

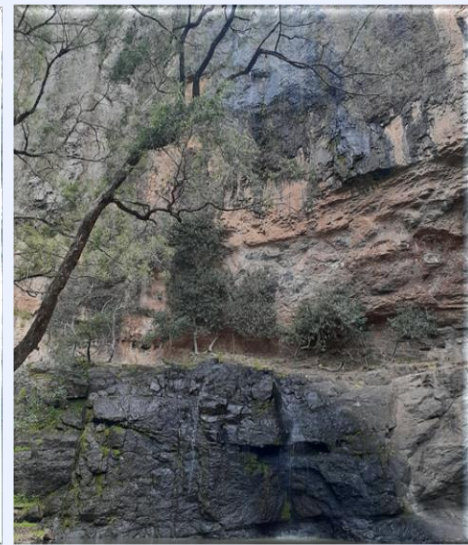
# SMK

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## STATEMENT OF ENVIRONMENTAL EFFECTS

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### DRIPPING ROCK BUSH CAMPING

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1281 Dripping Rock Road, Boggabri NSW 2382  
Lot 9 in Deposited Plan 754927

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January 2021

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## DOCUMENT CONTROL

|                   |                                                                                                                                                                 |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Project Name      | Dripping Rock Bush Camping                                                                                                                                      |
| Proponent         | Dripping Rock Bush Camping Pty Ltd                                                                                                                              |
| Project Reference | 20-361                                                                                                                                                          |
| Report Number     | 20-361 Statement of Environmental Effects                                                                                                                       |
| Prepared for      | Peter John Brien<br>PO Box 60<br>Boggabri NSW 2382<br>Ph: (02) 6743 4370<br>E: <a href="mailto:office@petonnaservices.com.au">office@petonnaservices.com.au</a> |
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|------------------|--------------|-----------------------------------|---------------|
| Version Number   | Date         | Authority                         | Details       |
| 0                | January 2021 | Peter Taylor<br>(SMK Consultants) | Initial Issue |
|                  |              |                                   |               |

## EXECUTIVE SUMMARY

|                                  |                                                                                                                                                |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Applicant:</b>                | Dripping Rock Bush Camping Pty Ltd<br>PO Box 60<br>Boggabri NSW 2382                                                                           |
| <b>Subject Land:</b>             | 1281 Dripping Rock Road,<br>Boggabri NSW 2382<br>Lot 9 in Deposited Plan 754927<br>Owner: Peter John Brien<br>Zoning: RU1 – Primary Production |
| <b>Proposed Development:</b>     | Primitive camping ground development with a maximum capacity of 120 people                                                                     |
| <b>Permissibility:</b>           | The proposed development is permissible with consent under the <i>Narrabri Local Environmental Plan 2012</i>                                   |
| <b>Type of Development:</b>      | Local Development                                                                                                                              |
| <b>Capital Investment Value:</b> | \$10,000                                                                                                                                       |
| <b>Consent Authority:</b>        | Narrabri Shire Council                                                                                                                         |

## Proposal Summary

The proposal involves the development of a primitive camping ground on mostly existing cleared areas of land within a farming property at 1281 Dripping Rock Road in Boggabri, northern NSW. The property is formally known as Lot 9 in DP 754927. The final development will consist of:

- Ten camping sites distributed over a total area of 5 Hectares;
- Two ablution blocks; and
- Two kitchenettes.

Narrabri Shire Council is the local government authority for the area and therefore the appropriate assessment manager for the proposed development. It is necessary for the Narrabri Shire Council to consider the development application, undertake any necessary public notification and refer any matters to the relevant authorities as required, prior to exercising its delegated functions.

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## 1 Introduction

SMK Consultants has been engaged by the proponent, Dripping Rock Bush Camping Pty Ltd, to prepare this Statement of Environmental Effects (SoEE). This report will accompany a Development Application (DA) to the Narrabri Shire Council. The application seeks consent for the establishment and operation of the proposed primitive camping ground, to be known as “Dripping Rock Bush Camping”, which will be located at 1281 Dripping Rock Road, Boggabri (Lot 9 in Deposited Plan 754927).

This statement has been prepared to address the proposed development in accordance with the *Narrabri Local Environment Plan 2012* (Narrabri LEP). The SoEE addresses the matters for consideration outlined in Section 4.15 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). This SoEE focuses on the key assessment requirements and recommends mitigation measures where possible to reduce potential environmental impacts.

### 1.1 Applicant Details

The proponent for the proposed Primitive Camping Ground is Dripping Rock Bush Camping Pty Ltd. The applicant’s contact details are summarised in Table 1.

Table 1: Applicant Details

|              |                                   |
|--------------|-----------------------------------|
| Organisation | <b>Dripping Rock Bush Camping</b> |
| ACN          | 646 350 325                       |
| Address      | PO Box 60                         |
|              | Boggabri NSW 2382                 |
| Contact Name | Peter Brien                       |
| Phone Number | 0428 434 450                      |
| Email        | office@petonna.services.com.au    |

### 1.2 Authors

This SOEE has been prepared by SMK Consultants. SMK Consultants is a well-established company operating out of Moree, NSW, and is a key player in providing for continued economic growth for many of NSW’s North-West Government areas. SMK Consultants has been actively involved in many developments in the commercial, industrial and retail sectors. Persons involved in the preparation of this SOEE and its appendices are:

- **Marie Duffy** BSc. MSc.
- **Peter Taylor** BSc MEIANZ CIAg LAA

## 2 Site Analysis

### 2.1 Site Location

The proposed development site is at 1281 Dripping Rock Road, Boggabri. The site is located at the foot of the Nandewar Range, approximately 26 kilometres north east of Boggabri, and 57km south-east of the township of Narrabri in north-eastern New South Wales. A locality plan is included as Figure 1 below.

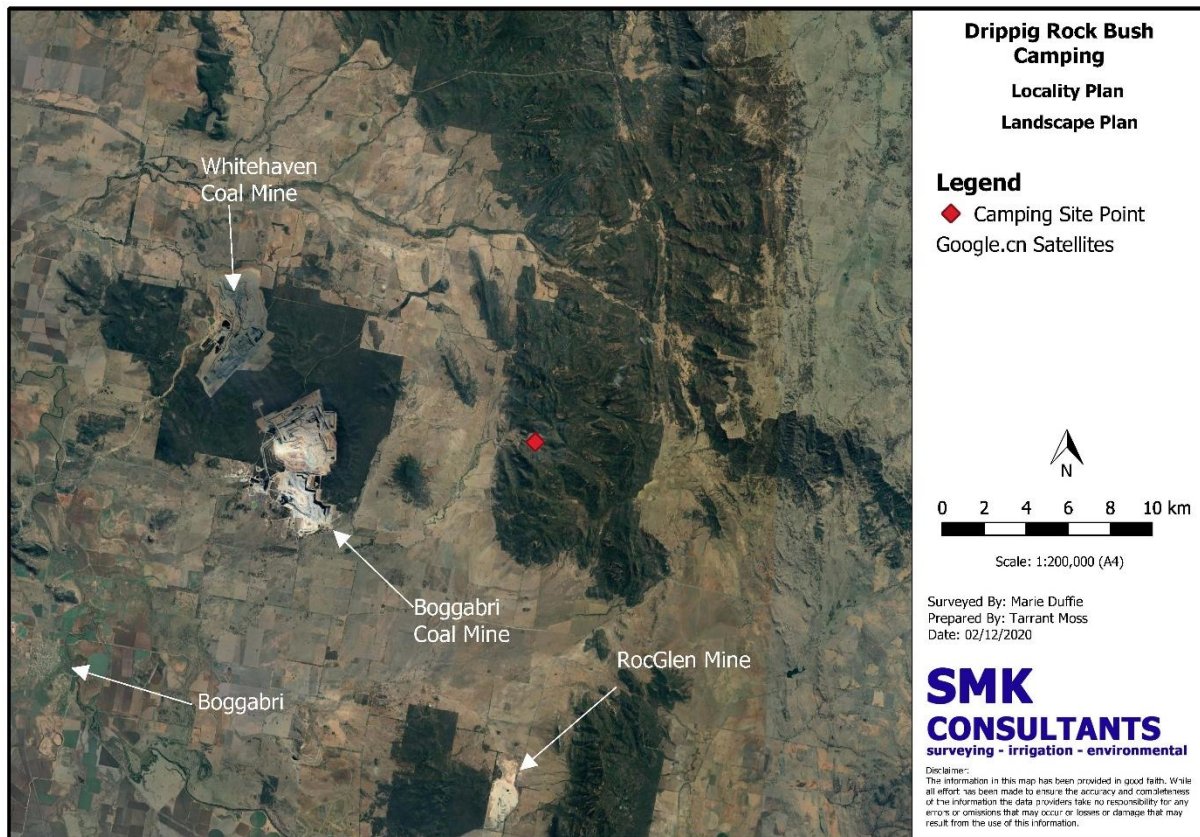


Figure 1: Locality Plan

### 2.2 Property Description

The real property description of the land is Lot 9 in Deposited Plan 754927. The property is owned by Peter John Brien. It extends over an area of over 190 Hectares, with the majority of the lot supporting remnant vegetation. There is also an existing dwelling and associated infrastructure on the property, as well as a number of cleared grazing paddocks, all located in the northern section of the lot, both north and south of the Dripping Rock Road.

The three existing paddocks which would be utilised for the establishment and operation of the Dripping Rock Bush Camping grounds were conditioned for grazing over time and were grazed by approximately 20-50 beef cattle until 2019, as part of the owner's previous grazing

enterprise. This enterprise was discontinued in 2019 due to the ongoing effects of drought experienced in the region which rendered beef cattle farming unsustainable.

The subject lot is located within the Local Government Area of the Narrabri Shire. The subject land is currently zoned RU1 'Primary Production' under the *Narrabri Local Environmental Plan 2012*. The surrounding locality is bordered on all sides by land zoned as RU1 'Primary Production'. The primary land use in the area is grazing and rural living, with significant areas of land supporting remnant vegetation.

The development footprint will cover approximately 5 hectares and is located on previously cleared and disturbed land. The proposed development will utilise existing site accesses to the property from Dripping Rock Road.

Figure 2 shows the proposed camping ground location relative to the Lot boundaries, as well as existing levels of the land across the lot. Figure 3 shows existing infrastructure on the property (located north of the Dripping Rock Road and north/east of the proposed development).



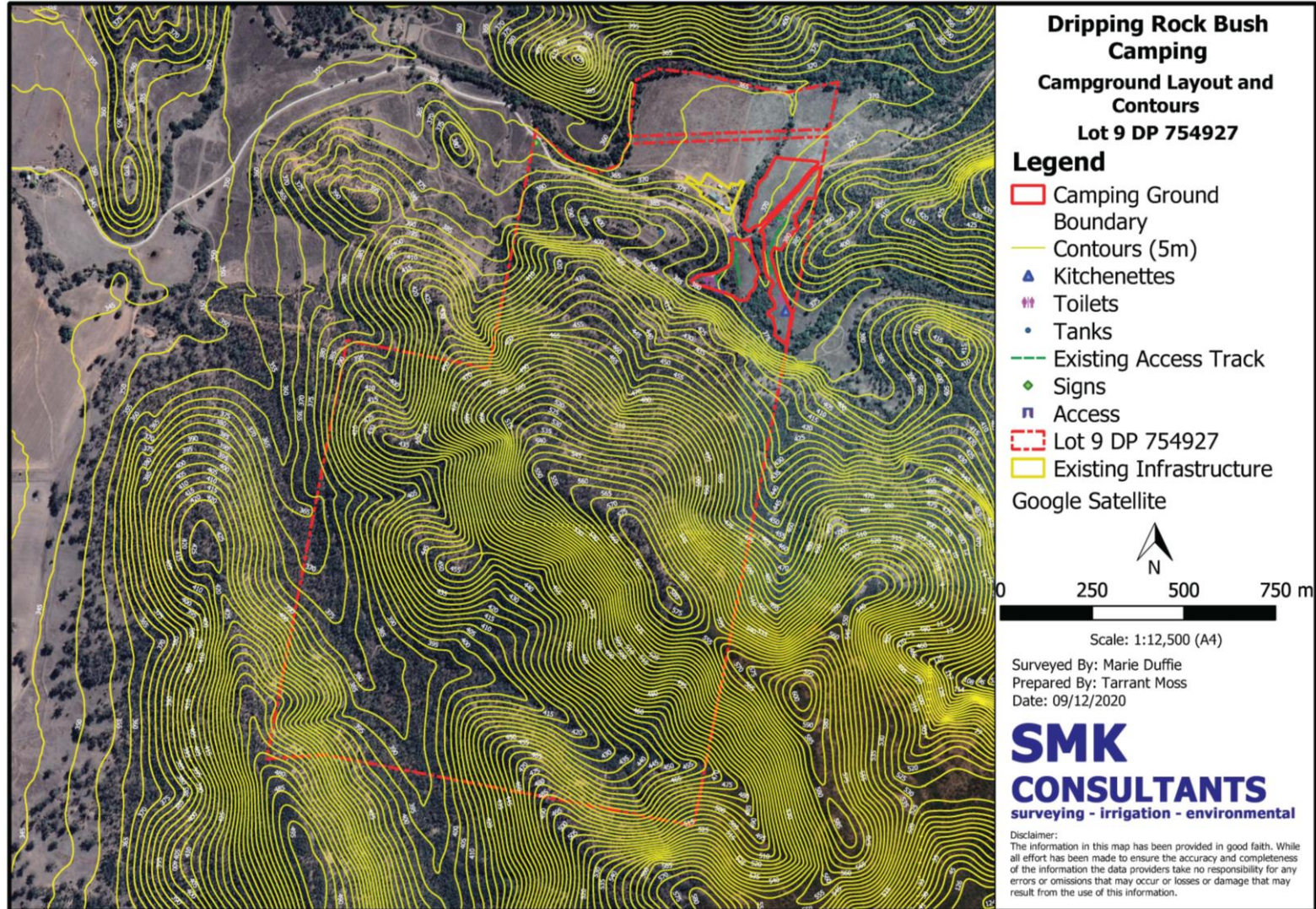


Figure 2: Proposed development location relative to Lot Boundaries



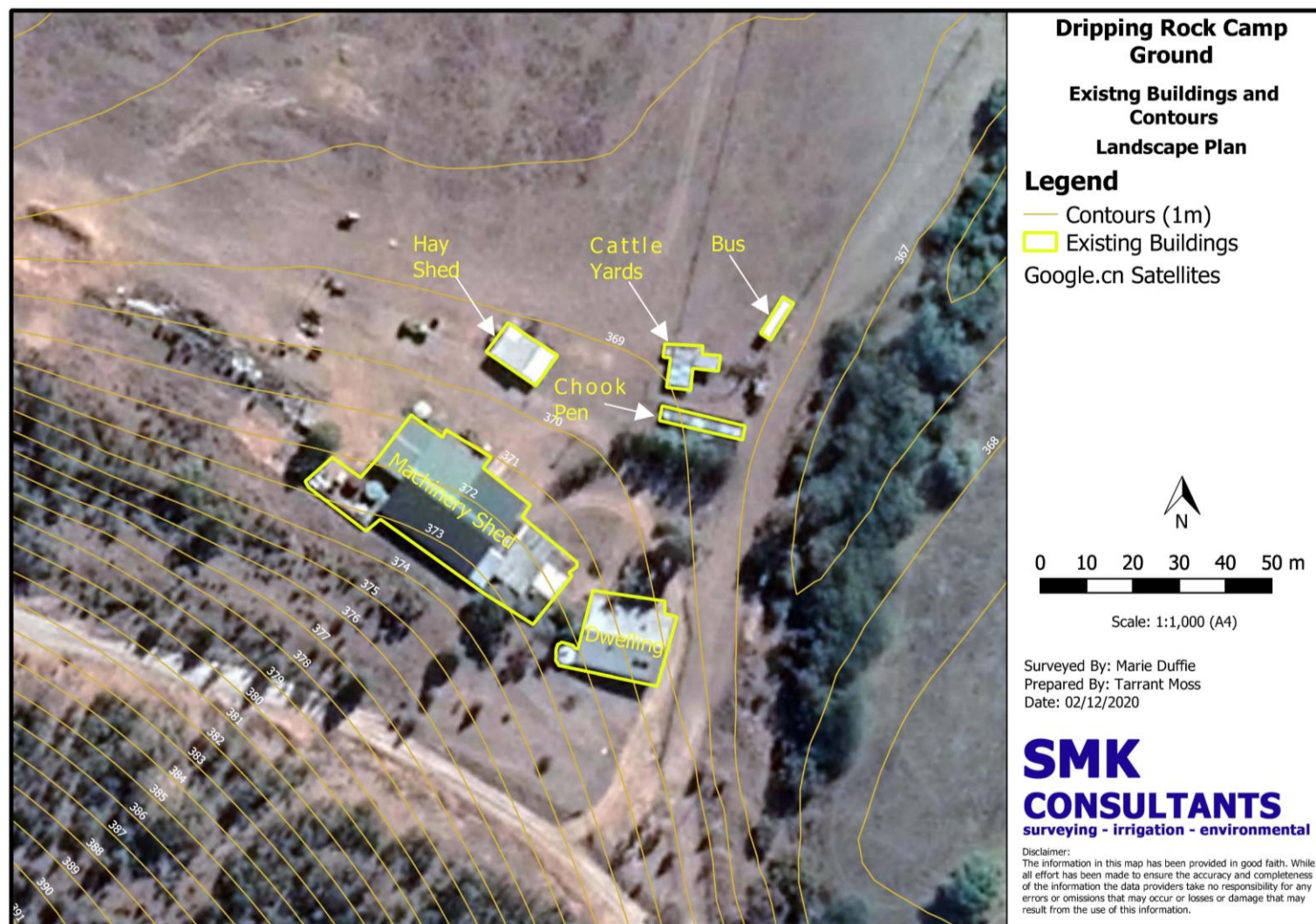


Figure 3: Existing infrastructure on Lot 9 DP754927, showing 1m contours at this location

## 2.3 Adjoining Properties

The development land is bordered on all sides by land zoned RU1 Primary production. The nearest sensitive receptor (rural residential dwelling) to the proposed development is located approximately 1.1 kilometres north-west of the subject site at its closest point.

## 2.4 Site Suitability

The subject site is zoned RU1 – ‘Primary Production’. The proposed development type falls under the category ‘Camping Grounds’, which are permitted with consent under the *Narrabri Local Environmental Plan 2012*. Camping grounds are defined as ‘*an area of land that has access to communal amenities and on which campervans or tents, annexes or other similar portable and lightweight temporary shelters are, or are to be, installed, erected or placed for short term use, but does not include a caravan park*’.

The site location has been selected due to its proximity to a waterfall, Dripping Rock, a growing tourism hotspot. There are also existing cycling and hiking trails in the locality. The owner has been asked by tourists for permission to camp on the property on several occasions in the last year. There are no other facilities or amenities for tourists in the area, making this proposed development particularly suitable for visitors who wish to extend their stay in the locality. The proposed site offers scenic views of surrounding hills and has previously been cleared which avoids the requirement for extensive disturbance to vegetated areas with potential biodiversity value.

Overall, the subject site is considered suitable for the establishment and operation of a camping ground.

### 3 Development Details

#### 3.1 Proposal Description

The proposed development is for a camping facility comprising a 'primitive camping ground' and ancillary buildings.

The proposed development will consist of:

- An open camping area positioned in cleared areas of the property (no individual camp site locations have been demarcated within the camping grounds);
- Two ablution blocks, each comprised of two pit toilets (one male, one female); and
- Two camp kitchenettes.

The open camping area would be divided into three (3) different camp sites, located in separate paddocks north and south of the Dripping Rock Road, within Lot 9 in DP754927.

The total footprint of the proposed camping ground is 5.61 Ha, with the following components:

- Camp Site 1: 1.5 Ha
- Camp Site 2: 2.05 Ha
- Camp Site 3: 1.7 Ha
- Access/Evacuation Road (excluding road footprint within camp site footprint) : 0.36 Ha (1,031m x 3.5m).

It is proposed to establish the primitive camping ground in two stages. Stage 1 would comprise the establishment of the three camp sites, the installation of a toilet block and kitchenette in Camp Site 2, the upgrade of camp site accesses and the installation of all signs required for the proposed development. If the camping ground enterprise is successful and becomes profitable, a second toilet block and kitchenette will be installed in Camp Site 1. Figure 4 shows the overall layout of the proposed development. Figure 5 and Figure 6 show the layout of the proposed development in Stage 1, and Stage 2, respectively. Site plans included as Appendix 1 also show details of the proposed development at a larger scale (i.e. camp sites only without the evacuation routes).

The entrance to each camp site will consist of a gated entrance. Each gate will have a padlock on it at all times. Booking will be available online only, and customers will be provided with the following information upon booking confirmation:

- Directions to the camping ground;
- Map of the camping ground, showing the locations of camp sites, ablution blocks, kitchenette and camp site entrances;
- Padlock code for their camp site; and

- Map showing the location of emergency assembly areas and emergency evacuation routes.

The proposal has an estimated capital investment value of \$10,000. It provides an opportunity to provide a rural camping experience within a natural setting on a site that is readily accessible from the existing road network and is located en-route to an existing natural attraction. The proposed development aims to conserve the surrounding ecological environment, promote the natural values of the Narrabri region, and maintain sustainable use of resources.



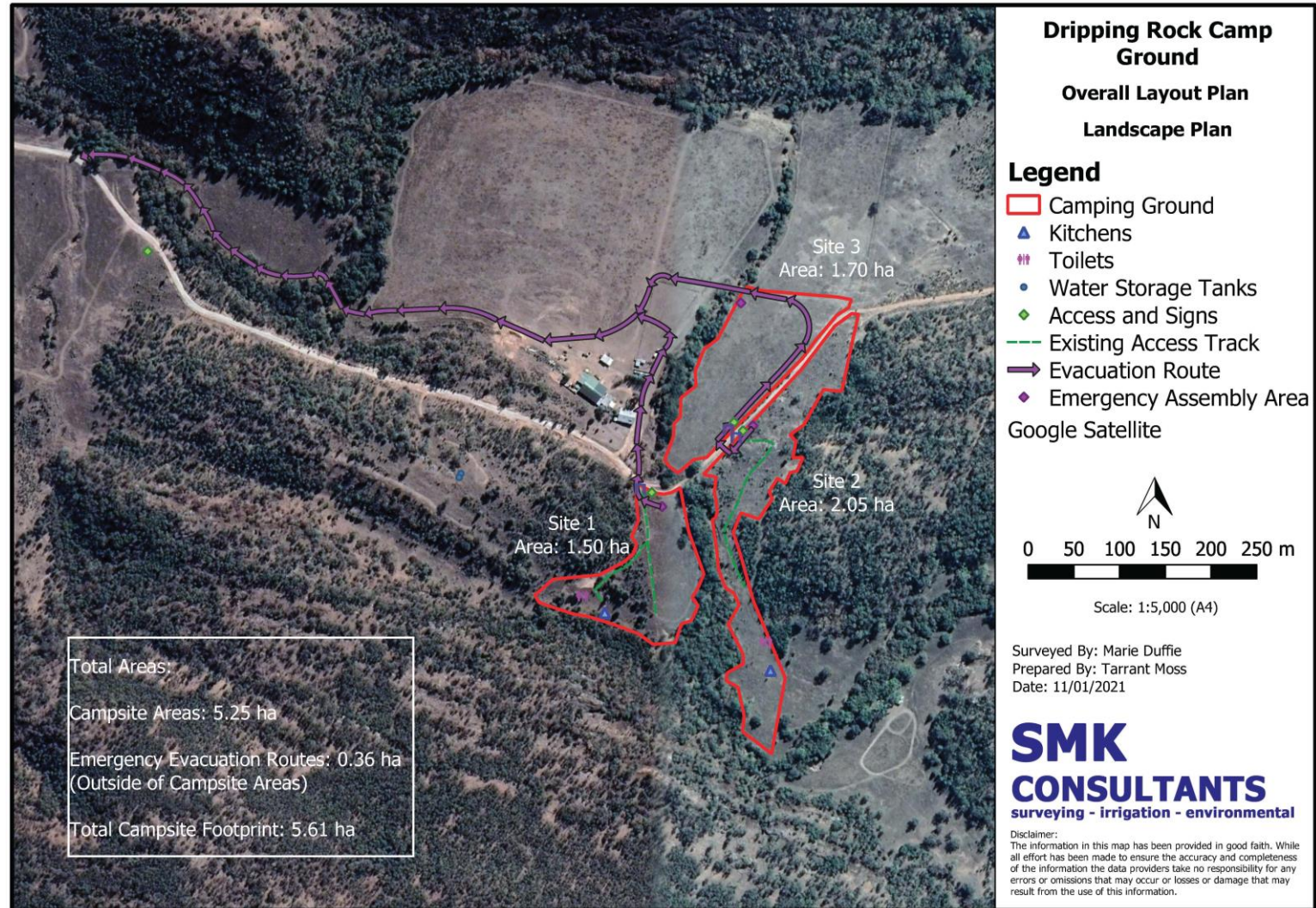


Figure 4: Proposed development layout



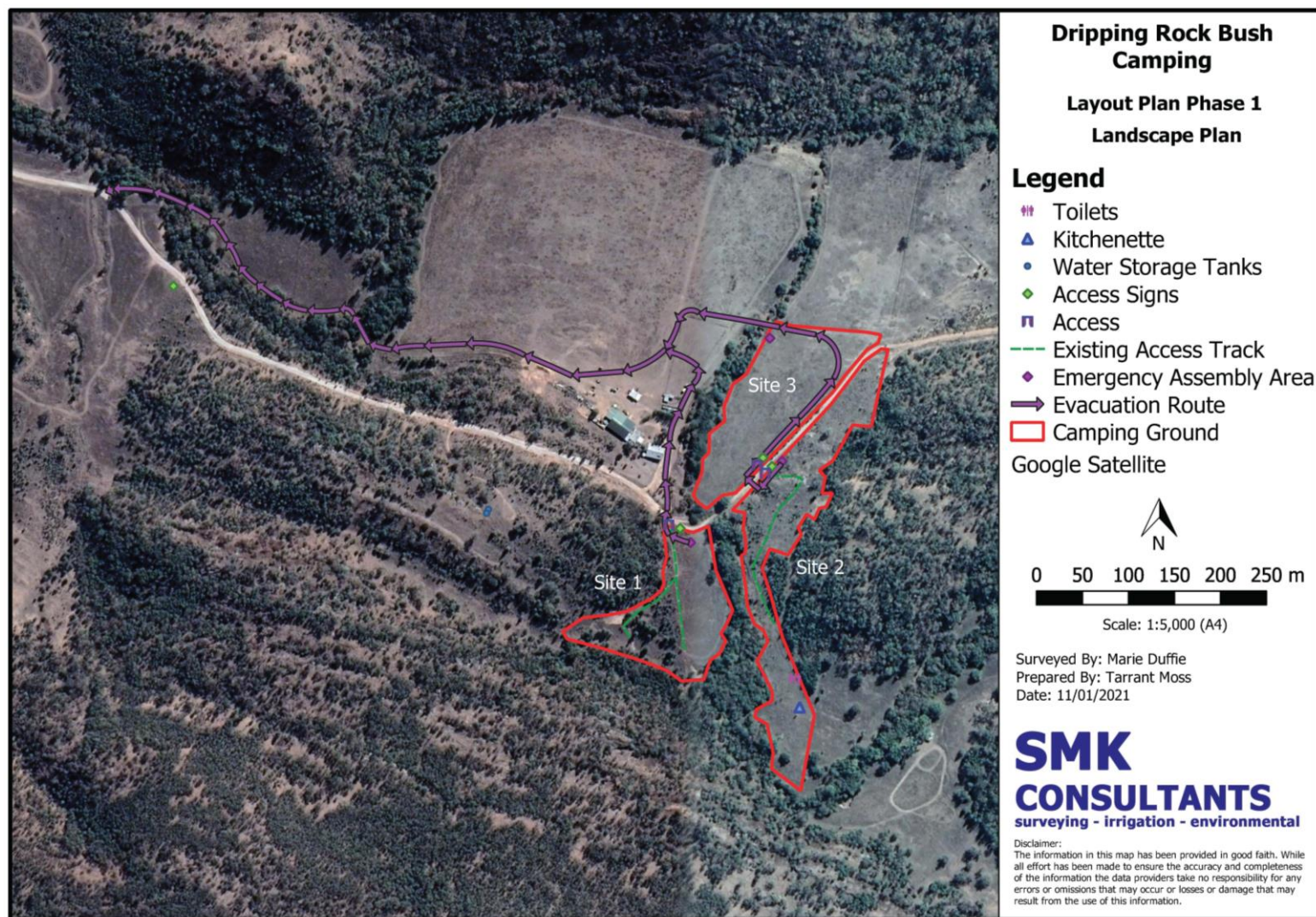


Figure 5: Proposed development layout – Phase 1



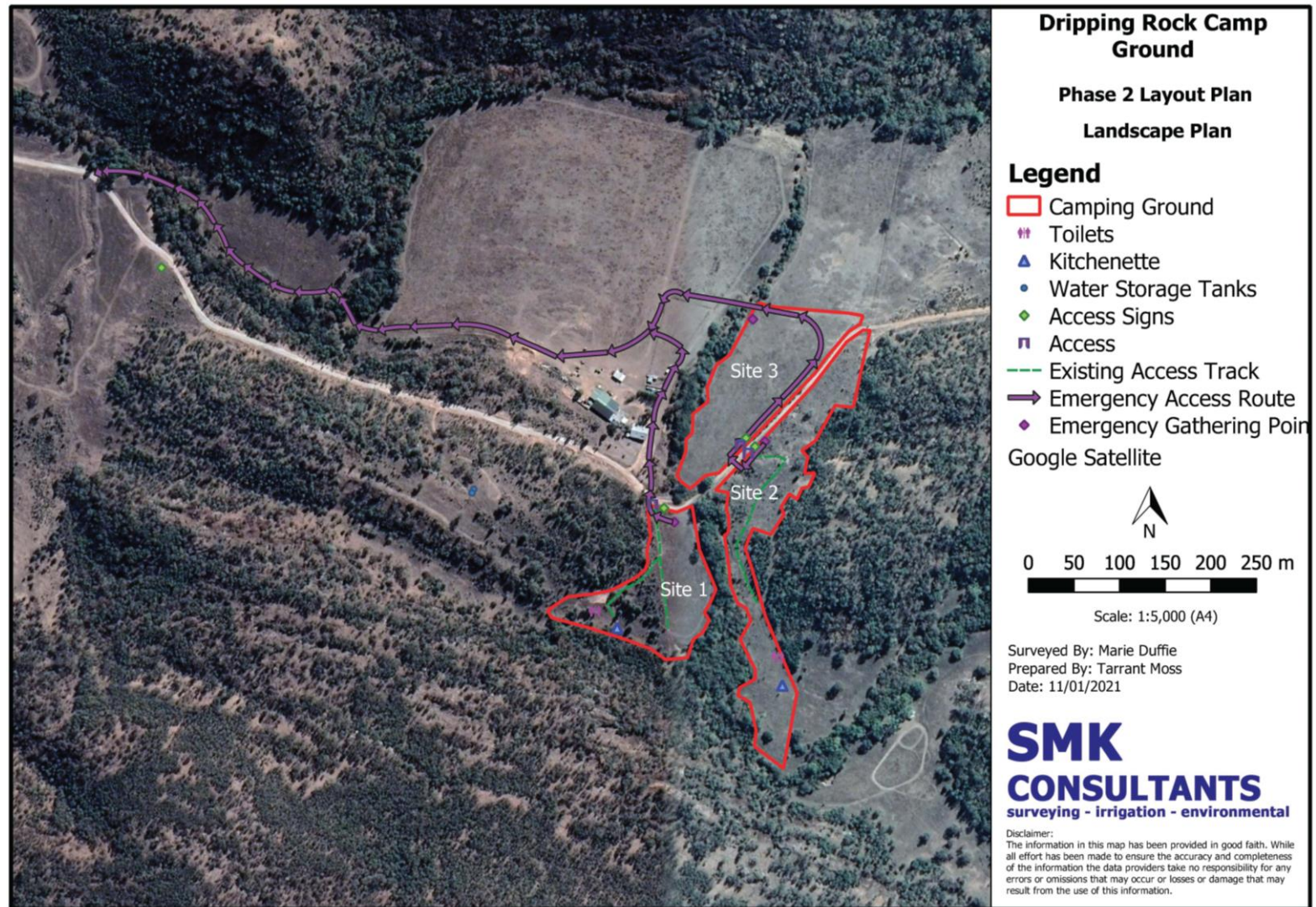


Figure 6: Proposed development layout – Phase 2 (Completed)

### 3.1.1 Camping Sites

The proposed development consists of a camping ground which will extend over a total area of 5.61 Hectares. This will be distributed over three existing cleared paddocks/sites. The camping ground will accommodate a maximum of ten (10) individual camp sites. The maximum capacity of a single camp site is considered a maximum of twelve (12) persons camping together as a group (per the *Local Government (Manufactured Home Estates, Caravan Parks, Camping Grounds and Moveable Dwellings) Regulation 2005*), therefore the camping ground would have a maximum capacity of 120 people.

Site No. 1, No. 2 and No.3 will have a maximum of three (3), four (4) and three (3) camp sites, respectively. Camp sites locations within the sites/paddocks will not be individually demarcated, however. Visitors will be allocated a camp site/paddock number (i.e. Camp site 1, 2 or 3) upon booking confirmation, allowing visitors to choose their individual camping location in function of their preference within the site/paddock that they have been allocated.

Caravans, annexes or campervans will not be allowed to be installed closer than 6 metres to any other caravan, annexe, campervan or tent. Tents will not be permitted to be installed closer than 6 metres to any caravan, annexe or campervan, or closer than 3 metres to any other tent.

There will be vehicular access to each of the camp sites. Sites 2 and 3 have existing internal tracks which can be utilised by vehicles, while site 3 has no existing tracks. In the absence of tracks, vehicles will drive over paddocks. Existing internal tracks within camp sites 1 and 2 are shown in Figure 4.

### 3.1.2 Class 10A Buildings

It is proposed to construct a 'kitchenette' and ablution block/latrine in Site 2 in Stage 1 of the proposed development, and a second kitchenette and ablution block in Site 1 during Stage 2 of the proposed development.

All of the above-mentioned buildings are classed as Class 10a (non-habitable) buildings under the Building Code of Australia. The buildings will incorporate construction elements that meet the requirements for bushfire resistant construction to comply with the requirements of AS3959-2009 (Construction of Buildings in Bushfire Prone Areas).

#### Kitchenettes

The kitchenettes would have dimensions of 5m x 5m and would be constructed using corrugated iron sheeting for the roof and side walls, round wooden posts and concrete foundations for the footings. The flooring will consist of crusher dust. Facilities would be

limited to a sink and a small bench space area and the building will be fitted with cold water only. The building would not be fitted with electric lights.

A basic plan of the proposed kitchen is included in Appendix 2 of this report. Excavations for the footings will be 600mm deep x 300mm round.

The sinks would be connected to a pipe which will directly dispose of greywater onto the natural ground surface adjacent to and east of the kitchenettes. The disposal area would be fenced off and landscaped for safety purposes. The wastewater would consist of grey water only.

### Latrines

Each ablution block will consist of two (2) vented improved pit (VIP) latrines (one male, one female).

A VIP latrine is a dry drop-hole toilet which has been specially designed so that any flies which enter the hole and crawl over the sewage cannot escape to carry disease-causing germs to people and food. The VIP latrine has a special snail-shape design. The walls meet the roof and the floor allowing no light into toilet area except through an air-vent pipe which lets some light into the pit under the seat. This light attracts flies up into the vent pipe. The top opening of the vent is covered by a fly-proof mesh and this prevents the flies from escaping. They are attracted by the light they will stay here until they die. The darkness in the toilet area discourages them from returning back up through the hole in the seat.

The dimensions of each of the two ablution blocks are 2.4 m (length) X 1.7m (width) x 2.8m (height). Flooring will consist of a 5mm steel plate. Excavations for the pit will have dimensions of 2m x 1.8m with a depth of 0.9 metres. The pit will be lined with a high-density polyethylene (HDPE) liner. The toilet seat and pedestal will also be made of HDPE. The vent pipe will have a width of 100mm. The external walls of the ablution block will be made of Round Hollow Section (RHS) steel constructed on skids.

A schematic plan of a VIP latrine is included below in Figure 7. A plan showing the dimensions of the proposed latrines at Dripping Rock Bush Camping is included in Appendix 2.



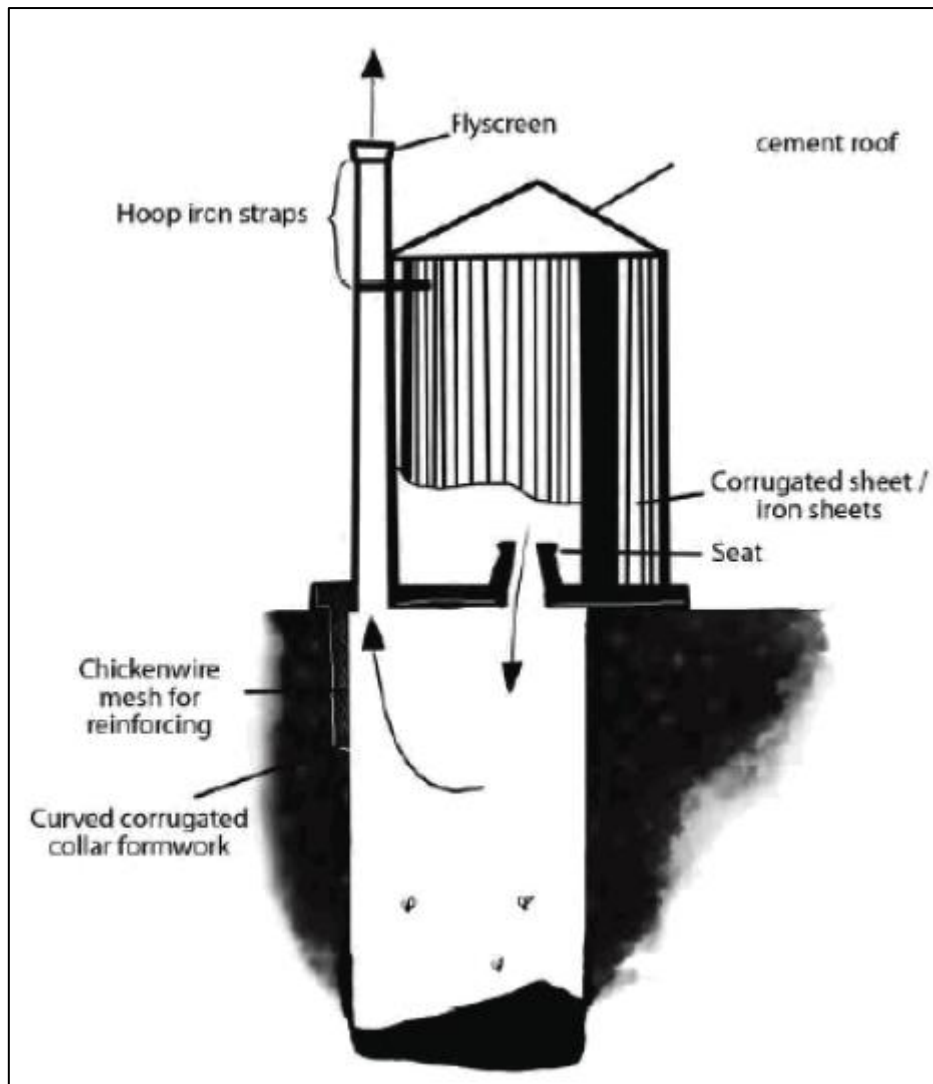


Figure 7: Schematic Plan of a VIP Latrine

### 3.1.3 Water Supply

Water supply for the proposal will be sourced from four existing 22,500L rainwater collection tanks located at the proponent's home. Water is currently pumped from the collection tank to an existing 100,000L water storage tank on a low hill top located west of the proposal (rainwater tank locations are indicated in Figures 5 and 6). A 15,000L tank will be installed adjacent to the 100,000 L tank; this will be provisioned from the larger tank and will solely be used to provision the camping ground. Water from the 15,000 L tank will be gravity fed to the kitchenettes on the camping grounds.

### 3.1.4 Site Access

The development will utilise the existing accesses to the camp sites/paddocks from Dripping Rock Road. Dripping Rock Road (SR27) is a minor, unsealed gravel road and is accessible to 4 Wheel Drive (4WD) vehicles only. The road is a no-through road which terminates at the Dripping Rock Car Park, approximately 1.5 kilometres east of the proposed camping ground.

There will be three distinct camping site locations/paddocks within the Dripping Rock Bush Camping grounds; these will have separate access points from Dripping Rock Road. Figures 8 - 14 show the existing access points from Dripping Rock Road and the sight distances along either side of the access points.



Figure 8: Camp Site 1 - Existing Access from Dripping Rock Road.



Figure 9: Camp Site 1 - View from Site Access, North-East along Dripping Rock Road. Sight distance of approximately 20 metres.





Figure 10: Camp Site 1 - View North-West along Dripping Rock Road from Site Access. Sight distance of approximately 100 metres.



Figure 11: Camp Site 2 - Existing Access from Dripping Rock Road.





Figure 12: Camp Site 3 - Proposed access location from Dripping Rock Road (across from stone-walled entrance)



Figure 13: Camp Site 2 and 3 - View North-East along Dripping Rock Road from Site Access locations. Sight distance >300 metres.





Figure 14: Camp Site 2 and 3 - View South-West along Dripping Rock Road from Site Accesses. Sight distance >300 metres.

The majority of sight distances along the Dripping Rock Road from existing and proposed site accesses are considered sufficient. However, the sight distance from the Site 1 entrance north-east along Dripping Rock Road is limited to approximately 20m. As noted in figure 9, the vegetation within the adjoining creek area is the limiting factor. The sight distance issue mainly relates to vehicles leaving the site. They would be turning left but sight distance is more substantial from within the paddock. This can be noted as the vehicles parked in figure 9 would have a clear view of the creek crossing. On this basis, if a change is required for safety purposes, the entrance gate point can be offset into the paddock.

It should be noted that the frequency of traffic along this road is low. Vehicle speed is also very low due to the nature of the road and the intent of the road users of sight-seeing.

The road geometry at the intersection between the access/egress point of Camp Site 1 and Dripping rock Road is not considered to meet the current Austroads standard for a rural intersection and will need to be upgraded. The pavement condition also needs to be upgraded at all three intersections. Upgrade works would involve the removal of existing fencing at each entrance and widening the shoulder in the intersection to create a paved, tapered area and a minimum of a 12m turning radius at all three intersections.

No internal access roads will be developed as part of the proposal. Existing dirt roads are present in Camp Sites 1 and 2, and will be utilised to the greatest possible extent, however vehicles will also drive throughout the paddocks to reach individual camping locations. This fulfils the principals of a primitive camp site.

### 3.1.5 Waste

A waste disposal container will be provided at each of the kitchenettes within the camp site; however, guests will be encouraged to be self-sufficient and collect and take away any waste that they create.

### 3.1.6 Signage

Table 2 provides information pertaining to the signage that will be erected during the construction phase of Dripping Rock Bush Camping.

Table 2: Signage Details – Dripping Rock Bush Camping

| Location                           | No. of Signs | Materials | Dimensions (Length x Width) | Notes                                                                                                                                                                         |
|------------------------------------|--------------|-----------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sites Entrances                    | 3            | Aluminium | 600mm x 300mm               | A sign will be installed at the entrance to each of the three sites, indicating the camp entrance number.                                                                     |
| South of Dripping Rock Road        | 1            | Aluminium | 1,200mm x 600mm             | Sign to be installed directly east of the boundary of Lot 9 in DP754927, and south of the Dripping Rock Road, indicating the Dripping Rock Bush Camping Grounds to motorists. |
| Kitchenette locations              | 2            | Aluminium | 1,200mm x 600mm             | Evacuation sign will show the plan of the camping ground, emergency assemble points and emergency evacuation routes.                                                          |
| Emergency assembly point locations | 3            | Aluminium | 600mm x 300mm               | Signs indicating the emergency assembly points will be installed at respective assembly point locations.                                                                      |

Figure 15 shows the location and dimensions of each of the proposed signs which would be installed as part of the establishment of Dripping Rock Bush Camping.



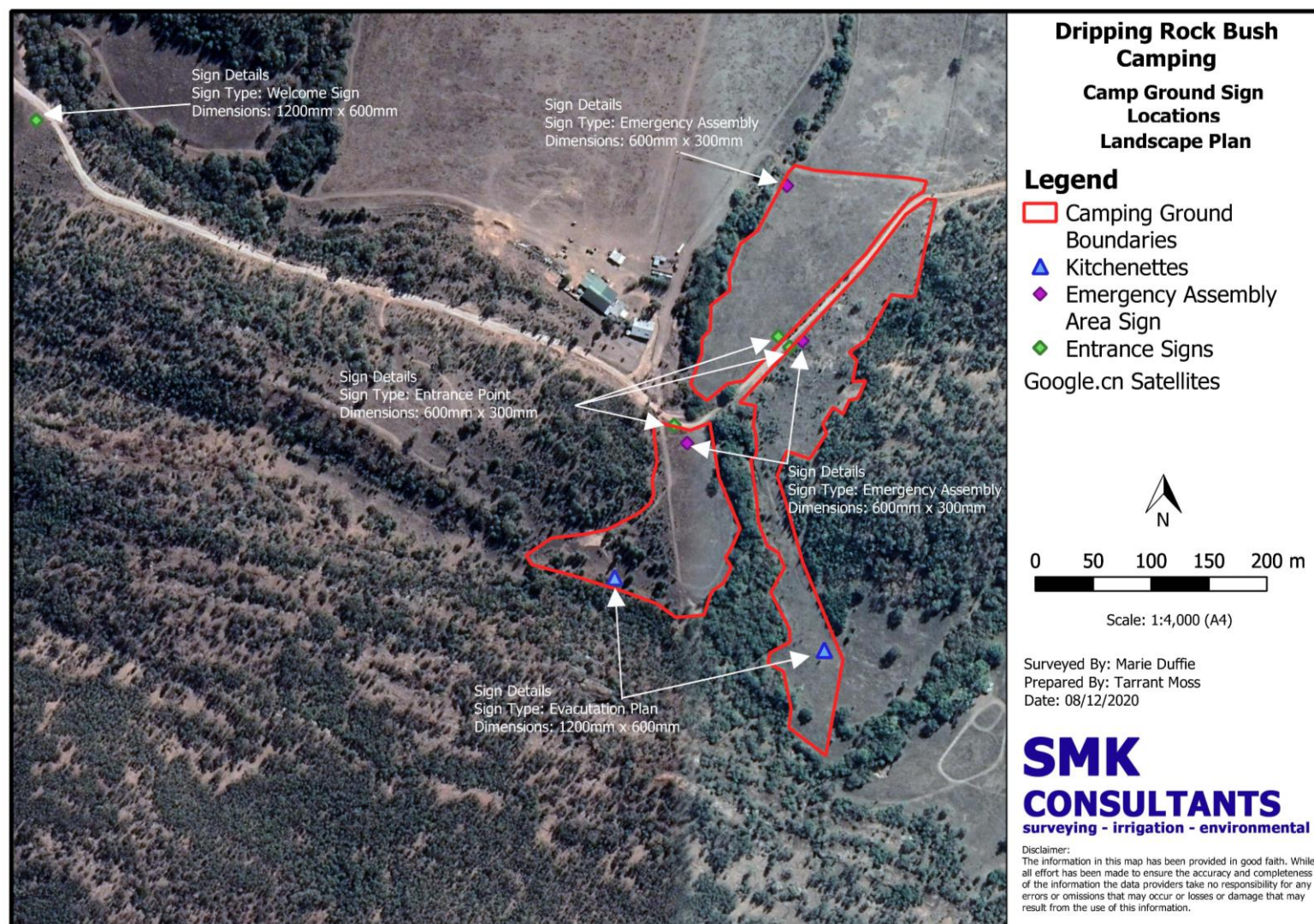


Figure 15: Details of proposed signs associated with the camping ground



### 3.1.7 Evacuation

It is noted that camping ground visitors will be provided with an evacuation plan and map showing the location of the two emergency assembly areas and emergency evacuation routes. Figure 16 (also included in Appendix 1) shows the proposed emergency assembly areas and evacuation routes from each of the three camp sites. The applicant has indicated that the main evacuation route consists of a former gazetted right of way through the property. No additional vegetation clearance will be required for the usage of this road as an evacuation route. The proposed evacuation plan is included in Appendix 3.

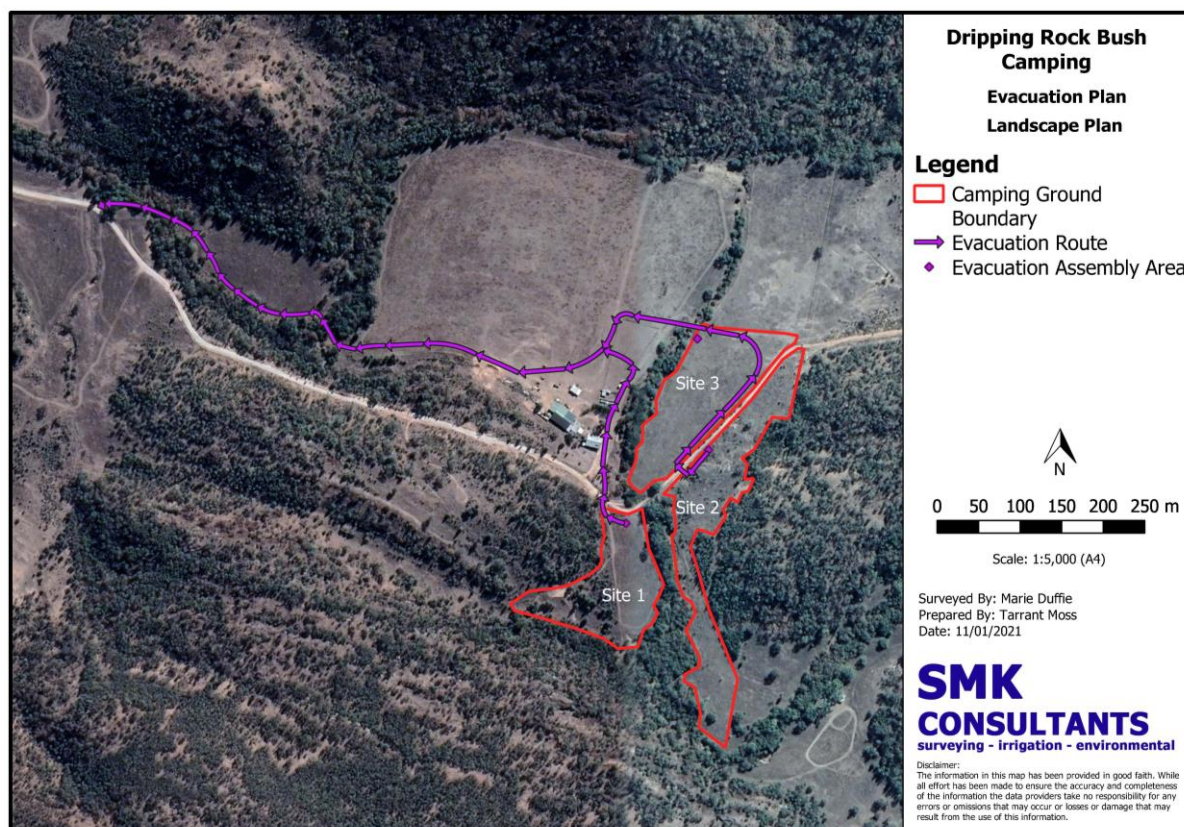


Figure 16: Emergency assembly areas and proposed evacuation routes at Dripping Rock Bush Camping

### 3.1.8 Land Management

The site (i.e. the three paddocks comprising the proposed camping ground) was grazed by approximately 20-50 cattle until 2019, however it is not actively used for farming activities at present and is managed by means of regular mowing. The proposed development will involve minor physical alterations to the site, mostly excavations associated with the installation of ablution blocks, kitchenettes, the upgrade of road intersections and the upgrade of existing fencing (i.e. steel posts and rails to be installed). Conditioning of the land prior to the opening of the camping grounds will entail fertilising, spraying of weeds, and mowing. The proposed spraying and fertilising are consistent with the fertiliser and herbicide application associated

with the previous land use (i.e. routine agricultural management), while mowing is consistent with current land use. The site will continue to be mowed every 6-8 weeks throughout the operation of the camping grounds, on an as-required basis.

## 3.2 Construction

### 3.2.1 Construction Timeline

Construction is estimated to take up to six months. The Applicant intends to carry out the majority of the works himself, subject to the required work health and safety (WHS) standards. Additional local contractors will be employed to assist on an as-needed basis.

The key stages of the establishment of the camping ground are listed below:

- Minor excavations associated with upgrade of site entrances and the construction of the proposed Class 10 A buildings (kitchenettes, pit toilets); and
- Assembly of Class 10 A buildings

There will also be site establishment activities required to prepare the site before construction commences. Site establishment activities include the removal of small sections of existing fencing and the installation of erosion and sediment controls.

### 3.2.2 Construction Hours

Construction activity will be restricted to the Interim Construction Noise Guideline (DECC, 2009) recommended standard hours. Work would be limited to 7:00 am to 6:00 pm Monday to Friday and 8:00 am to 1:00 pm Saturday, with no works on Sundays or Public Holidays.

### 3.2.3 Construction Machinery

Machinery used on-site will include a Bobcat, excavator, tractor and slasher, and ride on mower, all of which are owned by the Applicant and currently stored in existing sheds on the property.

Machinery will be re-fuelled and serviced in the existing machinery shed adjacent to the proposed development on the subject lot. Bunded trays and spill kits (oil and water absorbents) will be available in the shed during refuelling and maintenance of plant, or any other activity that could result in spillage of a chemical, fuel or lubricant to soil. The machinery shed is located more than 100 m away from watercourses, water holes, lakes or wetlands. No fuel or other chemicals will be stored within the subject site.

### 3.2.4 Construction Traffic

Construction traffic will be minimal and will consist of a range of light vehicles (such as utes and vans to deliver materials to the site). No over-mass or over-dimensional vehicle delivery



will be required. Additional detail regarding traffic data is contained within Section 5.11 of this report.

## 4 Planning Considerations

### 4.1 Permissibility

The development proposal is considered Local Development under Part 4 of the *Environmental Planning and Assessment Act, 1979*. The proposal therefore requires development consent from the Narrabri Shire Council as the determining authority.

The proposed development is considered compatible with the objectives of the site's RU1 – Primary Production zoning, and permissible, with development consent, under the provisions of the *Narrabri Local Environmental Plan 2012* (LEP). Concurrence is not required from any other authority before the development may lawfully be carried out.

Do any policy statements from Federal or State Governments have relevance?

The Federal and State Government policies relevant to this proposal are discussed in detail within this report. Main policies applicable to this application are State Environmental Planning Policies (SEPPs).

Are there any relevant planning studies or strategies?

No.

Is there any management plan, planning guidelines or advisory document that is relevant?

No.

### 4.2 Federal Legislation

#### 4.2.1 Environment Protection and Biodiversity Conservation Act 1999

The Commonwealth *Environment Protection and Biodiversity Conservation Act, 1999* (EPBC Act) requires the approval of the Commonwealth Minister for the Environment for actions on Commonwealth land or those that may have a significant impact on matters of national environmental significance. An Assessment of Significance on the Matters of National Environmental Significance has been included as Appendix 6. The conclusion of the assessment is that the proposal will have no significant impact on any listed Matters of National Environmental Significance.

## 4.3 State Legislation

### 4.3.1 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) and associated *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation) outline the overarching regulatory structure of environmental legislation within NSW. The EP&A Act and Regulation define development magnitude thresholds and outline assessment requirements for developments undertaken within the State. The following identifies the relevant consent and assessment requirements for the proposed development in accordance with this Act.

#### 4.3.1.1 Assessment Requirements

Clause 4.15 of Division 4.3 of the EP&A Act outlines matters for consideration which require assessment for developments requiring consent. These matters include:

the provisions of:

- a) *any environmental planning instrument, and*
  - i. *any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and*
  - ii. *any development control plan, and*
  - iii. *any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and*
  - iv. *the regulations (to the extent that they prescribe matters for the purposes of this paragraph), and*
  - v. *any coastal zone management plan (within the meaning of the Coastal Protection Act 1979), that apply to the land to which the development application relates,*
- b) *the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,*
- c) *the suitability of the site for the development,*
- d) *any submissions made in accordance with this Act or the regulations,*
- e) *the public interest.*

This Statement of Environmental Effects is considered to satisfy the requirements outlined in the above matters for consideration.

### 4.3.2 Biodiversity Conservation Act 2016

The *Biodiversity Conservation Act 2016* (BC Act) outlines requirements in relation to the listing of threatened species, biodiversity impact assessment, offsetting and related offences. The assessment of biodiversity values on land and the impacts of activities on those biodiversity

values are to be carried out in accordance with the Biodiversity Assessment Method (BAM). The objective of the BAM is to adopt a standard approach that will result in no net loss of biodiversity in NSW.

Section 7.2. of the BC Act states that an activity is “likely to significantly affect threatened species” (and therefore whether a BDAR is required) is reached if:

- The Biodiversity Offset Scheme (BOS) Threshold is met;
- the development is carried out in a declared area of outstanding biodiversity value; and
- the test in section 7.3 of the BC Act is met.

Development that is subject to the BOS scheme includes development needing consent under Part 4 of the EP&A Act (excluding complying development), activities under Part 5 of the EP&A Act, State significant development and State significant infrastructure.

Where development or an activity is, “likely to significantly affect threatened species”, a Biodiversity Development Assessment Report (BDAR) must be prepared and consent authorities are required to consider the likely impact of the proposed development on biodiversity values before granting approval.

The subject lot was assessed using the online Biodiversity Offsets Scheme Entry Tool, which determines whether any proposed clearing would be above or below the area thresholds or lies within an area mapped as having high biodiversity value. According to BOS, the area clearing threshold for the subject site is 1 Hectare of clearing of native vegetation. The minimum lot size is 100 Hectares.

The proposal involves the removal of White Cypress Pine trees with a DBH of up to 20cm over a maximum area of 50 m<sup>2</sup> to facilitate the installation of two ablution blocks. The total area of native vegetation to be removed therefore amounts to approximately 0.005 Ha, which is well below the BOS threshold (1 Ha). Existing tracks will be used and therefore minimal clearing is required. The intent of the development is to retain available native vegetation.

The proposed development site is not located within a declared area of outstanding biodiversity value.

Proponents are also required to carry out a ‘test of significance’ for all development proposals that do not exceed the Biodiversity Offset Scheme Threshold. The required test of significance (as outlined in Section 7.3 of the BC Act) is included in Appendix 5. It was determined that the proposal is not likely to significantly affect threatened species, and that further assessment under the BAM and the preparation of a BDAR is not required.



### 4.3.3 State Environmental Planning Policies

Table 3 presents a summary and comment on current State Environmental Planning Policies and identifies their relevance to the proposed development.

Table 2: State Environmental Planning Policies

| SEPP No. & Codes | Title                                                         | Relevance                             |
|------------------|---------------------------------------------------------------|---------------------------------------|
| <b>No. 1</b>     | Development Standards                                         | Not Relevant                          |
| <b>No. 19</b>    | Bushland in Urban Areas                                       | Not Relevant                          |
| <b>No. 21</b>    | Caravan Parks                                                 | Not Relevant                          |
| <b>No. 33</b>    | Hazardous & Offensive Development                             | Not Relevant                          |
| <b>No. 36</b>    | Manufactured Home Estates                                     | Not Relevant                          |
| <b>No. 47</b>    | Moore Park Showground                                         | Not Relevant                          |
| <b>No. 50</b>    | Canal Estate Development                                      | Not Relevant                          |
| <b>No. 55</b>    | Remediation of Land                                           | Refer to following section for review |
| <b>No. 64</b>    | Advertising and Signage                                       | Not Relevant                          |
| <b>No. 65</b>    | Design & Quality Residential Flat Development                 | Not Relevant                          |
| <b>No. 70</b>    | Affordable Housing (Revised Schemes)                          | Not Relevant                          |
|                  | Affordable Rental Housing 2009                                | Not Relevant                          |
|                  | Building Sustainability Index: BASIX 2004                     | Not Relevant                          |
|                  | Exempt and Complying Development Codes 2008                   | Not relevant                          |
|                  | Housing for Seniors or People with a Disability 2004          | Not Relevant                          |
|                  | State Significant Precincts 2005                              | Not Relevant                          |
|                  | Infrastructure 2007                                           | Refer following section for review    |
|                  | Kosciuszko National Park – Alpine Resorts 2007                | Not Relevant                          |
|                  | Mining, Petroleum Production and Extractive Industries 2007   | Not Relevant                          |
|                  | State and Regional Development 2011                           | Not Relevant                          |
|                  | Educational Establishments and Child Care Facilities 2017     | Not Relevant                          |
|                  | State Environmental Planning Policy (Coastal Management) 2018 | Not Relevant                          |
|                  | Primary Production and Rural Development 2019                 | Refer to following section for review |

| SEPP No. & Codes | Title                         | Relevance                             |
|------------------|-------------------------------|---------------------------------------|
|                  | Koala Habitat Protection 2020 | Refer to following section for review |

#### 4.3.3.1 State Environmental Planning Policy No. 55 (Remediation of Land)

The objective of this policy is to provide a State-wide planning approach for the remediation of contaminated land. Where it is proposed to rezone the land or to carry out a development that would change the use of the land a consent authority must consider whether the land is contaminated and if it is, whether the land is suitable for the proposed development in its present state or whether remediation is required. Even where no change of use is proposed a consent authority must consider whether the land is suitable for the proposed development if the land has been used for a purpose listed in Table 1 of Appendix 1 in Contaminated Land Planning Guidelines (NSW Government, 2018 (Draft)).

A search of the contaminated sites register was undertaken, and all the sites located within the Narrabri Local Government Area are listed within Table 4. The proposed site for the camping ground is not identified as a contaminated site. Further, no potentially contaminating activities as listed in Appendix 1 of “Managing Land Contamination – Planning Guidelines” have been undertaken on the site.

Table 3: Contaminated Sites List

| Site Name                                     | Address                       | Contamination Activity Type |
|-----------------------------------------------|-------------------------------|-----------------------------|
| Caltex Service Station                        | 13 Doyle Street, Narrabri     | Service Station             |
| Lowes Petroleum (Former Mobil) Narrabri Depot | 3 Old Gunnedah Road, Narrabri | Other Petroleum             |
| Caltex Service Station                        | 31-35 Cooma Road, Narrabri    | Service Station             |
| Caltex Narrabri Service Station               | 31 Dangar Street, Narrabri    | Service Station             |
| Caltex Service Station                        | 12 Reid Street, Narrabri      | Other Petroleum             |
| Cargill Soapstock Disposal Site               | Westport Road, Narrabri       | Unclassified                |
| Caltex Service Station                        | 7-13 James Street, Narrabri   | Service Station             |

Historical activities and land-uses on the proposed site have been limited to grazing. Based on the lack of evidence pointing towards any historical activities which may have caused potential site contamination on-site, it is considered that a detailed investigation is not necessary or warranted.

#### 4.3.3.2 *State Environmental Planning Policy (Infrastructure)*

The subject proposal is not identified in Schedule 3 of the SEPP as traffic generating development to be referred to the Roads and Maritime Services as the proposal is defined as 'any other purpose' and will not generate 200 or more motor vehicle movements.

#### 4.3.3.3 *State Environmental Planning Policy (Primary Production and Rural Development 2019)*

The Primary Production and Rural Development SEPP aims to support the orderly, environmentally sustainable and economic use and development of land for primary production and development. It also facilitates the future recognition and protection of State significant agricultural lands.

The Shire supports the use of land for camping grounds within zone RU1 - Primary Production under the *Narrabri Local Environmental Plan 2012*. This development includes the erection of four (4) Class 10a buildings (two kitchenettes and two ablution blocks). It does not include the erection of any habitable dwellings, or subdivision of land. The proposed development is for a small-scale primitive camping ground and as such is considered unlikely to have a significant impact on existing or future land use of adjoining land.

The subject site and property are not identified as Biophysical Strategic Agricultural Land (SEED, 2020). The proposed development does not hinder the use of the land for farming activities such as grazing in the long term. It is noted that the proposal has arisen following the termination of agricultural grazing on the property due to the effects of the on-going drought conditions in the region.

#### 4.3.3.4 *State Environmental Planning Policy 44 – Koala Habitat*

The *State Environmental Planning Policy 44* aims to protect Koala Habitat.

The SEPP provides the following definitions:

- **Core Koala Habitat** means an area of land with a resident population of koalas, evidenced by attributes such as breeding females (that is, females with young) and recent sightings of and historical records of a population.
- **Potential Koala Habitat** means areas of native vegetation where the trees of the types listed in Schedule 2 constitute at least 15% of the total number of trees in the upper or lower strata of the tree component.

#### Site Assessment

The Narrabri Shire is included in Schedule 1 of SEPP 44 and the proposed development has an area of more than 1 Hectare, therefore an assessment of Koala Habitat is required. The assessment requires that the land is assessed for the presence of potential Koala habitat or core Koala Habitat.



The proposed development footprint mostly consists of cleared agricultural grassland, with native vegetation being limited to small pockets of immature White Cypress Pine (*Callitris glaucophylla*) and isolated mature paddock trees such as Kurrajong (*Brachychiton populneus*). None of the feed tree species listed in Schedule 2 of the Koala SEPP were observed within the proposed development footprint. However, adjacent forest vegetation present includes occasional White Box (*Eucalyptus albens*), which is listed as a feed tree species in Schedule 2. A survey of these feed trees did not find any koalas nor any scats or scratch marks that would suggest that koalas utilise these trees. Furthermore, these trees do not constitute 15% of tree cover and they are not within the proposed development footprint and will not be impacted by the proposed construction activities.

Figure 17 includes a map of all the recorded koala sightings within the Narrabri Shire. The red triangles indicate recorded sightings. There are no sightings within, or in close proximity to the proposed development site. The closest record is from a scat recorded in 2015 in the riparian area along Maules Creek, approximately 4.8 kilometres from the proposed development site. No recent or historical records (within 18 years) of a “resident population” exist for the project area.

Given that there is no evidence of a resident population of Koalas on-site, and that the tree species listed in Schedule 2 of the Koala SEPP are absent from the footprint of the proposed development, it was determined that no core or potential Koala habitat is present within the development footprint. Furthermore, remnant vegetation in the wider locality is not considered suitable for Koalas due to an apparent paucity of feed trees. There is minimal vegetation removal proposed as part of this development application, and no mature trees are located within the proposed clearing extent. It is therefore considered unlikely that the proposal would result in any adverse impacts on any local Koala population.

On this basis, it is considered that the requirements of the SEPP do not need any further consideration.

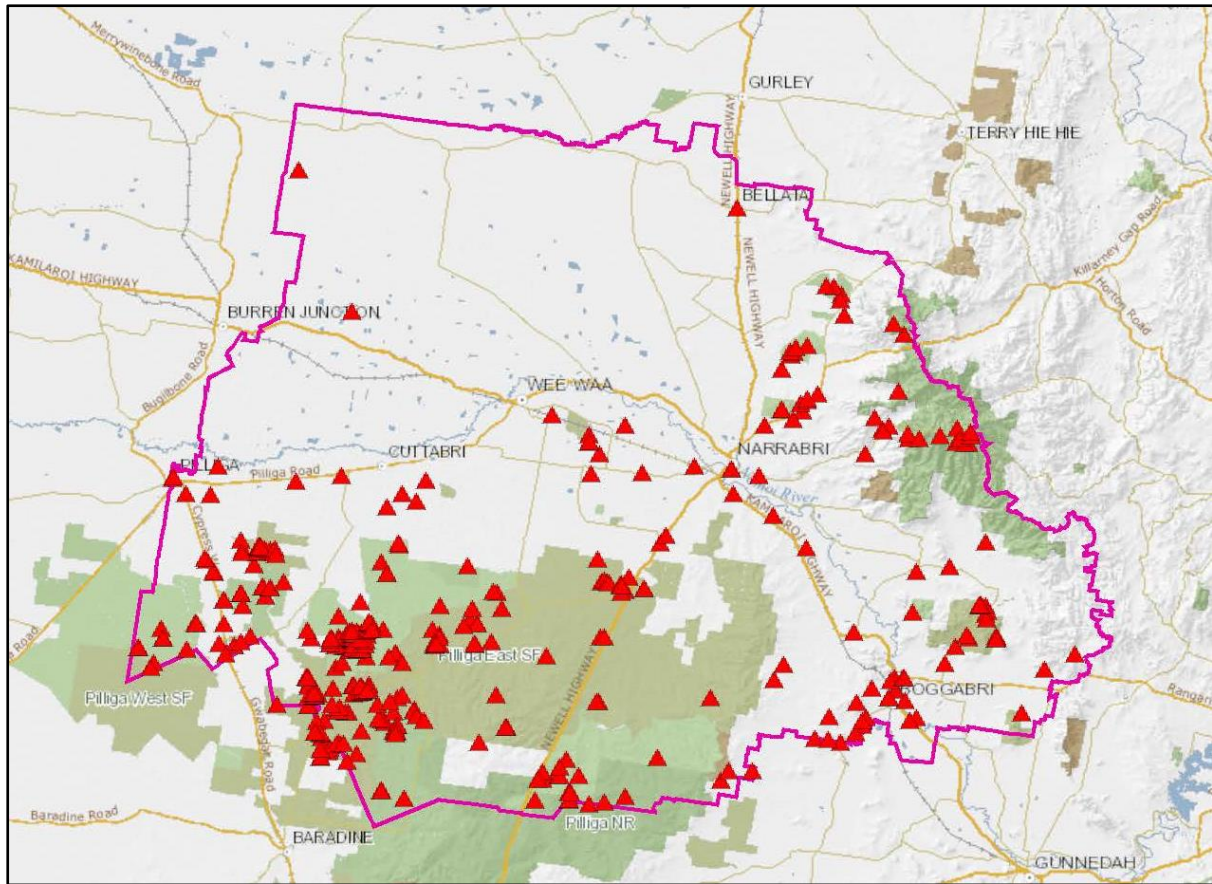


Figure 17: Koala Records within the Narrabri LGA

#### 4.3.4 Local Government (Manufactured Home Estates, Caravan Parks, Camping Grounds and Moveable Dwellings) Regulation 2005

Pursuant to the *Local Government (Manufactured Home Estates, Caravan Parks, Camping Grounds and Moveable Dwellings) Regulation 2005* (the Local Government Regulation), it is considered that the proposed development is best defined as a “primitive camping ground”.

‘Primitive camping ground’ is defined in the Local Government Regulation as “*a camping ground that is specified in its approval as being a primitive camping ground.*”

The regulation sets out the following points to be considered during the assessment of a development application for a primitive camping ground:

1. *If an approval to operate a primitive camping ground designates one or more camp sites within that ground, then the maximum number of designated camp sites is not to exceed a mean average of 2 for each hectare of the camping ground (where that figure is the average calculated over the total area of the primitive camping ground).*
2. *The following conditions apply to a primitive camping ground:*

- a. *if the approval to operate the primitive camping ground designates one or more camp sites within that ground—camping is not permitted within the primitive camping ground other than on those designated camp sites,*
  - b. *if the approval to operate the primitive camping ground does not designate one or more camp sites within that ground—the maximum number of caravans, campervans and tents permitted to use the camping ground at any one time is not to exceed a mean average of 2 for each hectare of the camping ground (where that figure is the average calculated over the total area of the primitive camping ground),*
  - c. *a caravan, annexe or campervan must not be allowed to be installed closer than 6 metres to any other caravan, annexe, campervan or tent,*
  - d. *a tent must not be allowed to be installed closer than 6 metres to any caravan, annexe or campervan or closer than 3 metres to any other tent,*
  - e. *the camping ground must be provided with a water supply, toilet and refuse disposal facilities as specified in the approval for the camping ground,*
  - f. *unoccupied caravans, campervans and tents are not to be allowed to remain in the camping ground for more than 24 hours,*
  - g. *if a fee is charged for camping, a register must be kept that contains entries concerning the same matters as are specified in clause 122 and, in addition, that specifies the size of the group (if any) with whom the person listed in the register camped,*
  - h. *such firefighting facilities as may be specified in the approval are to be provided at the primitive camping ground.*
3. *If the approval to operate a primitive camping site does not designate camp sites, a council may impose as a condition of the approval that the installation of tents, caravans, campervans and annexes is not permitted on a particular area or areas of land within the primitive camping ground, for reasons of health or safety or to ensure consistency with the principles of ecologically sustainable development or for any other purpose.*
4. *The provisions of Subdivisions 1–8 do not apply to a primitive camping ground.*
5. *For the purposes of subclause (2) (b), in the calculation of the number of tents using a camping ground, 2 or more tents occupied by not more than 12 persons camping together as a group are to be counted as only one tent.*

**Comment**

The area of the subject land is 5 Hectares, therefore a maximum of 10 camp sites are permissible (based on a mean average of 2 camp sites for each hectare of the camping ground).



The proposal does not involve the designation of individual camp sites within the grounds, and the maximum number of caravans, campervans and tents on the camping ground at any one time will not exceed an average of 2 per hectare (i.e. 10 in total). The maximum capacity of the proposed camp site, per Clause 5 of the Local government Regulation, is therefore 120 persons.

The minimum separation distances stated in the Local Government Regulation will be enforced by the applicant during the operation of the camping ground, namely:

- A caravan, annexe or campervan will not be allowed to be installed closer than 6 metres to any other caravan, annexe, campervan or tent; and
- A tent will not be allowed to be installed closer than 6 metres to any caravan, annexe or campervan or closer than 3 metres to any other tent.

The camping ground will include facilities including a potable water supply in a kitchenette, an ablution block, and waste disposal facilities. These facilities will be present in Camp Site No. 2 and will be available for use by camping ground visitors in the three paddocks which will comprise the camping ground. If the camping ground proves to be a successful business venture, a kitchenette, ablution block and waste disposal area will be constructed in Camp Site No. 1. It is noted that while waste disposal containers will be provided, guests will be encouraged to be self-sufficient and collect and take away any waste that they create.

Caravans, campervans and tents will not to be allowed to remain unoccupied in the camping ground for more than 24 hours.

The applicant will keep a register of occupiers in accordance with Clause 122 and will also specify the size of the group (if any) with whom the person listed in the register camped.

The camping ground is surrounded by bushfire prone land. In “extreme” or catastrophic bushfire conditions, the campground operations will be closed to the public. There is a 100,000 L rainwater tank on the property, which will provision water to the existing homestead and for the proposal. A minimum of 10,000 L will be retained in this tank at all times to provide water for fire-fighting purposes. In addition, a fire truck with a 2,500 L capacity will be parked, and maintained full of water, on the property at all times.

#### 4.4 New England North West Regional Plan 2036

The New England North West Regional Plan 2036 (the Plan) applies to the proposed development. The Plan outlines goals and directions for the New England North West region. Goal 1 is to create a ‘strong and dynamic regional economy’ with a focus on the future of tourism within the region, amongst other things. In particular Strategic Direction 8 is to ‘*expand tourism and visitor opportunities*’. One of the actions prescribed to achieve this goal

is to *‘facilitate tourism and visitor accommodation and supporting land uses where appropriate through local growth management strategies and local plans.’*

The proposed development is considered to directly contribute to achieving the outcomes of Strategic Direction Number 8 of the Plan. The proposed development location is considered appropriate due to its suitable location in the vicinity of Dripping Rock and the existing road network.

The key priority outlined in the Plan for the Narrabri LGA of relevance to this proposal includes the need to *‘expand nature-based adventure and cultural tourism places and enhance visitor experiences.’* The proposal is to establish a small-scale camping ground to enhance the experience and amenities available to tourists who are sightseeing in the area, and more specifically at Dripping Rock. This is consistent with the key priorities for the Narrabri Shire whilst appropriately supporting economic diversification and contributing to economic growth in the locality.

## 4.5 Local Environmental Plan

The Narrabri Shire is a local government area in the northern region of New South Wales. The *Narrabri Local Environmental Plan 2012* (LEP) is the current local government planning policy for the Shire. The framework of the LEP is derived from the *Environmental Planning and Assessment Act 1979*. The proposal is located within Zone RU1 – Primary Production of the Narrabri Shire.

### 4.5.1 Land Use Definition

The proposed “camping ground”, as intended for this development, is defined in the LEP as a *“an area of land that has access to communal amenities and on which campervans or tents, annexes or other similar portable and lightweight temporary shelters are, or are to be, installed, erected or placed for short term use, but does not include a caravan park.”*

This type of development is permissible with consent from council within land zoned as RU1 - Primary Production. Furthermore, the land use as intended for the proposed camping ground is deemed to be compatible with existing land uses in the surrounding area.

### 4.5.2 Zone RU1 – Primary Production

The LEP states that the objectives of the zone are:

- To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.
- To encourage diversity in primary industry enterprises and systems appropriate for the area.

To minimise the fragmentation and alienation of resource lands.

- To minimise conflict between land uses within this zone and land uses within adjoining zones.
- To allow for non-agricultural land uses that will not restrict the use of other land for agricultural purposes.

The proposal is for a camping ground, which is permissible with consent from Council within Zone RU1 – Primary Production. The development does not involve any primary industry enterprise. The proposal is for a camping ground that is considered a ‘non-agricultural land use’ on a small section of the property. A section of the property will continue to be available for agricultural uses, including grazing. The proposed development is therefore not considered to alienate resource lands. The operation of a primitive camping ground is a low-impact activity and will not have a direct physical impact on adjoining land use, therefore it will not restrict the use of surrounding lands for agricultural purposes. Furthermore, it would not restrict the use of the subject land for agricultural purposes in the long-term.

The proposed development is therefore considered to be both compatible and consistent with the surrounding land uses and would be considered to satisfactorily meet the objectives of the RU1 - Primary Production Zone.

#### 4.5.3 Heritage Conservation

Part 5, Clause 5.10 of the LEP deals with heritage items and heritage conservation areas. The objectives of this clause are as follows:

- a) To conserve the environmental heritage of Narrabri,
- b) To conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views,
- c) To conserve archaeological sites,
- d) To conserve Aboriginal objects and Aboriginal places of heritage significance.

The proposal is not in the vicinity of any heritage items in accordance with Council’s Local Environmental Plan or under State or Federal legislation. Therefore, the proposal will not impact on known heritage items or conservation areas and is consistent with the heritage conservation objectives of listed in the LEP.

#### 4.5.4 Bushfire Hazard Reduction

Section 5.11 of the LEP deals with land that is considered bushfire prone and may require bushfire hazard reduction work. Bushfire hazard reduction work authorised by the *Rural Fires Act 1997* may be carried out on any land without development consent.

Bushfire hazard reduction work includes the following:

- a) the establishment or maintenance of firebreak on land, and



- b) the controlled application of appropriate fire regimes or other means for the reduction or modification of available fuels within a predetermined area to mitigate against the spread of a bushfire,

But, does not include construction of a track, trail or road.

The subject site is classified as bushfire prone land on the NSW Planning Portal (Figure 18). The footprint of the proposed site is, however, currently cleared for the most part (with the exception of a few paddock trees) and grassy vegetation will be kept mown short. The site is situated adjacent to shrubby open forest and/or riparian vegetation, in particular to the south of the Dripping Rock Road. Due to the risk of bush fires in the area, fire danger ratings published for the RFS will be checked daily and the grounds will be closed on days where the rating is 'extreme' or higher or on days of increased fire danger. All weather roads will provide access for firefighting in the camping ground if necessary, and water from on-site storages will provide an adequate supply for fire-fighting purposes.

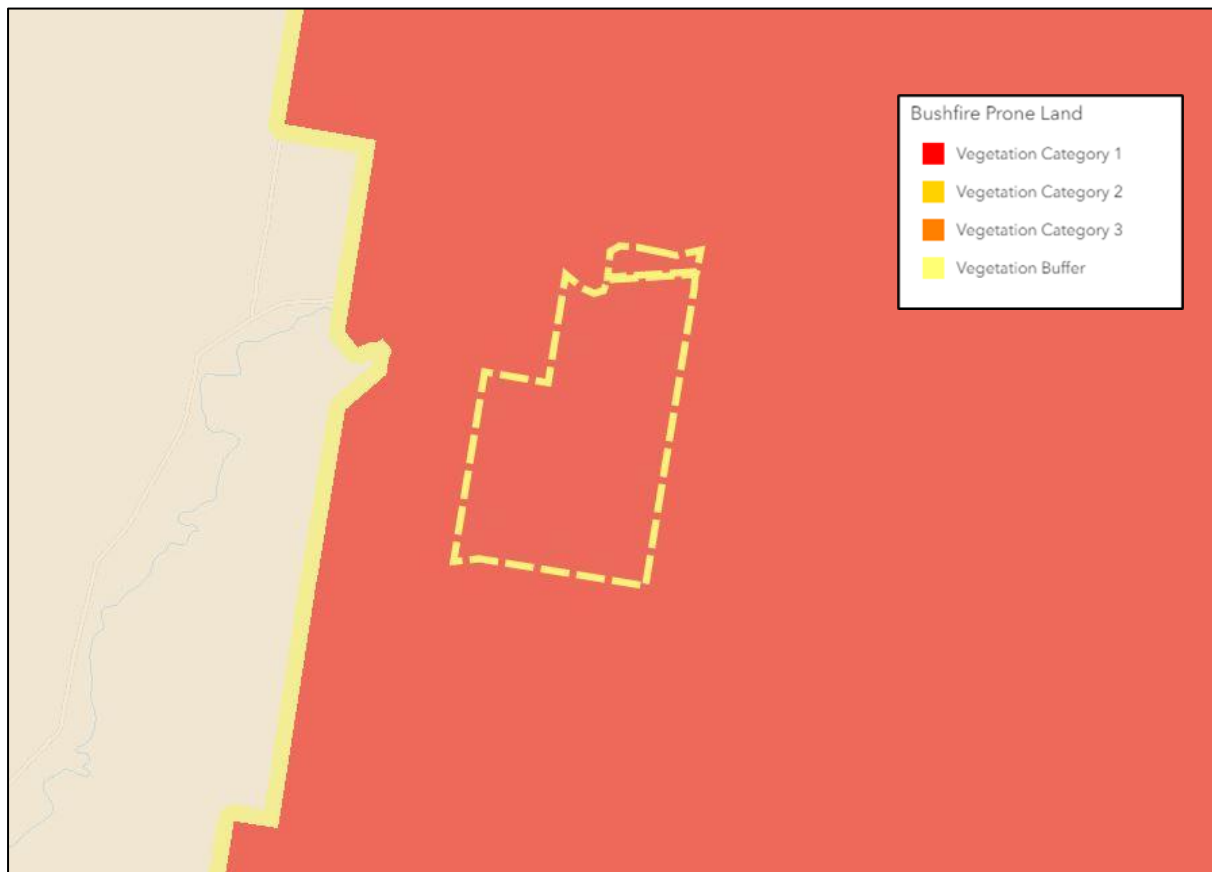


Figure 18: Bushfire Prone Land within Lot 9/DP754927 and its Vicinity

#### 4.5.5 Earthworks

Part 6, Clause 6.1 of the LEP deals with development requiring earthworks. The objective of this clause is to ensure that earthworks for which development consent is required will not have a detrimental impact on environmental functions and processes, neighboring uses,

cultural or heritage items or features of the surrounding land. Development consent is required for earthworks unless:

- a) the earthworks are exempt development under this Plan or another applicable environmental planning instrument, or
- b) the earthworks are ancillary to development that is permitted without consent under this Plan or to development for which development consent has been given.

Before granting development consent for earthworks (or for development involving ancillary earthworks), the consent authority must consider the following matters:

- a) the likely disruption of, or any detrimental effect on, drainage patterns and soil stability in the locality of the development,
- b) the effect of the proposed development on the likely future use or redevelopment of the land,
- c) the quality of the fill or the soil to be excavated, or both,
- d) the effect of the proposed development on the existing and likely amenity of adjoining properties,
- e) the source of any fill material and the destination of any excavated material,
- f) the likelihood of disturbing relics,
- g) the proximity to, and potential for adverse impacts on any watercourse drinking water catchment or environmentally sensitive area,
- h) Any appropriate measures proposed to avoid, minimise or mitigate of the development.

Minor, ancillary excavations will be required for construction of the proposed kitchenette and pit toilets. No earthworks will be carried out in association with the camp site spaces. The minor scale of the works mean that is unlikely that the proposal would have a detrimental impact on environmental functions and processes, neighboring uses, cultural or heritage items or features of the surrounding land.

#### 4.6 Development Control Plan

No Development Control Plan is applicable within Narrabri Shire Local Government Area.

#### 4.7 Development Contribution Plan

The Narrabri Shire Section 7.11 Contributions Plan 2016 allows Narrabri Shire Council to impose the payment of a levy as part of certain development consents where developments would result in heavy vehicular use on public roads and the existing road maintenance schedule is inadequate to carry the additional load. This contribution plan is not applicable to

the proposed development, as it is not listed as a development type which may be levied a contribution, and it is not located on land shown in the Schedule of the Contributions Plan.

#### **4.8 Draft planning instruments**

No draft environmental planning instruments are known to affect the site.



## 5 Environmental Considerations

Items considered include matters set out under Clause 4.15 of Division 4.3 of the *Environmental Planning and Assessment Act 1979*. A summary of the major points of that consideration follows.

### 5.1 Biodiversity

#### 5.1.1 Desktop Assessment

Initially, examination is required of the various threatened species databases to identify any known locations of threatened species, populations and ecological communities inside, or within close proximity to, the proposed impact area. This desktop assessment included searches of databases and a review of literature relevant to the site and local area, particularly:

- Office of Environment and Heritage (OEH) Atlas of NSW Wildlife database for records of threatened species and endangered ecological communities which have been recorded within a 10-kilometre radius (locality) of the subject site (accessed June 2020);
- Department of the Environment and Energy (DoEE) Protected Matters Search Tool for Matters of National Environmental Significance (MNES) listed under the EPBC Act within a 20 km radius from the site (accessed June 2020); and
- NSW Vegetation Information System (VIS) classification database (OEH, accessed June 2020).
- NSW Sharing and Enabling Environmental Data (SEED) portal (NSW Government, accessed June 2020).

Satellite imagery is also used to determine the presence and extent of broad habitat types for these species. Where it is determined the habitat of a species, population or community is not present, this species is culled from the list of potential occurrences. This list is further refined based on the habitat features identified during field surveys.

Figure 19 includes the modelled plant community types expected to occur within the area based on desktop information available on the SEED portal for vegetation mapping within the Border Rivers Gwydir / Namoi region. The desktop assessment indicated that the property was likely to contain vegetation consistent with the following Plant Community Types (PCTs):

- PCT 0 'Non-Native Vegetation'
- PCT 112 'Black Tea-tree - River Oak - Wilga riparian low forest/shrubland wetland of rich soil depressions in the Brigalow Belt South Bioregion'
- PCT 147 'Mock Olive - Wilga - Peach Bush - Carissa semi-evergreen vine thicket (dry rainforest) mainly on basalt soils in the Brigalow Belt South Bioregion'

- PCT 592 'Narrow-leaved Ironbark - cypress pine - White Box shrubby open forest in the Brigalow Belt South Bioregion and Nandewar Bioregion'
- PCT 594 'Silver-leaved Ironbark - White Cypress Pine shrubby open forest of Brigalow Belt South Bioregion and Nandewar Bioregion'.

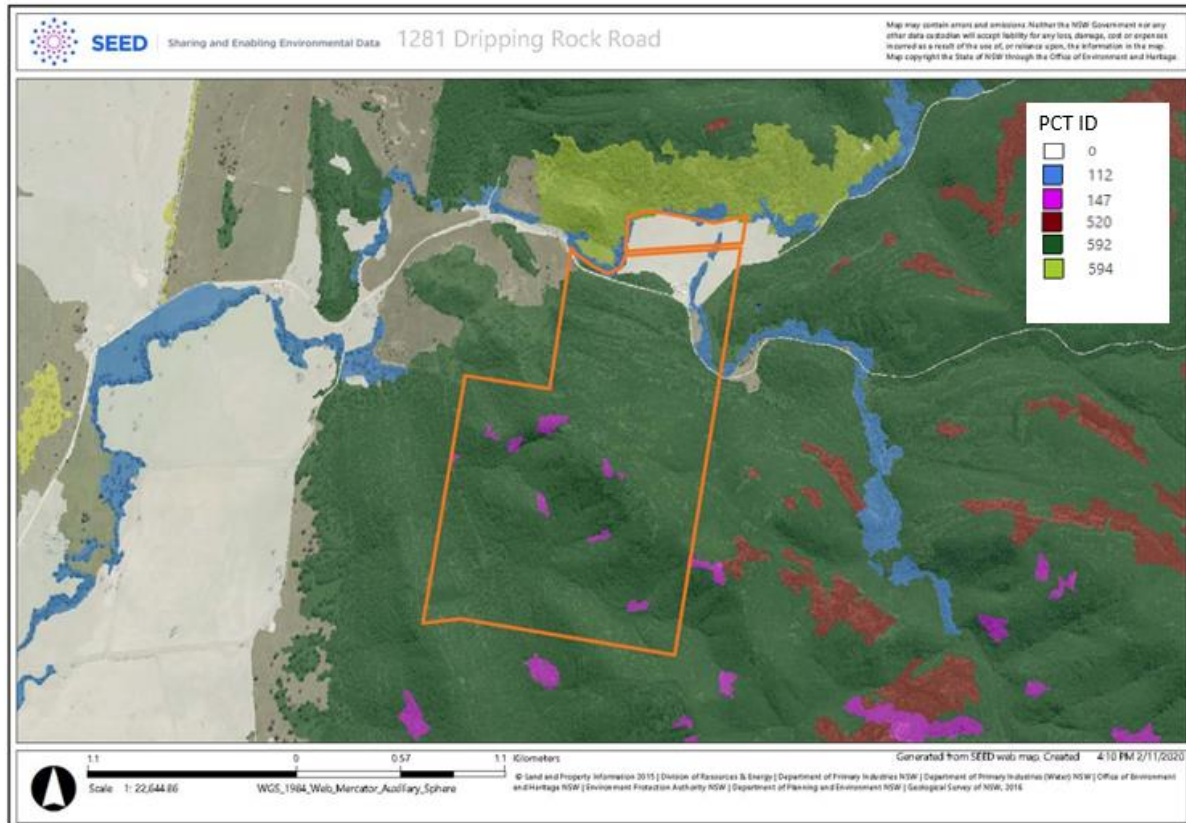


Figure 19: SEED Plant Community Types modelled for the property and environs.

### 5.1.2 Native Vegetation Regulatory Map

The Native Vegetation Regulatory Map covers rural land in NSW and categorises land where management of native vegetation can occur without approval or where management of native vegetation may be carried out in accordance with Part 5A Land Management (native vegetation) of the *Local Land Services Act 2013*.

The categories are Category 1 (unrestricted management where clearing is exempt from the LLS Act), Category 2 is regulated land where the LLS Act applies to clearing as either code based, vulnerable or sensitive, and Excluded Land which is not regulated by the LLS Act.

The Native Vegetation Regulatory Map for Lot 9 DP 754927 is given as Figure 20 below. Parts of the land within the property are mapped as Category 2 land – Vulnerable Regulated Land. The Mihi Creek (shown in orange) is located in the north-eastern corner of the property and is contained within the proposed development site. The creek is classed as vulnerable

regulated land. It is not proposed to interfere with this watercourse or the vegetation corridor along the watercourse.

The remainder of the subject site (and property) is neither mapped as Category 2 land nor as Excluded Land. In relation to the subject site, the Applicant has indicated that the areas of land contained within the subject site were cleared prior to 1990; it is therefore classed as 'Category 1' Land and vegetation clearance is an allowable activity on in this area.

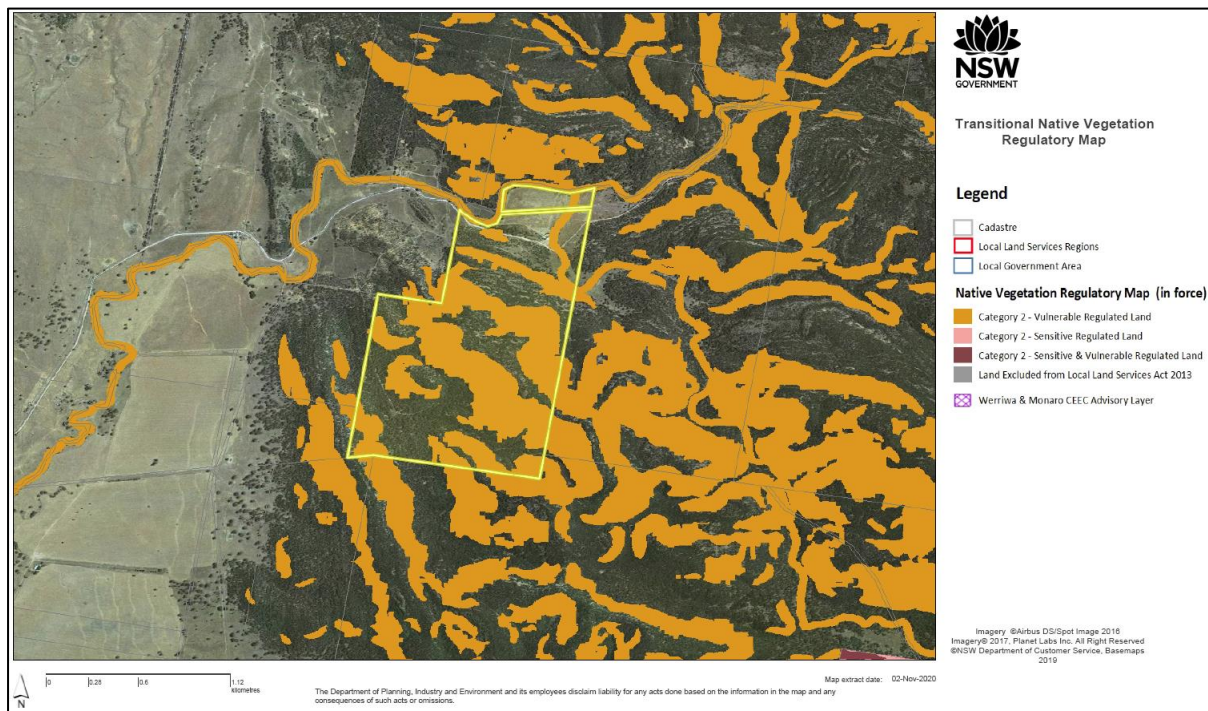


Figure 20: Native Vegetation Regulatory Map. Source: NSW Government, 2020.

### 5.1.3 Field Assessment

The total development footprint extends over 5 hectares and is mostly restricted to land which has been previously disturbed due to historical agricultural land use. The majority of the site consists of improved pasture, which was cleared prior to the Applicants acquisition of the property. Less than 0.1 Ha of native vegetation (immature white cypress pine) would be cleared or modified as part of the proposal.

Vegetation present both within the proposed development footprint and the study area is described in more detail in the below sections.

#### 5.1.3.1 Proposed Development Footprint

The proposed development footprint extends over 2 main plant community types:

- PCT 0 "Non-Native Vegetation"; and



- PCT 592 “Narrow-leaved Ironbark – cypress pine – White Box shrubby open forest in the Brigalow Belt South Bioregion and Nandewar Bioregion”

#### PCT 0 “Non- Native Vegetation”

The majority of the proposed camping ground extends over improved pasture which is mapped as non-native vegetation on SEED mapping (NSW Government, 2020). Figure 21 shows the pasture occurring within Camp Site 1. Vegetation has been recently mown at the time of the site inspection, therefore the potential to identify flora species was limited. Species identified within and adjacent to the three subject paddocks include Scarlet Pimpernel (*Anagallis arvensis*), Lawn leaf (*Dichondra* species), Gomphrena weed (*Gomphrena celosioides*), Silverleaf Nightshade (*Solanum eleagnifolium*), Caltrop (*Tribulus* sp), Mexican Poppy (*Argemone mexicana*) and Couch Grass (*Cynodon dactylon*).

These paddocks also contain isolated trees such as Kurrajong (*Brachychiton populneus*). These mature trees will not be cleared, altered or modified by the proposed development.

The majority of the subject site has been historically cleared and was grazed until 2019 as part of the Applicants previous agricultural grazing enterprise. The site is currently maintained by means of regular mowing.



Figure 21: Improved Pasture situated within the proposed development footprint of Camp Site 1.



PCT 592 “Narrow-leaved Ironbark – cypress pine – White Box shrubby open forest in the Brigalow Belt South Bioregion and Nandewar Bioregion”

Vegetation consistent with PCT 592 “Narrow-leaved Ironbark – cypress pine – White Box shrubby open forest in the Brigalow Belt South Bioregion and Nandewar Bioregion” occurs along the eastern edge of Camp Site No.2 and the western and southern edges of Camp Site No.1. The construction of the pit toilets in Camp Site Nos. 1 and 2 will require the clearance of immature White Cypress Pine which form part of this PCT, over a combined area of approximately 50 m<sup>2</sup>. Within the site footprint, this PCT occurs as a monotypic stand of immature (<10 yrs old) White Cypress Pine (*Callitris glaucophylla*) trees. Within the study area, the canopy layer also includes occasional Narrow-leaved Ironbark (*Eucalyptus crebra*) and White Box, while the sparse shrub layer includes Sticky Hopbush (*Dodonea viscosa*) and Sticky Wallaby Bush (*Beyeria viscosa*). The ground layer comprise species including Purple Wiregrass (*Aristida Ramosa*), Long leaf Wallaby Grass (*Notodanthonia longifolia*) and Grey Tussock Grass (*Poa Sieberiana*), Hairy Panic (*Panicum effusum*) and the fern Mulga fern (*Cheilanthes sieberi*). The ground layer comprises approximately 20%-30% bare ground, with the localised presence of rocks. Trees and rocks support prolific lichen growth. The ground layer also contains scattered dead wood and fallen tree limbs.

Overall, this area of open, dry sclerophyll forest is considered to be in good condition, however there are few mature trees, and there are no trees with significant habitat features such as hollows. This PCT is not associated with any Threatened Ecological Community.



Figure 22: PCT 592 within the proposal footprint. Pit Toilets will require the clearance of immature White Cypress Pine.





Figure 23: PCT 592 occurring in the study area, upslope of the proposal.

#### 5.1.3.2 Study Area

There are extensive areas of remnant vegetation in the vicinity of the subject site. Four PCTs were identified:

- PCT 112 “Black Tea Tree – River Oak – Wilga riparian low forest/shrubland wetland of rich soil depressions in the Brigalow Belt South Bioregion”
- PCT 592 “Narrow-leaved Ironbark – cypress pine – White Box shrubby open forest in the Brigalow Belt South Bioregion and Nandewar Bioregion”
- PCT 594 “Silver-leaved Ironbark – White Cypress Pine shrubby open forest of Brigalow Belt South Bioregion and Nandewar Bioregion”
- PCT 619 “Derived Wire Grass grassland of the NSW Brigalow Belt South Bioregion and Nandewar Bioregion”.

PCT 592 has already been described in Section 5.1.3.1 above.

PCT 594 is located at distance from the proposal (north of the property), and given the low-impact and small-scale nature of the proposal, this vegetation community was not surveyed as it is not considered at risk of being adversely impacted by the development proposal.

PCT 112 and PCT 619 are described below.

**PCT 112 “Black Tea Tree – River Oak – Wilga riparian low forest/shrubland wetland of rich soil depressions in the Brigalow Belt South Bioregion”**

The PCT occurs as a narrow strip along surface watercourses in the area, including along the Mihi Creek which borders all of the paddocks which would form part of the proposed camping ground. It occurs as a low open forest, with a height of up to 15m. The canopy layer of the PCT is dominated by Black Tea Tree (*Melaleuca bracteata*) with occasional River Red Gum (*Eucalyptus camaldulensis*) overtopping the community. Wilga (*Geijera parviflora*) dominates the shrub layer and occurs as a tall shrub (up to 8m). Species identified in the groundlayer include Common Groundsel (*Senecio vulgaris*), Field Mustard (*Brassica rapa*), Scarlet Pimpernel, Gomphrena Weed, Hairy Panic grass, Slender Bamboo Grass (*Austrostipa vercillata*), Shade Plantain (*Plantago debilis*), and Native Geranium (*Geranium solanderi*).

This PCT provides a wildlife corridor connecting larger areas of open forest in the landscape, and it is considered as being in moderate condition. The tree and sparse shrub layer are intact however the ground layer of this PCT has been subject to weed infestation from the adjacent pasture, which has modified its species composition. Weed infestation is listed as one of the main threats for this PCT.

This PCT is not associated with any Threatened Ecological Community.



Figure 24: PCT 112 forms a riparian corridor along the Mihi Creek; this borders the three paddocks which form part of the subject site.



PCT 619 “Derived Wire Grass grassland of the NSW Brigalow Belt South Bioregion and Nandewar Bioregion”

Vegetation consistent with PCT 619 “Derived Wire Grass grassland of the NSW Brigalow Belt South Bioregion and Nandewar Bioregion” occurs north of the development proposal in Camp Site 3.

This area of land was historically cleared; however, it has not been used for grazing purposes in recent years. The upper and mid stratum are therefore absent from this community, with only the ground layer remaining. Species identified in this community include Threeawn Speargrass (*Aristida vagans*), Purple Wiregrass (*Aristida ramosa*), Native Millet (*Panicum decompositum*), Swamp Dock (*Rumex brownii*), Austral Cranesbill (*Geranium solanderi* var. *solanderi*), Gomphrena weed (*Gomphrena celosioides*), Kidney Weed (*Dichondra repens*) and Wattle Mat Rush (*Lomandra Filiformis*).

This PCT is considered to be in moderate - good condition. While it has not been actively managed in recent times, the community has been infiltrated with agricultural and weed species from adjacent agricultural paddocks, in particular thistle species. This habitat area nevertheless provides a corridor between areas of remnant vegetation to the north (forest) and west (riparian vegetation) of the paddock.

The PCT has associations with the following TECs:

- Listed BC Act, CE: White Box - Yellow Box - Blakely’s Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and Riverina Bioregions (Part);
- Listed EPBC Act, CE: White Box - Yellow Box - Blakely’s Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and Riverina Bioregions (Part);

The grassland occurring to the north of the proposed development is not considered to form part of these TECs as the woodland types listed above are not present in the locality.



Figure 25: PCT 619 to the north of Camp Site No. 3 in the proposed development.

#### 5.1.4 Potential Impacts

A Test of Significance was undertaken in accordance with the Biodiversity Conservation Act 2016 to determine the potential impact of the proposal on threatened or endangered species, populations and habitat communities. The assessment is presented in Appendix 5. This assessment concluded that the proposal would be unlikely to have a significant impact on any threatened or endangered species and communities, as only minor clearing of vegetation is required.

#### 5.1.5 Weed Management

Weeds will be managed on-site in accordance with the following principles:

- Prior to the proposed works, the site will be prepared with an application of a knockdown herbicide with residual action to prevent the growth of any seeds that may germinate.
- All machinery, equipment and vehicles brought onto a property must be free of soil, seed or plant material. All soil and organic matter should be removed, including under the vehicle and in the cabin or trays.
- Spot spraying will also be used to control any weed species that emerge within the footprint of the camping ground throughout the lifetime of the development.

### 5.2 Land Use Conflict

#### 5.2.1 Land Use

The proposed development is consistent with the historical land use and current zoning of the lot, as camping grounds are permitted within Zone RU1. The proposed development is

based on a minimalist design with only rudimentary amenities being provided. The potential for land use conflict is therefore considered to be minimal.

### 5.2.2 Proximity to Receptors

Figure 26 presents an aerial image locating individual receptors within a 5-kilometre radius of the Dripping Rock Bush Camping ground. Table 5 outlines the available separation distances between the identified receptors and the proposed camping ground.

The closest receptor is a rural residence which is situated to the north-west of the camping ground along Dripping Rock Road and is separated from the proposed development site by mostly open forest. The proposed development allows for a separation distance of approximately 1,060 metres to the nearest receptor. Given the available separation distances and the low-impact, sustainable nature of the proposal, the proposed camping ground is unlikely to cause adverse impacts to local amenity.

The closest village to the proposed development (Boggabri) is located over 25 km from the camping grounds. It is therefore considered that the development will not impact upon any villages or townships with regards to local amenity.

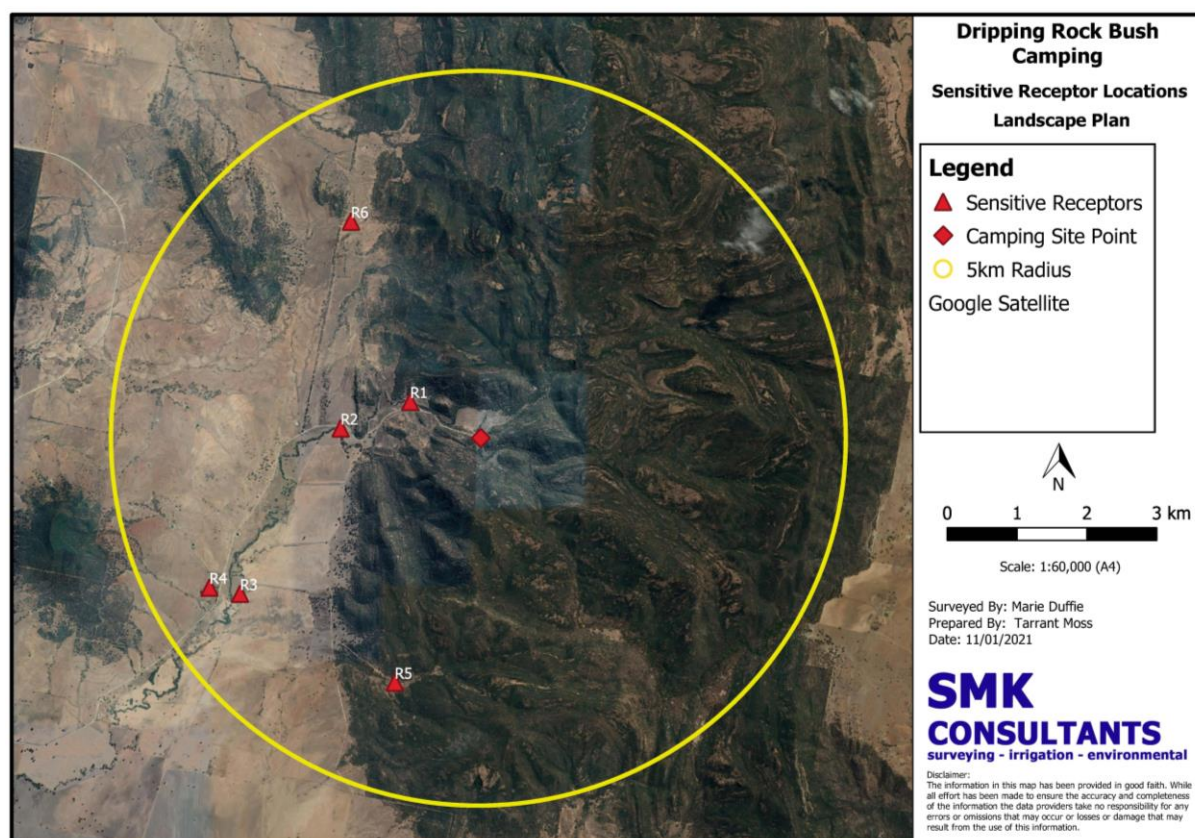


Figure 26: Identified Sensitive Receptors within a 5km Radius of the Proposal



Table 5: Available Separation Distances to Sensitive Receptors from the Proposal

| Closest Sensitive Receptors |                 |               |           |              |
|-----------------------------|-----------------|---------------|-----------|--------------|
| Receptor No.                | Receptor Type   | Receptor Name | Direction | Distance (m) |
| <b>R1</b>                   | Rural Residence | Mountain View | NW        | 1,060        |
| <b>R2</b>                   | Rural Residence | Green Tree    | W         | 1,890        |
| <b>R3</b>                   | Rural Residence | Mallee        | NW        | 3,401        |
| <b>R4</b>                   | Rural Residence | Bunaleer      | SSW       | 3,519        |
| <b>R5</b>                   | Rural Residence | Sylvania      | SW        | 4,189        |
| <b>R6</b>                   | Rural Residence | Unknown       | SW        | 4,428        |

### 5.3 Services

The camping ground does not require connection to electricity or telephone infrastructure. There is mobile phone connectivity on-site.

Water supply for the proposal will be sourced from existing rainwater collection tanks located at the proponent's home. Water is pumped from there to an existing 100,000L tank on a low hilltop west of the proposal. A 15,000L tank will be installed adjacent to the 100,000 L water storage tank to provision the camping site; this will be provisioned from the larger tank.

The sole access to the camping site is via the Dripping Rock Road (SR27). This road is classified as a minor unsealed road on the Narrabri Shire Council Roads and Locality Map. The road is only suitable for 4 Wheel Drive vehicles. It is expected that the majority of guests utilising the camping ground will come from the Kamilaroi Highway (SH29), joining the Dripping Rock Road via the Rangari Road (MR357). The Kamilaroi Highway connects the Hunter Valley with the north-western outback of NSW. It is a two-lane sealed road, and is currently subject to safety upgrade works between Baan Baa and Turrawan. The Rangari Road connects the Kamilaroi Highway and the Manilla Road (B95), running in an east-west direction. It is an unsealed gravel road, and there are plans to seal the road along its entire length.

### 5.4 Noise

#### 5.4.1 Construction Noise

Four potential noise sensitive receptors were identified within a 5-kilometre radius of the proposal, as shown in Figure 26 and listed in Table 5 (Section 5.2.2). These receptors comprise rural residential properties. Construction noise levels were predicted to each assessed receptor assuming receiver heights of 1.5m above ground level for typical construction activities.

Construction of the facility will involve a limited range of machinery and tools which would only be utilised over a very limited period of time. No large machinery will be active on the site once the camping ground is in operation. Noise emissions generated by guests during the operational phase may also include portable generators.

Typical equipment noise levels, displayed in Table 6, have been obtained from:

- AS 2436 – 2010, Guide to noise and vibration control on construction, demolition and maintenance sites.
- BS 5228-1, Code of practice for noise and vibration control on construction and open sites. Noise.
- DEFRA—Department for Environment Food and Rural Affairs (United Kingdom), Update of noise database for prediction of noise on construction and open sites-Phase 3: Noise measurement data for construction plant used on quarries, July 2006.

Table 6: Typical Sound Levels of Construction Plant and Equipment

| Plant Description                      | A-weighted sound power levels<br>LwA dB ref: 10-12 W |                    | A-weighted sound pressure levels LpA<br>(mid-point) dB at 10m |
|----------------------------------------|------------------------------------------------------|--------------------|---------------------------------------------------------------|
|                                        | Typical Range                                        | Typical (midpoint) |                                                               |
| Excavator                              | 97-117                                               | 107                | 79                                                            |
| Generator (diesel)                     | 84-113                                               | 99                 | 71                                                            |
| Hand tools (electric)                  | 95-110                                               | 102                | 74                                                            |
| Truck (>20 tonne)                      | 107                                                  | 107                | 79                                                            |
| Vehicle (light commercial<br>e.g. 4WD) | 100-111                                              | 106                | 78                                                            |

Machinery would only occur during work hours and not during the evening or night periods, where sound can be potentially increased as a result of various factors, including inversion layers. Accordingly, the predictions should be considered as conservative estimates.

The NSW Noise Policy for Industry 2017 (NPI) presents a methodology for determining Project Noise Trigger Levels (PNTL) for industrial development. Ambient and background noise measurements are used to determine PNTL relevant to the proposed development. Table 7 provides the NPI minimum RBL for each period of the day, which were adopted for the site.

Table 7: Rating Background Noise Levels

| Period  | RBL dB(A) |
|---------|-----------|
| Day     | 35        |
| Evening | 30        |
| Night   | 30        |

Note: Day is defined as the period from 7am to 6pm (Monday to Saturday) and 8am to 6pm (Sundays and public holidays). Evening is defined as the period from 6pm to 10pm. Night is defined as the period from 10pm to 7am (Monday to Saturday), and 10pm to 8am (Sundays and public holidays).

Table 8 provides an analysis of both the intrusiveness and amenity noise levels for the purposes of establishing a PNTL for the proposed development.

Table 8: Assessment of PNTL in adjacent receiving environment

| Metric                             | Day dB(A) | Evening dB(A) | Night dB(A) |
|------------------------------------|-----------|---------------|-------------|
| Rating Background Level            | 35        | 30            | 30          |
| Project Intrusiveness Criteria     | 40        | 35            | 35          |
| Recommended Amenity Level          | 50        | 45            | 40          |
| Project Amenity Level              | 45        | 40            | 35          |
| <b>Project Noise Trigger Level</b> | <b>40</b> | <b>35</b>     | <b>35</b>   |

These levels are considered acceptable guideline ambient noise levels that can be received by sensitive receptors whilst being considered to protect environmental values, including health and well-being, for outside a dwelling.

Noise impacts associated with the project were estimated using the distance attenuation relationship described in the following equation:

$$L_2 = L_1 - 20\log(d_1/d_2)$$

(source: Noise Guide for Local Government - epa.nsw.gov.au)

Where:

- $d_1$  = distance (m) between source and receiver
- $d_2$  = distance (m) at which Sound Pressure ( $L_{pa}$ ) measured
- $L_2$  = sound pressure level at the distance  $d_1$  from the source
- $L_1$  = sound pressure level at distance  $d_2$  from the source

Propagation calculations take into account sound intensity losses due to hemispherical spreading, with additional losses such as atmospheric absorption, directivity, ground absorption and shielding ignored in the calculations.

The closest receptor is approximately 1,060 metres to the east of the project site. At this distance, the loudest activity (excavator) is predicted to be:

$$\begin{aligned} L_2 &= 79 - 20\log(1060/10) \\ &= 38.4 \text{ dB} \end{aligned}$$

This noise would be generated during day periods and therefore is considered compliant.



### 5.4.2 Operational Noise

Noise emissions are expected to be similar to other campgrounds, such as National Park campgrounds or caravan parks which are typically compatible with surrounding residential land uses. The camp site has some potential for noise generation through guest conversations, laughter, music etc. The proposed site is located over 1km from the nearest sensitive receiver, however, and is unlikely to cause nuisance to residents under normal operating conditions.

Noise emissions from the site would also be limited and controlled by facility management; the site will be actively supervised and managed with the objective of maintaining a quiet environment for guests. With on-site management it is unlikely that there would be noise related issues.

## 5.5 Visual Amenity

The lands forming and surrounding the proposed camping ground predominantly comprise open forest remnant vegetation, and cleared, open ground utilised for agriculture on small acreage farms. The topography of the landscape is undulating. The site itself is zoned RU1 – Primary production within a rural area. The majority of the subject site is cleared and is surrounded by open forest.

Figures 27 and 28 show the existing landscape along the Dripping Rock Road along the paddocks that will constitute the Dripping Rock Bush Camping site.



**Figure 27: View of the Dripping Rock Road and Existing Residence on Lot 9 in DP754927, taken from Camp Site 1.**



Figure 28: Camp Site 2 (Right) and Camp Site 3 (Left) are both visible from the Dripping Rock Road.

It is noted that the proposed structures (ablution blocks, kitchenettes and water storage tanks) associated with the proposal will not be visible from the Dripping Rock Road, as they will be hidden from view by existing vegetation. Guests' vehicles (RVs, caravans and cars), as well as tents and outdoor camping equipment would, however, be visible from the road.

The residence associated with the proposed development is the last residence located on the Dripping Rock Road, a no through road that ends at the Dripping Rock car parking area, approximately 1.5 kilometres east of the proposed site. Therefore, no local residents would be impacted by the proposal on a regular basis.

The proposed camp ground would, however, impact the travelling public. This category of visual receptor includes local residents travelling to the Dripping Rock area. The site would be partially visible from the road, with structures associated with the operation of the camp site being hidden from view, as previously mentioned. The majority of visitors to the Dripping Rock scenic point would likely visit once, or on an irregular basis. Furthermore, visual impact would be limited to times during which the camp site has guests, which limits the severity of the impact.

The applicant also proposes to upgrade existing fencing by installing steel posts and rail fencing, as well as to plant native trees, in keeping with native species in the locality, along the interface between the Dripping Rock Road and the paddocks which comprise the proposed camp grounds, in accordance with the relevant guidelines provided in *Planning for*

*Bushfire Protection 2019*. This would reduce the level of visual impact over the medium-long term.

There are no permanent structures associated with the proposal and overall, the proposal is not considered to have a significant impact on local amenity.

## 5.6 Air Quality

Activities that disturb the earth's surface and that are carried out with the use of machinery have the potential to generate dust emissions. This may be exacerbated by wind exposure to an exposed ground surface. The establishment of the proposed primitive camping site will only involve minor excavations, being limited to excavations for footings for the ablution and kitchen facilities, and the creation of pits for the latrines. Along with the delivery of materials using heavy vehicles, the construction works may generate small quantities of dust, however, once operational the change of use of the land to a primitive camping ground is unlikely to cause increased levels of particulate emissions which would adversely impact local air quality.

### 5.6.1 Mitigation Measures

To minimise dust generation during the construction phase, the following mitigation measures are proposed:

- Restrict vehicle movements to minimum areas necessary to deliver construction materials;
- Suppress dust emissions using watering and cease works during dry and windy conditions;
- Ensure ground disturbance is limited to areas necessary to the least possible extent;
- Ensure minimal handling of any excavated materials; and
- Re-establishing a groundcover vegetation on areas disturbed by construction but not needed post-construction, as soon as practicable.

It should be noted that the proposed works involve minimal ground disturbance and that no bulk earthworks of landform modifications are required.

## 5.7 Soil Resources

The subject site consisted of brown sandy clay loam soils consistent with Kandosols and Alluvial Soils, as classified by the Australian Soil Classification. The land and soil capability class of the surrounding area is Class 4 and is typically considered capable of supporting grazing and occasional cultivation with moderate to high limitations. The subject site is not considered to have any existing salinity issues and the development proposal, as designed, will not increase the risk of salinity on the property. There are no known acid sulphate soils



present within the region and the area is not identified on acid sulfate soil risk mapping (eSPADE v2.1, 2020).

### 5.7.1 Dust Generation

There is potential for dust nuisance from earthmoving equipment during construction. Construction management will include visual monitoring of dust emissions and appropriate actions to mitigate potential issues. Internal dust management is a key construction measure to maintain health of workers and maintenance of equipment and therefore dust emission control through watering will be utilised on an as-required basis.

### 5.7.2 Erosion and Sediment Control

Land slope on the property varies across the site but is essentially located on flat ground at the foot of low hills. Erosion is considered a moderate risk in the area following heavy rain events. There is a low risk of wind erosion. There is minimal physical alteration as result of this proposal and hence there is no chance of subsidence, slip or mass movement of the soil on site. Given the proximity of the proposal to the Mihi Creek, best practice drainage and sediment controls will be implemented on site prior to carrying out earthworks. Short term erosion measures such as silt fencing, hay bales etc. will be installed downslope of the proposed work location which will involve earth disturbance. These measures should only be removed once vegetation cover has been re-established.

## 5.8 Water Resources

### 5.8.1 Potential Surface Water Impacts

The proposed development site borders Mihi Creek which flows into the Bollol Creek. A drainage line also runs through Camp Site No.1, joining the Mihi Creek in the north-eastern corner of this camp site. The Mihi Creek is a third order stream. The proposed subject site is a relatively flat area with areas of gently sloping topography along sections of the perimeter, where paddocks transition to open forest. Maximum slopes are approximately 14%. Figure 2 shows existing levels of the land on the property.

The establishment of the proposed primitive camping site will involve minor excavations for footings for the ablution and kitchen facilities. Earth will also be disturbed in order to upgrade existing accesses to the three camp sites. The upgrade of the site entrance of the proposed camp site No.1 will comprise earthworks over 50m away from the Mihi Creek. The works do not require approval from the NSW Office of Water as a controlled activity.

The development is located within the *Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Sources 2016*. The site is also located within the area covered by the WSP for the *NSW Murray Darling Basin Fractured Rock Groundwater Sources 2011*. The

site is within the New England fold belt. No water extraction is proposed therefore neither of these WSPs is relevant to the proposed development.

The site is not considered flood prone and was not included within the flood planning areas outlined within the *Narrabri Local Environmental Plan 2012*.

Stormwater runoff at the site will be largely unchanged as a result of the proposed development and no stormwater management measures are considered necessary as part of the proposal.

Minor construction impacts to run-off surface water are possible in relation to construction works for the proposal, however sediment control measures including the installation of hay bales and geotextile silt traps will be implemented prior to the commencement of the works in order to minimise these impacts.

### 5.8.2 Potential Groundwater Impacts

The Groundwater Dependent Ecosystems (GDE) Atlas (BOM, November 2020) was reviewed to assess if any potential GDE's had been identified within the area.

Shrubby open forest (Narrow-leaved Ironbark – cypress pine – White Box shrubby open forest in the Brigalow Belt South Bioregion) in the vicinity of the proposal site is identified as a Terrestrial GDE with low potential to be a GDE. Riparian vegetation present along the Mihi Creek corridor (Black Tea-tree – River Oak – Wilga riparian low forest/shrubland wetland of rich soil depression in the Brigalow Belt South Bioregion) has a high potential to be a GDE.

The proposed development borders both of these vegetation communities. Minor excavations, described in Section 5.8.1, will be carried out within 50m of riparian vegetation. Without the implementation of mitigation measures, minor construction impacts to this community are possible as a result of increased sediment-laden runoff being generated during earthworks associated with the proposal. Measures such as the installation of silt traps will be implemented to minimise these impacts, however.

No water is proposed to be extracted from groundwater sources for any project element. Accordingly, construction would not impact groundwater resources.

It is noted that the pits which would form part of the VIP latrines would be lined with a HDPE geomembrane to create an impermeable barrier, such that there is minimal risk of seepage and contamination of groundwater during the operation of the camping ground. There are no other identified potential sources of contamination.

### 5.8.3 Mitigation Measures

The proposed works should not result in the pollution of land/waters so long as best management practices for erosion and sediment control are undertaken during construction, and appropriate remediation measures are implemented on a progressive basis. Priority will be given to achieving a high standard of erosion and sediment control and general site housekeeping throughout the construction period.

The way this is achieved is through developing and implementing construction activities in accordance with best practice<sup>1</sup> and the following principles:

1. At all times, in all locations, the area of ground disturbance should be limited to that which is the smallest possible footprint that is practicably possible.
2. Erosion and sediment controls must be implemented downslope of earthworks carried out for the creation of latrines and the upgrade of site access/egress points. This would entail the installation of silt fencing and bales of hay.
3. Erosion and sediment controls must be suitably maintained, including regular monitoring to ensure the measures and controls in place are effective.
4. Immediate stabilisation of worked sections complemented by progressive rehabilitation.
5. Erosion and sediment control measures only to be removed once the area is successfully rehabilitated.

Provided the above-mentioned mitigation measures are implemented as part of the proposed works, the potential for adverse impacts to surface water quality and Groundwater Dependent Ecosystems is considered minimal, in particular taking into consideration the small scale of the proposed works.

Given the largely passive and low-impact nature of the proposal, impacts to the local surface and groundwater environments in relation to ongoing operations are considered limited.

## 5.9 Natural Hazards

The land is not subject to geological hazard such as volcanism, earthquake, or soil instability such as subsidence slip or mass movement.

### 5.9.1 Bushfire

The subject site is located on land classified as bushfire prone land.

Primitive camp grounds are considered a Special Fire Protection Purpose (SFPP) development and are covered under Section 6.3 of *Planning for Bushfire Protection 2019* (NSW Rural Fire

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<sup>1</sup> Landcom, 2004. *Managing Urban Stormwater: Soils and Construction*, 4th Edition



Service, 2019). A Bush Fire Safety Authority (BFSA) is required for the development, under Section 100B of the *Rural Fires Act 1997*. This has been addressed in the form of an evacuation plan (Appendix 3). Subject to RFS review, A BFSA may be required for the proposal.

It is noted that the NSW RFS discourages the use of primitive camp grounds in high risk and isolated bush fire prone areas during periods of elevated bush fire danger. Management have indicated that the camp will not be open to the public on days of increased fire danger, namely on days where the Fire Danger Ratings of 'Extreme' or above.

Varied performance criteria and acceptable solutions are given for specific types of SFPP development in Tables 6.8a to 6.8d of the PBP. The performance criteria, acceptable solutions and comments relating to the proposal type (Primitive Camping Ground) are outlined in Table 9.

**Table 9: Bush fire Protection Measures for Camping and Primitive Camping**

| General Development Code               |                                                                                                                                                           |                                                                                                             |                                                                                                                                                                                                                                                                                                    |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                        | Performance Criteria                                                                                                                                      | Acceptable Solution                                                                                         | Development Proposal                                                                                                                                                                                                                                                                               |
| Table 6.8a: APZ, Building Construction | <b>Asset Protection Zones</b>                                                                                                                             |                                                                                                             |                                                                                                                                                                                                                                                                                                    |
|                                        | No performance criteria applicable                                                                                                                        | N/A                                                                                                         | N/A.                                                                                                                                                                                                                                                                                               |
|                                        | <b>Landscaping</b>                                                                                                                                        |                                                                                                             |                                                                                                                                                                                                                                                                                                    |
|                                        | Landscaping is designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind-driven embers to cause ignitions. | Landscaping is in accordance with Appendix 4; and<br>Fencing is constructed in accordance with section 7.6. | Landscaping measures may be implemented, with native trees being planted along the road front to minimise the visual impact of the proposal. Trees would be planted in accordance with Appendix 4 of the PBP. Fencing will be upgraded and constructed in accordance with Section 7.6              |
|                                        | <b>Construction Standards</b>                                                                                                                             |                                                                                                             |                                                                                                                                                                                                                                                                                                    |
|                                        | No performance criteria applicable                                                                                                                        | N/A                                                                                                         | N/A.                                                                                                                                                                                                                                                                                               |
| Table 6.8b: Access                     | <b>Access</b>                                                                                                                                             |                                                                                                             |                                                                                                                                                                                                                                                                                                    |
|                                        | Firefighting vehicles are provided with safe, all-weather access to structures and hazard vegetation.                                                     | Access is provided in accordance with the property access requirements of Table 5.3b.                       | There will be two secondary emergency exits provided through to the property to the Dripping Rock Road in addition to existing/proposed access/egress points. The main access/egress points will be upgraded to comply the requirements of Table 5.3b, should consent be granted for the proposal. |
|                                        | The capacity of access roads is adequate for firefighting vehicles.                                                                                       | The capacity of road surfaces and any bridges/ causeways is sufficient to carry fully loaded                | Access roads from the Dripping Rock Road to the camping grounds do not comprise bridges or causeways.                                                                                                                                                                                              |

| General Development Code |                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          | Performance Criteria                                                                                                                                                                                                                                                            | Acceptable Solution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Development Proposal                                                                                                                                                                                                                                                                                                                                                            |
| Table 6.8b - Access      |                                                                                                                                                                                                                                                                                 | firefighting vehicles (up to 23 tonnes); bridges and causeways are to clearly indicate load rating.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                 |
|                          | There is appropriate access to water supply.                                                                                                                                                                                                                                    | <ul style="list-style-type: none"> <li>Hydrants are located outside of parking reserves and road carriageways to ensure accessibility to reticulated water for fire suppression;</li> <li>Hydrants are provided in accordance with the relevant clauses of AS 2419.1:2005;</li> <li>There is suitable access for a Category 1 fire appliances to within 4m of the static water supply where no reticulated supply is available.</li> </ul>                                                                                                                                                                                                                                                                                                                                   | It is not proposed to install hydrants as part of the proposal. There is an existing access to the existing water storage tank which would provide water for fire-fighting purposes; this is considered suitable in its current condition.                                                                                                                                      |
|                          | <b>Perimeter Roads</b>                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                 |
|                          | Perimeter access roads are designed to allow safe access and egress for firefighting vehicles while occupants are evacuating as well as providing a safe operational environment for emergency service personnel during firefighting and emergency management on the interface. | <ul style="list-style-type: none"> <li>There are two ways sealed roads;</li> <li>Minimum 8m carriageway width kerb to kerb;</li> <li>Parking is provided outside of the carriageway width;</li> <li>Hydrants are to be located clear of parking areas;</li> <li>There are through roads, and these are linked to the internal road system at an interval of no greater than 500m;</li> <li>Curves of roads have a minimum inner radius of 6m</li> <li>the maximum grade road is 15 degrees and average grade of not more than 10 degrees;</li> <li>the road crossfall does not exceed 3 degrees; and <ul style="list-style-type: none"> <li>a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches, is provided.</li> </ul> </li> </ul> | The proposal is located in a rural area and does not include the construction of any habitable buildings. The proposal does not include the construction of perimeter access roads. As previously noted, there will be two secondary emergency exits provided through to the property to the Dripping Rock Road in addition to existing access/egress points to the camp sites. |
|                          | <b>Non-Perimeter Roads</b>                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                 |
|                          | Non-perimeter access roads are designed to allow safe access and                                                                                                                                                                                                                | <ul style="list-style-type: none"> <li>Minimum 5.5m carriageway width kerb to kerb;</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | The only camp site with an internal access road is Camp Site No. 2. This consists of a dirt track                                                                                                                                                                                                                                                                               |

| General Development Code                           |                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                    | Performance Criteria                                                                                                                                                                 | Acceptable Solution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Development Proposal                                                                                                                                                                                                                                                                                                                      |
| Table 6.8 c: Services – Water, gas and electricity | egress for firefighting vehicles while occupants are evacuating.                                                                                                                     | <ul style="list-style-type: none"> <li>Parking is provided outside of the carriageway width;</li> <li>Hydrants are located clear of parking areas;</li> <li>There are through roads, and these are linked to the Internal road system at an interval of no greater than 500m;</li> <li>Curves of roads have a minimum inner radius of 6m;</li> <li>The maximum grade road is 15 degrees and average</li> <li>Grade of not more than 10 degrees;</li> <li>The road crossfall does not exceed 3 degrees; and <ul style="list-style-type: none"> <li>A minimum vertical clearance of 4m to any overhanging obstructions, including tree branches, is provided.</li> </ul> </li> </ul> | at present and this would be upgraded to comply with the requirements for non-perimeter roads, should the proposal be approved.                                                                                                                                                                                                           |
|                                                    | <b>Water Supply</b>                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                           |
|                                                    | An adequate water supply for firefighting purposes is installed and maintained.                                                                                                      | Either a reticulated water supply is provided or a 10,000 litres minimum water supply on site.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | There is a 100,000 L rainwater tank on-site to provision water to the proposal. A minimum of 10,000 L will be retained in the tank at all times to provide water for firefighting purposes. In addition, a fire truck with a 2,500 L capacity will be parked, and maintained full of water, on the property at all times.                 |
|                                                    | <ul style="list-style-type: none"> <li>Water supplies are located at regular intervals.</li> <li>The water supply is accessible and reliable for firefighting operations.</li> </ul> | <ul style="list-style-type: none"> <li>Fire hydrant spacing, design and sizing comply with the relevant clauses of AS 2419.1:2005;</li> <li>Hydrants are not located within any road carriageway; and</li> <li>Reticulated water supply to SFPPs uses a ring main system for areas with perimeter roads.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                | <p>The proposal does not involve the construction of a perimeter road or the installation of fire hydrants.</p> <p>Water storage tanks are present on the property, both north and south of Dripping Rock Road. A fire truck with a 2,500 L capacity will also be parked, and maintained full of water, on the property at all times.</p> |
|                                                    | Flows and pressure are appropriate                                                                                                                                                   | Fire Hydrant flows and pressures comply with the relevant clauses of AS 2419.1:2005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | The proposal does not involve the installation of fire hydrants.                                                                                                                                                                                                                                                                          |
|                                                    | The integrity of the water supply is maintained                                                                                                                                      | All above-ground water service pipes external to the building                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Above ground water service pipes will be metal.                                                                                                                                                                                                                                                                                           |



| General Development Code |                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|                          | Performance Criteria                                                           | Acceptable Solution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Development Proposal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                          |                                                                                | are metal, including and up to any taps.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                          | Water supplies are adequate in areas where reticulated water is not available. | <ul style="list-style-type: none"> <li>• A connection for firefighting purposes is located within the IPA or non hazard side and away from the structure; a 65mm Storz outlet with a ball valve is fitted to the outlet;</li> <li>• Ball valve and pipes are adequate for water flow and are metal;</li> <li>• Supply pipes from tank to ball valve have the same bore size to ensure flow volume;</li> <li>• Underground tanks have an access hole of 200mm to allow tankers to refill direct from the tank;</li> <li>• A hardened ground surface for truck access is supplied within 4m of the access hole;</li> <li>• Above-ground tanks are manufactured from concrete or metal;</li> <li>• Raised tanks have their stands constructed from non-combustible material or bush fire-resisting timber (see Appendix F AS 3959);</li> <li>• Unobstructed access is provided at all times;</li> <li>• Tanks on the hazard side of a building are provided with adequate shielding for the protection of firefighters; and</li> <li>• Underground tanks are clearly marked, all exposed water pipes external to the building are metal, including any fittings;</li> <li>• Where pumps are provided, they are a minimum 5hp or 3kW petrol or diesel-powered pump, and are shielded against bush fire attack; Any hose and reel for firefighting connected to</li> </ul> | <p>The proposal does not include any habitable buildings. An above-ground tank made of metal will be utilised to supply water for fire-fighting purposes. Unobstructed access will be provided to the tank at all times. Water pipes, including fittings, will be metal. No pumps will be provided. A connection for firefighting purposes is available at water tanks at the existing residence, which complies with RFS requirements. There is signage on the front gate of the residence indicating this.</p> |

| General Development Code                           |                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                  |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                    | Performance Criteria                                                                                                     | Acceptable Solution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Development Proposal                                                                                                                                             |
| Table 6.8 c: Services – Water, gas and electricity |                                                                                                                          | <p>the pump shall be 19mm internal diameter; and</p> <ul style="list-style-type: none"> <li>• Fire hose reels are constructed in accordance with AS/NZS 1221:1997 Fire hose reels, and installed in accordance with the relevant clauses of AS 2441:2005 Installation of fire hose reels.</li> </ul>                                                                                                                                                                                                                                                                                              |                                                                                                                                                                  |
|                                                    | <b>Electricity Services</b>                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                  |
|                                                    | Location of electricity services limits the possibility of ignition of surrounding bush land or the fabric of buildings. | <ul style="list-style-type: none"> <li>• Where practicable, electrical transmission lines are underground;</li> <li>• Where overhead, electrical transmission lines are proposed as follow: <ul style="list-style-type: none"> <li>○ lines are installed with short pole spacing (30m), unless crossing gullies, gorges or riparian areas; and</li> <li>○ no part of a tree is closer to a power line than the distance set out in accordance with the specifications in ISSC3 Guideline for Managing Vegetation Near Power Lines.</li> </ul> </li> </ul>                                         | The proposal does not entail the installation of electricity services. There are no overhead electrical transmission lines within the proposed development area. |
|                                                    | <b>Gas Services</b>                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                  |
|                                                    | Location and design of gas services will not lead to ignition of surrounding bushland or the fabric of buildings.        | <ul style="list-style-type: none"> <li>• Reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 and the requirements of relevant authorities, and metal piping is used;</li> <li>• All fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side;</li> <li>• Connections to and from gas cylinders are metal;</li> <li>• If gas cylinders need to be kept close to the building, safety valves are directed away from the building and at least 2m away from any combustible material, so</li> </ul> | No gas services are required for the proposal.                                                                                                                   |

| General Development Code                   |                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                            | Performance Criteria                                              | Acceptable Solution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Development Proposal                                                                                                                                                                                                                                                                                                                                            |
| Table 6.8d – Emergency Management Planning |                                                                   | <p>they do not act as a catalyst to combustion;</p> <ul style="list-style-type: none"> <li>Polymer-sheathed flexible gas supply lines to gas meters adjacent to buildings are not to be used; and</li> <li>Above-ground gas service pipes external to the building are metal, including and up to any outlets.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                 |
|                                            | A Bush Fire Emergency Management and Evacuation Plan is prepared. | <p><b>Emergency Management</b></p> <ul style="list-style-type: none"> <li>A Bush Fire Emergency Management and Evacuation Plan is prepared consistent with the NSW RFS document: A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan, and AS 3745:2010;</li> <li>For proposals in isolated or remote areas which involve large travel distances through bush fire prone vegetation, the following issues should be determined and addressed: <ul style="list-style-type: none"> <li>the amount of travel likely to be generated during an emergency evacuation;</li> <li>the capacity of the broader road network to facilitate safe emergency evacuation;</li> <li>limitations/constraints inherent in the road system; and</li> <li>management of potential traffic conflicts (such as emergency vehicles versus evacuating members of the public).</li> </ul> </li> <li>The Bush Fire Emergency Management and Evacuation Plan must consider a mechanism for the early relocation of occupants on days when adverse fire weather is notified or adverse fire</li> </ul> | <p>An emergency evacuation and management plan has been prepared for the proposal and is included as Appendix 3. A detailed Bush Fire Emergency Management and Evacuation Plan will be prepared for the proposed development in the event that the proposal is approved; it is proposed to include this as a condition of consent in the event of approval.</p> |

| General Development Code |                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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|                          | Performance Criteria                                                                                                                                                   | Acceptable Solution                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Development Proposal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                          |                                                                                                                                                                        | <p>activity occurs in the local government area in which the development operates.</p> <p>Note: A copy of the Bush Fire Emergency Management and Evacuation Plan should be provided to the Local Emergency Management Committee for its information prior to occupation of the development.</p>                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                          | <p>Appropriate and adequate management arrangements are established for consultation and implementation of the Bush Fire Emergency Management and Evacuation Plan.</p> | <ul style="list-style-type: none"> <li>An Emergency Planning Committee is established to consult with residents (and their families in the case of aged care accommodation and schools) and staff in developing and implementing an Emergency Procedures Manual; and</li> <li>Detailed plans of all emergency assembly areas including on site and off-site arrangements as stated in AS 3745:2010 are clearly displayed, and an annually emergency evacuation is conducted.</li> </ul> | <p>The proposal is a small-scale camping ground in a remote area and solely involves the owners of the property (Peter and Donna Brien), as well as camping ground users. No other residents would be impacted by the proposal as the site is situated near the terminal end of a no-through road. It is not considered necessary to establish an emergency planning committee.</p> <p>A bushfire emergency management evacuation plan will be present on-site at all times, and plans of on-site emergency assemble areas will be displayed on-site in accordance with AS3745:2010.</p> |

Overall, the proposal is considered to be compliant with the measures outlined for SFPP's in the PBP 2019. Management will also ensure that grass is kept short and that any tree branches are kept out of the footprint of the proposed development site.

Figure 16 in Section 3.1.7 shows the proposed emergency assembly areas and the proposed evacuation routes from each of the three camp sites to the Dripping Rock Road.

#### 5.9.1.1 List of Fire Safety Measures to be provided for the proposed buildings

Per Section 8.3.1 of 'Planning for Bushfire Protection 2019', there are no bush fire protection requirements for Class 10a buildings located more than 6m away from a dwelling in bush fire prone areas. Therefore, no specific fire safety measures are proposed for the Class 10a buildings which form part of the proposed development. The buildings will, however, incorporate construction elements that meet the requirements for bushfire resisting



construction to comply with the requirements of AS3959-2009 (Construction of Buildings in Bushfire Prone Areas).

## 5.9.2 Flooding

The subject site borders the Mihi Creek and is in the vicinity of (approximately 140m) the Bollol Creek, both of which are ephemeral streams. The site is also subject to local run-off as it is situated in a low-lying area at the foot of hills. The Proponent has occupied the property since 1989 and have indicated that the site is flood free. In the absence of detailed flood mapping, local historical observations are considered acceptable in determining potential flood height and the site is thus considered flood-free. No flood management measures are proposed, given the nature of the development. In the event of a flood, the camp site would be evacuated and would remain vacant until floods receded.

## 5.10 Cultural Heritage

### 5.10.1 Indigenous Heritage

The generic due diligence process outlined in the Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW was implemented to ensure that an adequate due diligence process that addresses Aboriginal cultural heritage issues has been carried out. This process follows the following five steps:

*1. Will the activity disturb the ground surface?*

Minor excavations will be carried out for the footings of Class 10A buildings, and for the construction of pits as part of the installation of latrines. Earth will also be disturbed during the upgrade of site accesses.

*2. a) Search the AHIMS database*

The Aboriginal Heritage Information Management System (AHIMS) is a database operated by the Office of Environment and Heritage and regulated under section 90Q of the *National Parks and Wildlife Act 1974*. AHIMS contains information and records related to registered Aboriginal archaeological sites (Aboriginal objects, as defined under the Act) and declared Aboriginal places (as defined under the Act) in NSW.

A search of the AHIMS database was conducted on the 30<sup>th</sup> October 2020 to identify registered (known) Aboriginal sites or declared Aboriginal places within or in the vicinity of the subject area. The search lot included Lot 9 DP 754927 with a buffer of 50 metres. The search revealed there were zero (0) known indigenous heritage places or sites at the proposed development site. A copy of this report is attached as Appendix 4. The search is part of the due diligence process and remains valid for 12 months.

It is noted that surveys for Aboriginal objects have not been carried out in all parts of NSW and Aboriginal objects may exist on a parcel of land even though they have not been recorded

in AHIMS. Further, not all known Aboriginal sites are registered on the AHIMS database and not all sites consist of physical evidence or remains, e.g. dreaming and ceremonial sites.

The subject site has been heavily disturbed by previous land uses including substantial soil disturbance. Subsequently, the probability of Aboriginal archaeological artefacts being present on the site is minimal.

*2. b) Activities in areas where landscape features indicate the presence of Aboriginal objects*

The development area borders the Mihi Creek which contains a riparian corridor. This has not historically been disturbed and may have been utilised by Aboriginal people. The creek is ephemeral however, and permanent freshwater sources would have been favoured and more regularly utilised. Regardless, the riparian corridor will not be impacted by the proposed development. The footprint of the camping ground itself does not possess landscape features that indicate the presence of Aboriginal objects. There are caves in the wider locality including at the Dripping Rock, however there are no caves present in the direct vicinity of the proposal site.

*3. Can you avoid harm to the object or disturbance of the landscape features?*

Not applicable as the development area has been previously heavily disturbed, does not possess significant landscape features and no known Aboriginal objects are listed in AHIMS. The riparian corridor of the Mihi Creek will not be impacted by the proposal.

*4. Desktop assessment and visual inspection*

The desktop assessment found that no known Aboriginal objects are listed in AHIMS. There was no evidence of any artefacts on the surface of the land found during the site visit on the 5<sup>th</sup> November 2020.

*5. Further investigations and impact assessment*

An extensive search of AHIMS records, is not necessary given that there are no recorded sites or places at Lot 9 DP 754927, 1281 Dripping Rock Road, Boggabri. No further investigations are required at this stage and the development can proceed without an Aboriginal Heritage Impact Permit. Overall, it is considered that the proposed development is unlikely to impact upon indigenous cultural values.

However, in the event that any object/s are encountered that are suspected to be of Aboriginal origin (including skeletal material), the unanticipated finds protocol in the Aboriginal Heritage Assessment will be followed:

- Stop work, protect item and inform supervisors/contractor, notify the Office of Environment and Heritage (OEH) as soon as practical and provide details of the object and its location (and if human remains also inform the Police).
- Work should not resume at the particular location unless authorised in writing by OEH.

In accordance with the *National Parks and Wildlife Act 1974*, Aboriginal objects include:

- Physical objects, such as stone tools, Aboriginal-built fences and stockyards, scarred trees and the remains of fringe camps
- Material deposited on the land, such as middens
- The ancestral remains of Aboriginal people.

### 5.10.2 Non-Indigenous Heritage

No non-indigenous heritage items have been found within the development site, nor is development site listed under Schedule 5: Environmental Heritage; of the LEP.

### 5.11 Traffic

All project related traffic will utilise Dripping Rock Road to access the site. Dripping Rock Road is accessible from the Rangari Road (either directly or via the Leards Forest Road and the Goonbri Road). The Rangari Road connects the Kamilaroi Highway near Boggabri, to the west, to the town of Manilla, to the east. It is expected that the majority of visitors would access the camp ground from the Boggabri/Narrabri area.

The intended site construction hours are between 7:00 am to 6:00 pm Monday to Friday and 8:00 am to 1:00 pm Saturday: with no works on Sundays or Public Holidays. The Proponent will source the majority of construction components and will carry out the majority of construction works himself over a 6-month period. The proponent lives on the property and machinery to be used on-site is currently on the property also. No over-mass or over-dimensional vehicle delivery will be required. Due to the very small scale of the development and the minimalist nature of the development, total vehicle movements are expected to be very modest and would not be expected to put any adverse stress on any local road network or traffic flows.

Once operational, the proposed camp ground is likely to experience variation in visitation and traffic generation based on seasonal demand. It is noted that the camping ground would be closed during periods of high-fire risk. The proposal is unlikely to operate at capacity, given the current road usage restrictions (limited to 4WD), the low number of facilities in the area and the remote location of the proposal. It is instead expected that visitation of the proposed camping ground would correlate with the level of visitation to the Dripping Rock landform,



with the camping ground attracting few or no additional visitors in itself. The duration of guest stays being on average 1-2 nights, which may incur low levels of additional traffic as guests travel around the local area.

The proposal is expected to generate minor additional traffic on the local road network, and is considered unlikely to have a significant adverse impact on traffic flows or road conditions in the locality.

#### 5.11.1 Parking

The camping ground consists of existing cleared paddocks and can accommodate sufficient 'parking' for construction vehicles, through as-required arrangements.

There is no demand for parking facilities once the site is operational, as vehicles will be parked at existing camp sites within the proposed development footprint.

### 5.12 Socio-Economic Impacts

The social and economic impacts of the development are considered to be a minor positive. The development will provide additional tourist and visitor accommodation options in the Boggabri area, and may increase tourism expenditure in the locality. The proposal would also provide an opportunity for the landowners to supplement their income – especially in tougher times and where in this instance it can be demonstrated it would be complimentary to surrounding agricultural activities.

The proposal involves a minor capital expenditure of approximately \$10,000. The majority of this cost is related to the purchase of materials and the intersection upgrade works required to establish the camping ground. The majority of materials and contractors required during the construction phase will be sourced locally. The establishment and operation of the camping ground is not considered likely to stimulate additional employment on a long-term basis in the area.

### 5.13 Waste Management

A desktop assessment of the waste generated during establishment and operation of the proposed Dripping Rock Bush Camping ground has been carried out to determine the appropriate means of waste disposal and recycling. The assessment takes into account the requirements of relevant legislation and policy including the *Protection of the Environment Operations (POEO) Act 1997*, *POEO (Waste) Regulation 2014* and the *Waste Avoidance and Resource Recovery Act 2001*.

The largest amount of waste will be generated during the construction phase and would be classified as general solid waste (non-putrescible). Wastes would predominantly include wooden pallets, cardboard, plastics, green waste and domestic waste. Construction works will be limited to the installation of pit toilets and a kitchenette. This would not generate any putrescible waste products.

Minimal waste would be generated when the camping ground is operational. Waste disposal facilities (labelled, lidded bins) will be provided at each kitchenette; however guests will be encouraged to be self-sufficient and collect and take away any waste that they create. The waste generated during the operational phase would include putrescible products. Management will monitor waste levels and remove waste from the site on an as-required basis.

It is expected that the camping grounds will be operational for at least 10 to 20 years. Upon decommissioning all infrastructure would be disassembled and removed from the site.

All waste generated on the site throughout the establishment, operation and decommissioning of the camping grounds would be transported to the Boggabri Transfer Station. The Boggabri Transfer Station is located at 138 Aerodrome Road, adjacent to the Boggabri Showground, and is operated by the Narrabri Shire Council. It is open Wednesday, Thursday and Saturday from 1:30 pm - 5:30 pm and Tuesday and Sunday from 8am - 12pm. The centre is closed to the public on Mondays. The transfer station accepts general household waste, recyclable materials and scrap metals. Waste will be transferred from the camping ground to the transfer station in the owner's vehicle. Waste will be covered during transportation and containers used to transport waste would be checked to ensure they are safely secured to the vehicle.

In the event waste volumes exceed that able to be managed by local waste collection service, camping management would arrange for delivery to the Narrabri Waste Management Facility or for private delivery of waste to a licensed landfill facility.

Waste management will be predicated on the international hierarchy of waste management to avoid/reduce, reuse, recycle, recover, treat and dispose of waste products to avoid or reduce waste materials where possible, and to re-use, recycle and recover the majority of waste materials generated during each of the construction, operational and decommissioning phases. Items that cannot be safely recycled will be disposed of at a licenced waste facility.

The proposal will not require the utilisation or storage of any hydrocarbons, chemicals or hazardous materials.

### 5.14 Safety, Security and Crime Prevention

No specific measures are considered necessary. The entrance gates will remain locked with a padlock at all times.

## 6 Suitability of Site for Development and Report Summary

- The proposed development involves the establishment on Lot 9 DP 754927.
- The site is zoned RU1 Primary Production under the provisions of *Narrabri Local Environmental Plan 2012*.
- The proposed camping ground has been preferentially sited on a previously cleared and disturbed site that is considered suitable for use as a primitive camping ground.
- The subject site currently consists of improved pasture. Parts of the camping ground will be visible from the Dripping Rock Road, however semi-permanent structures to be erected as part of the proposal (kitchenettes and ablution blocks) will not be visible from the road.
- The total development footprint will be 5 hectares.
- Minimal vegetation removal is required to accommodate the proposal.
- The intersections from the three individual camping site location to the Dripping Rock Road will be upgraded to comply with Austroads rural intersection standards, such that vehicle access will be adequate throughout the construction and operational phases of the proposal. Designated parking spaces are not considered necessary given the nature of the proposal; there is ample space within the subject site (paddocks) to accommodate vehicles including establishment and operation of the camping site.
- A preliminary contamination assessment concluded the risk of site contamination is assessed to be low and the site is suitable for the proposed development.
- A Traffic Impact Assessment is not required due to the brief and modest expected vehicle requirements.
- The site is not affected by any natural hazards (other than bushfire which has been addressed);
- There are no heritage considerations;
- There is no known soil characteristics that would render the proposal prohibitive; and
- There are no flora and fauna considerations that will have an impact on the proposal.

### 6.1 Any submissions

The application is not advertised development.

### 6.2 The Public Interest

The proposed development is considered to be only of minor interest to the wider public due to the relatively localised nature of potential impacts. It is believed that by the imposition of appropriate conditions of consent and the safeguards discussed in this report, potential impacts would be modest. The proposal generally complies with the provisions and objectives of Councils planning documents.



### 6.3 Public and Public Authority Submissions

Where necessary for Integrated Development, Council must notify the appropriate authorities of the proposal, under the EP&A Act 1979. General Terms of Approval from notified government authorities should be included in the conditions of consent issued by the Council.

The proposed development is not identified as Integrated Development.

### 6.4 Justification for Approving the Proposal

This report includes an analysis of the existing environment, details of the proposed development and consideration of applicable statutory requirements.

Based upon the investigations of the proposal it can be concluded that:

- The surrounding development will not be altered significantly as a result of the proposed development and the site is overall suitable for the proposed development;
- The proposal is preferentially sited on a section of the property which has previously been cleared and managed for agricultural purposes, therefore minimising the potential impacts on biodiversity;
- There will be negligible additional traffic generation as a result proposed camping ground;
- The proposal is generally consistent with the objectives and provisions of Council's Local Environmental Plan.

The proposal is considered to be acceptable in terms of Section 4.15 of the *Environmental Planning and Assessment Act 1979*, and potential impacts are expected to be manageable. In conclusion, the proposed development will result in minimal environmental or amenity impacts and accordingly justifies a favourable determination by the consent authority.

## Appendix 1 – Site Plans



# Drippig Rock Bush Camping

Locality Plan

Landscape Plan

## Legend

◆ Camping Site Point

Google.cn Satellites



0 2 4 6 8 10 km

Scale: 1:200,000 (A4)

Surveyed By: Marie Duffie  
Prepared By: Tarrant Moss  
Date: 02/12/2020

**SMK**  
**CONSULTANTS**  
surveying - irrigation - environmental

### Disclaimer:

The information in this map has been provided in good faith. While all effort has been made to ensure the accuracy and completeness of the information the data providers take no responsibility for any errors or omissions that may occur or losses or damage that may result from the use of this information.

Whitehaven  
Coal Mine

Boggabri  
Coal Mine

RocGlen Mine

Boggabri



# Dripping Rock Bush Camping

Relevant Lot  
Boundaries  
Landscape Plan

## Legend

-  Camping Grounds
-  Lot Boundaries

Google.cn Satellites



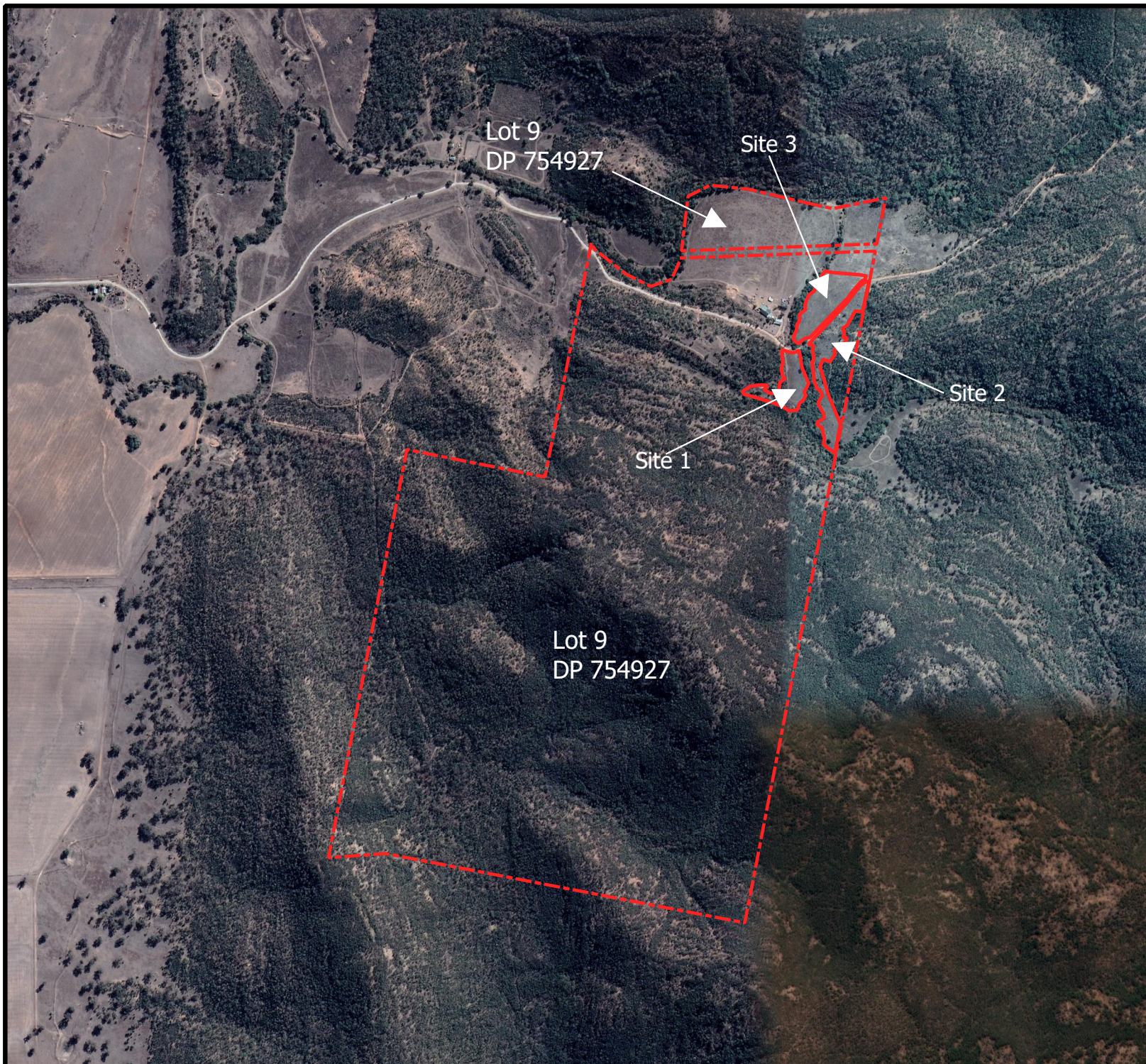
0 0.25 0.5 0.75 km

Scale: 1:15,000 (A4)

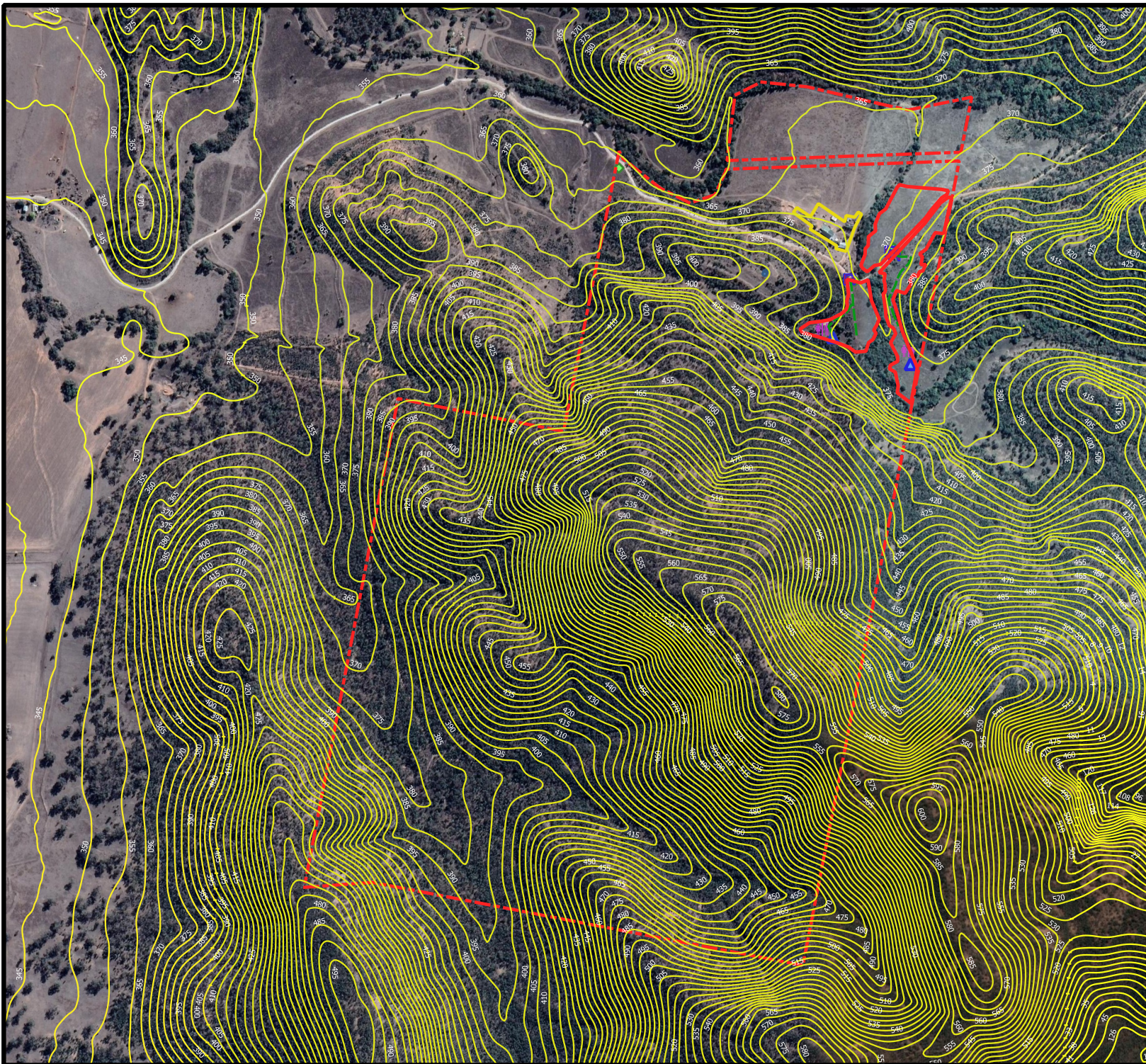
Surveyed By: Marie Duffie  
Prepared By: Tarrant Moss  
Date: 02/12/2020

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# Dripping Rock Bush Camping

## Campground Layout and Contours

Lot 9 DP 754927

### Legend

- Camping Ground Boundary
- Contours (5m)
- Kitchenettes
- Toilets
- Tanks
- Existing Access Track
- Signs
- Access
- Lot 9 DP 754927
- Existing Infrastructure

Google Satellite



0 250 500 750 m

Scale: 1:12,500 (A4)

Surveyed By: Marie Duffie  
Prepared By: Tarrant Moss  
Date: 09/12/2020

# SMK

## CONSULTANTS

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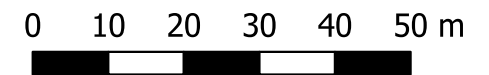
## Dripping Rock Camp Ground

### Existing Buildings and Contours

### Landscape Plan

### Legend

- Contours (1m)
- Existing Buildings
- Google.cn Satellites



Scale: 1:1,000 (A4)

Surveyed By: Marie Duffie  
Prepared By: Tarrant Moss  
Date: 02/12/2020

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# Dripping Rock Bush Camping

## Campground Layout and Contours

### Landscape Plan

#### Legend

-  Camping Ground Boundary
-  Contours (5m)
-  Kitchenettes
-  Toilets
-  Tanks
-  Existing Access Track
-  Signs
-  Access

Google.cn Satellites



0 50 100 150 200 m

Scale: 1:4,000 (A4)

Surveyed By: Marie Duffie  
Prepared By: Tarrant Moss  
Date: 09/12/2020

**SMK**  
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# Dripping Rock Camp Ground

## Overall Layout Plan

### Landscape Plan

#### Legend

-  Camping Ground
-  Kitchens
-  Toilets
-  Water Storage Tanks
-  Access and Signs
-  Existing Access Track
-  Evacuation Route
-  Emergency Assembly Area

Google Satellite



0 50 100 150 200 250 m

Scale: 1:5,000 (A4)

Surveyed By: Marie Duffie  
Prepared By: Tarrant Moss  
Date: 11/01/2021

**SMK**  
**CONSULTANTS**  
surveying - irrigation - environmental

Disclaimer:  
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Total Areas:

Campsite Areas: 5.25 ha

Emergency Evacuation Routes: 0.36 ha  
(Outside of Campsite Areas)

Total Campsite Footprint: 5.61 ha

Site 1  
Area: 1.50 ha

Site 3  
Area: 1.70 ha

Site 2  
Area: 2.05 ha



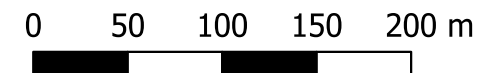
# Dripping Rock Bush Camping

## Layout Plan Phase 1 Landscape Plan

### Legend

-  Camping Ground
-  Toilets
-  Kitchenette
-  Tanks
-  Access Signs
-  Access

Google.cn Satellites



Scale: 1:4,000 (A4)

Surveyed By: Marie Duffie  
Prepared By: Tarrant Moss  
Date: 09/12/2020

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Disclaimer:  
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# Dripping Rock Camp Ground

## Phase 2 Layout Plan

### Landscape Plan

#### Legend

 Camping Ground

 Toilets

 Kitchenette

 Tanks

 Access Signs

 Access

Google.cn Satellites



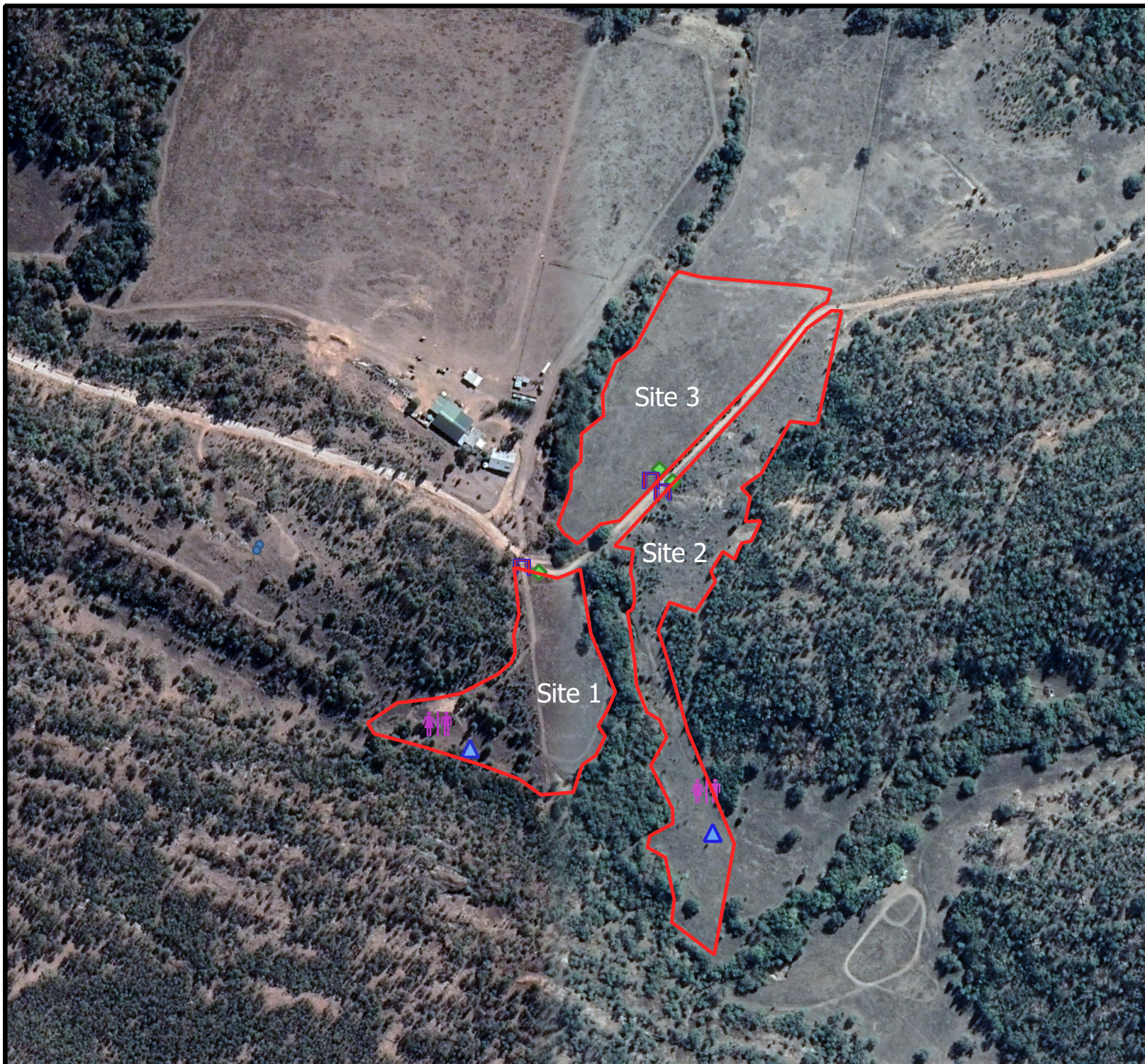
Scale: 1:4,000 (A4)

Surveyed By: Marie Duffie  
Prepared By: Tarrant Moss  
Date: 02/12/2020

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surveying - irrigation - environmental

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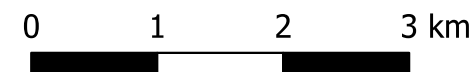


# Dripping Rock Bush Camping

## Sensitive Receptor Locations Landscape Plan

### Legend

- ▲ Sensitive Receptors
  - ◆ Camping Site Point
  - 5km Radius
- Google Satellite

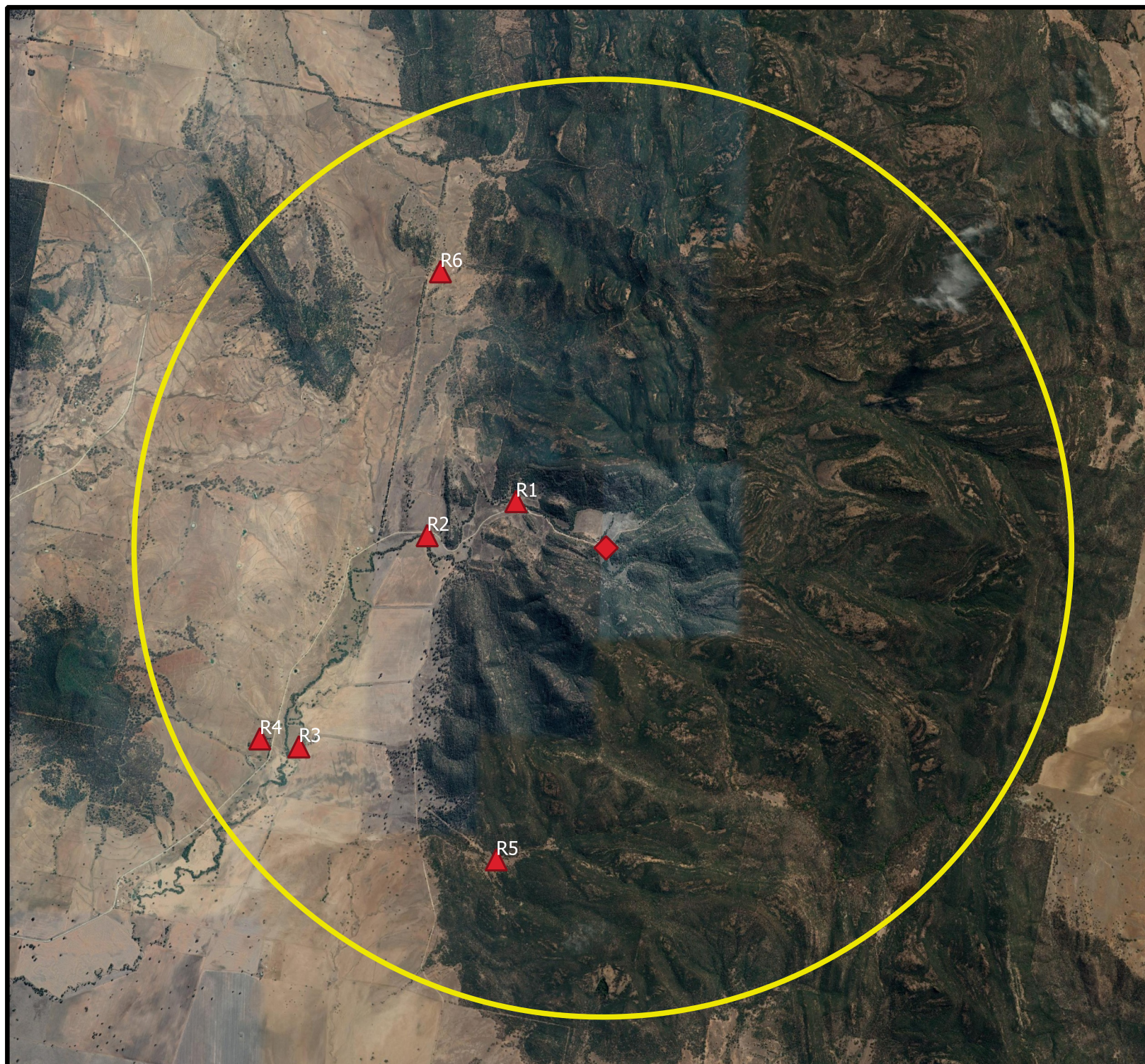


Scale: 1:60,000 (A4)

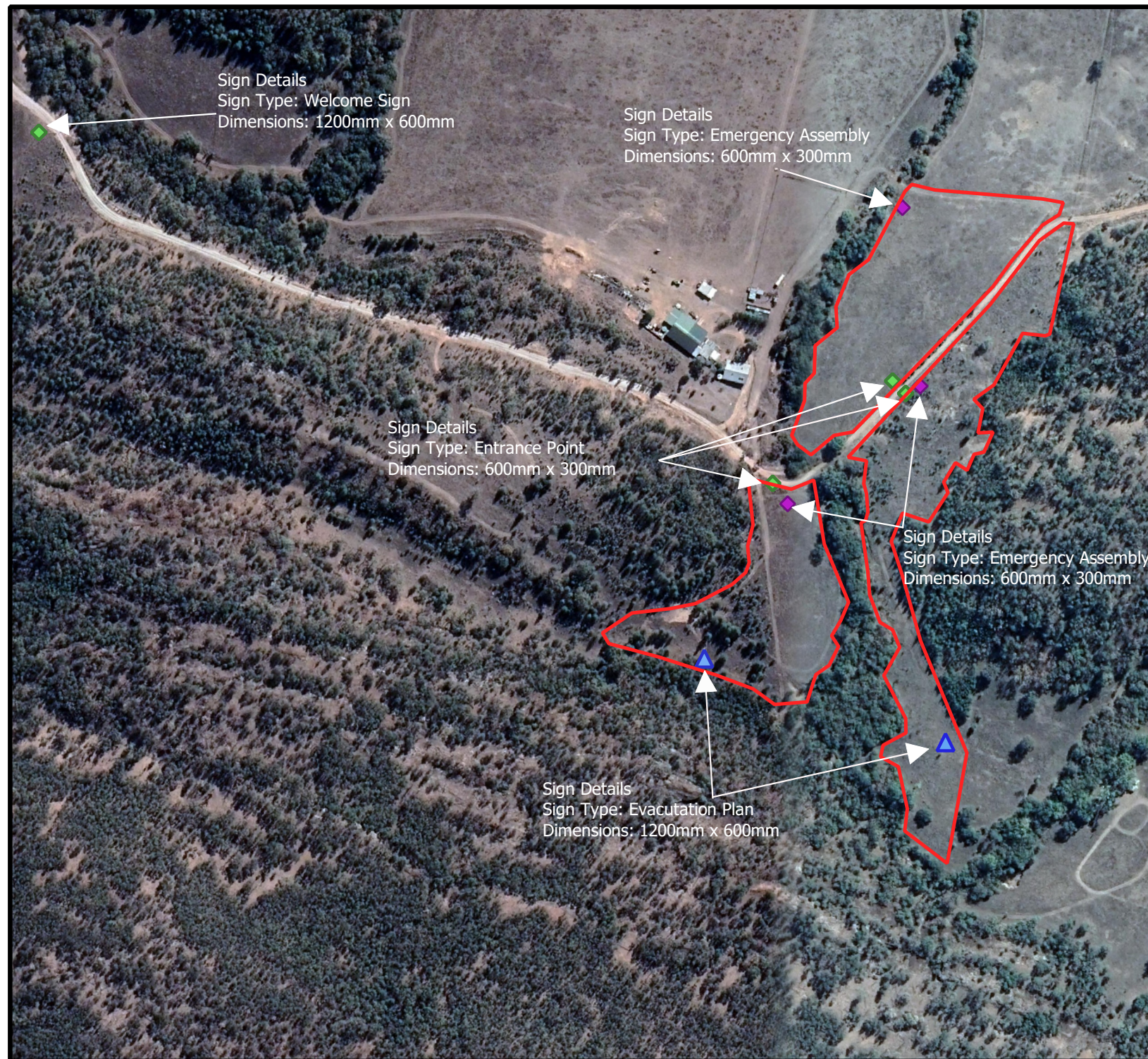
Surveyed By: Marie Duffie  
Prepared By: Tarrant Moss  
Date: 11/01/2021

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surveying - irrigation - environmental

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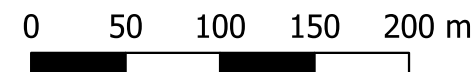
## Dripping Rock Bush Camping

### Camp Ground Sign Locations Landscape Plan

#### Legend

- Camping Ground Boundaries
- Kitchenettes
- Emergency Assembly Area Sign
- Entrance Signs

Google.cn Satellites



Scale: 1:4,000 (A4)

Surveyed By: Marie Duffie  
Prepared By: Tarrant Moss  
Date: 08/12/2020

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**CONSULTANTS**  
surveying - irrigation - environmental

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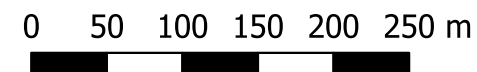
# Dripping Rock Bush Camping

## Evacuation Plan

## Landscape Plan

### Legend

-  Camping Ground Boundary
-  Evacuation Route
-  Evacuation Assembly Area



Scale: 1:5,000 (A4)

Surveyed By: Marie Duffie  
Prepared By: Tarrant Moss  
Date: 11/01/2021

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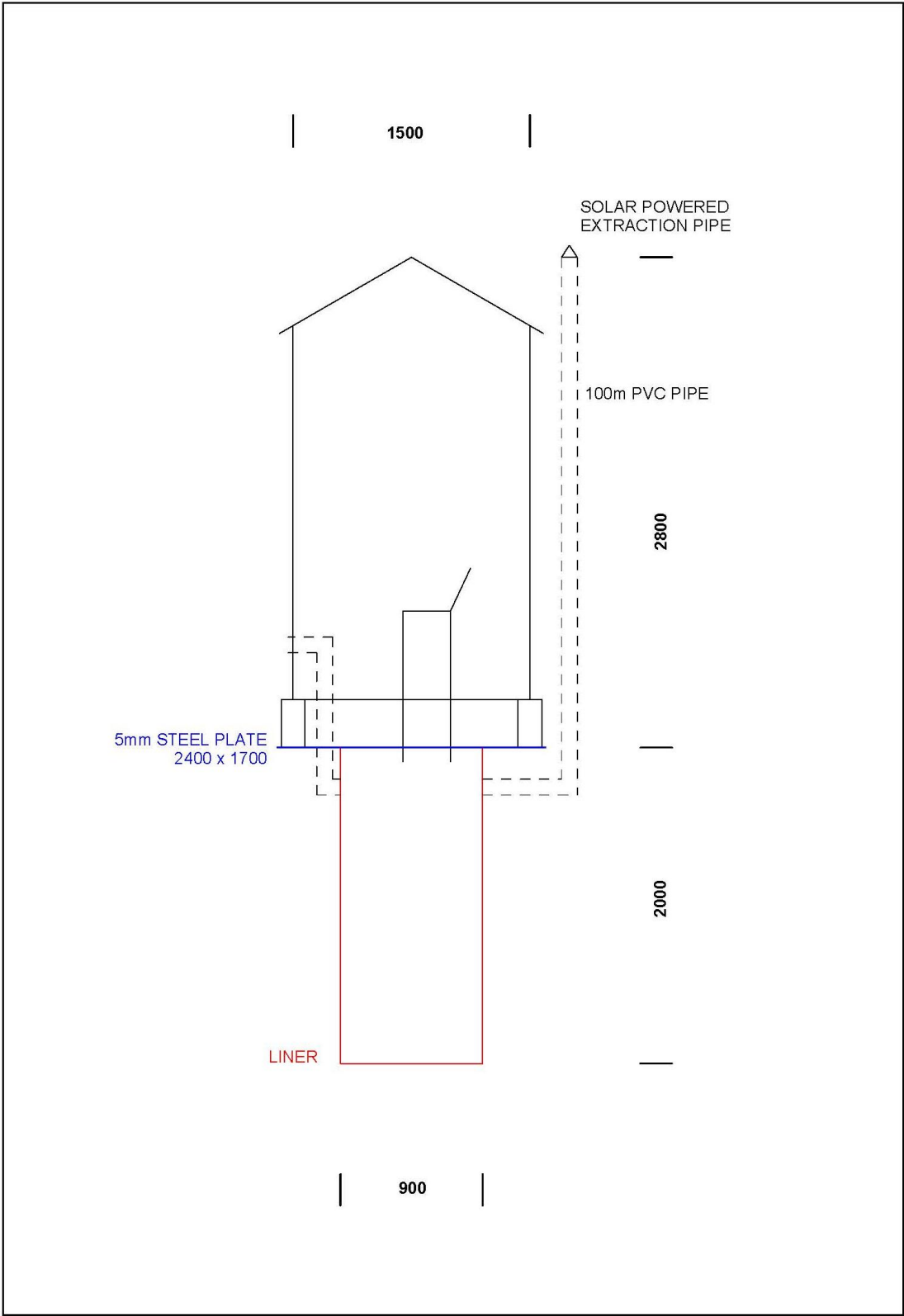
Disclaimer:  
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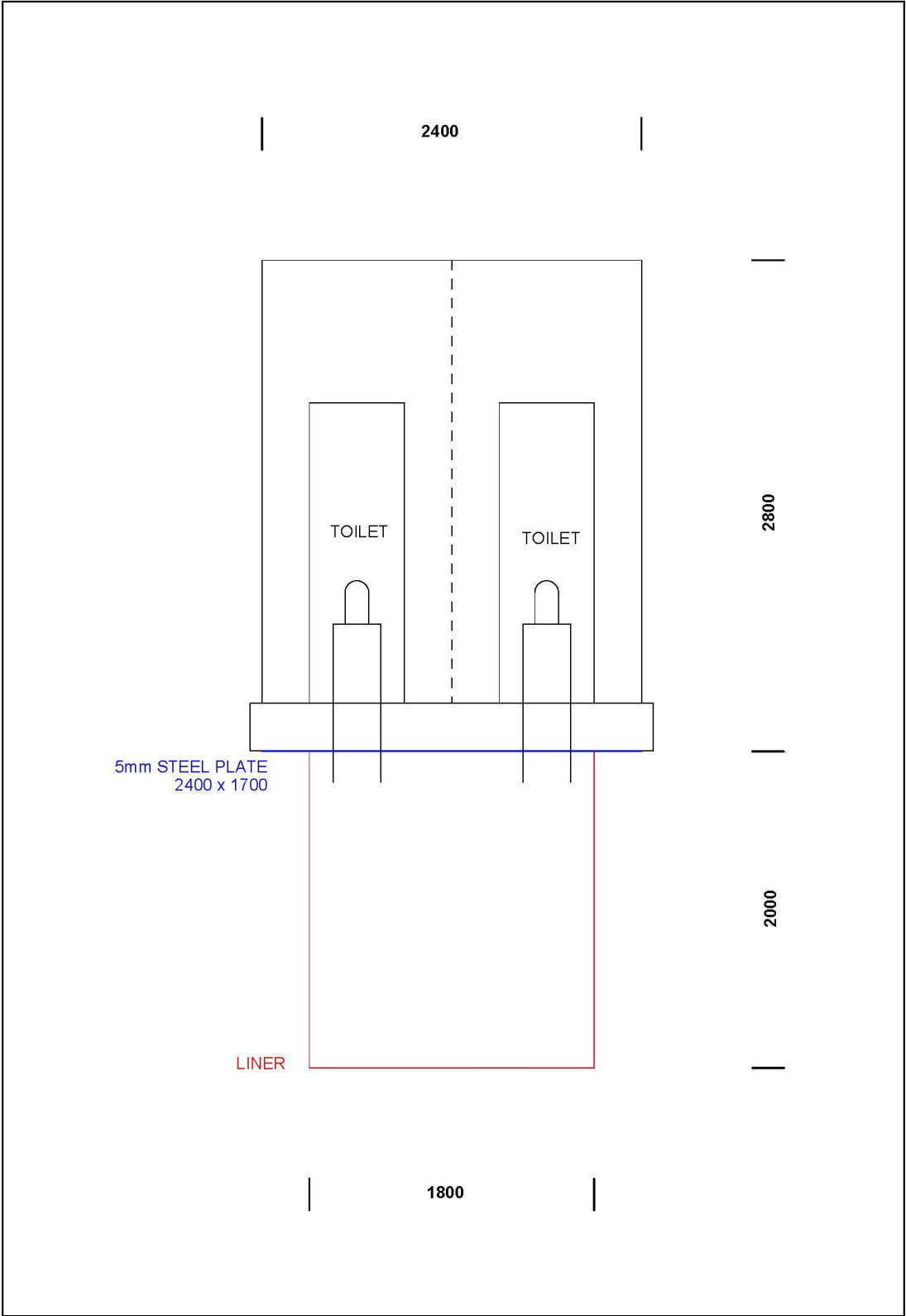


## Appendix 2 – Class 10A Building Plans

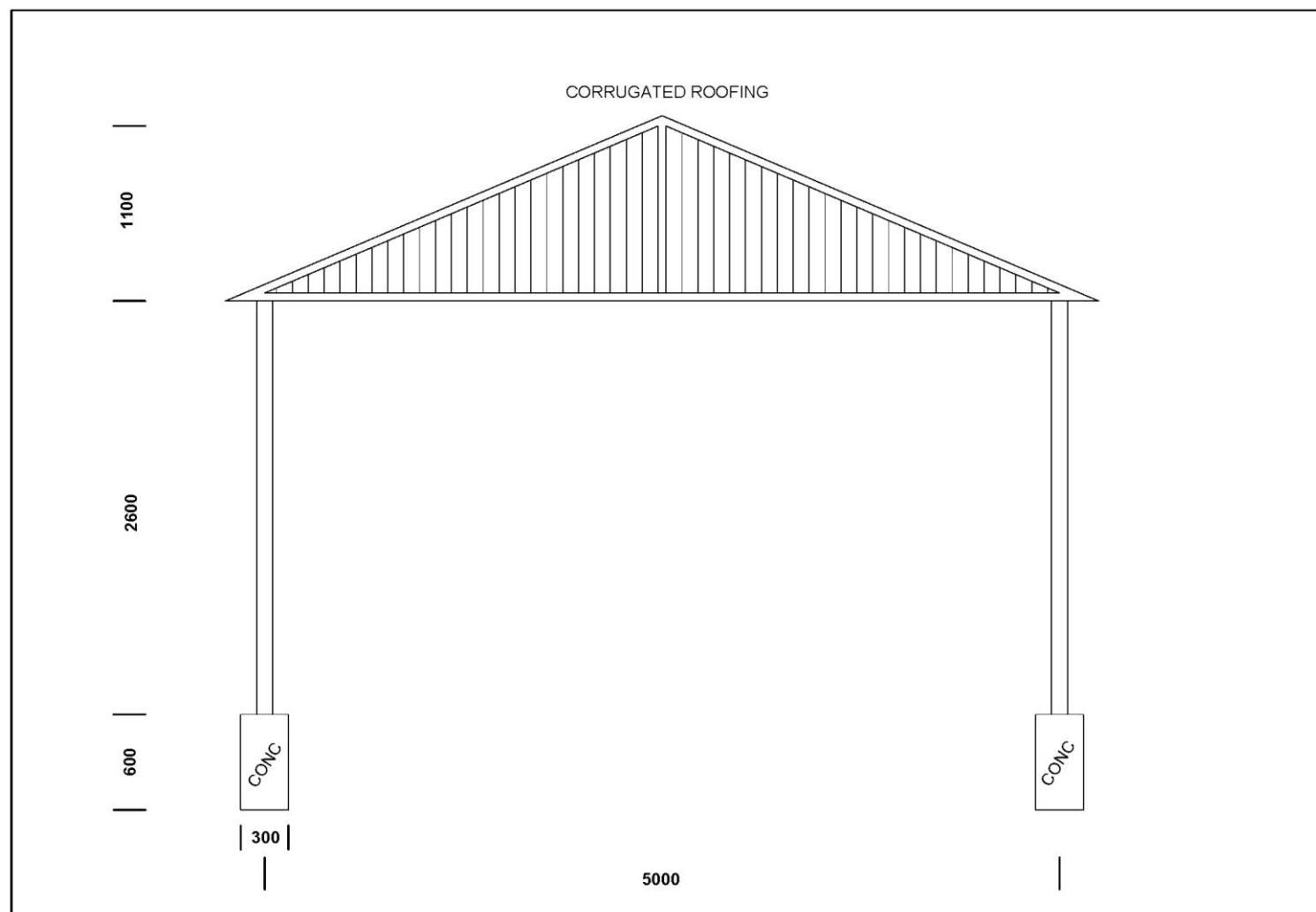


VIP Latrines

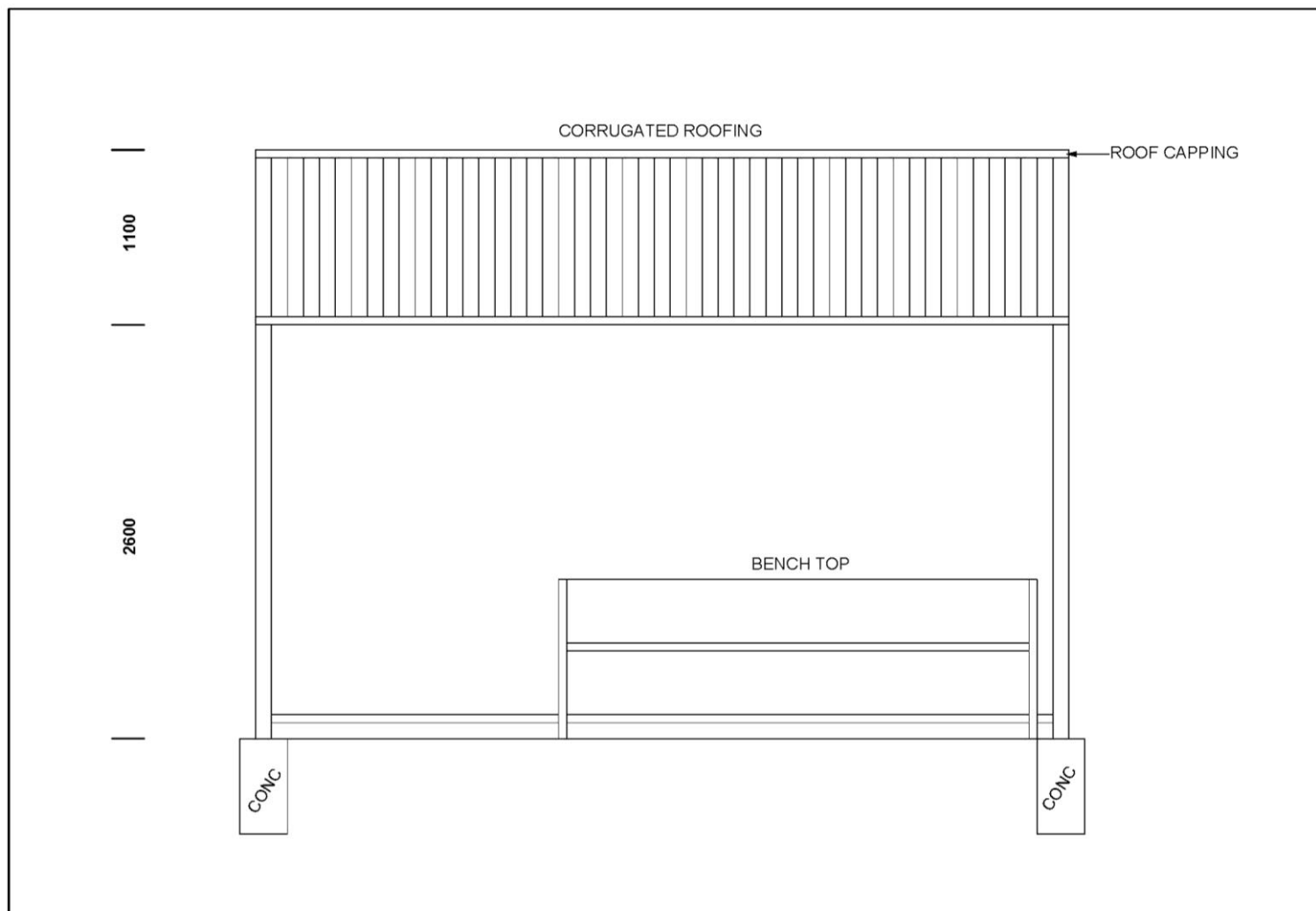


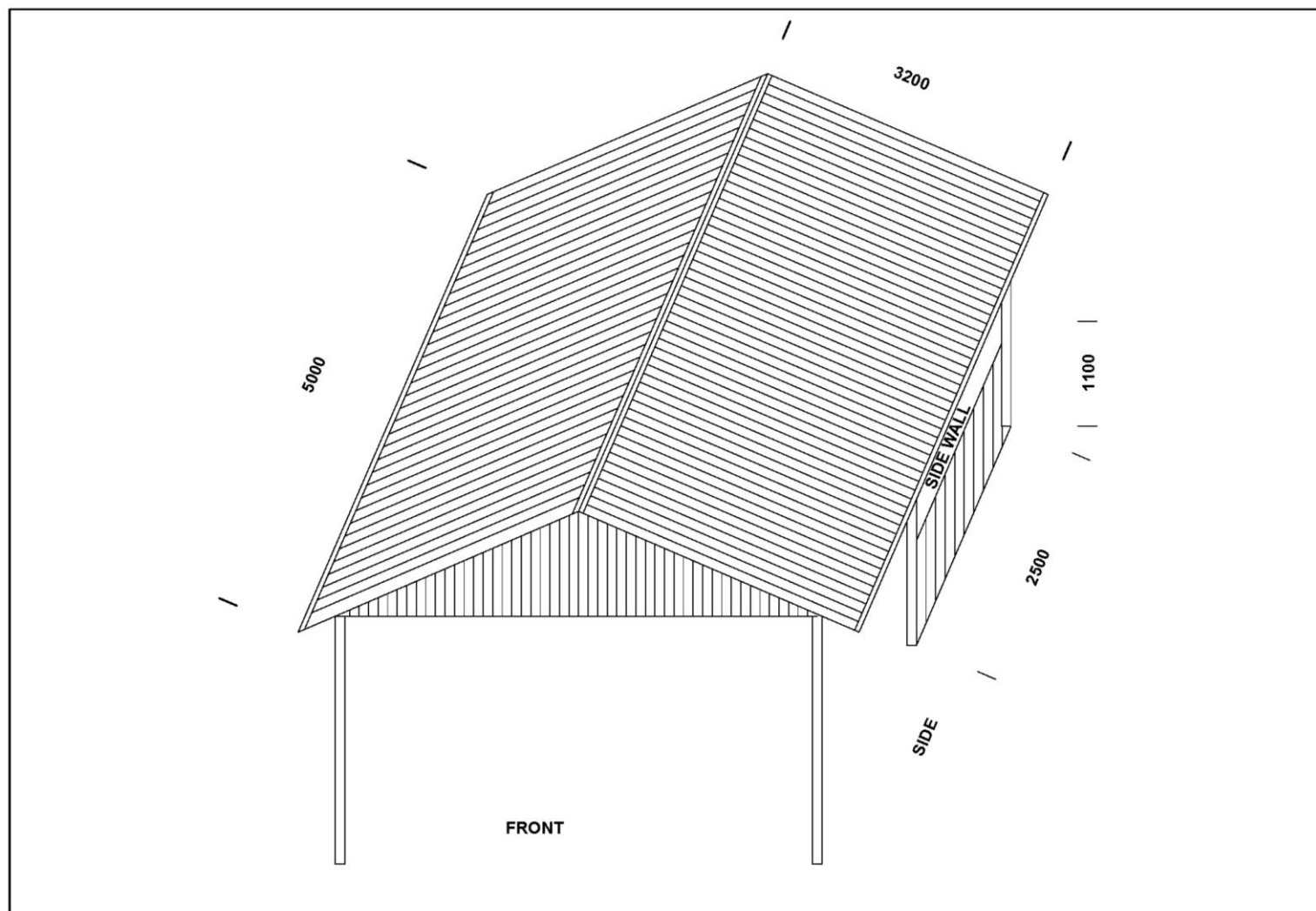


## Kitchenettes









## Appendix 3 – Emergency Evacuation and Management Plan



# Peter John Brien

## EMERGENCY EVACUATION AND MANAGEMENT PLAN

### CHECKLIST FOR EMERGENCY AND NORMAL OPERATING PROCEDURES

#### PURPOSE

The purpose of this Emergency Evacuation and Management Plan is to describe the resources that are required, the manner in which those resources will be brought into play and to provide vital information for communication in the case of an emergency.

#### **USER INFORMATION:**

|                       |                                   |
|-----------------------|-----------------------------------|
| Camping Ground Owners | Peter John Brien & Donna Turner   |
| Camp known as:        | Dripping Rock Bush Camping        |
| Location:             | 1281 Dripping Rock Road, Boggabri |
| Site is approved for: | Caravans, campervans, tents       |

#### 1. **PERSONS RESPONSIBLE FOR MANAGEMENT OF THE FACILITY**

- 1.1 The nominated person/s to be in charge of Evacuation and Emergency Medical Services and who will be responsible for other authorised person.

**Peter John Brien and Donna Turner**

**(Peter J. Brien - 0428 434 450)**

- 1.2 In addition, the following facilities can be contactable to provide support.

**Name:** *NSW Ambulance Service* **Tel:** *000, Hunter New England: 131 233* **Stationed:** *Grantham Street, Boggabri*

|                     |                                                  |                    |                          |                          |                                    |
|---------------------|--------------------------------------------------|--------------------|--------------------------|--------------------------|------------------------------------|
| <b><u>Name:</u></b> | <i>Police Emergency Services</i>                 | <b><u>Tel:</u></b> | <i>000, 02 6743 4999</i> | <b><u>Stationed:</u></b> | <i>Boggabri</i>                    |
| <b><u>Name:</u></b> | <i>Boggabri Rural Fire Service</i>               | <b><u>Tel:</u></b> | <i>000, 02 6743 4606</i> | <b><u>Stationed:</u></b> | <i>175 Merton Street, Boggabri</i> |
| <b><u>Name</u></b>  | <i>Boggabri District Hospital</i>                | <b><u>Tel:</u></b> | <i>02 6749 7000</i>      | <b><u>Location</u></b>   | <i>3 Wee Waa Street, Boggabri</i>  |
| <b><u>Name</u></b>  | <i>Narrabri District Health Service Hospital</i> | <b><u>Tel:</u></b> | <i>02 6799 2800</i>      | <b><u>Location</u></b>   | <i>66 Gibbons St, Narrabri</i>     |

## 2. VENUE AND RESPONSE DETAILS

- |                                                                                                        | YES | NO |
|--------------------------------------------------------------------------------------------------------|-----|----|
| 2.1 The venue has a permanent building which is used as a dedicated medical centre.                    |     | X  |
| 2.2 A patient transport vehicle will be provided for access within the property.                       |     | X  |
| 2.3 The vehicle described in 3.2 is authorised to transport on public roads under emergency conditions |     | X  |
| 2.4 The vehicle described in 3.2 will also act as the Medical Centre for this facility                 | X   |    |
| 2.5 There is a telephone available at the venue for use in a medical emergency                         | X   |    |
| 2.6 The venue is within mobile coverage                                                                | X   |    |
| 3.6.1 Is the mobile telephone digital?                                                                 |     | X  |
| 3.6.2 Is the mobile telephone analogue?                                                                | X   |    |
| 3.6.3 Will the mobile telephone be used for emergency contact?                                         | X   |    |
| 2.7 The location of the Medical Centre (if one is in proximity) is:<br>None.                           |     |    |

- 2.8 The proposed location of the Patient Transport Vehicle is:  
None.

## 3. COMMUNICATIONS

- 3.1 The method of communication between the Site Manager (authorised person) and the person described in 1.1 will be by:  
Mobile phone, two-way, and internet
- 3.2 The method of communication personnel manning the Patient Transport Vehicle will be by:  
N/A
- 3.3 **See Section 1 for the Emergency Telephone Numbers**

#### 4. **IN THE EVENT OF AN ACCIDENT IN WHICH SOMEONE IS INJURED:**

All persons involved in the Medical Response should have appropriate training and accreditation as required by law including First Aid qualifications. In addition, such persons should be equipped with appropriate communication devices, fire fighting equipment and first aid equipment to ensure that the actions below can be initiated.

**The person identified above should:**

- (a) Assess the extent of the injuries of those injured
- (b) Organize appropriate immediate comfort and assistance to those injured
- (c) Take steps to activate further response – eg:

Initiate appropriate first aid;

- Make an emergency call to “000” if injuries are considered beyond the ability of local first aid to manage
- Contact NSW Ambulance Service;
- Contact local hospital
- Contact local doctor
- Official to get to nearest telephone to initiate emergency call
- Contact fire station
- Contact police (if a death has occurred or when a serious injury occurs to any person likely to result in death)

**Where an accident results in the death of a person the “accident” scene is to remain untouched and undisturbed until Police attend and authorise any interference.**

**Where a serious injury occurs to any person likely to result in death, Police are to be informed immediately and the scene preserved.**

#### 5. **OTHER DETAILS**

- 5.1 The venue is approximately 20 minutes by road to the nearest hospital which is **Boggabri Hospital** located at 3 Wee Waa Street, Boggabri  
Telephone number: **02 6749 7000**

The nearest qualified practitioner is Doctor: **Boggabri Hospital** located at 3 Wee Waa Street, Boggabri  
Telephone number: **02 6749 7000**



## 6. IMPORTANT INFORMATION – PERSONNEL

List the names and contact information for those personnel responsible for initiating Emergency First Aid for persons injured in the event of an accident.

| <u>NAME</u>  | <u>FIRST AID<br/>QUALIFICATION</u> | <u>CURRENCY</u> | <u>EMERGENCY<br/>SERVICES PHONE NO.</u> |
|--------------|------------------------------------|-----------------|-----------------------------------------|
| Donna Turner | Basic first aid                    | Current         | 0429 424 305                            |
| Peter Brien  | Basic first aid                    | Current         | 0428 434 450                            |
|              |                                    |                 |                                         |

---

## 7. **PREVENTION PROCEDURES**

7.1 It is the responsibility of the Nominated Authorised person to ensure the safety of users of the camping ground facilities. The nominated person is identified in section 1.1 of this plan

7.2 Prevention Procedures will include the following:

- All visitors to be provided with clear and current mapping of emergency evacuation gathering points, emergency evacuation roads and emergency exits within the camping ground, including the direction of movement
- All visitors to be advised of the location of facilities and emergency assembly point/s and evacuation procedures
- All visitors to be provided with contact details for emergency procedures, events and requirements in accordance with operating rules within the facility
- All visitors camping at the facility should be made aware of emergency assembly points, restrictions on fires as applicable for fire permits, open camp fires, storage of fuels, location of wood for fires.
- During periods where there is some risk of natural disasters occurring in the form of bush fire or severe storm events, the Authorised person must determine whether the facility should be closed and all visitors located and directed to leave the facility in order to prevent the isolation of visitors within the facility during such events.
- In the event of conditions which are classified as high fire danger, the Authorised person must ensure appropriate fire safety control is adopted for camp fires within the camp area. Under circumstances where safe fire procedures cannot be confidently adopted on the site, the Authorised person must place a fire ban in the camp site and warn all visitors of the danger.

## 8 **EVACUATION ASSEMBLY AREAS AND ACCESS**

8.1 **Camp site** – There are two emergency assembly areas for the camp: 1) In the open ground area north of the Authorised person's residence, and 2) Near the entrance gate to Camp Site 1. The locations of the assembly points are to be clearly sign posted. The attached camp site plan identifies the location of these assembly points.

## **8.2 Emergency routes**

**8.2.1** Two emergency access trails are to be developed and maintained to enable access to the camping ground. The location of these trails will be included on the map provided to visitors and is included in the attached camp site plan.

**8.2.2** The emergency access roads are to be clearly sign posted where these trails are only to be used by emergency vehicles accessing injured visitors.

## **9 EVACUATION PROCEDURES**

**9.1** Camp site evacuation: In the event of a fire or emergency, all occupants of the camping grounds are to assemble at one of the two emergency assembly areas identified on camp site plan. The Emergency Assembly point is to be identified by a sign post.

**9.2** In the event of a natural emergency within the facility, the authorised person is to provide guidance and direction to visitors that are present. This is to include a role call of all visitors.

## Appendix 1 – Evacuation Plan



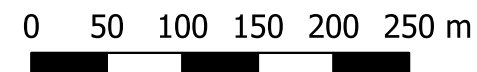
# Dripping Rock Bush Camping

## Evacuation Plan

## Landscape Plan

### Legend

-  Camping Ground Boundary
-  Evacuation Route
-  Evacuation Assembly Area

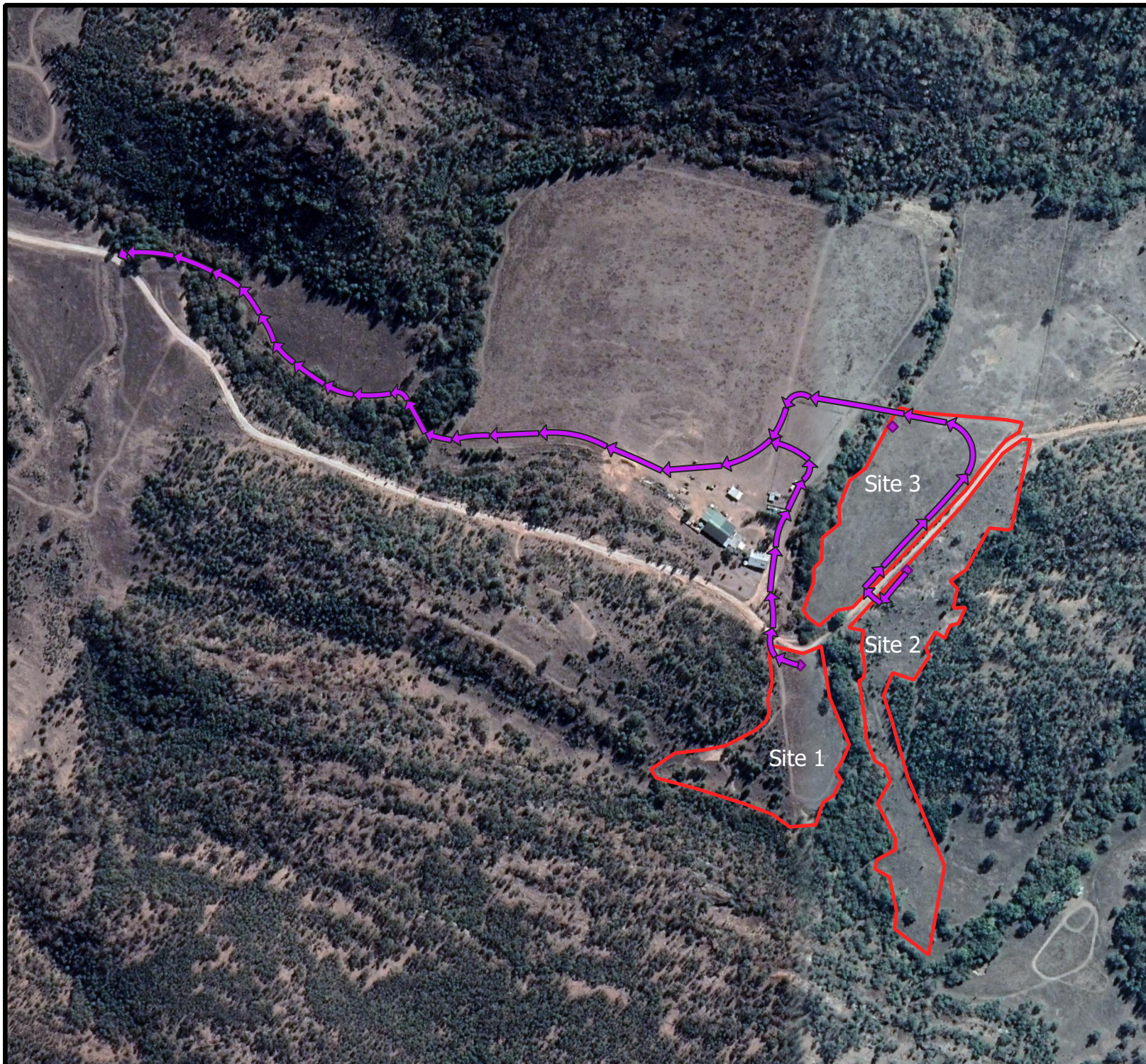


Scale: 1:5,000 (A4)

Surveyed By: Marie Duffie  
Prepared By: Tarrant Moss  
Date: 11/01/2021

**SMK**  
**CONSULTANTS**  
surveying - irrigation - environmental

Disclaimer:  
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## Appendix 4 – Aboriginal Heritage Information Management System Search Results

SMK Consultants Pty Ltd - Moree

P O Box 774

Moree New South Wales 2400

Attention: Marie Duffy

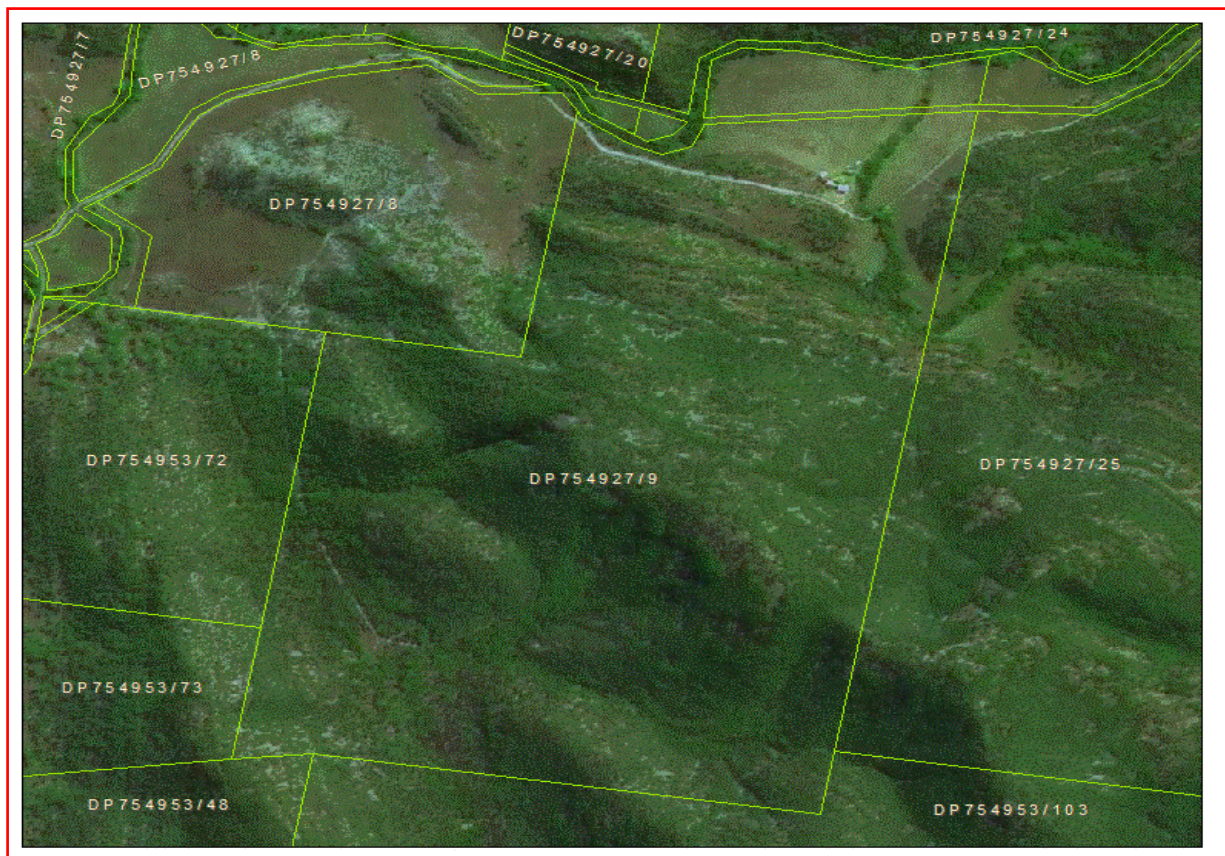
Email: marie@smk.com.au

Date: 30 October 2020

Dear Sir or Madam:

**AHIMS Web Service search for the following area at Lot : 9, DP:DP754927 with a Buffer of 50 meters, conducted by Marie Duffy on 30 October 2020.**

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

|   |                                                                       |
|---|-----------------------------------------------------------------------|
| 0 | Aboriginal sites are recorded in or near the above location.          |
| 0 | Aboriginal places have been declared in or near the above location. * |



**If your search shows Aboriginal sites or places what should you do?**

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette \(http://www.nsw.gov.au/gazette\)](http://www.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Office of Environment and Heritage's Aboriginal Heritage Information Unit upon request

**Important information about your AHIMS search**

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Office of Environment and Heritage and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date .Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

## Appendix 5 – Test of Significance

## Introduction

Endangered Ecological Communities and threatened species that have the potential to be impacted by the proposed road upgrade have been assessed under the guidelines of Section 7.3 of the *Biodiversity Conservation Act 2016* and this is provided below in the form of a Test of Significance. The Test of Significance includes the assessment of the development against five parameters to determine whether there is likely to be a significant effect on the threatened species recorded at or likely to occur at the site. The assessment has been conducted in accordance with the Threatened Species Test of Significance Guidelines (OEH 2018).

The proposed development involves the establishment of a primitive camping ground with a maximum capacity of ten camping sites (equivalent to 120 people) in the Narrabri Local Government Area. The subject site is located in Lot 9 on Deposited Plan 754927, approximately 26 kilometres north-east of Boggabri. The site is zoned RU1 – Primary Production and is located within the Namoi River catchment area.

The majority of the subject site has been historically cleared and consists of grazing paddocks which were grazed until 2019 as part of the Applicant's previous agricultural enterprise. The paddocks have a few isolated paddock trees which will not be cleared as part of the proposal. The site is currently maintained by means of regular mowing.

A small area which forms part of the proposed subject site (pit toilets) is sited in areas of native vegetation which border the grazing paddocks. The toilets are sited in an area of PCT 592 "Narrow-leaved Ironbark – cypress pine – White Box shrubby open forest in the Brigalow Belt South Bioregion and Nandewar Bioregion". At the location of the pit toilets, this occurs as a monotypic stand of White Cypress Pine which are less than 20 yrs old. The construction of the toilets will require the removal of a small number of trees only, over a maximum area of approximately 50 sq. m.

Site establishment activities include the conditioning of grassland (fertilisation, weed management and mowing), the installation of two pit toilets and kitchenettes, and upgrade of the camp site entrances. The proposal will involve only minor earthworks.

The total development footprint extends over 5.61 hectares and is mostly restricted to land which has been previously disturbed.

There are extensive areas of remnant vegetation in the vicinity of the subject site. Four PCTs were identified:

- PCT 112 "Black Tea Tree – River Oak – Wilga riparian low forest/shrubland wetland of rich soil depressions in the Brigalow Belt South Bioregion"



- PCT 592 “Narrow-leaved Ironbark – cypress pine – White Box shrubby open forest in the Brigalow Belt South Bioregion and Nandewar Bioregion”
- PCT 594 “Silver-leaved Ironbark – White Cypress Pine shrubby open forest of Brigalow Belt South Bioregion and Nandewar Bioregion”
- PCT 619 “Derived Wire Grass grassland of the NSW Brigalow Belt South Bioregion and Nandewar Bioregion”.

The development, once operational, will not pose an environmental risk to the locality as it will not act as a source of pollutants. A weed management program will be implemented, such that the site does not become a source of weed populations which may propagate out from the development site. Wastewater (greywater only) will be disposed of appropriately, and household waste will be collected and disposed of at the local landfill in Boggabri. Overall, the development is not predicted to interfere with habitat values adjacent to the subject site.

### Assessment of Potential Presence of Threatened Species

A search of the National Parks and Wildlife Atlas of NSW Wildlife (BioNet) identified seventeen (13) species with recorded sightings within a 10km radius of the proposed development site. The complete search result for listed species is presented in Appendix A.

The project site is located within the Peel subregion of the Nandewar Bioregion. A broader search for species, populations and communities that may occur within the locality of the development site was therefore conducted through investigating known and predicted species’ distributions within the Nandewar Bioregion (Peel subregion). A copy of the search results for listed species is presented in Appendix B.

Species were considered with regards to their known distribution and habitat requirements, to assess whether the subject site is likely to serve as suitable habitat, and subsequently whether/how the development is likely to impact upon the species.

The availability of habitat on site was assessed using a number of factors including:

- Structural and floral diversity;
- Occurrence and extent of habitat types in the general vicinity;
- Continuity with similar habitat adjacent to the site, or connection with similar habitat off site by way of corridors;
- Key habitat features such as tree hollows, water bodies, crevices and rocky areas;
- Degree of disturbance and degradation; and
- Topographic features such as aspect and slope.

This information was used to evaluate the site as potential habitat for each of the threatened species considered and assign each species with a rating based on their likelihood to occur within the subject site. The ‘likelihood of occurrence’ categories are detailed in Table 1. The

habitat assessment is provided in Appendix B. Species assigned with a rating of 'Moderate' or higher and are considered potentially impacted by the proposed works have been considered further under relevant legislation within the assessment of significance provided below.

**Table 1: Likelihood of Occurrence Criteria**

| <b>Likelihood Rating</b> | <b>Criteria</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Known</b>             | The species was recorded within the study area during site surveys.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>High</b>              | It is likely that a species would inhabit or utilise habitat within the subject site. Criteria for this category may include: <ul style="list-style-type: none"> <li>• Species recently and/or regularly recorded in contiguous or nearby habitat;</li> <li>• High quality habitat types or resources present within study area;</li> <li>• Species is known or likely to maintain a resident population surrounding the study area; and</li> <li>• Species is known or likely to visit during migration or seasonal availability of resources.</li> </ul>                                                                |
| <b>Moderate</b>          | Potential habitat for a species occurs within the subject site. Criteria for this category may include: <ul style="list-style-type: none"> <li>• Species previously recorded in contiguous habitat albeit not recently (&gt;10 years);</li> <li>• Poor quality, depauperate or modified habitat types and/or resources present within study area;</li> <li>• Species has potential to utilise habitat during migration or seasonal availability of resources; and</li> <li>• Cryptic flora species with potential habitat available within the subject site that have not been seasonally targeted by surveys.</li> </ul> |
| <b>Low</b>               | It is unlikely that the species inhabits the area and would likely be considered a transient visitor if ever encountered. Criteria for this category may include: <ul style="list-style-type: none"> <li>• The subject site or study area lacks specific habitat types or resources required by the species; and</li> <li>• Non-cryptic flora species that were found to be absent during targeted surveys;</li> </ul>                                                                                                                                                                                                    |
| <b>Unlikely</b>          | The habitat within subject site and study area is unsuitable for the species.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

It is noted that the effectiveness of a survey detecting a given species is influenced by a range of factors such as seasonal migration and seasonal flowering periods. Additional limitations include weather conditions (some species may go through cycles of activity related to specific weather conditions, for example some microchiropteran bats, reptiles and frogs can be inactive during cold and very hot weather), the timing of the survey (nocturnal species would not have been identified) and species lifecycle. These limitations have been accounted for by applying the precautionary principle in all cases where the survey methodology may have given a false negative result. All species have been assessed based on presence of habitat and the likely significance of that habitat to support a viable local population.

Only species that have the potential to be present within the available habitat are listed in Table 2 and assessed in this test of significance.

**Table 2: Listed Species to be Assessed under the Test of Significance**

| Scientific Name                       | Common Name                            | Legal Status                | Records |
|---------------------------------------|----------------------------------------|-----------------------------|---------|
| <i>Circus assimilis</i>               | Spotted Harrier                        | BC Act – V,P                | 6       |
| <i>Lophoictinia isura</i>             | Square-tailed Kite                     | BC Act – V,P,3              | 7       |
| <i>Falco subniger</i>                 | Black Falcon                           | BC Act – V,P                | 10      |
| <i>Glossopsitta pusilla</i>           | Little Lorikeet                        | BC Act – V,P                | 340     |
| <i>Ninox connivens</i>                | Barking Owl                            | BC Act – V,P,3              | 10      |
| <i>Climacteris picumnus victoriae</i> | Brown Treecreeper (eastern subspecies) | BC Act – V,P                | 476     |
| <i>Chthonicola sagittata</i>          | Speckled Warbler                       | BC Act – V,P                | 412     |
| <i>Stagonopleura guttata</i>          | Diamond Firetail                       | BC Act – V,P                | 230     |
| <i>Saccolaimus flaviventris</i>       | Yellow-bellied Sheath-tail-bat         | BC Act – V,P                | 85      |
| <i>Chalinolobus dwyeri</i>            | Large-eared Pied Bat                   | BC Act: V, P<br>EPBC Act: V | 617     |
| <i>Chalinolobus picatus</i>           | Little Pied Bat                        | BC Act: V,P                 | 20      |
| <i>Nyctophilus corbeni</i>            | Corben's Long-eared Bat                | BC Act: V<br>EPBC Act: V    | 50      |
| <i>Miniopterus orianae oceanensis</i> | Large Bent-winged Bat                  | BC Act – V,P                | 332     |
| <i>Saccolaimus flaviventris</i>       | Yellow-bellied Sheath-tail Bat         | BC Act: V,P                 | P       |
| <i>Dichanthium setosum</i>            | Bluegrass                              | BC Act: V<br>EPBC Act: V    | 33      |
| <i>Thesium australe</i>               | Austral Toadflax                       | BC Act: V<br>EPBC Act: V    | 21      |

The above-mentioned species will be considered within the assessment of significance.

### Test of Significance - Assessment of Criteria and Discussion

The following is to be considered for the purposes of determining whether a proposed development or activity is likely to significantly affect threatened species or ecological communities, or their habitats:

- a) in the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,**

A viable local population of a threatened terrestrial flora or fauna species in this assessment is defined as a population that occurs within the study area and the connected habitat within the area.



## Flora Species

*Bluegrass, Austral Toadflax*

The site inspection did not reveal the presence of a local population of Austral Toadflax or Bluegrass. The cryptic nature of some threatened species, however, is such that the species may not have been visible during the time of the site visit, and therefore it must be assumed that viable populations of threatened flora species may be present within the region in accordance with the precautionary principle.

Potential habitat for the listed species is present in the footprint of the proposed works. The proposal development involves the removal of groundcover within the footprint on a small scale. Extensive areas of similar and higher-quality habitat are present within the connected vegetation. Should the above-mentioned species be present within the development footprint, they may be displaced in the short-term. However, given that adjoining vegetation retains the potential to support these species, it is considered that the risk of a viable population being placed at risk of extinction is minimal.

## Megachiropteran Bats

*Yellow-bellied Sheath-tail Bat, Large-eared Pied Bat, Corben's Long-eared Bat, Little Pied Bat*

These species may use the project area for foraging on occasion, however the foraging habitat within the subject site is not considered optimal, due to historical clearing, the effects of disturbance from previous land use and, in the case of forest habitat, the fact that it is edge habitat. Similar and/or higher quality habitat is available in the area, including extensive remnant vegetation located on all sides of the proposed camping ground. It is therefore considered that the subject site is unlikely to be regularly or heavily utilised by these bat species. Additionally, no roosting and/or breeding habitat was identified within the proposed development footprint itself.

The risk to this species from the development is therefore limited to the loss of sub-optimal foraging habitat. It is therefore considered that no viable local population of any threatened species would be placed at risk of extinction due to the proposed development.

## Birds of Prey

*Spotted Harrier, Square-tailed Kite, Black Falcon, Barking Owl*

These highly mobile species have relatively large home ranges (generally >200 Ha). The removal of a small habitat area is therefore insignificant at a landscape scale and it is considered that the proposal is unlikely to have a significant impact on birds of prey. Furthermore, the proposal involves minor habitat modification when compared to present conditions – the majority of the subject site is already mown on a regular basis and does not provide suitable foraging habitat, as it does not contain cover for prey. Given that the proposal would alter suitable foraging habitat over a very small area and that there are

extensive areas of remnant vegetation in the locality, the proposal is unlikely to have a significant impact on the above-listed bird of prey species.

The proposal is therefore not deemed to pose a risk to viable local populations of the above-mentioned species.

### Woodland Species

*Little Lorikeet, Brown Treecreeper (eastern subspecies), Speckled Warbler, Diamond Firetail*  
Habitat loss and/or degradation as a result of clearing, increased weed invasion, under-shrubbing and “tidying up”, are all significant threats for these species. Up to 10 immature White Cypress Pine trees will be cleared to allow the installation of pit toilets. Given the low number of trees and the small habitat area to be impacted by the proposed works, the fact that the habitat to be impacted is edge habitat, and the availability of higher quality habitat in the vicinity of the proposed camp ground, the loss of these trees is considered to constitute a negligible impact to threatened woodland species which may be present in the locality.

Additional indirect impacts include potential habitat modification resulting from spread of weed species. Weeds will be managed during the preparation of the site and throughout the operation of the camping ground, such that indirect impacts are considered minimal overall and are unlikely to place a viable population at risk of extinction.

The removal of 50 sq. m. immature White Cypress Pine within the development footprint is not considered likely to have an adverse effect on the lifecycle of the species such that a viable population would be placed at risk of extinction.

- b) *in the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:***
- (i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or***
  - (ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction,***

The subject site does not support an endangered ecological community or critically endangered ecological community. The development proposal is therefore considered unlikely to impact on the extent or composition of any of the listed endangered or critically endangered ecological communities.

- c) *in relation to the habitat of a threatened species, population or ecological community:***

***(i) the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and***

No Endangered Ecological Community would be subject to vegetation removal or modification as part of the proposed development.

The subject site extends over 5.61 Ha of land which, until recently, was subject to grazing, and which retains some paddock trees. None of these trees will be cleared. The cleared, grazed land consists of improved pasture which will be further improved via the application of fertiliser, the treatment of weeds, and a continued regular mowing regime. Approximately 0.05 Hectares of land consists of immature White Cypress Pine trees which will be cleared to construct pit toilets.

***(ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and***

The subject site has been heavily cleared and disturbed as a result of historic land clearing and development of the site for agricultural activities. The only native habitat which would be impacted consists of edge habitat; some immature trees on the boundary of vast tracts of forest. The removal of minor areas of this habitat will not result in habitat fragmentation or isolation, as it already constitutes edge habitat.

Fauna species which may periodically utilise the subject site would disperse into adjoining areas of similar quality habitat and/or into higher quality habitat which is widespread in the locality. Therefore, the small-scale removal of groundcover vegetation would not result in the fragmentation or isolation of these mobile species. Threatened flora species, whilst not identified in the area, may be displaced in the short-term, however, similarly to fauna species, there is similar habitat available adjacent to the site footprint, which would provide sufficient areas for germination, therefore these species are not at risk of extinction or long-term fragmentation.

***(iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality,***

The majority of the subject site consists of low-quality common modified habitat, i.e. improved pastures which were grazed for several years until 2019. This is considered to have low-habitat values. The White Cypress pines which will be removed are immature (<10 yrs old), and have no habitat values such as hollows. They are on the border of a large tract of forest and are not considered to be of importance to the long term survival of any species, population or ecological community.



The site is overall surrounded by similar and/or higher-quality, contiguous vegetation, thus the small-scale removal of habitat is highly unlikely to result in fragmentation or isolation to a degree that would impact the short or long-term survival of any species or population in the area. Therefore, it is considered that no habitat will be significantly modified as a result of the proposed project.

No endangered ecological community will be removed, modified or fragmented as part of the proposed works.

The proposed project is therefore not considered to remove, modify, fragment or isolate habitat essential for the survival of a threatened species within the area.

**d) *whether the proposed development is likely to have an adverse effect on critical any declared area of outstanding biodiversity value (either directly or indirectly),***

The development proposal is not located in or near an area of outstanding biodiversity value. It is therefore considered that no areas of outstanding biodiversity value will not be adversely affected (either directly or indirectly) by the proposed development.

**e) *whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.***

A total of 34 key threatening processes are listed for the Nandewar Peel IBRA Subregion in the Bionet search results. The following Table 3 presents a list of these processes and comment. Based on the number identification in the list, the following discussion is presented to assess the process.

**Table 3: Key Threatening Processes**

| <b>Listing of Key Threatening Processes for Nandewar Peel IBRA Subregion</b>                                              | <b>Comment</b>                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Aggressive exclusion of birds from woodland and forest habitat by abundant Noisy Miners ( <i>Manorina melanocephala</i> ) | The proposal would not impact the prevalence of Noisy Miners                                                                                     |
| Alteration of habitat following subsidence due to longwall mining                                                         | Not applicable                                                                                                                                   |
| Alteration to the natural flow regimes of rivers and streams and their floodplains and wetlands                           | The nearby Mihi Creek will not be altered by the proposal.                                                                                       |
| Anthropogenic Climate Change                                                                                              | Scale of development would result in limited or no impact and is a source of renewable energy which aims to reduce Australia's carbon footprint. |
| Bushrock removal                                                                                                          | Not applicable                                                                                                                                   |
| Clearing of native vegetation                                                                                             | The majority of the site has been previously cleared. Only 0.3 Ha habitat will be modified                                                       |

| <b>Listing of Key Threatening Processes for Nandewar Peel IBRA Subregion</b>                                                                   | <b>Comment</b>                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Competition and grazing by the feral European Rabbit, <i>Oryctolagus cuniculus</i> (L.)                                                        | Rabbits not a pest at this location.                                     |
| Competition and habitat degradation by Feral Goats, <i>Capra hircus</i> Linnaeus 1758                                                          | No goats present.                                                        |
| Competition from feral honey bees, <i>Apis mellifera</i> L.                                                                                    | Any feral bees will be eradicated if present.                            |
| Forest eucalypt dieback associated with over-abundant psyllids and Bell Miners                                                                 | No forest eucalypt in the area.                                          |
| Herbivory and environmental degradation caused by feral deer                                                                                   | Not applicable                                                           |
| High frequency fire resulting in the disruption of life cycle processes in plants and animals and loss of vegetation structure and composition | The proposal would not impact the fire regime in the area                |
| Importation of Red Imported Fire Ants <i>Solenopsis invicta</i> Buren 1972                                                                     | The proposal is unlikely to result in the importation of this species    |
| Infection by Psittacine Circoviral (beak and feather) Disease affecting endangered psittacine species and populations                          | Not applicable                                                           |
| Infection of frogs by amphibian chytrid causing the disease chytridiomycosis                                                                   | Very limited frog habitat available.                                     |
| Infection of native plants by <i>Phytophthora cinnamomi</i>                                                                                    | The proposal is unlikely to result in the importation of this species    |
| Introduction of the Large Earth Bumblebee <i>Bombus terrestris</i> (L.)                                                                        | The proposal is unlikely to result in the importation of this species    |
| Invasion and establishment of exotic vines and scramblers                                                                                      | The proposal is unlikely to result in the importation of this species    |
| Invasion and establishment of Scotch Broom ( <i>Cytisus scoparius</i> )                                                                        | The proposal is unlikely to result in the importation of this species    |
| Invasion and establishment of the Cane Toad ( <i>Bufo marinus</i> )                                                                            | No suitable habitat available at present.                                |
| Invasion of native plant communities by African Olive <i>Olea europaea</i> subsp. <i>cuspidata</i> (Wall. ex G. Don) Cif.                      | The proposal is unlikely to result in the importation of this species    |
| Invasion of native plant communities by <i>Chrysanthemoides monilifera</i>                                                                     | The proposal is unlikely to result in the importation of this species    |
| Invasion of native plant communities by exotic perennial grasses                                                                               | Discussed below.                                                         |
| Invasion of the Yellow Crazy Ant, <i>Anoplolepis gracilipes</i> (Fr. Smith) into NSW                                                           | The proposal is unlikely to result in the importation of this species    |
| Invasion, establishment and spread of Lantana ( <i>Lantana camara</i> L. sens. Lat)                                                            | The proposal is unlikely to result in the importation of this species    |
| Loss and degradation of native plant and animal habitat by invasion of escaped garden plants, including aquatic plants                         | The proposal is unlikely to result in the importation of these species   |
| Loss of Hollow-bearing Trees                                                                                                                   | No hollow bearing trees to be cleared                                    |
| Loss or degradation (or both) of sites used for hill-topping by butterflies                                                                    | No hilltop sites to be impacted                                          |
| Predation and hybridisation by Feral Dogs, <i>Canis lupus familiaris</i>                                                                       | The development would not increase the presence or impact of Feral Dogs. |

| <b>Listing of Key Threatening Processes for Nandewar Peel IBRA Subregion</b>                                        | <b>Comment</b>                                                                 |
|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Predation by <i>Gambusia holbrooki</i> Girard, 1859 (Plague Minnow or Mosquito Fish)                                | The development would not increase the presence or impact of Mosquito Fish.    |
| Predation by the European Red Fox <i>Vulpes Vulpes</i> (Linnaeus, 1758)                                             | The development would not increase the presence or impact of European Red Fox. |
| Predation by the Feral Cat <i>Felis catus</i> (Linnaeus, 1758)                                                      | The development would not increase the presence or impact of Feral Cats.       |
| Predation, habitat degradation, competition and disease transmission by Feral Pigs, <i>Sus scrofa</i> Linnaeus 1758 | Discussed below.                                                               |
| Removal of dead wood and dead trees                                                                                 | No remnant woodland supporting dead wood present.                              |

### **Invasion of Native Plant Communities by Exotic Perennial Grasses**

Invasion of native plant communities by exotic species is listed as a key threatening process. Exotic perennial grasses have the capacity to invade native plant communities, competing with an excluding native species. The invasion of these grasses also reduces the habitat value for many native fauna species.

Weed seeds are carried onto and distributed by vehicles along road corridors and could be imported onto the site by visitors. Weed management will be implemented on site to minimise the risk of weed establishment and proliferation throughout the project life cycle; this will mainly consist of spot treatment of herbicides on an as-required basis. Herbicide application will also be carried out prior to the camping ground establishment as there are a number of weed species already on-site. Provided safeguards regarding weed management are implemented, the proposed works are unlikely to result in increased weed incursion. The proposed works are therefore considered unlikely to increase the impact of this key threatening process.

### **Predation, habitat degradation, competition and disease transmission by Feral Pigs, *Sus scrofa* Linnaeus 1758**

Feral pigs were observed in shrubby forest to the north of the proposed subject site during the site assessment. The increased presence of waste could attract Feral Pigs to the area and result in increased predation and habitat degradation. Camp site visitors will be encouraged to contain their waste within their vehicles/campervans/caravans and remove their waste from the site when they leave. Refuse facilities (lidded bins) will be available within the kitchenette, in closed waste containers. On days where there are visitors, management will check waste levels on a daily basis, removing waste as required and ensuring that there is no build up of waste on-site. Bins will be secured so as to prevent Feral pigs and other wildlife from toppling them over. Provided these measures are implemented, it is unlikely that the



proposal would cause a significant increase in the presence and impact of Feral Pigs in the locality.

## Conclusion

Flora, fauna and habitat studies have been undertaken to identify and assess the potential impacts resulting from the proposed project. The proposed project involves the establishment of a primitive camping ground. It is estimated that the total development footprint would be 5.61 hectares.

The proposal was assessed using the Test of Significance in accordance with the BC Act for the site which determined that given the highly limited extent of vegetation removal from the site and the presence of extensive areas of similar and higher quality habitat in the wider area, the project is not likely to significantly affect threatened species, ecological communities, or their habitats.

This assessment has determined that the potential adverse impacts of the proposed development on threatened species, populations or communities is considered minimal and no further investigation in the form of a Biodiversity Development Assessment Report is required.

## Appendix A: Bionet Threatened Species, Populations and Communities

### Search Results for a 10-kilometre radius from the Subject Site

| Scientific Name                           | Common Name                                  | Legal Status               | Records |
|-------------------------------------------|----------------------------------------------|----------------------------|---------|
| <i>Glossopsitta pusilla</i>               | Little Lorikeet                              | BC Act: V,P                | 12      |
| <i>Neophema pulchella</i>                 | Turquoise Parrot                             | BC Act: V,P,3              | 43      |
| <i>Ninox connivens</i>                    | Barking Owl                                  | BC Act: V,P,3              | 1       |
| <i>Climacteris picumnus victoriae</i>     | Brown Treecreeper<br>(eastern subspecies)    | BC Act: V,P                | 55      |
| <i>Chthonicola sagittata</i>              | Speckled Warbler                             | BC Act: V,P                | 110     |
| <i>Pomatostomus temporalis temporalis</i> | Grey-crowned Babbler<br>(eastern subspecies) | BC Act: V,P                | 29      |
| <i>Daphoenositta chrysoptera</i>          | Varied Sittella                              | BC Act: V,P                | 25      |
| <i>Artamus cyanopterus cyanopterus</i>    | Dusky Woodswallow                            | BC Act: V,P                | 26      |
| <i>Melanodryas cucullata cucullata</i>    | Hooded Robin (south-eastern form)            | BC Act: V,P                | 5       |
| <i>Stagonopleura guttata</i>              | Diamond Firetail                             | BC Act: V,P                | 9       |
| <i>Saccolaimus flaviventris</i>           | Yellow-bellied Sheath-tail-bat               | BC Act: V,P                | 2       |
| <i>Chalinolobus dwyeri</i>                | Large-eared Pied Bat                         | BC Act: V,P<br>EPBC Act: V | 5       |
| <i>Nyctophilus corbeni</i>                | Corben's Long-eared Bat                      | BC Act: V,P<br>EPBC Act: V | 2       |
| <i>Tylophora linearis</i>                 |                                              | BC Act: V<br>EPBC Act: E   | 2       |



## Appendix B: Bionet Threatened Species, Populations and Communities Search Results for Nandewar Bioregion (Peel IBRA Subregion)

| Species Name                                       | Status     | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                                                                                                                            | Local Records | Potential to Occur and Importance of Habitat Present                                                                    | Assessment of Significance |
|----------------------------------------------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------|----------------------------|
| <b>Aves</b>                                        |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               |                                                                                                                         |                            |
| <i>Alectura lathami</i><br>Australian Brush-turkey | BC Act - E | Largely coastal distribution from Cape York south as far as the Illawarra in NSW. Occurs in forested and wooded areas of tropical and warm-temperate districts, particularly above 300 m to at least 1200 m altitude. Usually prefers dry rainforest that is found within the Semi-evergreen Vine Thicket.                                                                                                                                                                   | 234           | <b>Low</b><br>The subject site is outside of the species' range and thus is therefore not considered important habitat. | No                         |
| <i>Anseranas semipalmata</i><br>Magpie Goose       | BC Act – V | The Magpie Goose is still relatively common in the Australian northern tropics, and since the 1980s there have been an increasing number of records in central and northern NSW. The species is mainly found in shallow wetlands (less than 1 m deep) with dense growth of rushes or sedges. Activities are centred on wetlands, mainly those on floodplains of rivers and large shallow wetlands formed by run-off.                                                         | 1             | <b>Unlikely</b><br>The subject site does not contain suitable habitat for this species.                                 | No                         |
| <i>Oxyura australis</i><br>Blue-billed Duck        | BC Act – V | The Blue-billed Duck is endemic to south-eastern and south-western Australia. It is widespread in NSW, but most common in the southern Murray-Darling Basin area. The Blue-billed Duck prefers deep water in large permanent wetlands and swamps with dense aquatic vegetation. The species is completely aquatic, swimming low in the water along the edge of dense cover. It will fly if disturbed but prefers to dive if approached.                                      | 1             | <b>Unlikely</b><br>The subject site does not contain suitable habitat for this species.                                 | No                         |
| <i>Stictonetta naevosa</i><br>Freckled Duck        | BC Act – V | It breeds in large temporary swamps created by floods in the Bulloo and Lake Eyre basins and the Murray-Darling system, particularly along the Paroo and Lachlan Rivers, and other rivers within the Riverina. The duck is forced to disperse during extensive inland droughts when wetlands in the Murray River basin provide important habitat. The species prefers permanent freshwater swamps and creeks with heavy growth of Cumbungi, Lignum or Tea-tree. During drier | K             | <b>Unlikely</b><br>The subject site does not contain suitable habitat for this species.                                 | No                         |

| Species Name                                               | Status              | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Local Records | Potential to Occur and Importance of Habitat Present                                                                           | Assessment of Significance |
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|                                                            |                     | times they move from ephemeral breeding swamps to more permanent waters such as lakes, reservoirs, farm dams and sewage ponds.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |                                                                                                                                |                            |
| <i>Ephippiorhynchus asiaticus</i><br>Black-necked Stork    | BC Act – E          | Black-necked Storks are widespread in coastal and subcoastal northern and eastern Australia, as far south as central NSW. Floodplain wetlands (swamps, billabongs, watercourses and dams) of the major coastal rivers are the key habitat in NSW for the Black-necked Stork. Secondary habitat includes minor floodplains, coastal sandplain wetlands and estuaries.                                                                                                                                                                                                                                                                                       | 1             | <b>Unlikely</b><br>The subject site does not contain suitable habitat for this species.                                        | No                         |
| <i>Botaurus poiciloptilus</i><br>Australasian Bittern      | BC Act – E          | Australasian Bitterns are widespread but uncommon over south-eastern Australia. In NSW they may be found over most of the state except for the far north-west. The species favours permanent freshwater wetlands with tall, dense vegetation, particularly bullrushes ( <i>Typha</i> spp.) and spikerushes ( <i>Eleocharis</i> spp.).                                                                                                                                                                                                                                                                                                                      | K             | <b>Unlikely</b><br>There is no suitable habitat for the species in the subject site.                                           | No                         |
| <i>Hirunpadus caudacutus</i><br>White-throated Needle-tail | BC Act – Not Listed | White-throated Needle-tails are aerial birds and for a time it was commonly believed that they did not land while in Australia. It has now been observed that birds will roost in trees, and radio-tracking has since confirmed that this is a regular activity.                                                                                                                                                                                                                                                                                                                                                                                           | 23            | <b>Low</b><br>The species is mostly aerial. The subject site is not considered to be important to the survival of the species. | No                         |
| <i>Circus assimilis</i><br>Spotted Harrier                 | BC Act - V          | In New South Wales, this species is widespread from coast to inland, including the western slopes of the Great Dividing Range and farther west. It is sparsely scattered in, or largely absent from, much of the Upper Western region. Primarily inhabits woodlands and dry open sclerophyll forests, usually dominated by eucalypts, including mallee associations. It has also been recorded in shrublands and heathlands and various modified habitats, including regenerating forests; very occasionally in moist forests or rainforests. Generally, the understorey is open with sparse eucalypt saplings, acacias and other shrubs, including heath. | 6             | <b>Moderate</b><br>This species may hunt within the natural habitat within the subject site.                                   | Yes                        |
| <i>Haliaeetus leucogaster</i>                              | BC Act - V          | The White-bellied Sea-eagle is distributed around the Australian coastline, including Tasmania, and well inland                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 7             | <b>Unlikely</b>                                                                                                                | No                         |

| Species Name                                              | Status     | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                                                                                              | Local Records | Potential to Occur and Importance of Habitat Present                                                                                                                                                                           | Assessment of Significance |
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| White-bellied Sea-Eagle                                   |            | along rivers and wetlands of the Murray Darling Basin. In New South Wales it is widespread along the east coast, and along all major inland rivers and waterways. Habitats are characterised by the presence of large areas of open water including larger rivers, swamps, lakes, and the sea.                                                                                                                                                 |               | The subject site does not contain suitable habitat for this species.                                                                                                                                                           |                            |
| <i>Hamirostra melanosternon</i><br>Black-breasted Buzzard | BC Act - V | The Black-breasted Buzzard is found sparsely in areas of less than 500mm rainfall. The species lives in a range of inland habitats, especially along timbered watercourses which is the preferred breeding habitat. It also hunts over grasslands and sparsely timbered woodlands.                                                                                                                                                             | K             | <b>Low</b><br>The site is considered unsuitable due to higher rainfall levels than that with which the species is associated. Mean annual rainfall in the locality exceeds 520mm (2001-2020). (BOM Station 055202 - Gunnedah). | No                         |
| <i>Hieraaetus morphnoides</i><br>Little Eagle             | BC Act - V | The Little Eagle is found throughout the Australian mainland. Occupies open eucalypt forest, woodland or open woodland. Sheoak or Acacia woodlands and riparian woodlands of interior NSW are also used. Nests in tall living trees within a remnant patch, where pairs build a large stick nest in winter.                                                                                                                                    | 54            | <b>Low</b><br>This species' favoured specie and habitat type are not present in the subject site.                                                                                                                              | No                         |
| <i>Lophoictinia isura</i><br>Square-tailed Kite           | BC Act - V | In NSW, the species is a regular resident in the north, north-east and along the major west-flowing river systems. Found in a variety of timbered habitats including dry woodlands and open forests. Is a specialist hunter of passerines, especially honeyeaters, and most particularly nestlings, and insects in the tree canopy, picking most prey items from the outer foliage. Appears to occupy large hunting ranges of more than 100km. | 7             | <b>Moderate</b><br>This species may hunt in grassland habitat on the subject site.                                                                                                                                             | Yes                        |
| <i>Pandion cristatus</i><br>Eastern Osprey                | BC Act - V | Eastern Ospreys are a coastal species and feeds on fish over clear, open water. They are common around the northern coast, especially on rocky shorelines, islands and reefs. There are a handful of records from inland areas.                                                                                                                                                                                                                | 1             | <b>Low</b><br>The species is rare inland and there is no optimal habitat for the species in the area.                                                                                                                          | No                         |
| <i>Falco subniger</i><br>Black Falcon                     | BC Act - V | The Black Falcon is widely, but sparsely, distributed in New South Wales, mostly occurring in inland regions. In New South Wales there is assumed to be a single population that                                                                                                                                                                                                                                                               | 10            | <b>Moderate</b>                                                                                                                                                                                                                | Yes                        |



| Species Name                                            | Status     | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                       | Local Records | Potential to Occur and Importance of Habitat Present                                                                                              | Assessment of Significance |
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|                                                         |            | is continuous with a broader continental population, given that falcons are highly mobile, commonly travelling hundreds of kilometres.                                                                                                                                                                                                                                  |               | Given its large home range, this species may hunt in grassland on the subject site.                                                               |                            |
| <i>Grus rubicunda</i><br>Brolga                         | BC Act - V | Though Brolgas often feed in dry grassland or ploughed paddocks or even desert claypans, they are dependent on wetlands too, especially shallow swamps, where they will forage with their head entirely submerged.                                                                                                                                                      | P             | <b>Unlikely</b><br>The species is dependent on wetlands, and there is no such habitat in the subject site.                                        | No                         |
| <i>Burhinus grallarius</i><br>Bush Stone-curlew         | BC Act - E | The Bush Stone-curlew is found throughout Australia except for the central southern coast and inland, the far south-east corner, and Tasmania. Inhabits open forests and woodlands with a sparse grassy ground layer and fallen timber. The species feeds on insects and small vertebrates, such as frogs, lizards and snakes.                                          | 2             | <b>Low</b><br>There is no suitable habitat for this species within the subject site and it is therefore not considered important for the species. | No                         |
| <i>Irediparra gallinacea</i><br>Comb-crested Jacana     | BC Act - V | The Comb-crested Jacana occurs on freshwater wetlands in northern and eastern Australia, mainly in coastal and subcoastal regions. The species inhabits permanent freshwater wetlands, either still or slow-flowing, with a good surface cover of floating vegetation, especially water-lilies, or fringing and aquatic vegetation.                                     | 1             | <b>Unlikely</b><br>Comb-crested Jacana is a wetland species, and there are no wetlands within the subject site.                                   | No                         |
| <i>Rostratula australis</i><br>Australian Painted Snipe | BC Act - E | The Australian Painted Snipe's preferred habitat is the fringes of swamps, dams and nearby marshy areas where there is a cover of grasses, lignum, low scrub or open timber. In NSW many records are from the Murray-Darling Basin including the Paroo wetlands, Lake Cowal, Macquarie Marshes, Fivebough Swamp and more recently, swamps near Balldale and Wanganella. | 1             | <b>Unlikely</b><br>This is a wetland species, and there is no suitable habitat for the species in the subject site.                               | No                         |
| <i>Limosa limosa</i><br>Black-tailed Godwit             | BC Act - V | This species is primarily a coastal species. In NSW, the species is most frequently recorded at Kooragang Island (Hunter River estuary), with occasional records elsewhere along the coast and inland. Inland, the species is typically found on mudflats and in water less than 10 cm deep, around muddy lakes and swamps.                                             | P             | <b>Low</b><br>There are no wetlands/mudflats within the subject site.                                                                             | No                         |

| Species Name                                             | Status     | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Local Records | Potential to Occur and Importance of Habitat Present                                                                                                   | Assessment of Significance |
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| <i>Callocephalon fimbriatum</i><br>Gang-gang Cockatoo    | BC Act - V | The Gang-gang Cockatoo is distributed from southern Victoria through south- and central-eastern New South Wales. In New South Wales, the Gang-gang Cockatoo is distributed from the south-east coast to the Hunter region, and inland to the Central Tablelands and south-west slopes. The species is found in tall mountain forests and woodlands in spring/summer, particularly in mature wet sclerophyll forests. It moves to lower altitudes in drier more open eucalypt forests and woodlands, particularly box-gum and box-ironbark assemblages.                                                                                                                                                                      | K             | <b>Low</b><br>The species is not considered in this assessment due to a paucity of suitable habitat.                                                   | No                         |
| <i>Calyptorhynchus lathamii</i><br>Glossy Black-Cockatoo | BC Act - V | Inhabits open forest and woodlands of the coast and the Great Dividing Range where stands of sheoak occur. Black Sheoak and Forest Sheoak are important foods. Inland populations feed on a wide range of sheoak. Belah is also utilised and may be a critical food source for some populations. Feeds almost exclusively on the seeds of several species of she-oak ( <i>Casuarina</i> and <i>Allocasuarina</i> species), shredding the cones with the massive bill. Dependent on large hollow-bearing eucalypts for nest sites.                                                                                                                                                                                           | 2             | <b>Low</b><br>There is no Sheoak or Belah within the subject site. The site is therefore not considered important for the species.                     | No                         |
| <i>Glossopsitta pusilla</i><br>Little Lorikeet           | BC Act - V | NSW provides a large portion of the species' core habitat, with lorikeets found westward as far as Dubbo and Albury. Nomadic movements are common, influenced by season and food availability, although some areas retain residents for much of the year and 'locally nomadic' movements are suspected of breeding pairs. Forages primarily in the canopy of open Eucalyptus forest and woodland, yet also finds food in Angophora, Melaleuca and other tree species. Riparian habitats are particularly used, due to higher soil fertility and hence greater productivity. Isolated flowering trees in open country, e.g. paddocks, roadside remnants and urban trees also help sustain viable populations of the species. | 340           | <b>Low</b><br>There are Melaleuca trees adjacent to the subject site, within riparian habitat. The species is therefore considered in this assessment. | Yes                        |

| Species Name                                  | Status     | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Local Records | Potential to Occur and Importance of Habitat Present                                                                                                                                                                                                                        | Assessment of Significance |
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| <i>Lathamus discolor</i><br>Swift Parrot      | BC Act - E | In NSW the species mostly occurs on the coast and south west slopes. On the mainland they occur in areas where eucalypts are flowering profusely or where there is abundant lerp (from sap-sucking bugs) infestations. Favoured feed trees include winter flowering species such as Swamp Mahogany <i>Eucalyptus robusta</i> , Spotted Gum <i>Corymbia maculata</i> , Red Bloodwood <i>C. gummifera</i> , Forest Red Gum <i>E. tereticornis</i> , Mugga Ironbark <i>E. sideroxylon</i> , and White Box <i>E. albens</i> . | 15            | <b>Low</b><br>Favoured feed trees/conditions for this species were not observed within the subject site and it is therefore not considered important for the species. Furthermore, Swift Parrot does not commonly occur in the region in which the subject site is located. | No                         |
| <i>Neophema pulchella</i><br>Turquoise Parrot | BC Act - V | Lives on the edges of eucalypt woodland adjoining clearings, timbered ridges and creeks in farmland. Prefers to feed in the shade of a tree and spends most of the day on the ground searching for the seeds or grasses and herbaceous plants or browsing on vegetable matter. Nests in tree hollows, logs or posts, from August to December.                                                                                                                                                                             | 359           | <b>Low</b><br>There are no eucalypt woodlands within or adjacent to the subject site. The species is therefore unlikely to occur within the subject area.                                                                                                                   | No                         |
| <i>Ninox connivens</i><br>Barking Owl         | BC Act - V | This species occurs in a wide but sparse distribution in NSW. Core populations exist on the western slopes and plains and in some northeast coastal and escarpment forests. Many populations crashed as woodland on fertile soils was cleared over the past century, leaving linear riparian strips of remnant trees as the last inhabitable areas. It also inhabits woodland and open forest, including fragmented remnants and partly cleared farmland.                                                                 | 10            | <b>Moderate</b><br>The species may occur in open forest and riparian habitat adjacent to the subject site.                                                                                                                                                                  | Yes                        |
| <i>Ninox connivens</i><br>Powerful Owl        | BC Act - V | In NSW, the Powerful Owl is widely distributed throughout the eastern forests from the coast inland to tablelands, with scattered records on the western slopes and plains suggesting occupancy prior to land clearing. The Powerful Owl inhabits a range of vegetation types, from woodland and open sclerophyll forest to tall open wet forest and rainforest. The species requires large tracts of forest or woodland habitat but can occur in fragmented landscapes as well.                                          | 6             | <b>Unlikely</b><br>There is no suitable habitat for the species in or near the subject site.                                                                                                                                                                                | No                         |



| Species Name                                                                       | Status     | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Local Records | Potential to Occur and Importance of Habitat Present                                                                                                                                                                                                                          | Assessment of Significance |
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| <i>Ninox strenua</i><br>Masked Owl                                                 | BC Act - V | The distribution of this species extends from the coast where it is most abundant to the western plains. Overall records for this species fall within approximately 90% of NSW, excluding the most arid north-western corner. Its habitat consists of dry eucalypt forests and woodlands from sea level to 1100m. While it is a forest owl, it often hunts along the edges of forests, including roadsides.                                                                                                                                                                                                                                                                                                                                           | 11            | <b>Low</b><br>There are no eucalypt forests or woodlands adjacent to or within the subject site.                                                                                                                                                                              | No                         |
| <i>Tyto novaehollandiae</i><br>Sooty Owl                                           | BC Act - V | The Sooty Owl occupies the easternmost one-eighth of NSW, occurring on the coast, coastal escarpment and eastern tablelands. Its habitat consists of rainforest, including dry rainforest, subtropical and warm temperate rainforest, as well as moist eucalypt forests.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1             | <b>Low</b><br>There are no rainforest habitat or eucalypt forests within / adjacent to the subject site.                                                                                                                                                                      | No                         |
| <i>Climacteris picumnus victoriae</i><br>Brown Treecreeper<br>(eastern subspecies) | BC Act - V | The Brown Treecreeper is endemic to eastern Australia and occurs in eucalypt forests and woodlands of inland plains and slopes of the Great Dividing Range. Found in eucalypt woodlands (including Box-Gum Woodland) and dry open forest of the inland slopes and plains inland of the Great Dividing Range; mainly inhabits woodlands dominated by stringybarks or other rough-barked eucalypts, usually with an open grassy understorey, sometimes with one or more shrub species. When foraging in trees and on the ground, they peck and probe for insects, mostly ants, amongst the litter, tussocks and fallen timber, and along trunks and lateral branches. Hollows in standing dead or live trees and tree stumps are essential for nesting. | 476           | <b>Moderate</b><br>There is potential habitat for the species adjacent to the subject site. Furthermore, there are 55 records of the species within the search area for the proposed site (i.e. within a 10-kilometre area).                                                  | Yes                        |
| <i>Chthonicola sagittata</i><br>Speckled Warbler                                   | BC Act - V | The Speckled Warbler has a patchy distribution throughout the eastern half of NSW. There has been a decline in population density throughout its range, with the decline exceeding 40% where no vegetation remnants larger than 100ha survive. Typical habitat would include scattered native tussock grasses, a sparse shrub layer, some eucalypt regrowth and an open canopy. The diet consists of seeds and insects, with most foraging taking place on the ground                                                                                                                                                                                                                                                                                 | 412           | <b>Moderate</b><br>There are potential habitat elements suitable for the species adjacent to and within the subject site (tussock grasses). Furthermore, there are 110 records of the species within the search area for the proposed site (i.e. within a 10-kilometre area). | Yes                        |

| Species Name                                      | Status     | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Local Records | Potential to Occur and Importance of Habitat Present                                                                                                                                                                     | Assessment of Significance |
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|                                                   |            | around tussocks and under bushes and trees. The rounded, domed, roughly built nest of dry grass and strips of bark is located in a slight hollow in the ground or the base of a low dense plant, often among fallen branches and other litter.                                                                                                                                                                                                                                                                                                                                                                                                                                |               |                                                                                                                                                                                                                          |                            |
| <i>Anthochaera phrygia</i><br>Regent Honeyeater   | BC Act - E | The Regent Honeyeater mainly inhabits temperate woodlands and open forests of the inland slopes of south-east Australia. There are only three known key breeding regions remaining: north-east Victoria (Chiltern-Albury), and in NSW at Capertee Valley and the Bundarra-Barraba region. In NSW the distribution is very patchy and mainly confined to the two main breeding areas and surrounding fragmented woodlands. The species inhabits dry open forest and woodland, particularly Box-Ironbark woodland, and riparian forests of River Sheoak. Regent Honeyeaters inhabit woodlands that support a significantly high abundance and species richness of bird species. | 148           | <b>Unlikely</b><br>There is no suitable habitat within the subject site (no She-oak and only scattered Ironbark); it is therefore unlikely that Regent Honeyeater would utilise the subject site.                        | No                         |
| <i>Epthianura albifrons</i><br>White-fronted Chat | BC Act - V | In NSW, it occurs mostly in the southern half of the state, in damp open habitats along the coast, and near waterways in the western part of the state. Along the coastline, it is found predominantly in saltmarsh vegetation but also in open grasslands and sometimes in low shrubs bordering wetland areas. The species is gregarious and is usually found foraging on bare or grassy ground in wetland areas, singly or in pairs.                                                                                                                                                                                                                                        | 4             | <b>Low</b><br>The subject site does not contain suitable habitat for the species.                                                                                                                                        | No                         |
| <i>Grantiella picta</i><br>Painted Honeyeater     | BC Act - V | The Painted Honeyeater is nomadic and occurs at low densities throughout its range. The greatest concentrations of the bird and almost all breeding occurs on the inland slopes of the Great Dividing Range in NSW, Victoria and southern Queensland. Inhabits Boree/ Weeping Myall ( <i>Acacia pendula</i> ), Brigalow ( <i>A. harpophylla</i> ) and Box-Gum Woodlands and Box-Ironbark Forests. A specialist feeder on the fruits of mistletoes growing on woodland eucalypts and acacias. Prefers mistletoes of the genus <i>Amyema</i> .                                                                                                                                  | 6             | <b>Low</b><br>The subject site is not considered important habitat for the species due to a paucity of suitable habitat. The species is a specialist feeder of mistletoe fruits, which are absent from the subject site. | No                         |

| Species Name                                                                            | Status     | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Local Records | Potential to Occur and Importance of Habitat Present                                                                                                                                                                                                                 | Assessment of Significance |
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| <i>Melithreptus gularis gularis</i><br>Black-chinned Honeyeater<br>(eastern subspecies) | BC Act - V | The Black-chinned Honeyeater has two subspecies, with only the nominate ( <i>gularis</i> ) occurring in NSW where it is widespread, with records from the tablelands and western slopes of the Great Dividing Range to the north-west and central-west plains and the Riverina. Occupies mostly upper levels of drier open forests or woodlands dominated by box and ironbark eucalypts. Feeding territories are large making the species locally nomadic. Recent studies have found that the Black-chinned Honeyeater tends to occur in the largest woodland patches in the landscape as birds forage over large home ranges of at least 5 hectares. | 93            | <b>Low</b><br>The subject site is not considered important habitat for the species due to a paucity of suitable habitat. Woodlands adjacent to the subject site are dominated by Wilga, Tea Tree and White Cypress Pine with only occasional Ironbark and eucalypts. | No                         |
| <i>Pomatostomus temporalis temporalis</i><br>Grey-crowned Babbler (eastern subspecies)  | BC Act - V | In NSW, the eastern sub-species occurs on the western slopes of the Great Dividing Range, and on the western plains reaching as far as Louth and Balranald. Inhabits open Box-Gum Woodlands on the slopes, and Box-Cypress-pine and open Box Woodlands on alluvial plains. Woodlands on fertile soils in coastal regions. Feed on invertebrates, either by foraging on the trunks and branches of eucalypts and other woodland trees or on the ground, digging and probing amongst litter and tussock grasses.                                                                                                                                        | 117           | <b>Low</b><br>The subject site is not considered important habitat for the species due to a paucity of suitable habitat. Woodlands adjacent to the subject site are dominated by Wilga, Tea Tree and White Cypress Pine with only occasional Ironbark and eucalypts. | No                         |
| <i>Daphoenositta chrysoptera</i><br>Varied Sittella                                     | BC Act - V | Inhabits eucalypt forests and woodlands, especially rough-barked species and mature smooth-barked gums with dead branches, mallee and Acacia woodland. Feeds on arthropods gleaned from crevices in rough or decortivating bark, dead branches, standing dead trees, and from small branches and twigs in the tree canopy.                                                                                                                                                                                                                                                                                                                            | 86            | <b>Low</b><br>The subject site is not considered important habitat for the species due to a paucity of suitable habitat. The subject site therefore not considered important habitat for the species.                                                                | No                         |
| <i>Pachycephala olivacea</i><br>Olive Whistler                                          | BC Act - V | The Olive Whistler inhabits the wet forests on the ranges (above 500m) of the east coast. It has a disjunct distribution in NSW chiefly occupying the beech forests around Barrington Tops and the MacPherson Ranges in the north and wet forests from Illawarra south to Victoria.                                                                                                                                                                                                                                                                                                                                                                   | P             | <b>Unlikely</b><br>The subject site is outside of the species range and is therefore not considered important habitat for the species.                                                                                                                               | No                         |



| Species Name                                                                | Status     | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Local Records | Potential to Occur and Importance of Habitat Present                                                                                                                                                                                     | Assessment of Significance |
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| <i>Artamus cyanopterus cyanopterus</i><br>Dusky Woodswallow                 | BC Act - V | Primarily inhabit dry, open eucalypt forests and woodlands, including mallee associations, with an open or sparse understorey of eucalypt saplings, acacias and other shrubs, and ground-cover of grasses or sedges and fallen woody debris. Primarily eats invertebrates, mainly insects, which are captured whilst hovering or sallying above the canopy or over water. Most breeding activity occurs on the western slopes of the Great Dividing Range.                                                       | 228           | <b>Low</b><br>The subject site is not considered important habitat for the species due to a paucity of suitable habitat.                                                                                                                 | No                         |
| <i>Melanodryas cucullata cucullata</i><br>Hooded Robin (south-eastern form) | BC Act - V | The south-eastern form (subspecies <i>cucullata</i> ) is found from Brisbane to Adelaide and throughout much of inland NSW, with the exception of the extreme north-west, where it is replaced by subspecies <i>picata</i> . Two other subspecies occur outside NSW. Requires structurally diverse habitats featuring mature eucalypts, saplings, some small shrubs and a ground layer of moderately tall native grasses.                                                                                        | 91            | <b>Low</b><br>The subject site is not considered important habitat as there is insufficient structural diversity in forests and there are very few mature eucalypts in remnant vegetation in the vicinity of the subject site.           | No                         |
| <i>Petroica boodang</i><br>Scarlet Robin                                    | BC Act - V | In NSW, it occurs from the coast to the inland slopes. The Scarlet Robin lives in dry eucalypt forests and woodlands. The understorey is usually open and grassy with few scattered shrubs. This species lives in both mature and regrowth vegetation. Scarlet Robin habitat usually contains abundant logs and fallen timber: these are important components of its habitat.                                                                                                                                    | 20            | <b>Low</b><br>The subject site is not considered important habitat due to a paucity of suitable habitat.                                                                                                                                 | No                         |
| <i>Petroica phoenicea</i><br>Flame Robin                                    | BC Act - V | In NSW, the Flame Robin breeds in upland areas and in winter, many birds move to the inland slopes and plains to drier, more open habitats. It is likely that there are two separate populations in NSW, one in the Northern Tablelands, and another ranging from the Central to Southern Tablelands. The species breeds in upland tall moist eucalypt forests and woodlands, often on ridges and slopes. It prefers clearings or areas with open understoreys, with a ground layer dominated by native grasses. | 1             | <b>Low</b><br>The subject site is not considered important habitat for this species as there is no optimal habitat for the species. Furthermore there is only a single record of the species in the entire Nandewar Peel IBRA subregion. | No                         |
| <i>Stagonopleura guttata</i>                                                | BC Act - V | Found in grassy eucalypt woodlands, including Box-Gum Woodlands. Also occurs in open forest, mallee, Natural                                                                                                                                                                                                                                                                                                                                                                                                     | 230           | <b>Moderate</b>                                                                                                                                                                                                                          | Yes                        |

| Species Name                                           | Status     | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                                                                                                                | Local Records | Potential to Occur and Importance of Habitat Present                                                                                                                                                                                                                                                                                                                    | Assessment of Significance |
|--------------------------------------------------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Diamond Firetail                                       |            | Temperate Grassland, and in secondary grassland derived from other communities. Prefers clearings or areas with open understoreys. Feeds exclusively on the ground, on ripe and partly-ripe grass and herb seeds and green leaves, and on insects. Nests are globular structures built either in the shrubby understorey, or higher up, especially under hawk's or raven's nests. Birds roost in dense shrubs or in smaller nests built especially for roosting. |               | There is potentially suitable habitat for the species within and adjacent to the subject site (derived grassland). The species is therefore considered in this assessment.                                                                                                                                                                                              |                            |
| <b>Mammalia</b>                                        |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |                                                                                                                                                                                                                                                                                                                                                                         |                            |
| <i>Dasyurus maculatus</i><br>Spotted-tailed Quoll      | BC Act - V | Recorded across a range of habitat types, including rainforest, open forest, woodland, coastal heath and inland riparian forest, from the sub-alpine zone to the coastline. Individual animals use hollow-bearing trees, fallen logs, small caves, rock outcrops and rocky-cliff faces as den sites. Females occupy home ranges of 200-500 hectares, while males occupy very large home ranges from 500 to over 4000 hectares.                                   | 45            | <b>Low</b><br>The species may travel through or rest within the subject site given its very large home range, however it is not considered important habitat for the species. No potential den sites were observed on the subject site.                                                                                                                                 | No                         |
| <i>Phascogale tapoatafa</i><br>Brush-tailed Phascogale | BC Act - V | In NSW the Brush-tailed Phascogale is mainly found east of the Great Dividing Range although there are occasional records west of the divide. This species prefers dry sclerophyll open forest with sparse groundcover of herbs, grasses, shrubs or leaf litter. It also inhabits heath, swamps, rainforest and wet sclerophyll forest.                                                                                                                          | P             | <b>Low</b><br>There is broadly suitable habitat for the species in the vicinity of the subject site, however there are only occasional records of the species west of the Great Dividing Range, and the subject site is therefore not considered important habitat for the species. Furthermore, the species has not been recorded in the Nandewar Peel IBRA subregion. | No                         |
| <i>Phascolarctos cinereus</i><br>Koala                 | BC Act - V | Inhabit eucalypt woodlands and forests. Feed on the foliage of more than 70 eucalypt species and 30 non-eucalypt species, but in any one area will select preferred browse species. Home range size varies with quality of habitat, ranging from less than two ha to several hundred hectares in size.                                                                                                                                                           | 115           | <b>Unlikely</b><br>The subject site and its locality is not considered important habitat for the species due to a lack of suitable habitat. There are no eucalypt woodlands present in the area.                                                                                                                                                                        | No                         |

| Species Name                                       | Status              | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                                                                    | Local Records | Potential to Occur and Importance of Habitat Present                                                                                                                            | Assessment of Significance |
|----------------------------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| <i>Cercartetus nanus</i><br>Eastern Pygmy-possum   | BC Act - V          | In NSW the species range extends from the coast inland as far as the Pilliga, Dubbo, Parkes and Wagga Wagga on the western slopes. Found in a broad range of habitats from rainforest through sclerophyll (including Box-Ironbark) forest and woodland to heath, but in most areas woodlands and heath appear to be preferred, except in north-eastern NSW where they are most frequently encountered in rainforest. | P             | <b>Unlikely</b><br>The subject site is not considered to constitute important habitat for the species due to a paucity of suitable habitat.                                     | No                         |
| <i>Petaurus australis</i><br>Yellow-bellied Glider | BC Act - V          | This species of Glider occurs in tall mature eucalypt forest generally in areas with high rainfall and nutrient rich soils. It ranges from the eastern coast to the western slopes of the Great Dividing Range, from southern Queensland to Victoria.                                                                                                                                                                | 1             | <b>Low</b><br>The species is not included in this assessment due to a paucity of suitable habitat within the subject site and/or its locality.                                  | No                         |
| <i>Petaurus norfolcensis</i><br>Squirrel Glider    | BC Act - V          | Squirrel Gliders inhabit mature or old growth Box, Box-Ironbark woodlands and River Red Gum forest west of the Great Dividing Range and Blackbutt-Bloodwood forest with heath understorey in coastal areas. They prefer mixed species stands with a shrub or Acacia midstorey.                                                                                                                                       | 118           | <b>Unlikely</b><br>The species is not considered in this assessment due to a paucity of suitable habitat within and around the subject site.                                    | No                         |
| <i>Petauroides volans</i><br>Greater Glider        | BC Act – Not listed | The distribution of the Greater Glider includes the ranges and coastal plain of eastern Australia, where it inhabits a variety of eucalypt forests and woodlands. Adult Greater Gliders occupy a relatively small home range with an average size of 1 to 3 ha from which they rarely disperse.                                                                                                                      | 36            | <b>Low</b><br>There are no eucalypt forest or woodlands in the vicinity of the subject site.                                                                                    | No                         |
| <i>Aepyprymnus rufescens</i><br>Rufous Bettong     | BC Act - V          | In NSW, Rufous Bettong has largely vanished from inland areas but there are sporadic, unconfirmed records from the Pilliga and Torrington districts.                                                                                                                                                                                                                                                                 | P             | <b>Low</b><br>The species is not known to occur in the locality of the subject site. The subject site is therefore not considered to provide important habitat for the species. | No                         |
| <i>Macropus dorsalis</i><br>Black-striped Wallaby  | BC Act - E          | Black-striped Wallaby's preferred habitat is characterised by dense woody or shrubby vegetation within three metres of the ground. This dense vegetation must occur near a more open, grassy area to provide suitable feeding habitat. On the                                                                                                                                                                        | 306           | <b>Unlikely</b><br>The subject site does not have habitat characteristics (dense vegetation) known to support Black-striped                                                     | No                         |



| Species Name                                                      | Status     | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                              | Local Records | Potential to Occur and Importance of Habitat Present                                                                                                                                                                                                                                    | Assessment of Significance |
|-------------------------------------------------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
|                                                                   |            | north west-slopes of NSW, the species occurs south of Narrabri and is associated with dense vegetation, including brigalow, Ooline and semi-evergreen vine thicket.                                                                                                                                                                                            |               | Wallaby. The subject site is therefore not considered important habitat for the species.                                                                                                                                                                                                |                            |
| <i>Onychogalea fraenata</i><br>Bridled Nailtail Wallaby           | BC Act - E | The species' range has declined dramatically during the last century; it is currently presumed extinct in NSW and for over 30 years the species was believed to be extinct across its range.                                                                                                                                                                   | 1             | <b>Low</b><br>The species is presumed extinct in NSW.                                                                                                                                                                                                                                   | No                         |
| <i>Petrogale penicillata</i><br>Brush-tailed Rock-wallaby         | BC Act - E | In NSW, the species occurs from the Queensland border in the north to the Shoalhaven in the south, with the population in the Warrumbungle Ranges being the western limit. Brush-tailed Rock-wallaby occupy rocky escarpments, outcrops and cliffs with a preference for complex structures with fissures, caves and ledges, often facing north.               | 1             | <b>Unlikely</b><br>The species is not considered in this assessment due to a paucity of suitable habitat within and around the subject site.                                                                                                                                            | No                         |
| <i>Pteropus poliocephalus</i><br>Grey-headed Flying-fox           | BC Act - V | Occur in subtropical and temperate rainforests, tall sclerophyll forests and woodlands, heaths and swamps as well as urban gardens and cultivated fruit crops. Roosting camps are generally located within 20 km of a regular food source and are commonly found in gullies, close to water, in vegetation with a dense canopy.                                | 55            | <b>Unlikely</b><br>The species is not considered in this assessment due to a paucity of suitable habitat within and around the subject site. The sclerophyll open forest in the vicinity of the site is not considered to have dense vegetation and is considered to be low-mid height. | No                         |
| <i>Saccolaimus flaviventris</i><br>Yellow-bellied Sheath-tail-bat | BC Act - V | Roosts singly or in groups of up to six, in tree hollows and buildings; in treeless areas they are known to utilise mammal burrows. When foraging for insects, flies high and fast over the forest canopy, but lower in more open country. Forages in most habitats across its very wide range, with and without trees; appears to defend an aerial territory. | 85            | <b>Moderate</b><br>This species forages in most habitats, and therefore may forage within open areas on the subject site, given the availability of roosting habitat in the site vicinity.                                                                                              | Yes                        |
| <i>Micronomus norfolkensis</i><br>Eastern Coastal Free-tailed Bat | BC Act - V | The Eastern Freetail-bat is found along the east coast from south Queensland to southern NSW. The species occurs in dry sclerophyll forest, woodland, swamp forests and mangrove forests east of the Great Dividing Range.                                                                                                                                     | 1             | <b>Low</b><br>The site is not within the species' known range.                                                                                                                                                                                                                          | No                         |

| Species Name                                                   | Status     | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                                                                    | Local Records | Potential to Occur and Importance of Habitat Present                                                                                                                                              | Assessment of Significance |
|----------------------------------------------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| <i>Chalinolobus dwyeri</i><br>Large-eared Pied Bat             | BC Act - V | It is generally rare with a very patchy distribution in NSW. There are scattered records from the New England Tablelands and North West Slopes. Roosts in caves (near their entrances), crevices in cliffs, old mine workings and in the disused, bottle-shaped mud nests of the Fairy Martin ( <i>Petrochelidon ariel</i> ), frequenting low to mid-elevation dry open forest and woodland close to these features. | 617           | <b>Moderate</b><br>There are caves in the locality (Dripping Rock), therefore the species may utilise habitat within / adjacent to the subject site.                                              | Yes                        |
| <i>Chalinolobus picatus</i><br>Little Pied Bat                 | BC Act - V | Occurs in dry open forest, open woodland, mulga woodlands, chenopod shrublands, cypress pine forest and mallee and Bimbil box woodlands. Roosts in caves, rock outcrops, mine shafts, tunnels, tree hollows and buildings. Feeds on moths and possibly other flying invertebrates.                                                                                                                                   | 20            | <b>Moderate</b><br>There is suitable habitat and breeding habitat (caves) in the vicinity of the subject site, therefore the species may utilise habitat within / adjacent to the subject site.   | Yes                        |
| <i>Falsistrellus tasmaniensis</i><br>Eastern False Pipistrelle | BC Act - V | The Eastern False Pipistrelle is found on the south-east coast and ranges of Australia, from southern Queensland to Victoria and Tasmania. It prefers moist habitats, with trees taller than 20 m, and generally roosts in eucalypt hollows.                                                                                                                                                                         | 58            | <b>Unlikely</b><br>The subject site is not considered in this assessment due to a paucity of suitable habitat, in particular roosting habitat.                                                    | No                         |
| <i>Nyctophilus corbeni</i><br>Corben's Long-eared Bat          | BC Act - V | Inhabits a variety of vegetation types, including mallee, bullock and box eucalypt dominated communities, but it is distinctly more common in box/ironbark/cypress-pine vegetation. Roosts in tree hollows, crevices, and under loose bark. Slow flying agile bat, utilising the understorey to hunt non-flying prey - especially caterpillars and beetles - and will even hunt on the ground.                       | 50            | <b>Moderate</b><br>There is suitable habitat in the vicinity of the subject site, therefore the species may utilise habitat within / adjacent to the subject site.                                | Yes                        |
| <i>Scoteanax rueppellii</i><br>Greater Broad-nosed Bat         | BC Act - V | In NSW it is widespread on the New England Tablelands, however, does not occur at altitudes above 500 m. The species utilises a variety of habitats from woodland through to moist and dry eucalypt forest and rainforest, though it is most commonly found in tall wet forest. Although this species usually roosts in tree hollows, it has also been found in buildings.                                           | 9             | <b>Unlikely</b><br>The preferred habitat for this species (tall, wet forest), is not present in the subject site or in its surrounds. The species is therefore not considered in this assessment. | No                         |

| Species Name                                                        | Status     | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Local Records | Potential to Occur and Importance of Habitat Present                                                                                                                   | Assessment of Significance |
|---------------------------------------------------------------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| <i>Vespadelus trouthoni</i><br>Eastern Cave Bat                     | BC Act - V | The Eastern Cave Bat is found in a broad band on both sides of the Great Dividing Range from Cape York to Kempsey, with records from the New England Tablelands and the upper north coast of NSW. A cave-roosting species that is usually found in dry open forest and woodland, near cliffs or rocky overhangs; has been recorded roosting in disused mine workings, occasionally in colonies of up to 500 individuals.                                                                                                                                         | 25            | <b>Low</b><br>There is no suitable habitat for the species within or adjacent the subject site.                                                                        | No                         |
| <i>Miniopterus orianae oceanensis</i><br>Large Bent-winged Bat      | BC Act - V | Caves are the primary roosting habitat for this species, but they also use derelict mines, storm-water tunnels, buildings and other man-made structures. Form discrete populations centred on a maternity cave that is used annually in spring and summer for the birth and rearing of young. At other times of the year, populations disperse within about 300 km range of maternity caves. The species forages in grassland and timbered forest.                                                                                                               | 332           | <b>Moderate</b><br>There are caves in the locality (Dripping Rock), therefore the species may utilise habitat within / adjacent to the subject site.                   | Yes                        |
| <b>Reptilia</b>                                                     |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |                                                                                                                                                                        |                            |
| <i>Myuchelys bellii</i><br>Western Sawshelled Turtle, Bell's Turtle | BC Act - E | The main habitat for this species consists of shallow to deep pools in upper reaches or small tributaries of major rivers in granite country. Occupied pools are most commonly less than 3 m deep with rocky or sandy bottoms and patches of vegetation. Most typically uses narrow stretches of rivers 30 - 40 m wide. Most surrounding habitat has been converted to grazing land. In NSW, it is currently found in four disjunct populations in the upper reaches of the Namoi, Gwydir and Border Rivers systems, on the escarpment of the North West Slopes. | P             | <b>Unlikely</b><br>There is no suitable habitat for the species in the subject site.                                                                                   | No                         |
| <i>Uvidicolus sphyrurus</i><br>Border Thick-tailed Gecko            | BC Act - V | Found only on the tablelands and slopes of northern NSW and southern Queensland, reaching south to Tamworth and west to Moree. As implied by another of its common names (Granite Thick-tailed Gecko), this species often occurs on steep rocky or scree slopes, especially granite. Recent records from basalt and metasediment slopes and flats indicate its habitat selection is broader than formerly thought and may                                                                                                                                        | 41            | <b>Unlikely</b><br>The subject site does not contain habitat characteristics and features favoured by this species. It is therefore not considered in this assessment. | No                         |



| Species Name                                                                                             | Status     | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Local Records | Potential to Occur and Importance of Habitat Present                                                                                                                                                                                                                                  | Assessment of Significance |
|----------------------------------------------------------------------------------------------------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
|                                                                                                          |            | have extended into areas that were cleared for agriculture. Favours forest and woodland areas with boulders, rock slabs, fallen timber and deep leaf litter. Occupied sites often have a dense tree canopy that helps create a sparse understorey.                                                                                                                                                                                                                                                                           |               |                                                                                                                                                                                                                                                                                       |                            |
| <i>Hoplocephalus bitorquatus</i><br>Pale-headed Snake                                                    | BC Act - V | A patchy distribution from north-east Queensland to the north-eastern quarter of NSW. In NSW it has historically been recorded from as far west as Mungindi and Quambone on the Darling Riverine Plains, across the north west slopes, and from the north coast from Queensland to Sydney. Found mainly in dry eucalypt forests and woodlands, cypress forest and occasionally in rainforest or moist eucalypt forest. In drier environments, it appears to favour habitats close to riparian areas.                         | P             | <b>Low</b><br>There is suitable habitat for the species in the vicinity of the subject site, however there are no known records of the species in the Nandewar Peel IBRA subregion. The subject site is therefore not considered likely to provide important habitat for the species. | No                         |
| <b>Amphibia</b>                                                                                          |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               |                                                                                                                                                                                                                                                                                       |                            |
| <i>Adelotus brevis</i><br>Tusked Frog<br>population in the Nandewar and New England Tableland Bioregions | BC Act – E | Tusked Frogs were once found west to the New England Tableland and North West Slopes (Nandewar bioregion) but are now very rare there, and the population in these regions has been listed as an Endangered Population under the Threatened Species Conservation Act. They remain more common in lower elevation coastal areas. The species occurs in rainforests, wet forests and flooded grassland and pasture. They are usually found near creeks, ditches and ponds, and call while hidden amongst vegetation or debris. | P             | <b>Unlikely</b><br>The species is very rare in the locality of the subject site. Furthermore, there no permanent flowing streams in the vicinity of the proposed development. Tusked Frog is therefore not considered in this assessment.                                             | No                         |
| <i>Litoria booroolongensis</i><br>Booroolong Frog                                                        | BC Act – E | The Booroolong Frog is restricted to NSW and north-eastern Victoria, predominantly along the western-flowing streams of the Great Dividing Range. It has disappeared from much of the Northern Tablelands; however, several populations have recently been recorded in the Namoi catchment. The species is rare throughout most of the remainder of its range. It lives along permanent streams with some fringing vegetation cover such as ferns, sedges or grasses.                                                        | 1564          | <b>Unlikely</b><br>There is no suitable habitat for the species within or in the vicinity of the subject site.                                                                                                                                                                        | No                         |
| <i>Litoria daviesae</i><br>Davies' Tree Frog                                                             | BC Act – V | Davies' Tree Frog occurs as a series of small populations along the eastern escarpment of the Great Divide and                                                                                                                                                                                                                                                                                                                                                                                                               | 6             | <b>Unlikely</b>                                                                                                                                                                                                                                                                       | No                         |

| Species Name                                         | Status      | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Local Records | Potential to Occur and Importance of Habitat Present                                                                                                                                                                    | Assessment of Significance |
|------------------------------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
|                                                      |             | adjacent tablelands above 400 m elevation. Its habitat is highly fragmented and restricted to the region from Carrai Plateau to the Barrington Tops area. Davies' Tree Frog occurs in permanent, slow-flowing small streams above 400 m elevation, mostly in the headwaters of eastern-flowing streams (although it does occur in the headwaters of the western-flowing Peel River).                                                                                                                                                                                                                                                                                                                                                                                                    |               | There is no suitable habitat (permanent stream) for the species within or in the vicinity of the subject site.                                                                                                          |                            |
| <b>Flora</b>                                         |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               |                                                                                                                                                                                                                         |                            |
| <i>Tylophora linearis</i>                            | BC Act – V  | Grows in dry scrubland that may have a eucalypt, <i>Callitris glaucophylla</i> and/or <i>Allocasuarina luehmannii</i> overtopping the scrub, in the Barraba, Mendooran, Temora and West Wyalong districts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 7             | <b>Unlikely</b><br>There is no scrubland within / adjacent to the subject site. The species is therefore not considered in this assessment.                                                                             | No                         |
| <i>Picris evae</i><br>Hawkweed                       | BC Act – V  | Known in NSW north from the Inverell area, in the north-western slopes and plains regions. It has been collected from Elsmore and Myall Creek (both near Inverell) as well as in Inverell, Oxley Park (Tamworth) and also from Dangar Falls in the Oxley Wild Rivers National Park in the northern tablelands of NSW. Its main habitat is open Eucalypt forest including a canopy of <i>Eucalyptus melliodora</i> , <i>E. crebra</i> , <i>E. populnea</i> , <i>E. albens</i> , <i>Angophora subvelutina</i> , <i>Allocasuarina torulosa</i> , and/or <i>Casuarina cunninghamiana</i> with a <i>Dichanthium</i> grassy understory. Soils are black, dark grey or red-brown (specified as shallow, stony soil over basalt for one collection) and reddish clay-loam or medium clay soils. | P             | <b>Unlikely</b><br>The species is not known to occur in the subject site locality. The species described habitat does not occur within the subject site, it is therefore not considered important habitat for Hawkweed. | No                         |
| <i>Stenopetalum velutinum</i><br>Velvet Thread-petal | BC Act – E4 | <i>Stenopetalum velutinum</i> is currently distributed in Queensland, Western Australia, South Australia, and the Northern Territory. It is presumed extinct in NSW.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1             | <b>Low</b><br>Velvet Thread-petal is presumed extinct within NSW.                                                                                                                                                       | No                         |
| <i>Acalypha eremorum</i><br>Acalypha                 | BC Act – E  | Though widespread and moderately common in south-east Queensland, in NSW it occurs in only a few localities, including the Chaelundi, Lismore and Burringbar areas.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1             | <b>Unlikely</b><br>The habitat types in which <i>Acalypha</i> typically occurs are not found in or near the subject site. The site is therefore not                                                                     | No                         |

| Species Name                                                             | Status              | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Local Records | Potential to Occur and Importance of Habitat Present                                                                                                                                         | Assessment of Significance |
|--------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
|                                                                          |                     | Acalypha is found in Subtropical rainforest, dry rainforest and vine thickets.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               | considered important habitat for the species.                                                                                                                                                |                            |
| <i>Monotaxis macrophylla</i><br>Large-leafed Monotaxis                   | BC Act – E          | Large-leafed Monotaxis is recorded from several highly disjunct populations in NSW: eastern edge of Deua NP (west of Moruya), Bemboka portion of South East Forests National Park, Cobar area (Hermitage Plains), the Tenterfield area, and Woodenbong (near the Queensland border). <i>Monotaxis macrophylla</i> displays the properties of a fire ephemeral species in many ways. Germination is stimulated by the passage of fire, individual plants have a short life span, a large biomass is produced in a short period of time, flowering occurs shortly after germination, and populations do not persist in the absence of fire. | P             | <b>Low</b><br>The species has a very restricted range and is not known to occur in the locality of the subject site. The site is therefore not considered important habitat for the species. | No                         |
| <i>Acacia atrox</i><br>Myall Creek Wattle                                | BC Act – E          | Myall Creek Wattle is known from two populations near Delungra and Gurley. Each population occupies less than 5 hectares.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 10            | <b>Low</b><br>The subject site is outside of the known distribution of the species.                                                                                                          | No                         |
| <i>Haloragis exalata</i> subsp. <i>Velutina</i><br>Tall Velvet Sea-berry | BC Act – E          | This subspecies of Tall Sea-berry occurs on the north coast of NSW and south-eastern Queensland. It grows in damp places near watercourses and in woodland on the steep rocky slopes of gorges.                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1             | <b>Low</b><br>The subject site is outside of the known distribution of the species.                                                                                                          | No                         |
| <i>Commersonia procumbens</i>                                            | BC Act – V          | Endemic to NSW, mainly confined to the Dubbo-Mendooran-Gilgandra region, but also in the Pilliga and Nymagee areas. <i>Commersonia procumbens</i> grows in sandy sites, often along roadsides.                                                                                                                                                                                                                                                                                                                                                                                                                                            | P             | <b>Low</b><br>The subject site is not considered important habitat for the species due to a paucity of suitable habitat.                                                                     | No                         |
| <i>Callistemon pungens</i>                                               | BC Act – Not Listed | In NSW the species occurs from near Inverell to the eastern escarpment in New England National Park. It also occurs in the northern tablelands of south-eastern Queensland, mainly in the Stanthorpe area. Habitats range from riparian areas dominated by <i>Casuarina cunninghamiana</i> subsp. <i>cunninghamiana</i> to woodland and rocky shrubland.                                                                                                                                                                                                                                                                                  | 2             | <b>Low</b><br>The subject site is outside of the known distribution of the species.                                                                                                          | No                         |
| <i>Eucalyptus mckieana</i><br>McKie's Stringybark                        | BC Act – V          | <i>Eucalyptus mckieana</i> is found in grassy open forest or woodland on poor sandy loams, most commonly on gently sloping or flat sites. It is confined to the drier western side of                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2             | <b>Low</b><br>The subject site is outside the known range of the species.                                                                                                                    | No                         |



| Species Name                                                                      | Status     | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Local Records | Potential to Occur and Importance of Habitat Present                                                                                                                                                                                                | Assessment of Significance |
|-----------------------------------------------------------------------------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
|                                                                                   |            | the New England Tablelands of NSW, from Torrington to Bendemeer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               |                                                                                                                                                                                                                                                     |                            |
| <i>Eucalyptus nicholii</i><br>Narrow-leaved<br>Black Peppermint                   | BC Act – V | This species is sparsely distributed but widespread on the New England Tablelands from Nundle to north of Tenterfield, being most common in central portions of its range. Found largely on private property and roadsides, and occasionally in conservation reserves. Planted as urban trees, windbreaks and corridors. Typically grows in dry grassy woodland, on shallow soils of slopes and ridges. Found primarily on infertile soils derived from granite or metasedimentary rock. Tends to grow on lower slopes in the landscape. | 6             | <b>Low</b><br>The subject site is not considered important habitat for the species due to a paucity of suitable habitat.                                                                                                                            | No                         |
| <i>Eucalyptus oresbia</i><br>Small-fruited<br>Mountain Gum                        | BC Act – V | The species is found at altitudes between 800 m and 1100 m in very steep valleys and deeply incised creek lines with primarily south to southwest exposure (i.e. warm yet moist).                                                                                                                                                                                                                                                                                                                                                        | 33            | <b>Low</b><br>The subject site is outside of the species altitudinal range. Furthermore, the species was not observed during the site inspection and the local topographic characteristics are not consistent with those preferred by Mountain Gum. | No                         |
| <i>Eucalyptus rubida</i><br><i>subsp. barbigerorum</i><br>Blackbutt<br>Candlebark | BC Act – V | Known from scattered populations on the New England Tablelands from Guyra to the Tenterfield area. Most populations occur on private property however the species is recorded in Barayamal and Guy Fawkes National Parks. This tree occurs in grassy woodland on medium or high fertility soils.                                                                                                                                                                                                                                         | 2             | <b>Low</b><br>The species was not observed within the subject site or study area. Furthermore, the subject site is outside of the species' known range.                                                                                             | No                         |
| <i>Homoranthus prolixus</i><br>Granite<br>Homoranthus                             | BC Act – V | Occurs in scattered locations between Inverell and Manilla. <i>Homoranthus prolixus</i> grows in heath patches, in skeletal soil among crevices of granite outcrops.                                                                                                                                                                                                                                                                                                                                                                     | P             | <b>Unlikely</b><br>There is no suitable habitat for this species within the subject site.                                                                                                                                                           | No                         |

| Species Name                                                 | Status              | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                                                 | Local Records | Potential to Occur and Importance of Habitat Present                                                                                                                                                                | Assessment of Significance |
|--------------------------------------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| <i>Syzygium paniculatum</i><br>Magenta Lilly Pilly           | BC Act – E          | The Magenta Lilly Pilly is found only in NSW, in a narrow, linear coastal strip from Upper Lansdowne to Conjola State Forest.                                                                                                                                                                                                                                                                     | 1             | <b>Low</b><br>The subject site is outside of the species' known range.                                                                                                                                              | No                         |
| <i>Chiloglottis platyptera</i><br>Barrington Tops Ant Orchid | BC Act – V          | This orchid is found along the eastern edge of the New England Tablelands, from Ben Halls Gap to east of Tenterfield, and also in the Barrington Tops area. It grows in moist areas in tall open eucalypt forest with a grassy understorey, and also around rainforest edges.                                                                                                                     | P             | <b>Low</b><br>The subject site is outside of the species' known range. Furthermore, there is no suitable habitat for the species within the subject site.                                                           | No                         |
| <i>Prasophyllum petilum</i><br>Tarengo Leek Orchid           | BC Act – E          | Grows in open sites within Natural Temperate Grassland at the Boorowa and Delegate sites. Also grows in grassy woodland in association with River Tussock <i>Poa labillardieri</i> , Black Gum <i>Eucalyptus aggregata</i> and tea-trees <i>Leptospermum</i> spp. near Queanbeyan and within the grassy groundlayer dominated by Kangaroo Grass under Box-Gum Woodland at Ilford (and Hall, ACT). | 1             | <b>Low</b><br>The subject site is outside of the species' known range. Furthermore, there is no suitable habitat for the species within the subject site.                                                           | No                         |
| <i>Prasophyllum</i> sp.<br>Wybong                            | BC Act – Not Listed | Endemic to NSW, it is known from near Ilford, Premer, Muswellbrook, Wybong, Yeoval, Inverell, Tenterfield, Currabubula and the Pilliga area. Most populations are small, although the Wybong population contains by far the largest number of individuals. Known to occur in open eucalypt woodland and grassland.                                                                                | 1             | <b>Low</b><br>There is no suitable habitat for the species within / adjacent to the subject site.                                                                                                                   | No                         |
| <i>Euphrasia arguta</i>                                      | BC Act – E          | <i>Euphrasia arguta</i> was rediscovered in the Nundle area of the NSW north western slopes and tablelands in 2008. Historically, <i>Euphrasia arguta</i> has only been recorded from relatively few places within an area extending from Sydney to Bathurst and north to Walcha.                                                                                                                 | 7             | <b>Low</b><br>The species has a restricted distribution and is not known to occur in the locality of the subject site. The subject site is therefore not considered important habitat for <i>Euphrasia arguta</i> . | No                         |
| <i>Dichanthium setosum</i><br>Bluegrass                      | BC Act – V          | Bluegrass occurs on the New England Tablelands, North West Slopes and Plains and the Central Western Slopes of NSW, extending to northern Queensland. Associated with heavy basaltic black soils and red-brown loams with clay subsoil. Often found in moderately disturbed areas such as cleared                                                                                                 | 33            | <b>Moderate</b><br>This species was not observed during the site assessment. However, it is known to occur in moderately disturbed areas and the subject site has potential                                         | Yes                        |

| Species Name                                      | Status     | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                                                                              | Local Records | Potential to Occur and Importance of Habitat Present                                                                                                                      | Assessment of Significance |
|---------------------------------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
|                                                   |            | woodland, grassy roadside remnants and highly disturbed pasture.                                                                                                                                                                                                                                                                                                                                                               |               | habitat for the species. The species is therefore included in this assessment.                                                                                            |                            |
| <i>Digitaria porrecta</i><br>Finger Panic Grass   | BC Act – E | In NSW, the most frequently recorded associated tree species are <i>Eucalyptus albens</i> and <i>Acacia pendula</i> . Common associated grasses and forbs in NSW sites include <i>Austrostipa aristiglumis</i> , <i>Enteropogon acicularis</i> , <i>Cyperus bifax</i> , <i>Hibiscus trionum</i> and <i>Neptunia gracilis</i> . Found in native grassland, woodlands or open forest with a grassy understorey, on richer soils. | 12            | <b>Low</b><br>The species is unlikely to occur within the subject site. The soil onsite consists of sandy loam, and none of the associated species were recorded on site. | No                         |
| <i>Homopholis belsonii</i><br>Belson's Panic      | BC Act – E | Occurs on the northwest slopes and plains of NSW, mostly between Wee Waa, Goondiwindi and Glen Innes. It also occurs in Queensland, mainly in the Brigalow Belt South bioregion. Grows in dry woodland (e.g. Belah) often on poor soils, although sometimes found in basalt-enriched sites north of Warialda and in alluvial clay soils.                                                                                       | 3             | <b>Unlikely</b><br>The subject site is not considered suitable habitat for the species due to a paucity of suitable habitat.                                              | No                         |
| <i>Polygala linariifolia</i><br>Native Milkwort   | BC Act – E | North from Copeton Dam and the Warialda area to southern Queensland. The species has been recorded from the Inverell and Torrington districts growing in dark sandy loam on granite in shrubby forest of <i>Eucalyptus caleyi</i> , <i>Eucalyptus dealbata</i> and <i>Callitris</i> , and in yellow podzolic soil on granite in layered open forest.                                                                           | 10            | <b>Unlikely</b><br>The subject site is outside of the species' described range.                                                                                           | No                         |
| <i>Hakea pulvinifera</i><br>Lake Keepit Hakea     | BC Act – E | Lake Keepit Hakea is confined to the North West Slopes of NSW, where it is known from a single population near Lake Keepit, north-east of Gunnedah.                                                                                                                                                                                                                                                                            | 12            | <b>Low</b><br>This species is confined to a single location at distance from the subject site.                                                                            | No                         |
| <i>Asterolasia beckersii</i><br>Dungowan Starbush | BC Act – E | Dungowan Starbush is only known from eleven locations in the local region around Dungowan Dam near Tamworth. The tenure of the locations is varied with five locations within conservation reserves, three locations are in the vicinity of the dam within a restricted-access area and three within state forests.                                                                                                            | 8             | <b>Low</b><br>This species' range is extremely restricted and does not include the subject site's locality.                                                               | No                         |
| <i>Boronia ruppii</i><br>Rupp's Boronia           | BC Act – E | Rupp's Boronia is restricted to Woods reef, east of Barraba where it occurs on serpentine geology. It grows in dry                                                                                                                                                                                                                                                                                                             | 495           | <b>Low</b>                                                                                                                                                                | No                         |



| Species Name                                                                      | Status     | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                                                                                            | Local Records | Potential to Occur and Importance of Habitat Present                                                                                                                                                                                  | Assessment of Significance |
|-----------------------------------------------------------------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
|                                                                                   |            | eucalypt woodland on soils derived from serpentinite rock. Recent extensive surveys indicate over a dozen small subpopulations remain scattered across the local site, but the species does not extend to other regional serpentine areas.                                                                                                                                                                                                   |               | Rupp's Boronia only occurs in Woods reef and its range does not extend to other serpentine areas within the region. The subject site is at distance from Woods reef and is therefore not considered important habitat for the species |                            |
| <i>Phebalium glandulosum</i> subsp. <i>Eglandulosum</i><br>Rusty Desert Phebalium | BC Act – E | Found in the Torrington district and in Severn River Nature Reserve north-west of Glen Innes, on the New England Tablelands. This species is restricted to granite outcrop country on the New England Tablelands. Favours exposed and heathy granite areas with cracks and depressions of skeletal sandy soil located amongst the boulders. Sites tend to be relatively open, with the shrubs forming a spreading habit over the bare rocks. | 1             | <b>Unlikely</b><br>There is no suitable habitat for this species in the subject site and its environs.                                                                                                                                | No                         |
| <i>Zieria odorifera</i> subsp. <i>copelandii</i>                                  | BC Act – E | Widely scattered but not common in north-east NSW and in Queensland. It is known from several locations on the NSW north coast and a few locations on the New England Tablelands and North West Slopes, including near Torrington and Coolatai. Found in moist eucalypt forest or sheltered woodlands with a shrubby understorey, and occasionally along creeks.                                                                             | P             | <b>Unlikely</b><br>There is no suitable habitat for the species within the subject site. The species is therefore not considered in this assessment.                                                                                  | No                         |
| <i>Thesium australe</i><br>Austral Toadflax                                       | BC Act – V | Austral Toadflax is found in very small populations scattered across eastern NSW, along the coast, and from the Northern to Southern Tablelands. Occurs in grassland on coastal headlands or grassland and grassy woodland away from the coast. It is often found in association with Kangaroo Grass ( <i>Themeda australis</i> ).                                                                                                           | 21            | <b>Moderate</b><br>There is grassland habitat in the subject site and the species has been recorded in the search area. The species is therefore considered in this assessment.                                                       | Yes                        |
| <i>Cadellia pentastylis</i><br>Ooline                                             | BC Act – V | Occurs along the western edge of the North West Slopes from north of Gunnedah to west of Tenterfield. Ooline typically forms a closed or open canopy mixing with eucalypt and cypress pine species. The total area occupied by Ooline is only about 1200 hectares, with remaining populations in NSW still                                                                                                                                   | 12            | <b>Low</b><br>The species was not observed during the site assessment.                                                                                                                                                                | No                         |

| Species Name                                                                                      | Status       | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                                                                                                                                         | Local Records | Potential to Occur and Importance of Habitat Present                                                      | Assessment of Significance |
|---------------------------------------------------------------------------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------|----------------------------|
|                                                                                                   |              | threatened to various degrees by clearing for agriculture and grazing pressures.                                                                                                                                                                                                                                                                                                                                                                                                          |               |                                                                                                           |                            |
| <b>Communities</b>                                                                                |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |               |                                                                                                           |                            |
| Brigalow within the Brigalow Belt South, Nandewar and Darling Riverine Plains Bioregions          | BC Act – EEC | The Brigalow community is a low woodland or forest community dominated by Brigalow ( <i>Acacia harpophylla</i> ), with pockets of Belah ( <i>Casuarina cristata</i> ) and Poplar Box ( <i>Eucalyptus populnea</i> subsp. <i>bimbil</i> ). The canopy tends to be quite dense and the understorey and ground cover are only sparse.                                                                                                                                                        | K             | <b>Low</b><br>This EEC does not occur on the site, and the site is thus not considered important habitat. | No                         |
| <i>Cadellia pentastylis</i> (Ooline) community in the Nandewar and Brigalow Belt South Bioregions | BC Act – EEC | The Ooline community is an unusual and distinctive forest community with the canopy dominated by the tree Ooline ( <i>Cadellia pentastylis</i> ). The understorey is made up of a range of shrubs, such as Wattles ( <i>Acacia</i> spp.), and grasses. This community has been extensively cleared and now known from only seven main locations on the North West Slopes in NSW, between Narrabri and the Queensland border, and also in Queensland.                                      | K             | <b>Low</b><br>This EEC does not occur on the site, and the site is thus not considered important habitat. | No                         |
| Carbeen Open Forest Community in the Darling Riverine Plains and Brigalow Belt South Bioregions   | BC Act – EEC | This was previously an open forest community of flora and fauna that may now exist as woodland or as remnant trees. Characteristic tree species are Carbeen ( <i>Corymbia tessellaris</i> ) and White Cypress Pine ( <i>Callitris glaucophylla</i> ).                                                                                                                                                                                                                                     | K             | <b>Low</b><br>This EEC does not occur on the site, and the site is thus not considered important habitat. | No                         |
| Howell Shrublands in the New England Tableland and Nandewar Bioregions                            | BC Act – EEC | The Howell Shrublands are a community usually dominated by low shrubs, particularly <i>Babingtonia densifolia</i> and Granite <i>Homoranthus Homoranthus prolixus</i> , with a range of other shrubs, forbs and grasses also present. The mix of species at a site changes over time, and occasionally all the shrubs may be absent, giving the community a grassland structure, or various eucalypts and cypress pine may be present, giving a low open shrubby woodland structure. This | P             | <b>Low</b><br>This EEC does not occur on the site, and the site is thus not considered important habitat. | No                         |

| Species Name                                                                                                                      | Status       | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Local Records | Potential to Occur and Importance of Habitat Present                                                      | Assessment of Significance |
|-----------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------|----------------------------|
|                                                                                                                                   |              | community is confined to areas of extensive granite outcropping.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               |                                                                                                           |                            |
| Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Penepplain, Nandewar and Brigalow Belt South Bioregions | BC Act – EEC | Inland Grey Box Woodland occurs on fertile soils of the western slopes and plains of NSW. The community generally occurs where average rainfall is 375- 800 mm pa and the mean maximum annual temperature is 22- 26°C. Inland Grey Box Woodland includes those woodlands in which the most characteristic tree species, <i>Eucalyptus microcarpa</i> (Inland Grey Box), is often found in association with <i>E. populnea</i> subsp. <i>bimbil</i> (Bimble or Poplar Box), <i>Callitris glaucophylla</i> (White Cypress Pine), <i>Brachychiton populneus</i> (Kurrajong), <i>Allocasuarina luehmannii</i> (Bulloak) or <i>E. melliodora</i> (Yellow Box), and sometimes with <i>E. albens</i> (White Box). Shrubs are typically sparse or absent, although this component can be diverse and may be locally common, especially in drier western portions of the community. A variable ground layer of grass and herbaceous species is present at most sites. At severely disturbed sites the ground layer may be absent. | K             | <b>Low</b><br>This EEC does not occur on the site, and the site is thus not considered important habitat. | No                         |
| Native Vegetation on Cracking Clay Soils of the Liverpool Plains                                                                  | BC Act – EEC | Native Vegetation on Cracking Clay Soils of the Liverpool Plains is mainly a native grassland community which includes a range of small forb and herb species. The main grass species include Plains Grass ( <i>Austrostipa aristiglumis</i> ), Queensland Bluegrass ( <i>Dichanthium sericeum</i> ) and Eucalypts Grass ( <i>Panicum queenslandicum</i> ). This community is located around Coonabarabran, Gunnedah, Murrurundi, Narrabri, Tamworth and Quirindi, on the North West Slopes and Plains. Most surviving remnants of the community are on Travelling Stock Routes.                                                                                                                                                                                                                                                                                                                                                                                                                                         | K             | <b>Low</b><br>This EEC does not occur on the site, and the site is thus not considered important habitat. | No                         |
| Semi-evergreen Vine Thicket in the Brigalow Belt South and Nandewar Bioregions                                                    | BC Act – EEC | A low, dense form of dry rainforest generally less than 10 m high, made up of vines and rainforest trees as well as some shrubs. This community often occurs on rocky hills, in deep, loam, high nutrient soils derived from basalt or other volcanic rocks, in areas which are sheltered from frequent fire.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | K             | <b>Low</b><br>This EEC does not occur on the site, and the site is thus not considered important habitat. | No                         |



| Species Name                                    | Status       | Habitat Description and Locally Known Populations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Local Records | Potential to Occur and Importance of Habitat Present                                                                 | Assessment of Significance |
|-------------------------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------------------------------------------------------------------------------------------------------------|----------------------------|
| White Box Yellow Box Blakely's Red Gum Woodland | BC Act – EEC | White Box Yellow Box Blakely's Red Gum Woodland is an open woodland, in which the most obvious species are one or more of the following: White Box <i>Eucalyptus albens</i> , Yellow Box <i>E. melliodora</i> and Blakely's Red Gum <i>E. blakelyi</i> . Intact sites contain a high diversity of plant species, including the main tree species, additional tree species, some shrub species, several climbing plant species, many grasses and a very high diversity of herbs. Characterised by the presence or prior occurrence of White Box, Yellow Box and/or Blakely's Red Gum. Shrubs are generally sparse or absent, though they may be locally common. Remnants generally occur on fertile lower parts of the landscape where resources such as water and nutrients are abundant. | K             | <p><b>Low</b></p> <p>This EEC does not occur on the site, and the site is thus not considered important habitat.</p> | No                         |

## Appendix 6 – MNES Assessment of Significance

## EPBC Protected Matters Assessment

### Matters of National Significance

The EPBC Act requires consideration of the effect of an action on the following 7 Matters of National Environmental Significance (MNES):

- World Heritage Properties
- National Heritage Places
- Ramsar wetlands of international importance
- Nationally threatened species and communities
- Migratory species protected under international agreements
- Nuclear actions, including uranium mining, and
- The Commonwealth marine environment.

The impact of an action on these matters is assessed under the criteria specified in: Matters of National Environmental Significance – Significant Impact Guidelines 1.1 (DoE 2013).

### Consideration of EPBC Matters

A search was undertaken using the EPBC Protected Matters Search Tool (PMST) (DoEE 2020) to generate a list of World Heritage Properties, National Heritage Places, Ramsar wetlands and nationally threatened species, communities and migratory species protected under international agreements that may occur on or within a 10 kilometre radius of the proposed development (Figure 1).

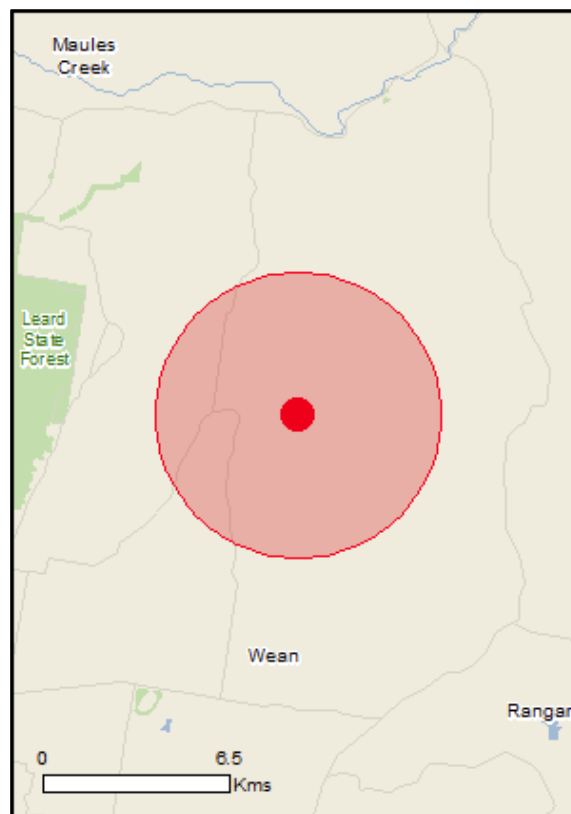


Figure 1: Region searched for MNES using the EPBC PMST



## Results of Database Search

The EPBC PMST does not list any World Heritage Properties or National Heritage Places on or within the search area. The proposal is not considered to impact on this site or any other heritage matters. Further, the proposal does not involve nuclear actions or impact on the marine environment; consequently, these matters are also not relevant to this assessment.

Nationally threatened species and migratory species protected under international agreements have been initially defined within the search area outlined in Figure 1 using the PMST. These species are listed in Tables 1 and 2.

**Table 1: Threatened flora and fauna species predicted or known to occur on the proposal area**

| Category        | Scientific Name                                                        | Common Name                                    | Legal Status                                                                                             |
|-----------------|------------------------------------------------------------------------|------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| <b>Birds</b>    | <i>Anthochaera phrygia</i>                                             | Regent Honeyeater                              | Critically Endangered                                                                                    |
|                 | <i>Botaurus poiciloptilus</i>                                          | Curlew Sandpiper                               | Critically Endangered                                                                                    |
|                 | <i>Erythrorhynchus radiatus</i>                                        | Red Goshawk                                    | Vulnerable                                                                                               |
|                 | <i>Falco hypoleucos</i>                                                | Grey Falcon                                    | Vulnerable                                                                                               |
|                 | <i>Grantiella picta</i>                                                | Painted Honeyeater                             | Vulnerable                                                                                               |
|                 | <i>Hirundapus caudacutus</i>                                           | White-throated Needletail                      | Vulnerable                                                                                               |
|                 | <i>Lathamus discolor</i>                                               | Swift Parrot                                   | Critically Endangered                                                                                    |
|                 | <i>Rostratula australis</i>                                            | Australian Painted Snipe                       | Endangered as <i>Rostratula australis</i> ; Listed Marine as <i>Rostratula benghalensis</i> (sensu lato) |
| <b>Mammals</b>  | <i>Chalinolobus dwyeri</i>                                             | Large-eared Pied Bat                           | Vulnerable                                                                                               |
|                 | <i>Dasyurus maculatus</i>                                              | Spotted-tail Quoll                             | Endangered                                                                                               |
|                 | <i>Nyctophilus corbeni</i>                                             | Corben's Long-eared Bat                        | Vulnerable                                                                                               |
|                 | <i>Petrogale penicillana</i>                                           | Bush-tailed Rock Wallaby                       | Vulnerable                                                                                               |
|                 | <i>Phascolarctos cinereus</i> (combined populations of NSW, QLD & ACT) | Koala (combined populations of NSW, QLD & ACT) | Vulnerable                                                                                               |
|                 | <i>Pteropus poliocephalus</i>                                          | Grey-headed Flying Fox                         | Vulnerable                                                                                               |
| <b>Reptiles</b> | <i>Aprasia sphyrurus</i>                                               | Border Thick-tailed Gecko                      | Vulnerable                                                                                               |
|                 | <i>Uvidicolus sphyrurus</i>                                            | Border Thick-tailed Gecko                      | Vulnerable                                                                                               |
| <b>Plants</b>   | <i>Androcalva procumbens</i>                                           |                                                | Vulnerable                                                                                               |
|                 | <i>Cadellia pentastylis</i>                                            |                                                | Vulnerable                                                                                               |
|                 | <i>Callistemon pungens</i>                                             |                                                | Vulnerable                                                                                               |
|                 | <i>Dichanthium setosum</i>                                             | Bluegrass                                      | Vulnerable                                                                                               |
|                 | <i>Euphrasia arguta</i>                                                |                                                | Critically Endangered                                                                                    |
|                 | <i>Homopholis belsonii</i>                                             | Belson's Panic                                 | Vulnerable                                                                                               |
|                 | <i>Prasophyllum</i> sp. <i>Wybong</i>                                  | A leek orchid                                  | Critically Endangered                                                                                    |
|                 | <i>Thesium australe</i>                                                | Austral Toadflax                               | Vulnerable                                                                                               |
|                 | <i>Tylophora linearis</i>                                              |                                                | Endangered                                                                                               |

CAMBA = China Australia Migratory Bird Agreement; JAMBA = Japan Australia Migratory Bird Agreement; ROKAMBA = Republic of Korea Australia Migratory Bird Agreement; Bonn = Convention on the Conservation of Migratory Species of Wild Animals

\*Only species listed as likely or known to occur within the area have been listed above. Species listed as may occur have been discounted from the list.

**Table 2: Migratory species predicted to occur on the proposal area**

| Category                      | Scientific Name              | Common Name               | Legal Status                                                                         |
|-------------------------------|------------------------------|---------------------------|--------------------------------------------------------------------------------------|
| Migratory Marine Birds        | <i>Apus pacificus</i>        | Fork-Tailed Swift         | Listed Migratory (CAMBA, JAMBA, ROKAMBA); Listed Marine                              |
| Migratory Terrestrial Species | <i>Hirundapus caudacutus</i> | White-throated Needletail | Vulnerable                                                                           |
|                               | <i>Motacilla flava</i>       | Yellow Wagtail            | Listed Migratory (CAMBA, JAMBA, ROKAMBA); Listed Marine                              |
|                               | <i>Myiagra cyanoleuca</i>    | Satin Flycatcher          | Listed Migratory (Bonn); Listed Marine                                               |
| Migratory Wetland Species     | <i>Actitis hypoleucos</i>    | Common Sandpiper          | Listed Migratory (Bonn, CAMBA, JAMBA, ROKAMBA); Listed Marine                        |
|                               | <i>Calidris acuminata</i>    | Sharp-tailed Sandpiper    | Listed Migratory (Bonn, CAMBA, JAMBA, ROKAMBA); Listed Marine                        |
|                               | <i>Calidris ferruginea</i>   | Curlew Sandpiper          | Critically Endangered; Listed Migratory (Bonn, CAMBA, JAMBA, ROKAMBA); Listed Marine |
|                               | <i>Calidris melanotos</i>    | Pectoral Sandpiper        | Listed Migratory (Bonn, JAMBA, ROKAMBA); Listed Marine                               |
|                               | <i>Gallinago hardwickii</i>  | Latham's Snipe            | Listed Migratory (Bonn, JAMBA, ROKAMBA); Listed Marine                               |
|                               | <i>Pandion haliaetus</i>     | Osprey                    | Listed Migratory (Bonn); Listed Marine                                               |

CAMBA = China Australia Migratory Bird Agreement; JAMBA = Japan Australia Migratory Bird Agreement; ROKAMBA = Republic of Korea Australia Migratory Bird Agreement; Bonn = Convention on the Conservation of Migratory Species of Wild Animals

\*Only species listed as likely or known to occur within the area have been listed above. Species listed as may occur have been discounted from the list.

The PMST also identified a range of threatened ecological communities which have the potential to be present within the study area. However, no threatened ecological communities were identified within or adjacent to the proposed development site during site inspection and therefore it is considered that the proposed development will not pose a risk to ecological communities protected under the EPBC Act.

The PMST identified four Ramsar wetlands downstream of the proposed development:

- Banrock Station Wetland Complex located 1000-1100km downstream;
- Riverland located 900-1000km downstream; and
- The Coorong, Lake Alexandrina and Albert wetland located 1100-1200km downstream from the subject site.

The distance between the source and receptor is considerable, in particular when taking the small-scale nature of the proposed into account. The proposal has minimal potential for impact on these wetlands.

## Study Area Delineation

The potential impacts of the proposed development are predicted to be minimal. The proposed works will be undertaken in accordance with best practice work methods to protect environmental values, which will include measures such as minimising the footprint of site disturbance, minimising vegetation clearance and modification, retaining mature trees. A weed management program will be implemented to ensure that the site does not become a source of weed populations which may propagate out from the development site. Overall, the development is not predicted to interfere with habitat values adjacent to the site.

Therefore, it is considered that the extent of impact of the proposed development is limited to the footprint of disturbance on site (i.e. the subject site).

## Assessment of Significance

### Vulnerable Species

***An action has, or will have, or is likely to have a significant impact on a vulnerable species if it does, will or is likely to:***

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

The proposed development will involve the removal of immature White Cypress Pine trees over a maximum area of 50 sq. m. The remainder of the subject site consists of previously cleared, improved pastures which were actively grazed until 2019. The site has been selected due to its history of clearing and disturbance. The subject site is not considered to constitute preferred habitat for any of the listed vulnerable species. It should be noted that no vulnerable flora species were observed on site during the site inspection. It is possible that a range of fauna species may forage or otherwise utilise the site. However, the habitat value of the subject site is not considered to be significant, as the site is disturbed, with existing weed presence. The long-term impact of the proposed development upon threatened flora and fauna species is therefore considered to be minimal.

- ***Reduce the area of occupancy of an important population***

Important populations of vulnerable species are unlikely to depend on the subject site, or utilise it on a regular / sustained basis. The majority of the site has been cleared and consists of improved pasture, and native vegetation within the subject site consists of edge habitat and has low-moderate conservation value. Given the minor areas to be impacted, disturbance associated with the development is therefore not considered to pose a risk to the long-term survival of any threatened species or ecological community within the locality.

- ***Fragment an existing important population into two or more populations***

The study area of the proposed development consists of land which has been previously cleared and heavily disturbed. The habitat value of this land for threatened species is

considered to be limited and is already considered to contribute to the fragmentation of the landscape by having been historically cleared.

- ***Adversely affect habitat critical to the survival of a species***

There is no habitat critical to the survival of any vulnerable species within the subject site. Further, implementation of erosion and sediment control measures, as well as the minimisation and careful management of putrescible waste onsite will minimise the risk of any off-site impacts which may occur in association with the proposed camping grounds.

- ***Disrupt the breeding cycle of an important population***

The proposed development is considered a low-impact development. There are minimal construction works associated with the proposal and the proposed site management will not significantly differ from current practices. Off-site impacts will be minimised through the implementation of a weed management program and appropriate treatment of waste to minimise the occurrence of pest species. Given the small area of vegetation to be impacted, the low impact nature of the proposal and the availability of significant areas of higher quality remnant vegetation in the study area, the proposal is not considered likely to disrupt the breeding cycle of any important population within the study area.

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

The footprint of the proposed works is minor. Disturbance of such a limited area of habitat is not predicted to result in a decline of vulnerable species populations within the locality and/or region.

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

Weed seeds are carried onto and distributed by vehicles. Visitors to the site may therefore import weed seeds onto the site. Weed management will be implemented on site to minimise the risk of weed establishment and proliferation throughout the project life cycle; this will mainly consist of spot treatment of herbicides on an as-required basis. Herbicide application will also be carried out prior to the camping ground establishment as there are a number of weed species already on-site.

- ***Introduce disease that may cause the species to decline, or***

The development relates to the establishment of a camping ground and is therefore unlikely to involve the introduction of disease vectors into the locality, the development is not considered to pose a disease risk to native species.

- ***Interfere substantially with the recovery of the species***



Ensuring the recovery of a species generally involves the protection and enhancement of existing populations and habitat, by preventing further clearing and modification of native vegetation communities and protecting water quality values.

The proposed development footprint is located on an area which consists of previously cleared and disturbed native and non-native groundcover. Given the small scale nature of the proposed works and the availability of similar and/or higher quality habitat with the area, the proposal is not considered to have the potential to cause significant impacts on existing flora and fauna populations or habitat.

Overall, the development is not considered to pose a risk to the recovery of vulnerable species within the region.

### Critically Endangered and Endangered Ecological Communities

***An action is likely to have a significant impact on a critically endangered or endangered ecological community if there is a real chance or possibility that it will:***

- ***Reduce the extent of an ecological community***
- ***Fragment or increase fragmentation of an ecological community, for example by clearing vegetation for roads or transmission lines***
- ***Adversely affect habitat critical to the survival of an ecological community***
- ***Modify or destroy abiotic (non-living) factors (such as water, nutrients or soil) necessary for an ecological community's survival, including reduction of groundwater levels, or substantial alteration of surface water drainage patterns***
- ***Cause substantial change in the species composition of an occurrence of an ecological community, including causing a decline or loss of functionally important species, for example through regular burning or flora or fauna harvesting***
- ***Cause a substantial reduction in the quality or integrity of an occurrence of an ecological community, including, but not limited to:***
  - ***Assisting invasive species, that are harmful to the listed ecological community, to become established, or***
  - ***Causing regular mobilisation of fertilisers, herbicides or other chemicals or pollutants into the ecological community which kill or inhibit the growth of species in the ecological community, or***
- ***Interfere with the recovery of an ecological community***

No Endangered Ecological Communities (EECs) were identified within the proposed development site, such that no direct impacts shall occur to EECs. The impacts of the proposed development will be limited to the proposed development footprint (as discussed above), through the implementation of best practice management measures such as weed and pest management measures. As a result, the proposed development will not impact upon threatened ecological communities which may be present within the region.

## Critically Endangered and Endangered Species

***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***

Similarly, to vulnerable species, the proposed development site is not considered to constitute preferred habitat for endangered or critically endangered species. It should be noted that no endangered or critically endangered flora species were observed on site during the site inspection. It is possible that a range of fauna species may forage or otherwise utilise the site. However, the habitat value of the subject site is not considered to be significant, as the majority of the site is cleared and modified, with existing weed presence. Therefore, it is unlikely that the proposed development will lead to a long-term decrease in populations of endangered or critically endangered species within the region.

- ***Reduce the area of occupancy of the species***

Overall, the total area to be disturbed by the primitive camping ground will be small and has been preferentially located on a previously cleared and disturbed site. Further modification of the site as a result of the proposed development is therefore unlikely to reduce the area of occupancy of identified species.

- ***Fragment an existing population into two or more populations***

As outlined above, the development will not result in habitat fragmentation, and is therefore not considered to pose a risk of fragmenting populations of endangered or critically endangered species which may be present within the locality.

- ***Adversely affect habitat critical to the survival of a species***

There is no critical habitat for identified endangered and critically endangered species on the proposed development site. Further, implementation of weed and pest control measures (through herbicide application and best practice management of putrescible waste) will minimise the risk of any off-site impacts which may occur in association with the proposed development.

- ***Disrupt the breeding cycle of a population***

The subject site is not considered to contain suitable breeding habitat for endangered or critically endangered species. Therefore, the proposed development is not considered to pose a risk to breeding cycles of populations of endangered or critically endangered species within the locality.

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

Whilst modification of potential habitat may occur as a result of the proposed development, this modification will occur on a small scale. Further, the habitat values within the zone of impact of the proposed works are considered limited due to the previous historical clearing and the fact that there is no remnant vegetation within the site (natural habitat is limited to scattered paddock trees and immature cypress pine). The development is therefore not predicted to result in a decline of endangered or critically endangered species within the region.

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

Weed seeds are carried onto and distributed by vehicles. Visitors to the site may therefore import weed seeds onto the site. Weed management will be implemented on site to minimise the risk of weed establishment and proliferation throughout the project life cycle; this will mainly consist of spot treatment of herbicides on an as-required basis. Herbicide application will also be carried out prior to the camping ground establishment as there are a number of weed species already on-site.

- ***Introduce disease that may cause the species to decline, or***

The development relates to the establishment of a primitive camping ground and is not considered to involve the introduction of disease vectors into the locality. The development is therefore not considered to pose a disease risk to native species.

- ***Interfere substantially with the recovery of the species***

Ensuring the recovery of a species generally involves the protection and enhancement of existing populations and habitat, by preventing further clearing and modification of native vegetation communities and protecting water quality values.

The majority of the proposed development footprint is located on an area which consists of previously cleared and modified habitat. Given the small scale nature of the proposed works and the availability of similar and/or higher quality habitat with the area, the proposal is not considered to have the potential to cause significant impacts on existing flora and fauna populations or habitat.

Overall, the development is not considered to pose a risk to the recovery of vulnerable species within the region.

### Listed Migratory Species

***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 migratory species***

Important habitat for a migratory species is defined as habitat which is:

- Utilised by migratory species occasionally or periodically within a region that supports an ecologically significant proportion of the population of the species, and/or
- Of critical importance to the species at particular life cycle stages, and/or
- Utilised by a migratory species which is at the limit of the species range, and/or
- Within an area where the species is declining.

The definition of an ecologically significant proportion of a migratory species varies depending on the characteristics of each species. Factors which should be considered in determining an ecologically significant proportion include the species' population status, genetic distinctiveness and species-specific behavioural patterns (such as site fidelity and dispersal rates).

The subject site is heavily cleared and does not offer important habitat features for migratory species (such as suitable trees for roosting, or water-based habitats such as swamps or marshes for foraging). It is therefore unlikely that migratory species would utilise habitat available within the study area.

Whilst it is possible that migratory species could forage at the subject site whilst enroute during migration, this is considered to be unlikely.

Overall, the subject site is not considered to incorporate important habitat for migratory species. The development will therefore not negatively impact upon migratory species.

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

As outlined above, weed management strategies will be implemented prior to the establishment of the camping grounds and throughout its operational phase to minimise the risk of weed establishment and proliferation as a result of vehicular movements on site. Provided these measures are implemented in an appropriate manner, the proposed development is unlikely to result in the establishment of an invasive species on the site. The proposed development will therefore not impact upon important habitat for migratory species, either directly or indirectly.

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

The proposal is not considered a risk to the lifecycle of the listed migratory species.



## Assessment of Significance Conclusions

The proposed development site is not considered to constitute important habitat for identified species. Disturbance of such a small area is considered unlikely to have a significant impact on flora and fauna, given the presence of similar and/or higher quality vegetation within the area.

It is the conclusion of this assessment that there will be no significant long term impacts on any listed ecological community, threatened or migratory species of national environmental significance as a consequence of the proposed development, providing:

- No clearing of vegetation is carried out outside of the proposed development footprint;
- The construction and operation of the proposed camping grounds are carried out in accordance with best management practices and relevant guidelines;
- Environmental management measures, such as a weed and pest management program and erosion and sediment control measures are implemented throughout the project life cycle to minimise adverse impacts and to ensure that works are conducted in accordance with environmental best practice.