

Referral of proposed action

Project title: Scenic Rim Trail – Thornton Trailhead to Spicers Canopy Nature Reserve

1 Summary of proposed action

1.1 Short description

The Scenic Rim Trail proposal has been developed in response to a 2012 Queensland Government initiative to facilitate ecotourism on the state's national park estate. The location of the project is centred upon Main Range National Park and surrounding private lands, approximately 83 km south-west of Brisbane (Locality Map provided as **Figure 1**). The proposal entails a long range (~53 km) walking trail, made up of:

- 20.1 km of existing class 3 and 4 National Park walking track;
- 17.2 km of Class 5 track to be established within the National Park
- 5.6 km of existing National Park management roads and fire trails;
- 4.5 km of existing class 5 track on privately owned land; and
- 5.7 km of new class 5 track on privately owned land.

Figure 2 shows the sections of the trail on National Park land. The Gondwana Rainforests of Australia World Heritage Area (WHA) boundary mostly conforms to the boundary of Main Range National Park in this area, although a small section of the National Park is outside of the WHA boundary as shown on **Figure 1**.

Two overnight Ecocamps would be constructed within the National Park for Trail guests, and two further accommodation nodes would be constructed on freehold land outside of the National Park boundary. Privately-owned former grazing properties on the northern and southern boundaries of the National Park will be used to provide part of the walking trail.

The proposed overnight facilities would be for the use of Scenic Rim Trail guests only and all guests would be accompanied by guides (Ecoguides) at the camps and on the trail. Existing and new sections of trail within Main Range National Park would be open to public use, regulated by the Queensland National Parks and Wildlife Service with monitoring, management and maintenance contribution from Scenic Rim Trail.

A GIS vector (shapefile) dataset showing the location and boundaries of the area in which the project is to occur has been provided separately.

FIGURE 1. LOCALITY MAP

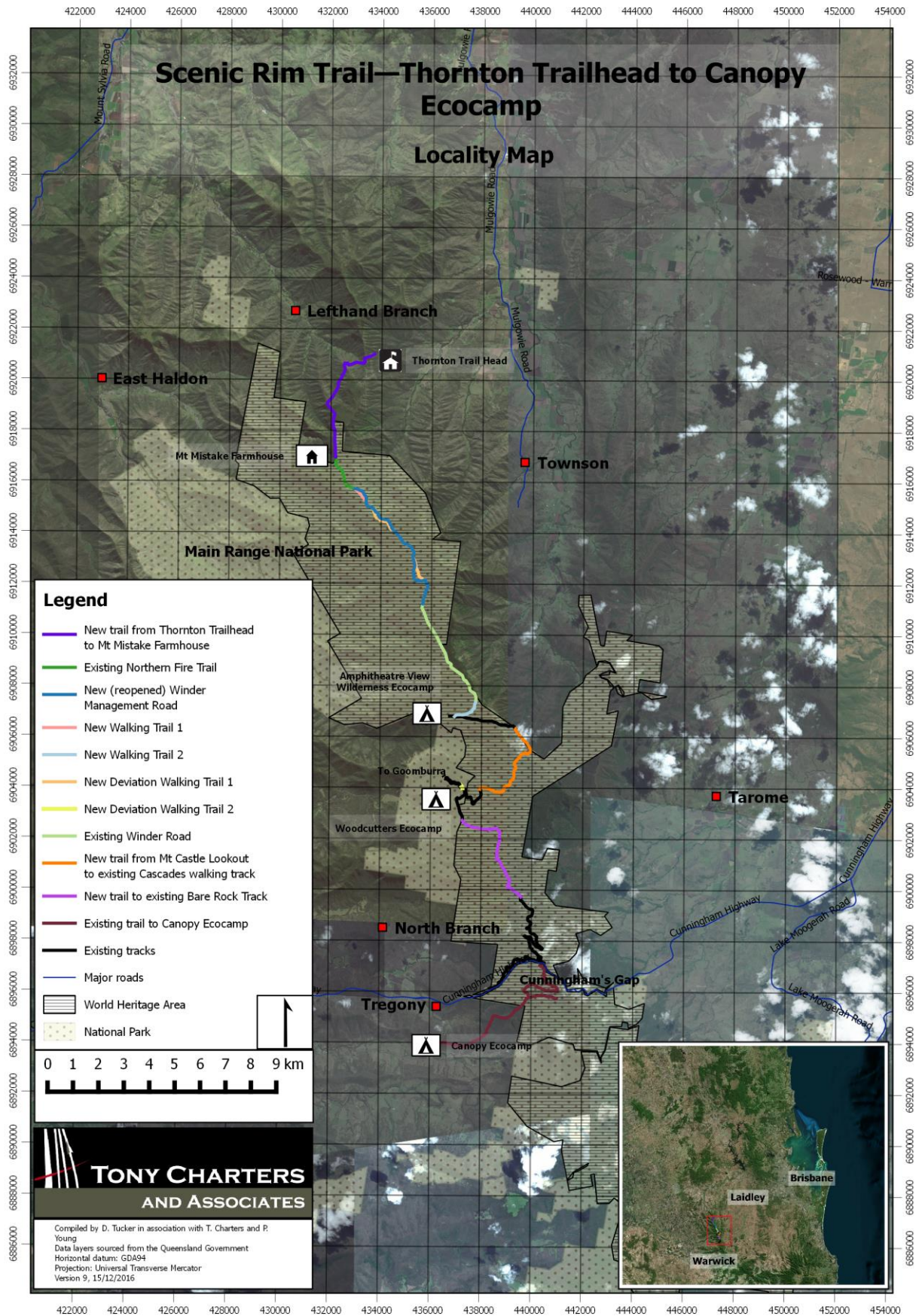
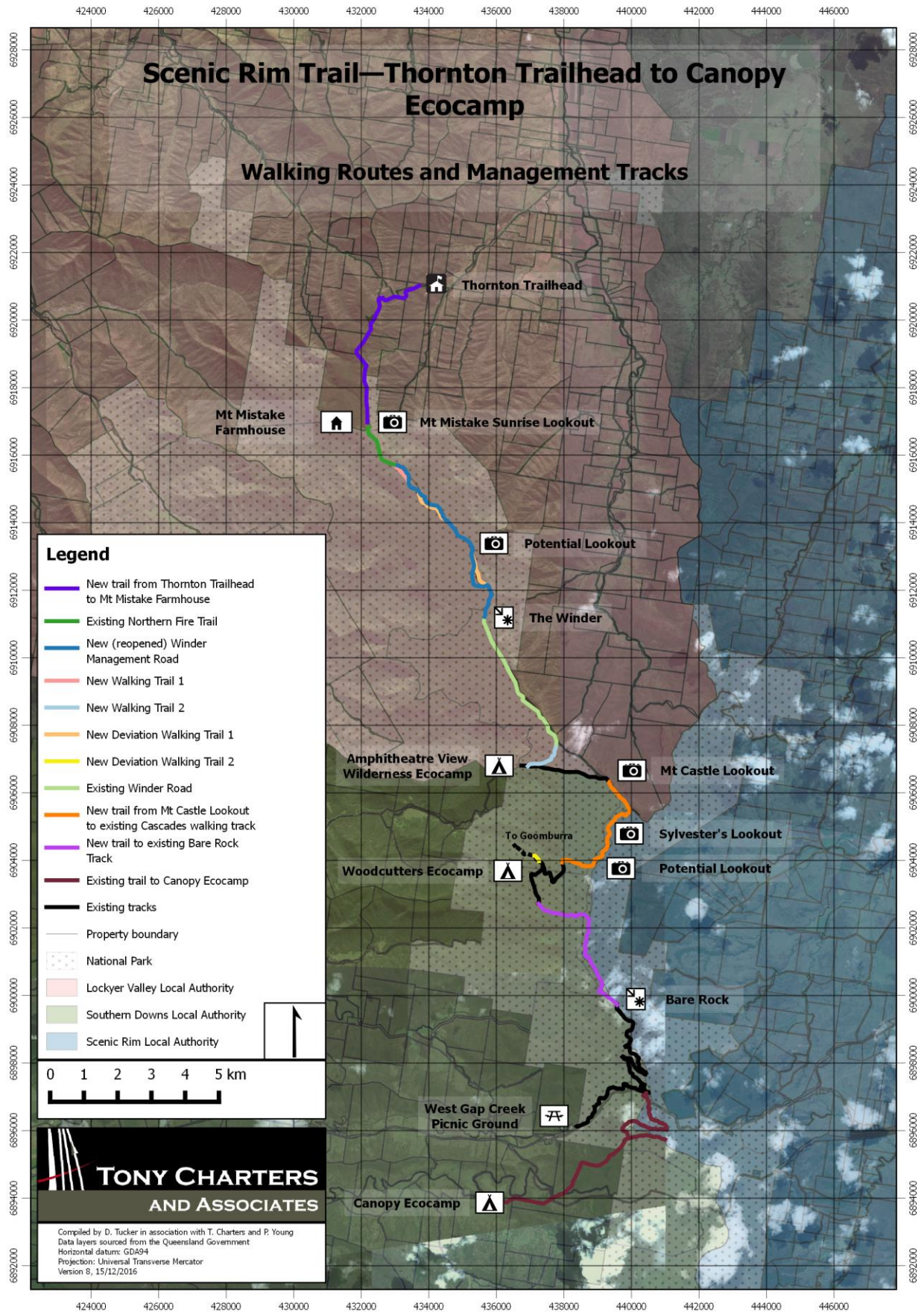


FIGURE 2. SCENIC RIM TRAIL – THORNTON TRAILHEAD TO CANOPY ECOCAMP



1.2 Latitude and longitude

Location Point	Latitude			Longitude		
	deg	min	sec	deg	min	sec
1	-27	49	51	152	19	39
2	-27	50	11	152	19	44
3	-27	50	28	152	18	59
4	-27	52	41	152	19	04
5	-27	53	55	152	20	27
6	-27	57	17	152	22	15
7	-27	58	37	152	24	40
8	-27	59	42	152	22	51
9	-28	01	36	152	23	25
10	-28	04	02	152	24	18
11	-28	04	53	152	22	24
12	-28	04	52	152	20	40
13	-28	04	23	152	20	46
14	-28	03	36	152	23	03
15	-28	01	59	152	23	05
16	-28	00	21	152	22	12
17	-27	59	58	152	21	21
18	-27	58	58	152	21	31
19	-27	59	03	152	22	36
20	-27	58	11	152	22	42
21	-27	57	54	152	21	11
22	-27	54	42	152	20	17
23	-27	52	44	152	18	32
24	-27	50	58	152	18	20
25	-27	50	04	152	18	45

Point 1 is in the extreme north-east of an approximately 10,000 ha envelope containing the proposed activities. Points oriented clockwise.

A GIS polygon layer of the referral area has been provided in accordance with the GIS data supply guidelines.

1.3 Locality and property description

The proposed activities are confined to Main Range National Park (750 & 933/NPW718) and surrounding freehold land (see Section 1.6). The northern extent of the activities are located 27 km south of the township of Laidley, 47 km north-east of Warwick and 83 km south-west of the Brisbane GPO. At this location the Main (Great Dividing) Range splits. The Great Dividing Ranges trend north-west towards Toowoomba and the off-shoots of the Main Range and Little Liverpool Ranges trend northwards. A map showing the location of the project is provided as **Figure 1**.

1.4	Size of the development footprint or work area (hectares)	<p>The footprints of individual work areas are comprised of:</p> <ol style="list-style-type: none"> (1) 6.45 km of re-opened 2.5 m wide Winder Management Road – a linear footprint of 1.55 ha that supports regrowth vegetation. (2) brushing back localised patches of dense rainforest regrowth vegetation by hand only where necessary for 22.5 km of new Class 5 walking trail. Class 5 walking trails are essentially footpads and the trail will follow existing footpads and animal tracks wherever possible. (3) new walking trail on steep, rocky slopes and where there is a design element included for erosion management and flora and fauna impact minimisation for track construction on short, steep slopes and a creek crossing with steep banks – total area around 0.4 ha. (4) Amphitheatre View Ecocamp and lookout –, removal of an area of 0.08 ha of ground layer vegetation and shrubs to accommodate buildings and associated tracks to individual camps and look-out, and the lookout pad. (5) Woodcutters Ecocamp – located in a previously cleared area, removal of an area of 0.05 ha of ground layer vegetation and shrubs to accommodate buildings and associated tracks to individual camps. <p>The approximate area where regrowth shrub and ground layer vegetation would be removed is 2.15 ha.</p> <p>In addition there will be localised disturbance in non-remnant vegetation for the establishment of the proposed viewing platform near Mt Mistake Farmhouse which is a cleared area now populated by Kikuyu pasture just inside the National Park Boundary on the edge of the scarp (0.01 ha).</p>
1.5	Street address of the site	Not applicable
1.6	Lot description	<ul style="list-style-type: none"> • 148/CH312013, 126/CC446, 209/CC761 and 54/CC792 (Freehold)– Trail from Thorntons Trailhead to Mt Mistake • 144/CC761 (Freehold) – proposed Mt Mistake Farmhouse • 750 & 933/NPW718 (National Park) – proposed Scenic Rim Trail, Amphitheatre View Ecocamp, Woodcutters Ecocamp. • 1116/M34498 (Freehold) – Spicers Windmill Ecolodge
1.7	Local Government Area and Council contact (if known)	<ul style="list-style-type: none"> • The Mt Mistake Farmhouse and Amphitheatre View Wilderness Ecocamp will require approval by Lockyer Valley Regional Council.
<p>Construction and operation of these facilities on private land will only occur if the Scenic Rim Trail is granted approval through State and Commonwealth development approval processes. As such, only very preliminary discussions have occurred with the relevant regional authorities.</p>		

1.8 Time frame

A Construction Timetable is included as **Attachment 1**. It is a 26 week construction programme.

A nominal commencement date is March 2017, although this is dependent on approval timeframes.

1.9	Alternatives to proposed action Were any feasible alternatives to taking the proposed action (including not taking the action) considered but are not proposed?	X	No
			Yes
1.10	Alternative time frames etc Does the proposed action include alternative time frames, locations or activities?	X	No
			Yes, see Section 2.3
1.11	State assessment Is the action subject to a state or territory environmental impact assessment?		No
		X	Yes, see Section 2.5
1.12	Component of larger action Is the proposed action a component of a larger action?	X	No
			Yes
1.13	Related actions/proposals Is the proposed action related to other actions or proposals in the region (if known)?		No
		X	Yes, see Section 2.7
1.14	Australian Government funding Has the person proposing to take the action received any Australian Government grant funding to undertake this project?	X	No
1.15	Great Barrier Reef Marine Park Is the proposed action inside the Great Barrier Reef Marine Park?	X	No
			Yes

2 Detailed description of proposed action

2.1 Description of proposed action

The Scenic Rim Trail – Mt Mistake to Spicers Peak Nature Refuge (**Trail**) is a commercial proposal to establish a multi-day supervised bushwalking experience for small groups (numbering up to 10 guests) of experienced bushwalkers from Mt Mistake to Spicers Peak Nature Refuge in the Main Range on the western part of the Scenic Rim, part of Main Range National Park and the Gondwana Rainforests of Australia World Heritage Area.

The project involves one way guided hikes traversing the Scenic Rim Trail from north to south. Traversing in a one-way direction is consistent with most of the long range walking trails in Australia (e.g. Larapinta, NT; Australian Alps Walk, NSW, Vic; Overland Track, Tas; South Coast Track, Tas; Fraser Is Great Walk, Qld; Wilderness Coast Walk, Vic, NSW). One-way traversing is an important environmental risk management feature as it both reduces the likelihood of interactions with other walkers and restricts entry points.

The Trail traverses sub-tropical rainforests, tall eucalypt forests, mountain heathlands, waterfalls and spectacular views. The entire length of the Trail is almost 53 km. It is made up of existing National Park tracks, management roads maintained by Queensland Parks and Wildlife Service (QPWS), existing walking tracks and new walking tracks through National Park and privately owned land. The proposal would also involve the re-opening of an old forestry road for access and trail management by ATV vehicle.

The walking trail is designed for backcountry remote walking and will involve minimal 'hardening' of the trail and minimal signage. The focus of the walk will be on the natural and cultural heritage values of the World Heritage Area.

An appreciation of and desire to conserve the World Heritage Values and other matters of national environmental significance in the area are paramount considerations behind the proposal.

As a result, expert ecological advice has informed careful design and operation modifications to avoid and minimise already minimal environmental impact.

This commitment continues, and at all stages of implementation and operation, steps will be taken to protect these values, both cultural and natural.

This is being achieved through a range of initiatives, which each contribute to and improve the protection and conservation of the area:

- limiting use of the Trail to small groups (up to 10 guests) and limited departures per week, with operations scaled back in the summer months (prime growing season);
- involvement of a group of leading specialists in natural and cultural heritage assessment, ecotourism planning and development, sustainable architecture, fire management and heritage interpretation;
- integrating the work of the Hidden Vale UQ Wildlife Centre (see Appendix 2 of Attachment 2) with the Trail and surrounding environs in relation to key species such as the Eastern Bristlebird, Brush-tailed Rock-Wallaby and Hastings River Mouse; and
- committing to ongoing monitoring, management and maintenance of the trails and tracks over the life of the project.

Expert ecoguides will supervise and deliver wildlife interpretation to those experiencing the Trail. The ecoguides will be highly trained. At times the trail will be led by renowned experts from a broad cross section of disciplines to provide guests with a rich understanding of the region's values. Experts will be drawn from local and national universities, research organisations and community groups.

Specialist walks that focus on nature photography, bird watching, indigenous foods, and many other natural and cultural history themes will be offered.

It is also planned, under careful supervision, to involve guests in conservation related programs, working in association with conservation groups such as Conservation Volunteers Australia.

The Trail, which is approximately 53 km in length, has been ground-truthed and points recorded at approximately 100 m intervals using a hand-held GPS for all new sections of track. Relevant physical and biological data has been recorded along the route. Options for difficult parts of the route were investigated to find alternatives that would lessen any impacts on the environment.

The proposed walking trails are to be established to the Class 5 standard as defined under the Australian Walking Track Grading System. Class 5 trails do not modify the natural environment, exhibit little modification to natural surfaces and are recommended only for very experienced bush walkers. Class 5 trails are to be established in order to minimise and where possible entirely avoid environmental impact.

A photograph of an existing footpad through logged rainforest in the project area is provided as **Photo 1**. The proposed Class 5 trail will appear much the same as the footpad through such areas, with vines and ferns tending to grow into the gap when the trail is unused for any period (e.g. over a wet summer).



Photo 1. Existing footpad demonstrating the appearance of a Class 5 track through vegetation with fern and vine groundcover

The Trail comprises approximately:

A walking trail of some 53 km in length made up of:

- 20.1 km of existing class 3 and 4 National Park walking track;
- 17.2 km of Class 5 track to be established within the National Park
- 5.6 km of existing National Park management roads and fire trails;
- 4.5 km of existing class 5 track on privately owned land; and
- 5.7 km of new class 5 track on privately owned land.

The existing National Park walking tracks (and their approximate lengths) that form part of the Trail include:

- Bare Rock to Cunningham's Gap walking track – 6.1 km
- Cunningham's Gap to Mt Mitchell walking track (and return to junction) – 5.8 km
- A section of the Cascades and Ridge Track - 1.8 km
- Part of the existing Winder Track walking track - 5.5 km
- Mount Castle Lookout walking track - 0.4 km

As set out in Figure 2 the new trails to be established within the National Park (and their approximate lengths) include:

- 6.45 km of Class 5 walking trail (and shared All Terrain 4WD Vehicle road) from the southern end of the Northern Fire Trail to the northern end of the existing Winder Track. This section is known as the Winder Management Road and involves some sections of new class 5 trail running roughly parallel to the Winder Management Road to enable walkers to experience viewpoints, differing vegetation types and interesting specimen trees;
- 2.3 km deviation from the Winder Management Road to avoid steep road area and to enable views from the escarpment;
- 0.7 km of class 5 trail to avoid exposed heavily weed infested area at the commencement (northern end) of the Winder Management Road;
- 1.2 km of class 5 trail to link from the Winder Track to the Amphitheatre View Wilderness Ecocamp;
- 0.23 km deviation off Cascades Circuit to obscure Woodcutters Ecocamp;
- 4.5 km of Class 5 trail between Mount Castle Lookout and the Cascades Trail;
- 4.9 km of Class 5 trail from Banshee Fire Line to Bare Rock; and
- 0.5 km Mt Mitchell track to Spicers Peak Nature Refuge.

The existing National Park management roads and fire trails include (and their approximate lengths) include:

- Mt Castle Western Fire Line from Amphitheatre View Wilderness Ecocamp to Mount Castle Lookout (2.7 km);
- Northern Fireline from northern boundary of Main Range National Park south to the northern end of the old winder management road (1.5 km); and
- Banshee Fire Trail (1.4 km).

In addition vehicular access would be required to approximately:

- 2.5 km of the Cascades Circuit (the management road section) from Manna Gum Camping Area to the Woodcutters Ecocamp for servicing of guests and maintenance of the Ecocamp;
- 2.3 km Amphitheatre View Wilderness Ecocamp using the Mt Castle Western Fire Trail track for servicing of guests and maintenance of the Ecocamp.

The existing class 5 track on privately owned land includes approximately:

- 4.6 km Mt Mitchell to Canopy Ecocamp of track on Spicers Peak Nature Refuge

A new trail to be constructed on privately owned land comprising approximately:

- 5.7 km of Class 5 trail between Thornton Trailhead and Mt Mistake Farmhouse (freehold).

Assembly and placement of two overnight lodgings (Ecocamps) to sleep a maximum of 12 persons within Main Range National Park and two overnight lodgings on privately owned land outside of the National Park is proposed (**Figure 2**).

The disturbances associated with the proposal are confined to:

- removal of ferns, vines, shrubs and small trees which have colonised parts of the rehabilitating Winder Management Road alignment and soil disturbance in locations where the road surface needs to be re-formed with a total disturbance area of 1.5 ha;

- removal of shrubs, vines and ground layer plants in previously cleared areas on pads for the two Ecocamps located within the National Park with a total disturbance area of 0.09 ha;
- hand brushing and trimming of vines and shrubs in localised patches of dense rainforest regrowth within the Class 5 trail to allow walkers to pass;
- disturbance of ground stratum ferns, seedlings and forbs within the national park to accommodate a narrow contoured path along sections of steep slope on the Class 5 trail with a total disturbance area of approximately 0.4 ha; and
- disturbance of ground stratum mostly grasses within private land to accommodate a narrow contoured path along sections of steep slope on the Class 5 trail with a total disturbance area of approximately 0.04 ha.

Re-opening of disused logging road (Winder Management Road)

The Winder Management Road was used as an access road through to Laidley for farming, snigging, logs, storing logs and hauling logs to local mills from at least the 1880s (The Brisbane Courier Tues June 1998, "The field Naturalists at Mt Mistake" Page 7 Trove.nla.gov.au./newspaper/article/3472972#) through to the 1980s.

When constructed, the road was 4.0 m wide (and up to 8-10 m wide in sections) and mostly traverses Cool Subtropical Rainforest (CSRf) apart from small areas on highest ridges (1050-1060 m) where the rainforest is transitional between CSRf and Warm-Temperate Rainforest (WTRF). A section at the far northern end of the national park exits the rainforest and traverses *Eucalyptus* open forest for 250 m. The road follows an undulating ridge (the crest of the Mistake Range) and has earth cuts formed by mechanical means on slopes to reduce gradients. It appears to have been sited with limited clearing as it passes close to the base of large living buttressed trees (e.g. Yellow Carrabeen *Sloanea woollsi*) which still bear the imprint of mechanical damage. Consequently, much of the road has retained a tunnel effect with a closed overhead canopy. However, the road traverses some patches of rainforest which remain relatively open because of high intensity former logging, hauling and storage (log dump) activities.

The proposed re-opening of a 2.5m wide track within the original road alignment is limited to vehicular access to the walking trail and the Ecocamp areas. It would not be open to the public for vehicular access. A Class 5 trail will be located parallel to the road in places, and significant sections will be for shared use. The proposed ATV vehicular use of the trail along the Winder Management Road is necessary for all weather emergency evacuations, safety, operational/logistical purposes; feral management control and weed management. ATV's are light weight 4WD and 6WD vehicles that run on low pressure balloon tires and have sophisticated suspension that minimises ground impact.

The new road would also provide management access for QPWS into the northern section of the National Park for fire management and other operational needs.

Safety and Evacuation

The Winder Management Road would provide a vital alternative access/egress route to evacuate guests, the general public, staff and contractors staying at the Mt Mistake farmhouse or using the Scenic Rim Trail in the event of:

- a fire emergency which requires exit via the Thornton or Goomburra roads;
- flooding at the Goomburra end of the Trail;
- flooding at the Thornton end of the Trail;
- road closure of the Mt Mistake Road due to an extreme rain event and associated slips; and
- medical evacuations due to personal health issues or environmental issues such as bites, stings, broken bones, rolled ankles etc.

The strategic location of The Winder Management Road enables the evacuation of guests who have discovered they do not have the fitness levels required to undertake the walk. This is not likely to be a common requirement, as fitness issues generally become evident in the early stages of a long-range walk.

Under this proposal it will be possible to gain close emergency access to walkers on the first 21kms of the walk.

Operational/Logistical

Walkers will be carrying a daypack with a minimum of 3 litres of water, lunch and snacks, wet weather gear (warm clothes in winter) and personal effects such as GPS, binoculars, camera etc. Commercial walking groups will be serviced by a back-up crew that will carry the personal gear of walkers (clothing, personal effects and equipment of guests for six days); drinking water for the next day; and refrigerated fresh food for the evening meal and breakfast. At all other Ecocamps it will be possible to service the guests from southern Goomburra end of the Trail. For example the Woodcutters Hut is accessible from Goomburra Valley. Hidden Peaks Ecocamp is accessible from the Cunningham Highway. In the case of the section from Mt Mistake to Amphitheatre View the SRT trail needs to be used. Emergency access off Mt Mistake to Main Camp Creek Road is via a steep unsealed track that is not reversible in inclement weather. This route provides the safest egress in the event of emergency from the Mount Mistake eco camp. Operationally, the only other way to transfer guests' luggage and personal effects is to transport it 250 km via Thornton, Mulgowie, Grandchester, Rosewood, Mt Walker, Rosevale, Moorang, Tarome, Aratula, Maryvale, and Goomburra. This is not operationally or financially feasible. The walking route on this day is quite remote and over a long distance (some 18kms). A Gainsdale crew will use a 4WD ATV to go in advance of the walking party to prepare the Amphitheatre View Wilderness Ecocamp for guests and to deliver luggage. At the Wilderness Ecocamp the crew are a maximum of 14 km from walkers and can render emergency assistance if required via The Winder Management Road. The road will be used by a 4WD ATV associated with each Gainsdale SRT departure group. Day to day maintenance of the Amphitheatre View Wilderness Ecocamp will be undertaken from the southern, Goomburra end of the SRT.

Road Standards

The road re-opening will require removal of plant regrowth. Trees will be avoided wherever possible, and there is limited regrowth of trees on the old road alignment due to the shady conditions and the compacted road base that was designed for logging trucks and equipment. Drainage work will be undertaken to slow and divert water flow on long slopes. Road engineering advice will be engaged pre-construction to undertake inspection of the entire road alignment and to recommend road treatments that will retain the low key nature of the trail and sustain the level of use predicted. The Development Proposal and Environmental Management Plan (DPEMP) in Attachment 2 sets out the range of conditions that will be encountered on the desired approach.

The road will not be over-engineered. On the contrary, the approach will minimise impacts and maintain a pleasant rainforest walk and will be designed to ensure the re-opened road minimises erosion and siltation. Clean quarry-supplied gravel/road-base may be required in localised areas. The brushing and groundworks will open the road to a maximum width of around 2.5 m. The objective will be to minimise disturbance to ground surface. The trail will present as a narrow rainforest track with ferns and low growing vegetation growing across the track and natural leaffall softening its appearance.

Walking Trails

The alignment of the Trail is constrained by the narrow nature of the crest of the Mistake and Main Ranges within much of the proposal area. Consequently large sections of the route are located close to the eastern escarpment. The extensive forestry operations that occurred in this area over many decades resulted in a network of snig tracks, fire lines and logging access roads generally following the line of least gradient. These old tracks are to be utilised wherever possible.

The route between Thornton and Mt Mistake Farmhouse (a distance of some 5.7km) commences with a short, newly constructed walking track until it reaches a cliff line of some 20-25 m height. An engineered enclosed ladder (or similar) will be attached to this cliff to enable walkers to gain access to the escarpment. The trail then proceeds south following the escarpment, largely following pads formed by cattle which follow the top of the escarpment and to the Mt Mistake Farmhouse.

From the Mt Mistake Farmhouse to the first Wilderness Ecocamp, Amphitheatre View Wilderness Ecocamp, walkers will follow a fire trail management track, then an old forestry road which runs for approximately 6.5 km before joining The Winder walking track(which was originally part of the old Forestry Road). The Winder walking track is followed for 4.7 km before branching off to a connector track into the ecocamp. The total walking distance for this day is approximately 14 km.

From Amphitheatre View Wilderness Ecocamp to the next Ecocamp, Woodcutters Ecocamp, walkers will use a combination of management roads, existing class 4 walking tracks and new sections of class 5 walking track. The total walking distance for this day is approximately 9km.

Woodcutters Ecocamp to Cunningham's Gap uses a combination of fire trails, old snig tracks, new class 5 walking track and existing class 3-4 walking track. The total walking distance for this day is approximately 13km. Walkers with Gainsdale Pty Ltd would then be picked up and driven down to the Hidden Peaks Ecocamp on privately owned land. The following morning they would be driven back up to Cunningham's Gap and dropped off for the walk to Canopy Ecocamp.

The Trail will continue on the Mt Mitchell track, then follows a short existing connector track (approximately 450 m of Class 5 standard trail) onto the Spicers Peak Nature Refuge. Walkers will then be guided along the existing track to Canopy Ecocamp. The total walking distance for this day is approximately 11 km.

The proposed disturbances associated with preparing the track will be limited to brushing dense growth of vines and undergrowth in places to provide a narrow passage through heavily disturbed/regrowth rainforest and measures to prevent erosion and to enhance hiker safety on several sections of steep slope.

Photo 2 shows a view of an existing unmade track (equivalent to a Class 5 track) which is north of Sylvester's Lookout, providing access for walkers to a feature called Hole in the Wall near Mt Castle.



Photo 2. Existing unmade track north of Sylvester's Lookout demonstrating the appearance of a Class 5 track with boulders in situ

Existing National Park Walking Tracks forming part of the Scenic Rim Trail

Ecocamps

Two overnight accommodation sites, Amphitheatre View Wilderness Ecocamp and Woodcutters Ecocamp, are proposed within the National Park. Amphitheatre View is within the WHA. The two other Ecocamps are proposed outside of the National Park and WHA (**Figure 2**).

Ecocamps will be comfortable but basic developed camp facilities. They will be individually designed to reflect the surrounding natural and cultural landscape and cater for the small groups of up to 10 guests and two ecoguides traversing the Trail at any one time. A small common building will provide for dining, food preparation, bathrooms and protection in bad weather. Small basic huts will be provided for walkers.

The existing Spicers Canopy on privately owned land is at the most developed end of the Ecocamp spectrum and accommodates up to 24 guests in 12 tent suites. The Woodcutter's Ecocamp and Amphitheatre View Ecocamp are both on National Park and are planned for 10 guests and two ecoguides. Two Ecocamps, one at Mt Mistake and the other on Spicers Peak Nature Refuge are planned for 10 guests and two ecoguides and are on privately owned land.

Ecocamps within National Park (Amphitheatre View and Woodcutters) and World Heritage Area (Amphitheatre View) will be designed to avoid trees to the greatest extent possible and individual camping pods will be placed in a free form way to avoid trees, rocks or other important landscape features. They would be constructed of lightweight materials and apply green building principles. These sites would be for the exclusive use of Trail guests. They would be obscured from the walking trail so as to provide privacy and security.

The Ecocamps will have no reliance on reticulated services. Given the absence of nearby mains power the Ecocamps would be self-sufficient for power, using a combination of solar and gas with a small back-up generator for emergency power. Water would be sourced from roof capture. Domestic waste would be removed from the site by maintenance staff after each walking party.

Structures will be prefabricated, and assembled on site on screw piles that enable water flows to continue unaffected. Two 4000 L plastic sealed septic tanks will be installed. One primary tank and one as an overflow tank (in the event of a prolonged period of wet water which precludes tanker access). The tanks would collect both grey and black water, and the primary tank will be emptied upon approaching capacity leaving the second tank for emergency situations. The tanks will be pumped out via a pipe that the small tanker truck connects to (with an on-board vacuum pump). Toilets will be ultra-low flush units (2 litre flush). A grease trap would be installed on the kitchen waste for disposal off site.

The management of the facilities, including weed and pest management, will be the responsibility of the proponent.

Amphitheatre View Wilderness Ecocamp site

The Amphitheatre View Wilderness Ecocamp would be located within a patch of *Eucalyptus* Open Forest, and there is an existing 4WD access to the site. Patches totalling 0.05 ha in the understorey of the Eucalyptus open forest will require brushing to remove shrubs and ground layer plants prior to assembly of the structures and to provide pedestrian access. There will be no disturbance of larger woody growth forms although some trimming of dangerous overhanging tree branches may be required for safety purposes. The flora of the site has been intensively sampled within a 0.10 ha plot enclosing the footprint (**Figure 3**). No EPBC Act listed species or Ecological Communities were recorded at the site.

A stylised view of a Wilderness Ecocamp is provided below. A photograph of a typical view of the proposed Amphitheatre View Wilderness Ecocamp site is provided as **Photo 3**.



Perspective stylised view of a Wilderness Ecocamp



Date & Time: Sun Dec 20 13:28:23 AEST 2015
Position: -027.96350° / +152.35344°
Altitude: 972m
Azimuth/Bearing: 075° N75E 1333mils (Magnetic)
Elevation Angle: -12.2°
Horizon Angle: +04.1°
Zoom: 1X
amphitheatre view site

Photo 3. Typical view of the Amphitheatre View Wilderness Ecocamp site

A lookout deck is also proposed at the Amphitheatre View Wilderness Ecocamp. This will be located on the northern side of the management track, at the end of a short track - down from the ridgeline to where views of the Amphitheatre open up. The view from the deck location is shown in **Photo 4**.

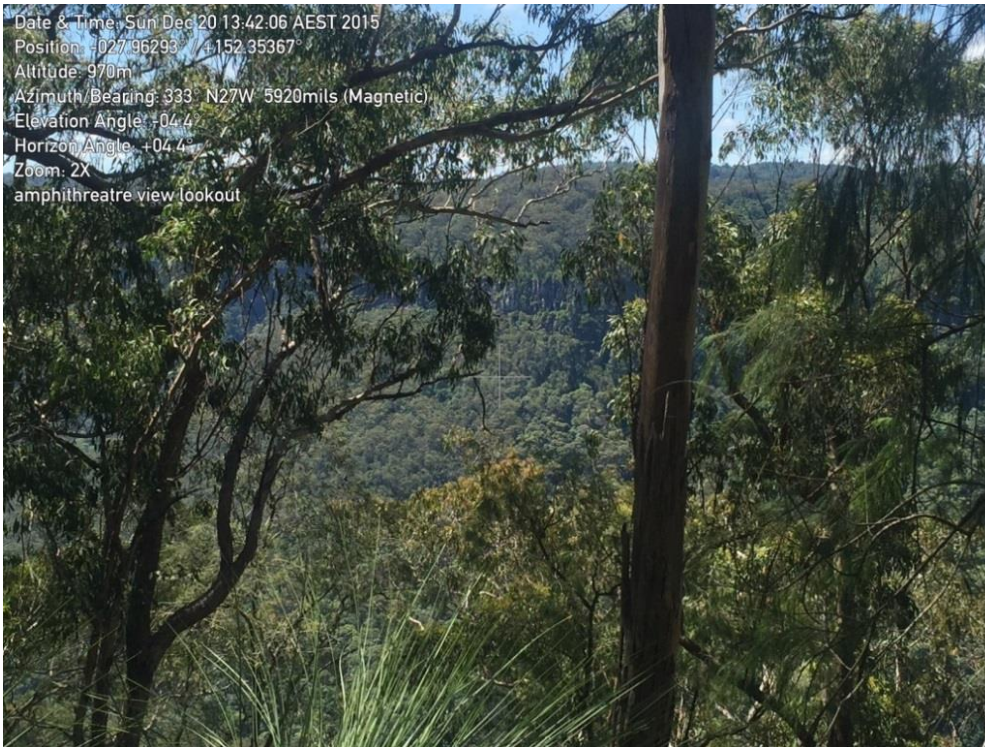


Photo 4. View from the proposed Amphitheatre View Lookout location

Woodcutters Ecocamp site

The Woodcutters Ecocamp site is located in an old cleared site that was used as a woodcutters camp and yard. While the site is within Main Range National Park it is located outside the Gondwana Rainforests of Australia World Heritage Area boundary. The previously cleared site is in a patch of New England Blackbutt *Eucalyptus campanulata* Tall Open Forest. This is the only occurrence of this vegetation type along the Trail. New England Blackbutt forms tall even-aged stands along parts of Main Range especially on trachyte and rhyolite. However, the New England Blackbutt forest around the Ecocamp site is growing on basalt rather than trachyte. Sydney Blue Gum grows with New England Blackbutt at moister sheltered sites. It is present in the vicinity of the Ecocamp site and coloniser rainforest trees and vines are also present.

A site plan is shown on **Figure 4**. A stylised view of an Ecocamp is provided below. A photograph of a typical view of the proposed Woodcutters Ecocamp site is provided as **Photo 5**.



Perspective stylised view of an Ecocamp



Photo 5. Typical view of the Woodcutters Ecocamp site

Hidden Peak Ecocamp site

The Hidden Peak Ecocamp was erected in 2016. The location of the Hidden Peak Ecocamp is within a cleared open grazing within open eucalypt forest country on the Clumber property owned by Gainsdale at the bottom of the Main Range. It is on private freehold land. Guests of the Trail will be picked up from Cunningham's Gap and driven down to Hidden Peak Ecocamp for an overnight stay. The next morning they will be driven back to Cunningham's Gap to undertake the Mt Mitchell Track to Spicers Peak Nature Reserve.

Mt Mistake Farmhouse site

The Mt Mistake Farmhouse is built on private land and requires the opening of the old Forestry Road from Mt Mistake/Thornton to Lookout Road, Goomburra (the road to Castle Mountain Lookout car park) in order to provide emergency evacuation and logistical support to the operation.

FIGURE 3. AMPHITHEATRE VIEW ECOCAMP SITE PLAN

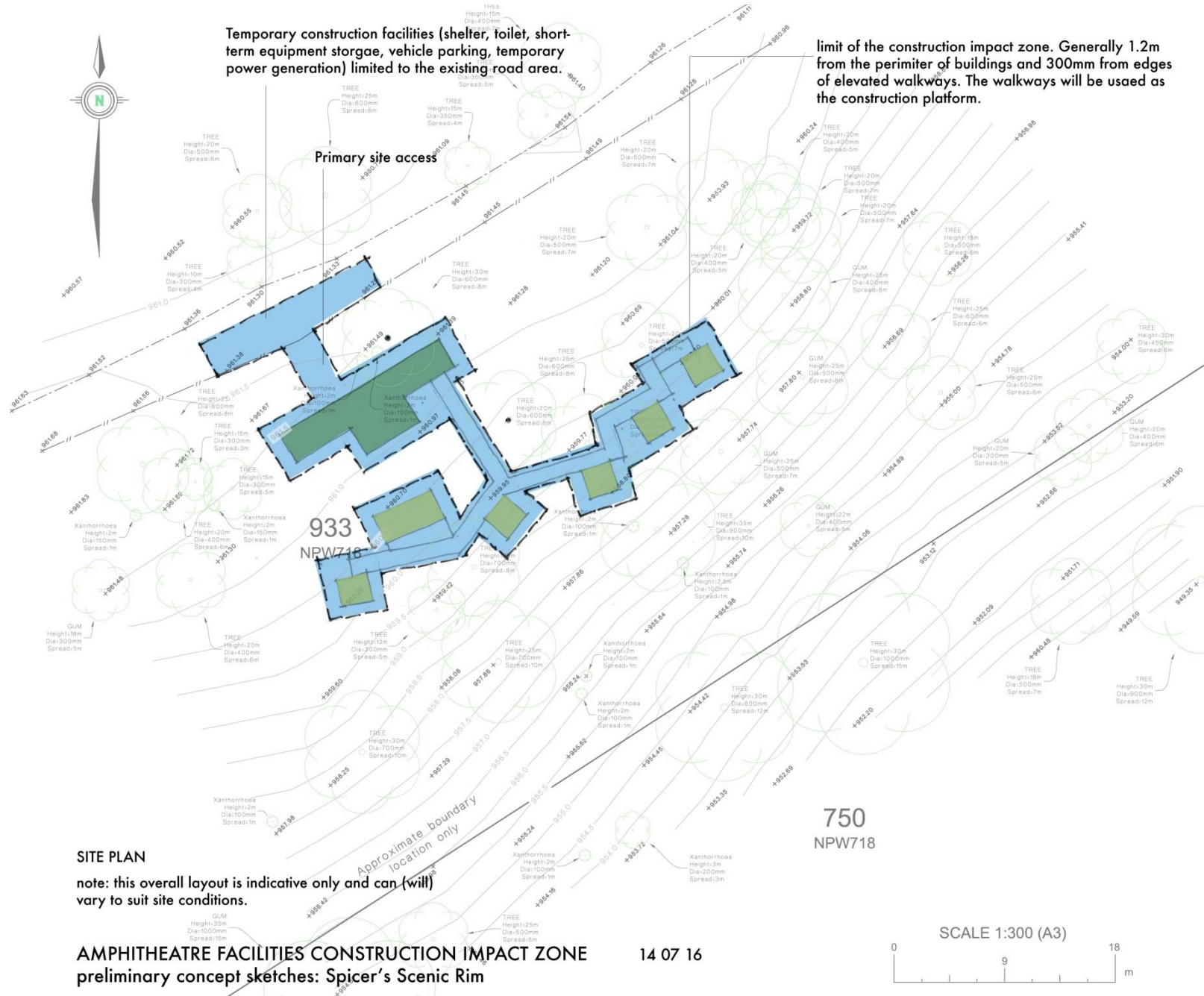
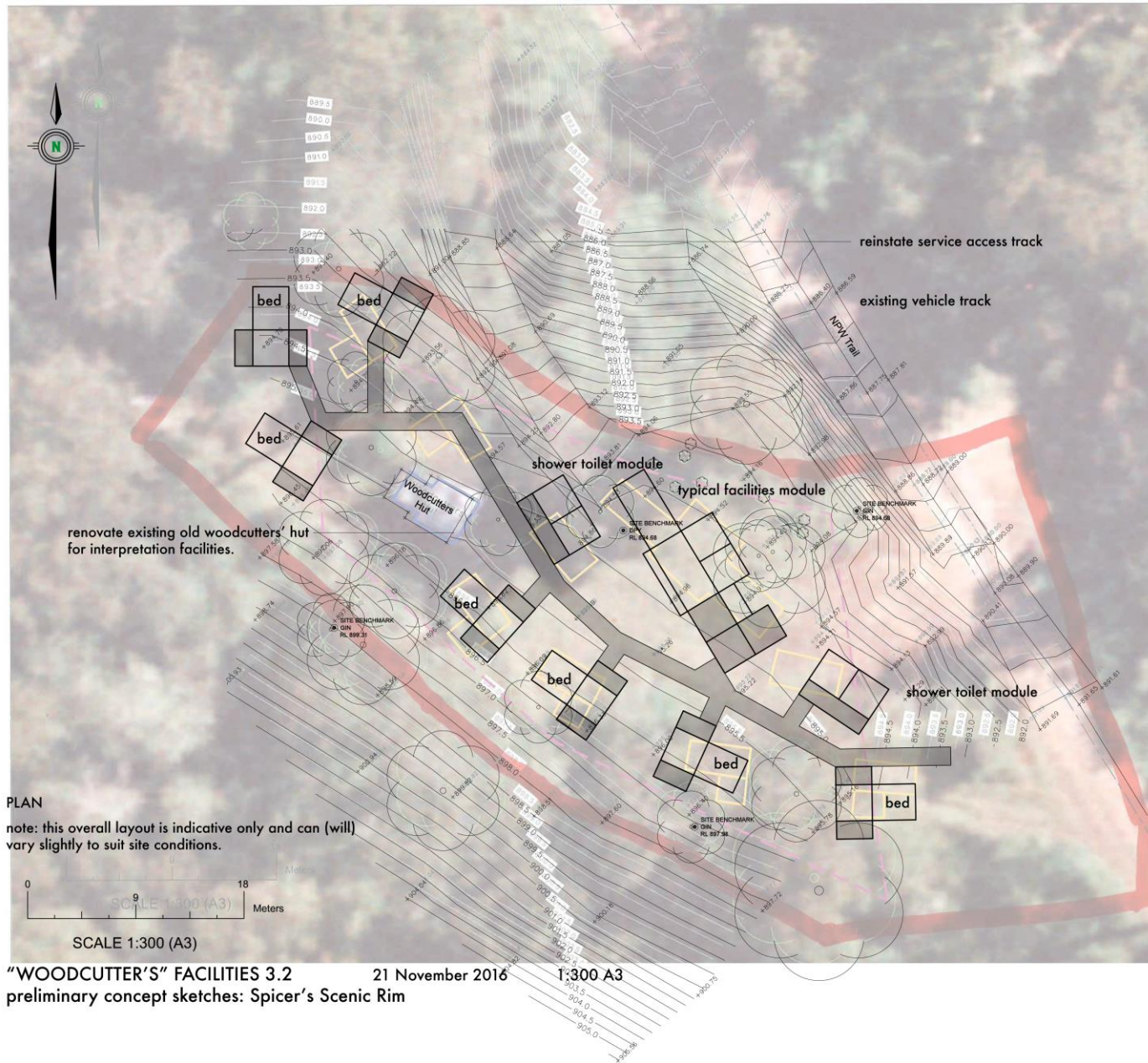


FIGURE 4. WOODCUTTERS ECOCAMP SITE PLAN



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Expected Visitor Numbers

Commercial walkers

It is expected that for six night/five day walk there will be an average of seven (7) walkers per departure, accompanied by two guides. The average number of departures will be two (2) per week for the first three years of operation and 3.5 per week from year four (4) on, for an estimated 44 operational weeks per year (leaving 8 continuous weeks for rehabilitation in the summer months). Based on these assessments, the number of Scenic Rim Trail walkers (including guides) is 792 walkers per year in years 1-3 and 1386 walkers per year thereafter. Walkers would traverse in a north-south direction.

No other commercial walking tours would operate on the Trail.

Independent walking public

It is proposed that use of the Trail by the general public be managed under permit by QPWS with a limit of 792 walkers per year in years 1-3 and 1386 walkers per year thereafter (i.e. the same numbers as Trail walkers). Permits would be issue for the same 44 week period as the Trail operations. Walkers would be required to walk one way from north to south and to camp in QPWS identified bush camping sites (maximum of one night stay at each bush camp). The booking system and any fees for public permits would be managed by QPWS.

The above regime would result in a maximum of 1,584 walkers per year in years 1-3 and 2,772 per year thereafter. By comparison:

- the Grampians Peak Trail Master Plan (a mix of Class 3, 4 and 5 tracks) estimates 13,800 walkers in year one and 34,000 per year in 2025;
- Three Capes Walk was developed (to a class 3 standard) on the assumption of carrying 10,000 walkers during its walking season (September to May);
- Thorsborne Track (class 5) allows up to 3650 walkers per year – a maximum of 40 walkers on the trail at any time;
- Overland Track (class 3-5) attracts around 8,000 walkers per year (October to May).

The Trail most closely aligns with the Thorsborne Track in terms of walker numbers.

There is a section of approx. 2 km of walking track to be established following the eastern escarpment from the point where Trail walkers deviate to head west to the Woodcutters Ecocamp and then return to the escarpment rejoining it 2 km to the south. This track would not be used by Trail walkers, but its impacts have been assessed as part of the proposal.

Support staff

Backing up the Gainsdale Pty Ltd walkers (and the two ecoguides) will be a back-up crew of up to two personnel who travel in advance of the walkers with their luggage and personal effects, fresh food and emergency equipment including first-aid. The support crew will go ahead to open up and prepared the Ecocamp and be on stand-by for any emergency situation. The support crew will return to the Ecocamp the following morning, clean the Ecocamp in preparation for the next group and then transfer luggage and fresh food supplies to the next evenings Ecocamp.

These activities will involve the following vehicle movements:

- To Mt Mistake Farmhouse on Day 1- by 4WD minibus and transferring equipment into an 4WD ATV (using public and private roads);
- To Amphitheatre View Wilderness Ecocamp on Day 2 via The Winder Management Road 4WD ATV (on National Park roads);
- Woodcutters Ecocamp via Lookout Road and Dalrymple Track on Day 3 by 4WD ATV 9 (on National Park roads);
- Woodcutters Ecocamp to Goomburra by 4WD ATV (on National Park roads), transfer gear to road registered 4WD minibus and drive to Hidden Peaks Ecocamp on Day 4 (on public roads);

- Drop walkers to Cunningham's Gap by 4WD minibus and then drive to Canopy Ecocamp on Day 5 (on public and private roads); and
- Return walkers and luggage to Hidden Vale by 4WD minibus on the morning of Day 6 (on public and private roads).

These vehicle movements will be associated with each departure – therefore in years 1 to 3 the average number of departures will be two (2) per week and 3.5 per week from year four on.

In addition to these vehicle movements there will be scheduled and emergent, non-scheduled need to undertake maintenance of the re-opened winder road – for any road or track repair along this alignment, trimming of overhanging vegetation within the 2.5 m opening; removal of fallen trees etc. It could be assumed that an average of one vehicle movement per week would be associated with such maintenance.

The other National Park roads (that are not public roads) ie the northern fire trail immediately south of the Mt Mistake farm; the Dalrymple Track, the Western Management Road and the Banshee Fire Trail will be used by Ecocamp service crews, periodic sewage tank pump out, periodic building maintenance, rehabilitation planting establishment, downed tree removal etc. It could be assumed that there would be an average of one Gainsdale Pty Ltd vehicle movement per week on each of these roads.

2.2 Alternatives to taking the proposed action

No alternatives were considered for the proposed action.

2.3 Alternative locations, time frames or activities that form part of the referred action

The trail has been proposed between the properties (Nature Refuges) owned by the proponent adjacent to the National Park so that the guest facilities at the entry and terminus of the Scenic Rim Trail can be constructed in locations outside of the National Park.

Alternative locations for eco-camps siting were evaluated against criteria contemplating minimising impacts on cultural, World Heritage and environmental values, practicalities of access, the extent of previous clearance and operational requirements.

The selected sites were determined to represent minimal environmental risk.

The trail and Ecocamp sites have been carefully situated in disturbed areas and following existing walking tracks or long-standing bushwalker routes wherever possible to achieve a least disturbance outcome.

An original proposal for reopening of the Winder Management Road to a width of 3.5 m has been reduced to 2.5 m width to reduce potential impacts of clearing regrowth vegetation.

A proposed mountain bike trail has been removed in order to remove their impacts on the Winder Management Road.

2.4 Context, planning framework and state/local government requirements

State and local government legislation and policies relevant to the proposal are listed and described in **Table 1**. In formulating the Development Proposal and Environmental Management Plan (Attachment 2) the policies and plans that have been considered are listed in **Table 2**.

Contacts for the Queensland authorities managing the project approval process to date are:

Anne Greentree - Executive Director, Business Development, Queensland Parks & Wildlife Service, Department of National Parks, Sport and Racing ph 0412 581 705 Anne.Greentree@npsr.qld.gov.au

Barry Baxter - Project Officer, Commercial and Recreation Development, Business Development, Queensland Parks and Wildlife Service, Department of National Parks, Sport and Racing ph 07 3199 7581 barry.baxter@npsr.qld.gov.au

Table 1. Relevant Legislation for the Scenic Rim Trail

Legislation or statutory policy	Potential Requirement			Application to the Scenic Rim Trail
	Approval	Permit	Compliance or Guideline	
Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i>	*			The EPBC Act governs threats and impacts on: (i) a listed threatened community; (ii) providing habitat for threatened species; (iii) located on a national heritage place or world heritage place; (iv) within the catchment of a declared Ramsar wetland; or (v) on Commonwealth land Approval will be required if the action is 'a controlled action'.
Commonwealth Environmental Offsets Policy	*		*	Offsets are required wherever significant residual impacts on matters of national environmental significance cannot be avoided in which case an Offset Strategy is required for submission to and approval by the Department of the Environment. No significant residual impacts for MNES have been identified.
Queensland <i>Nature Conservation Act 1992</i>	*	*	*	The approval process requires authority for the project to be granted under Sections 35 and 35A of the <i>Nature Conservation Act 1992</i> and must be managed according to the requirements of Sections 15 and 34(2) of the Act. The proponent must lodge an application for an authority to build in a protected area under Section 35 of the Act.
Queensland <i>Nature Conservation (Wildlife Management) Regulation 2006</i>		*		With regards to 'tampering with an animal breeding place', activities such as clearing of vegetation or disturbing the ground surface an area that supports an animal breeding place must be undertaken in accordance with a DEHP approved Species Management Program.
		*		With regards to taking protected plants by clearing, a protected plant survey is required if an area subject to clearing is within a "high risk area" on the flora survey trigger map. If no EVNT species are located, the results of the flora survey report are provided to DEHP with an exempt clearing notification form. Once acknowledgement of receipt is received, clearing can commence. No disturbance is planned within a "high risk area".
Queensland <i>Vegetation Management Act 1999</i>	*			Outside of the National Park, the clearing of vegetation to which the Act applies is "assessable development" under the <i>Sustainable Planning Act 2009</i> and will require a development approval in accordance with that Act.
Queensland <i>Biosecurity Act 2014</i>			*	Requires developers to appropriately manage all listed weeds encountered during the construction and operation stages.
Environmental Protection Act 1994/ Environmental Protection Regulation 2008			*	Compliance with General Environmental Duty, Environmental Protection Regulation and Environment Protection Policies for water, air, noise and waste at all stages of the project may be required. Preparation of an Environmental Management Plan will be necessary. None of the proposed activities represent Environmentally Relevant Activities as defined under the EP Act.
Queensland <i>Water Act 2000</i>	*			An approval may be required for operational work considered to affect overland flow water, if the operations are mentioned as assessable development in a water resource plan.

Legislation or statutory policy	Potential Requirement			Application to the Scenic Rim Trail
	Approval	Permit	Compliance or Guideline	
<i>Queensland Aboriginal Cultural Heritage Act 2003</i>	*		*	All indigenous cultural heritage sites and artefacts are protected under this Act. Developers have certain duty of care obligations not to harm cultural heritage sites or items of significance during all stages of the project. Compliance with the Act will require: (i) a formal request to search the Indigenous Cultural Heritage Register for any existing sites of significance; and (ii) Consultation with local Traditional Owners at all project stages. A cultural heritage survey may then be required if sites exist or there is some concern from Traditional Owners.
<i>Commonwealth Native Title Act 1993/ Native Title (Queensland) Act 1993</i>	*			A search of the Register of Native Title Claims, the National Native Title Register and the Register of Indigenous Land Use Agreements managed by the National Native Title Tribunal will be required to identify Native Title issues associated with the proposed trail and camp areas.
Sustainable Planning Act 2009/ State Planning Policy 2014/ Local Government Planning Schemes/ Local Laws	*			Outside of the National Park, development is regulated under the planning scheme or local law of the relevant local government authority. Development applications for the project will be prepared in consultation with Southern Downs Regional Council and Lockyer Valley Regional Council. A Material Change of Use development permit and operational and building works approvals may be required. Any areas subject to a State interest/jurisdiction or outside local planning schemes will be identified in the consultation process and processed via the State Assessment and Referral Agency.

Table 2 Policies and Plans Relevant to the Scenic Rim Trail

Policy or Plan	Application to the Scenic Rim Trail
South East Queensland Regional Plan 2009-2031	Statutory Regional Plan that provides an integrated whole of region approach to planning and governance.
A Master Plan for Queensland's Parks and Forests 2014	<p>The Master Plan outlines the strategic objects for management to 2025 in the five core QPWS Service Areas:</p> <ul style="list-style-type: none"> • Managing parks and forests for conservation and people • Facilitating ecotourism and heritage experiences within the protected area estate • Providing protected area services with Traditional Owners and Indigenous communities • Managing protected area permissions • Enhancing management capability.
Main Range National Park and Spicers Gap Road Conservation Park Management Statement 2013	Management Statements for National Parks in Queensland cover similar details to Management Plans, but are designed to be a more simple expression of management intent.
World Heritage Central Eastern Rainforest Reserves of Australia Strategic Overview for Management 2000	The overview was prepared by the Australian government in accordance with Australia's international responsibilities under the World Heritage Convention. It ensures that appropriate consideration is given to the World Heritage values of the Gondwana Rainforests of Australia World Heritage Area by managers when developing management prescriptions of the individual reserves in the listed area.
Draft 2015-2020 Queensland Ecotourism Plan	At its core the QEP states a commitment to collaboration and partnerships to facilitate best practice ecotourism experiences that provide a positive contribution back to Queensland's natural areas and cultural heritage assets, community and economy.
Border Ranges Rainforest Biodiversity Management Plan 2010	The objective of this Plan is to protect rainforest and related biodiversity and to provide a consistent and effective recovery program for species and communities of conservation concern. The recovery program focuses on improving the condition (connectivity and integrity) of rainforest and related vegetation communities and their component species and systems.
The Action Plan for Australian Reptiles	<p>Recovery plans state what must be done to protect and restore important populations of threatened species and habitat, as well as how to manage and reduce threatening processes.</p> <p>These recovery plans have been consulted in the assessment of threats, impacts and management of the relevant species.</p>
National Recovery Plan for Eastern Bristlebird <i>Dasyornis brachypterus</i>	
Recovery Plan for the Hastings River Mouse <i>Pseudomys oralis</i>	
National Recovery Plan for the Spotted-tailed Quoll <i>Dasyurus maculatus</i>	
National Recovery Plan for the Red Goshawk <i>Erythrotriorchis radiatus</i>	
National Recovery Plan for the Brush-tailed Rock-wallaby <i>Petrogale penicillata</i>	
Queensland Brigalow Belt Reptile Recovery Plan 2008-2012	
Conservation Status and Draft Management Plan for <i>Dasyurus maculatus</i> and <i>D. hallucatus</i> in Southern Queensland	
Coxen's Fig Parrot <i>Cyclopsitta diophthalma coxeni</i> recovery plan	
National Recovery Plan for the Black-breasted Button-quail <i>Turnix melanogaster</i>	
Recovery Plan for Stream Frogs of South East Queensland	

2.5 Environmental impact assessments under Commonwealth, state or territory legislation

Changes to the Queensland *Nature Conservation Act 1992* (NC Act) in 2012 resulted in a state-wide Expression of Interest to be released in 2013 calling for suitable individuals and organisations to submit ideas for the development of ecotourism facilities on Queensland protected areas and adjacent State land.

A response to the Expression of Interest was submitted by Gainsdale Pty Ltd for the Scenic Rim Trail in 2013. The Expression of Interest was accepted and progressed to Stage 2 of the assessment process. In March 2015 the proponent submitted a document for a Stage 2 Request for Detailed Proposal

The NC Act provides for the development of ecotourism facilities in national parks. All approved ecotourism facilities must be in the public interest, ecologically sustainable and, to the greatest possible extent, preserve the land's natural condition and protect its cultural resources and natural values. It is intended that each approved facility is designed and managed sensitively to ensure it is compatible with the nature and character of the site and complements the management of the national park in which it is located.

Authorisations allow for the building of infrastructure and structures (including eco-tourism facilities) in protected areas in Queensland for a fixed term. These authorisations are granted under Sections 34, 35 and 35A of the NC Act and must be managed according to the requirements of Sections 15 and 34(2) of the Act.

The proposal must consider any management statement or plan in effect for a protected area, although under the Act the chief executive of the Department of National Parks, Sports and Racing can allow uses within a national park or protected area that are inconsistent with the management principles or plan if:

- the basic principle for the management of national parks will be observed as far as possible (if the land is in a national park)
- the use will be in the public interest
- the use is ecologically sustainable
- there is no reasonable alternative to the use.

A Development Proposal and Environmental Management Plan has been prepared as part of Stage 3 of the development assessment process for consideration by the Queensland Parks and Wildlife Service (QPWS) and is provided as Attachment 2 to this referral. It brings together all elements of the proposal, describes the values of the project area, assesses the potential environmental impacts of the proposal and sets out the environmental management actions to ensure the project avoids, minimises and manages environmental impacts within the Main Range National Park.

Components of the project beyond the boundaries of the National Park will be subject to assessment under local government planning laws and schemes. It is not intended to submit development applications to local government authorities until the project achieves State and Commonwealth Government approval.

2.6 Public consultation (including with Indigenous stakeholders)

To this point consultation has been conducted principally with local, State and Commonwealth government agencies.

Pending further advice on Native Title issues, Gainsdale Pty Ltd will undertake consultation with traditional owners and a broad range of other interest groups and communities of interest as set out in the Community and Stakeholder Engagement Management Plan (Appendix 1 of Attachment 2). To date consultations have been undertaken with:

- Southern Downs Regional Council
- Lockyer Valley Regional Council
- Scenic Rim Regional Council

- Tourism and Events Queensland
- The Department of Tourism , Major Events Small Business and the Commonwealth Games
- Commonwealth Department of Environment – EPBC – overview of project and referral matters
- National Parks Association of Queensland - informally with individual office bearers.

In addition, Gainsdale Pty Ltd has contacted Traditional Owners that may have an interest in the Project area and will continue to consult with Traditional Owners with the aim of presenting the project in a way that respects the Indigenous heritage values and provides a valuable interpretive experience. Gainsdale Pty Ltd specialists will follow guidelines set out by the Australian Heritage Commission Ask First publication and the Queensland Department of Aboriginal and Torres Strait Island and Multicultural Affairs Protocols for consultation and negotiation with Aboriginal People.

A complete list of interest groups and communities of interest that Gainsdale Pty Ltd will consult with is set out in the Community and Stakeholder Engagement Management Plan (Appendix 1 of Attachment 2).

2.7 A staged development or component of a larger project

The referred project is not a staged development and is not part of a larger project. While a more extensive trail has been considered in the past, the Scenic Rim Trail – Thornton Trailhead to Spicers Peak Nature Refuge is a viable, stand-alone project that does not require any further infrastructure or support than is described in this referral. Neither does this proposal facilitate any future development that would not be subject to unique Queensland and Commonwealth assessment and approval processes.

While the proposal does not form a component of a larger action, as a related part of its efforts towards positive environmental outcomes, the proponent proposes the:

- acquisition of adjoining, broad acre private lands which will contribute to the total stock of conserved land and provide a buffer to the World Heritage Area; and
- sustainable management of these adjoining lands so as to ensure protection of habitat for endemic species and the control of weed species.

3 Description of environment and likely impacts

3.1 Matters of national environmental significance

3.1 (a) World Heritage Properties

Description

World Heritage values - Gondwana Rainforests of Australia World Heritage Area

A portion of the current extent of the Gondwana Rainforests of Australia was inscribed on the World Heritage List in 1986 and was known as the Australian East Coast Subtropical and Temperate Rainforest Parks World Heritage Site. The listing was extended in 1994 as the Central Eastern Rainforest Reserves of Australia. In 2007 the name was changed to Gondwana Rainforests of Australia. The current listing includes approximately 50 separate reserves located between Brisbane and Newcastle, and includes much of Main Range National Park which is the northern-most extent of the WHA. The only section of the project area lying outside the WHA is the site of the proposed Woodcutters Ecocamp and a short section of existing access track.

The Gondwana Rainforests were inscribed for their outstanding universal significance in terms of natural heritage. The rainforests satisfied three of the four possible criteria for the listing of a natural property:

- Criterion (i): 'be outstanding examples representing major stages of Earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features.'
- Criterion (ii): 'be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals.'
- Criterion (iv): 'contain the most important and significant habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.'

The key values identified for the Gondwana Rainforests of Australia World Heritage Area have been identified by Hunter (2003). They include:

1. The World Heritage rainforests are an outstanding example of ecosystems and taxa from which modern biota are derived. These rainforests are exceptionally rich in primitive and relict species, many of which are similar to fossils from Gondwana. Ecosystems demonstrating this value include subtropical, warm temperate and cool temperate rainforest types.
2. The World Heritage Area (WHA) includes an outstanding range of ecosystems and taxa which demonstrate the origins and rise to dominance of cold adapted and dry adapted flora. Cool temperate rainforest, dry rainforest and wet sclerophyll ecosystems demonstrate this value.
3. The WHA includes outstanding geological features associated with the erosion of shield volcanoes.
4. The WHA includes significant centres of endemism where ongoing evolution of flora and fauna species is taking place. Ecosystems that are of particularly important as centres of endemism include cool temperate rainforest, subtropical rainforest, warm temperate rainforest, dry rainforest, wet sclerophyll forest, montane heathlands and rocky outcrops. The Border Ranges area is particularly important as a centre of endemism.
5. The WHA includes the principal habitats of a large number of threatened species of plants and animals. These species are of outstanding universal value from the point of view of science and conservation, including relict and primitive taxa.

Those World Heritage Values that are represented within the Project Area are described in Attachment

3. These include:

1. Subtropical and Warm temperate rainforest containing primitive and relictual species belonging to the Araucariaceae, Atherospermaceae, Monimiaceae, Winteraceae and Lauraceae families.
2. Wet sclerophyll forests with Sydney Blue Gum *Eucalyptus saligna* and Brush Box *Lophostemon confertus*.
3. The Scenic Rim is largely formed by Tertiary basalt flows. The Main Range volcano is thought to have been at its highest at Spicers Gap with a potential original basalt thickness of 1000 m approximately. Today, an estimated 900 m of exposed basalt can still be found in that area. The basalt flows are believed to originally have extended to Kalbar-Boonah in the east and Rosewood in the north-east. However, ancient streams have since eroded large areas of the eastern extent of the basalt flow, leaving behind the steep escarpments which are prominent today.
4. Flora species that are endemic to the northern Gondwana Rainforests of Australia World Heritage Area and were recorded within the Project area during field assessment are Mountain Boobialla *Myoporum betcheanum*, Spear Lily *Doryanthes palmeri* and White Malletwood *Rhodamnia whiteana*.

Fauna species and subspecies that are essentially or largely confined to the Gondwana Rainforests of Australia World Heritage Area and known to occur in Main Range National Park are:

- Albert's Lyrebird *Menura alberti*
 - Rufous Scrub-bird *Atrichornis rufescens*
 - Pale-yellow Robin *Tregellasia capito capito*
 - Logrunner *Orthonyx temminckii* (Hunter 2003 states that this species also occurs in New Guinea but recent taxonomic revision (e.g., Boles 2007) means this species is confined to Gondwana Rainforests)
 - Three-toed Snake-tooth Skink *Coeranoscincus reticulatus*
 - Pouched Frog *Assa darlingtoni*
 - Fletcher's Frog *Lechriodus fletcheri*
 - Mountain Frog *Phyllorhina kundagungan*
 - Brown Turban Pinwheel Snail *Ngairia levicostata*
5. The Vulnerable taxon Bunya Mountains Bluegrass *Bothriochloa bunyensis* is present in the ground layer of Eucalyptus Open forest in the extreme north of the Project area. It represents a biogeographical link between the Tertiary basalts of Main Range and the Bunya Mountains 200 km to the north-west.

Threatened (EPBC Act listed) fauna species that are known or predicted to occur in Main Range National Park are:

- Spotted-tailed Quoll *Dasyurus maculatus maculatus* (SE mainland) (Endangered)
- Koala *Phascolarctos cinereus* (Vulnerable)
- Greater Glider *Petauroides volans* (Vulnerable)
- Long-nosed Potoroo *Potorous tridactylus tridactylus* (Vulnerable)
- Brush-tailed Rock-wallaby *Petrogale penicillata* (Vulnerable)
- Grey-headed Flying-fox *Pteropus poliocephalus* (Vulnerable)
- Large-eared Pied Bat *Chalinolobus dwyeri* (Vulnerable)
- New Holland Mouse *Pseudomys novaehollandiae* (Vulnerable)
- Hastings River Mouse *Pseudomys oralis* (Endangered)
- Red Goshawk *Erythrotriorchis radiatus* (Vulnerable)
- Black-breasted Button-quail *Turnix melanogaster* (Vulnerable)
- Swift Parrot *Lathamus discolor* (Critically Endangered)
- (Coxen's) Double-eyed Fig-parrot *Cyclopsitta diophthalma coxeni* (Endangered)
- Rufous Scrub-bird *Atrichornis rufescens* (Endangered)
- Eastern Bristlebird *Dasyornis brachypterus* (Endangered)
- Collared Delma *Delma torquata* (Vulnerable)
- Three-toed Snake-tooth Skink *Coeranoscincus reticulatus* (Vulnerable)

- Fleay's Barred Frog *Mixophyes fleayi* (Endangered)

The Mt Mistake Spiny Cray *Euastacus jagara*, while not EPBC Act listed is listed as Critically Endangered on the IUCN Red List.

Fauna species and groups that are relict and primitive taxa and known to occur in Main Range National Park include Albert's Lyrebird, Rufous Scrub-bird, Green Catbird, two bowerbird species, two treecreeper species, Chestnut-rumped Heathwren, Speckled Warbler, three scrubwren species, Weebill, two species of Gerygone, five species of Thornbill, Logrunner, six species of gecko, Burton's Snake Lizard, Common Scaly-foot, six skink species, Pouched Frog, Tusked Frog, Common Eastern Froglet, Fletcher's Frog, three species of Barred Frog genus *Mixophyes*, Mountain Frog, Red-backed Toadlet, three frogs of the genus *Limnodynastes*, Ornate Burrowing Frog, 12 frog species of the genus *Litoria*, two spiny crays of the genus *Euastacus*, Macquarie Turtle, two snails of the genus *Ngairaea*, Moss Bug, a 'true' spider *Tarlina woodwardi*, velvet worms, flat bugs, Carabid beetles and trapdoor spiders.

Nature and extent of likely impact

An assessment of the potential impacts of the Project on World Heritage values and National Heritage values against the EPBC Act significant impact criteria is provided in Table 3 of Attachment 3, with conclusions summarised below. **There is no likelihood that the Project will have a significant impact on World Heritage and National Heritage values. The assessment is summarised below.**

AN ACTION IS LIKELY TO HAVE A SIGNIFICANT IMPACT ON A WORLD HERITAGE PROPERTY AND/OR A NATIONAL HERITAGE PLACE IF THERE IS A REAL CHANCE OR POSSIBILITY THAT IT WILL:

Damage, modify, alter or obscure important geological formations in a World Heritage property or Natural Heritage Place

Major features of geological significance include the actively retreating eastern escarpment, the outcropping basalt at Bare Rock and the deeply incised west-flowing streams. The side tributaries in the headwaters of the major streams form ephemeral waterfalls after heavy rainfall events. These features can be viewed from parts of the proposed trail route and an existing path free of vegetation crosses Bare Rock. There will be no detrimental effects to geological features along any part of the route or at the accommodation nodes.

Damage, modify, alter or obscure landforms or landscape features, for example by infilling of the land surface in a World Heritage property or National Heritage Place

There is no potential for the Project to modify, alter or obscure landforms or landscape features.

Modify, alter or inhibit landscape processes, for example, by accelerating or increasing susceptibility to erosion, or stabilising landforms, such as sand dunes, in a World Heritage property or National Heritage Place

The risk of erosion and other forms of bioturbation or landscape modification caused by facilities and the Class 5 walking trail which may interfere with geomorphic processes and landscape evolution is considered to be very low. Class 5 walking trails generally do not entail any modification to the ground surface. However, soil creep has been identified as a constraint on short sections of steep slope which are traversed. These areas are susceptible to soil disturbance. Consequently, installation of permanent raised board walks rather than contoured will be put in place to avoid the impacts of accelerated erosion.

Divert, impound or channelize a river, wetland or other water body in a World Heritage property or National Heritage Place

There is no potential for the Project to divert, impound to channelize a river, wetland or other water body.

Substantially increase concentrations of suspended sediment, nutrients, heavy metals, hydrocarbons, or other pollutants or substances in a river, wetland or water body in a World Heritage property or National Heritage Place

With the proposed design and management of the Project components it is considered that the Project will not substantially increase concentrations of suspended sediment, nutrients, heavy metals, hydrocarbons or other pollutants or substances in a river, wetland or water body in a World Heritage property or National Heritage place.

Modify or inhibit ecological processes in a National Heritage Place

The Project footprint is small and the proposed activities are passive in nature. Impact assessment has identified elements of the Project that may affect hydrological regimes and biotic interactions.

Appropriate project design can limit any potential for altering hydrological regimes by ensuring that tracks and other infrastructure do not concentrate runoff, or accelerate the natural processes of soil creep and landslip, and do not contribute sediment to aquatic ecosystems.

Active feral animal control and on-going monitoring of feral animal activity leading to targeted management responses will limit the potential for the trail to facilitate feral animal movement.

It is considered unlikely that the construction or operation of the project will modify and inhibit ecological processes in the project area or in the broader Main Range National Park area.

Reduce the diversity or modify the composition of plant and animal species in all or part of a World Heritage property or National Heritage Place

With the proposed low impact design and construction, and an ongoing commitment to monitoring and management of potential impacts on flora and fauna, the Project will not cause a reduction in the diversity or modification of the composition of plant and animal species within the World Heritage/National Heritage Property.

Fragment, isolate or substantially damage habitat important for the conservation of biological diversity in a World Heritage property or National Heritage Place

No features of the proposed Project will fragment, isolate or substantially damage habitat within the World Heritage/National Heritage Area.

Cause a long-term reduction in rare, endemic or unique plant or animal populations or species in a World Heritage property or National Heritage Place

The re-opening of the Winder management road will result in removal of colonising species which may include individuals of rare or endemic taxa (e.g. the Border Range – Main Range endemic tree White Malletwood *Rhodamnia whiteana*) or unique populations. The taxa recorded along the road during traverse of the route included species which have increased in abundance relative to less disturbed surrounding rainforest and species which appear to be present in similar densities to the surrounding species matrix. Collectively, observations from the route suggest that the likelihood of removal of species from the 2.5 m corridor will lead to long-term reduction in species populations appears to be low.

Design, construction and management techniques where there are steep track sections will avoid any potential for erosion and subsequent impacts of transported sediment on aquatic environments. The nature and extent of proposed disturbance to vegetation will not cause a reduction in any rare, endemic or unique bird, reptile or frog population.

Fragment, isolate or substantially damage habitat for rare, endemic or unique animal populations or species in a World Heritage property or National Heritage Place

The damage to vegetation is to be confined to regrowth (Winder Management Road), ground stratum (new sections of trail) and shrub and ground stratum (Amphitheatre View site and Woodcutters Ecocamp sites). The nature and extent of proposed vegetation disturbance is unlikely to fragment, isolate or substantially damage habitat for rare, endemic or unique animal populations or species in the World Heritage/National Heritage Area (see 3.1(d)).

Involve construction of buildings, roads or other structures, vegetation clearance or other actions with substantial, long-term or permanent impacts on relevant (World Heritage and National Heritage) values

There would be no long-term or permanent impacts on World Heritage or National Heritage values, and removal of the minimal infrastructure proposed would result in rapid recolonization of the Project area by native flora and fauna and a return to pre-development conditions.

Introduce noise, odours, pollutants or other intrusive elements with substantial, long-term or permanent impacts on relevant (World Heritage and National Heritage) values

As there will be no exposed odour sources, no waste generated that will be released into the surrounding environment, construction noise is a short-term impact with no heavy machinery in use, and operational noise levels will be primarily restricted to human voices and occasional generator use and wastewater removal at the Ecocamp locations, the Project is not likely to have a significant impact on World Heritage and National Heritage values over the life of the project.

The nature of the proposal is such that its decommissioning would leave no permanent impacts on World Heritage and National Heritage Values.

3.1 (b) National Heritage Places

Description

Provided in Section 3.1(a).

Nature and extent of likely impact

Addressed in Section 3.1(a).

3.1 (c) Wetlands of International Importance (declared Ramsar wetlands)

Description

There are no declared Ramsar wetlands in the vicinity of the Project and therefore no potential impacts on Wetlands of International Importance.

3.1 (d) Listed threatened species and ecological communities

Description

Threatened Ecological Communities

Two listed threatened ecological communities were identified as potentially occurring within the Project area and surrounds using the Commonwealth's Protected Matters Search Tool. Surveys have been conducted along the proposed road, trail route and Ecocamp sites within the referral area. The listed ecological communities are confirmed as not occurring within the Project envelope.

Listed Ecological Community	EPBC Act Status	Likelihood of Occurrence
Lowland rainforest (<300m altitude) of Subtropical Australia	Critically Endangered	Nil
White Box Yellow Box Blakely's Red Gum Grassy Woodland	Critically Endangered	Nil

The rainforest traversed is all >900m altitude and includes Cool Subtropical rainforest and *Acmena smithii* Warm-Temperate Rainforest.

White Box Yellow Box Blakely's Red Gum Grassy Woodland is confined to driest western slopes of Mistake Range spurs 10 km inland of the proposed Project area.

Threatened Flora

Attachment 4 provides the results of an assessment of the likelihood of occurrence of EPBC Act listed flora for the Project area. Those species that are known to occur or with a reasonable likelihood of occurrence are:

Listed plant species known or expected to occur	EPBC Act Status	Comment
<i>Bothriochloa bunyensis</i> Bunya Mountains Bluegrass	Vulnerable	An uncommon grass recorded from northern-most section of Mistake section of Main Range NP in grassy Open forest along the scarp. It was confirmed as being present around the end of the existing 4WD track north of the rainforest boundary.
<i>Sarcophilus hartmannii</i> Cliff Orchid	Vulnerable	An uncommon grass recorded from northern-most section of Mistake section of Main Range NP in grassy Open forest along the scarp. It was confirmed as being present around the end of the existing 4WD track north of the rainforest boundary.
<i>Thesium australe</i> Austral Toadflax	Vulnerable	A small uncommon shrub which is partially parasitic on roots of native grasses such as Kangaroo Grass. Mistake Range lies within ecological range of the species although there are no specimen-backed herbarium records from the area. If present it would be restricted to the small area of grassy Open forest

traversed.

Threatened Fauna

Attachment 5 provides the results of an assessment of the likelihood of occurrence of EPBC Act listed threatened and migratory fauna for the Project area. Those species that are known or expected to occur are:

Listed fauna species known or expected to occur	EPBC Act Status	Comment
Spotted-tailed Quoll <i>Dasyurus maculatus maculatus</i> (SE mainland)	Endangered	Occurs in rainforest and wet and dry sclerophyll forest
Koala <i>Phascolarctos cinereus</i>	Vulnerable	Occurs in eucalypt forest and woodland
Greater Glider <i>Petauroides volans</i>	Vulnerable	Occurs in eucalypt forest and woodland
Long-nosed Potoroo <i>Potorous tridactylus tridactylus</i>	Vulnerable	Occurs in wet sclerophyll forest with groundcover
Brush-tailed Rock-wallaby <i>Petrogale penicillata</i>	Vulnerable	Occurs in rocky environments in rainforest and eucalypt woodland
Grey-headed Flying-fox <i>Pteropus poliocephalus</i>	Vulnerable	Occurs in a wide variety of habitats including rainforest and open forest
Large-eared Pied Bat <i>Chalinolobus dwyeri</i>	Vulnerable	Occurs in a variety of habitats including open forest and rainforest edges
New Holland Mouse <i>Pseudomys novaehollandiae</i>	Vulnerable	Occurs in open forest and woodland on sandy, loamy or rocky soils
Hastings River Mouse <i>Pseudomys oralis</i>	Endangered	Occurs in open eucalypt forest with dense groundcover of grasses, ferns or mat-rushes
Red Goshawk <i>Erythrotriorchis radiatus</i>	Vulnerable	Main Range NP is the centre of a recognised territory
Black-breasted Button-quail <i>Turnix melanogaster</i>	Vulnerable	Occurs in dry rainforest and vine-thickets with abundant leaf-litter. Also recorded in eucalypt forests with a dense understorey
Swift Parrot <i>Lathamus discolor</i>	Critically Endangered	This species would, at best, be a very rare and irregular visitor to the area
(Coxen's) Double-eyed Fig-parrot <i>Cyclopsitta diophthalma coxeni</i>	Endangered	Occurs in rainforests, riparian corridors in woodland and open woodland
Rufous Scrub-bird <i>Atrichornis rufescens</i>	Endangered	Occurs in rainforest and adjacent open eucalypt forest with a rainforest understorey
Eastern Bristlebird <i>Dasyornis brachypterus</i>	Endangered	Occurs in tall dense grassy groundcover in open eucalypt forest and woodland, often at ecotones with rainforest
Collared Delma <i>Delma torquata</i>	Vulnerable	No past records from the area. Has a highly fragmented distribution
Three-toed Snake-tooth Skink <i>Coeranoscincus reticulatus</i>	Vulnerable	Occurs in rainforest
Fleay's Barred Frog <i>Mixophyes fleayi</i>	Endangered	Occurs on permanent and semi-permanent freshwater streams in rainforest and other forest communities. Main Range NP is a stronghold for the species, particularly the Goomburra area.

Nature and extent of likely impact

Potential Impacts on Threatened Flora Species

Table 3 of Attachment 4 provides the results of a risk assessment for the potential impacts of the Project on EPBC Act listed flora species that are known to occur or have a reasonable likelihood of occurrence within the Project Area.

There are no 'extreme', 'high' or 'moderate' risks.

The Table 4 series of Attachment 4 provides an assessment of the impacts of the Project on threatened flora species that are known to occur or have a possibility of occurrence against the EPBC Act significant impact criteria for vulnerable species. **There is no likelihood that the Project will have a significant impact on threatened flora species.** The assessment is summarised below.

AN ACTION IS LIKELY TO HAVE A SIGNIFICANT IMPACT ON A VULNERABLE SPECIES IF THERE IS A REAL CHANCE OR POSSIBILITY THAT IT WILL:

Lead to a long-term decrease in the size of an important population

The disjunct occurrence of Bunya Mountains Bluegrass *Bothriochloa bunyensis* on the trail route near Mt Mistake would represent an important outlying population 200 km from the Bunya Mountains, the major centre for the taxon. The small size and localised nature of the proposed disturbance within the habitat of the species should not impact upon this conservation significant population either directly or indirectly. For example, it is unlikely to present a barrier to pollination and dispersal of the species which is also capable of spreading by vegetative means. No long-term decrease in the size of the population is expected. The project contains monitoring and weed management programs which can give localised attention to the known habitat of the species. It will also provide feedback important for ongoing fire management (planned fire) at the site.

There is some likelihood that Cliff Orchid *Sarcochilus hartmannii* may be present growing on boulder piles on higher altitude, steep slopes. The Class 5 trail route is planned to traverse some of the steep rocky slopes along the Main Range scarp. If present, a local population would be important because of the limited known extent of the taxon and the high altitude of potential habitat of the species in the project area relative to other places it has been collected from. A small decrease in any local populations that may be present could occur as the species would be unlikely to colonise and persist on parts of the boulders subject to foot traffic. Avoidance of occurrences of the species during detailed trail placement will avoid impacts. No long-term decrease in the size of an important population is expected as these impacts are highly localised and would disappear if the trail became unused.

While not detected during field assessment it is possible (although unlikely) that Austral Toadflax *Thesium australe* could occur in the vicinity of a 200 m long section of the disused Winder Management Road proposed for re-opening, in the vicinity of the Bunya Mountains Bluegrass. If present, an occurrence of Austral Toadflax would represent an important local population due to the highly scattered geographic distribution of the species and its tendency to grow in low abundances based upon herbarium label information. The species is known to decline in abundance with time-since-fire, and low densities could be an artefact of this process. If present, the number of individuals affected would be very low, and it is not expected that this impact would lead to a long-term decrease in the size of an important population.

Reduce the area of occupancy of an important population

Re-opening the former road will reduce the area of potential habitat of an important population of Bunya Mountains Bluegrass by a maximum of 0.16%. It is likely that a small number of individuals will be present within this area which has been recolonised by native grasses and shrubs since abandonment.

The area of occupancy of an important population of Cliff Orchid *Sarcochilus hartmannii* or Austral Toadflax *Thesium australe*, if present, would not be reduced to any discernible extent as no habitat is being removed or destroyed.

Fragment an important population into two or more populations

The nature and extent of the narrow road where Bunya Mountains Bluegrass *Bothriochloa bunyensis* occurs is not expected to fragment the important population. The habitat for the local population is thought to extend for several kilometres along the scarp and would remain unaffected by the project.

The rough trail through the boulders where Cliff Orchid *Sarcochilus hartmannii* may occur is unlikely to lead to fragmentation of any local population(s).

It is unlikely that the narrow Winder Management Road would represent a barrier to Austral Toadflax *Thesium australe* which grows in low densities, to the extent that individuals or groups of individuals become isolated.

Adversely affect habitat critical to the survival of a species

The short section of the Winder Management Road which traverses suitable habitat was subject to considerable earthworks and removal of rocks in the past. Consequently, it is not considered to represent critical habitat for Bunya Mountains Bluegrass *Bothriochloa bunyensis* or Austral Toadflax *Thesium australe*.

The trail through and among the boulders that may support Cliff Orchid *Sarcochilus hartmannii* is unlikely to lead to any impacts upon habitat critical to the survival of the species due to the highly localised and intermittent nature of disturbance from hikers. The trail also aims to prevent more widespread damage by focusing the small number of hikers who will use the route to a defined thoroughfare.

Disrupt the breeding cycle of an important population

The nature and extent of any removal of vegetation and limited use of the Winder Management Road when operational is not expected to disrupt the reproductive cycle of an important population of Bunya Mountains Bluegrass *Bothriochloa bunyensis* or Austral Toadflax *Thesium australe*. Prevailing management, for example use of fire to maintain understorey diversity and health will continue.

The trail through and among the boulders is unlikely to lead to any impacts upon habitat critical to the survival of Cliff Orchid *Sarcochilus hartmannii* due to the highly localised and intermittent nature of disturbance from hikers. The trail also aims to prevent more widespread damage by focusing the small number of hikers who will use the route to a defined thoroughfare.

Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline

The nature and extent of any clearing of the shrub and ground layer within the Winder Management Road corridor is not expected to modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that Bunya Mountains Bluegrass *Bothriochloa bunyensis* or Austral Toadflax *Thesium australe* are likely to decline. Prevailing management, for example use of fire to maintain understorey habitat quality will continue.

A very small decrease in habitat quality for Cliff Orchid *Sarcochilus hartmannii*, if present, may occur locally in the limited number of areas where there would be foot traffic on parts of boulder surfaces. An existing rough track through similar habitat along part of the trail provides a guide for potential impacts. The boulders traversed by the track remain covered in mosses, lichens and lithophytic ferns apart from contact points with hikers' footwear. Overall, the availability and quality of habitat for the population will not decrease to the extent that the species would decline.

Result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat

A pest and weed management plan will be implemented, as is required under State legislation to control and prevent the establishment of invasive species as a result of the project. Part of the habitat is known to contain longer-lived weeds and a pest and weed management plan will potentially lead to improved condition of habitat. Measures to minimise risk of introduction of weeds will also be implemented when the trail becomes operational. No impacts are expected from invasive species.

Introduce disease that may cause the species to decline

The re-construction and operation of the Winder Management Road will be subject to measures aimed to reduce the risk of introduction of, or spread of exotic species and pathogens. A pest and weed management plan will be implemented, as is required under State legislation, to control and prevent the establishment of invasive species (and associated diseases) as a result of the project.

Trail establishment will be subject to a protocol for cleaning of hand held equipment and footwear prior to accessing the route. When operational it is proposed that hikers use foot baths and wear clean clothing when commencing the hike.

No impacts are expected from introduced diseases.

Interfere with the recovery of the species

Much of the known extents of Bunya Mountains Bluegrass *Bothriochloa bunyensis* and Cliff Orchid *Sarcochilus hartmannii* are confined to protected areas and has been consequently subject to fewer external pressures than many comparable taxa. Population scale processes should not be affected by the small disturbance footprint and significant disruptions to reproduction and interference to species recovery are not expected.

If present, population scale ecological processes for Austral Toadflax *Thesium australe* should not be affected and significant disruptions to reproduction and interference to species recovery are highly unlikely to occur as a consequence of the Project.

Potential Impacts on Threatened Fauna Species

Table 3 of Attachment 5 provides the results of a risk assessment for the potential impacts of the Project on EPBC Act listed terrestrial vertebrate fauna species that are known or expected occur in the Project area. Potential impacts were those identified in the Species Profile and Threats Database, supplemented by further information where relevant.

There are no expected 'extreme', 'high' or 'moderate' risks.

The risk assessment process allows for identification and targeting of additional planning, management, monitoring and education measures for the project.

Planning and constructing the stream crossing locations to avoid hydraulic and water quality impacts on streams and avoid impacts on frog habitat will be required and will be determined in continued consultation with QPWS.

While the Hastings River Mouse habitat adjacent to the proposed Woodcutters Ecocamp site represents the edge of a significant area of likely habitat for the species, shielding the upslope habitat from night time activities that generate noise and light at the Woodcutters Ecocamp will be required to minimise impacts. Baseline survey and ongoing monitoring of the species and habitat is proposed.

There are historical Eastern Bristlebird records (>20 years old) from the area around Cunningham's Gap and southward, including from around the proposed Mt Mitchell Trail section (Figure 3.1). Baseline population assessment, habitat condition and long term monitoring for calls within habitat adjacent to the trail are proposed. Should the species be found to be present now, or found to recolonise suitable habitat in the future, active management is required to assess potential impacts of Trail and general public use of the existing tracks and trails in cooperation with QPWS.

The monitoring and management of feral animals, including feral predators will be important. Feral Pigs were noted throughout the project area, although more concentrated activity was recorded in the northern section. Feral Pigs can have a significant impact on habitat quality for a number of species and while the project would not particularly facilitate greater numbers, it can have an important role in monitoring and managing Feral Pig numbers to reduce current levels of impact.

The Table 4 series of Attachment 5 provides an assessment of the impacts of the Project on threatened fauna species that are known or expected to occur in the Project area (including Vulnerable species) against the EPBC Act significant impact criteria for Critically Endangered, Endangered and Vulnerable species. **There is no likelihood that the Project will have a significant impact on threatened fauna species.** The assessment is summarised below.

AN ACTION IS LIKELY TO HAVE A SIGNIFICANT IMPACT ON A CRITICALLY ENDANGERED OR ENDANGERED SPECIES IF THERE IS A REAL CHANCE OR POSSIBILITY THAT IT WILL:

Lead to a long-term decrease in the size of a population

The Project is not expected to lead to a long-term decrease in the size of any population of critically endangered or endangered species. Hastings River Mouse has been recorded adjacent to the proposed Woodcutters Ecocamp. This is the edge of a large area of potential habitat for the species and no habitat for the species will be directly disturbed.

At this stage, no population of Eastern Bristlebird is known to be present in the areas to be disturbed and a previously-known population is absent in the Mt Mitchell Trail section which is confined to existing walking tracks and trails. The Project will not lead to a long-term decrease in the size of the population, and research opportunities through the Hidden Vale UQ Wildlife Centre may result in beneficial outcomes for the species (see Appendix 2 of Attachment 2).

Reduce the area of occupancy of the species

There is no expectation that the Project will reduce the area of occupancy of any endangered or critically endangered species.

Fragment an existing population into two or more populations

There is no expectation that the Project will fragment an existing population of endangered or critically

endangered species into two or more populations.

Adversely affect habitat critical to the survival of a species

All habitat currently occupied by the Endangered Eastern Bristlebird is critical to its survival. At this stage, no population is known to be present in the area to be disturbed and there is no habitat disturbance proposed in the Mt Mitchell Trail section as the trail here would be confined to existing walking trails and tracks.

Critical habitat for the Endangered Fleay's Barred Frog is defined as permanent and semi-permanent freshwater streams, between 100-1000 m in altitude, in rainforest and other communities in a number of locations, including Main Range). The Project area includes critical habitat. However, the implementation of construction and operation protocols to preserve existing water quality mean that the Project is not expected to adversely affect habitat possibly critical to the survival of the species.

For all other critically endangered and endangered species assessed, there is no expectation that the Project will adversely affect habitat critical to the survival of any of these species.

Disrupt the breeding cycle of a population

Eastern Bristlebird is known to be sensitive to disturbance when breeding. Long term monitoring of Eastern Bristlebird is proposed to determine whether apparently abandoned habitat in the Mt Mitchell Trail section is recolonised by the species.

This monitoring would be expected to afford a long-term benefit to the species, should it reappear in the area. This is because, should a population be found to be present or establish again in the future, the proponent would immediately notify QPWS and cooperatively develop operational procedures to ensure there is no impact on breeding activity. Opportunities will exist with the Hidden Vale UQ Wildlife Centre to study the species and its habitat requirements for potential reintroduction to former habitat.

For all other critically endangered and endangered species, there are no expected significant impacts on the breeding cycle of a population as a result of the Project.

Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline

The proposed limited vegetation disturbance associated with the Project is not expected to modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that any critically endangered or endangered species is likely to decline.

Result in invasive species that are harmful to a critically endangered or endangered species becoming established in the endangered or critically endangered species' habitat

A pest and weed management plan will be implemented, as is required under the State approval process, to control and prevent the establishment of invasive species as a result of the Project. The successful implementation of the plan will ensure that there is no introduction or spread of invasive species that are harmful to all critically endangered or endangered species and their habitats.

Introduce disease that may cause the species to decline

A pest and weed management plan will be implemented, as is required under the State approval process, to control and prevent the establishment of invasive species (and associated diseases) as a result of the Project. The successful implementation of the plan will ensure that there is no introduction or spread of invasive species that are harmful to all critically endangered or endangered species and their habitats.

Interfere with the recovery of the species

No population of Eastern Bristlebird is known to be present in the area to be disturbed and there is no habitat disturbance proposed in the Mt Mitchell Trail section as the trail here would be confined to existing walking trails and tracks. Long term monitoring is proposed to determine whether apparently abandoned habitat in the Mt Mitchell Trail section is recolonised by the species. Should a population be found to be present or establish again in the future Gainsdale would immediately notify QPWS and cooperatively develop operational procedures to ensure there is no impact on breeding activity. Opportunities will exist with the Hidden Vale UQ Wildlife Centre to study the species and its habitat requirements for potential reintroduction to former habitat. The project is not expected to interfere with the recovery of the species and opportunities will exist with the Hidden Vale UQ Wildlife Centre to study the species and its habitat requirements for potential reintroduction to former habitat (see Appendix 2 of

Attachment 2).

For the remaining critically endangered and endangered species assessed, it is not expected that the Project will interfere with the recovery of any of these species.

AN ACTION IS LIKELY TO HAVE A SIGNIFICANT IMPACT ON A VULNERABLE SPECIES IF THERE IS A REAL CHANCE OR POSSIBILITY THAT IT WILL:

Lead to a long-term decrease in the size of an important population

The Project is not expected to lead to a long-term decrease in the size of any important population of vulnerable species.

Reduce the area of occupancy of an important population

There is no expectation that the Project will reduce the area of occupancy of an important population of a vulnerable species.

Fragment an important population into two or more populations

There is no expectation that the Project will fragment an important population of vulnerable species into two or more populations.

Adversely affect habitat critical to the survival of a species

There is no expectation that the Project will adversely affect habitat critical to the survival of an important population of any vulnerable species.

Disrupt the breeding cycle of an important population

Should the Vulnerable Brush-tailed Rock-Wallaby be present at the proposed Amphitheatre View Wilderness Ecocamp there may be some disruption to animals during construction of a lookout deck but the rocky habitat will not be affected and any impact should be short-term. The Project is not expected to disrupt the breeding cycle of an important population.

There are no known nests of the Vulnerable Red Goshawk in the Project area, although a targeted survey has not been carried out. The proposed vegetation disturbance will not affect prey availability or movement. Any evidence of breeding would immediately be reported to Queensland Parks & Wildlife Service. The Project is not expected to disrupt the breeding cycle of an important population.

For all other vulnerable species assessed, there is no expectation that the Project will disrupt the breeding cycle of an important population.

Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline

The proposed limited vegetation disturbance associated with the Project is not expected to modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that any vulnerable species is likely to decline.

Result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat

A pest and weed management plan will be implemented, as is required under the State approval process, to control and prevent the establishment of invasive species as a result of the Project. The successful implementation of the plan will ensure that there is no introduction or spread of invasive species that are harmful to vulnerable species and their habitats.

Introduce disease that may cause the species to decline

A pest and weed management plan will be implemented, as is required under the State approval process, to control and prevent the establishment of invasive species (and associated diseases) as a result of the Project. The successful implementation of the plan will ensure that there is no introduction or spread of invasive species that are harmful to all vulnerable and their habitats.

Interfere with the recovery of the species

It is not expected that the Project will interfere with the recovery of any vulnerable species.

3.1 (e) Listed migratory species

Description

The following listed migratory species are known or expected to occur in the Project area:

Oriental Cuckoo *Cuculus optatus* - occurs in rainforest, vine thicket and open forest and woodland. The species is often recorded in gardens and plantations.

White-throated Needletail *Hirundapus caudacutus* - in Australia, White-throated Needletail is almost completely an aerial species, possibly even sleeping on the wing. The species is sometimes found roosting in trees and may on rare occasions rest in trees and on the ground during the day. Found over a wide variety of habitat, including open areas, modified land and the ocean but most often recorded over wooded areas.

Fork-tailed Swift *Apus pacificus* - in Australia, Fork-tailed Swift is almost exclusively an aerial species, probably even sleeping on the wing, though individuals are occasionally recorded roosting in trees. Foraging occurs over a wide variety of habitats including towns and cities, open areas, farmland, coastal areas and sometimes forest.

Rufous Fantail *Rhipidura rufifrons* - mostly occurs in moist habitats, including rainforest and along watercourses and gullies.

Spectacled Monarch *Symposiachrus trivirgatus* - occurs in low dense vegetation, mainly in rainforest, but also in wet sclerophyll forests and other dense vegetation.

Black-faced Monarch *Monarcha melanopsis* - occurs in rainforest, wet sclerophyll forest and deep gullies

Satin Flycatcher *Myiagra cyanoleuca* - occurs in wet, dense forests, often at high elevations, and also in gullies and near watercourses. It may occur in other habitats on passage.

Nature and extent of likely impact

Table 4.19 of Attachment 5 provides an assessment of the potential impacts of the project against the EPBC Act significant impact criteria for migratory species, with conclusions summarised below.

AN ACTION IS LIKELY TO HAVE A SIGNIFICANT IMPACT ON A MIGRATORY SPECIES IF THERE IS A REAL CHANCE OR POSSIBILITY THAT IT WILL:

Substantially modify (including by fragmenting, altering fire regimes, altering nutrient cycles or altering hydrological cycles), destroy or isolate an area of important habitat for a migratory species

The majority of clearing associated with the Project would be of regrowth on an existing track. Less than 0.3 ha of eucalypt forest groundlayer and less than 0.4 ha of rainforest groundlayer would be disturbed for track construction. Establishment of Ecocamps will not include disturbance to larger trees present on the site. The trail itself will be up to 0.6 m in width. Any effects associated with fragmentation and loss of habitat will be negligible. The Project will have its own weed and fire management measures in place.

The Project will not substantially modify (including by fragmenting, altering fire regimes, altering nutrient cycles or altering hydrological cycles), destroy or isolate an area of important habitat.

Result in an invasive species that is harmful to the migratory species becoming established in an area of important habitat for the migratory species

A pest and weed management plan will be implemented, as is required under the State approval process, to control and prevent the establishment of invasive species as a result of the Project.

Seriously disrupt the lifecycle (breeding, feeding, migration or resting behaviour) of an ecologically significant proportion of the population of a migratory species

There is no evidence to suggest that the Project area supports an 'ecologically significant proportion of the population' of any of the migratory species known or considered likely to occur. In any case, the limited nature and extent of proposed vegetation disturbance would not seriously disrupt the lifecycle (breeding, feeding, migration or resting behaviour) of any of these species.

3.2 Nuclear actions, actions taken by the Commonwealth (or Commonwealth agency), actions taken in a Commonwealth marine area, actions taken on Commonwealth land, or actions taken in the Great Barrier Reef Marine Park

3.2 (a) Is the proposed action a nuclear action?	x	No
3.2 (b) Is the proposed action to be taken by the Commonwealth or a Commonwealth agency?	x	No
3.2 (c) Is the proposed action to be taken in a Commonwealth marine area?	x	No
3.2 (d) Is the proposed action to be taken on Commonwealth land?	x	No
3.2 (e) Is the proposed action to be taken in the Great Barrier Reef Marine Park?	x	No

3.3 Other important features of the environment

3.3 (a) Flora and fauna

Addressed in Section 3.1 (d).

Feral Animal Control

It is well established that feral Pigs have a serious impact on native fauna. There is significant feral pig activity evident in the forests between Mt Mistake and the Mt Castle Lookout, within the National Park. Currently there is no access to the northern area beyond The Winder walking track (some seven kilometres). Opening The Winder Management Road to the north of The Winder will enable targeted and intensive feral pig control through this country. Gainsdale is committed to undertaking feral pig control in co-operation with QPWS. These control operations will involve management approaches approved by QPWS. Ecoguides associated with SRT walks will be trained to report on feral animal activity on every departure. The reports will be furnished to QPWS and the Nature Refuge manager monthly so that control strategies can be implemented. Gainsdale Pty Ltd will also engage the Hidden Vale UQ Wildlife Centre resources where appropriate to assist in feral animal control research and operations. The image below illustrates one of the several pig wallows identified during the survey process at the northern end of the Winder Management Road.



3.3 (b) Hydrology, including water flows

A review of the soil characteristics and hydrological features of the Scenic Rim Trail Project area has been undertaken by Macnish and Schnider (2016), including the assessment of the Project's likely impacts in regards to soil compaction, erosion, sedimentation and interruption to natural water flows. This report is provided as Attachment 4 of Attachment 2.

Apart from runoff along former logging tracks and more recent roads, streams appear to be fed from seepage until hard rock is intercepted and baseflows daylight. The drainage lines are well incised and steep-sided V-shaped valleys are common. Benches may occur along the channels in places where flows of harder consistence are exposed and channel grade decreases forming shallow pools and run and riffle sections. The heavily littered forest floor appears to be very stable where we were able to observe it and we saw no evidence of surface erosion where clearing had not occurred.

It would appear likely that a Class 5 track as proposed would not lead to any significant change in runoff conditions, thus limiting any risk of erosion occurring. However, the same cannot be said for the steeper slope sections of the trail where it must descend to cross these drainage lines. As these slopes are often associated with soil creep, any downslope pressure from foot traffic is likely to aggravate the soil creep, particularly along cleared tracks. The use of boardwalks, fabricated raised steps and stone and timber steps will be adopted at steep points on the trail or to cross drainage lines, particularly in high risk soil creep sites so as to not impact on surface flows or drainage lines.

The trail will not *per se* affect natural waterflows except for the risk of channelling downslope flows along the actual track. As the trail will predominantly follow ridge crest lines it is only the downslope sections that will be affected.

3.3 (c) Soil characteristics

A review of the soil characteristics and hydrological features of the Scenic Rim Trail Project area has been undertaken by Macnish and Schnider (2016), including the assessment of the Project's likely impacts in regards to soil compaction, erosion, sedimentation and interruption to natural water flows. The resulting recommendations are being incorporated into site design, construction and operational plans. This report is provided as Appendix 4 of Attachment 2.

General description of soils

It appears from field investigations that Dermosols and Ferrosols are the dominant soil types within the Project area. Soil thickness varies from few centimetres on hill crests to up to 2 m on lower slopes and valleys. Discrete surface rocks, ranging in size from cobbles to small boulders are abundant in many areas, on hill crests as well as on slopes.

From the limited field investigations, it appears that the Ferrosols are predominantly associated with the higher and older surfaces along the ridge crests and upper slopes where the dense closed forests occur. The Dermosols appear to be more commonly associated with the more recently (geologically speaking) exposed older basalts at lower elevation where the drier eucalypt forests associated with an understorey of *Xanthorrhoea* spp. and grasses occur. It is likely that the Ferrosols are degraded relict soils from the intense weathering of the Tertiary surface, while the Dermosols are more likely to be associated with Pleistocene and Quaternary weathering.

Soil Limitations

Soil Creep

Soil creep on slopes was observed in several locations within the general Project area. This creep phenomenon is generally associated with a thin veneer of soil and accumulated organic matter overlying a layer of small gravels and angular basalt rocks, which in turn overlies weathered or hard rock basalt exposures where observed on slopes and in road cuttings.

This layer of unconsolidated soil and rock progressively moves downslope due to gravitational forces. These slopes are inherently unstable and activity will be enhanced following wildfires and clearing removing the limited surface protection and root anchoring value of the vegetation. Some more extreme exposures are associated with landslips. The risk of material movement is often enhanced through the fact that the material below the rock layer may not be a beneficial rooting medium (thin soil over bedrock, strongly weathered bedrock etc.) and also functions similar to 'ballbearings' as there is no integration with the underlying weathered or hard rock layer.

The risk to tracks through soil creep would be reduced by the construction of stairs or board walks over sensitive sections.

Guides should be made aware of signs of slope instability and soil creep so they can recognise early warning signs.

Landslips

Landslips are a catastrophic form of soil erosion. Landslips mostly occur on steep slopes, thus the proposed shortcut from the existing Winder track to the proposed Amphitheatre camp and other sections of the proposed trail where steep slopes need to be traversed down/up to cross the narrow valleys in the headwaters of the upland streams have a higher risk of the occurrence of a landslip compared to tracks on ridges or gentler slopes.

Soil Erosion

Under the current conditions, erosion is predominantly caused by soil creep, as described above, and rockfalls along road or track cuttings. The dense vegetation has to date prevented major occurrences of rill or sheet erosion.

Ferrosols in general have good infiltration and thus a low erosion risk. However, they can be prone to erosion if left bare (i.e. excessive clearing) or are compacted. The erosion risk of the Dermosols on steep slopes with low groundcover cover can be high (Alt *et al.*, 2009) though at the time groundcover following good recent rains was in good condition and no erosion was noted.

The low disturbance caused by Class 5 hiking tracks reduces the risk of aggravating erosion and sedimentation, especially as no mature trees will be removed. The highest risks of erosion occur on the steep slope sections. In general, the disturbance footprint of these slopes is relatively low with approximately 0.2 ha only being affected.

Track sections running parallel with the slope should be short to reduce flow path length over relatively bare ground. Exposed roots on the track may act as tumble pits and cause sedimentation and undercutting erosion. Regular track maintenance is required to reduce risk to the tracks.

Shortcutting on the slope by hikers is a factor which can increase the risk of erosion through the creating of cleared paths parallel to the slope. The hikers of the Spicer group will be with a guide at all times, therefore the risk of shortcutting from this group is low. However, the general public using the new tracks cannot be easily controlled. Information signs about the consequences of leaving the track should be placed at the carparks and/or the track entrances. Further, regular track maintenance will be required to address any potential erosion caused by hikers leaving the designated paths.

Soil Compaction

Soil compaction is not considered a difficult issue to manage and at the proposed trail usage rates should not be a significant problem. It is likely to be more severe if the trail is used when the soil surface is wet and trampling with boots causes puddling of the soil. Avoidance of usage under such conditions would reduce the risk but at no time should such conditions be taken as an opportunity to step off the marked track and broaden the width of the track area.

Sedimentation

No sites of sedimentation were observed due to the lack of significant erosion and low human intervention in the areas observed. Heavy litter layers should be sufficient to deal with heavy rainfall events in non-track areas and the only risk would be associated with the actual trail. Regular maintenance of the trail and repairs to affected areas should be adequate.

Amphitheatre View Ecocamp Site

The soil type at the proposed Amphitheatre View Ecocamp site has been identified as predominantly Dermosols with a medium to medium heavy clay subsoil. No Ferrosols were observed in association with this eucalypt forest area and it is likely that these soils are somewhat younger than the Ferrosols having only developed in more humid climates following later exposure of the basalts under the stripped Tertiary surface associated with the Ferrosols.

The slope leading to the proposed Amphitheatre Lookout may be prone to soil creep where only a thin layer of soil and organic matter overlie a layer of rocks and cobbles on a steep slope. Soil depth on the slope to the valley is shallow and as infiltration into the heavy clay subsoil is likely to be restricted, there is a moderate probability that near surface lateral seepage may occur and initiate slope instability, further encouraging soil creep at this site.

Geotechnical investigations should establish if the lookout can be keyed into underlying hard (bed-) rock and thus reduce the risk soil creep poses to the infrastructure. The risk to tracks through soil creep would be reduced by the construction of stairs or board walks over sensitive sections.

Woodcutters Ecocamp Site

The Woodcutters Ecocamp site is associated with Dermosols as far as could be determined, although Ferrosols are visible in a cutting of the established Cascades Trail approximately 100 m up the road

from the proposed Ecocamp site. The road cutting on Cascade Trail shows signs of soil creep and there is evidence of a recent loss of material due to slippage.

The soil creep indicates slope instability in the direction of the Cascades Trail and it is suggested that the Ecocamp should be established further away from the road towards the historic hut. The area upslope of the proposed camp area has an established New England Blackbutt forest with good herbaceous ground coverage. If not disturbed to any extent, the erosion risk from the upslope area is considered to be low.

3.3 (d) Outstanding natural features

Addressed in Section 3.1(a).

3.3 (e) Remnant native vegetation

The fertile red and red-brown Ferrosol soils, relatively high rainfall and mild climate along the Mistake and Main Ranges are conducive to growth of rainforest. Rainforest occupies most of the elevated crests and ridges. Two types of rainforest are present. They include Cool Subtropical Rainforest and Warm Temperate Rainforest (Harden *et al.* 2014 <http://rainforests.net.au/product/rainforest-plants-of-australia/>). Cool Subtropical Rainforest is predominant while Warm-Temperate Rainforest is confined to highest crests and adjacent cool, sheltered slopes. Species growing in the two rainforest types are listed in Appendix 4 of Attachment 2. The rainforest is often bounded by a narrow band of shrubby *Eucalyptus* Open Forest near cliff-lines and Open Forest becomes prominent on narrow ridges and spurs. These areas tend to have dark-brown Dermosol soils. The main type of open forest has mixed composition with Grey gum *Eucalyptus biturbinata*, Thin-leaved stringybark *E. eugenioides*, Black Box *E. quadrangulata* and Yellow box *E. melliodora*. A wet sclerophyll type forest or Tall Open Forest with Sydney Blue Gum *E. saligna* and Brush Box *Lophostemon confertus* occurs adjacent to rainforest in wet gully heads and exposed ridges. The rugged eastern scarp has a complex of vegetation types depending upon slope and substrate. The steep to near-vertical rock pavements have a sparse cover of vegetation with stunted shrubs and Spear Lily (*Doryanthes palmeri*) growing in rock crevices and ledges. Grassland/herbland grows on steep exposed upper slopes where there is some soil development and localised patches of shrubland or montane heath grow near the edge of cliff-lines in places (e.g. Bare Rock, Mt Castle Look-out). *Eucalyptus* Woodland is largely limited to steep dry hill slopes in the extreme north of the proposal area. The main overstorey species are Narrow-leaved Ironbark, *Eucalyptus crebra*, Forest Red Gum *E. tereticornis* and Yellow Box *E. melliodora*, and there is a dense ground stratum of Wild Sorghum *Sorghum leiocladum*. The top of the escarpment in the north is also open and grassy with a dominance of Kangaroo Grass *Themeda triandra* with a scattered overstorey of Forest Red Gum.

3.3 (f) Gradient

The trail commences at an elevation of 321 m, rising to over 1000 m for the much of the journey. Slopes reach up to 30.8-34.9% but average 8.3- 8.4%. **Figure 5** is a diagram of the elevation of the proposed trail from Thornton to Spicers Windmill Ecocamp.

Figure 5. Scenic Rim Trail Elevations from Thornton to Spicers Canopy Ecocamp



3.3 (g) Current state of the environment

Weeds

Around 45 weed species have been recorded from Main Range National Park which includes the Mistake Range (DEHP WILDNET database) and several additional species have been recorded during survey (Appendix 3 of Attachment 2). The route was noted to be largely weed-free, with their presence confined mostly to existing 4WD tracks, Rainforest – Open forest ecotones and Open Forest and Woodland subject to cattle grazing.

The far northern end of The Winder Management Road has been subject to weed invasion in the disturbance-prone Rainforest-Eucalyptus Open Forest ecotone. Additionally the Winder Track has weed management challenges in open sunny areas especially round the clearing containing the ‘winder’ winch. Once the track enters the heavily shaded closed forest sections, the occurrence of weeds is negligible

Lantana camara and *Fireweed Senecio madagascariensis* are Weeds of National Significance recorded from or near the route. *Lantana* remains absent on higher altitude parts of the Mistake and Main Ranges although it is an adaptable species known to spread attitudinally through time. *Fireweed* is also a highly adaptable species and was observed invading rock pavement and grazed *Eucalyptus* Open Forest near the Main Range National Park boundary. Other major weeds observed include Crofton Weed which grows in moist open places (e.g. rainforest – eucalypt forest ecotones) and Giant Parramatta Grass *Sporobolus fertilis* which was recorded from existing 4WD tracks. Short-lived (ruderal) herbaceous weeds especially daisies including Cobbler’s Pegs, Fleabane and Billygoat Weed are present in disturbed open areas (e.g. car parks) and are likely to colonise ash beds (e.g. where a fallen tree has burned) after fire within the *Eucalyptus* Open forest. These species are troublesome rather than serious and quickly decline in abundance after disturbance, remaining present in the soil seed bank. The rainforest along the route is extensively weed-free apart from where there was heavy logging and more recent disturbance (e.g. tree fall) to form open sunny gaps. Members of the nightshade family (Solanaceae) are present in disturbed rainforest in low densities and do not persist. The *Eucalyptus* Open forest also has a low incidence of weeds away from ecotones and roadsides. Weeds are most abundant along the semi to heavily shaded existing 4WD access roads, although much of the grassy and herbaceous vegetal cover along these tracks is provided by native coloniser type grasses and herbs which can be readily mistaken for naturalised weed species. The track weeds present include temperate adapted species which are uncommon in south-eastern Queensland.

Condition of the vegetation

Accessible places on the Mistake Range were heavily logged for Red Cedar *Toona ciliata*, Rosewood *Dysoxylum fraserianum*, Black Booyong *Argyrodendron actinophyllum*, Hoop Pine *Araucaria cunninghamii* and other cabinet timber species. Most of the route of the abandoned road exhibits evidence of past logging and in some places the vegetation remains heavily impacted.

The walking trail traverses undisturbed rainforest close to the scarp which was inaccessible to logging. The unlogged rainforest is in good condition apart from localised patches which have been affected by wind damage and land slips. The trail also traverses two small isolated patches of Wet Sclerophyll Forest in good condition which do not exhibit any evidence of logging.

The area is prone to landslips which dislodge and destroy patches of vegetation. Recent landslips during high intensity rainfall events in 2011 and 2013 have occurred along the Cascades Creek system (>10ha) and along the eastern scarp.

3.3 (h) Commonwealth Heritage Places or other places recognised as having heritage values

There are no recognised Commonwealth Heritage Places, although there are other recognised heritage values. The upper reaches of the Goomburra Valley were initially part of a cattle run operated by Ernest Dalrymple, a close friend of the Darling Downs pioneers the Leslie brothers (<http://www.nprsr.qld.gov.au/parks/main-range/culture.html>website). The upper-most reaches of the catchment were excised as state forest in the 1920’s. Logging of rainforest timber had commenced in the 1870’s. After the change of tenure to state forest, harvesting of native softwood and hardwood

species occurred and experimental plantings of native and introduced conifers were established. The Mistake Mountains provided cabinet timbers especially Red Cedar (*Toona ciliata*) and Rosewood (*Dysoxylum fraserianum*) as well as timbers used in flooring and other internal uses, railway carriage construction and plywood.

An area of state forest on the northern end of the plateau was converted to national park when public interest in a conservation estate along the Scenic Rim gathered momentum in the 1960's-1970's. Around this time, logging of rainforest species was winding down as most accessible timber had been removed. Some limited logging of Eucalyptus and Brush Box continued. The national park was extended in 2006 through the South East Queensland Forest Agreement when the remaining state forest (Goomburra section) was incorporated into an expanded Main Range National Park. This conversion saw an end to logging on state lands on the plateau.

The logging, haulage and sawmilling history of the area has resulted in a colourful legacy of innovation and hardship and reminders of the era remain evident in places – examples include the location of a chute down the side of plateau, former sawmill sites and the Winder site.

3.3 (i) Indigenous heritage values

There are a number of Traditional Owner groups that associate with the broader area, including the Githabul people, whose lands extend into New South Wales; the Western Wakka Wakka to the west; and the Jagera People to the east of the escarpment. It has been reported that about 200 Githabul people live in the Queensland towns such as Warwick, Killarney and Rathdowney (Trevor Close, Githabul spokesperson, quoted in *The Australian*, 28-2-07). The forests, streams and landforms of Main Range National Park are of intrinsic value to the local Aboriginal people as part of the cultural landscape of their country. Aboriginal place names are known for some of the prominent landforms in the area. Jirramun – Wilsons Peak; Barguggan - Spicers Peak; Cooyinnirra - Mount Mitchell Niamboyoo - Mount Cordeaux; and Mount Roberts (Bunkoo) (Steele, 1984). Gainsdale Pty Ltd is acutely aware of its obligations under the *Aboriginal Cultural Heritage Act 2003* (Qld) regarding the management of Indigenous cultural heritage and its legislative "Duty of Care". Gainsdale Pty Ltd will comply with its legislative obligations.

Gainsdale Pty Ltd has contacted Traditional Owners that may have an interest in the Project area and will continue to consult with Traditional Owners with the aim of presenting the project in a way that respects the Indigenous heritage values and provides a valuable interpretive experience.

Gainsdale Pty Ltd specialists will follow guidelines set out by the Australian Heritage Commission Ask First publication and the Queensland Department of Aboriginal and Torres Strait Island and Multicultural Affairs Protocols for consultation and negotiation with Aboriginal People.

3.3 (j) Other important or unique values of the environment

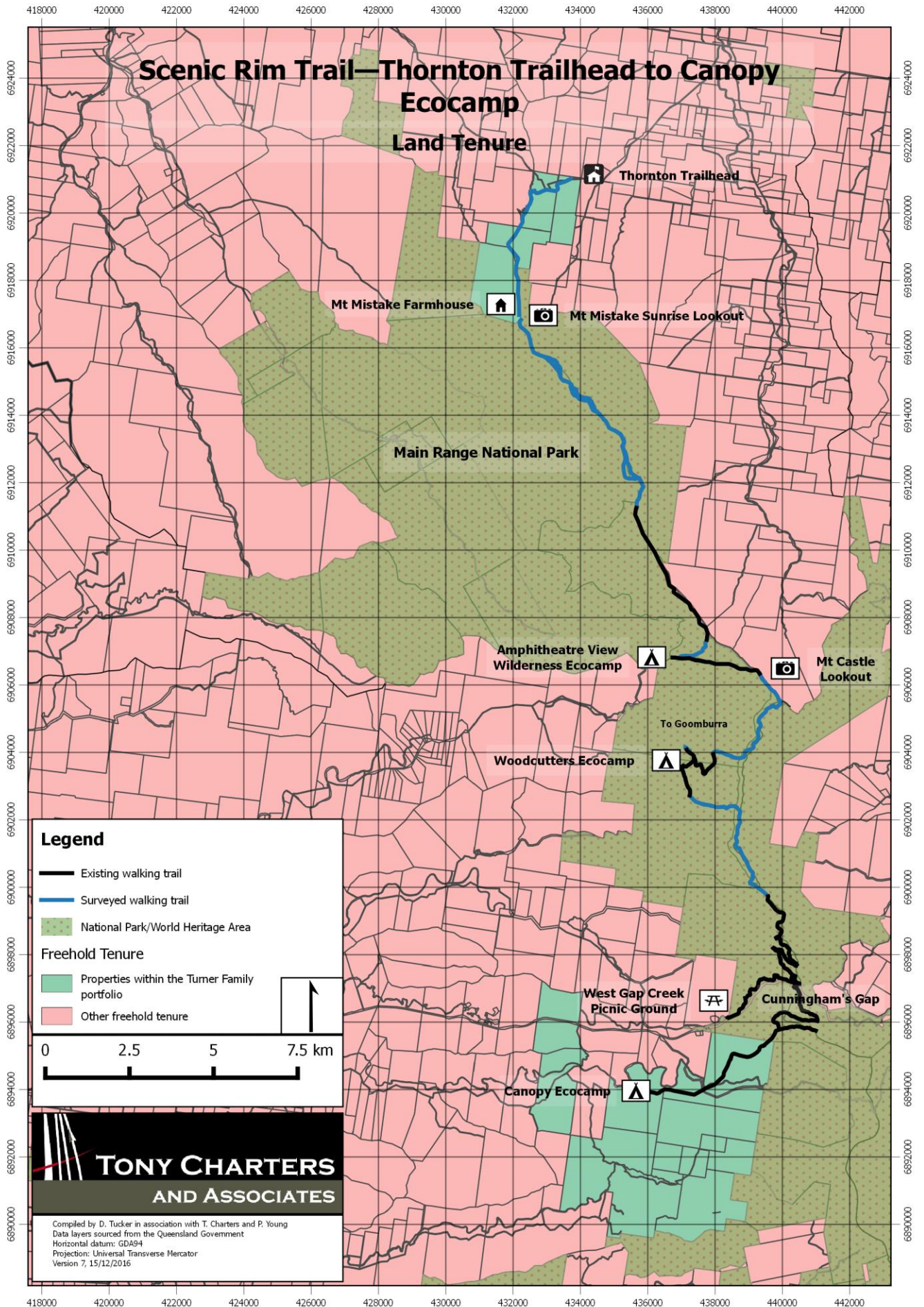
The Project area is located within and adjacent to Main Range National Park. Main Range National Park is on the western part of the Scenic Rim, an arc of mountains from Mt Mistake to Springbrook in South East Queensland. The total area of Main Range National Park is 30,170.5 ha and is managed by the Queensland Parks and Wildlife Service (QPWS). Cunningham's Gap was reserved as a national park in July 1909, and a number of other national parks were reserved along the main range in the 1960s and 1970s. In August 1980 the parks were amalgamated to form Main Range National Park.

In December 1994 the UNESCO World Heritage Committee official declared the Gondwana Rainforests of Australia World Heritage Area over the Scenic Rim, including most of Main Range National Park.

3.3 (k) Tenure of the action area (e.g. freehold, leasehold)

Figure 6 shows the tenure of the Project area.

FIGURE 6. SCENIC RIM TRAIL PROJECT AREA LAND TENURE



3.3 (l) Existing land uses of area

Primary land uses within Main Range National Park are natural and cultural heritage conservation, recreation and education activities. There are 11 apiary sites in areas that were formerly State Forest. Management actions carried out include maintaining appropriate fire regimes, weed and feral animal control, and management of tracks and public facilities.

Most of the country around the park is used for cattle grazing.

QPWS considers that generally, remote camping is low in this area. The number of campers included in remote camping permits for the Main Range National Park from October 2015 to October 2016 was 427 camping nights. This figure is for the entire Park and does not reflect the number of track users as it is known that there are some day users that do not require permits.

3.3 (m) Any proposed land uses of area

There are no known pending changes to current land uses within the Project area.

4 Environmental outcomes

4.1 Outcomes to protect Matters of National Environmental Significance

The proposed Scenic Rim Trail Project has a small footprint and will be themed to carefully fit within and inspire an appreciation of the natural heritage values of the project area.

The project design has developed through an iterative process throughout the environmental assessment. As risks were identified, they were communicated to the project team, and collaborative solutions were incorporated into the design. These management measures have facilitated the avoidance of any likelihood of a significant impact on any matters of national environmental significance, including:

- No significant impact of the Project on EPBC Act threatened flora or fauna species; and
- No significant impact of the Project of World Heritage or National Heritage values.

Impact assessments (Attachments 2, 3, 4 and 5) have concluded that there is no likelihood of any significant impact on a matter of national environmental significance arising from the proposal. For example:

1. Potential impacts associated with the introduction of weeds and other pathogens and pest animals were identified. However, the proponent is committed to developing a weed management plan developed by its consultant botanist in collaboration with QPWS to rehabilitate the areas that have weed problems and to ensure that the weed free areas remain that way throughout construction.

Significant additional operational weed management measures also form part of the project commitments, and are identified at Section 5 below.

2. Field assessment has determined the presence of some listed fauna species, and others may be found to be present over time. The Project is designed to ensure that these species are not significantly impacted during construction and operation. For example, the proponent has committed to take appropriate action to:
 - (a) minimise the impact of stream crossings, including the avoidance of increased erosion risks through the use of carefully placed raised walkways or other measures as recommended by QPWS.

- (b) undertake long term monitoring of weeds and feral animals throughout the Trail and work with QPWS and neighbours in management and control. In particular the control of existing Feral Pigs, which have a detrimental impact on ecological values, will be targeted.
 - (c) work with QPWS and neighbours with regards to fire management planning and actions.
 - (d) establish baseline data and annual monitoring of Hastings River Mouse adjacent to the proposed Woodcutters Ecocamp.
 - (e) establish baseline data and annual monitoring of frog assemblages at stream crossings; and
 - (f) establish long term monitoring for Eastern Bristlebird (using song meters) and surveys of habitat structure and condition over time.
3. Key action items ensuring there is no likelihood of a significant impact on specific matters of national environmental significance include:
- As noted above, management of construction and operational phases of the Project will ensure that no new weeds are introduced to the Project area, and no existing weeds are spread through Project activities. Adherence to the use of clean machinery and materials, and weed free clothing and footwear for the construction phase, and clothing and footwear cleaning for trail guests during operation will be imposed. A baseline weed survey and the results of monitoring will accurately measure the success of the mitigation actions. Regular (each departure) monitoring of the trail by trained ecoguides will ensure that any weed outbreak will be dealt with immediately.
 - Management of the operational phase of the Project will ensure that while the establishment of new walking tracks has potential to facilitate the movement of feral animals, there will be no increase in feral animal numbers in the Project area as a result of the Project construction and operation. A baseline study is required to establish feral animal presence. There would be continuous reporting of feral animal activity on the trail from periods of using fixed cameras to capture night time activity, and weekly by trained ecoguides during daylight hours. Collaboration with QPWS and neighbours to control feral animal numbers is proposed, informed by monitoring results to target relevant species.
 - The Project will be designed and managed such that it does not adversely impact on water quality of local creeks and subsequently affect the quality of habitat available for native frogs or the Mt Mistake Spiny Cray. Baseline and ongoing water quality, frog and Mt Mistake Spiny Cray surveys are proposed to measure this outcome.
4. Currently there is no access to the northern area of the National Park beyond The Winder walking track (some seven kilometres). Opening The Winder Management Road to the north of The Winder will enable targeted and intensive feral pig control through this country. The proponent is committed to undertaking feral pig control in co-operation with QPWS. These control operations will involve management approaches approved by QPWS. Ecoguides will be trained to report feral animal activity on every departure. The reports will be furnished to QPWS and the Nature Refuge manager monthly so that control strategies can be implemented. Hidden Vale UQ Wildlife Centre resources will also be accessed where appropriate to assist in feral animal control research and operations.

4.2 Monitoring and Review

4.2.(a) Biodiversity

Establishment of baseline data and ongoing monitoring programs for weeds, feral animals, Hastings River Mouse, stream conditions and frog assemblages at stream crossings and trend and condition of vegetation and soil along the trail route will be undertaken to allow for an adaptive approach to the management of the potential impact of the proposal on biodiversity. These are summarised in Table 4.1. A pre-construction survey of stream sections downstream from each crossing will be conducted. Survey for frogs and Mt Mistake Spiny Cray, sample for water quality parameters and document stream structure through photographs. Frog survey would include sampling for evidence of Chytrid fungus (although it is known to be present in Main Range National Park).

Table 4.1. Proposed Monitoring Program

Monitoring	Extent and Frequency	Comment
Weed presence around all infrastructure and trails	Post construction baseline weed survey, then annual survey and reporting for first two years then five yearly. Ongoing feedback from ecoguides for any new weed occurrences. Weeds to be monitored and treated in accordance with an approved Weed Management Plan.	Post rain during growing season
Feral animal presence around all infrastructure and trails	Annual assessment and reporting with on-going feedback from ecoguides for feral animal signs and sightings. Feral animals to be monitored and managed in accordance with an approved Feral Animal Management Plan that will be developed in consultation with QPWS.	Control of existing level of Feral Pig presence would be a positive benefit of the project. Control required year-round.
Vegetation health and condition of trail	Continuous assessment during operation by ecoguides. Structured annual assessment.	Conduct in conjunction with weeds for first 2 years
Hastings River Mouse population at Woodcutters	Baseline survey and annual survey for first three years of construction/operation then review. Reporting to QPWS. Survey most suitable habitat extent with 400 trap nights of trapping survey effort per survey as per survey guidelines (NSW DECC 2005), using 4 transects of 25 traps stratified by distance from the Woodcutters Ecocamp site.	Conduct in late summer (March-April), at the end of the breeding season
Eastern Bristlebird habitat in the Mt Mitchell Trail Section	Baseline population and habitat condition surveys and annual surveys for first three years of construction/operation then review. Reporting to QPWS. Recommend the long term deployment of Song Meters to detect calls in suitable habitat near the trail.	Baseline survey outside of Aug-Feb breeding times (survey between Mar-Jan). Long term deployment of Song Meters is non-invasive and can be conducted year-round.
Stream condition adjacent to crossings	Regular assessment during operation by ecoguides. Structured annual assessment.	Conduct in summer or early autumn
Frog assemblage adjacent to stream crossings	Baseline survey and annual survey for first three years of construction/operation then review. Reporting to QPWS.	Conduct in summer or early autumn
<i>Euastacus jagara</i> population	Baseline survey and annual survey for first three years of construction/operation then review. Reporting to QPWS.	Conduct in summer or early autumn

4.2 (b) Infrastructure**Table 4.2 Proposed Monitoring of Infrastructure**

Monitoring	Extent and Frequency	Comment
Condition of constructed trail sections (steep slopes and a creek crossing)	Annual assessment with ongoing feedback from ecoguides for maintenance requirements. Report on monitoring and maintenance activities and outcomes monthly to QPWS.	Conduct in conjunction with vegetation health and general condition of route and vicinity.
Winder Road Management Track	Annual assessment of track condition with ongoing feedback from ecoguides for maintenance requirements. Report on monitoring and maintenance activities and outcomes monthly to QPWS.	Conduct annual assessment following rainfall between spring and early autumn.

4.2 (c) Operation

Table 4.3 Proposed Operational Monitoring

Monitoring	Extent and Frequency	Comment
General condition of trail and precinct	Annual assessment with ongoing feedback from ecoguides (e.g. large tree fall). Include in monthly reporting to QPWS.	Conduct in conjunction with vegetation health along route
National Park track user numbers	Monitoring of walker numbers on existing tracks that are part of the Scenic Rim Trail prior to and following commencement of operation. Include results in monthly reporting to QPWS.	Can be undertaken remotely using fixed cameras.

The proponent has committed to contribute to monitoring, management and maintenance of new National Parks tracks utilised by the Trail in cooperation with QPWS. Specifically, the proponent will:

- Maintain all new sections of walking trail (brushing to maintain opening if required; removal of fallen timber to an adjoining area in the immediate vicinity; stabilisation of any steps; rectification of drainage problems; track repair after big rain events, etc. –within the category 5 standard of the trail);
- Report immediately on track damage such as fallen trees, etc. for the entire length of trail on the National Park used as part of the SRT;
- Maintain the sections of the QPWS management tracks used for the Trail i.e the Cascades road from the gate at Manna Gum Camping Ground to the intersection with the Ridge Track; the Mt Castle Western Fire Trail from the M Castle Lookout Carpark to Amphitheatre View Wilderness Ecocamp; the Northern Fire trail from the northern boundary of Main Range National Park to the northern end of the Winder Management Road; and The Winder Management Road through to the Mt Castle Lookout carpark;
- Establish fixed camera stations at key points along the trail to monitor track condition;
- Establish track people counters to establish total use patterns and visitor flows. Under track counter cabling and concealed counters would be installed at the Trailhead, the Winder track, the track from Mt Castle Lookout to Sylvester’s Lookout, from Sylvester’s Lookout to Cascades circuit, from Bare Rock north and the track from Banshee Fire Trail to Bare Rock.

A weed removal program will also be developed and implemented for the National Parks tracks utilised by the Scenic Rim Trail with a focus on monitoring and removing weeds that may enter the track and the control of any existing weeds at the north and south entry points. The day to day monitoring will be undertaken by trained ecoguides. Periodic monitoring will be undertaken by a contracted botanist.

5 Measures to avoid or reduce impacts

5.1 Construction Environmental Management Plans

Construction Environmental Management Plans have been prepared for the Ecocamps (Appendix 10 of Attachment 2), Trails (Appendix 11 of Attachment 2) and the reopening of the Winder Management Road (Appendix 12 of Attachment 2).

5.2 Commitments

The key commitments for environmental protection through the avoidance of disturbance, and environmental management and monitoring are set out in Table 5.1. These commitments have been developed through:

- understanding the environmental values of the Main Range National Park and Gondwana Rainforests of Australia;
- understanding the existing threats to the identified values; and

- determining the likelihood and severity of impacts that the project may present to the identified values.

The monitoring and management of all infrastructure associated with the Scenic Rim Trail, including new trails and overnight facilities, will be the responsibility of Gainsdale Pty Ltd. Gainsdale Pty Ltd will work with QPWS to monitor and manage those national park tracks and other facilities that form part of the Scenic Rim Trail route.

All construction contractors will be required to prepare and submit a Construction Environmental Management Plan (CEMP) that details measures to implement the commitments set out in Table 5.1 for the construction phase of the project. As a minimum, the CEMP must:

- Be consistent with the CEMPs provided as Appendices 8, 9 and 10 of Attachment 2;
- Identify and assess the risk from, provide protection from, and provide a remedy for, any adverse environmental impact that may result from the construction and performance of any component of the works;
- Define the environmental responsibilities of the Contractor and of each person within the Contractor's management team;
- Include schedules of available resources, including personnel to deal with environmental incidents;
- Define the environmental safeguards and systems to be implemented for the works for reporting, monitoring, corrective action, auditing and the adoption of environmentally sensitive work practices. This must include:
 - Environmental awareness and induction
 - Storage and handling of dangerous goods
 - Storage, maintenance and refuelling of construction plant and equipment
 - Waste management and minimisation
 - Detection, treatment and disposal of contaminated materials and water
 - Water quality control measures
 - Erosion and sediment control plans
 - Hygiene prescriptions to prevent the spread of weeds, Phytophthora and other pathogens
 - Protection of aboriginal and historical cultural values
 - Protection of ecological values (e.g. threatened flora and fauna, animal breeding places) and
 - Incident response strategies for emergency conditions.

Regular progress reporting and incident reporting will be required from contractors.

A designated Scenic Rim Trail building and trail supervisor will oversee compliance.

An Environmental Management Plan (EMP) will be prepared for the ongoing monitoring and management of the Scenic Rim Trail operation phase. The EMP will incorporate those commitments set out in Sections 4.2(a)-(c) and Table 5.1. The EMP is to be reviewed every two years to ensure its suitability and effectiveness.

Table 5.1 Environmental Outcomes and Project Commitments to Environmental Monitoring and Management

No	Commitment	Project Phase
Conservation Values		
1	The construction and operation of the project will be undertaken without affecting the integrity of the area and ensuring the maintenance and protection of conservation values.	Construction/ Operation
2	Gainsdale Pty Ltd will work with QPWS and will be responsible for the on-going management and monitoring of the effects of all infrastructure associated with the project.	Construction/ Operation
3	The World Heritage values of the area will be the focus of the development, and education of all guests will be part of the experience. Gainsdale Pty Ltd will consult with QPWS in the development of the educational program.	Operation

No	Commitment	Project Phase
Flora		
4	Road re-construction constrained within a 2.5m wide corridor	Construction
5	Minimisation of clearing during re-construction	Construction
6	No net loss within Bunya Mountains Bluegrass population	Construction
7	Avoid/minimise removal of woody plants along Class 5 trail and ecocamp sites	Construction
8	Avoid degradation along route from soil erosion and vegetation trampling	Operation
Weeds and Pathogens		
9	Equipment, vehicles, footwear cleaned before entering NP	Construction
10	Externally sourced material (rock or gravel) obtained from a source certified as low risk for weed and disease	Construction/ Operation
11	Trail route to detour patches of dead trees	Construction
12	Post construction weed survey, then annual survey for first two years then five yearly	Operation
13	Removal of dried mud from footwear and prior to entering NP	Operation
14	Chemical footbath at NP entry and Amphitheatre View and Woodcutters Ecocamp	Operation
15	Weed identification and plant health training (e.g. myrtle rust symptoms) for eco-guides	Operation
16	Annual survey of vegetation health and condition of trail	Operation
Terrestrial Vertebrate Fauna and Aquatic Environment		
17	No introduction of pests and pathogens via the project construction or operation	Construction/ Operation
18	Monitor stream condition, threatened frogs and Mt Mistake Spiny Cray at locations where the trail crosses watercourses annually for the first three years reporting to QPWS, then review to establish appropriate monitoring interval	Operation
19	Conduct a baseline survey of Hastings River Mouse at the Woodcutters Ecocamp site, annual surveys for the first three years of construction/operation, reporting to QPWS, then review to establish appropriate monitoring interval.	Pre-construction Operation
20	Conduct a baseline survey of Eastern Bristlebird population and habitat condition in the Mt Mitchell Trail section, annual surveys for the first three years of construction/operation, reporting to QPWS, then review to establish appropriate monitoring interval. Consider the long term deployment of song meters to detect the calls of Eastern Bristlebird in suitable habitat traversed by the trail.	Pre-construction Operation
21	Should Eastern Bristlebird be detected through survey and monitoring or reported by other sources from the vicinity of the proposed trail, preparation and implementation of a management strategy would be required. Gainsdale Pty Ltd has the capacity to develop a Breeding Program for Eastern Bristlebird at their Hidden Vale UQ Wildlife Facility for reintroduction to the Mt Mitchell habitat, if such a measure is considered prudent by stakeholders.	Construction/ Operation
22	Gainsdale Pty Ltd to continue to support the Brush-tailed Rock-Wallaby essential habitat mapping being undertaken by Healthy Waterways and Catchments Ltd.	Pre-construction/ Construction/ Operation
23	Avoid damage to or loss of habitat of fauna species of special conservation significance and minimise impacts of the Project on the habitat of commonly occurring fauna species.	Construction/ Operation
24	Consult with QPWS regarding appropriate Chytrid fungus hygiene protocols for bushwalkers and for frog surveys. Include agreed protocols in a Fauna Management Plan for the operation of the Scenic Rim Trail.	Operation
25	Gainsdale Pty Ltd in cooperation with QPWS will conduct feral animal control programs on its adjoining land and will monitor and report on evidence of feral animal activity along the Scenic Rim Trail on an ongoing basis	Operation
26	Prepare and submit a Species Management Program to DEHP for approval to disturb animal breeding places	Prior to construction
27	Brush-tailed Rock-Wallabies are known from habitats on the northern boundary of Main Range National Park, and within private lands owned by the Turner family. While the SRT is not expected to have any impact on habitat for this species, Gainsdale Pty Ltd is funding the completion of Essential Habitat mapping of Brush-tailed Rock Wallabies in Queensland in partnership with Healthy Catchments and Waterways Ltd (formerly SEQ Catchments), in order to contribute to the	Pre-construction/ Construction/ Operation

No	Commitment	Project Phase
	understanding and conservation of the species.	
Cultural Heritage		
28	Consultation to take place. Gainsdale Pty Ltd specialists will follow guidelines set out by the Australian Heritage Commission Ask First publication and the Queensland Department of Aboriginal and Torres Strait Island and Multicultural Affairs Protocols for consultation and negotiation with Aboriginal People	Project planning stage
29	The priority option for Aboriginal or other historical artefacts identified from within the corridor is to re-route the trail to avoid the site	Construction/ Operation
30	Artefacts are not to be removed or interfered with during construction and operation of trails	Construction/ Operation
31	Visiting historical features (e.g. the log chute) will not occur in the absence of detailed site assessment and trail access	Operation
Soil and Water		
32	Preparation of individual Erosion and Sediment Control Plans for construction of each overnight node and for any trail construction sections greater than Class 5 level	Construction
33	Continual survey of trail condition by ecoguides to inform any requirement for stabilisation/remediation.	Operation
34	Confinement of all hazardous materials to suitably designed structures (e.g. bunded enclosures).	Construction/ Operation
35	Monitoring of walker numbers on existing tracks that are part of the Scenic Rim Trail prior to and following commencement of operation.	Prior to operation
Health and Safety		
36	All construction and operational activities to be carried out under an approved Health and Safety Plan	Construction/ Operation
Construction		
37	All contractors will prepare a Construction Environmental Management Plan for their works	Construction
38	The track is to be constructed to the requirements of Australian Standard 2156 Class 5 track	Construction
39	Any areas disturbed during construction that are not required for operational purposes to be rehabilitated using local provenance species under an approved Rehabilitation Plan	Construction
Operation		
40	Preparation of an Environmental Management Plan for the Operation of the Scenic Rim Trail and associated accommodation nodes	Operation
41	Monitoring of walker numbers on existing tracks prior to and during operation of the Scenic Rim Trail	Operation
42	Prepare and implement a Solid Waste Management Plan	Operation
43	Prepare and implement a Water and Waste Water Management Plan	Operation
44	Prepare and implement a Fire Management Strategy and Emergency Management Plan	Operation
45	Gainsdale Pty Ltd will consult with QPWS in the development of signs and interpretive displays to ensure consistency of signage and messages with those of the National Park and WHA	Operation

6 Conclusion on the likelihood of significant impacts

6.1 Do you THINK your proposed action is a controlled action?

- No, complete section 6.2
 Yes, complete section 6.3

6.2 Proposed action IS NOT a controlled action.

Assessment of the project against the Significant Impact Guidelines 1.1 for threatened species and World Heritage Values finds that there is no likelihood of a significant impact to known threatened species, migratory species or World Heritage Values by the construction and operation of the Scenic Rim Trail. There is a need to establish baseline data for Eastern Bristlebird habitat in the Mt Mitchell Trail section and Hastings River Mouse adjacent to the proposed Woodcutters Ecocamp.

The Project has been designed to avoid impacts on MNES, with the proposed Class 5 trail following existing roads, tracks and footpads wherever possible, and with Ecocamps either in previously disturbed areas, or located to avoid the need for clearing any canopy trees. It is proposed to clear 1.5 ha of rainforest coloniser species from the currently disused Winder Management Road, and a total of 0.65 ha of groundcover disturbance is proposed for the remainder of the trail and the Ecocamp installations.

There are a range of mitigation, monitoring and management measures that must be assured for the results of the impact assessments to be achieved. These measures are being prepared under the scrutiny and supervision of the Queensland Parks and Wildlife Service, which shares responsibility for the management of the World Heritage Area with the Australian Government. The results of all baseline surveys, monitoring programs and management measures will be reported to QPWS on a monthly basis during the construction and operation of the Project. The presence of trained ecoguides on all SRT walks is a significant resource for long-term monitoring to inform adaptive management on a weekly basis. Scenic Rim Trail will be participating in fire management, weed management and feral animal management in cooperation with QPWS and the owners of neighbouring properties and will be responsible for the maintenance of all Scenic Rim Trail infrastructure.

Ultimately, the Scenic Rim Trail will have a small footprint that, should the trail and Ecocamps ever be decommissioned, would leave behind little evidence of ever having existed.

6.3 Proposed action IS a controlled action

Matters likely to be impacted

- | | |
|--------------------------|---|
| <input type="checkbox"/> | World Heritage values (sections 12 and 15A) |
| <input type="checkbox"/> | National Heritage places (sections 15B and 15C) |
| <input type="checkbox"/> | Wetlands of international importance (sections 16 and 17B) |
| <input type="checkbox"/> | Listed threatened species and communities (sections 18 and 18A) |
| <input type="checkbox"/> | Listed migratory species (sections 20 and 20A) |
| <input type="checkbox"/> | Protection of the environment from nuclear actions (sections 21 and 22A) |
| <input type="checkbox"/> | Commonwealth marine environment (sections 23 and 24A) |
| <input type="checkbox"/> | Great Barrier Reef Marine Park (sections 24B and 24C) |
| <input type="checkbox"/> | A water resource, in relation to coal seam gas development and large coal mining development (sections 24D and 24E) |
| <input type="checkbox"/> | Protection of the environment from actions involving Commonwealth land (sections 26 and 27A) |
| <input type="checkbox"/> | Protection of the environment from Commonwealth actions (section 28) |
| <input type="checkbox"/> | Commonwealth Heritage places overseas (sections 27B and 27C) |

7 Environmental record of the responsible party

	Yes	No
<p>7.1 Does the party taking the action have a satisfactory record of responsible environmental management?</p> <p>The work of the Turner Family (the directors of Gainsdale Pty Ltd) in conservation on its Nature Reserves and the planned work in wildlife management is extensive.</p> <p>Spicers Group has been active in developing partnerships between landowners and protected area managers along Main Range to contribute to Great Eastern Ranges concept from North Queensland to Victoria.</p> <p>Graham and Jude Turner, own 8,000ha in the northern section of the Scenic Rim adjoining Main Range National Park.</p> <p>Three Nature Refuges have been established on these properties, totaling nearly 5,500ha protecting these lands in perpetuity through Conservation Agreements:</p> <ul style="list-style-type: none"> • Spicers Peak Nature Refuge established in 2006 and comprising 2000ha. It has a seven kilometre boundary with Main Range National Park. • Old Hidden Vale Nature Refuge – established in 2007, 3091 ha. Part of this Nature Refuge includes: <ul style="list-style-type: none"> – Old Hidden Vale Koala Habitat – established in 2012. – Thornton View Nature Refuge – established in 2006, 320 ha of Rock Wallaby and breeding sites for raptors such as Peregrine Falcon. <p>The Turner family has entered in a partnership with the University of Queensland to fund a multi-million dollar Wildlife Centre. Located at Hidden Vale and adjacent to their 3,100 ha Nature Refuge the project combines learning and research with the opportunity to develop sustainable wildlife populations in a multi-use environment. Currently under construction the Hidden Vale UQ Wildlife Centre will include two main facilities - a captive breeding facility and ultimately a permanent release facility. The facility will be completed at the end of 2016 and from 2017 UQ's native Wildlife Teaching and Research Facility will, for the first time, be able to offer students hands-on access to learn wildlife management techniques and to study a diverse range of native and endangered animals (see Appendix 2 of Attachment 2).</p> <p>The Turners have an excellent reputation for working with QPWS as a neighbour in the Scenic Rim in relation to fire management and feral animal control.</p>	✓	
<p>7.2 Has either (a) the party proposing to take the action, or (b) if a permit has been applied for in relation to the action, the person making the application - ever been subject to any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources?</p> <p>Not applicable</p>		✓
<p>7.3 If the party taking the action is a corporation, will the action be taken in accordance with the corporation's environmental policy and planning framework?</p> <p>Details of Gainsdale Pty Ltd environmental policy and framework provided as Attachment 6.</p>	✓	
<p>7.4 Has the party taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?</p> <p>Not applicable</p>		✓

8 Information sources and attachments

(For the information provided above)

8.1 References

References relied upon to inform impact assessment are listed in Attachments 2, 3, 4 and 5.

8.2 Reliability and date of information

The study team has accessed public databases (Protected Matters Search Tool, Atlas of Living Australia and WildNet) for the most recent and historical flora and fauna locality data for the study area and surrounds in order to determine the likelihood of EPBC Act listed species presence, followed by field assessment to sample the presence of species considered likely to occur and determine the presence or absence of habitat for those species. Flora and vegetation information is backed by the results of field assessment. The reference lists show literature accessed to assess the significance of regional ecosystems, species and populations and identify known threats to significant values, including government publications and papers from peer reviewed scientific journals. The study team has referenced the most recent available publications as well as historical literature to ensure that all known or potential values have been considered and assessed.

8.3 Attachments

Attachments to this referral are:

- Attachment 1- Construction Timetable
- Attachment 2 Scenic Rim Trail – Thornton to Spicers Canopy Nature Reserve Development Proposal and Environmental Management Plan
- Attachment 3 World and Natural Heritage Values Assessment
- Attachment 4 MNES Flora Species Assessment
- Attachment 5 MNES Terrestrial Vertebrate Fauna Species Assessment
- Attachment 6 Gainsdale Pty Ltd Environmental Policy

		✓ attached	Title of attachment(s)
You must attach	figures, maps or aerial photographs showing the project locality (section 1)	✓	Figure 1 Locality Map in this document
	GIS file delineating the boundary of the referral area (section 1)	✓	GIS Boundary of the SRT Referral Area
	figures, maps or aerial photographs showing the location of the project in respect to any matters of national environmental significance or important features of the environments (section 3)	✓	Included in this document and in Attachment 2 –Scenic Rim Trail Development Proposal and Environmental Management Plan
If relevant, attach	copies of any state or local government approvals and consent conditions (section 2.5)		
	copies of any completed assessments to meet state or local government approvals and outcomes of public consultations, if available (section 2.6)	✓	Attachment 2 –Scenic Rim Trail Development Proposal and Environmental Management Plan
	copies of any flora and fauna investigations and surveys (section 3)	✓	Appendix 5 of Attachment 2 – Flora Species List Appendix 6 of Attachment 2 – Fauna Survey Results

	✓ attached	Title of attachment(s)
technical reports relevant to the assessment of impacts on protected matters that support the arguments and conclusions in the referral (section 3 and 4)	✓	Attachment 3 – World and Natural Heritage Values Assessment Attachment 4 – MNES Flora Species Assessment Attachment 5 – MNES Terrestrial Vertebrate Fauna Species Assessment Appendix 4 of Attachment 2 – Scenic Rim Trail Soils Review
report(s) on any public consultations undertaken, including with Indigenous stakeholders (section 3)	✓	Appendix 1 of Attachment 2 – Community and Stakeholder Engagement Management Plan

9 Contacts, signatures and declarations

NOTE: Providing false or misleading information is an offence punishable on conviction by imprisonment and fine (s 489, EPBC Act).

Under the EPBC Act a referral can only be made by:

- the person proposing to take the action (which can include a person acting on their behalf); or
- a Commonwealth, state or territory government, or agency that is aware of a proposal by a person to take an action, and that has administrative responsibilities relating to the action¹.

Project title:

9.1 Person proposing to take action

This is the individual, government agency or company that will be principally responsible for, or who will carry out, the proposed action.

If the proposed action will be taken under a contract or other arrangement, this is:

- the person for whose benefit the action will be taken; or
- the person who procured the contract or other arrangement and who will have principal control and responsibility for the taking of the proposed action.

If the proposed action requires a permit under the Great Barrier Reef Marine Park Act², this is the person requiring the grant of a GBRMP permission.

The Minister may also request relevant additional information from this person.

If further assessment and approval for the action is required, any approval which may be granted will be issued to the person proposing to take the action. This person will be responsible for complying with any conditions attached to the approval.

If the Minister decides that further assessment and approval is required, the Minister must designate a person as a proponent of the action. The proponent is responsible for meeting the requirements of the EPBC Act during the assessment process. The proponent will generally be the person proposing to take the action³.

1. Name and Title: Ben O'Hara – General Manager, Land and Environment, Gainsdale (**Primary Contact**)
Andrea Slingsby – CEO, Turner Investments (**Secondary Contact**)

2. Organisation (if applicable):
Gainsdale Pty Ltd

3. EPBC Referral Number (if known):

4: ACN / ABN (if applicable): ACN 008 971 499

5. Postal address
PO Box 108, Fortitude Valley QLD 4006

6. Telephone: Ben O'Hara – 0407 899 546
Andrea Slingsby – 0418 750 611

7. Email: ben.ohara@gainsdale.com.au
andrea.slingsby@gainsdale.com.au

8. Name of proposed proponent (if not the same person at item 1 above and if applicable):
N/A

¹ If the proposed action is to be taken by a Commonwealth, state or territory government or agency, section 8.1 of this form should be completed. However, if the government or agency is aware of, and has administrative responsibilities relating to, a proposed action that is to be taken by another person which has not otherwise been referred, please contact the Referrals Gateway (1800 803 772) to obtain an alternative contacts, signatures and declarations page.

² If your referred action, or a component of it, is to be taken in the Great Barrier Reef Marine Park the Minister is required to provide a copy of your referral to the Great Barrier Reef Marine Park Authority (GBRMPA) (see section 73A, EPBC Act). For information about how the GBRMPA may use your information, see http://www.gbrmpa.gov.au/privacy/privacy_notice_for_permits.

9. ACN/ABN of proposed proponent (if not the same person named at item 1 above):

N/A

COMPLETE THIS SECTION ONLY IF YOU QUALIFY FOR EXEMPTION FROM THE FEE(S) THAT WOULD OTHERWISE BE PAYABLE

I qualify for exemption from fees under section 520(4C)(e)(v) of the EPBC Act because I am:

- an individual; OR
- a small business entity (within the meaning given by section 328-110 (other than subsection 328-119(4)) of the *Income Tax Assessment Act 1997*); OR
- not applicable.

If you are small business entity you must provide the Date/Income Year that you became a small business entity:

Note: You must advise the Department within 10 business days if you cease to be a small business entity. Failure to notify the Secretary of this is an offence punishable on conviction by a fine (regulation 5.23B(3) *Environment Protection and Biodiversity Conservation Regulations 2000 (Cth)*).

COMPLETE THIS SECTION ONLY IF YOU WOULD LIKE TO APPLY FOR A WAIVER

I would like to apply for a waiver of full or partial fees under Schedule 1, 5.21A of the [EPBC Regulations](#). Under sub regulation 5.21A(5), you must include information about the applicant (if not you) the grounds on which the waiver is sought and the reasons why it should be made:

- not applicable.

Declaration

I declare that to the best of my knowledge the information I have given on, or attached to this form is complete, current and correct.

I understand that giving false or misleading information is a serious offence.

I agree to be the proponent for this action.

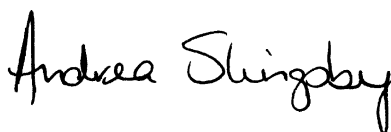
I declare that I am not taking the action on behalf of or for the benefit of any other person or entity.

Signature – Ben O'Hara



Date 16/12/16

Signature – Andrea Slingsby



Date 16/12/16

9.2 Person preparing the referral information (if different from 8.1)

[Individual or organisation who has prepared the information contained in this referral form.](#)

Name Paulette Jones
Title Managing Director and Principal Environmental Scientist
Organisation Biodiversity Assessment and Management Pty Ltd

ACN / ABN (if applicable) ACN 097 464 992
Postal address PO Box 1376 Cleveland QLD 4163
Telephone (07) 3286 7788 or 0409 274 449
Email paulette@baamecology.com

Declaration I declare that to the best of my knowledge the information I have given on, or attached to this form is complete, current and correct.
I understand that giving false or misleading information is a serious offence.

Signature

A handwritten signature in black ink, appearing to be 'PA' with a long horizontal stroke extending to the right.

Date 16/12/16
