2**	**5,172**	**2,347,941**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
06 - DINGO DELL (MINIMAL UTILITIES)						
Utility Services to Site Location						
	Sewer Mains (septic sewerage storage system)	1	Item	30,000	30,000	
	Sewer Treatment Plant (STP inc. in Chalet)		*Excl*		-	
	Sewerage storage facility	*1*	*item*	*30,000*	*30,000*	
	Pumping Station		*No*	*50,000*	-	
	Sewer Reticulation	1	Item	25,000	25,000	
	100 diameter sewer reticulation to service amenities block	*100*	*m*	*250*	*25,000*	
	Potable Water (rainwater tanks incl. dosing treatment system)	1	Item	250,000	250,000	
	Recycled Water		Excl		-	
	Gas	1	Item	15,000	15,000	
	Gas Mains		*Excl*			
	Bottled Gas (Bottle Supply + Foundation)	*10*	*No*	*1,500*	*15,000*	
	Power (diesel generators)	1	Item	200,000	200,000	
	Substation		*No*		-	
	Kiosk		*No*		-	
	Main Switchboard		*No*	*3,500*	-	
	HV - Mains Power		*m*		-	
	LV - Mains Power - Assume from Cresta		*m*	*500*	-	
	Allowance for diesel generators (New)	*1*	*item*	*200,000*	*200,000*	
	Telecommunications	1	Item	20,000	20,000	
	Activity Centre (Tower/Comms Room) - Inc. in chalet cost		***Excl***		-	
	Fibre Optic Cable - Presume from Chalet		*m*	*250*	-	
	Wi-Fi (Modem/Computer)	*1*	*Item*	*20,000*	*20,000*	
	Stormwater	1	Item	200,000	200,000	
	Stormwater Mains (Locally Drained into creek/lake)	*300*	*m*	*450*	*135,000*	
	Drainage Pits / Wetland Planting/Landscaping	*1*	*Item*	*5,000*	*5,000*	
	Rainwater Tanks	*50,000*	*Ltr*	*1.2*	*60,000*	
	Sub-Total - Trade				**740,000**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			111,000	
	Offsite Overheads & Profit	5%			42,550	
	Construction Cost (Excluding GST) as @ May 2018				**893,550**	
	Locality factor allowance	5%			44,678	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			31,274	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			13,403	
	ESD Allowance	3.0%			26,807	
	Total Construction Costs (Excluding GST) as @ May 2018				**1,009,712**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			35,340	
	Parks Vic / Alpine Shire Fees	2%			20,194	
	Consultants Fees	10%			100,971	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	-			**1,166,217**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	20%			233,243	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)				**1,399,460**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
07 - MOUNTAIN GATEWAY						
	Elemental Estimate					
	Visitors Centre - Building					
	Substructure (Slab on Ground)	500	m2	384	191,820	
	Columns	500	m2	75	37,500	
	Roof	650	m2	482	313,509	
	External Walls / Windows / Doors	741	m2	597	442,571	
	Internal Walls / Screens / Doors	419	m2	234	98,045	
	Floor Finishes	500	m2	112	55,921	
	Wall Finishes	1,660	m2	38	62,339	
	Ceiling Finishes	500	m2	123	61,664	
	Fitments	500	m2	419	209,497	
	Shop Fitout		Excl		-	
	Special Equipment (Commercial Café Equipment)	1	Item	150,000	150,000	
	Sanitary Fixtures & Plumbing	500	m2	305	152,443	
	Electrical Light & Power + Comms	500	m2	375	187,500	
	Fire Services (Fire Hose Reel)	500	m2	13	6,374	
	Fire Services (Sprinklers)		Excl		-	
	Mechanical (Heating / Cooling)	500	m2	515	257,496	
	Extra over for cinema (visitor experience centre)	1	Item	500,000	500,000	
	External Works					
	Earthworks, Deceleration Lane, Car parking, Boardwalk, Decking, Furniture, Fencing, Signage, walking trail head etc.	5,000	m2	265	1,325,000	
	Soft Landscaping					
	Grassing & Low Height Native Plants, and enhancing existing native vegetation	122,500	m2	10	1,225,000	
	External Services					
	Allow for sewer / septic / interceptor		Note		-	Included in Utilities Services Section
	Allow for stormwater		Note		-	Included in Utilities Services Section
	Allow for external lighting to carpark & entry (minimal)	1	Item	100,000	100,000	
	Allow for fire tanks, pumps & reticulation		Excl		-	
	Allow for sewer connection to Existing system (indicative costing)		Note		-	Included in Utilities Services Section
	Allow for pumping station for potable water from Existing system (indicative costing)		Note		-	Included in Utilities Services Section
	Sub-Total - Trade	**500**	**m2**	**10,753**	**5,376,680**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			806,502	
	Offsite Overheads & Profit	5%			309,159	
	Construction Cost (Excluding GST) as @ May 2018	**500**	**m2**	**12,985**	**6,492,341**	
	Locality factor allowance	5%			324,617	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			227,232	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			97,385	
	ESD Allowance	3.0%			194,770	
	Total Construction Costs (Excluding GST) as @ May 2018	**500**	**m2**	**14,673**	**7,336,345**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			256,772	
	Parks Vic / Alpine Shire Fees	2%			146,727	
	Consultants Fees	10%			733,635	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	**500**	**m2**	**16,947**	**8,473,479**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			847,348	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**500**	**m2**	**18,642**	**9,320,827**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
07 - MOUNTAIN GATEWAY (MINIMAL UTILITIES)						
Utility Services to Site Location						
	Sewer Mains (septic system)	1	Item	30,000	30,000	
	Sewer Treatment Plant (STP inc. in Chalet)		*Excl*		-	
	Sewerage storage facility	*1*	*item*	*30,000*	*30,000*	
	Pumping Station		*No*	*100,000*	-	
	Sewer Reticulation	1	Item	25,000	25,000	
	100 diameter sewer reticulation to service amenities block	*100*	*m*	*250*	*25,000*	
	Potable Water (rainwater tanks incl. dosing treatment system)	1	Item	250,000	250,000	
	Potable Water Reticulation Pipework		*m*	*500*	-	
	Rainwater tank	*1*	*item*	*150,000*	*150,000*	
	Dosing system	*1*	*item*	*100,000*	*100,000*	
	Recycled Water		Excl		-	
	Gas	1	Item	6,000	6,000	
	Gas Mains		*Excl*			
	Bottled Gas (Bottle Supply + Foundation)	*4*	*No*	*1,500*	*6,000*	
	Power (diesel generators)	1	Item	200,000	200,000	
	Substation		*Excl*		-	
	Kiosk		*No*		-	
	Main Switchboard		*No*	*3,500*	-	
	HV - Mains Power (from Porepunkah)		*m*	*1,000*	-	
	LV - Mains Power - Assume from Eurobin Picnic Ground (aerial) to Porepunkah inc. poles		*m*	*75*	-	
	Allowance for diesel generators (New)	*1*	*item*	*200,000*	*200,000*	
	Telecommunications	1	Item	20,000	20,000	
	Activity Centre (Tower/Comms Room) - Inc. in chalet cost		***Excl***		-	
	Fibre Optic Cable - Eurobin Picnic Ground to Porepunkah		*m*	*250*	-	
	Wi-Fi transmission	*1*	*Item*	*20,000*	*20,000*	
	Stormwater	1	Item	180,500	180,500	
	Stormwater Mains (Locally Drained into creek/lake)	*250*	*m*	*450*	*112,500*	
	Drainage Pits / Wetland Planting/Landscaping	*1*	*Item*	*20,000*	*20,000*	
	Rainwater Tanks	*40,000*	*Ltr*	*1.2*	*48,000*	
	Sub-Total - Trade				**711,500**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			106,725	
	Offsite Overheads & Profit	5%			40,911	
	Construction Cost (Excluding GST) as @ May 2018				**859,136**	
	Locality factor allowance	5%			42,957	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			30,070	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			12,887	
	ESD Allowance	3.0%			25,774	
	Total Construction Costs (Excluding GST) as @ May 2018				**970,824**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			33,979	
	Parks Vic / Alpine Shire Fees	2%			19,416	
	Consultants Fees	10%			97,082	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	-			**1,121,302**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	20%			224,260	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)				**1,345,562**	

WT PARTNERSHIP

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9 August 2018

PricewaterhouseCoopers (PWC) Australia
2 Riverside Quay
SOUTHBANK VIC 3006
Attention: Ms Katya Crema katya.crema@pwc.com

Dear Katya

MOUNT BUFFALO ACTIVATION
CONCEPT FEASIBILITY COST ESTIMATES - ULTIMATE UTILITY SERVICES

We are pleased to provide our High Level Feasibility Cost Estimate No. 1 dated 9 August 2018 for the associated seven concepts outlined in the Vision for Mount Buffalo document dated February 2017.

This estimate includes for an Ultimate Scenario of Utility Services which will supply the Mount Buffalo Chalet and surrounding precincts. 'Ultimate' level of utilities for the proposed redevelopment works encompasses a final level of services capacity for all precincts including future proofing.

Do not hesitate to contact the undersigned to discuss any aspect which requires clarification or amendment to the assumed scope of works on our part.

Yours faithfully
WT Partnership

L R WEATHERELL
Associate

WT REF: 183652-06

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CONCEPT FEASIBILITY COST ESTIMATES - ULTIMATE UTILITY SERVICES

MOUNT BUFFALO ACTIVATION

9 August 2018

CONTENTS

APPENDICES

1 ESTIMATE SUMMARY

WT Partnership (WT) estimates the Total Project Cost for the Seven Cost Options in the amount outlined in the table below. Prices are Exclusive of GST and are at current day. High Level and Detailed summaries are tabled below.

Refer to Appendix A and the full estimate summary.

We highlight that this a Class 5 estimate (Concept Feasibility Cost Estimate) due to the conceptual nature of the design. The estimates should be taken at an accuracy level of **+40% - 40%**.

This Concept Feasibility Cost Estimate No. 1 which includes an ***Ultimate Utility Services Supply*** dated 9 August 2018 can be Summarized as follows:

High Level Summary

WORK PACKAGE	BUILDING COST $ (EXCL GST)	ULTIMATE UTILITY SERVICES COST $ (EXCL GST)	TOTAL PROJECT COST $ (EXCL GST)
01 - Gorge Skywalk	$11,349,480	$1,894,945	13,244,425
02 - Mount Buffalo Chalet	$60,735,375	$44,367,614	105,102,989
03 - Food and Beverage Offering	$2,862,463	$469,954	3,332,417
04 - Glamping (Eco Pods)	$780,104	$13,000,796	13,780,900
05 - Enhancement of Activity Event Offering	$4,911,191	$8,389,196	13,300,387
06 - Dingo Dell	$2,347,941	$6,828,042	9,175,983
07 - Mountain Gateway	$9,320,827	$17,767,470	27,088,297
TOTAL PROJECT COST	$92,307,381	$92,718,017	$185,025,398

Detailed Level Summary is as follows:

WORK PACKAGE	BUILDING COST $ (EXCL GST)	ULTIMATE UTILITY SERVICES COST $ (EXCL GST)	TOTAL PROJECT COST $ (EXCL GST)
01 - Gorge Skywalk	6,546,900	1,002,000	7,548,900
02 - Mount Buffalo Chalet	34,705,150	23,460,500	58,165,650
03 - Food and Beverage Offering	1,651,200	248,500	1,899,700
04 - Glamping (Eco Pods)	450,000	6,874,500	7,324,500
05 - Enhancement of Activity Event Offering	2,833,000	4,436,000	7,269,000
06 - Dingo Dell	1,354,400	3,610,500	4,964,900
07 - Mountain Gateway	5,376,680	9,395,000	14,771,680

WORK PACKAGE	BUILDING COST $ (EXCL GST)	ULTIMATE UTILITY SERVICES COST $ (EXCL GST)	TOTAL PROJECT COST $ (EXCL GST)
Subtotal Direct Cost	**52,917,330**	**49,027,000**	**101,944,330**
Site Based Preliminaries	7,937,599	7,354,050	**15,291,649**
Offsite Overhead & Profit	3,042,746	2,819,053	**5,861,799**
Subtotal Construction Cost	**63,897,675**	**59,200,103**	**123,097,778**
Locality factor allowance	3,194,884	2,960,005	**6,154,889**
Program prolongation allowance	2,236,419	2,072,004	**4,308,423**
Allowance for removal of Hazardous materials	450,000	-	**450,000**
Staging Allowance	958,465	888,002	**1,846,467**
ESD Allowance	1,916,930	1,776,003	**3,692,933**
Cultural Heritage, Vegetation Offset, Flora Fauna	2,542,903	2,341,364	**4,884,267**
Parks Vic / Alpine Shire Fees	1,453,087	1,337,922	**2,791,009**
Consultants Fees	7,265,437	6,689,612	**13,955,049**
Subtotal Project Cost	**83,915,800**	**77,265,015**	**161,180,815**
Authority Headworks & Charges	-	-	**0**
Risk / Contingency	8,391,580	15,453,003	**23,844,583**
TOTAL PROJECT COST	**$92,307,380**	**$92,718,018**	**$185,025,398**

Cost Option – 04 - Glamping

We have also provided a cost option for Item 04 – Glamping (Eco Pods) been provided.

In lieu of Item 04 – Glamping (Eco Pods), which includes for 10 No. Eco Pods and, and an additional 60m^2 of amenities block at Lake Catani, a cheaper cost option 04a Glamping Bell Tents has been provided. The Bell Tent Cost Option includes for 10 No. Bell Tents and no additional amenities. Costs Option 4a is as follows:

WORK PACKAGE	BUILDING COST $ (EXCL GST)	ULTIMATE UTILITY SERVICES COST $ (EXCL GST)	TOTAL PROJECT COST $ (EXCL GST)
04a – Glamping (Bell Tents)	130,017	$13,000,796	**$13,130,813**

2 PROJECT DEFINITION

The project comprises the feasibility study of the Mt Buffalo Resort development, which will include 7 Separate key precincts of work areas including building and associated utility services requirements. The 7 key precinct areas are as follows:

01. Gorge Skywalk Tourism Attraction: 50 m glass bottom walkway across the granite rock gorge of Mount Buffalo
02. Mount Buffalo Chalet and Village: Potential restoration of the Mount Buffalo Chalet and the reuse of surrounding buildings for commercial activities such as accommodation, spa retreat, hotel, retail, training and events
03. Food and Beverage Offering: Opportunities for provision of food and beverage services, including at the Gorge and front section of the Chalet
04. Glamping and Wilderness Huts at Lake Catani: Basic camping provided at the site currently generates 15,000 visitor nights. The Vision identifies opportunities to grow the market for high standard camping options
05. Enhancement of Activity and Event Offering: Redevelopment of Cresta Valley into an alpine activity centre, expanded walks, mountain bike trail development
06. Dingo Dell: Potential development as an Outdoor Education Centre of Excellence
07. Mountain Gateway (Visitors Centre) at the base of Mount Buffalo

3 SCHEDULE OF MAJOR QUANTITIES

The estimate is based on the following schedule of major quantities which have been extrapolated from the schedule of areas outlined in the Mount Buffalo Destination Advisory Group (February 2017), "Vision for Mount Buffalo" document – page 18:

MAJOR QUANTITIES – BUILDING AREAS	QUANTITY
Gorge Skywalk	
Gorge Skywalk (50m long x 4m wide)	200 m^2
Mt Buffalo Chalet	
Mt Buffalo Chalet – (Refurbish Existing)	3,648 m^2
Mt Buffalo Chalet – Services Shed (Fit Out Only)	451 m^2
Mt Buffalo Chalet – Stables Chapel / Function Rm (Fit Out Only)	493 m^2
Mt Buffalo Chalet – Horse Paddocks Spa / Hotel (New Build)	3,000 m^2
Mt Buffalo Chalet – Education Centre (New Build)	611 m^2
Mt Buffalo Chalet – School Accommodation (Within Refurbished Chalet)	1,105 m^3
Mt Buffalo Chalet – Staff Accommodation Building (New Build)	680 m^2
Mt Buffalo Chalet – Transport Hub (New Build)	400 m^2
Food & Beverage Offering	
Pump House Bar / Café	181 m^2
Mechanics Garage Restaurant	232 m^2
Glamping & Wilderness Huts (Lake Catani)	
Lightweight Bell Tents (In 10 No.)	250 m^2

MAJOR QUANTITIES – BUILDING AREAS	QUANTITY
Enhance Activity & Event Offering (Cresta Valley)	
Cresta Day Lodge (New Build)	750 m^2
Dingo Dell	
AW Keown Lodge - (Refurbish Existing)	454 m^2
Mountain Gateway	
Visitor Centre (New Build)	500 m^2
MAJOR QUANTITIES – EXTERNAL AREAS	
Gorge Skywalk	
Shared user path (4 m wide)	2,000 m^2
Carparking	750 m^2
Mt Buffalo Chalet	
Ice & roller skating rink	45 m^2
Chalet overnight parking	3,000 m^2
Transport Hub - pick up / drop off pavement	200 m^2
Village ped paved areas	4,985 m^2
Village day plaza deck	805 m^2
Pedestrian overpass / ramp (to gorge)	210 m^2
Tennis courts (105 m^2) including associated recreational facilities	105 m^2
Performance stage (to existing courtyard)	100 m^2
Food & Beverage Offering	
External Deck & Outdoor Dining Areas	500 m^2
Glamping & Wilderness Huts (Lake Catani)	
Amenities Block – Nil	0 m^2
Enhance Activity & Event Offering (Cresta Valley)	
Day parking & pick up / drop off pavement	200 m^2
Allowance for walking trail 1500 wide (granite walk) - low difficulty terrain	1,950 m
Allowance for mountain bike trail 1500 wide - low difficulty terrain	1,950 m
Allowance for walking trail 1500 wide (granite walk) - med. difficulty terrain	900 m
Allowance for mountain bike trail 1500 wide - med. difficulty terrain	900 m
Allowance for walking trail 1500 wide (granite walk) - high difficulty terrain	150 m
Allowance for mountain bike trail 1500 wide - high difficulty terrain	150 m
Dingo Dell	
No External Works Included	0 m^2

MAJOR QUANTITIES – BUILDING AREAS	QUANTITY
Mountain Gateway	
Deceleration Lane, Carpark, Boardwalk, Decking, Paths	5,000 m^2
Soft Landscaping	122,500 m^2

4 DOCUMENTATION

This estimate is based on the following documentation:

- Documentation / Information
  - Vision for Mount Buffalo – Mount Buffalo Destination Advisory Group February 2017
  - HIP B. HYPE Sustainability – Sustainability Energy Assessment Report – July 2018
  - GHD Infrastructure Capacity Report for Parks Victoria September 2007
  - GHD Mount Buffalo Chalet Redevelopment Stage 2 Infrastructure Services Report for Ernst & Young May 2013
  - Jackson Clements Burrows | Lovell Chen Mount Buffalo Community Chalet Redevelopment Concept Design Proposal
  - GHD Infrastructure Mt Buffalo Chalet Complex Asbestos Resurvey for Parks Victoria September 2009
  - PWC Buffalo Activation Staging - DRAFT

5 SPECIFIC ASSUMPTIONS

The Estimate assume competitive lump sum tender for the whole of the Works from suitably qualified contractors.

The Estimate are based on the documents outlined in Section 4.

The following Inclusions/Assumptions has been made for the following key precincts:

WTP BUILDING WORK ASSUMPTIONS

Gorge Skywalk (Crystal Brook)

- Assume steel framed cable stayed structure walkway including piled foundations & concrete works for abutments.
- Assume walkway to have span of 50 m x 4 m width (200 m^2).
- Assume HD glazed flooring & balustrades with stainless steel handrails & fixings.
- Allowance for 2 No. x 250 m long pedestrian footpath to skywalk including steps / ramps / retaining walls.
- 25 Bay Carparking & Ticket Booth included
- Male, female, disabled amenities block included
- Footpath Area to/from Skywalk – 2000 m^2

Chalet

- Chalet site redevelopment assumes utilizing 90-95% of the entire chalet complex footprint. The cost of delivering this concept component would vary accordingly to scale, functionality, extent and quality of the construction.
- Refurbish Chalet Area- 3,648 m^2
- Refurbish Services Shed – 451 m^2
- New Build - Horse Paddock / Spa Hotel – 3001 m^2
- New Build - Education Centre – 611 m^2
- School Accommodation 1,105 m^2 within existing chalet
- Art Deco Garages have recently Renovated by Parks Victoria hence allowance to fitout only
- Staff Amenities 680 m^2
- Medium term food & beverage assumed included in above areas

Food & Beverage Offering (Chalet)

- Refurbished Pump House & Mechanics Garage to Food/Beverage 413 m^2
- Allowance for Outdoor Deck / Dining Area of $100,000 included

Glamping & Wilderness Huts (Lake Catani)

- Base Cost - Lake Catani – 250 m^2 - Bell Tents (Assume 10 No.)
- Option 1 (provided Separately) - Lake Catani – 250 m^2 - Wilderness Huts or Eco Pods (Assume 10 No.) would be Standalone prefabricated buildings placed on stumps. The building would encompass a sleeping area, seating area and wash up area including an environmental chemical toilet. Minimal power and lighting would be supplied including a small rainwater tank for non potable water.

Enhanced Activity & Events (Cresta Valley)

- Cresta Day Lodge 750 m^2
- 3km of walking / bike trails included - Alternate Levels of Difficulty

Education Centre / School Accommodation Centre (Dingo Dell)

- AW Keown Lodge 454m^2 - Assume Existing Café used and refurbished

Mountain Gateway (Base of Mountain)

- New Visitor / Information Centre – 500 m^2
- External works, including pavements, decking, planting - 5,000 m^2
- 122,000 m^2 of Grassing & Low Height Native Plants, and enhancing existing native vegetation

WTP UTILITY SERVICES ASSUMPTION - (ULTIMATE OPTION)

WT Partnership have included within this Cost Estimate the following Utility Services Assumptions.

Gorge Skywalk

- Sewer Main 100mm diameter PVC - pumped back to the Chalet (1,000 m)
- Potable Water Main 50mm diameter PVC supply pipework from Chalet (1,000 m).
- 2 No. Gas bottles to Supply to ticket booth/office & amenities
- Low Voltage (LV) – Aerial Mains Power from Chalet (1,000 m)
- 1 No. 20,000 lt Rainwater Tank

Chalet

- New Modular Staged Water Treatment Plant in lieu of re-using existing STP
- Potable Inground Water 50mm diameter PVC supply pipework from existing reservoir (5,500 m).
- 10 No. Gas bottles to supply LPG Boilers
- High Voltage (HV) – Inground Mains Power from Visitor Centre (15,000 m). Cost included within the HV rate/m would include for a 1MV Substation to power the Chalet and to service the surrounding precincts.

  We have been advised by PWC that power is available at the base of the mountain. We are unsure of the sizing of this power, and have made the assumption that this existing power supply would not be sufficient to supply the Chalet due to the distance up the mountain from this location.
- Additional Solar Panels as Backup power
- 1 No. 100,000 lt above ground Rainwater Tank including foundation

Food & Beverage (Chalet)

- Major Services included within Chalet Utilities Section
- Minor Sewer/Water/Power reticulation included.

Glamping & Wilderness Huts (Bell Tents)

- Sewer Main Pumped back to the Chalet (7,500 m)
- Potable Water Supply Pipework from Chalet (7,500 m).
- Bottle Gas to Supply Bell Tents
- Low Voltage (LV) – Aerial Mains Power from Chalet to Lake Catani (7,500 m)

Enhanced Activity & Event Offering (Cresta Valley)

- Aerated Water Treatment Sewer System
- Potable Water Supply Pipework from Chalet (6,000 m of 100mm diameter poly main) has been included.
- Bottle Gas to Supply Building
- LV – Aerial Mains Power from Chalet (6,000 m)
- Backup Solar Panels

AW Keown Log (Dingo Dell)

- Sewer drainage would be connected to a septic sewerage storage system, which may be either a Conventional Septic, AWTS or Septic Tank with Sand Filter. The tank material will by plastic/poly and have enough capacity for a small amenities block and would also take waste water from the proposed building amenities
- Potable Water Supply Pipework from Cresta Valley (5,000 m of 100 diameter poly main) has been included.
- Bottle Gas to Supply Building
- LV – Aerial Mains Power from Cresta Valley (5,000 m)
- Additional backup solar panels
- 1 No. 500,000 lt Rainwater Tank

Mountain Gateway

- Sewer drainage would be connected to a septic sewerage storage system, which may be either a Conventional Septic, AWTS or Septic Tank with Sand Filter. The tank material will by plastic/poly and have enough capacity for a small amenities block and would also take waste water from the proposed building amenities
- Potable Water Supply Pipework from Porpunkah (6,000 m).
- Bottle Gas to Supply Building

  We have been advised that power is available at the base of the mountain. We are unsure of the sizing of this power, and have made the assumption that this existing power supply would not be sufficient to supply the Chalet due to the distance up the mountain from this location. We have allowed for a HV Supply – Inground Mains Power from Porpunkah (6,000 m).
- Backup Solar Panels
- 2 No. 20,000 lt Rainwater Tanks

6 SPECIFIC EXCLUSIONS

The estimate excludes the following:

- FFE Kitchen/Laundry & Special Equipment
- Tenancy Fitout (Shell & Core provided only)
- Current Chalet car parking upgrade / extension (by others)

- Annual maintenance plan (cost associated with Parks Vic - approx. $280,000 p.a.)
- Chalet heritage facade upgrades
- Leasing agreements
- Mobile Food Vans to Chalet Carpark
- Future long-term food & beverage - hatted restaurant & bar
- Cresta activity & events (by others)
- Waste water / sewer mains (new sewer pipelines between nodes & chalet treatment plant - trucking assumed)
- Major structural rectification works for existing chalet - GHD Capability Report States $400,000 to replace foundations
- Authorities Headworks & Charges
- Financing Costs
- Cost escalation beyond May 2018
- GST

7 SPECIFIC INCLUSIONS

The Estimates assumes competitive lump sum tenders for the whole of the Works from suitably qualified civil works contractors.

The Estimates are inclusive of the following allowances:

- Locality Factor Allowance of 5%
- Program prolongation allowance (Shutdown due to Accessibility Issues i.e. Winter) of 3.5%
- Allowance for removal of contaminated materials $450,000
- Staging Allowance of 1.5%
- ESD Allowance of 3% - This allowance for Ecological Sustainable Development across both building and utility services costs would be sufficient to enable future design to encorporate the following types of works:
  - Re-Insulation of External Walls & Roof Space to reduce heat/cooling loss.
  - Rainwater harvesting via tanks
  - Window tinting to prevent heat/cooling loss.
  - Etc.
- Parks Vic / Alpine Shire Fees 2%
- Cultural Heritage, Vegetation Offset, Flora Fauna allowance of 3.5%
- Consultants Fees of 10%
- Risk / Contingency 10% for Building Works & 20% for Utility Services

8 CONCLUSION / DISCLAIMER

We highlight that due to the preliminary nature of the documentation, our Estimates should be viewed as indicative and a preliminary opinion of the probable order of cost based on a concept without definition of design scope or quality.

Where WT has not been provided with sufficient information, we have made assumptions and allowances which will require detailed review once the design is developed.

Please review the detail of our Estimates, in particular the many assumptions as to scope, quality, performance and finishes of the current design intent to ensure it generally reflects the requirements.

The estimate has been prepared expressly for PricewaterhouseCoopers (PWC) Australia for the purpose of preparing a Reference design estimate and is not to be used for any other purpose or distributed to any third party.

WT PARTNERSHIP

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APPENDIX A

CONCEPT FEASIBILITY COST ESTIMATE NO. 1 - 9 AUGUST 2018 – ULTIMATE UTILITY SERVICES

HIGH LEVEL SUMMARY

VISION FOR MOUNT BUFFALO

CODE	WORK PACKAGE	BUILDING COST (Excluding GST)	UTILITY SERVICES COST (Excluding GST)	TOTAL PROJECT COST (Excluding GST)
01	**GORGE SKYWALK** 50m Glass Bottom Walkway	$ 11,349,480	$ 1,894,945	$ 13,244,425
02	**MT BUFFALO CHALET** Restoration of Chalet & Re-use surrounding buildings, plus new buildings	$ 60,735,375	$ 44,367,614	$ 105,102,990
03	**FOOD & BEVERAGE OFFERING** Food & Beverage Services to Chalet & Gorge	$ 2,862,463	$ 469,954	$ 3,332,417
04	**GLAMPING & ECO PODS** High End Camping at Lake Catani - Eco Pods (10 No.) inc. services	$ 780,104	$ 13,000,796	$ 13,780,900
05	**ENHANCEMENT OF ACTIVITY AND EVENT OFFERING** Re-development of Cresta Valley into Alpine Activity Centre	$ 4,911,191	$ 8,389,196	$ 13,300,387
06	**DINGO DELL** Outdoor Education Centre of Excellence	$ 2,347,941	$ 6,828,042	$ 9,175,983
07	**MOUNTAIN GATEWAY** Development of a Visitor Centre at the Base of the Mountain	$ 9,320,827	$ 17,767,470	$ 27,088,297
	Capex Total Cost - Most Likely	**$ 92,307,382**	**$ 92,718,017**	**$ 185,025,398**

04a	**GLAMPING & WILDERNESS HUTS (Option 1)** High End Camping at Lake Catani - Bell Tents (10 No.) excl. services	$ 130,017	$ 13,000,796	$ 13,130,813

DETAILED SUMMARY

VISION FOR MOUNT BUFFALO

CODE	WORK PACKAGE	BUILDING COST (Excluding GST)	UTILITY SERVICE COST (Excluding GST)	TOTAL PROJECT COST (Excluding GST)
01	**GORGE SKYWALK** 50m Glass Bottom Walkway	$ 6,546,900	$ 1,002,000	$ 7,548,900
02	**MT BUFFALO CHALET** Restoration of Chalet including Services Shed, Stables Chapel/Function Room, Horse Paddocks Spa & Hotel, Education Centre, School Accomodation, Staff Accomodation	$ 34,705,150	$ 23,460,500	$ 58,165,650
03	**FOOD & BEVERAGE OFFERING** Food & Beverage Services to Chalet & Gorge	$ 1,651,200	$ 248,500	$ 1,899,700
04	**GLAMPING & ECO PODS** High End Camping at Lake Catani - Eco Pods (10 No.) incl. services	$ 450,000	$ 6,874,500	$ 7,324,500
05	**ENHANCEMENT OF ACTIVITY AND EVENT OFFERING** Re-development of Cresta Valley into Alpine Activity Centre	$ 2,833,000	$ 4,436,000	$ 7,269,000
06	**DINGO DELL** Outdoor Education Centre of Excellence (Fitout of Existing Building)	$ 1,354,400	$ 3,610,500	$ 4,964,900
07	**MOUNTAIN GATEWAY** Development of a Visitor Centre at the Base of the Mountain	$ 5,376,680	$ 9,395,000	$ 14,771,680
	Sub-Total Trade Cost	**$ 52,917,330**	**$ 49,027,000**	**$ 101,944,330**
	Contractor's Indirect Costs & Margins			
	Site Based Preliminaries	$ 7,937,599	$ 7,354,050	$ 15,291,649
	Offsite Overheads & Profit	$ 3,042,746	$ 2,819,053	$ 5,861,799
	Construction Cost	**$ 63,897,676**	**$ 59,200,103**	**$ 123,097,778**
	Locality factor allowance	$ 3,194,884	$ 2,960,005	$ 6,154,889
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	$ 2,236,419	$ 2,072,004	$ 4,308,422
	Allowance for removal of Hazardous materials	$ 450,000	$ -	$ 450,000
	Staging Allowance	$ 958,465	$ 888,002	$ 1,846,467
	ESD Allowance	$ 1,916,930	$ 1,776,003	$ 3,692,933
	Cultural Heritage, Vegetation Offset, Flora Fauna	$ 2,542,903	$ 2,341,364	$ 4,884,267
	Parks Vic / Alpine Shire Fees	$ 1,453,087	$ 1,337,922	$ 2,791,010
	Consultants Fees	$ 7,265,437	$ 6,689,612	$ 13,955,049
	Sub-total	**$ 83,915,802**	**$ 77,265,014**	**$ 161,180,815**
	Authority Headworks & Charges	$ -	$ -	$ -
	Risk / Contingency	$ 8,391,580	$ 15,453,003	$ 23,844,583
	TOTAL - TCE	**$ 92,307,382**	**$ 92,718,017**	**$ 185,025,398**
04a	**GLAMPING & WILDERNESS HUTS (Option 1)** High End Camping at Lake Catani - Bell Tents (10 No.) excl. services	$ 130,017	$ 13,000,796	$ 13,130,813

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
01 - GORGE SKYWALK						
Building Works						
	Demolition	1	item	100,000	100,000	
	Earthworks	1	item	260,000	260,000	
	Piling	1	item	232,700	232,700	
	Concrete Structure (Foundations / Abutments / Retaining Walls)	1	item	775,850	775,850	
	Structural Steelwork & Stay Cables	1	item	2,103,350	2,103,350	
	Feature Cladding to Skywalk	1	item	225,000	225,000	
	Metalwork / Glazing (Deck & Balustrade)	1	item	525,000	525,000	
	Lighting	1	item	115,000	115,000	
	Landscaping	1	item	100,000	100,000	
	Shared User Path (On Grade)	1	item	1,265,000	1,265,000	
	Services to Skywalk	1	item	270,000	270,000	
	Carparking & Ticket Booth	1	item	425,000	425,000	
	Amenities Block	1	item	150,000	150,000	
	Sub-Total - Trade	**200**	**m2**	**32,735**	**6,546,900**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries	15%			982,035	
	Offsite Overheads & Profit	5%			376,447	
	Construction Cost	**200**	**m2**	**39,527**	**7,905,382**	
	Locality factor allowance	5%			395,269	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			276,688	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			118,581	
	ESD Allowance	3.0%			237,161	
	Total Construction Costs (Excluding GST) as @ May 2018	**200**	**m2**	**44,665**	**8,933,081**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			312,658	
	Parks Vic / Alpine Shire Fees	2%			178,662	
	Consultants Fees	10%			893,308	
	Total Design and Construction Costs	**200**	**m2**	**51,589**	**10,317,709**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			1,031,771	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**200**	**m2**	**56,747**	**11,349,480**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
01 - GORGE SKYWALK						
	Utility Services to Site Location					
	Sewer Mains	1	Item	10,000	10,000	
	Sewer Treatment Plant (STP inc. in Chalet)		*Excl*		-	
	Sewerage storage facility		*item*	*25,000*	-	
	Pumping Station	*1*	*No*	*10,000*	*10,000*	
	Sewer Reticulation	1	Item	250,000	250,000	
	100 diameter sewer reticulation to service amenities block	*1,000*	*m*	*250*	*250,000*	
	Potable Water (assumed from Crystal Brook Pump Station)	1	Item	500,000	500,000	
	Potable Water Reticulation Pipework (from Chalet)	*1,000*	*m*	*500*	*500,000*	
	Pumps - N/R - Gravity Fed from Chalet		*Note*			
	Recycled Water		Excl		-	
	Gas	1	Item	3,000	3,000	
	Gas Mains		*Excl*			
	Bottled Gas (Bottle Supply + Foundation)	*2*	*No*	*1,500*	*3,000*	
	Power (solar, battery storage, gas fired cogen etc)	1	Item	163,500	163,500	
	Substation	-	*No*		-	
	Kiosk	-	*No*		-	
	Main Switchboard	*1*	*No*	*3,500*	*3,500*	
	HV - Mains Power	-	*m*		-	
	LV - Mains Power - Assume from Chalet (aerial) inc. poles	*1,000*	*m*	*150*	*150,000*	
	Solar Panels / Battery Backup - (Ticket Booth Roof)	*4*	*No*	*2,500*	*10,000*	
	Telecommunications (Included in Chalet)		Excl		1,500	
	Activity Centre (Tower/Comms Room) - Inc. in chalet cost		***Excl***		-	
	Fibre Optic Cable - Presume from Chalet		*m*	*250*	-	
	Wi-Fi (Modem/Computer) in ticket booth	*1*	*Item*	*1,500*	*1,500*	
	Stormwater	1	Item	74,000	74,000	
	Stormwater Mains (Locally Drained into creek/lake)	*100*	*m*	*450*	*45,000*	
	Drainage Pits / Wetland Planting/Landscaping	*1*	*Item*	*5,000*	*5,000*	
	Rainwater Tanks	*20,000*	*Ltr*	*1.2*	*24,000*	
	Sub-Total - Trade				**1,002,000**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries	15%			150,300	
	Offsite Overheads & Profit	5%			57,615	
	Construction Cost				**1,209,915**	
	Locality factor allowance	5%			60,496	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			42,347	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			18,149	
	ESD Allowance	3.0%			36,297	
	Total Construction Costs (Excluding GST) as @ May 2018				**1,367,204**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			47,852	
	PM Fees / Parks Vic / Alpine Shire	2%			27,344	
	Consultants Fees	10%			136,720	
	Total Design and Construction Costs	-			**1,579,121**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	20%			315,824	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)				**1,894,945**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
02 - Mt Buffalo Chalet						
	Functional Area Estimates					
	Refurbishment of Existing Chalet					
	Chalet - Lower Ground Floor - Accommodation	333	m2	2,800	932,400	
	Chalet - Lower Ground Floor - Circulation	94	m2	2,000	188,000	
	Chalet - Lower Ground Floor - Admin.	13	m2	2,400	31,200	
	Chalet - Lower Ground Floor - Amenities	44	m2	4,000	176,000	
	Chalet - Lower Ground Floor - Hospitality BOH	140	m2	4,000	560,000	
	Chalet - Lower Ground Floor - Parks Admin.	84	m2	2,800	235,200	
	Chalet - Lower Ground Floor - Day Lodge Cafe	197	m2	4,000	788,000	
	Chalet - Ground Floor - Accommodation	333	m2	2,800	932,400	
	Chalet - Ground Floor - Circulation	263	m2	2,000	526,000	
	Chalet - Ground Floor - Admin.	64	m2	2,400	153,600	
	Chalet - Ground Floor - Amenities	89	m2	4,000	356,000	
	Chalet - Ground Floor - Hospitality FOH	834	m2	3,600	3,002,400	
	Chalet - Ground Floor - Hospitality BOH	58	m2	4,000	232,000	
	Chalet - Ground Floor - Activity / Retail	107	m2	2,400	256,800	
	Chalet - 1st Floor - Accommodation	699	m2	2,800	1,957,200	
	Chalet - 1st Floor - Circulation	176	m2	2,000	352,000	
	Chalet - 2nd Floor - Accommodation	87	m2	2,800	243,600	
	Chalet - 2nd Floor - Circulation	33	m2	2,000	66,000	
	Medium term food & beverage assumed included above in Hospitality areas		Note			
	Futrure long term food & beverage - hatted restaurant & bar (Excluded)		Note			
	Fittings, Furniture & Equipment (FFE)		m2	250	-	
	Services Shed (Fit Out Cost)					
	Services Shed Retail - Amenities	47	m2	4,000	188,000	
	Services Shed Retail - Activity / Retail	404	m2	2,400	969,600	
	Stables Chapel/Function Room (Fit Out Cost)					
	Stables Chapel/Function Rm - Hospitality FOH	287	m2	3,600	1,033,200	
	Art Deco Garages - Admin.	180	m2	1,800	324,000	
	Art Deco Garages - Amenities	26	m2	4,000	104,000	
	Horse Paddocks Spa & Hotel (New Build)					
	47 hotel rooms		Note			
	Horse Paddocks Spa & Hotel - Accommodation	1,750	m2	4,000	7,000,000	
	Horse Paddocks Spa & Hotel - Circulation	300	m2	2,400	720,000	
	Horse Paddocks Spa & Hotel - Admin.	50	m2	2,400	120,000	
	Horse Paddocks Spa & Hotel - Amenities	75	m2	4,400	330,000	
	Horse Paddocks Spa & Hotel - Hospitality FOH	225	m2	3,600	810,000	
	Horse Paddocks Spa & Hotel - Hospitality BOH	50	m2	4,000	200,000	
	Horse Paddocks Spa & Hotel - Activity / Retail	550	m2	2,400	1,320,000	
	Extra over for indoor pool / wet & dry saunas	1	item			
	Education Centre (New Building)					
	Education Centre - Ground Floor - Amenities	40	m2	4,000	160,000	
	Education Centre - Ground Floor - Training Spaces	103	m2	2,800	288,400	
	Education Centre - 1st Floor - Amenities	42	m2	4,000	168,000	
	Education Centre - 1st Floor - Training Spaces	270	m2	2,800	756,000	
	Education Centre - 2nd Floor - Training Spaces	156	m2	2,800	436,800	
	School Accommodation (Within Existing Refurbished Chalet)					
	School Accomm. - Ground Floor - Accommodation	387	m2	2,800	1,083,600	
	School Accomm. - Ground Floor - Circulation	132	m2	2,000	264,000	
	School Accomm. - Ground Floor - Admin.	10	m2	2,400	24,000	
	School Accomm. - Ground Floor - Amenities	44	m2	4,000	176,000	
	School Accomm. - Ground Floor - Hospitality FOH	101	m2	3,600	363,600	
	School Accomm. - Ground Floor - Hospitality BOH	69	m2	4,000	276,000	
	School Accomm. - 1st Floor - Accommodation	278	m2	2,800	778,400	
	School Accomm. - 1st Floor - Circulation	38	m2	2,000	76,000	
	School Accomm. - 1st Floor - Amenities	46	m2	4,000	184,000	

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
02 - Mt Buffalo Chalet						
Staff Accommodation Building						
	Staff Accommodation Building - Accommodation	680	m2	2,800	1,904,000	
Transport Hub						
	Transport Hub - Admin.	200	m2	2,400	480,000	
	Transport Hub - Amenities	50	m2	4,000	200,000	
	Transport Hub - Parks Admin.	150	m2	2,800	420,000	
External Works						
	Ice & roller skating rink	1	item	75,000	75,000	
	Chalet overnight parking	1	item	750,000	750,000	
	Transport Hub - pick up / drop off pavement	1	item	50,000	50,000	
	Village ped paved areas	4,985	m2	150	747,750	
	Village day plaza deck	805	m2	200	161,000	
	Pedestrian overpass / ramp (to gorge)	210	m2	2,500	525,000	
	Tennis courts (105m2) including associated recreational facilities	1	item	100,000	100,000	
	Performance stage (to existing courtyard)	1	item	150,000	150,000	
	Sub-Total - Trade	**10,389**	**m2**	**3,341**	**34,705,150**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			5,205,773	
	Offsite Overheads & Profit	5%			1,995,546	
	Construction Cost (Excluding GST) as @ May 2018	**10,389**	**m2**	**4,034**	**41,906,469**	
	Locality factor allowance	5%			2,095,323	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			1,466,726	
	Allowance for removal of contaminated materials (per GHD Asbestos Report 92411) - Table 2 Prevent Access / Remove Immediately (Type P1) & (P4 Bathroom walls & ceilings) only	1	item	450,000	450,000	
	Staging Allowance	1.5%			628,597	
	ESD Allowance	3.0%			1,257,194	
	Total Construction Costs (Excluding GST) as @ May 2018	**10,389**	**m2**	**4,601**	**47,804,310**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			1,673,151	
	PM Fees / Parks Vic / Alpine Shire	2%			956,086	
	Consultants Fees	10%			4,780,431	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	**10,389**	**m2**	**5,315**	**55,213,978**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			5,521,398	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**10,389**	**m2**	**5,846**	**60,735,375**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
02 - Mt Buffalo Chalet						
Utility Services to Site Location						
	Sewer Mains	1	Item	5,000,000	5,000,000	More info needed
	Sewer Treatment Plant (STP inc. in Chalet)		*Excl*		-	
	Sewer Trunk Main - Assume 300 diameter inground - Assumed Length to Chalet		*m*	*500*	-	
	Pumping Station		*No*	*50,000*	-	
	New modular staged water treatment plant	*1*	*item*	*5,000,000*	*5,000,000*	
	Sewer Reticulation	1	Item	62,500	62,500	
	100 diameter sewer reticulation to service amenities block	*250*	*m*	*250*	*62,500*	
	Potable Water (piped from existing reservoir)	1	Item	2,750,000	2,750,000	
	Potable Water Reticulation Pipework	*5,500*	*m*	*500*	*2,750,000*	
	Pumps - N/R - Gravity Fed from Chalet		*Note*			
	Recycled Water		Excl		-	
	Gas	1	Item	80,000	80,000	
	Gas Mains		*Excl*			
	Bottled Gas (Bottle Supply + Foundation)	*10*	*No*	*3,000*	*30,000*	
	LPG boilers (modular design)	*1*	*item*	*50,000*	*50,000*	
	Power (solar, battery storage, gas fired cogen etc)	1	Item	15,110,500	15,110,500	
	Substation		*No*		-	
	Kiosk		*No*		-	
	Main Switchboard	*3*	*No*	*3,500*	*10,500*	
	HV - Mains Power (from Visitor Centre)	*15,000*	*m*	*1,000*	*15,000,000*	
	LV - Mains Power - Assume from Chalet (aerial) inc. poles		*m*	*150*	-	
	Solar Panels / Battery Backup	*40*	*No*	*2,500*	*100,000*	
	Telecommunications	1	Item	-	-	What's Existing tower? What Services needed
	Activity Centre (Tower/Comms Room) - Inc. in chalet cost		***Excl***		-	
	Fibre Optic Cable - Presume from (from Visitor Centre)		*m*	*250*	-	
	Transmission satelitte dish - Not Required (Use Telstra Asset behind chalet)		*Note*		-	
	Stormwater	1	Item	395,000	395,000	
	Stormwater Mains (Locally Drained into creek/lake)	*500*	*m*	*450*	*225,000*	
	Drainage Pits / Wetland Planting/Landscaping	*1*	*Item*	*50,000*	*50,000*	
	Rainwater Tanks	*100,000*	*Ltr*	*1.2*	*120,000*	
	Sub-Total - Trade				**23,460,500**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			3,519,075	
	Offsite Overheads & Profit	5%			1,348,979	
	Construction Cost (Excluding GST) as @ May 2018				**28,328,554**	
	Locality factor allowance	5%			1,416,428	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			991,499	
	Allowance for removal of contaminated materials	1	item		-	
	Staging Allowance	1.5%			424,928	
	ESD Allowance	3.0%			849,857	
	Total Construction Costs (Excluding GST) as @ May 2018				**32,011,266**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			1,120,394	
	PM Fees / Parks Vic / Alpine Shire	2%			640,225	
	Consultants Fees	10%			3,201,127	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	-			**36,973,012**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	20%			7,394,602	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)				**44,367,614**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
03 - Food & Beverage Offering						
	Functional Area Estimate					
	Chalet					
	Chalet - Hospitality Areas (included in Section 02 - Mt Buffalo Chalet)		Note			
	Pump House Bar/Café					
	Pump House Bar/Café - Hospitality FOH	117	m2	3,600	421,200	
	Pump House Bar/Café - Hospitality BOH	64	m2	4,000	256,000	
	Mechanics Garage Restaurant					
	Mechanics Garage Restaurant - Amenities	35	m2	4,000	140,000	
	Mechanics Garage Restaurant - Hospitality FOH	135	m2	3,600	486,000	
	Mechanics Garage Restaurant - Hospitality BOH	62	m2	4,000	248,000	
	External Works					
	Allowance for mobile food vans		Excl.		-	
	External deck & outdoor dining area	1	item	100,000	100,000	
	Sub-Total - Trade	**413**	**m2**	**3,998**	**1,651,200**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			247,680	
	Offsite Overheads & Profit	5%			94,944	
	Construction Cost (Excluding GST) as @ May 2018	**413**	**m2**	**4,828**	**1,993,824**	
	Locality factor allowance	5%			99,691	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			69,784	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			29,907	
	ESD Allowance	3.0%			59,815	
	Total Construction Costs (Excluding GST) as @ May 2018	**413**	**m2**	**5,455**	**2,253,021**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			78,856	
	PM Fees / Parks Vic / Alpine Shire	2%			45,060	
	Consultants Fees	10%			225,302	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	**413**	**m2**	**6,301**	**2,602,239**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			260,224	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**413**	**m2**	**6,931**	**2,862,463**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
03 - Food & Beverage Offering						
	Utility Services to Site Location					
	Sewer Mains (included in Section 02 Mt Buffalo Chalet)		Item		-	
	Sewer Treatment Plant (STP inc. in Chalet)		*Excl*		-	
	Sewer Trunk Main - Assume 300 diameter inground - Assumed Length to Chalet		*m*	*500*	-	
	Pumping Station		*No*	*50,000*	-	
	Sewer Reticulation	1	Item	50,000	50,000	
	100 diameter sewer reticulation to service amenities block	*200*	*m*	*250*	*50,000*	
	Potable Water	1	Item	50,000	50,000	
	Potable Water Reticulation Pipework	*100*	*m*	*500*	*50,000*	
	Pumps - N/R - Gravity Fed from Chalet		*Note*			
	Recycled Water		Excl		-	
	Gas	1	Item	70,000	70,000	
	Gas Mains	*200*	*m*	*350*	*70,000*	
	Bottled Gas (Bottle Supply + Foundation)		*No*	*1,500*	-	
	Power (solar, battery storage, gas fired cogen etc)	1	Item	28,500	28,500	
	Substation		*No*		-	
	Kiosk		*No*		-	
	Main Switchboard	*1*	*No*	*3,500*	*3,500*	
	HV - Mains Power		*m*		-	
	LV - Mains Power - Assume from Chalet (aerial) inc. poles	*100*	*m*	*150*	*15,000*	
	Solar Panels / Battery Backup - (Ticket Booth Roof)	*4*	*No*	*2,500*	*10,000*	
	Telecommunications (included in Chalet)		Excl		-	
	Activity Centre (Tower/Comms Room) - Inc. in chalet cost		***Excl***		-	
	Fibre Optic Cable - Presume from Chalet		*m*	*250*	-	
	Wi-Fi (Modem/Computer) in ticket booth		*Item*	*1,500*	-	What is the ESD Aspirations ?
	Stormwater	1	Item	50,000	50,000	
	Stormwater Mains (Locally Drained into creek/lake)	*100*	*m*	*450*	*45,000*	
	Drainage Pits / Wetland Planting/Landscaping	*1*	*Item*	*5,000*	*5,000*	
	Rainwater Tanks		*Ltr*	*1.2*	-	Should this apply
	Sub-Total - Trade				**248,500**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			37,275	
	Offsite Overheads & Profit	5%			14,289	
	Construction Cost (Excluding GST) as @ May 2018				**300,064**	
	Locality factor allowance	5%			15,003	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			10,502	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			4,501	
	ESD Allowance	3.0%			9,002	
	Total Construction Costs (Excluding GST) as @ May 2018				**339,072**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			11,868	
	PM Fees / Parks Vic / Alpine Shire	2%			6,781	
	Consultants Fees	10%			33,907	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	-			**391,628**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	20%			78,326	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)				**469,954**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
04b - Glamping & Eco Pods (Lake Catani)						
	Functional Area Estimate - Prefabricated Eco Pods (inc. Power, Water, Lighting, Heating, Solar etc.)					
	Lake Catani Accommodation					
	Eco Pods (Inc. Services) - $1,500/m2 less bell tents @ $300/m2	250	m2	1,500	375,000	Assume 10 No. 25m2 Eco Pods
	Lake Catani (Amenities) - Upgrade to Existing is Excluded		Excl.		-	
	External Works					
	Allowance for BBQ & picnic facilities	1	item	50,000	50,000	
	Allowance for works to walking trail head	1	item	25,000	25,000	
	Sub-Total - Trade	**310**	**m2**	**1,452**	**450,000**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			67,500	
	Offsite Overheads & Profit	5%			25,875	
	Construction Cost (Excluding GST) as @ May 2018	**310**	**m2**	**1,753**	**543,375**	
	Locality factor allowance	5%			27,169	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			19,018	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			8,151	
	ESD Allowance	3.0%			16,301	
	Total Construction Costs (Excluding GST) as @ May 2018	**310**	**m2**	**1,981**	**614,014**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			21,490	
	PM Fees / Parks Vic / Alpine Shire	2%			12,280	
	Consultants Fees	10%			61,401	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	**310**	**m2**	**2,288**	**709,186**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			70,919	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**310**	**m2**	**2,516**	**780,104**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
04a - Glamping & Wilderness Huts (Lake Catani) - Option 1 (Bell Tents)						
	Functional Area Estimate - Bell Tent (no power)					
	Lake Catani Accommodation					
	Lightweight Bell Tent (No Services)	250	m2	300	75,000	No Services - Assume 10 No. 25m2 Tents
	Lake Catani (Amenities) - Upgrade to Existing is Excluded		Excl.		-	
	External Works					
	Allowance for BBQ & picnic facilities - Inc. in Option 4b		Inc.		-	
	Allowance for works to walking trail head - Inc. in Option 4b		Inc.		-	
	Sub-Total - Trade	**310**	**m2**	**242**	**75,000**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			11,250	
	Offsite Overheads & Profit	5%			4,313	
	Construction Cost (Excluding GST) as @ May 2018	**310**	**m2**	**292**	**90,563**	
	Locality factor allowance	5%			4,528	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			3,170	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			1,358	
	ESD Allowance	3.0%			2,717	
	Total Construction Costs (Excluding GST) as @ May 2018	**310**	**m2**	**330**	**102,336**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			3,582	
	PM Fees / Parks Vic / Alpine Shire	2%			2,047	
	Consultants Fees	10%			10,234	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	**310**	**m2**	**381**	**118,198**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			11,820	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**310**	**m2**	**419**	**130,017**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
04 - Glamping & Wilderness Huts (Lake Catani)						
	Utility Services to Site Location					
	Sewer Mains	1	Item	40,000	40,000	
	Sewer Treatment Plant (STP inc. in Chalet)		*Excl*		-	
	Sewerage storage facility		*item*	*10,000*	-	
	Pumping Station	*2*	*No*	*20,000*	*40,000*	
	Sewer Reticulation	1	Item	1,875,000	1,875,000	
	100 diameter sewer reticulation to service amenities block	*7,500*	*m*	*250*	*1,875,000*	
	Potable Water (supplied from Mt Buffalo Chalet location)	1	Item	3,750,000	3,750,000	
	Potable Water Reticulation Pipework	*7,500*	*m*	*500*	*3,750,000*	
	Pumps - N/R - Gravity Fed from Chalet		*Note*			
	Recycled Water		Excl		-	
	Gas	1	Item	6,000	6,000	
	Gas Mains		*Excl*			
	Bottled Gas (Bottle Supply + Foundation)	*4*	*No*	*1,500*	*6,000*	
	Power (solar, battery storage, gas fired cogen etc)	1	Item	1,143,500	1,143,500	
	Substation		*No*		-	
	Kiosk		*No*		-	
	Main Switchboard	*1*	*No*	*3,500*	*3,500*	
	HV - Mains Power		*m*		-	
	LV - Mains Power - Assume from Chalet (aerial) inc. poles	*7,500*	*m*	*150*	*1,125,000*	
	Solar Panels / Battery Backup	*6*	*No*	*2,500*	*15,000*	
	Telecommunications	1	Item	10,000	10,000	
	Activity Centre (Tower/Comms Room) - Inc. in chalet cost		***Excl***		-	
	Fibre Optic Cable - Presume from Chalet		*m*	*250*	-	
	Wi-Fi (Modem/Computer)	*1*	*Item*	*10,000*	*10,000*	
	Stormwater	1	Item	50,000	50,000	
	Stormwater Mains (Locally Drained into creek/lake)	*100*	*m*	*450*	*45,000*	
	Drainage Pits / Wetland Planting/Landscaping	*1*	*Item*	*5,000*	*5,000*	
	Rainwater Tanks		*Ltr*	*1.2*	-	
	Sub-Total - Trade				**6,874,500**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			1,031,175	
	Offsite Overheads & Profit	5%			395,284	
	Construction Cost (Excluding GST) as @ May 2018				**8,300,959**	
	Locality factor allowance	5%			415,048	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			290,534	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			124,514	
	ESD Allowance	3.0%			249,029	
	Total Construction Costs (Excluding GST) as @ May 2018				**9,380,083**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			328,303	
	PM Fees / Parks Vic / Alpine Shire	2%			187,602	
	Consultants Fees	10%			938,008	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	-			**10,833,996**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	20%			2,166,799	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)				**13,000,796**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
05 - Enhance Activity & Event Offering (Cresta Valley)						
	Functional Area Estimate					
	Cresta Day Lodge (New Build)					
	Cresta Day Lodge - Circulation	50	m2	2,000	100,000	
	Cresta Day Lodge - Admin.	50	m2	2,400	120,000	
	Cresta Day Lodge - Amenities	100	m2	4,000	400,000	
	Cresta Day Lodge - Hospitality FOH	300	m2	3,600	1,080,000	
	Cresta Day Lodge - Activity / Retail	125	m2	2,400	300,000	
	Cresta Day Lodge - Training Spaces	90	m2	2,800	252,000	
	Cresta Day Lodge - Parks Admin.	35	m2	2,800	98,000	
	External Works					
	Day parking & pick up / drop off pavement	1	Item	50,000	50,000	
	Allowance for works to walking trail head	1	item	25,000	25,000	
	Allowance for walking trail (granite walk) - low difficulty terrain	1,950	m	20	39,000	
	Allowance for moutain bike trail - low difficulty terrain	1,950	m	20	39,000	
	Allowance for walking trail (granite walk) - med. difficulty terrain	900	m	100	90,000	
	Allowance for moutain bike trail - med. difficulty terrain	900	m	100	90,000	
	Allowance for walking trail (granite walk) - high difficulty terrain	150	m	500	75,000	
	Allowance for moutain bike trail - high difficulty terrain	150	m	500	75,000	
	Sub-Total - Trade	**750**	**m2**	**3,777**	**2,833,000**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			424,950	
	Offsite Overheads & Profit	5%			162,898	
	Construction Cost (Excluding GST) as @ May 2018	**750**	**m2**	**4,561**	**3,420,848**	
	Locality factor allowance	5%			171,042	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			119,730	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			51,313	
	ESD Allowance	3.0%			102,625	
	Total Construction Costs (Excluding GST) as @ May 2018	**750**	**m2**	**5,154**	**3,865,558**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			135,295	
	PM Fees / Parks Vic / Alpine Shire	2%			77,311	
	Consultants Fees	10%			386,556	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	**750**	**m2**	**5,953**	**4,464,719**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			446,472	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**750**	**m2**	**6,548**	**4,911,191**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
05 - Enhance Activity & Event Offering (Cresta Valley)						
	Utility Services to Site Location					
	Sewer Mains	1	Item	204,000	204,000	
	Sewer Treatment Plant (STP inc. in Chalet)		*Excl*		-	
	Aerated Water Treatment Sewerage storage facility	*1*	*item*	*204,000*	*204,000*	
	Pumping Station		*No*	*50,000*	-	
	Sewer Reticulation	1	Item	-	-	
	100 diameter sewer reticulation to service amenities block		*Inc*	*250*	-	
	Potable Water (supplied from Mt Buffalo Chalet location)	1	Item	3,000,000	3,000,000	
	Potable Water Reticulation Pipework	*6,000*	*m*	*500*	*3,000,000*	
	Pumps - N/R - Gravity Fed from Chalet		*Note*			
	Recycled Water		Excl		-	
	Gas	1	Item	6,000	6,000	
	Gas Mains		*Excl*			
	Bottled Gas (Bottle Supply + Foundation)	*4*	*No*	*1,500*	*6,000*	
	Power (solar, battery storage, gas fired cogen etc)	1	Item	1,166,000	1,166,000	
	Substation		*No*		-	
	Kiosk	*1*	*No*	*250,000*	*250,000*	
	Main Switchboard	*1*	*No*	*3,500*	*3,500*	
	HV - Mains Power		*m*		-	
	LV - Mains Power - Assume from Chalet (aerial) inc. poles	*6,000*	*m*	*150*	*900,000*	
	Solar Panels / Battery Backup - (Ticket Booth Roof)	*5*	*No*	*2,500*	*12,500*	
	Telecommunications	1	Item	10,000	10,000	
	Activity Centre (Tower/Comms Room) - Inc. in chalet cost		***Excl***		-	
	Fibre Optic Cable - Presume from Chalet		*m*	*250*	-	
	Wi-Fi (Modem/Computer)	*1*	*Item*	*10,000*	*10,000*	
	Stormwater	1	Item	50,000	50,000	
	Stormwater Mains (Locally Drained into creek/lake)	*100*	*m*	*450*	*45,000*	
	Drainage Pits / Wetland Planting/Landscaping	*1*	*Item*	*5,000*	*5,000*	
	Rainwater Tanks		*Ltr*	*1.2*	-	
	Sub-Total - Trade				**4,436,000**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			665,400	
	Offsite Overheads & Profit	5%			255,070	
	Construction Cost (Excluding GST) as @ May 2018				**5,356,470**	
	Locality factor allowance	5%			267,824	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			187,476	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			80,347	
	ESD Allowance	3.0%			160,694	
	Total Construction Costs (Excluding GST) as @ May 2018				**6,052,811**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			211,848	
	PM Fees / Parks Vic / Alpine Shire	2%			121,056	
	Consultants Fees	10%			605,281	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	-			**6,990,997**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	20%			1,398,199	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)				**8,389,196**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
06 - Dingo Dell						
	Functional Area Estimate					
	AW Keown Lodge (Assume Refurbishment of Existing Dingo Dell Café)					
	AW Keown Lodge (Dingo Dell) - Admin.	56	m2	2,400	134,400	
	AW Keown Lodge (Dingo Dell) - Amenities	56	m2	4,000	224,000	
	AW Keown Lodge (Dingo Dell) - Hospitality	32	m2	4,000	128,000	
	AW Keown Lodge (Dingo Dell) - Training Spaces	310	m2	2,800	868,000	
	Sub-Total - Trade	**454**	**m2**	**2,983**	**1,354,400**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			203,160	
	Offsite Overheads & Profit	5%			77,878	
	Construction Cost (Excluding GST) as @ May 2018	**454**	**m2**	**3,602**	**1,635,438**	
	Locality factor allowance	5%			81,772	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			57,240	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			24,532	
	ESD Allowance	3.0%			49,063	
	Total Construction Costs (Excluding GST) as @ May 2018	**454**	**m2**	**4,071**	**1,848,045**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			64,682	
	PM Fees / Parks Vic / Alpine Shire	2%			36,961	
	Consultants Fees	10%			184,804	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	**454**	**m2**	**4,702**	**2,134,492**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			213,449	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**454**	**m2**	**5,172**	**2,347,941**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
06 - Dingo Dell						
	Utility Services to Site Location					
	Sewer Mains	1	Item	30,000	30,000	
	Sewer Treatment Plant (STP inc. in Chalet)		*Excl*		-	
	Sewerage storage facility (Septic)	*1*	*item*	*30,000*	*30,000*	
	Pumping Station		*No*	*100,000*	-	
	Sewer Reticulation	1	Item	25,000	25,000	
	100 diameter sewer reticulation to service amenities block	*100*	*m*	*250*	*25,000*	
	Potable Water (supplied from Cresta Valley location)	1	Item	2,500,000	2,500,000	
	Potable Water Reticulation Pipework (from Cresta)	*5,000*	*m*	*500*	*2,500,000*	
	Pumps - N/R - Gravity Fed from Chalet		*Note*			
	Recycled Water		Excl		-	
	Gas	1	Item	15,000	15,000	
	Gas Mains		*Excl*			
	Bottled Gas (Bottle Supply + Foundation)	*10*	*No*	*1,500*	*15,000*	
	Power (solar, battery storage, gas fired cogen etc)	1	Item	820,500	820,500	
	Substation		*No*		-	
	Kiosk		*No*		-	
	Main Switchboard	*3*	*No*	*3,500*	*10,500*	
	HV - Mains Power		*m*		-	
	LV - Mains Power - Assume from Cresta (aerial on poles)	*5,150*	*m*	*150*	*772,500*	
	Solar Panels / Battery Backup - (Ticket Booth Roof)	*15*	*No*	*2,500*	*37,500*	
	Telecommunications	1	Item	20,000	20,000	
	Activity Centre (Tower/Comms Room) - Inc. in chalet cost		***Excl***		-	
	Fibre Optic Cable - Presume from Chalet		*m*	*250*	-	
	Wi-Fi (Modem/Computer)	*1*	*Item*	*20,000*	*20,000*	
	Stormwater	1	Item	200,000	200,000	
	Stormwater Mains (Locally Drained into creek/lake)	*300*	*m*	*450*	*135,000*	
	Drainage Pits / Wetland Planting/Landscaping	*1*	*Item*	*5,000*	*5,000*	
	Rainwater Tanks	*50,000*	*Ltr*	*1.2*	*60,000*	
	Sub-Total - Trade				**3,610,500**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			541,575	
	Offsite Overheads & Profit	5%			207,604	
	Construction Cost (Excluding GST) as @ May 2018				**4,359,679**	
	Locality factor allowance	5%			217,984	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			152,589	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			65,395	
	ESD Allowance	3.0%			130,790	
	Total Construction Costs (Excluding GST) as @ May 2018				**4,926,437**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			172,425	
	PM Fees / Parks Vic / Alpine Shire	2%			98,529	
	Consultants Fees	10%			492,644	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	-			**5,690,035**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	20%			1,138,007	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)				**6,828,042**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
07 - Mountain Gateway						
	Elemental Estimate					
	Visitors Centre - Building					
	Substructure (Slab on Ground)	500	m2	384	191,820	
	Columns	500	m2	75	37,500	
	Roof	650	m2	482	313,509	
	External Walls / Windows / Doors	741	m2	597	442,571	
	Internal Walls / Screens / Doors	419	m2	234	98,045	
	Floor Finishes	500	m2	112	55,921	
	Wall Finishes	1,660	m2	38	62,339	
	Ceiling Finishes	500	m2	123	61,664	
	Fitments	500	m2	419	209,497	
	Shop Fitout		Excl		-	
	Special Equipment (Commercial Café Equipment)	1	Item	150,000	150,000	
	Sanitary Fixtures & Plumbing	500	m2	305	152,443	
	Electrical Light & Power + Comms	500	m2	375	187,500	
	Fire Services (Fire Hose Reel)	500	m2	13	6,374	
	Fire Services (Sprinklers)		Excl		-	
	Mechanical (Heating / Cooling)	500	m2	515	257,496	
	Extra over for cinema (visitor experience centre)	1	Item	500,000	500,000	
	External Works					
	Earthworks, Deceleration Lane, Car parking, Boardwalk, Decking, Furniture, Fencing, Signage, walking trail head etc.	5,000	m2	265	1,325,000	
	Soft Landscaping					
	Grassing & Low Height Native Plants, and enhancing existing native vegetation	122,500	m2	10	1,225,000	
	External Services					
	Allow for sewer / septic / interceptor		Note		-	Included in Utilities Services Section
	Allow for stormwater		Note		-	Included in Utilities Services Section
	Allow for external lighting to carpark & entry (minimal)	1	Item	100,000	100,000	
	Allow for fire tanks, pumps & reticulation		Excl		-	
	Allow for sewer connection to Existing system (indicative costing)		Note		-	Included in Utilities Services Section
	Allow for pumping station for potable water from Existing system (indicative costing)		Note		-	Included in Utilities Services Section
	Sub-Total - Trade	**500**	**m2**	**10,753**	**5,376,680**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			806,502	
	Offsite Overheads & Profit	5%			309,159	
	Construction Cost (Excluding GST) as @ May 2018	**500**	**m2**	**12,985**	**6,492,341**	
	Locality factor allowance	5%			324,617	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			227,232	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			97,385	
	ESD Allowance	3.0%			194,770	
	Total Construction Costs (Excluding GST) as @ May 2018	**500**	**m2**	**14,673**	**7,336,345**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			256,772	
	PM Fees / Parks Vic / Alpine Shire	2%			146,727	
	Consultants Fees	10%			733,635	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	**500**	**m2**	**16,947**	**8,473,479**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	10%			847,348	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**500**	**m2**	**18,642**	**9,320,827**	

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST	Comments
07 - Mountain Gateway						
	Utility Services to Site Location					
	Sewer Mains	1	Item	30,000	30,000	
	Sewer Treatment Plant (STP inc. in Chalet)		*Excl*		-	
	Sewerage storage facility (Septic)	*1*	*item*	*30,000*	*30,000*	
	Pumping Station		*No*	*100,000*	-	
	Sewer Reticulation	1	Item	25,000	25,000	
	100 diameter sewer reticulation to service amenities block	*100*	*m*	*250*	*25,000*	
	Potable Water (assumed from Eurobin Picnic Ground to Porepunkah)	1	Item	3,080,000	3,080,000	
	Potable Water Reticulation Pipework from Eurobin Picnic Ground to Porepunkah	*6,000*	*m*	*500*	*3,000,000*	
	Pumps	*4*	*No*	*20,000*	*80,000*	
	Recycled Water		Excl		-	
	Gas	1	Item	6,000	6,000	
	Gas Mains		*Excl*			
	Bottled Gas (Bottle Supply + Foundation)	*4*	*No*	*1,500*	*6,000*	
	Power (solar, battery storage, gas fired cogen etc)	1	Item	6,053,500	6,053,500	
	Substation		*Excl*		-	
	Kiosk	*1*	*No*		-	
	Main Switchboard	*1*	*No*	*3,500*	*3,500*	
	HV - Mains Power (from Porepunkah)	*6,000*	*m*	*1,000*	*6,000,000*	
	LV - Mains Power - Assume from Eurobin Picnic Ground (aerial) to Porepunkah inc. poles		*m*	*150*	-	
	Solar Panels / Battery Backup	*20*	*No*	*2,500*	*50,000*	
	Telecommunications	1	Item	20,000	20,000	
	Activity Centre (Tower/Comms Room) - Inc. in chalet cost		***Excl***		-	
	Fibre Optic Cable - Eurobin Picnic Ground to Porepunkah		*m*	*250*	-	
	Wi-Fi transmission	*1*	*Item*	*20,000*	*20,000*	
	Stormwater	1	Item	180,500	180,500	
	Stormwater Mains (Locally Drained into creek/lake)	*250*	*m*	*450*	*112,500*	
	Drainage Pits / Wetland Planting/Landscaping	*1*	*Item*	*20,000*	*20,000*	
	Rainwater Tanks	*40,000*	*Ltr*	*1.2*	*48,000*	
	Sub-Total - Trade				**9,395,000**	
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			1,409,250	
	Offsite Overheads & Profit	5%			540,213	
	Construction Cost (Excluding GST) as @ May 2018				**11,344,463**	
	Locality factor allowance	5%			567,223	
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			397,056	
	Allowance for removal of contaminated materials - N/A	1	item			
	Staging Allowance	1.5%			170,167	
	ESD Allowance	3.0%			340,334	
	Total Construction Costs (Excluding GST) as @ May 2018				**12,819,243**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			448,673	
	PM Fees / Parks Vic / Alpine Shire	2%			256,385	
	Consultants Fees	10%			1,281,924	
	Total Design and Construction Costs (Excluding GST) as @ May 2018	-			**14,806,225**	
	Authority Headworks & Charges		Excluded		-	
	Risk / Contingency	20%			2,961,245	
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)				**17,767,470**	

Detailed Cost Estimate
Concept C - Food & Beverage in the Chalet

SECTION / AREA	DESCRIPTION	QTY	UNIT	RATE	COST	COMMENTS / ASSUMPTIONS
Internal Fitout Works		**599**	**m2**	**$ 795**	**$ 476,100**	
Kitchen (Bar Room)	Kitchen Appliances				*$ 66,400*	
	Coffee Machine	*1*	*item*	*$ 3,000*	*$ 3,000*	*Lease-back model also optional.*
	Coffee Grinder	*1*	*item*	*$ 1,000*	*$ 1,000*	*Lease-back model also optional.*
	Boiling Water	*1*	*item*	*$ 1,500*	*$ 1,500*	
	Sandwich Press	*1*	*item*	*$ 750*	*$ 750*	
	Large Fridge	*1*	*item*	*$ 3,500*	*$ 3,500*	
	Large Freezer	*1*	*item*	*$ 6,000*	*$ 6,000*	
	Bar Fridge (milk storage)	*1*	*item*	*$ 500*	*$ 500*	
	Microwave	*1*	*item*	*$ 400*	*$ 400*	
	Blender	*1*	*item*	*$ 750*	*$ 750*	
	Dishwasher	*1*	*item*	*$ 4,000*	*$ 4,000*	
	Range hood	*1*	*item*	*$ 20,000*	*$ 20,000*	*Assumes new commercial ducted exhaust through to façade*
	Conveyorised Oven (electric)	*2*	*item*	*$ 7,500*	*$ 15,000*	
	6-8-burner cooktop (gas)	*1*	*item*	*$ 5,000*	*$ 5,000*	
	Cooking Utensils	*1*	*item*	*$ 5,000*	*$ 5,000*	
	Kitchen / Bar Fitout	49	sqm	$ 3,000	$ 147,000	*Allowance for existing bar to be removed. Refurbishment comprising replacement of floor surface, ceiling surface, kitchen fitout, reconfiguration of existing services to comply with relevant standards. WT previously allowed $2,500/m2 for larger café area of 92m2. Suggest $3,000/m2 for same scope over smaller area*
	Loose Service Items	1	item	$ 5,000	$ 5,000	*Includes plates, cups, glasses, utensils, serving platter.*
Dining	Café Dining	64	item	$ 350	$ 22,400	*Existing fixtures / fittings to remain. New furniture. Based on recent WT tender results*
	Dining / Lounge	58	item	$ 350	$ 20,300	*Existing fixtures / fittings to remain. New furniture. Based on recent WT tender results*
Lobby/Lounge	Lounge	59	sqm	$ -	$ -	*Excluded*
	Lobby	48	sqm	$ -	$ -	*Excluded*
Amenities	Mens, Womens, Dis WC, Staff	52	sqm	$ 2,500	$ 130,000	*Use of existing plumbing points for mens and womens. New WC for staff and Disabled.*
Store	Staff Storage / Change Room	17	sqm	$ 1,250	$ 21,250	*Minor upgrade to existing space including shelving/storage cupboards.*
Ballroom	Ballroom	128	sqm	$ -	$ -	*Open for self-guided tours. No refurbishment required.*
Office	Chalet Tours Office Facility	27	sqm	$ 1,250	$ 33,750	*Minor upgrade to existing space including shelving/storage*
Circulation	Corridors	97	sqm	$ -	$ -	*Corridors to remain in current condition.*
Egress	Upgrade points of egress	1	Item	$ 15,000	$ 15,000	*Doors and barriers to restrict visitors from prohibited areas. Points of egress to be safe.*
Emergency Lighting	Re-instate emergency Exit lighting	1	item	$ 5,000	$ 5,000	
Signage	Self-guided tour signage	1	Item	$ 10,000	$ 10,000	*Signage provided for improved customer experience. Internal & External.*
External Fitout Works		**77**	**m2**	**$ 714**	**$ 55,000**	
Veranda	Outdoor Deck - Dining	1	item	$ 5,000	$ 5,000	*Set of 5 Dining Sets - Cost of external furniture only. No external works to timber deck.*
	DDA Compliance Lift	1	item	$ 50,000	$ 50,000	*Lift to provide disabled access to veranda level. Quote from Raise Lift Group (Alison), less than 2m high (Platform + Base $28k installed). Greater than 2m require fully enclosed system (approx $40k). Or / Straight Stair Platform Lift which follows stairs $27k, not possible? Need to include for some type of shelter $10k*

Cost estimate continues over following page

Detailed Cost Estimate
Concept C - Food & Beverage in the Chalet

SECTION / AREA	DESCRIPTION	QTY	UNIT	RATE	COST	COMMENTS / ASSUMPTIONS
Utilities / Services					***$ 367,050***	
Potable Water	Potable water reticulation pipework	1	Excl.	$ -	$ -	*Excluded - Retain existing pipeline from Crystal Brook (~12 months old).*
	New rainwater tank	1	Excl.	$ -	$ -	*Included within dosing system*
	Dosing System	1	Item	$ 100,250	$ 100,250	*Quotation from Hydramet - Martin Warnes $122,250. Our cost assumption excludes 30,000L water storage tank proposed ($22,000). Propose to use existing 220,000L tank. Fee includes design fee $7,500. Refer to quote breakdown.*
	Recycled water	1	Excl.	$ -	$ -	*Excluded*
Waste Water	Sewer Treatment Plant (STP inc. in Chalet)	1	Item	$ -	$ -	*Excluded - Recent upgraded Gorge Carpark Septic System has been sized to handle maximum load (including medium sized Café in Chalet). Peak use for toilet is 2700L/day. Allowance required for connection to gorge septic system only.*
	Connection to existing sewer main at Chalet	1	Item	$ 2,500	$ 2,500	
	New 100m Sewer Trunk Main	100	m	$ 1,000	$ 100,000	*Assume 100 diameter HDPE sewer main below ground - to connext to existing septic.*
	Provision to check existing mains sewer pipe from Chalet to gi building (old Chalet treatment plant)	1	Item	$ 5,000	$ 5,000	
Gas	Gas Supply	1	Excl	$ -	$ -	*Excluded - Assumes use of existing 2 x 30,000L gas bullets for gas cooktop kitchen requirements. Excludes any cost of new gas cylinders.*
	Testing & Certification	1	Item	$ 5,000	$ 5,000	*Allowance only for testing & certification of existing gas tanks & supply pipework. Excludes allowance to 're-instate'.*
Power	Solar PV System - 51kW (oversupply for Stage 1A in isolation, provision for future development / hotel offering).	1	Item	$ 102,000	$ 102,000	*Solar panels located on existing Chalet roof. 51kW system provides provision for future development of the Chalet into boutique accommodation offering. Stage 1A proposal can be viewed in isolation if required. WT benchmarking of $2,000/ kW.*
	Battery Storage system - 27kWh	1	Item	$ 22,000	$ 22,000	
	Biomass condensing boiler - 30-35kW	1	Item	$ 10,000	$ 10,000	
	Biomass boiler connection fee	1	Item	$ -	$ -	*Assume included in above.*
	Existing diesel generator system	1	Item	$ -	$ -	*Excluded - 1 x 185kVA + 1 x 215kVA diesel generators - key role is to provide power to the sprinkler systems and hydrant system. 2018 - replacement of diesel motor driven back-up pump for sprinkler system.*
Heating	Biomass Boiler connected to isolated hydronic panel system	14	No	$ 1,450	$ 20,300	*Heat Strip - Radiant Heater 3600W - Indoor/Outdoor $900 each + Install $350 + Power Point / Cabling*
Telecomms	Phone reception	1	Excl		$ -	*Transmission satelitte dish - Not Required (Use Telstra Asset behind Chalet)*
	Internet - 4G and hardwired.	1	Excl		$ -	*Currently exists on site.*
Stormwater	Assumes no additional stormwater drainage required	1	Excl	$ -	$ -	*Excluded*
	Drainage pits / wetland planting/landscaping	1	Excl	$ -	$ -	*Excluded*
	Rainwater tanks	1	Excl	$ -	$ -	*Excluded*
Fire	Fire hydrants	1	Excl	$ -	$ -	*Excluded - 2 x domestic tansk 110,000L each (total capacity 220,000) - 36,000L of this reserved for hydrant use. Sprinkler tank to be refilled via refill system.*
	Sprinklers	1	Excl	$ -	$ -	*Excluded - 1 x sprinkler supply tank 180,000L. Total volume dedicated to sprinkler system. Pumps can deliver 2500L/min at 550kpa each.*
Sub-Total - Trade		**599**	**m2**	**$ 1,499**	**$ 898,150**	

Cost estimate continues over following page

Detailed Cost Estimate
Concept C - Food & Beverage in the Chalet

SECTION / AREA	DESCRIPTION	QTY	UNIT	RATE	COST	COMMENTS / ASSUMPTIONS
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%			$ 134,723	
	Offsite Overheads & Profit	5%			$ 44,908	
Construction Cost (Excl. GST) as @ July 2018		**676**	**m2**		**$ 1,077,780**	
	Locality factor allowance	5%			$ 53,889	
	Program prolongation allowance	3.5%			$ -	*Assumes works can be completed during Summer (no winter Shutdown)*
	Allowance for removal of contaminated materials	1	item		$ -	*PV assessment assumed no asbestos in activation area. Assumes asbestos is contained in walls & ceiling, and not to be removed during refurbishment. New rangehood ducting system through ceiling may be a risk*
	Staging Allowance		Excl.		$ -	*Not Required for Stage 1A Café Refurb works*
	ESD Allowance		Excl.		$ -	*Not Required for Stage 1A Café Refurb works*
Total Construction Costs (Excl. GST) as @ July 2018		**676**	**m2**		**$ 1,131,669**	
	Cultural Heritage, Vegetation Offset, Flora Fauna	2.0%			$ 22,633	
	Parks Victoria Project Management Fees	10.0%			$ 113,167	*Project Manager (Major Projects) to assist Ovens staff with project procurement.*
	Parks Victoria Expressions of Interest Fees	1	Item		$ 170,000	
	Permit application and regulatory fees (including Alpine Shire Council associated fees)	1	Item	$ 60,913	$ 60,913	*Includes planning scheme amendment. Refer to detailed fee breakdown provided in Report Body, Section 6.6*
	Consultant Fees	15%			$ 169,750	*Architect / interiors, town planner, civil / structural engineer, services engineer, quantity surveyor, ESD Consultant, fire & hydraulic, survey, geotech, traffic, acoustic, BCA, signage, hazmat, heritage consultant.*
Total Design and Construction Costs (Excl. GST) as @ July 2018		**676**	**m2**		**$ 1,668,133**	
	Authority Headworks & Charges		Excl.		$ -	*Excluded*
	Risk / Contingency	20%			$ 333,627	
TOTAL PROJECT COST BUDGET (Excl. GST as @ July 2018)		**676**	**m2**	***$ 2,961***	**$ 2,001,759**	

Detailed Cost Estimate
Concept C - Food & Beverage in the Chalet

Critical Assumptions

General Allowances as follows:

Locality factor allowance includes: - Distance from Major Cities / Towns - Cost of Travel & Accommodation Expenses - Delivery of materials	5.0%
Program prolongation allowance, applied to Construction Cost based on lost time of Construction due to inclement weather (snow) & shutdown of mountain. This is basically a cost for the project construction program being increased over and above a "Typical Melbourne Project"	Excluded. Works assumed to be completed over one summer season.
Staging Allowance for program disruptions including additional cost of Preliminaries (mobilisation & demobilisation costs)	Excluded
Environmentally/Ecologically Sustainable Development (ESD) Allowance	Excluded
Cultural Heritage, Vegetation Offset, Flora and Fauna	3.5%
Consultants Fees, including architect / interiors, town planner, civil / structural engineer, services engineer, quantity surveyor, ESD Consultant, fire & hydraulic, survey, geotech, traffic, acoustic, BCA, signage, hazmat, heritage consultant.	15.0%
Contingency / Risk (Design & Construction Contingency)	20.0%

ASSUMPTIONS

Stage 1 - Chalet Activation Area

Area schedule and design as per De Atelier Architects Plan - July 2018

FFE Assumptions

Re-use of some existing furniture within Chalet.
Acquisition of new outdoor and indoor furniture included within FFE budget.

Utilities

Based on Parks Victoria Mount Buffalo Existing Services Conditions

- Recent upgraded Gorge Carpark Septic System has been sized to handle maximum load (including medium sized Café). Allowance required for connection to gorge septic system only.
- Sewer Trunk Main - Assume 100 diameter below ground - Assumed Length to connection point.
- Potable Water - Retain existing new pipeline (~12 months old) from Crystal Brook. New water dosing treatment system included in budget.
- Gas to be supplied from existing 2 x 30,000ltr tanks. Allowance only for testing / certification of tanks and gas lines only.
- Solar PV system of 51kW has been designed to allow provision for future boutique hotel development, to create efficiencies in system spend. Further investigation can be done on this activation in isolation.
- Telecoms - Assumes existing system is sufficient.
- Stormwater Drainage - Assumes existing system is sufficient.

EXCLUSIONS

Program prolongation allowance, applied to Construction Cost based on lost time of Construction due to inclement weather (snow) & shutdown of mountain. This is basically a cost for the project construction program being increased over and above a "Typical Melbourne Project"

- Staging Allowance for program disruptions including additional cost of Preliminaries (mobilization & demobilization costs)
- ESD Requirements - assumed not required for Stage 1 works
- Laundry Equipment
- Gorge car parking upgrade / extension (by others)
- Annual maintenance plan (cost associated with Parks Vic - approx. $200,000 PA)
- Chalet heritage façade upgrades
- Leasing agreements
- Major structural rectification works for existing Chalet - GHD Capability Report States $400,000 fo replace foundations
- Authorities Headworks & Charges
- Financing Costs
- Cost escalation beyond July 2018.
- GST

VISION FOR MOUNT BUFFALO

Mt Buffalo Boutique Chalet Hotel
Building Cost

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST
02 - Mt Buffalo Boutique Chalet Hotel					
	Functional Area Estimate				
	Refurbishment of Existing Chalet				
	Chalet - Lower Ground Floor - Accommodation	333	m2	2,800	932,400
	Chalet - Lower Ground Floor - Circulation	94	m2	2,000	188,000
	Chalet - Lower Ground Floor - Admin.	13	m2	2,400	31,200
	Chalet - Lower Ground Floor - Amenities	44	m2	4,000	176,000
	Chalet - Lower Ground Floor - Hospitality BOH	140	m2	2,000	280,000
	Chalet - Lower Ground Floor - Parks Admin.	84	m2	-	-
	Chalet - Lower Ground Floor - Day Lodge Cafe	197	m2	-	-
	Chalet - Ground Floor - Accommodation	333	m2	2,800	932,400
	Chalet - Ground Floor - Circulation	263	m2	2,000	526,000
	Chalet - Ground Floor - Admin.	64	m2	2,400	153,600
	Chalet - Ground Floor - Amenities	89	m2	4,000	356,000
	Chalet - Ground Floor - Hospitality FOH	834	m2	3,600	3,002,400
	Chalet - Ground Floor - Hospitality BOH	58	m2	4,000	232,000
	Chalet - Ground Floor - Activity / Retail	107	m2	2,400	256,800
	Chalet - 1st Floor - Accommodation	699	m2	2,800	1,957,200
	Chalet - 1st Floor - Circulation	176	m2	2,000	352,000
	Chalet - 2nd Floor - Accommodation	87	m2	2,800	243,600
	Chalet - 2nd Floor - Circulation	33	m2	2,000	66,000
	Medium term food & beverage assumed included above in Hospitality areas		Note		
	Futrure long term food & beverage - hatted restaurant & bar (Excluded)		Note		
	Services Shed (Fit Out Cost)				
	Services Shed Retail - Amenities	47	m2		
	Services Shed Retail - Activity / Retail	404	m2		
	Stables Chapel/Function Room (Fit Out Cost)				
	Stables Chapel/Function Rm - Hospitality FOH	287	m2		
	Art Deco Garages - Admin.	180	m2		
	Art Deco Garages - Amenities	26	m2		
	Horse Paddocks Spa & Hotel (New Build)				
	47 hotel rooms		Note		
	Horse Paddocks Spa & Hotel - Accommodation	1,750	m2		
	Horse Paddocks Spa & Hotel - Circulation	300	m2		
	Horse Paddocks Spa & Hotel - Admin.	50	m2		
	Horse Paddocks Spa & Hotel - Amenities	75	m2		
	Horse Paddocks Spa & Hotel - Hospitality FOH	225	m2		
	Horse Paddocks Spa & Hotel - Hospitality BOH	50	m2		
	Horse Paddocks Spa & Hotel - Activity / Retail	550	m2		
	Extra over for indoor pool / wet & dry saunas	1	item		
	Education centre (new build) - relocated to Dingo Dell				

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST
02 - Mt Buffalo Boutique Chalet Hotel					
	Staff Accommodation Building				
	Staff Accommodation Building - Accommodation	680	m2	2,800	1,904,000
	Transport Hub				
	Transport Hub - Admin.	200	m2		
	Transport Hub - Amenities	50	m2		
	Transport Hub - Parks Admin.	150	m2		
	External Works				
	Ice & roller skating rink	1	item	TBA	-
	Chalet overnight parking	1	item	750,000	750,000
	Transport Hub - pick up / drop off pavement	1	item		
	Village ped paved areas	4,985	m2		
	Village day plaza deck	805	m2		
	Pedestrian overpass / ramp (to gorge)	210	m2		
	Tennis courts (105m2) including associated recreational facilities	1	item	100,000	100,000
	Performance stage (to existing courtyard)	1	item		
	Sub-Total - Trade		**m2**		**12,439,600**
Contractor's Indirect Costs & Margins					
	Site Based Preliminaries, and Safeworking	15%			1,865,940
	Offsite Overheads & Profit	5%			621,980
	Construction Cost (Excluding GST) as @ May 2018				**14,927,520**
	Locality factor allowance	5%			746,376
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			522,463
	Allowance for removal of contaminated materials	1	item	500,000	500,000
	Staging Allowance	1.5%			223,913
	ESD Allowance	3.0%			447,826
	Total Construction Costs (Excluding GST) as @ May 2018				**17,368,098**
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			607,883
	Parks Vic / Alpine Shire Fees	2%			347,362
	Consultants Fees	10%			1,736,810
	Total Design and Construction Costs (Excluding GST) as @ May 2018				**20,060,153**
	Authority Headworks & Charges	0%		Excluded	-
	Risk / Contingency	10%			2,006,015
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)				**22,066,168**

VISION FOR MOUNT BUFFALO

Mt Buffalo Boutique Chalet Hotel
Utility Services Cost

SECTION	DESCRIPTION	QTY	UNIT	RATE	SUB-TOTAL	COST
02 - Mt Buffalo Boutique Chalet Hotel						
	Utility Services to Site Location					
	Sewer Mains (Upgrade of existing sewer treatment plant- rate as per GHD report)	1	Item	2,845,000		2,845,000
	Sewer Reticulation	1	Item	Included above		-
	Potable Water (alignment alnog reservoir and Chalet roads, rate as per GHD)	1	Item	564,000		564,000
	Gas	1	Item	80,000		80,000
	Gas Mains		*Excl*			
	Bottled Gas (Bottle Supply + Foundation)	*10*	*No*	*3,000*	*30,000*	
	LPG boilers (modular design)	*1*	*item*	*50,000*	*50,000*	
	Power (solar PV + battery powerwall + boimass boiler+hydro)	1	Item	5,000,000		5,000,000
	Telecommunications	1	Item	10,000		10,000
	Stormwater	1	Item	395,000		395,000
	Stormwater Mains (Locally Drained into creek/lake)	*500*	*m*	*450*	*225,000*	
	Drainage Pits / Wetland Planting/Landscaping	*1*	*Item*	*50,000*	*50,000*	
	Rainwater Tanks	*100,000*	*Ltr*	*1.2*	*120,000*	
	Sub-Total - Trade					**8,894,000**
Contractor's Indirect Costs & Margins						
	Site Based Preliminaries, and Safeworking	15%				1,334,100
	Offsite Overheads & Profit	5%				444,700
	Construction Cost (Excluding GST) as @ May 2018					**10,672,800**
	Locality factor allowance	5%				533,640
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%				373,548
	Staging Allowance	1.5%				160,092
	ESD Allowance	3.0%				320,184
	Total Construction Costs (Excluding GST) as @ May 2018					**12,060,264**
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%				422,109
	Parks Vic / Alpine Shire Fees	2%				241,205
	Consultants Fees	10%				1,206,026
	Total Design and Construction Costs (Excluding GST) as @ May 2018					**13,929,605**
	Authority Headworks & Charges	0%		Excluded		-
	Risk / Contingency	20%				2,785,921
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)					**16,715,526**

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST
06 - DINGO DELL - Including new student accommodation building					
	Functional Area Estimate				
	AW Keown Lodge (Assume Refurbishment of Existing Dingo Dell Café)				
	AW Keown Lodge (Dingo Dell) - Admin.	56	m2	2,400	134,400
	AW Keown Lodge (Dingo Dell) - Amenities	56	m2	4,000	224,000
	AW Keown Lodge (Dingo Dell) - Hospitality	32	m2	4,000	128,000
	AW Keown Lodge (Dingo Dell) - Training Spaces	310	m2	2,800	868,000
					1,354,400
	School accommodation (assumes new build - area schedule as per Visions document plan for student accomm in Chalet)				
	School Accomm. - Ground Floor - Accommodation	387	m2	2,900	1,122,300
	School Accomm. - Ground Floor - Circulation	132	m2	2,100	277,200
	School Accomm. - Ground Floor - Admin.	10	m2	2,500	25,000
	School Accomm. - Ground Floor - Amenities	44	m2	4,250	187,000
	School Accomm. - Ground Floor - Hospitality FOH	101	m2	3,800	383,800
	School Accomm. - Ground Floor - Hospitality BOH	69	m2	4,500	310,500
	School Accomm. - 1st Floor - Accommodation	278	m2	2,900	806,200
	School Accomm. - 1st Floor - Circulation	38	m2	2,100	79,800
	School Accomm. - 1st Floor - Amenities	46	m2	4,250	195,500
					3,387,300
	Sub-Total - Trade	**454**	**m2**	**2,983**	**4,741,700**
Contractor's Indirect Costs & Margins					
	Site Based Preliminaries, and Safeworking	15%			711,255
	Offsite Overheads & Profit	5%			237,085
	Construction Cost (Excluding GST) as @ May 2018	**454**	**m2**	**3,602**	**5,690,040**
	Locality factor allowance	5%			284,502
	Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%			199,151
	Allowance for removal of contaminated materials - N/A	1	item		
	Staging Allowance	1.5%			85,351
	ESD Allowance	3.0%			170,701
	Total Construction Costs (Excluding GST) as @ May 2018	**454**	**m2**	**4,071**	**6,429,745**
	Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%			225,041
	Parks Vic / Alpine Shire Fees	2%			128,595
	Consultants Fees	10%			642,975
	Total Design and Construction Costs (Excluding GST) as @ May 2018	**454**	**m2**	**4,702**	**7,426,356**
	Authority Headworks & Charges		Excluded		-
	Risk / Contingency	10%			742,636
	TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)	**454**	**m2**	**5,172**	**8,168,991**

VISION FOR MOUNT BUFFALO

SECTION	DESCRIPTION	QTY	UNIT	RATE	COST
	06 - DINGO DELL - Including new student accommodation building (Median Utilities)				
	Utility Services to Site Location				
	Sewer Mains (septic sewerage storage system)	1	Item	30,000	30,000
	Sewer Treatment Plant (STP inc. in Chalet)		*Excl*		-
	Sewerage storage facility	*1*	*item*	*30,000*	
	Pumping Station		*No*	*50,000*	-
	Sewer Reticulation	1	Item	25,000	25,000
	100 diameter sewer reticulation to service amenities block	*100*	*m*	*250*	
	Potable Water (supplied from Cresta Valley location - 150mm main)	1	Item	1,500,000	1,500,000
	Potable Water Reticulation Pipework	*5,000*	*m*	*300*	
	Pumps - N/R - Gravity Fed from Chalet		*Note*		
	Recycled Water		Excl		-
	Gas	1	Item	15,000	15,000
	Gas Mains		*Excl*		
	Bottled Gas (Bottle Supply + Foundation)	*10*	*No*	*1,500*	
	Power (Stand alone solar photovolatic system - rate as per GHD)	1	Item	610,000	610,000
	Substation		*No*		-
	Kiosk		*No*		-
	Main Switchboard		*No*	*3,500*	-
	HV - Mains Power		*m*		-
	LV - Mains Power - Assume from Cresta		*m*	*500*	-
	Stand alone solar photovolatic system - rate as per GHD	*1*	*item*	*610,000*	
	Telecommunications	1	Item	20,000	20,000
	Activity Centre (Tower/Comms Room) - Inc. in chalet cost		***Excl***		-
	Fibre Optic Cable - Presume from Chalet		*m*	*250*	-
	Wi-Fi (Modem/Computer)	*1*	*Item*	*20,000*	
	Stormwater	1	Item	200,000	200,000
	Stormwater Mains (Locally Drained into creek/lake)	*300*	*m*	*450*	
	Drainage Pits / Wetland Planting/Landscaping	*1*	*Item*	*5,000*	
	Rainwater Tanks	*50,000*	*Ltr*	*1.2*	
	Utility Services to new build from existing site location	1	Item	500,000	500,000
	Sub-Total - Trade				**2,900,000**
	Contractor's Indirect Costs & Margins				
	Site Based Preliminaries, and Safeworking	15%			435,000
	Offsite Overheads & Profit	5%			145,000
	Construction Cost (Excluding GST) as @ May 2018				**3,480,000**

Locality factor allowance	5%		174,000
Program prolongation allowance (Shutdown due to Accessibility Issues ie. Winter)	3.5%		121,800
Allowance for removal of contaminated materials - N/A	1	item	
Staging Allowance	1.5%		52,200
ESD Allowance	3.0%		104,400
Total Construction Costs (Excluding GST) as @ May 2018			**3,932,400**
Cultural Heritage, Vegetation Offset, Flora Fauna	3.5%		137,634
Parks Vic / Alpine Shire Fees	2%		78,648
Consultants Fees	10%		393,240
Total Design and Construction Costs (Excluding GST) as @ May 2018	-		**4,541,922**
Authority Headworks & Charges		Excluded	-
Risk / Contingency	20%		908,384
TOTAL PROJECT COST BUDGET (Excluding GST as @ May 2018)			**5,450,306**

D. Sustainable Energy Assessment Report

HIP V. HYPE Sustainability

SUSTAINABLE ENERGY ASSESSMENT

MOUNT BUFFALO BUSINESS CASE

ASSESSMENT + ACTIVATION

WHO WE ARE

HIP V. HYPE SUSTAINABILITY WORKS WITH CLIENTS WHO ARE SEEKING EXCEPTIONAL SUSTAINABILITY OUTCOMES AND ARE WILLING TO THINK STRATEGICALLY TO ACHIEVE THIS.

WE SEE SUSTAINABILITY AS INHERENT TO GOOD DESIGN. IT'S NOT JUST AN OPTION, A DIFFERENTIATOR OR A MARKETING TOOL. AT A GLOBAL SCALE IT IS ALSO, BY DEFINITION, NON-NEGOTIABLE.

—

Author: Ben Preston, Better Buildings Lead
Reviewer: Peter Steele, Managing Director
Revision: V2.3
Date: 22.08.18

DISCLAIMER

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Contents

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Introduction

Concept plans for a 'Whole of Mountain' activation of Mount Buffalo, a 31,000-hectare national park located in the alpine region of Victoria (350km northeast of Melbourne), are currently being assessed for viability.

Works are currently envisioned to take place in stages, providing dedicated accommodation, food and beverage facilities, wilderness retreats, a skywalk, and activity and outdoors centres at various locations around the mountain.

With limited infrastructure to the mountain, the cost associated with delivering energy to the site via grid infrastructure is prohibitive.

HIP V. HYPE Sustainability have prepared this report to highlight findings from a sustainable energy assessment for Mount Buffalo, asking the question:

Is it technologically feasible to supply the resort's future energy needs through a reliable, sustainable off-grid system?

A 'WHOLE OF MOUNTAIN' ACTIVATION

The proposal - a 'Whole of Mountain' activation of Mount Buffalo - is split into 7 concepts, some of which are split into various sub-stages:

1. Mount Buffalo Chalet & Village.
2. Gorge Skywalk.
3. Food & Beverage.
4. Glamping & Wilderness Retreats.
5. Dingo Dell Outdoor Excellence Centre.
6. Cresta Valley Alphine Activity Centre (Activities & Events).
7. Mountain Getaway.

Given the remote location of Mount Buffalo, there is significant cost associated with upgrading infrastructure to the area to serve the proposed development, not to mention the disruption (and damage) to the local ecosystem that may result.

With that in mind, HIP V. HYPE Sustainability are assessing the potential to service the developments energy needs using locally generated, predominantly renewable, energy.

DEVELOPMENT STAGING

The below table summarises the proposed development stages and time-frames.

STAGE	TIME FRAME	DESCRIPTION
1A	< 1 years	Pop-up Café and Office
1B	< 2 years	Wilderness Cabin Experience
2A	2 - 3 years	Re-opening of Mansfield's Café
2B	2 - 3 years	Boutique Mount Buffalo Chalet Hotel
3	1 - 3 years	Outdoor Education Centre - Dingo Dell
4A	3 - 5 years	Gorge Skywalk
4B	3 - 5 years	Mountain Gateway Information Centre
5A	5 - 10+ years	Mount Buffalo Chalet Hotel & Village
5B	5 - 10+ years	Cresta Valley Alphine Activity Centre

This assessment focuses on Stages 1A and 2B.

Introduction

HTTPS://INHABITAT.COM/TAG/OFF-GRID-LIVING/

SUSTAINABLE ENERGY ASSESSMENT

We are focused on understanding what options are available for servicing the energy needs of the development (Heating, Ventilation and Air Conditioning (HVAC), lighting and power and Domestic Hot Water (DHW)) on-site, thus mitigating the need for costly and disruptive infrastructure upgrades.

This requires an understanding of likely demand side energy use, and the likely generation capability of energy supply sources.

Select concepts are split into various sub-stages. Rather than assessing the energy needs of all stages, for the purposes of this initial assessment we have targeted our assessment to two stages:

_Stage 1A - Pop-up Café and Office.

_Stage 2B - Boutique Mount Buffalo Chalet Hotel.

Assessing the servicing needs and options of Stage 1A will provide an understanding of what is required to undertake works immediately, while avoiding costly infrastructure upgrades.

Stage 2B - A Boutique Mount Buffalo Chalet Hotel - is expected to be the most energy intensive of the proposed developments. As such, meeting it's needs will provide insight into whether the needs of all other stages can be met using a similar approach. This assumption should be verified before applying the output of our assessment to other mountain concepts, such as the Dingo Dell facility, also located at Mount Buffalo.

Information provided for this energy assessment is at a high level concept stage. Relevant assumptions have been made, and stated clearly. Further detailed design is required for a more accurate assessment, as highlighted within the Next Steps section of this report.

CASE STUDIES

We have reviewed and assessed a variety of mountain resorts globally, to provide context and an understanding of the approach used by others looking to achieve a similar outcome proposed through the Mount Buffalo Activation.

The following pages highlight three relevant examples of other mountain resorts utilising off-grid renewable energy to off-set part or all of it's energy needs.

STAGE 1A

Our assessment of Stage 1A (intended as a pop-up café serving visitors to the Mount Buffalo area) focuses on servicing the development as detailed in the concept design prepared by De Atelier Architects (see appendix A).

Understanding that the full extent of upgrades to the Chalet may be limited at this stage, our assessment is based on an energy demand profile that we would expect if the building falls short of meeting full Deemed-to-Satisfy compliance under the National Construction Code (NCC) 2016.

Staging the development in such a way that any works that benefit the thermal envelope or air tightness of the Chalet prior to the operation of the café is likely to reduce the expected annual energy use.

STAGE 2B

It is expected that a much more significant upgrade of the Chalet will take place during Stage 2B works. These upgrade works represent an opportunity to invest in the passive performance of the building, improving thermal comfort, minimising energy use and increasing the likelihood of servicing the building solely via local renewable sources.

With this in mind, and considering that the design is still in concept stage, our assessment focuses on highlighting the relative reduction in overall energy use resulting from improvements to the thermal envelope.

We have assessed the likely energy demand of the Chalet in 4 thermal envelope scenarios:

_National Construction Code (NCC) Deemed-to-Satisfy compliance.

_NCC Deemed-to-Satisfy + 10% improvement.

_NCC Deemed-to-Satisfy + 25% improvement.

_Passivhaus (an international building performance standard).

Case Studies - Mouttas Muraul (Switzerland)

A 105-year-old property that became the first “plus-energy” hotel in the Alps, reducing its energy needs by 64 per cent and generating more energy than it uses.

The luxury accommodation hotel was awarded the Swiss Solar Award Milestone and the PlusEnergieBau (PEB) Solar Award in 2011 as a result of retrofit works.[1]

Generating electricity through five separate sources provides resilience of energy supply, ensuring energy is consistently available year-round.[3]

LOCATION AND CLIMATE

Switzerland, mild climate. Temperatures up to 35 °C in July and August and -15°C in Winter. Located at 2,456m above sea level.

FACILITIES

_Panorama Restaurant (160 seats).

_Pinewood lounge (24 seats).

_Glass-fronted Restaurant, Scatla (50 seats).

_Sun terrace (100 seats).

_Villa Lyss, renovated alpine huts (15 to 25 people total).

DATE DEVELOPED

Renovated in 2011.

KEY FEATURES

_The extensive renovations has led the overall energy consumption to drop from 436,000 kWh to 157,400 kWh per annum.

_The previous annual energy requirements were approximately 40,000 litres of heating oil and 36,600 kWh per year of household and operating electricity. Currently, the entire buildings energy needs are covered by solar energy.[2]

_A photovoltaic system extends 228m along the funicular railway line, producing an energy surplus of about 45.000 kWh and reducing the need for large-scale land clearing in pristine ecological areas.

_Geothermal: any excess energy generated via the solar system is stored in ground installed thermal loops. The sixteen thermal loops supply the entire building with geothermal energy.

_Hot water is obtained by means of solar energy produced by the 60m² of pipe solar collectors.

_The 16 hotel rooms were built from local Swiss stone, pine, and walnut to offer long-lasting durability for the exposed climate conditions.

IMAGE: THE FIRST “PLUS-ENERGY” HOTEL IN THE SWISS ALPS BY ROMANTIK HOTEL

References

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2. http://www.velasolaris.com/files/ps_muottas_muragl-en_online.pdf
3. https://inhabitat.com/switzerlands-berghotel-muottas-muragl-is-the-first-energy-plus-hotel-in-the-alps/

Case Studies - Anzère (Switzerland)

The small mountain resort located in the south of Switzerland implemented the largest wood-based heating system in Europe in 2011.

Providing full heating for the majority of the buildings in the village saves more than 1.5 million litres of central heating oil each year, and puts to use a resource that may otherwise be considered waste.[1]

IMAGE: ANZÈRE BY ANZÈRE VALAIS SWITZERLAND

LOCATION AND CLIMATE

Switzerland, mild climate. Sunny location and has one of the driest climates in Switzerland. The site is located at 1,500m above sea level.

FACILITIES

_15 buildings

_600 holiday apartments

_Hotel

_Wellness Centre with indoor pool

DATE DEVELOPED

The resort has been operating since the 1960s, with the latest upgrade (including wood-pellet system) completed in October 2011.

KEY FEATURES

_Wood-pellet heating plant provides heating and hot water for all buildings, and is roughly the size of a family home.

_The system features two 300,000-litre silos filled with granules which are fed into two boilers. It delivers a total of 6.5MW of heating.

_Waste wood cuttings are delivered every three weeks from a local source, located 16km from the building.

_The monitoring system allows adjustments and checks to be carried out remotely.

_The implementation of a selective waste management approach ensures separate skips for selective waste sorting, aiding recycling.

References

1. https://www.anzere.ch/tourism-ski-spa/resort-surroundings-69.html
2. https://www.telegraph.co.uk/travel/ski/articles/Anzere-Switzerland-the-worlds-greenest-ski-resort/

Case Studies - Aspen Snowmass (United States)

The ski village of Snowmass, located in four adjacent mountains in the vicinity of Aspen, utilises alternative energy generated using spring runoff from melting snow.[1]

With a target to reduce it's overall Greenhouse Gas (GHG) emissions by 25% by 2020, the resort makes a significant dent in this target by utilising a combination of PV and microhydro (small-scale hydro that removes the need for damming).

Larger and with a more dense energy profile than the proposed Mount Buffalo Chalet Hotel, could a similar combination could be utilised to provide a reliable and diverse energy supply to an off-grid Mount Buffalo?

LOCATION AND CLIMATE

Aspen, Colorado. Temperatures peak of 33°C in July and -10°C in December and January.

FACILITIES

_Four skiing areas on four adjacent mountains in the vicinity of the towns of Aspen and Snowmass Village.

DATE DEVELOPED

In 2004 Snowmass installed a micro-hydro system and its first solar arrays to provide energy to the development.

KEY FEATURES

_The resort is working on reducing its greenhouse gas emissions by 25% by 2020.

_A 147 kW_p solar array produces 200,000 kWh annually and keeps 180,000 kg of carbon dioxide out of the atmosphere.[2]

_A 115 KW_p micro-hydroelectric plant utilises water from melted snow, reducing natural gas consumption by 2/3. The plant generates 150,000 kWh annually, preventing the emission of 135,000 kg of carbon dioxide.

_Composting facilities combine food waste, biomass, landscape waste and wood chips to produce organic fertilisers.

_Distributed graphs detail energy use in facilities over time to allow managers to understand the energy impacts of their actions and optimise operation.

IMAGE: HTTPS://PURSUITIST.COM/ASPEN-SNOWMASS-THIS-GREAT-SKI-RESORT-IS-ALSO-THE-GREENEST/

References

1. https://www.aspensnowmass.com/we-are-different/sustainability-reports
2. https://www.aspensnowmass.com/we-are-different/programs-and-practices/green-operations

Sustainable Energy Assessment: Demand Methodology

Rather than addressing all proposed development stages, we have focused specifically on understanding the energy needs of Stage 1A (Chalet Café) and Stage 2B (Boutique Hotel).

Demonstrating that the needs of Stage 1A can be met via off-grid supply will ensure that works can commence in the short-term.

The following section details the approach used to assess the energy requirements of Stages 1A and 2B, and to assess the generation capability of various technologies.

METHODOLOGY OVERVIEW

The following key steps were used to assess the energy demand for each stage:

1. Select thermal envelope performance scenarios.

2. Identify space use types.

3. Estimate peak energy use in each space for:
   a. Domestic Hot Water.
   b. Heating.
   c. Cooling.
   d. Lighting.
   e. Power.

4. Estimate occupancy profiles for each space.

5. Estimate and apply seasonal variations in energy use, based on historic average weather data.

6. Estimate annual and peak energy use based on agreed thermal performance scenarios, space type peak energy use, and occupancy and seasonal variation.

ESTIMATING AREAS

The areas of each stage have been estimated based on information provided by PwC, namely:

_Stage 1A areas are as measured from architectural layouts provided by PwC on 11_JUL 2018 (De Atelier Architects). See Appendix A.

_Stage 2B areas have been estimated based on the areas provided in the ‘Vision for Mount Buffalo’ report. See Appendix B.

Sustainable Energy Assessment: Demand Methodology

1. THERMAL ENVELOPE PERFORMANCE SCENARIOS

The following thermal performance scenarios have been considered in our assessment.

SCENARIO	DESCRIPTION	APPLIES TO
A	Deemed-to-Satisfy (DtS) - 25%	Stage 1A
B	Deemed-to-Satisfy (DtS)	Stage 2B
C	Deemed-to-Satisfy (DtS) + 10%	Stage 2B
D	Deemed-to-Satisfy (DtS) + 25%	Stage 2B
E	Passivhaus	Stage 2B

Further details of the building fabric performance assigned to each of these scenarios for our assessment can be found in Appendix A. Thermal Performance Scenarios

Scenario A applies to Stage 1A only, as we don't expect that the building will perform equivalent to a building that is fully compliant with the 2016 edition of the National Construction Code (NCC) at this time.

Once further works are completed as part of Stage 2B, we expect that the entire building will be renovated to a point that the building will perform or exceed the energy performance requirements of the National Construction Code (NCC).

2. SPACE USE TYPES

The following space use types have been considered in our assessment.

SCENARIO	DESCRIPTION
1	Accommodation - Heating, cooling and ventilation (HVAC)
2	Accommodation - Lighting
3	Back of House
4	Food and Beverage
5	Offices
6	Circulation
7	Recreation
8	Bathrooms

Scenarios 3 - 8 are applicable to Stage 1A.

All scenarios are applicable to Stage 2B.

Lighting and HVAC have been split for accommodation zones as we expect that the heating and/or cooling and ventilation will be utilised over night while residents sleep, while lighting will (for the most part) be off overnight.

Sustainable Energy Assessment: Demand Methodology

3. PEAK ENERGY USE

Peak heating and cooling for hotel rooms are based on:

_Estimates provided by the Chartered Institute of Building Services Engineers (CIBSE) for the heating and domestic hot water usage of hotels in the UK in 1993[1] (which is expected to have similar weather patterns, on average).

_An assumption that a building compliant with the Deemed-to-Satisfy (DtS) requirements of the National Construction Code (NCC) will have a peak heating and cooling requirement 80% that of a building compliant with the 1990 UK Building Regulations (based on an understanding of the thermal envelope performance values required under both the current NCC and the 1990 UK Building Regulations[2].

Heating and cooling for other space types are taken as a percentage of those applied to hotel rooms, based on an expectation of relaxed temperature set-points or a reduction in external fabric area (and glazing) for heat loss/gain.

In general, lighting and power loads are assumed to be the same for all space types, except for Food & Beverage spaces which are assumed to have a much higher power density for equipment.

Further details of the actual Heating, Ventilation and Air Conditioning (HVAC), Domestic Hot Water (DHW), lighting and power loads associated with each space type can be found in Appendix A.

4. OCCUPANCY PROFILES

The occupancy profiles below have been applied to each space type.

A unique occupancy profile has been created for Stage 1A, as it is expected to operate on a more consistent basis (with some usage from 4am - 7pm daily, but the vast majority occurring between 8am - 5pm).

For simplicity, and as our assessment consider energy use primarily on a net-annual basis, we have assumed that occupancy patterns are averaged throughout the year. For both stages this means that occupancy patterns follow those shown below throughout the entire year.

Further details of the occupancy diversity figures assigned to each of these scenarios for our assessment can be found in Appendix A.

References

1. https://www.cibse.org/getmedia/070252ba-cd5e-4b74-ba0b-4bb51e8d55c2/ECG36-Energy-Efficiency-in-Hotels-a-Guide-for-Owners-and-Managers.pdf.aspx
2. https://www.house-builder.co.uk/documents/2934/50_01TEDKING-CLG.pdf

		AM												PM										
	SPACE TYPE	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
	Stage 1A	0%	0%	0%	0%	10%	25%	50%	75%	100%	100%	100%	100%	100%	100%	100%	100%	100%	75%	50%	25%	10%	0%	0%	0%
1	Accommodation Heating, cooling and ventilation (HVAC)	100%	100%	100%	100%	100%	100%	75%	75%	50%	50%	50%	50%	50%	50%	50%	50%	50%	75%	75%	75%	75%	100%	100%	100%
2	Accommodation Lighting	10%	10%	10%	10%	10%	10%	25%	50%	75%	75%	75%	50%	50%	50%	75%	75%	75%	75%	75%	50%	30%	10%	10%	10%
3	Back of House	10%	10%	10%	10%	25%	50%	75%	100%	100%	100%	50%	100%	100%	100%	50%	50%	100%	100%	100%	100%	100%	75%	75%	25%
4	Food and Beverage	10%	10%	10%	10%	25%	50%	75%	100%	100%	100%	50%	100%	100%	100%	50%	50%	100%	100%	100%	100%	100%	75%	75%	25%
5	Offices	10%	10%	10%	10%	10%	10%	25%	50%	75%	100%	100%	100%	100%	100%	100%	100%	100%	75%	75%	50%	30%	10%	10%	10%
6	Circulation	10%	10%	10%	10%	10%	10%	25%	50%	75%	100%	100%	100%	100%	100%	100%	100%	100%	75%	75%	50%	30%	10%	10%	10%
7	Recreation	10%	10%	10%	10%	10%	10%	25%	50%	75%	100%	100%	100%	100%	100%	100%	100%	100%	75%	75%	50%	30%	10%	10%	10%
8	Bathrooms	10%	10%	10%	10%	10%	10%	25%	50%	75%	75%	75%	50%	50%	50%	75%	75%	75%	75%	75%	50%	30%	10%	10%	10%

Sustainable Energy Assessment:
Demand Methodology

5. SEASONAL VARIATION

The table below highlights the seasonal variation applied as a diversity factor to heating operating times in our calculations.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Heating requirement (time)	30%	50%	75%	100%	100%	100%	100%	100%	100%	100%	75%	50%
Heating load (peak)	30%	40%	50%	60%	75%	100%	100%	100%	75%	60%	50%	40%
Cooling requirement (time)	100%	100%	50%	50%	10%	0%	0%	0%	0%	10%	50%	50%
Cooling load (peak)	100%	75%	50%	50%	50%	0%	0%	0%	0%	50%	75%	100%
Domestic Hot Water	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%

Sustainable Energy Assessment: Supply Technologies

The next step after estimating the anticipated energy required to service the stages is to estimated the potential to generate energy on-site using various technologies.

This enables us to verify the viability of servicing the different scenarios using different energy supply technologies, and to confirm the likelihood of servicing the stages entirely via on-site generation.

We have assessed 4 separate generation technologies:

1. Solar Photovoltaics (PV).
2. Concentrated Solar Thermal (CST).
3. Micro Hydro.
4. Biomass Boiler.

SOLAR PV

A tried-and-tested technology in Australia, we have assessed the likely generation capability of solar PV mounted on the roof of the finished Chalet Hotel. Bearing in mind the heritage characteristics of the building, we have limited the areas of Solar PV installed on the roof to discreet areas to minimise visual impact (for an estimated total of 50kW$_p$).

In the following section for each stage we have provided an estimate of the total PV system size that would be required to service the entire energy demand of the building under each construction scenario.

Given the robustness of the technology, the maturity of the Australian market and the resulting cost of procurement and install, we recommend that the use of PV is maximised on site, regardless of the use of other technologies.

At Mouttas Muraul in Switzerland (see Case Studies), PV panels have been installed along the length of the funicular railway[1], mitigating the need for extensive land clearing for PV generation. A similar approach could be adopted throughout Mount Buffalo.

CONCENTRATED SOLAR THERMAL (CST)

Concentrated Solar Thermal (CST) is a tried-and-tested technology, but is new to Australian shores.

A CST system utilises parabolic mirrors to direct sunlight to heat a fluid, which is then stored (either directly or via transfer to a secondary storage fluid). This heat is then utilised over time to provide space heating and hot water, and to generate steam which is then used to generate electricity by driving a steam turbine, providing up to 15 hours of continuous heat and/or electricity generation. Significantly, this enables energy generation outside of daylight hours, something which photovoltaic technology lacks without the addition of battery storage.

The Australian Renewable Energy Agency (ARENA) has developed a roadmap for CST to accelerate it's commercial viability in the Australian market[2]. ARENA provide funding for projects aiming to progress the adoption of viable renewable technologies in Australia, offering up to $110 million to a project in Port Augusta in 2017[3].

The technology could be particularly well suited for use at Mount Buffalo, as the primary energy demand is heating, given the southern latitude and high altitude.

This technology, and the current energy and resources surrounding it, present a massive opportunity to Mount Buffalo.

HTTPS://WWW.CSIRO.AU/EN/RESEARCH/EF/AREAS/SOLAR/SOLAR-THERMAL/SOLAR-THERMAL-HUB

References

1. http://www.velasolaris.com/files/ps_muottas_muragl-en_online.pdf
2. https://arena.gov.au/news/paving-way-concentrated-solar-thermal-australia/
3. https://arena.gov.au/news/arena-to-test-market-for-concentrated-solar-thermal-projects/

Sustainable Energy Assessment: Supply Methodology

MICRO HYDRO

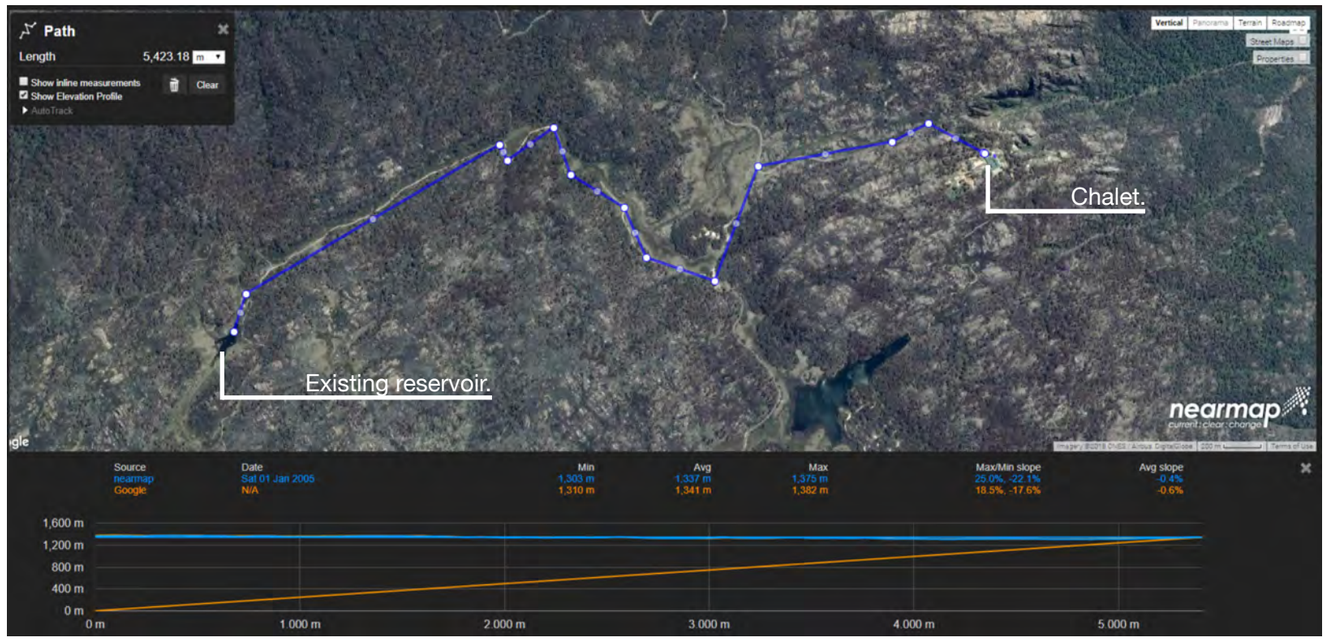
There are currently plans to upgrade water supply infrastructure, with a direct link to the reservoir planned (following the road as highlighted below). These works present an opportunity to install a hydro generation system, utilising the downhill flow to continuously generate electricity to supply the Boutique Hotel development.

Ideally a continuous supply would produce continual energy generation, even overnight. Given the seasonal nature of the development - with periods of high occupancy and energy use, and periods of low occupancy and energy use - Water taken from the reservoir for potable use could be used to generate electricity continuously, stored close to the development (either a second reservoir or tank) as required, with water pumped back up to the reservoir during times of low occupancy and energy demand to maintain consistency of supply.

The existing Chalet pool has been identified as a potential water tank storage location, pending an assessment of the expected flow-rates and storage capacities required.

An innovative new hydro turbine - designed by Turbulent in Belgium - can generate using only a small difference in height, virtually eliminates negative ecological impact and (with an average water velocity of 2m/s and a height difference of 10m) could generate up to 1,000,000kWh/year.

PROPOSED LOCATION OF NEW PIPELINE (SUITABLE FOR HYDRO)



BIOMASS BOILERS

Biomass boilers utilise wood-chips or wood-pellets (with wood-pellets generally preferred due to their increased energy density and, hence, less demanding storage requirements).

With a number of sawmills in the area[1], implementing a biomass boiler that utilises wood pellets (off-cuts from the timber milling process compressed into energy dense pellets) could be a useful option to provide space heating and hot water to the development.

The source of wood-pellets is an important consideration, but if supplied from the waste product of one of these local sawmills, or through a sustainably managed timber plantation, then this can be an effective and environmentally supportive heating option.

References

1. http://www.ryanandmcnulty.com.au/ and https://www.truelocal.com.au/business/whitlands-sawmill/wangaratta

Stage 1A: Overview

Our assessment of Stage 1A centres around the installation of a 51kW$_p$ solar PV installation (requiring an estimated 360-420m^2), mounted on the roof of the existing Chalet structure in targeted areas to minimise impact on the heritage design.

The assessment demonstrates that this size of PV system will easily meet the annual lighting and power load, with cooking provided via gas and heating provided via a biomass boiler, but will fall short in winter months (May to August) when less sunlight is available. A battery storage system will be required to ensure availability of power at all times, and a small backup diesel generator is also likely to be required at times in winter and for redundancy. Reliance on this diesel generator may be eliminated by installing a much larger battery system, however we recommend it is incorporated for redundancy.

As our assessment is based on broad assumptions regarding occupation patterns, and does not consider energy reductions achievable through simple control measures (such as through motion sensors on lighting), and is based on the building falling short of compliance with the National Construction Code (NCC). We believe that it will be possible to run the Café year round using this 51kW$_p$ PV system.

Key to this will be a biomass boiler (or similar) to provide the full heating requirement, to avoid the need to provide space conditioning via the electrical supply.

SERVICING OPTIONS

Given the maturity of the technology in the Australian market, PV is the obvious choice to service Stage 1A, particularly as the Chalet development will make use of any excess energy generated as the development progresses. With that in mind, we recommend installing the full extent of roof PV during Stage 1A to mitigate the need for additional work later.

With the maximum mean temperature for the site not exceeding 20°c between 1910 and 1980[1] we expect that ceiling fans will be sufficient for cooling.

We recommend a number of options and technologies are explored for providing domestic hot water (DHW) and heating, in particular:

_Biomass boilers.

_Wood-fired stoves.

_Air-to-water heat-pumps.

_Ground source heat-pumps.

As heating will be the largest energy use bucket for the building, we don't anticipate that it will be possible to service this with the proposed PV system. As the development progresses (particularly as the energy supply is diversified) both air-to-water and ground source heat pumps are well worth considering, particularly ground source heat pumps provided the ground conditions are suitable. With a more stable ground temperature below 8 metres or so, this can provide consistent and efficient performance year-round.

Which of these technologies are ultimately selected will depend on how the Project Task Force intend the space to be used and feel, and the ground conditions (which will be unknown until a Geotechnical assessment is carried out).

With the high demand and limited available energy supply for Stage 1A, however, we recommend installing a 30-35kW biomass boiler to provide hydronic heating and domestic hot water, supplemented by internal wood-fired stoves where appropriate.

OPPORTUNITIES

Our assessment is based on a number of assumptions, which have yet to be verified with Project Task Force. We also understand that Project Task Force have a nearby office, built in the last 12-months, which is running almost exclusively on electricity generated via the roof-mounted PV system.

Receiving feedback from Project Task Force on the assumptions used within this document, and assessing the live generation data from the existing and operational PV system will help us to refine the assumptions used.

Our assessment is also based on a building that performs significantly (25%) worse than a building that is fully compliant with the NCC 2016, based on the age of the building.

Upgrading the building insulation, air-sealing the building (as far as is practical), adding rubber seals to doors and windows, and upgrading the glazing will contribute towards reducing the buildings operational energy use.

WORK STAGING

With Stage 1A as the first stage, we strongly recommend that an in-depth staging analysis is conducted to assess the works that are anticipated to be completed at the Chalet as part of each, with a view to rationalising work and minimising cost.

As an example, it may be beneficial to consider adding roof insulation at the same time as the PV is installed during Stage 1A, if the structure needs to be upgraded to support the increased load of the PV panels. Combining these works could save money in the long-term, but will only be possible if works are assessed and understood holistically.

References

1. http://www.bom.gov.au/climate/averages/tables/cw_083073.shtml

Stage 1A: Assessment Results

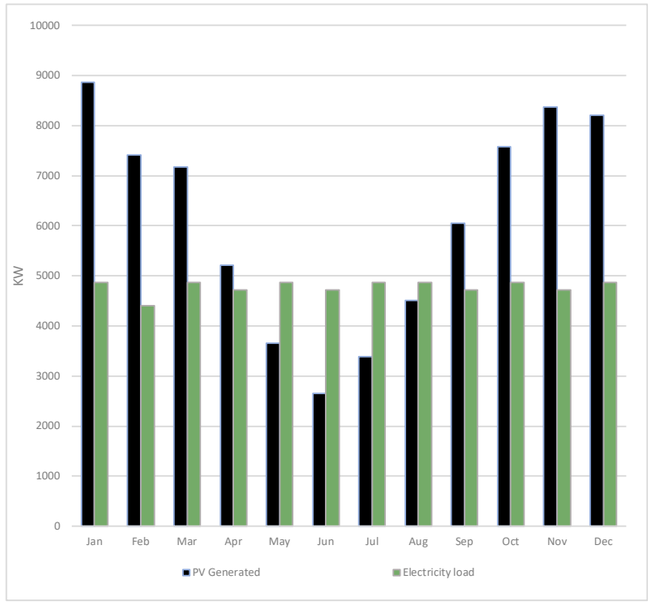
The 51kW$_p$ system is anticipated to generate significantly more energy than required in summer months, and to fall short of meeting demand in May, June and July.

We estimate that to meet this winter demand without the use of a generator would require a 210kWh battery, equivalent to a single Tesla Powerpack[1].

With this high capital cost in mind we have proposed two separate systems:

1. 50kW Biomass boiler, 51kWp PV and 24kWh battery system, with occasional diesel generator use.

2. 50kW Biomass boiler, 51kWp PV system, and 210kWh battery system with no diesel generator.



References

1. https://www.tesla.com/en_AU/powerpack (estimated cost for 1 = $210,000, TBC with Tesla)

CAFÉ ESTIMATED ENERGY DEMAND

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Light & Power (kWh)	4,869	4,398	4,869	4,712	4,869	4,712	4,869	4,869	4,712	4,869	4,712	4,869	57,329
Domestic Hot Water (DHW, kWh)	4,863	4,863	4,863	4,863	4,863	4,863	4,863	4,863	4,863	4,863	4,863	4,863	58,356
HVAC (kWh)	1,636	3,636	6,818	10,908	13,635	18,181	18,181	18,181	13,635	10,908	6,818	3,636	126,173
Total	11,274	12,687	16,155	19,852	22,578	26,703	26,860	26,860	22,421	20,009	15,998	13,158	241,858

CAFÉ ESTIMATED ENERGY GENERATION & BALANCE

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	COMMENTS
PV Generated (kWh)	9,326	7,727	7,527	5,354	3,868	2,796	3,588	4,928	6,419	7,891	8,749	8,551	70,128	51kW$_p$ PV System.
Biomass Boiler (kWh)	6,405	8,289	11,286	15,140	17,709	21,991	21,991	21,991	17,709	15,140	11,286	8,289	168,934	35-50kW Biomass Boiler.
Total	15,731	16,016	18,813	20,494	21,577	24,787	25,579	26,919	24,128	23,031	20,035	16,840	239,062	

Stage 1A: Proposed Solution

1. BIOMASS, PV + SMALL BATTERY (PLUS GENERATOR)

The following system should enable the Café to run off-grid from September to May. In this instance, we anticipate that the diesel generator will still need to run occasionally between June and August, as the number of daylight hours for PV generation reduces.

_A 51kW$_p$ PV system, located on the roof (as indicated adjacent) to minimise visual impact from the ground and impacts on the heritage aspects of the building, providing all energy for lighting and plug-loads.

_A 27kWh battery system to ensure that power is available outside of daylight hours (battery size to be confirmed through detailed design phase).

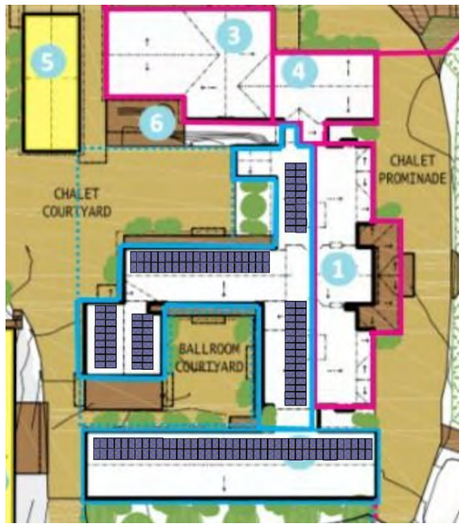
_A 35-50kW biomass condensing boiler[1].

_Existing gas storage utilised for cooking.

Although this system is still likely to require the use of a diesel generator on occasion, this should not add additional capital cost as it is likely that a new diesel generator will be procured for redundancy in emergencies.

The alternative option on the next page proposes a system with a significantly increased battery size that should be capable of meeting the annual demand without the need for a generator.

ITEM	EST. SIZE	EST. CAPEX	EST. OPEX	EST. SYSTEM LIFE SPAN	MAINTENANCE
PV System	51kW$_p$	$90,000	N/A (facilities maintained)	25 years	Occasional cleaning (i.e. after snow dump) and quarterly condition audit and review of inverter data.
Battery System	27kWh	$22,000	N/A (facilities maintained)	25 years	Quarterly condition audit and review of charge/discharge data
Biomass Boiler	35 - 50kW	$15,000	$18,000 - $26,000 / year	20 years	Weekly cleaning (by Facilities Staff) 1 minor winter service per year 1 major summer service per year Annual / bi-annual fuel purchase (circa 30 tonnes of wood pellets)



ESTIMATED EXTENT OF PV SYSTEM.

References

1. https://www.recyclingtechgroup.com.au/okofen

Stage 1A: Proposed Solution

2. BIOMASS, PV + LARGE BATTERY (NO GENERATOR)

The following system should enable the Café to run off-grid year-round without the need for a diesel generator (though we recommend a generator is provided for redundancy in emergencies):

_A 51kW$_p$ PV system, located on the roof (as indicated adjacent) to minimise visual impact from the ground and impacts on the heritage aspects of the building, providing all energy for lighting and plug-loads.

_A 210kWh battery system to ensure that power is available during winter and outside of daylight hours (battery size to be confirmed through detailed design phase).

_A 35-50kW biomass condensing boiler[1].

_Existing gas storage utilised for cooking.

ITEM	EST. SIZE	EST. CAPEX	EST. OPEX	EST. SYSTEM LIFE SPAN	MAINTENANCE
PV System	51kW$_p$	$90,000	N/A (facilities maintained)	25 years	Occasional cleaning (i.e. after snow dump) and quarterly condition audit and review of inverter data.
Battery System	210kWh	$210,000	N/A (facilities maintained)	25 years	Quarterly condition audit and review of charge/discharge data
Biomass Boiler	35 - 50kW	$15,000	$18,000 - $26,000 / year	20 years	Weekly cleaning (by Facilities Staff) 1 minor winter service per year 1 major summer service per year Annual / bi-annual fuel purchase (circa 30 tonnes of wood pellets)

References

1. https://www.recyclingtechgroup.com.au/okofen

Stage 2B: Overview

The scope of this study is to assess if the Mount Buffalo Activation project can be serviced primarily using locally generated energy.

Following our assessment, we believe that it is possible to service Stage 2B using a combination of local energy sources. As this is expected to be the most energy intensive of the proposed development stages, it should be possible to service the entire development through local sustainable energy sources.

Providing a robust recommendation on the servicing strategy requires detailed analysis of micro-hydro and Concentrated Solar Thermal (CST) feasibility, a geotechnical understanding of the area and confirmation of the targeted thermal envelope performance.

With that in mind, the calculations provided on the following page are based on utilising PV to meet the entire energy demand, primarily to demonstrate the impact the 4 proposed thermal envelope scenarios have on the overall energy demand and resulting capital cost.

The actual servicing strategy would likely involve a combination of micro-hydro, Concentrated Solar Thermal (CST) and PV to provide redundancy of supply and improve reliability.

THERMAL ENVELOPE OPTIONS

The key consideration to make initially regarding Stage 2B is the performance (and associated investment) in the thermal envelope of the building.

Upgrading the building to a Passivhaus standard could reduce the total annual heating, ventilation and air conditioning (HVAC) load in the building by over 90%, and overall energy usage by 60-70%. In addition to reducing the size (and cost) of engineering equipment required to service the building, this will also result in a lower maintenance, more comfortable environment for hotel residents.

The reality, however, is that designing to full Passivhaus standard can be difficult, and costly, particularly within the context of the Australian market and on a heritage building.

The intent of this comparison, and the results of our energy analysis on the following pages, is to demonstrate the impact that investing in high performance thermal fabric and passive design early can have on overall energy usage. As an example, the peak heating load of the Passivhaus scenario is expected to be around 50kW, over 90% less than the NCC minimum scenario (700kW).

The tables on the next page provide further guidance on the impact of each scenario on the energy usage.

SERVICING OPTIONS

Assessing the servicing options for Stage 2B in detail is beyond the scope of this study, so to provide as much value as possible we have provided an indication as to the size of PV system and biomass boiler that would be required to service each scenario in the tables in the following page. This is provided primarily to demonstrate the impact that improving the thermal envelope has on overall energy demand, and hence on the system size required to service the building.

We do not recommend utilising the capital costs noted in this study to prepare budgets, as they will vary significantly depending on the final breakdown of supply and servicing technologies and the targeted thermal envelope.

Each of the technologies highlighted earlier in this report are viable options for the site. The ideal solution for the site will likely be composed of multiple eneryg sources to provide the greatest level of resilience.

For this reason, we recommend that a detailed study (and research) is conducted as design progresses to better understand the suitability of each technology from site specific, market, policy, governance, funding and servicing perspectives.

References
1. http://www.bom.gov.au/climate/averages/tables/cw_083073.shtml

Stage 2B: Assessment Results

MOUNT BUFFALO CHALET BOUTIQUE HOTEL EST. PERFORMANCE[1]

	DEEMED-TO-SATISFY (DTS)	DTS + 10%	DTS + 25%	PASSIVHAUS
External Walls	R2.8	R3.1	R3.5	R5
Internal Walls (to unconditioned)	R1.5	R1.7	R1.9	R3.0
Roof	R3.7	R4.1	R4.6	R7.0
Floor	R1.0	R1.1	R1.4	R3.0
Air Infiltration	8 ACH	5 ACH	2.5 ACH	0.6 ACH
Glazing Total System U-value	U3.0	U2.7	U2.4	U1.4
Glazing SHGC	0.50	0.50	0.40	0.30
PV System Size	356kW$_p$	348kW$_p$	333kW$_p$	333kW$_p$
PV Area Required	2,750sqm	2,670sqm	2,560sqm	2,560sqm
Est. Battery Size	420kWh[2]	420kWh[2]	420kWh[2]	420kWh
Biomass Boiler Size	700 kW	650 kW	520 kW	50 kW
Est. Capital Cost[3]	$1-1.25m	$950,000-1.2m	$890,000-1.15m	$840,000-1.1m
Est. wood pellet usage	583 tonnes	536 tonnes	440 tonnes	334 tonnes
Est. Operating Cost	$390,000 / year	$350,000	$300,000	$230,000

MOUNT BUFFALO CHALET BOUTIQUE HOTEL ESTIMATED ENERGY DEMAND[1]

	DEEMED-TO-SATISFY (DTS)	DTS + 10%	DTS + 25%	PASSIVHAUS
Light & Power (kWh)	436,672	436,672	436,672	436,672
Domestic Hot Water (DHW, kWh)	286,560	286,560	286,560	286,560
HVAC (kWh)	2,750,494	2,507,898	2,006,318	207,474
Total	3,473,726	3,231,130	2,729,550	930,706

References

1. Given the stage of design the actual building envelope scenarios have not yet been modelled. Rather we have used figures from reputable sources (such as the Australian Institute of Refrigeration, Air Conditioning and Heating (AIRAH),the American Society of Heating, Refrigeration and Air Conditioning (ASHRAE) and the Chartered Institute of Building Services Engineers (CIBSE) to estimate the use in each energy category. These have then been adjusted based on the expected reduction in space-conditioning and ventilation load for each scenario.
2. https://www.tesla.com/en_AU/powerpack (estimated cost for 2 = $420,000, TBC with Tesla)
3. Capital cost includes biomass boiler, PV and battery system. The cost doe not include land costs, thermal envelope upgrade costs or any variations in cost due to the use of other technologies such as micro-hydro.

Next Steps

This report has been prepared to provide:

1. This information needed to make immediate, informed decisions on the servicing and design of Stage 1A.

2. Confrimation that Stage 2B can be serviced using locally generated, sustainable energy, and an insight into some of the key options and considerations.

The broad conclusion from our assessment is that it is possible to service the entire proposed Mount Buffalo development using locally supplied, renewable energy.

Whether or not this is achieved will significantly depend on the focus on (and cost attributed to) passive design, building fabric and energy efficiency measures of the buildings. The lower the energy demand, the better the Project Task Force will be able to service the building with minimal maintenance, while maximising occupant comfort.

We recommend that the following additional, targeted analysis is conducted as design progresses to inform the development of contextual, energy-efficient servicing solutions.

STEP 1: ASSESS PASSIVE DESIGN AND THERMAL ENVELOPE

_**Assess the intended budget for works associated with improving the thermal envelope, as improvements will significantly reduce operational energy use and allow system sizes (and associated capital cost) to reduce (particularly for the biomass boiler).**

_**Following this, and assuming that the architectural design and intended space use has progressed, conduct more in-depth modelling to better understand the annual energy use and generation capacity (in tandem with the results of Step 2, adjacent). This assessment will take into account the expected seasonal variations, and allow a more nuanced understanding of the energy balance seasonally.**

STEP 2: ASSESS GROUND CONDITIONS, HYDRO + CST POTENTIAL

_**Assess the ground conditions on-site to better understand the suitability of utilising ground-source heat pumps to supply heating and hot water to Stages 2B and beyond.**

_**Conduct a detailed feasibility assessment for the implementation of micro-hydro to provide a portion of the development's energy needs.**

_**Conduct a detailed feasibility assessment for the implementation of Concentrated Solar Thermal (CST) to provide a portion of the development's energy needs. This will includes assessing options for funding through CSIRO and ARENA.**

STEP 3: REVIEW USE PROFILES WITH PROJECT TASK FORCE

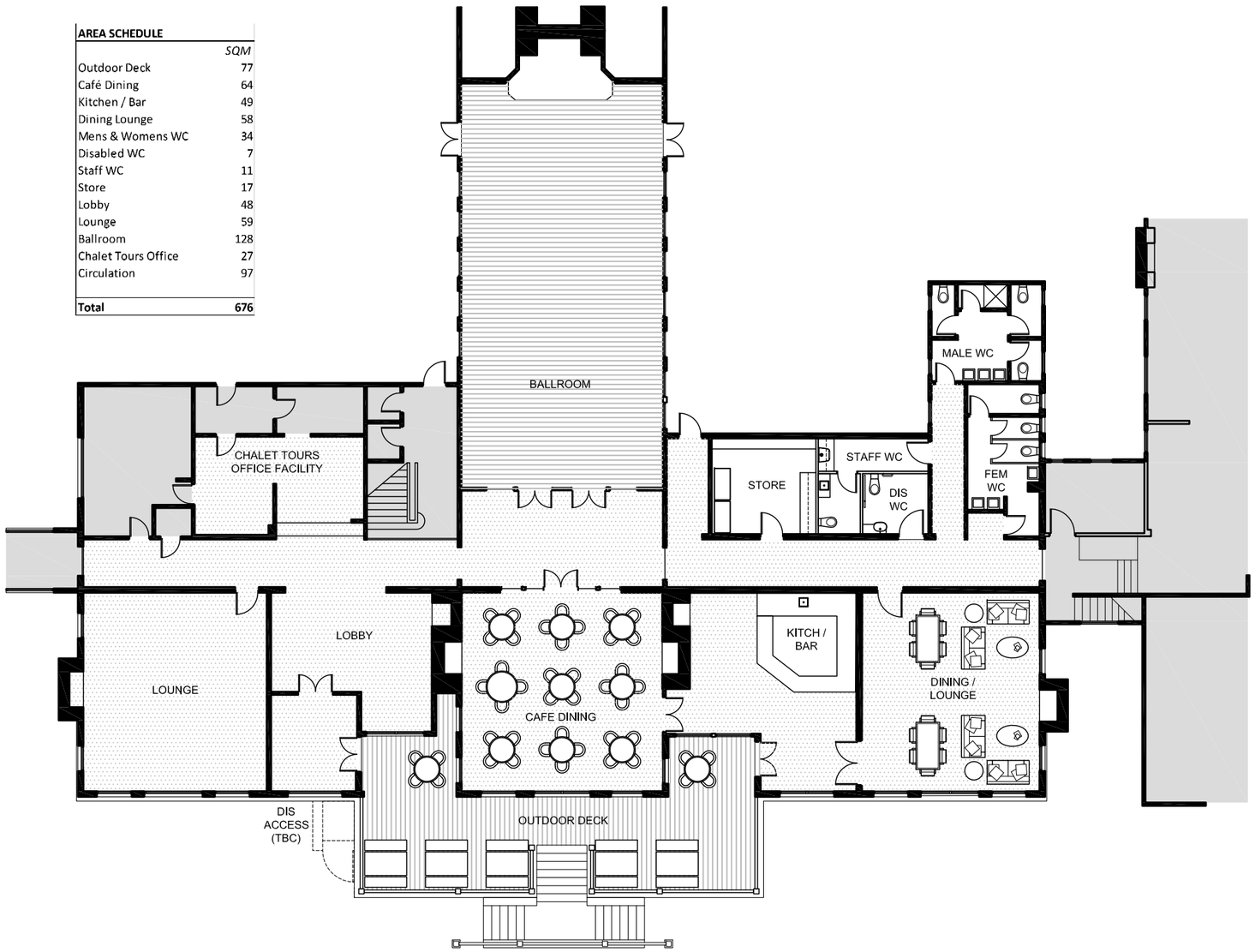
_**Work with Project Task Force to assess the criteria used for our assessment, identifying opportunities to rationalise energy use, improve the thermal performance of buildings and improve assumptions around occupancy patterns.**

STEP 4: ASSESS STAGING TIMING AND COMBINED WORKS

_**Assess the proposed staging of works, and the associated time frames, as design progresses, with a view to combining works where possible to minimise overall expense.**

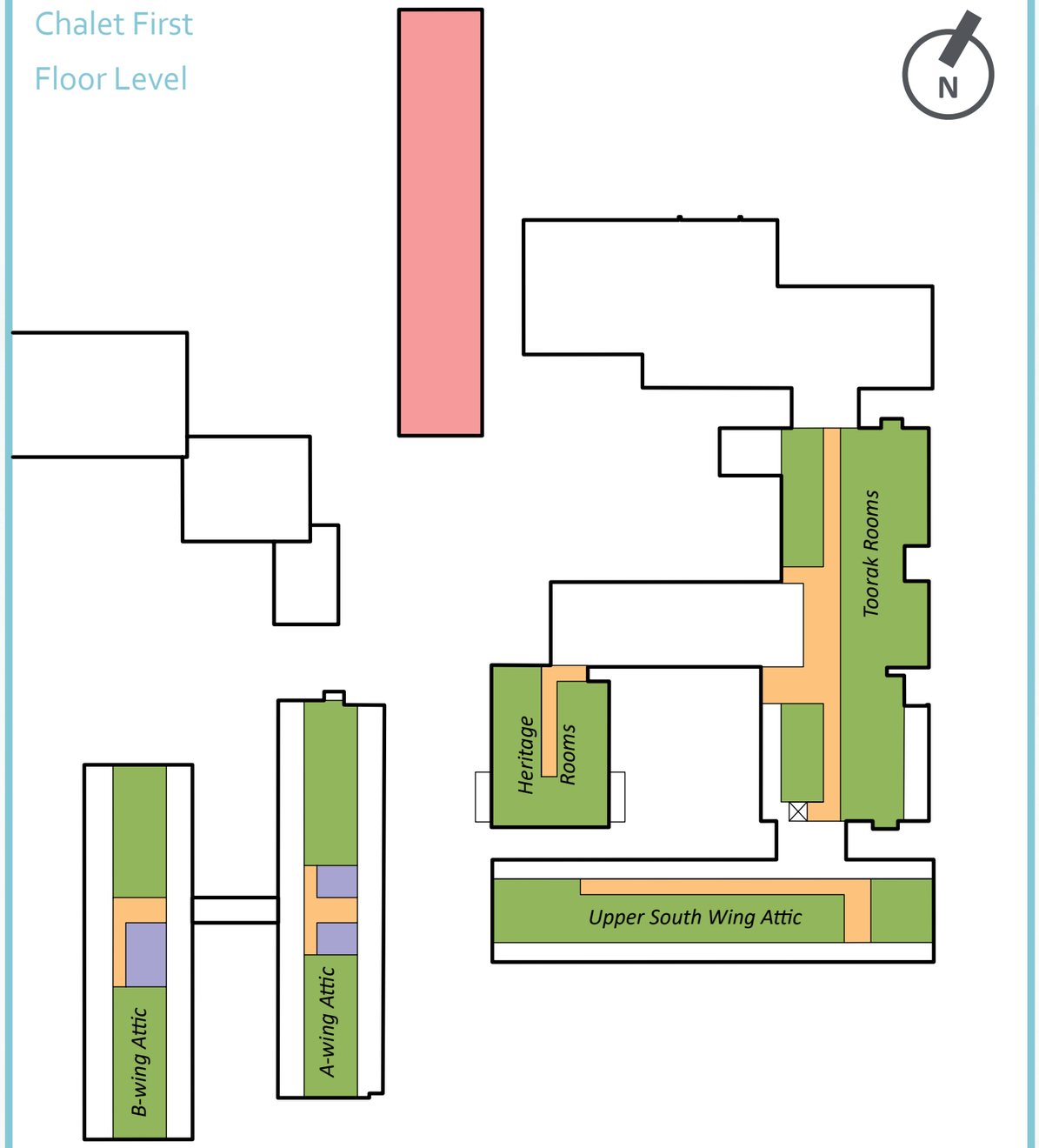
Appendix A - De Atelier Stage 1A Layouts

AREA SCHEDULE	
	SQM
Outdoor Deck	77
Café Dining	64
Kitchen / Bar	49
Dining Lounge	58
Mens & Womens WC	34
Disabled WC	7
Staff WC	11
Store	17
Lobby	48
Lounge	59
Ballroom	128
Chalet Tours Office	27
Circulation	97
Total	**676**

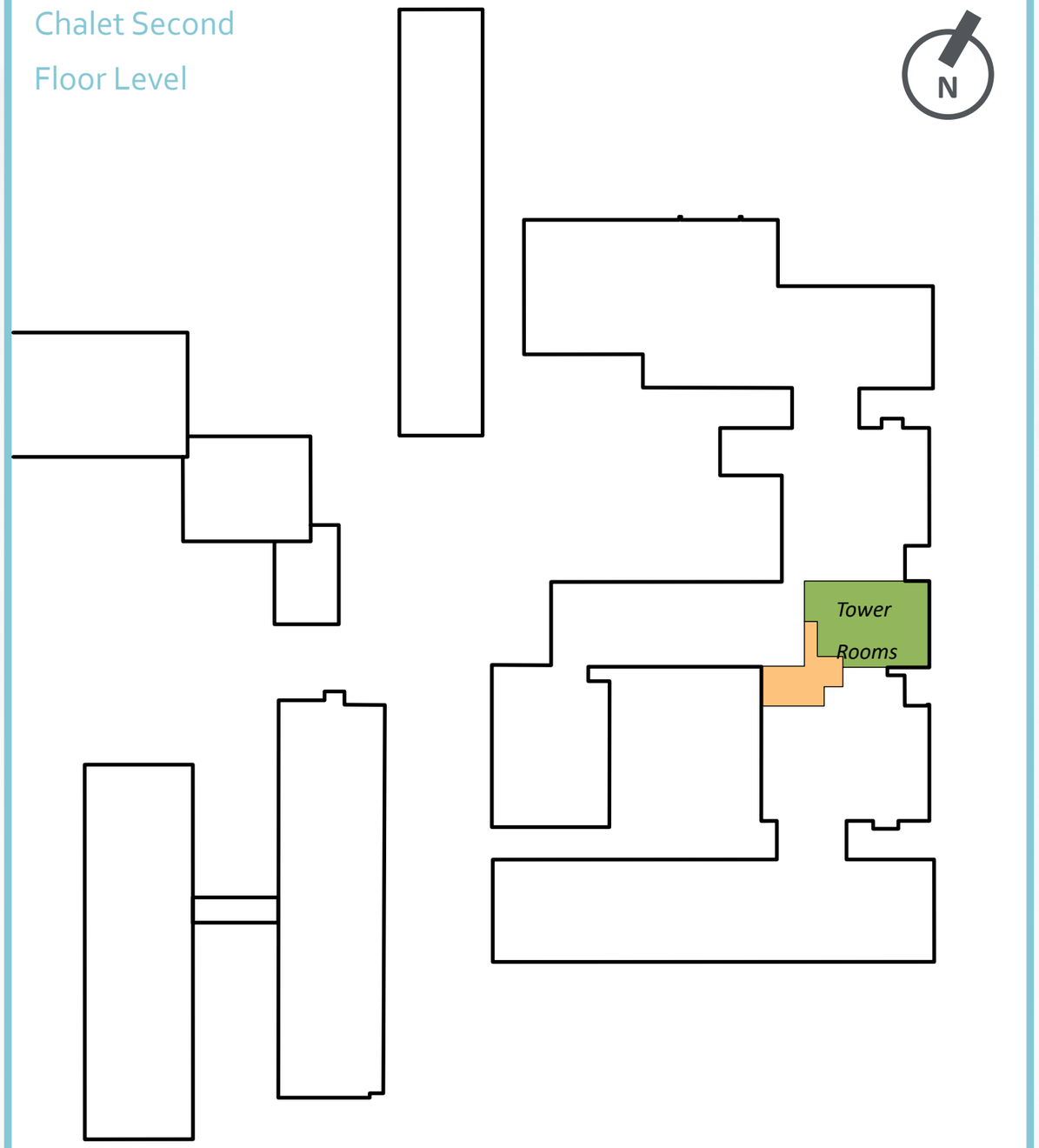


Appendix B - Stage 2B (Boutique Hotel) Areas

Chalet First Floor Level



Chalet Second Floor Level



Accommodation

Circulation / Store

Administration

Amenity

Day Lodge

Parks Administration

Hospitality (Front of House)

Hospitality (Back of House)

Activity / Retail

Training

Vision for Mount Buffalo

Mount Buffalo Village Activation – Existing Buildings

Rather than redevelop this 'grand old lady' in isolation, the renewal and repurposing of existing buildings located on the Chalet site is recommended, fully utilising land than has already been disturbed and developed.

Existing ancillary buildings are proposed to be adapted to accommodate new visitor services, creating an integrated pedestrian focused mountain experience that would essentially form a Mount Buffalo Village. The activation of existing buildings would create a frame for new public areas that allow the Mount Buffalo Chalet to be experienced and appreciated from a new perspective.

The development of a Village offering would also ensure the more effective servicing of existing and potential visitors, as well as stimulating a new range of commercial opportunities.

Key to this concept is the development of a Village centre to the rear of the Chalet that would maximise the use of existing ancillary buildings, including (but not limited to):

- Transforming the existing mechanics workshop into a barn-style bar and function centre that offers a unique point of difference;
- Developing the existing stable site into an events space, possibly including a chapel to support hosting on-site weddings;
- Creating boutique commercial opportunities within garages, sheds and other site features and small scale intimate retail experiences at the village centre – ideal for tourism operators, food and beverage, arts and culture and retail outlets;
- Creating a performance stage in the original courtyard garden setting that could be used to support live entertainment or other functions;
- Providing expanded recreational facilities around the tennis courts and surrounding areas; and
- Utilising the former 'Treetops' staff facility for staff accommodation.

Additional activation in support of the Village centre could include upgrading the existing tennis courts, developing an outdoor, year-round ice skating/roller blading rink and establishing limited-use parking for accommodation guests.

While previous plans for the Chalet site looked to demolish up to 70% of the surrounding buildings, this plan looks to utilise 90-95% of the entire Chalet complex footprint. The cost of delivering this concept component would vary according to scale, functionality, extent and quality of the construction.

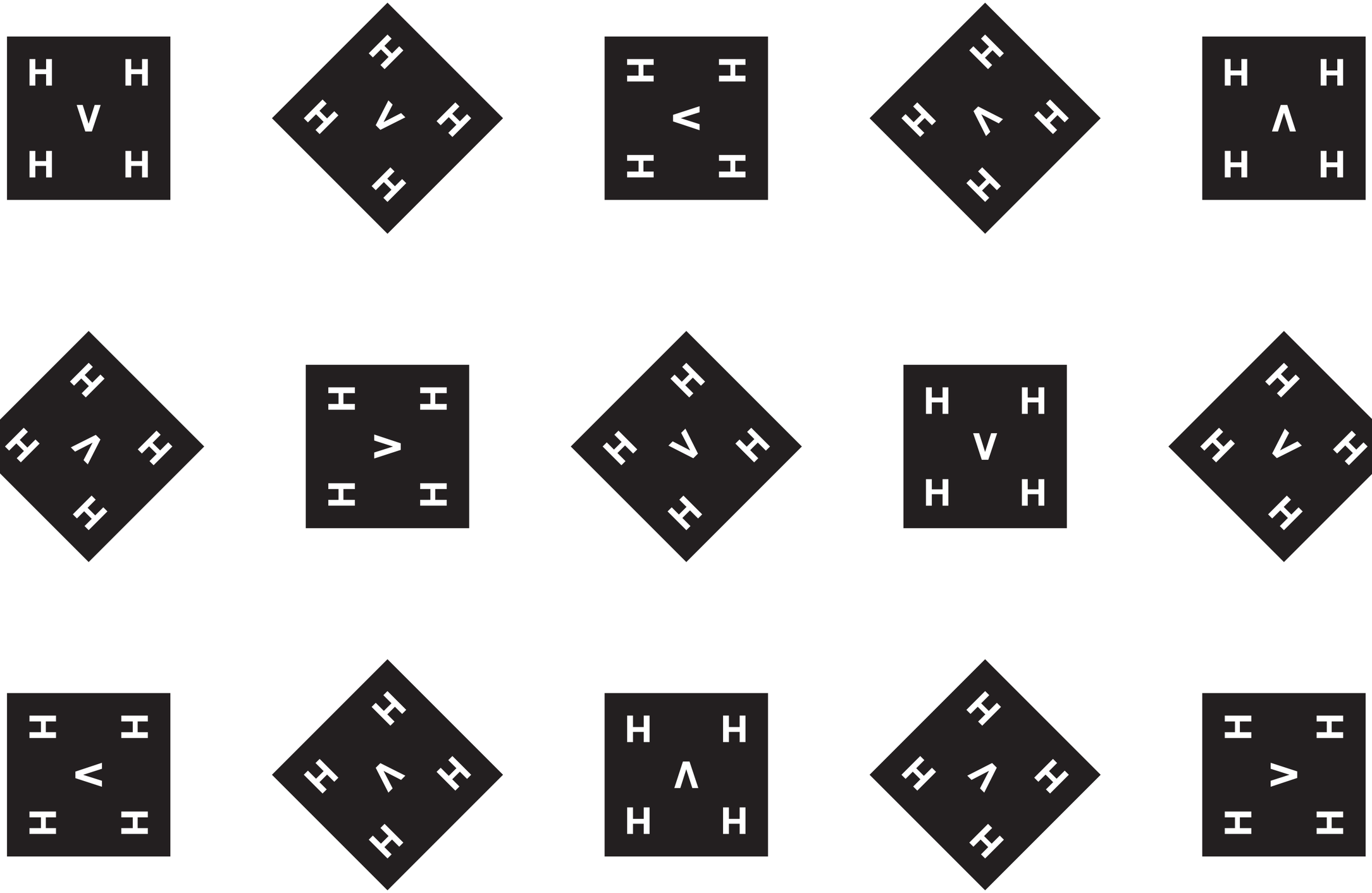
INTERNAL BUILDING AREAS

	Accomm.	Common/ Circulation	Admin.	Amenities	Hospitality FOH	Hospitality BOH	Activity/ Retail	Training Spaces	Parks Admin.	Day Lodge Café (FOH)	TOTAL
CHALET											
Lower Ground	333	94	13	44		140			84	197	**905**
Ground	333	263	64	89	834	58	107				**1748**
First	699	176									**875**
Second	87	33									**120**
TOTAL	1452	566	77	133	834	198	107	0	84	197	**3648**
EDUCATION CENTRE*											
Ground				40				103			**143**
First				42				270			**312**
Second (in existing. roof space)								156			
TOTAL	**0**	**0**	**0**	**82**	**0**	**0**	**0**	**529**	**0**	**0**	**455**
SCHOOL ACCOMM/HOSTEL											
Ground (existing)	387	132	10	44	101	69					**743**
First (in existing. roof space)	278	38		46							**362**
TOTAL	**665**	**170**	**10**	**90**	**101**	**69**	**0**	**0**	**0**	**0**	**1105**
OTHER BUILDINGS											
Service Sheds Retail				47			404				**451**
Pump House Bar/Cafe					117	64					**181**
Mechanics Garage Restaurant				35	135	62					**232**
Stables Chapel/Function Rm					287						**287**
Art Deco Garages			180	26							**206**
Horse Paddocks Spa & Hotel (NEW)	1750	300	50	75	225	50	550				**3000**
Staff Accommodation Building											**680**
AW Keown Lodge (Dingo Dell)			56	56		32		310			**454**
Gateway Building (NEW)				50	50	35	290		75		**500**
Cresta Day Lodge (NEW)		50	50	100	300		125	90	35		**750**
Transport Hub (NEW)			200	50					150		**400**
Lake Catani Cabins	250			60							**310**

OTHER	Area (sq.m)	Length (m)
Village Pedestrian Paved Areas	4985	
Village Day Plaza Deck	805	72
Pedestrian Bridge to Gorge	210	
Tennis Courts	105	
Ice Rink	45	

* Village Education Centre not yet planned.
Anticipated spaces will include various size flexible teaching spaces, circulation & office

Chalet Accommodation Summary	
Lower Ground	9
Ground	9
First	22
Second	2
Chalet Rooms - TOTAL	**42**
Spa Hotel Accommodation	
Estimate room average (sq.m)	37
Estimate no. rooms in existing GF area	**47**
Chalet & Hotel Rooms - TOTAL	**89**
Hostel/Student Accommodation A-B Wings	
Estimate room average (sq.m)	12
First Floor Dorm Rooms (avg size sq.m)	69.5
Estimate no. rooms in existing GF area	**32**
Accommodation - TOTAL ROOMS	**121**



HIP V. HYPE SUSTAINABILITY
---
330 PARK STREET
CARLTON NORTH VIC 3054

12/7 GREVILLEA STREET
BYRON BAY NSW 2481

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WE RESPECTFULLY ACKNOWLEDGE THAT EVERY PROJECT ENABLED OR ASSISTED BY HIP V. HYPE IN AUSTRALIA EXISTS ON TRADITIONAL ABORIGINAL LANDS WHICH HAVE BEEN SUSTAINED FOR THOUSANDS OF YEARS.

WE HONOUR THEIR ONGOING CONNECTION TO THESE LANDS, AND SEEK TO RESPECTFULLY ACKNOWLEDGE THE TRADITIONAL CUSTODIANS IN OUR WORK.

E. Taungurung Clan – Letter of Support

TAUNGURUNG CLANS
ABORIGINAL CORPORATION
ABN: 47 145 916 168 ICN: 4191

To the Mount Buffalo Business Case Assessment Taskforce,

The Taungurung Nation are the Traditional Owners of the land on which Mount Buffalo National Park is located, Taungurung people continue to maintain a deep cultural connection to what is now named Mount Buffalo.

Taungurung Clans Aboriginal Corporation (TCAC) are the Traditional Owner Group Entity (TOGE) elected by the Taungurung Nation to represent and advocate for their/our interests.

TCAC as the TOGE has reviewed each of the tourism concepts as proposed in the *Vision for Mount Buffalo* document, provides in-principle support for the activation of Mount Buffalo, and looks forward to continued involvement as the feasible concepts are progressed.

We thank the Mount Buffalo Business Case Assessment Taskforce for its engagement and collaboration.

Ngun godjin (regards),

Matthew Burns
Chief Executive Officer

37 High St Broadford, VIC 3658 PO BOX 505 Broadford, VIC 3658 Phone (03) 5784 1433 enquiries@taungurung.com.au

F. Indigenous Land Use Agreement Map

145°0'E

146°0'E

147°0'E

37°0'S

38°0'S

Commencement point

Heathcote-Graytown National Park

Mount Wombat-Garden Range F.F.R.

Mount Samaria State Park

Mount Buffalo National Park

Alpine National Park

Lake Eildon National Park

Wandong R.P.

Kinglake National Park

Cathedral Range State Park

Melbourne

National Native Title Tribunal

INDIGENOUS LAND USE AGREEMENT

Taungurung Recognition and Settlement Agreement Area

Agreement Area

Areas Granted as Aboriginal Title

Crown Land

0 25 50

Kilometres

Geocentric Datum of Australia 1994, MGA Zone 55

Prepared by:
Geospatial Services, National Native Title Tribunal
14/08/2018

Data Sources:
Agreement area boundaries compiled from descriptions of the following Registered Aboriginal Parties:
Dja Dja Wurrung Clans Aboriginal Corporation;
GunaiKurnai Land and Waters Aboriginal Corporation;
Taungurung Clans Aboriginal Corporation;
Wurundjeri Tribe Land and Compensation Cultural Heritage Council;
Yorta Yorta Nation Aboriginal Corporation;

Park and Reserve boundaries and other non-freehold land tenure data sourced from DELWP (VIC), December 2015.

Background topography: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

With the exception of the Commonwealth Coat of Arms and where otherwise noted, this map is provided under a Creative Commons Attribution 4.0 International license: https://creativecommons.org/licenses/by/4.0/

While the National Native Title Tribunal (NNTT) and the Native Title Registrar (Registrar) have exercised due care in ensuring the accuracy of the information provided, it is provided for general information only and on the understanding that neither the NNTT, the Registrar nor the Commonwealth of Australia is providing professional advice. Appropriate professional advice relevant to your circumstances should be sought rather than relying on the information provided. In addition, you must exercise your own judgment and carefully evaluate the information provided for accuracy, currency, completeness and relevance for the purpose for which it is to be used. The information provided is often supplied by, or based on, data and information from external sources, therefore the NNTT and Registrar cannot guarantee that the information is accurate or up-to-date. The NNTT and Registrar expressly disclaim any liability arising from the use of this information. This information should not be relied upon in relation to any matters associated with cultural heritage.

G. Heritage Victoria – Letter of Support

Department of Environment,
Land, Water and Planning

8 Nicholson Street
East Melbourne, Victoria, 3002
Telephone: 03 9938 6891
delwp.vic.gov.au

William Jeremy
Director Assets
Alpine Shire Council
PO Box 139
BRIGHT VIC 3741

Ref:

Dear Will

RE: MOUNT BUFFALO CHALET (H0901)

Thank you for meeting with Erin Williams and myself at Heritage Victoria today regarding the proposed activation of Mount Buffalo Chalet through the establishment of a café.

Heritage Victoria understands your proposal to broadly include:

- Activation of the central wing of the Chalet through the establishment of a café.
- Installation of a new disabled lift access to the verandah.
- Conversion of the existing 'Buffalo Bar' to a commercial café kitchen.
- Café seating for 40-60 people located within the main lounge, the drawing room, on the verandah, and in the garden area.
- Upgrade of current toilets and services.
- Conversion of the c.1986 TV room to DDA compliant toilets and a change room.
- Use of the reception as an office.
- Public access to the ballroom, entry lobby, and former smoking lounge, with temporary barriers limiting access to the remainder of the Chalet.

We understand the proposal may include the installation of solar panels in discrete rooftop locations at the Chalet.

Due to the scope of works and high level of public interest in the place, the proposed works are likely to require a permit under Part 5 of the *Heritage Act 2017*. Any permit application would be publicly displayed under section 94 of the *Heritage Act 2017*.

Heritage Victoria strongly supports the activation of Mount Buffalo Chalet for public access, and gives in principle support to this proposal.

Yours sincerely

Steven Avery
Executive Director
Heritage Victoria

Any personal information about you or a third party in your correspondence will be protected under the provisions of the *Privacy and Data Protection Act 2014*. It will only be used or disclosed to appropriate Ministerial, Statutory Authority, or departmental staff in regard to the purpose for which it was provided, unless required or authorized by law. Enquiries about access to information about you held by the Department should be directed to foi.unit@delwp.vic.gov.au or FOI Unit, Department of Environment, Land, Water and Planning, PO Box 500, East Melbourne, Victoria 8002.

VICTORIA State Government

H. Alpine Planning Scheme

Clause 36.03 PCRZ

36.03 PUBLIC CONSERVATION AND RESOURCE ZONE

16/01/2018
VC142

Shown on the planning scheme map as **PCRZ**.

Purpose

To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.

To protect and conserve the natural environment and natural processes for their historic, scientific, landscape, habitat or cultural values.

To provide facilities which assist in public education and interpretation of the natural environment with minimal degradation of the natural environment or natural processes.

To provide for appropriate resource based uses.

36.03-1 Table of uses

19/09/2017
VC132

Section 1 - Permit not required

Use	Condition
Boat launching facility **Camping and caravan park** **Caretaker's house** **Car park** **Informal outdoor recreation** **Interpretation centre** **Jetty** **Kiosk** **Marine dredging** **Mooring pole** **Open sports ground** **Pier** **Pontoon** **Road** **Utility installation (other than Telecommunications facility)** **Any use listed in Clause 62.01**	Must be either of the following: ▪ A use conducted by or on behalf of a public land manager or Parks Victoria under the relevant provisions of the *Local Government Act 1989*, the *Reference Areas Act 1978*, the *National Parks Act 1975*, the *Fisheries Act 1995*, the *Wildlife Act 1975*, the *Forests Act 1958*, the *Water Industry Act 1994*, the *Water Act 1989*, the *Marine Act 1988*, the *Port of Melbourne Authority Act 1958* or the *Crown Land (Reserves) Act 1978*. ▪ Specified in an Incorporated plan in a schedule to this zone.
Any other use not in Section 2 or 3	▪ Must be a use conducted by or on behalf of a public land manager or Parks Victoria under the relevant provisions of the *Local Government Act 1989*, the *Reference Areas Act 1978*, the *National Parks Act 1975*, the *Fisheries Act 1995*, the *Wildlife Act 1975*, the *Forests Act 1958*, the *Water Industry Act 1994*, the *Water Act 1989*, the *Marine Act 1988*, the *Port of Melbourne Authority Act 1958* or the *Crown Land (Reserves) Act 1978*.

Section 2 - Permit required

Use	Condition
Emergency services facility	
Renewable energy facility (other than Wind energy facility)	Must not be located on land reserved under the *National Parks Act 1975*.

Use	Condition
	Must meet the requirements of Clause 52.42.
Wind energy facility	Must not be located on land described in a schedule to the *National Parks Act 1975*. This does not apply where the Wind energy facility is principally used to supply electricity to a facility used in conjunction with conservation, recreation, administration or accommodation use of the land. Must meet the requirements of Clause 52.32.

Section 3 - Prohibited

Use
The use in Section 1 described as 'Any other use not in Section 2 or 3' – if the Section 1 condition is not met

36.03-2 Permit requirement

16/01/2018
VC142

A permit is required to:

- Construct a building or construct or carry out works. This does not apply to:
  - A building or works shown in an Incorporated plan which applies to the land.
  - A building or works specified in Clause 62.02-1 or 62.02-2 carried out by or on behalf of a public authority or municipal council, if the public authority or municipal council is carrying out functions, powers or duties conferred by or under the *Local Government Act 1989*, the *Reference Areas Act 1978*, the *National Parks Act 1975*, the *Fisheries Act 1995*, the *Wildlife Act 1975*, the *Forests Act 1958*, the *Water Industry Act 1994*, the *Water Act 1989*, the *Marine Act 1988*, the *Port of Melbourne Authority Act 1958* or the *Crown Land (Reserves) Act 1978*.
  - A building or works carried out by or on behalf of a public land manager or Parks Victoria under the *Local Government Act 1989*, the *Reference Areas Act 1978*, the *National Parks Act 1975*, the *Fisheries Act 1995*, the *Wildlife Act 1975*, the *Forests Act 1958*, the *Water Industry Act 1994*, the *Water Act 1989*, the *Marine Act 1988*, the *Port of Melbourne Authority Act 1958*, the *Crown Land (Reserves) Act 1978*, or the *Road Management Act 2004*.
- Subdivide land.

36.03-3 Application requirements

19/09/2017
VC132

An application for a permit by a person other than the relevant public land manager must be accompanied by the written consent of the public land manager, indicating that the public land manager consents generally or conditionally either:

- To the application for permit being made.
- To the application for permit being made and to the proposed use or development.

Where there is no public land manager, an application for a permit must be accompanied by the written consent of the Secretary to the Department of Environment, Land, Water and Planning.

36.03-4 Exemption from notice and review

19/01/2006
VC37

An application to subdivide land which is consistent with an Incorporated plan is exempt from the notice requirements of Section 52(1) (a), (b), and (d), the decision requirements of Sections 64(1), (2) and (3) and the review rights of Section 82(1) of the Act.

36.03-5 Referral of applications

18/06/2010
VC62

An application to use or develop land for the purpose of an emergency services facility must be referred under Section 55 of the Act to the person or body specified as the referral authority in Clause 66.03.

36.03-6 Decision guidelines

18/06/2010
VC62

Before deciding on an application to use or subdivide land, construct a building or construct or carry out works, in addition to the decision guidelines in Clause 65, the responsible authority must consider, as appropriate:

- The State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.
- The comments of any public land manager or other relevant land manager having responsibility for the care or management of the land or adjacent land.
- Whether the development is appropriately located and designed, including in accordance with any relevant use, design or siting guidelines.

36.03-7 Incorporated plan

18/06/2010
VC62

An Incorporated plan is a plan which shows the way the land is to be used and developed. An Incorporated plan may include the following information:

- Recognition of existing use and how the area is to be developed.
- The building envelope of any proposed buildings.
- Details of proposed buildings or works.
- The location of pedestrian or vehicle access points or car parking areas.
- The location of any areas for specific uses and a schedule of specific uses which are allowed without permit.
- Topographic details including any proposed cut and fill.
- The location of existing and proposed features.
- The location of existing native or other vegetation and any proposed landscaping works or areas of vegetation to be added or removed.
- The identification of sites of flora or fauna significance (including, in particular, any potentially threatened species or significant habitat) or other places of cultural, heritage or scientific value.

The Incorporated plan must be consistent with the intent of the public land reservation under any Act and make reference to relevant policies and guidelines.

An Incorporated plan may be prepared in parts or stages.

36.03-8 Use and development of land identified in a schedule

18/06/2010
VC62

Land identified in a schedule to this zone may be used and developed in accordance with the schedule or the specific controls contained in an incorporated document corresponding to the land, provided any condition in the schedule or incorporated document is complied with.

36.03-9 Advertising signs

18/06/2010
VC62

Advertising sign controls are at Clause 52.05. This zone is in Category 4 unless a different requirement is specified in the schedule to this zone.

Note: *Refer to the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement, for strategies and policies which may affect the use and development of land.*

Check whether an overlay also applies to the land.

Other requirements may also apply. These can be found at Particular Provisions.

I. Land Zones - Planning Practice Note

Public Land Zones

Planning Practice Note 2

JANUARY 2018

The purpose of this practice note is to provide guidance about the appropriate use of the Public Land Zones.

What is public land?

Public land is not defined in the *Victoria Planning Provisions* (VPP) or the *Planning and Environment Act 1987*, but it is commonly accepted that public land comprises:

- Crown land
- land vested in or owned by a minister, government department, public authority or municipal council
- land otherwise used for a public purpose.

A 'public purpose' is defined in the *Planning and Environment Act 1987* as including any purpose for which land may be compulsorily acquired under any Act to which the *Land Acquisition and Compensation Act 1986* applies.

Where should the public land zones be applied?

Public land zones are not intended to identify the legal status of the land nor indicate the existing land use. They are intended to set out appropriate statutory requirements which apply to the use and development of the land in addition to the relevant land management legislation. The principles are similar to those that apply to the Special Use Zone.

It is intended that a public land zone be applied to public land where the surrounding zoning is inappropriate or where there is a special reason to identify separately the public land for planning purposes. This will commonly be where land management arrangements apply under legislation other than the *Planning and Environment Act 1987*.

A useful test in considering if a public land zone is appropriate is to determine if a public land manager needs some level of flexibility, protection or exemption different from the surrounding zone provisions because of the special nature of the public land or asset and its control (in a land use or management sense) under another Act. **For this reason, public land zones should be applied in consultation with the relevant public land manager.**

A public land zone will normally be applied to public land owned or managed by a government department or public land manager, including national parks, state forests, coastal crown land and land reserved under the *Crown Land (Reserves) Act 1978*.

VICTORIA State Government | Environment, Land, Water and Planning

'By or on behalf of' the public land manager

A public land manager should be able to use and develop public land for any purpose under its relevant land management legislation without the need for a permit.

This is achieved by allowing many uses to be Section 1 within a public land zone, subject to the use being conducted by or on behalf of the public land manager or a specified public authority. These words should not be interpreted in a way that would allow a public land manger to have a blanket exemption within the zone to the extent that it could consent to any use or development by another party and have that use or development also automatically exempt from planning control.

The words *by or on behalf of* should be interpreted with regard to the particular statutory charter of the public land manager under its governing legislation and indicate that the use or development must be undertaken by the public land manager itself or by some other person or entity having a direct representative interest or relationship with the public land manager.

Using other zones

Land should not be automatically included in a public land zone simply because it is public land. There will be situations where a public land zone is not the most appropriate zone. Examples include roads and remnant parcels of public land in rural areas. In such cases the use of other zones and overlays may appropriately recognise the purpose for which the land is reserved.

Many public authorities established under Victorian legislation are now government business enterprises which are commercial in nature. Where the public land use is essentially of a commercial or business nature (such as an office or the provision of services) or comprises a community facility, the surrounding zoning will usually be appropriate. For example:

- Although the public land zone makes provision for its potential application to public land used for the purpose of 'education', most schools could be included in surrounding zones, particularly residential zones.
- Many works depots or offices for government or local government bodies could be included in a commercial or industrial zone.

Where possible, to allow for competitive neutrality, similar private and public land use should be treated in the same manner for zoning purposes. For example, government schools should be zoned in the surrounding zone similar to private schools, unless there is a special reason which warrants the school being included within a public land zone.

Utility service providers

Land which is owned by or vested in a utility service provider is usually not public land and should not be included in a public land zone. A utility service provider is defined in the VPP as:

> *A person, other than a public authority or municipal council, having responsibility under an Act for the generation, transmission, distribution or supply of electricity, gas, power, telecommunications, water supply, drainage or sewerage services.*

The public land zones do not and are not intended to provide for privatised or semi-privatised bodies which carry out a function of a broadly public nature. Examples include telecommunications carriers such as Telstra and electricity distribution companies. The land used by such bodies should not be included in a public land zone.

Commonwealth land

Commonwealth land is exempt from the operation of planning schemes where the land is owned by the Commonwealth or the use is carried on by a Commonwealth government agency *within the shield of the Crown*. This immunity applies to Commonwealth government departments, defence facilities and several public authorities established under Commonwealth legislation, but does not apply to government business enterprises such as Telstra. Commonwealth land is not included in any zone or overlay in a planning scheme. It is simply recognised by the designation "CA" on planning scheme maps.

Overlays on public land

In deciding whether to apply an overlay to land, the public land zones should be treated in the same manner as other zones.

The decision about whether to apply an overlay to public land will depend on the nature of the overlay and the land management legislation of the public land manager. For example, a Vegetation Protection Overlay over a state forest duplicates the function of the public land manager. However, a Vegetation Protection Overlay may sometimes be appropriate over significant vegetation on road or railway land (where the core business is not the management of the vegetation).

Like the application of any overlay, there must be specific justification for the additional requirement. Appropriate provisions must be made for the routine operations of the public use, such as exemption for regular maintenance.

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Thank you