

Cradle Mountain Master Plan Land Use Planning, Environmental, Traffic and Services Review

transport | community | mining | industrial | food & beverage | carbon & energy



Prepared for:

Cumulus Studio

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Date:

13 January 2016

Rev 02

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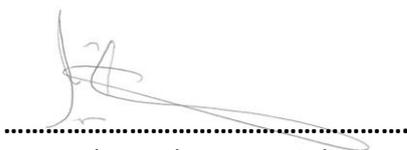
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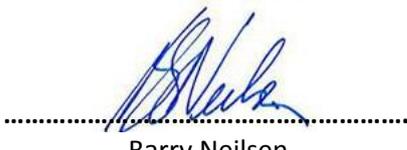
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Appendix A Cradle Mountain Master Plan

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Executive Summary

Cumulus Studio with input from Inspired by Marketing and Simon Currant and Associates has developed a master plan and tourism strategy for Cradle Mountain. **pitt&sherry** has undertaken a high level desktop review of the Master Plan to identify whether there are any 'show stopping' constraints to implementation of the Master Plan with respect to land use planning, environmental impacts and approvals, traffic management arrangements and servicing.

The desktop review has not identified any 'show stopping' constraints. However, due to the high level nature of the review, should further development of the Master Plan be pursued it is recommended that further detailed investigations be undertaken as well as consultation with key stakeholders such as Kentish Council and public utility owners.

The findings of the assessment are summarised as follows:

Land Use Planning

The Kentish Council Interim Planning Scheme (2013) applies to the development.

The Scheme includes a landslip area overlay. Review of the Master Plan indicates that the new visitor information centre and the Dove Lake shelter are clear of the landslip area overlay. However the alignment of the cable car will cross multiple areas identified as having landslip potential and will therefore require a further detailed assessment.

The Cradle Gateway Special Area Plan within the Scheme which includes the Sustainable Tourism Precinct and the Visitor Services Precinct apply to the development. Some of the proposed development is located outside of the nodes defined in the Visitor Services Precinct. Consultation with Kentish Council and potentially the Tasmanian Planning Commission would be required to confirm whether development outside of the nodes can be accommodated.

The use definitions in the Scheme which would most likely apply to the development include:

- *Food Services* for the cafe component
- *Hotel Industry* for the bar/hotel component
- *Tourist Operation* for the visitor centre/visitor facility/attraction component.

Food Services is a discretionary use within the Kentish Interim Planning Scheme. *Hotel Industry* is a prohibited use; however the operation of a bar within the visitor centre may be able to be argued to be an ancillary use. *Tourist Operation* is permitted as long as it is complementary to the environmental management purpose of land in the zone and based on a 'building, area or place of regulated scientific, aesthetic, architectural or historic interest or otherwise of special cultural value'. Consultation with Kentish Council would be required with respect to the definition they would apply to the restaurant/bar/lounge component of the visitor information centre.

The proposal works towards enhancing the visitor experience of the world heritage area. It also fulfils a number of requirements of the Scheme by utilising a site that is already degraded, thus minimising the impact of the proposal on the natural environment.

Environment

Environmental approvals from all levels of government are likely to be required for the development. The Local Government approval requirements will be dealt with through the requirements of the Kentish Interim Planning Scheme (2013) as discussed above.

The Parks & Wildlife section of the Department of Primary Industries, Parks, Water and Environment (DPIPWE) will coordinate the approval process in accordance with the requirements of the Tasmanian World Heritage Area Plan in consultation with the Commonwealth Government. Approval by the Commonwealth is managed through the provisions of the *Environment Protection and Biodiversity Conservation Act 1999 (EPBCA)*. A *Referral* is likely to be required to be submitted to the Commonwealth, in accordance with the EPBC Act, for environmental assessment and approval due to the potential to significantly impact matters of national environmental significance.

It should be noted that the TWHAMP is currently under review with a draft Management Plan released for public comment in early 2015. There is currently no information on when or if the new Management Plan will be formalised and hence at the time of writing the 1999 Plan is still current.

A number of specific environmental studies will be required for PWS and the Commonwealth to assess the potential environmental risks of the proposed development. These include:

- Flora and fauna habitat assessment
- Aquatic habitat assessment
- Historic heritage assessment
- Aboriginal heritage assessment
- Geoconservation assessment
- Visual amenity assessment.

The minimal footprint of the proposed development combined with the components of the Master Plan that involve enhancement of previously disturbed areas minimises potential environmental impacts associated with the development. Detailed environmental studies will be required to confirm any residual impacts and further opportunities for refinement of the Master Plan to deliver optimal environmental outcomes.

Traffic

Review of the Master Plan with respect to traffic arrangements has not identified any major constraints. The provision of the cable car is considered an appropriate measure due to the inability of Cradle Mountain Tourist Road between Pencil Pines and Dove Lake to be able to accommodate a significant increase in traffic growth without significant widening and realignment work being undertaken.

In conjunction with installation of the viewing shelter and cable car terminal at Dove Lake, provisions for service and emergency vehicle and bicycle parking should be incorporated along with a designated area to enable service and emergency vehicles to turn around.

To inform further development of the layout for the visitor and information centre turning path analysis should be undertaken to ensure that appropriate space for the manoeuvring of buses and services vehicles is provided. A parking and traffic survey should also be undertaken and the results considered in conjunction with projected tourist growth to inform refinement of the design and in particular the junctions at either end of the 200 space car park. A Traffic Impact Assessment will need to be prepared for the proposed development to accompany a development application to Kentish Council.

Services

No major constraints to implementation of the Master Plan with respect to services have been identified. However, the following matters should be considered:

- Digital communications in the Cradle Mountain area are only currently available via Telstra's Next G Network and is known to have reliability issues. Parks and Wildlife Service have recently purchased a 'guaranteed data package' from Telstra. The improvement in reliability through purchase of the package has not yet been assessed as installation of the system is not yet complete. Once the improvement in reliability has been determined, the system's adequacy for the proposed development should be reassessed.
- Stormwater run-off will need to be treated using gross pollutant traps and other water sensitive design features to minimise any impacts on surrounding water courses
- The need for vehicular access to the cable car for construction and maintenance purposes as well as emergency access.
- Water tanks will be required to service the toilet and kiosk facilities at the Dove Lake shelter.
- Recent dry weather has highlighted the need for the use of intelligent water use including water recycling and the need to augment the existing Parks and Wildlife Service water supply scheme.

A detailed assessment of the electricity supply required to service the cable car is recommended to confirm the suitability of the existing infrastructure. However, it is anticipated that the existing infrastructure should have sufficient capacity.

1. Introduction

Cumulus Studio with input from Inspired by Marketing and Simon Currant and Associates has developed a master plan and tourism strategy for Cradle Mountain. The Master Plan is a result of consultation with a number of major stakeholders including:

- Parks & Wildlife
- Tourism Industry Council Tas
- Cradle Coast Authority
- Kentish Council
- Cradle Mountain Tourism Industry.

pitt&sherry have been commissioned by Cumulus Studio to undertake a desktop review of the Master Plan with respect to land use planning and environmental approval requirements, traffic management arrangements and servicing requirements. This report documents the findings of the review.

2. Master Plan Features

Drawings showing the key features of the Master Plan are included in Appendix A. The key features include:

- The provision of new signage indicating the start of the Cradle Mountain precinct
- Creation of a new visitor and information centre, front desk for tourism operators and village square at the existing runway site
- A cable car transport system linking the new visitor and information centre to Dove Lake including a stopping point at Ronny Creek for the start of the Overland Track and access to the Waldheim chalet
- Change to the use of the existing interpretation centre
- Construction of a new viewing shelter at Dove Lake incorporating the cable car, a kiosk and toilet facilities
- Removal and rehabilitation of the existing Dove Lake car park
- Construction of four to six shelter pods around Dove Lake to provide rest areas.

3. Limitations to this Report

This report has been prepared based on a high level desktop review of the Master Plan with consideration of the requirements of the relevant planning scheme, environmental approval processes, traffic management arrangements and requirements for water, sewer, electricity and communications. The purpose of the review was to identify any major constraints to implementation of the Master Plan and to outline the approval processes that may be required. The statements made within this report are informed by the extent of the investigations for which **pitt&sherry** has been commissioned to undertake. Should further development of the Master Plan be pursued it is recommended that a more detailed review be undertaken involving a site inspection, consultation with relevant approval authorities and public utility providers.

4. Planning Considerations

4.1 Planning Scheme

The Kentish Interim Planning Scheme 2013 (the Planning Scheme) applies to the development.

4.2 Zoning

The site is zoned *Environmental Management* under the Planning Scheme. The purpose of this zone is:

To provide for the protection, conservation and management of areas with significant ecological, scientific, cultural or aesthetic value, or with a significant likelihood of risk from a natural hazard.

To only allow for complementary use or development where consistent with any strategies for protection and management.

4.3 Overlay Controls

There are a number of Overlay Controls within the area of the proposed works. The most relevant are Landslip Area and Special Area Plan (Cradle Gateway Specific Area).

4.3.1 Landslip Area

The Landslip Area overlay falls under the overall scope of the Hazard Management Code. The purpose of this provision is to –

- (a) *identify areas of likely risk for use or development from exposure to a natural or environmental hazard;*
- (b) *minimise exposure of use or development to an unacceptable level of community risk from a natural or environmental hazard;*
- (c) *minimise likelihood for use or development to trigger, spread, or intensify a natural or environmental hazard; and*
- (d) *require a tolerable level of risk can be achieved and maintained for the type, scale, intensity, and anticipated life of a use or development*

An assessment of the proposed use will have to be made against *“The level of likely risk from exposure to a natural hazard is tolerable for the nature and duration of a use”*.

An assessment of the proposed development will have to be made against *“The level of likely risk from exposure to a natural hazard is to be tolerable for the type, form, scale and duration of each development”*.

Review of the Master Plan indicates that the new visitor information centre and the Dove Lake shelter are clear of the Landslip Area overlay. However the alignment of the cable car will cross multiple areas identified as having landslip potential and will therefore require a further detailed assessment.

4.3.2 Special Area Plan – Cradle Gateway Specific Area Plan

The purpose of the Cradle Gateway Specific Area Plan is to –

- (a)** *provide for tourist facilities, visitor accommodation, and support services that relate to and complement the values of the Cradle Gateway and Tasmanian Wilderness World Heritage Area; and*
- (b)** *assist protection of the habitat and landscape values of the Cradle Gateway and the Tasmanian Wilderness World Heritage Area*

The area is broken into two precincts – Sustainable Tourism and Visitor Services

4.3.3 Sustainable Tourism Precinct

The purpose of the Sustainable Tourism Precinct is to –

- (a)** *provide for a range of visitor accommodation;*
- (b)** *provide for temporary accommodation for people engaged in conservation, tourism, visitor accommodation, and visitor support activities;*
- (c)** *provide for recreation facilities to access, interpret, and experience the Tasmanian Wilderness World Heritage Area, including walking trails, shelters, and amenities; and*
- (d)** *require the distribution, location and design of buildings, structures, and facilities is to -*
 - (i)** *minimise apparent disturbance of topographic features and native vegetation;*
 - (ii)** *minimise impact on sustainability of habitat through control on the clearing and conversion of vegetation and water courses*
 - (iii)** *minimise adverse impact landscape values through embedding buildings and structures within the landscape and screening to view from roads, public places and the World Heritage Area;*
 - (iv)** *enhance the visitor experience within the Cradle Gateway and Tasmanian Wilderness World Heritage Area setting*
 - (v)** *sensitively site and embed buildings and structures within the landscape to minimise visual detection and enhance the visitor arrival experience*

4.3.4 Visitor Services Precinct

The purpose of the Visitor Services Precinct is to –

- (a)** *consolidate into a single internally structured and inter-connected location the facilities and services that support the requirements of visitors to the Tasmanian Wilderness World Heritage Area, including for information, orientation and interpretation; passenger transport, parking and transit; convenience retail, food and beverage; and amenities such as shelter and toilets;*
- (b)** *provide accommodation for visitors;*
- (c)** *provide temporary accommodation for people engaged in conservation, tourism, visitor accommodation and visitor support activities;*

- (d) *protect and enhance the visitor experience through measures to minimise landform and vegetation disturbance and intrusion of buildings and facilities on the natural habitat and landscape values of the Tasmanian Wilderness World Heritage Area; and*
- (e) *implement the Cradle Gateway Structure Plan for the location and distribution of activity nodes within the Visitor Services Precinct*

The Visitor Services Precinct is internally divided into Use Nodes as indicated on the planning scheme map as land to which Clause F1.4 applies – the proposal will have to be assessed against the provisions of these use Nodes depending on the location of the final development. Consultation with Kentish Council and potentially the Tasmanian Planning Commission would be required to confirm whether development outside of the nodes can be accommodated.

The area covered by the Special Area Plan is highlighted below:

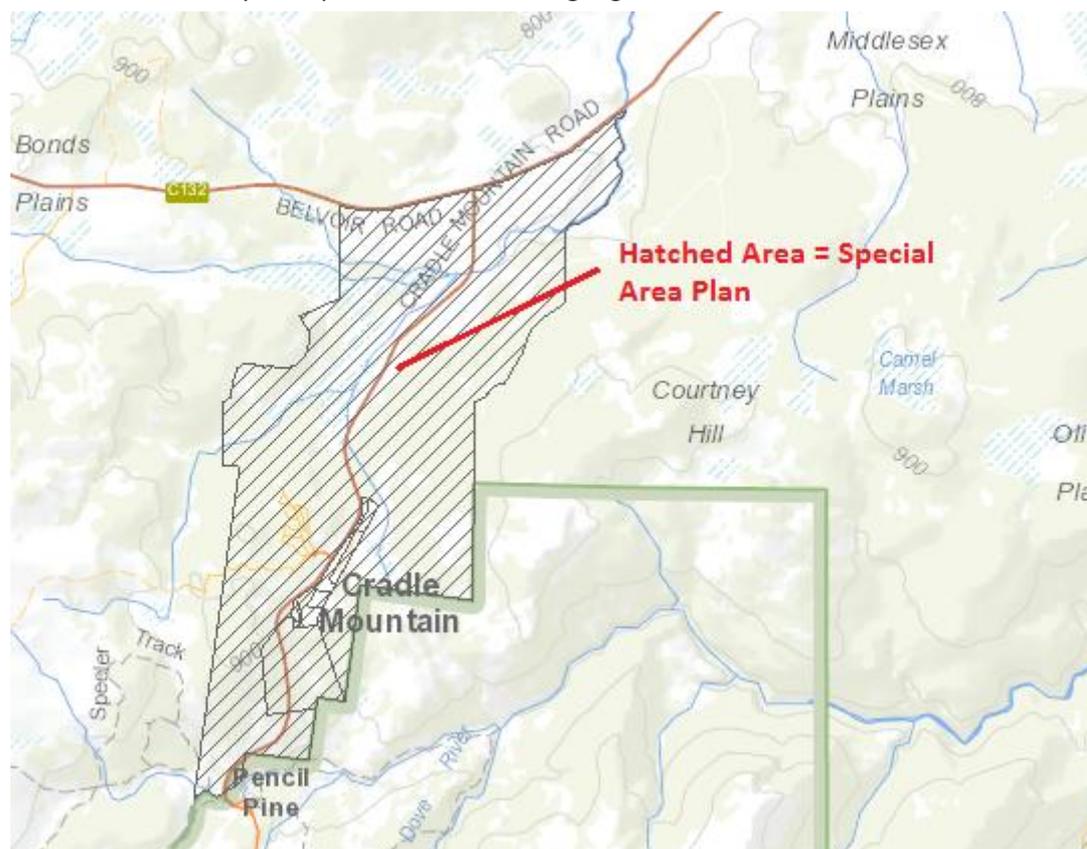


Figure 1: Special Area Plan

4.4 Use Definition

Depending on the final scope of development to be agreed the most likely definitions which describe the proposal are:

For a Cafe:

<i>Food services</i>	<i>use of land for preparing or selling food or drink for consumption on or off the premises. Examples include a cafe, restaurant and take-away food premises.</i>
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For any Bar/Hotel:

<i>Hotel industry</i>	<i>use of land to sell liquor for consumption on or off the premises. If the land is so used, the use may include accommodation, food for consumption on the premises, entertainment, dancing, amusement machines and gambling. Examples include a hotel, bar, bottle shop, nightclub and tavern.</i>
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Visitor Centre/Visitor Facility/attraction:

<i>Tourist operation</i>	<i>use of land specifically to attract tourists, other than for accommodation. Examples include a theme park, visitors centre, wildlife park and zoo.</i>
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If there is accommodation:

<i>Visitor accommodation</i>	<i>use of land for providing short or medium term accommodation for persons away from their normal place of residence. Examples include a backpackers hostel, bed and breakfast establishment, camping and caravan park, holiday cabin, holiday unit, motel, overnight camping area, residential hotel and serviced apartment.</i>
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4.5 Table of Uses within the Zone

Within the table of uses which accompanies the Environmental Management Zone each of the above has the following status.

Table 1: Table of Uses

Use	Status
<i>Food Services</i>	<i>Discretionary - If not including a drive-through facility</i>
<i>Hotel Industry</i>	<i>Prohibited</i>
<i>Tourist Operation</i>	<i>Permitted. If –</i> (a) <i>complementary to an environmental management purpose of land in the zone; or</i> (b) <i>based on a building, area or place of regulated scientific, aesthetic, architectural or historic interest or otherwise of special cultural value.</i> <i>Otherwise prohibited</i>
<i>Visitor Accommodation</i>	<i>Permitted - If for patrons of a conservation, sports and recreation or tourist operation use on land in the zone. Otherwise prohibited.</i>

4.6 Use Standards

Within the Zone are a series of Use Standards which need to be considered. These relate to matters such as uses within a statutory reserve, discretionary uses and residential use.

4.7 Development Standards

Within the Zone are a series of Development Standards which need to be considered. These relate to matters such as development within a statutory reserve, suitability of the lot for development, location and configuration of development and subdivision.

4.8 Codes

As well as the two matters covered by overlays the following Codes will need to be considered:

1. Bushfire Prone Area Code
2. Change in Ground Level Code
3. Hazard Management Code – relates to Landslip Area above
4. Sign Code – for any proposed signage
5. Traffic Generating and Parking Code
6. Water and Waterways Code
7. Special Area Code – as described above.

4.9 Requirements for Lodging for Approval

4.9.1 Planning

The following documents will be required to support a Development Application:

- Full set of concept plans outlining the development – including a car park layout
- Copy of land titles
- Planning Report which assesses the development against the Planning Scheme
- A Traffic Impact Assessment
- Bushfire Report
- Landslip Assessment (might end up as Low Risk)
- Assessment of any signs against Code
- Impact on Waterways – if required
- Assessment against the Special Area Plan Code
- Basic Servicing Plan – if on-site waste water is proposed – then a specialist report commenting on the development and suitability of the site to deal with waste water
- The matters coming out of the Environmental Assessment – flora fauna/ indigenous heritage/ European heritage.

5. Environmental Considerations

5.1 Approvals Required

With the exception of the proposed arrival centre at the southern end of the existing runway, the majority of the proposed development lies within the Cradle Mountain, Lake St Clair National Park and the Tasmanian Wilderness World Heritage Area. It also lies within the Kentish Municipality. The approval processes therefore potentially involve all levels of government.

As the majority of the development is within a National Park, the Parks & Wildlife Service Tasmania (PWS), within the Department of Primary Industries, Parks, Water and Environment (DPIPWE), are the approval authority. The approval process takes place within the context of the Tasmanian World Heritage Area Management Plan 1999 (TWHAMP), and is managed by the Parks & Wildlife Service in consultation with the Commonwealth (on matters relating to referral under the *Environment Protection and Biodiversity Conservation Act 1999* [EPBCA]).

It should be noted that the TWHAMP is currently under review with a draft Management Plan released for public comment in early 2015. There is currently no information on when or if the new Management Plan will be formalised and hence at the time of writing the 1999 Plan is still current.

An outline of the approval process in the Tasmanian World Heritage Area Management Plan 1999 (WHAMP) is provided in Figure 2. It is likely that the proposed development would be considered to follow the Major pathway.

The Environment Protection Authority (EPA) may also have a role to play (in relation to the *Environmental Management and Pollution Control Act 1994*), although further details on the proposed development/s would be required to determine the EPA's involvement, if any.

Certain aspects of the development will require planning and building approval from the Kentish Council under the *Land Use Planning Approvals Act 1993*.

A *Referral* is likely to be required to be submitted to the Commonwealth, in accordance with the EPBC Act, for environmental assessment and approval due to the potential to significantly impact matters of national environmental significance. Matters that may be impacted include the Tasmanian Wilderness World Heritage Area (TWWHA), listed threatened species and possible ecological communities. Until detailed flora, fauna and heritage surveys are completed and the extent of potential impact/s are known, a decision on whether a referral is required cannot be confirmed; however, it is considered likely.

Figure 4 New Proposals and Impact Assessment Process

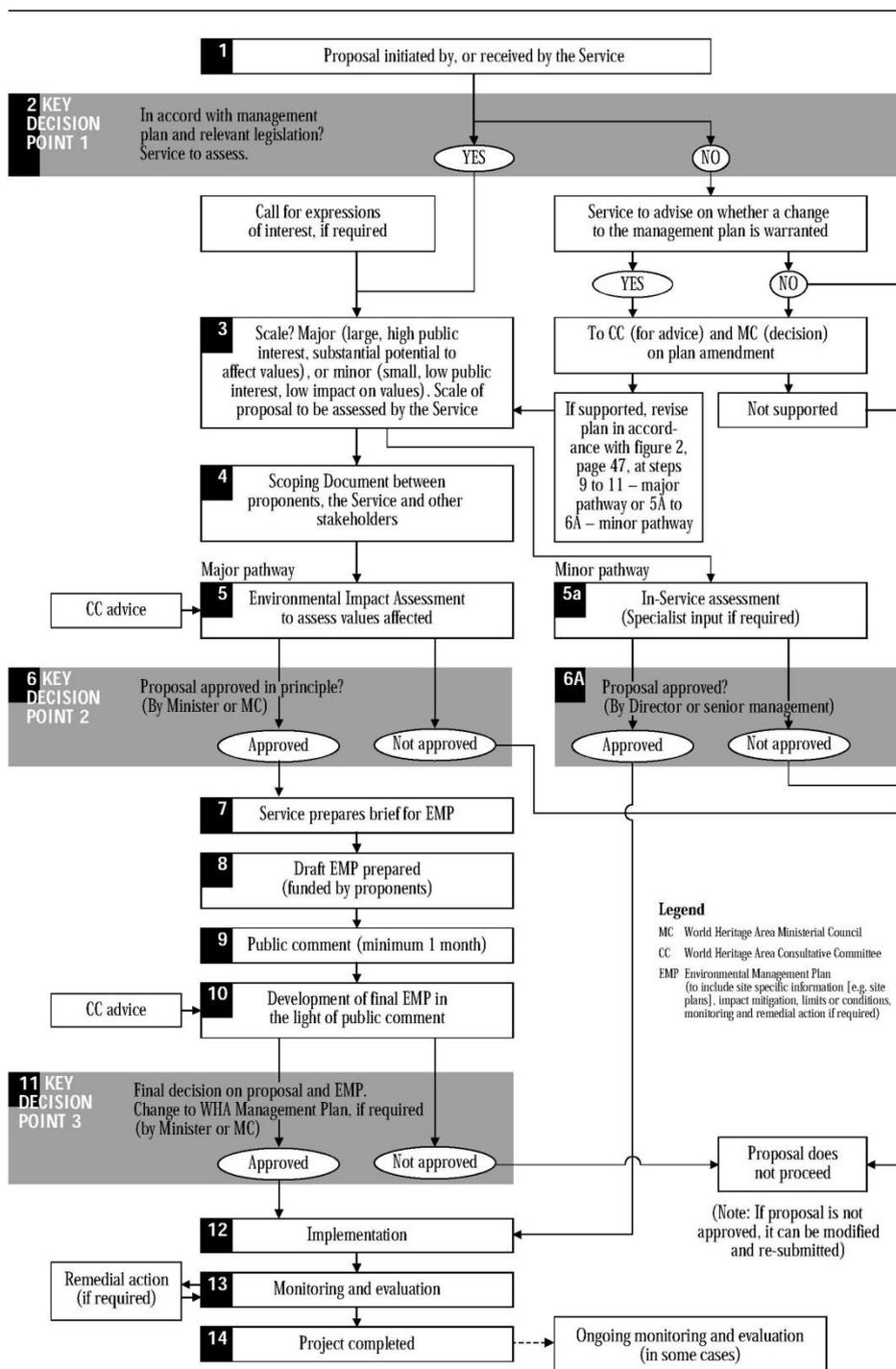


Figure 2: WHAMP Approval process

5.2 Tasmanian Wilderness World Heritage Area

The Tasmanian Wilderness is one of the largest conservation reserves in Australia. At approximately 1.6 million hectares it is one of the three largest temperate wilderness areas remaining in the Southern Hemisphere.

The region is home to some of the deepest and longest caves in Australia. It is renowned for its diversity of flora, and some of the longest lived trees and tallest flowering plants in the world grow in the area. The Tasmanian Wilderness is a stronghold for several animals that are either extinct or threatened on mainland Australia.

The Tasmanian Wilderness contains hundreds of archaeological sites, including many cave sites dating from the late Pleistocene and early Holocene epochs. The earliest cave sites are evidence of what are currently understood to be the southern-most people in the world during the last glacial period, who were part of the forefront of the first expansion of modern humans across the globe.

The Tasmanian Wilderness was first included on the World Heritage List in 1982; it was then included in the National Heritage List on 21 May 2007.

5.3 Review of Environmental Values

theLIST (the Land Information System Tasmania)¹ identifies various records of environmental values within and surrounding the proposed development areas. The following is a high level review of the records identified.

Threatened Fauna

Threatened fauna as listed in the Tasmanian *Threatened Species Protection Act 1995* (TSPCA) and the Commonwealth EPBCA, recorded in theLIST, were identified both within the TWWHA as well as within the vicinity of the proposed new visitor centre. Species listed under both State and Commonwealth legislation have been identified in the area including, but not limited to:

- Spotted-tailed quoll (*Dasyurus maculatus subsp. maculatus*)
- Tasmanian devil (*Sarcophilus harrisii*)
- Swift parrot (*Lathamus discolor*)
- Glossy grass skink (*Pseudemoia raulinsoni*)
- Grey goshawk (*Accipiter novaehollandiae*)
- Wedge-tailed eagle (*Aquila audax fleayi*).

There have been numerous records of Tasmanian devils and spotted-tailed quolls identified within the project area, mostly along the Cradle Mountain Road.

Threatened Flora

There were records of threatened flora species as listed in the Tasmanian TSPA and/or the Commonwealth EPBCA, documented in theLIST, identified within and surrounding the proposed development areas.

In the vicinity of Pencil Pine area, 3 records were identified

- Chamomile sunray (*Rrhodonthe anthemoides*) – 2 records
- Grassland cupflower (*Colobanthus curtisiae*) – 1 record.

¹ As at 24th November 2015.

In the vicinity of proposed new visitor centre, records of the following threatened plants were identified

- Alpine violet (*Viola cunninghamii*)
- Mountain knawel (*Scleranthus brockiei*).

Within the general development area, records of the following threatened plants were identified

- Small star plantain (*Plantago glacialis*)
- Greygreen cottonleaf (*Argyrotegium pollochlorum*).

Other threatened flora records were also identified in the general vicinity, although these were approximately 2 km from the proposed development areas.

Vegetation Communities

There are a significant number of TASVEG 3.0² vegetation communities within the study area, with a large number of these listed as threatened native vegetation communities in the *Nature Conservation Act 2002*. These communities include grasslands, wetlands, rainforest, open woodland, peatland and sedgeland communities.

Geoconservation Site

Two listed geoconservation sites have been recorded³ in the area of the proposed development

- Tyennan Region
- Central Highlands Cenozoic Glacial Area.

Conservation of Freshwater Ecosystem Values Program (CFEV)

The proposed development areas are located within the Forth-Wilmot catchment boundary. The DPIPWE CFEV program rates individual river sections according to their overall conservation value, either being very high, high, medium or low conservation value.

Within the proposed development area there are numerous rivers and drainage areas that are of high conservation value, and one area of very high conservation value.

There are several waterbodies within the project area with high conservation. There are also a range of wetlands in the project area with low to very high conservation value, with the majority of wetlands in the area being assessed as high conservation value.

Heritage Issues

The proposed development area, as mentioned in section 5.1 and 5.2, is listed on the World Heritage List as well as the National Heritage List.

As described in the World Heritage listing⁴ the area contains the world's densest concentration of human occupation sites dating from the late Pleistocene and early Holocene epochs, between approximately 35,000 and 12,000 years ago.

² As referenced in theLIST, 24.11.2015

³ As referenced in theLIST, 24.11.2015

⁴ <http://www.environment.gov.au/heritage/places/world/tasmanian-wilderness>

The region's cave sites contain evidence of the hunting and gathering lifestyles of the people who occupied these high southern latitudes when the climate was much more variable, and at times much colder and drier, with glaciers flowing down from the nearby mountain ranges. Some caves contain dense, well-preserved layers of animal bones, tools and hearths. Others contain early hand stencils.

There are no individual historic sites listed on the Tasmanian Heritage Register.

5.4 Further Information Required

A number of specific environmental studies will be required for PWS and the Commonwealth to assess the potential environmental risks of the proposed development. These include:

- Flora and fauna habitat assessment
- Aquatic habitat assessment
- Historic heritage assessment
- Aboriginal heritage assessment
- Geoconservation assessment
- Visual amenity assessment.

The minimal footprint of the proposed development combined with the components of the Master Plan that involve enhancement of previously disturbed areas minimises potential environmental impacts associated with the development. Detailed environmental studies will be required to confirm any residual impacts and further opportunities for refinement of the Master Plan to deliver optimal environmental outcomes.

6. Traffic

Cradle Mountain Development Road and Cradle Mountain Tourist Road currently provide vehicular access to the Cradle Mountain Precinct from the Murchison Highway. Both roads are State owned roads. Parks and Wildlife Service have a Memorandum of Understanding with the Department of State Growth regarding management of the road from where it enters the National Park at Pencil Pine River.

A Parks Pass is required for vehicular use of Cradle Mountain Tourist Road south of Pencil Pines. Due to topographical constraints the existing road is very narrow and windy. To minimise private vehicle traffic on Cradle Mountain Tourist Road south of Pencil Pine, a shuttle bus service operates to transport people to and from Dove Lake. Use of Cradle Mountain Tourist Road by caravans, campervans and camper-trailers is not permitted between Pencil Pines and Dove Lake due to the width and alignment of the road. A boom gate at Pencil Pines is used to regulate private vehicle access to Dove Lake.

The Cradle Valley Boardwalk also provides access from the current Interpretation Centre and Pencil Pines to Dove Lake.

pitt&sherry carried out a road safety audit on Cradle Mountain Tourist Road in 2007 of behalf of Parks & Wildlife. The key findings of the road safety audit included:

- The width of Cradle Mountain Tourist Road varies frequently along its length with a number of sections only facilitating the passage of one vehicle at a time. Passing bays are provided on the approach to many of the single lane sections to allow vehicles to wait for approaching vehicles already travelling through the single lane sections.
- Sight distance at a number of the passing bays was constrained due to the horizontal and vertical alignment of the road and by roadside vegetation.

The width and alignment of Cradle Mountain Tourist Road limit the ability of the road to accommodate future growth in vehicular traffic without significant widening and realignment works. The Master Plan addresses this issue by proposing a cable car system to transport people from the new visitor and information centre to the proposed new shelter at Dove Lake. The existing road between Pencil Pines and Dove Lake would be restricted to bicycle and service vehicle access only. The proposed cable car is considered an appropriate feature as significant growth in vehicular traffic volumes on Cradle Mountain Tourist Road between Pencil Pines and Dove Lake is likely to result in undesirable congestion and safety issues.

In conjunction with installation of a viewing shelter and terminal for the cable car at Dove Lake it is proposed to remove and rehabilitate the existing car park. As service vehicle and emergency vehicle access to the viewing shelter will be required, it will be necessary to incorporate a designated area to enable service and emergency vehicles to turn around. It is expected that this area could be incorporated during further refinement of the proposed development. A small parking area will also be required for service or emergency vehicles and bicycles.

The Master Plan indicates that all traffic will be directed into the new visitor and information centre precinct, with approximately 200 metres of the existing Cradle Mountain Tourist Road being removed between the entrance and exit points. Vehicles entering the precinct and not needing to visit the information centre or other facilities within the precinct will be able to travel along the western side of the main car park via a two-way roadway before rejoining the existing Cradle Mountain Tourist Road. The roadway which would be used by drivers not needing to access the visitor and information centre would also operate as a circulation aisle associated with the 200 space car park. Appropriate traffic management measures would need to be incorporated during further development of the design to manage vehicle speed along the roadway and the mixing of through movement drivers with those searching for a car parking space. Consideration would also need to be given to the layout of the junctions at either end of the car park. A traffic count should be undertaken and considered in conjunction with tourist growth information to determine the expected increase in traffic volumes that would occur through development of the new visitor and information centre precinct. This information should be used to assist in designing the junctions at either end of the car park.

The main car park will have capacity to accommodate approximately 200 vehicles. There is also an overflow car park. To confirm the adequacy of the main parking area supply and the likely usage of the overflow parking it is recommended that a parking survey be undertaken and that the survey information be considered with respect to the tourist growth that is expected as a result of implementation of the Master Plan. The entry/exit point to the overflow car park is located in close proximity to a curve in the road. It will be important to ensure that appropriate sight distance is provided at the junction so that vehicles can enter and exit the car park safely.

Bus parking is provided outside of the Village Centre for pick up/drop off. The parking is located a convenient walking distance from the new buildings. Bus parking is also provided on the western side of the car park.

The Master Plan indicates that a separate staff car park will be provided. The area will also be used by service vehicles accessing the visitor centre. The layout of area would need to be designed to accommodate the parking of staff vehicles and also to enable service and light vehicles to enter and exit the area in a forward direction.

As the Visitor and Information Centre will be accessed by large buses, consideration of the turning paths of these vehicles will be an important component during further design development to ensure that sufficient space is allocated for them to circulate through the site with sufficient clearance to vehicles and other potential obstructions.

Review of the Master Plan with respect to traffic arrangements indicates that there are no major issues associated with the proposed development. During refinement of the development consultation with Parks & Wildlife, the Department of State Growth's traffic engineering group and Kentish Council is recommended.

As discussed in Section 4.9.1 a Traffic Impact Assessment (TIA) will need to be prepared and submitted with the Development Application. The TIA will need to address the Traffic Generating Use and Parking Code components of the Planning Scheme. The TIA should be prepared in accordance with the Department of State Growth's Traffic Impact Assessments Guidelines and the *Austrroads Guide to Traffic Management Part 12: Traffic Impacts of Developments*. To inform the TIA a parking and traffic count survey should be undertaken and the information considered with respect to anticipate tourist growth information.

7. Services

7.1 TasWater Reticulated Services (Water and Sewer)

The information supplied by TasWater indicates that the area in the region of the visitor information centre is serviced by recycled water and sewer mains generally running along the western side of the road. The sewer continues south of the site and extends to Dove Lake. There is currently no reticulated water service at Dove Lake. Water tanks containing potable water are likely to be required to service the toilets and kiosk facilities that will be located at the proposed Dove Lake shelter.

The recycled water service is currently not in use, due to the need to meet specific water quality requirements for discharge back into the environment.

In addition the existing Parks and Wildlife Service facilities are serviced by their own water supply scheme. This includes some water storage in a dam on private land with an access agreement allowing its use as part of the scheme. In addition, due to the recent and ongoing dry weather period, storage levels are currently critically low resulting in a period of water restriction.

It is understood that Parks and Wildlife Service have engaged a consultant to investigate a strategy to meet existing and ongoing water supply demands including the possibility of handing a suitably augmented scheme over to TasWater. At the time of writing it is not known how far this independent investigation has progressed.

There are existing service connections that enter the general vicinity of the visitor information centre site but they do not pose a constraint to the proposed development and can either be modified or relocated to suit the final layout.

7.2 TasNetworks Reticulated Services (Electricity)

There is an existing underground high voltage reticulated service that generally runs along the western side of Cradle Mountain Tourist Road. The service extends to Dove Lake from Pencil Pines. North of Pencil Pines and in the vicinity of the proposed Visitor and Information Centre the electricity supply is located overhead.

All the developments in the region then take off their own supply via dedicated substations sized and located according to their needs.

It is considered that the proposed development will require a new substation and internal low voltage reticulation to suit. It may be possible to utilise some of the existing infrastructure for part of the development subject to detailed design. A detailed assessment of the electricity supply requirements for the cable car is recommended should further development of the Master Plan be pursued although it is likely that existing electricity infrastructure will have sufficient capacity to service the cable car.

7.3 Telecommunications

Digital services in the Cradle Mountain area are only available through Telstra's Next G Network. It is understood that this system has capacity and reliability issues, particularly during periods of high demand. Parks and Wildlife Service have advised that they have recently purchased a 'guaranteed data package' from Telstra. As installation of the package has not yet been completed, the improvement in reliability has not yet been assessed. Installation of the guaranteed data package is understood to have been delayed due to the need to make modifications to the nearby telecommunications exchange. Once the installation has been completed an assessment should be made regarding whether the improvement in reliability and capacity is adequate to cater for the proposed development.

It is understood that the 'guaranteed data package' is only available to Parks and Wildlife Service. This means that other businesses in the area may not be able to access the improved reliability.

7.4 Stormwater Services

The existing stormwater facilities currently discharge into natural water courses and environments.

The Water and Waterways Code contained within the Kentish Interim Planning Scheme includes requirements to assist in protecting and conserving water bodies and water courses. These requirements result in the need for stormwater run-off associated with the development to be treated prior to discharge into water courses. It will therefore be necessary for the development to incorporate stormwater management measures such as gross pollutant traps and other water sensitive design features to ensure any nutrients and pollutants in the stormwater run-off are reduced to acceptable levels.

It is also considered that the capture and reuse of rainwater is an important objective to both minimise operating costs and protect the surrounding environment.

7.5 Cable Car Access

Consideration will need to be given regarding access to the proposed cable car alignment for both construction and maintenance purposes. There is also a need to allow for access by emergency services for the purposes of public safety. A significant proportion of the proposed cable car alignment runs in close proximity to the existing road and therefore it is considered that these sections of the cable car will not pose significant problems. However, the northern section of cable car is proposed to be located a considerable distance from the existing road infrastructure and spans across natural watercourses. Careful consideration will need to be given early in the design phase as to how this accessibility issue will be addressed.

7.6 Existing Levels of Service

It is understood that the numbers of visitors to the Cradle Mountain precinct without implementation of the Master Plan is expected to reach 200,000 per annum by 2020. With the proposed development this number is projected to be increased to 240,000 per annum.

It is considered that the projected increase in the number of visitors does not represent a significant impact on the existing infrastructure, as the load on the existing services will be spread throughout any given day and will not peak the same time as the existing hospitality services in the region. By their very nature the associated hospitality facilities have a greater impact per capita than the proposed development itself.

It is recommended that once preliminary design has been undertaken, more detailed service levels can be determined, then the relevant authorities and other interested parties can be consulted for their input.

8. Summary

A high level desktop review of the Cradle Mountain Master Plan has been undertaken with respect to land use planning and environmental approval requirements, traffic management and servicing arrangements. Whilst the desktop review has not identified any 'show stopping' constraints to implementation of the Master Plan, further detailed investigations will need to be undertaken.

Appendix A

Cradle Mountain Master Plan

Cradle Master Plan

Title

Cradle Mountain Master Plan & Tourism Strategy

Authors

Prepared by Cumulus Studio with input and advice from Inspired by Marketing and Simon Current and Associates

Consultation

The Master Plan is the result of consultation with the following major stakeholders:

- Parks & Wildlife
- Tourism Industry Council Tas
- Cradle Coast Authority
- Kentish Council, and
- Cradle Mt Tourism Industry

Road layout, car-parking requirements, and functional brief for the new Visitor Centre have been based on the 2011 Master Plan and Development Application.

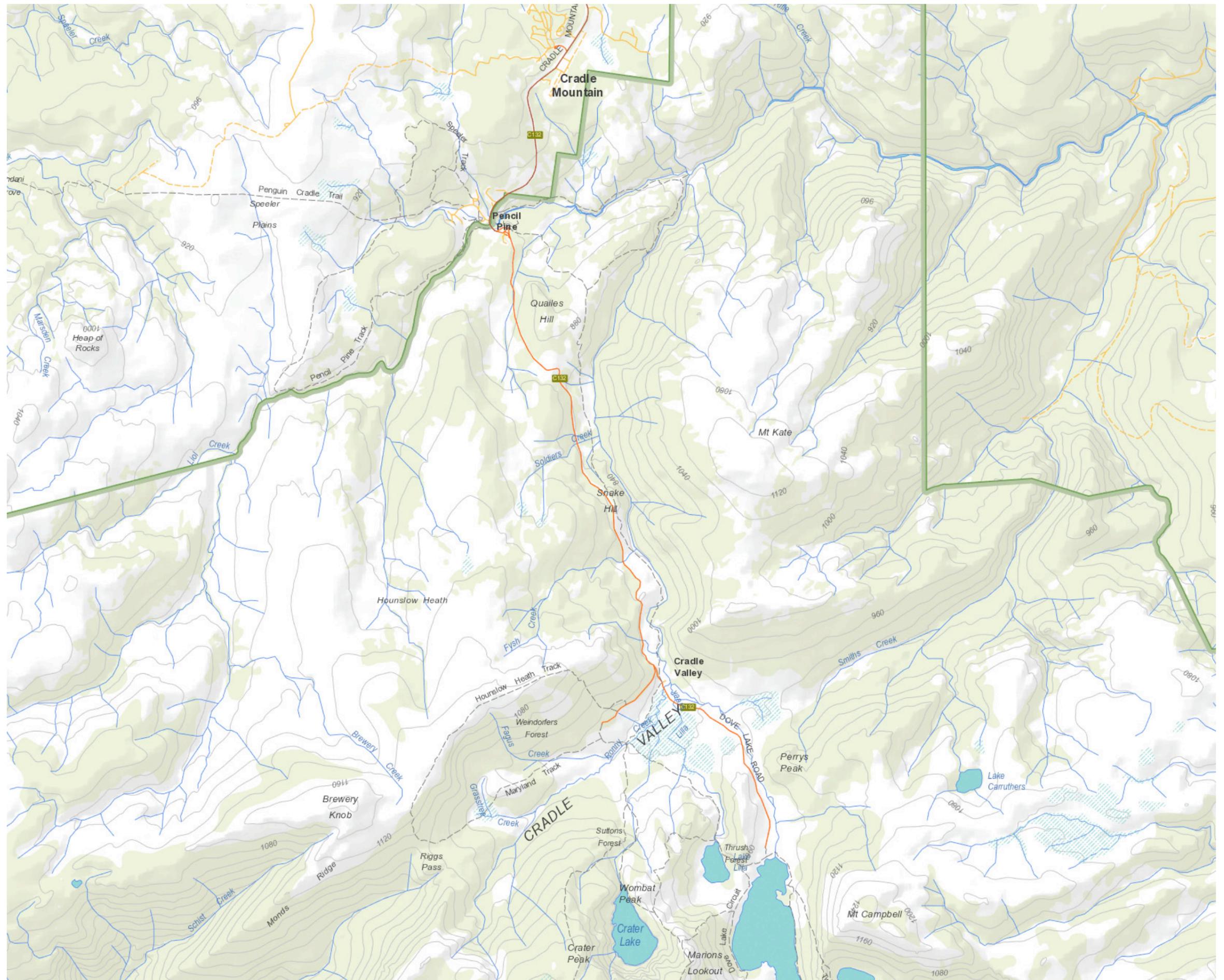
Skyrail Route and functional requirements are indicative only and subject to further consultation with potential operators

Stage

Draft - Preliminary Revision 1

Date

16 November 2015



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Major Sites

SITE 1: Leary's Corner

Provision of new signage indicating the start of the Cradle Mountain Precinct

SITE 2: Arrival Centre

Creation of a New Visitor & Information Centre, Skyrail Launch Point, Front Desk for Tourism Operators and Village Square

SITE 3: Existing Interpretation Centre

Existing Interpretation Centre is no longer required and options for reuse should be considered

SITE 4: Ronny Creek

Skyrail Stop and Start of Overland Track

SITE 5: Waldheim

Consideration should be given to use of the chalet for interpretation.

SITE 6: Dove Lake Shelter

The Destination Point for the Skyrail with a new Viewing Shelter located on Dove Lake

SITE 7: Lake Walk Pods

Provision of 4-6 walking shelter pods as rest spots around Dove Lake.



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Transport

PATH A: Road

A.1 Existing road access retained to Pencil Pines.

A.2 Existing Road converted to Cycle Track with gated access at Pencil Pines to limit vehicle access to Ronny Creek & Waldheim Cabins as required

A.3 Service vehicle access only to Dove Lake.

PATH B: Walking Track

B.1 Provide new walking track and cycle way (exact route to be determined) from Visitor Centre to link with existing board walk **B.2**

PATH C: Skyrail

Main vehicle access to the park to be via a new Skyrail transport system (exact route to be determined) from Visitor Centre to Dove Lake with stopping point at Ronny Creek (**4**)



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Arrival

2.1 Entry Road

Roadway to be reconfigured (as per previous master-plan) so that all traffic is directed into the new visitor centre which becomes the end point for majority of vehicles.

Access to the Devil Sanctuary, Cradle Mountain Lodge to be maintained through existing road with signposting from new centre.

The new centre will provide 200 car-parking spaces with an additional 200 overflow spaces, as well as DDA & Bus drop-off area.

2.2 New Visitor Centre

The New Visitor & Information Centre is located at end of runway clearing (similarly to previous master-plan) to take advantage of the view & form launch point into the WHA via walking tracks, cycle paths or Skyrail (C).

A.1 Existing Road

Road access to be retained to the Existing Interpretation Centre and for use as cycle way into the WHA

B.1 New Walking Track

New walking track to be provided

2.3 Village

A separate village area that consists of retail areas, cafe, storage and front desk(s) for Tourism Operators. This also provides area for future expansion.

3. Existing Interpretation Centre

The existing Interpretation Centre is no longer required as part of the Tourism strategy and should be considered for alternative uses.



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2.1 Site General

- a. redirected access to/ from main road
- b. future seasonal staff accomodation
- c. car-parking for approx 200 spaces (with existing facilities to be removed)
- d. overflow car-parking for over 200 spaces as well as longer term bus parking area
- e. shuttle bus lay by & drop-off (staged)
- f. disabled parking / drop-off/ service loading / unloading
- g. bus depot - total area 100m²
- h. service access & staff car-parking
- i. lookout
- j. landscaped forecourt
- k. outdoor events space
- l. entry courtyard & temporary event space

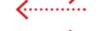
2.2 Visitor Centre

- m. covered viewing terrace/ deck
- n. entry, park registration offices & mixed retail
- o. toilets
- p. cafe & theatre space
- q. skyrail (above)
- r. skyrail terminal
- s. lobby space
- t. restaurant/ bar/ lounge

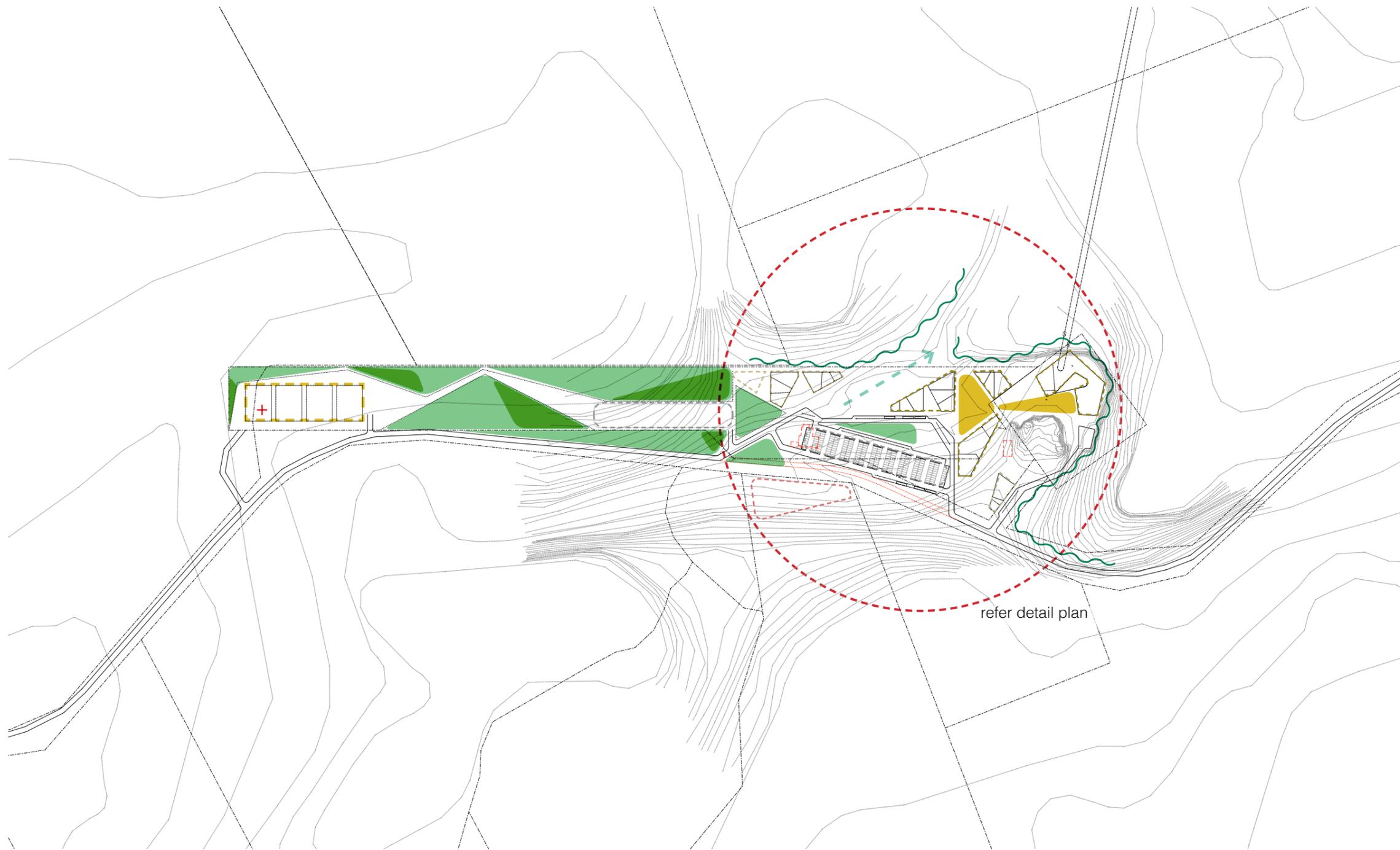
2.3 Village Centre

- u. mixed retail (5-8 operators - total area: 1,610m²)
- v. event space
- w. tourism operator front desk & storage (15 -20 operators - total area: 640m²)
- x. future village expansion

Legend

-  event space
-  view corridor
-  major access points - two way
-  two way road
-  one way road
-  out door event space
-  overflow event space
-  bush tracks
-  Lookout
-  green space
-  existing bush
-  landscape buffer
-  drop off point/pull over location
-  private tenure





Legend

- building envelope
- view corridor
- outdoor event space
- residential seasonal staff
- green buffers/earth berms
- existing bush
- + helicopter pad location
- hangers - capacity for 4 including pilot accommodation

Visitor Centre

2.1 Site General

- a. one way access road
- b. earth berm / landscaping
- c. car-parking - approx 200 cars
(with existing facilities to be removed)
- d. overflow car-parking
- e. bus lay by & drop-off
- f. disabled parking / drop-off
- g. service loading / unloading
- h. staff carparking
- i. pedestrian circulation
- j. landscaped forecourt
- k. entry courtyard

2.2 Visitor Centre

- m. covered viewing terrace/ deck
- m. (above) restaurant/ bar/ lounge
- n. entry, park registration & shop
- n. (above) skyrail terminal
- o. toilets
- p. parks & wildlife facilities
- q. skyrail line

2.3 Village Centre

- r. mixed retail
- s. tourism operator front desk
- t. future village expansion

**Detailed Plan
(to be provided)**



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Visitor Centre

Visitor Centre

Place Holder Text

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View 01
(to be provided)

View 02
(to be provided)



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Dove Lake Shelter

6.1 Site General

- a. skyrail line
- b. divert existing road to provide service & cycle access to viewing shelter
- c. remove existing car-park and landscape to blend into surrounding.
- d. existing road to be continued as new cycle path to meet existing walking track
- e. retain existing toilets
- f. remove existing shelter
- g. natural earth berm / landscaping
- h. existing walking tracks retained

6.2 Viewing Shelter

- i. sheltered skyrail terminal enclosure (earth covered)
- j. undercover skyrail terminal loading / unloading (earth covered)
- k. earth covered viewing enclosure including
 - picture window to lake
 - interpretation
 - limited food service
- l. toilets
- m. new path to connect up to existing walking tracks



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Dove Lake

Dove Lake Shelter

Place Holder Text

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View 01
(to be provided)

View 02
(to be provided)



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Lake Walk Pods

Lake Walk Pods

A selection of independent prefabricated shelters strategically located around Dove Lake to provide stopping / resting points that provide a unique perspective on the surrounding environment.

Consideration should be given to the following issues:

- benefits of installing pods at once or gradually over time
- potential to independently commission unique shelters for each location using different architects / artists
- opportunities provided by the unique site qualities of each location such as view, orientation, altitude, vegetation, etc

7.1 Location 1

Indicative location only, input required.

7.2 Location 2

Indicative location only, input required.

7.3 Location 3

Indicative location only, input required.

7.4 Location 4

Indicative location only, input required.

7.5 Location 5

Indicative location only, input required.



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