INTEGRATED DEVELOPMENT PROPOSAL FOR PUBLIC COMMENT

The following development proposal has been submitted to Council and although not designated, is notified as Integrated Development in accordance with Section 4.46 of the Environmental Planning & Assessment Act, 1979 for public comment:

Portal Application Number	DA No.	Location	Proposal
PAN-423685	33/2024	LOT: 134 DP: 841161, 121 Black Rock Road MARTINS CREEK Applicant: Perception Planning PTY LTD Owners: Mr D C Djakiew Consent Authority: Dungog Shire Council	Home Business and Ancillary Primitive Camping Ground

This application is Integrated Development as an approval is required under Section 100B of the Rural Fires Act, 1997 from the NSW Rural Fire Service.

Details of the above proposal are available for inspection on the NSW Planning Portal website from **Thursday 2 May 2024.**

https://www.planningportal.nsw.gov.au/publications/exhibitions-andpublications/development-applications-exhibition

Submissions can be made via the NSW Planning Portal until **Thursday 16 May 2024**. If you require assistance making a submission via the Planning Portal, please contact Council.

In accordance with *Section 10.4* of the *Environmental Planning & Assessment Act 1979*, a person who makes a public submission to Council in relation to this application is required to disclose all reportable political donations within two years prior to the submission being made and ending when the application is determined.

If the submission includes an objection to the proposal, the grounds of objection must be given. Council may also be obliged to release your submission as required by the *Government Information (Public Access) Act 2009* and *the Environmental Planning and Assessment Act 1979.*

Further, as stipulated in Council's Public Submissions Policy C1.19, Council will not place any weight on anonymous submissions when determining the respective development application.

DUNGOG SHIRE COUNCIL EXHIBITED COPY

Commencement Date2 May 2024Closing Date16 May 2024







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PROPOSED ANCILLARY CAMPGROUND **CIVIL DOCUMENTATION FOR DEVELOPMENT APPLICATION**

LOCALITY PLAN



260 MAITLAND ROAD, MAYFIELD PO BOX 4105 KOTARA EAST 2305 P: (02) 4040 0580 E: hello@drbengineering.com.au ABN 64 625 755 482

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CLIENT	PROJECT	DRAWING STATUS	SHEET SIZE	
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LOCALITY PLAN		233231	CIV-001	A

DRAWING LIST

DWG No. DRAWING TITLE COVER PAGE, DRAWING LIST AND LOCALITY PLAN CIV-001 GENERAL ARRANGEMENT PLAN CIV-005 **CIVIL WORKS PLAN - SHEET 1** CIV-011 CIV-012 CIVIL WORKS PLAN - SHEET 2 CIV-021 **DRIVEWAY LONGITUDINAL SECTION - SHEET 1** CIV-022 **DRIVEWAY LONGITUDINAL SECTION - SHEET 2** CIV-031 **CIVIL DETAILS & CALCULATIONS**



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	DRB	
	CONSULTING ENGINEERS	

REV DATE DRN CHK APP DRAWING STATUS

ABN 64 625 755 482

D. DJAKIEW

121 BL MARTI

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DRBP: (02) 4040 0580CONSULTING ENGINEERSE: hello@drbengineeringABN 64 625 755 482	DRIVEWAY LONGITUDINAL SECTION - SHEET 2	121 BL MARTIN

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	P: (02) 4040 0580 E: hello@drbengineering.com.au	DRIVEWAY LONGITUDINAL	121 BL
ENGINEERS	ABN 64 625 755 482		

STORMWATER PHILOSOPHY:

- GENERALLY THE OVERALL SITE STORMWATER CHARACTERISTICS WILL BE MAINTAINED.
- STORMWATER FLOWS FROM THE PROPOSED ADDITIONAL CARPARK AREA WILL BE COLLECTED IN A ROAD SIDE SWALE & DIRECTED TO THE PROPOSED RAINGARDEN. OVERFLOWS FROM THE RAINGARDEN WILL DISCHARGE VIA HEADWALL TO THE NEARBY WATERCOURSE.
- ALL OTHER ADDITIONAL HARDSTAND AREA WILL SHEET FLOW THROUGH GRASS BUFFERS BEFORE DISCHARDING TO THE EXISTING WATERCOURSE.
- THE COMBINATION OF THE RAINGARDEN & GRASSED LINE SWALE WILL TREAT THE ADDITIONAL HARDSTAND AREA TO MEET THE BELOW STRIPPING TARGETS. THE MINIMAL INCREASE IN IMPERVIOUS AREA (SEEN BELOW) WILL HAVE NEGLIGIBLE INCREASE IN PEAK FLOWS AND THEREFORE STORMWATER QUANTITY MANAGEMENT HAS BEEN DEEMED NOT NECESSARY.

STORMWATER CALCULATIONS: AREAS:

SITE AREA	= 34,857.0 m ²
ADDITIONAL DRIVEWAY AREA	= 425.0 m ²
EXISTING DRIVEWAY AREA	= 1,526.0 m ²
NEW IMPERVIOUS AREA / SITE AREA	= 425 / 34857
	= 1%

THEREFORE THE INCREASE IN IMPERVIOUS AREA IS 1% OF THE SITE AREA. WITH SUCH A SMALL INCREASE IN IMPERVIOUS AREA IT IS DEEMED THAT THE ADDITIONAL HARDSTAND WILL CAUSE A NEGLIGIBLE INCREASE IN PEAK FLOWS.

MUSIC RESULTS - TARGETS

POLLUNTANTS (hg/yr)	SOURCES	RESIDUAL LOAD	TARGET	% REDUCTI
TOTAL SUSPENDED SOLIDS	7.529	0.055	90	99.260
TOTAL PHOSPHORUS	0.003	0.001	60	80.100
TOTAL NITROGEN	0.014	0.007	45	50.920
GROSS POLLUNTANTS	0.284	0.000	90	100

MUSIC MODEL

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OPERATIONAL MANAGEMENT PLAN

DEAN'S GREEN PADDOCK – OUTDOOR RECREATION FACILITY, INFORMATION AND EDUCATION FACILITY, HOME BUSINESS & ANCILLARY PRIMITIVE CAMPGROUND

121 BLACK ROCK ROAD, MARTINS CREEK 2420 (LOT: 121 DP: 841161)

Prepared by Perception Planning Pty Ltd for Dean Djakiew

25 March 2024

Contact: Joe Murphy Senior Town Planner, Perception Planning PO Box 107, Clarence Town, NSW, 2321 Phone: 0422 600 867 Email: joseph@perceptionplanning.com.au

Document	Versions and	d Control		
Operational	Managemen	t Plan – 121 Black Rock Road, Martins C	reek, NSW 2420)
No:	Date:	PP Ref:	Author:	Reviewed by:
Version 1 (Draft)	19/03/24	Operational Management Plan – 121 Black Rock Road	JM	Client
Version 2 (Final)	25/03/24	Operational Management Plan – 121 Black Rock Road	JM	Client

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Perception Planning accepts no liability or responsibility whatsover for or in respect of any use of or reliance upon this report and its supporting material by any third party. Information provided is not identified to be suitable for a site specific assessment or legal advice in relation to any matter. Unauthorised use of this report in any form is prohibited.

EXECUTI25VE SUMMARY

This Operational Management Plan has been designed to provide guidance to the management of the home business and ancillary primitive campground to be located at 121 Black Rock Road, Martins Creek, NSW 2420 (the site).

The primary use of the site is a Home Business known which provides counselling services to clients on site. The counselling service involves a holistic approach and offers physical therapy tailored to the needs of the client based on age and circumstance. Examples of the forms of therapy offered include music lessons, interaction with animals kept on the property, and craft sessions. Depending on the needs of the client, the duration of the counselling services can be offered in sessions over the course of a few hours, or up to a few days.

In addition to the above, the use of the ancillary campgrounds for overnight stay on site will be offered to any clients that are booked in for the abovementioned counselling service and elect to stay overnight. The campground consists of 6 sites to provide short-term accommodation.

All bookings and check-ins for the camping ground will be managed by owner of the site via an electronic booking system on a mobile phone or computer.

This Operational Management Plan provides recommendations for the management of the camping ground at the site.

CONTENTS

EXECUT	IVE SUMMARY
1. INTRO	DUCTION
1.1	BACKGROUND
1.2	THE BRIEF AND VISION FOR THE SITE
2. THE PR	ROPOSED OPERATION
2.1	LOCATION
2.2	SITE CAPACITY
2.3	HOURS OF OPERATION AND DATES
2.4	FACILITIES AND OPERATION
2.5	STAFF
2.6	REGULATORY COMPLIANCE
3. MANA	GEMENT
3.1	THE NATURE AND THE PURPOSE OF THE MANAGEMENT PLAN10
3.2	MANAGEMENT
3.3	SAFETY AND SECURITY10
3.4	TRAFFIC AND PARKING11
3.5	EMERGENCY PROCEDURES
3.6	DISABLED ACCESS
3.7	WASTE MANAGEMENT
3.8	INSURANCE
3.9	FIRST AID11
CONCLU	JSION

1. INTRODUCTION

1.1 BACKGROUND

The proposed operation will be located at 121 Black Rock Road, NSW 2420. The site is zoned R5 Large Lot Residential pursuant to the Dungog Stephens Local Environmental Plan 2014 (DLEP) and a home business is permissible with consent.

The primary use of the site is a Home Business which provides counselling services to clients on site. The counselling service involves a holistic approach and offers physical therapy tailored to the needs of the client based on age and circumstance. Examples of the forms of therapy offered include music lessons, interaction with animals kept on the property, and craft sessions. Depending on the needs of the client, the duration of the counselling services can be offered in sessions over the course of a few hours, or up to a few days.

In addition to the above, the use of the ancillary campgrounds for overnight stay on site will be offered to any clients that are booked in for the abovementioned counselling service and elect to stay overnight. The campground consists of 6 sites to provide short-term accommodation.

The campground will provide short–term accommodation to tent campers and campervans. Suitable parking is provided on site and the use of the camping ground will be monitored and managed by the owner of the site, which reside in the existing dwelling on-site.

1.2 THE BRIEF AND VISION FOR THE SITE

The vision for the home business is to facilitate the provision of the property owner's holistic counselling services involving various forms of physical therapy for clients within the local community or visiting the area. Given the needs of each client differ, the duration of their stay on site for theses services will vary with some requiring to stay more than one day. As such, the ancillary campground is required to enable an extended stay on site.

Counselling is intended to be provided for the following purposes:

- Fathers in Distress
- Divorce/Separation
- Anxiety Issues
- Depression Grief Management
- Bullying
- Parenting Issues
- Family intervention
- Workplace Ethics & Related Issues
- Family Violence
- Alcohol & Substance Abuse
- Pain Management

The counselling service and campground will be managed by the owner of the site, currently residing within an existing dwelling located on the site. The owner of the site currently holds the following qualifications:

- Diploma of Counselling
- Diploma of Child, Youth and Family Intervention
- Diploma of Music Industry (Performance)
- Certificate IV in Assessment & Workplace Training

2. THE PROPOSED OPERATION

2.1 LOCATION

121 Black Rock Road, NSW 2420 (LOT: 134 DP: 841161).

2.2 SITE CAPACITY

The facility will have a maximum capacity of forty people at any one time.

Eight Parking spaces will be provided within the boundaries of the site and six designated camp sites will be established for clients utilising the ancillary camping option.

2.3 HOURS OF OPERATION AND DATES

The facility will be operational all year round with peak capacity expected during peak seasonal periods. The peak and off-peak periods include:

<u>Peak</u>

- NSW School Holiday periods
- Christmas Holidays
- Easter Long Weekend
- October Long Weekend

The facility will operate between the hours of 10am and 5pm. Clients intending to stay for an extended duration (i.e. more than a single day) will have the option to camp overnight after 5pm. Contact with the site-owner will be available at all times.

A noise curfew will be between 10pm and 9am for the camping ground to ensure no offensive noise is produced during sensitive hours.

2.4 FACILITIES AND OPERATION

As aforementioned, the counselling service offered will be a holistic approach tailored to the needs of each client and involving different forms of physical therapy available on site. Besides 'traditional' counselling, the service offers leadership/life education lessons, music therapy, animal therapy (i.e. interaction with the animals kept within the 'petting zoo' on site) and craft sessions.

As a large portion of the clients utilising the counselling services offered are young children (some of which are non-verbal), the forms of physical therapy listed above are essential in providing treatment. Each of these components that make up the proposal will be offered each day based on the needs of the client(s)

Bookings for the site are intended to be facilitated through the counselling service's website – <u>Counselling | Dad's in Distress | Hunter Valley (counsellingbythecreek.net)</u> – where the site owner can be contacted directly.

2.5 STAFF

The property owner will manage the facility, receipt bookings and conduct all other facility functions.

2.6 REGULATORY COMPLIANCE

Objective: To ensure the proposed use compiles with all applicable statutory requirements.

The proposed facility and ancillary camping grounds will be located within an R5 – Large Lot Residential zone for which it is permissible with consent under the DLEP. In accordance with the Clause 131 of the Local Government (Manufactured Home Estates, Caravan Parks, Camping Grounds and Moveable Dwellings) Regulation 2021, the following is noted:

Clause	Requirement	Response	
131 (1)	The maximum number of designated camp sites in a primitive camping ground must not exceed an average of 2 for each hectare in the camping ground.	T tt p	The campground totals 4Ha and he number sites is 6, which provides an average of 1.5 sites per hectare.
131(2)	If the approval to operate a primitive camping ground does not designate camp sites, a council may impose a condition on the approval that the installation of tents, caravans, campervans and annexes is not permitted in specified areas of the primitive camping ground— (a) for the health and safety of occupiers of the camping ground, or (b) to ensure consistency with the principles of ecologically sustainable development, or (c) for another purpose.		Noted.
131(3)	The following conditions apply to a primitive camping ground— (a) if at least 1 camp site is designated—camping is not permitted within the primitive camping ground other than on the designated camp site or sites, (b) if no camp sites are designated—the maximum number of caravans, campervans and tents permitted to use the camping ground at the same time must not exceed an average of 2 for each hectare in the camping ground, (c) a caravan, annexe or campervan must not be permitted to be installed within 6 metres of another caravan, annexe, campervan or tent, (d) a tent must not be permitted to be installed within 6 metres of a	M h V d S E C	No campsites nominated, nowever, areas for camping are. Water supply, toilet & refuse disposal specified throughout the Statement of Environmental Effects. Otherwise, noted.

	 caravan, campervan or an annexe or within 3 metres of another 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 permitted to remain in the camping ground for more than 24 hours, (g) if a fee is charged for camping—a register must— (i) be kept in accordance with section 121, and (ii) must specify the size of the group accompanying the registered person, (h) fire fighting facilities required by the approval must be provided at the primitive camping ground. 		
131(4)	Subdivisions 1-8 do not apply to a primitive camping ground.	\checkmark	Noted.
131(5)	The general manager of the council for the area in which a primitive camping ground is located may modify the conditions applying to the camping ground if the general manager is reasonably satisfied that it is necessary to accommodate displaced persons.		Noted.
131(6)	In subsection (3)(b), 2 or more tents occupied by no more than 12 persons camping together must be counted as 1 tent.	\checkmark	Noted

The Local Government (Manufactured Home Estates, Caravan Parks, Camping Grounds and Moveable Dwellings) Regulation 2021 (Clause 132(4) states that Subdivisions 1-8 do not apply to a primitive camping ground.

Figure 1: Site Plan (Perception Planning, 2023)

3. MANAGEMENT

3.1 THE NATURE AND THE PURPOSE OF THE MANAGEMENT PLAN

This management plan has been developed to provide guidance and ensure that the facility at 121 Black Rock Road, Martins Creek NSW 2420 is used and maintained appropriately.

3.2 MANAGEMENT

The facility will be operated by the owner of the subject site and will provide counselling and an ancillary camping site for pre-booked clients.

The management and repairs on the site will be completed by the owner of the subject site.

The potential impacts on the amenity of neighbouring properties from the ancillary camp site are to be managed through the implementation of campsite rules contained in **TABLE 1** below:

Table 1: Site rules

Site Rules	

- NO NOISE BETWEEN 10PM AND 9AM
- CAMPFIRES MUST BE ATTENDED AT ALL TIMES
- ALL DOGS MUST BE UNDER COMPLETE CONTROL AND WELL KEPT
- ALL LIGHTING TO BE MINIMAL BY MIDNIGHT
- NO GENERATOR OR VEHICLE NOISE BETWEEN 10PM AND 9AM
- ALL CHILDREN MUST BE SUPERVISED IN POOL
- NO GUESTS TO CROSS FENCING BOUNDARY
- ALL RUBBBISH TO BAGGED AND PUT AT DUMP SITE

3.3 SAFETY AND SECURITY

Objective: To provide and maintain facilities, in a manner, which minimise risk to camping ground guests and staff and promotes a healthy lifestyle.

Strategy	Actions
Protect life and property from	Prepare and maintain an adequate emergency
the consequences of natural	evacuation and response plan.
events	
Provide clear boundaries between the camping ground and rural working property	 Ensure that fences and signage clearly delineate the boundaries between the ancillary camping ground and working parts of the property. Ensure that fencing is continually checked and repaired
Bushfire Evacuation	 Emergency Assembly Point adjacent to the existing pool on site.

The site rules, map and other emergency and safety procedures will be provided to the attendees who have made a booking of the site prior to their visitation. These will also be displayed in visible locations on site.

3.4 TRAFFIC AND PARKING

Traffic and parking entering and exiting the site will be minimal in nature. Appropriate parking will be provided as outlined in the Traffic Impact Assessment prepared by WGA.

Access to the site is obtained via Black Rock Road on the southern boundary of the site.

3.5 EMERGENCY PROCEDURES

When guests arrive, they will be given the appropriate information on the emergency procedures for the site if there is an emergency e.g. bushfire, flood etc.

In the event of a bushfire, warning will be given in advance to all booked clients and all bookings during this time will be cancelled. This will ensure that the campsite is free of people during such an event. In the case there are guests on the site during this event they will be directed by the facility manager to the appropriate assembly spot as per emergency procedures.

3.6 DISABLED ACCESS

The site will have disabled access, and this includes access to toilets and showers. The site is relatively flat in these locations and ease of access around the locations available to visitors is possible.

3.7 WASTE MANAGEMENT

Effluent on the site will be managed via the proposed on-site waste management system as outlined in the Wastewater report prepared by GSL environmental. This will be serviced and maintained appropriately.

General waste (rubbish) will be collected by general Council waste services unless otherwise specified.

A recycle system is in place inclusive of food scraps.

3.8 INSURANCE

The owner will ensure appropriate insurance is held and current at all times.

3.9 FIRST AID

First aid kits will be available on site at all times.

CONCLUSION

The proposed Operational Management plan seeks to provide guidance for the suitable management of the proposed counselling home business and ancillary camping located at 121 Black Rock Road, Martins Creek, NSW 2420. The proposal will encourage suitable use of the site and management and maintenance to ensure that it remains safe and secure.

Perception Planning Pty Ltd. PO Box 107, Clarence Town, NSW, 2321 Phone: 0411 551 433 Email: <u>admin@perceptionplanning.com.au</u>

Perception Planning

121 Black Rock Road, Martins Creek

TRAFFIC IMPACT ASSESSMENT

WGA232304 WGA232304-RP-TT-0001_B

2 February 2024

Revision History

REV	DATE	ISSUE	ORIGINATOR	CHECKER	APPROVER
А	16/01/2024	WORKING DRAFT	JR	JM	EK
В	02/02/2024	FINAL	JR	JM	EK

CONTENTS

1	Intro	duction1
	1.1	General1
	1.2	Documentation Referenced1
	1.3	Dungog Shire Council Request for Information1
2	Deve	elopment Proposal2
	2.1	General2
	2.2	Proposed Operations
	2.3	Car Parking and Vehicle Access
	2.4	Loading and Waste Collection
3	Site	Context4
	3.1	Subject Site 4
	3.2	Existing Site
	3.3	Planning Zone
	3.4	Road Network 6
		3.4.1 General
		3.4.2 Black Rock Road
4	Car	Parking Considerations
	4.1	Statutory Car Parking Requirements
	4.2	Car Parking Demand Assessment9
		4.2.1 Anticipated Car Parking Demand – Empirical Assessment
	4.3	Adequacy of On-Site Car Parking Supply9
	4.4	Car Park Design & Layout 10
5	Traff	ic Considerations
	5.1	Existing Traffic Conditions11
	5.2	Traffic Generation
	5.3	Post Development Traffic Volumes
	5.4	Anticipated Traffic Impacts12
6	Othe	r Considerations
	6.1	Anticipated Safety and Amenity Impacts
	6.2	Loading Arrangements
	6.3	Bicycle Parking
7	Sum	mary and Conclusions

Figures

Figure 2.1: Extract – Proposed Site Layout	.2
Figure 3.1 Subject Site and Surrounding Road Network	.4
Figure 3.2 Subject Site and Environs	.4
Figure 3.3 Land Use Planning Zone	. 5
Figure 3.4: Surrounding Road Network	.6

Figure 3.5 Black Rock Road Facing East Towards the Subject Site	7
Figure 3.6: Black Rock Road Facing West from the Subject Site	7
Figure 4.1: Car Parking Layout – Excerpt of Civil Works Plan1	0
Figure 5.1 Peak Hour Flow on Two-lane Rural Roads (veh/h) (Design Speed of 100km/h)1	2

Tables

Table 4 1. Statuton	v Car Parking Poquiromo	nte Dungog DCP	0
Table 4.1. Statutor	y Cai Faiking Requireme	nis – Dungog DCF	

Appendices

Appendix A Plans of Proposal

1 INTRODUCTION

1.1 General

WGA has been engaged by Perception Planning on behalf of the applicant to prepare a Traffic Impact Assessment (TIA) report in response to Dungog Council's Request for Information (RFI) for the proposed outdoor recreation facility and ancillary campground located at 121 Black Rock Road, Martins Creek.

1.2 Documentation Referenced

Whilst preparing this TIA report, the following information and documentation has been referenced:

- Site Plan drawings prepared by Perception Planning dated 14 April 2023.
- Civil design documentation prepared by DRB Consulting Engineers dated 18 January 2024.
- Nearmap aerial imagery and Google Streetview, as required.
- Dungog Shire Council Development Control Plan.
- Australian Standard Parking Facilities Part 1: Off-street Car Parking (AS2890.1 2004).
- Australian Standard Parking Facilities Part 2: Off-street Commercial Vehicle Facilities (AS2890.2 2018).
- RTA Guide to Traffic Generating Developments 2002 (Version 2.2).
- RMS Technical Direction: Guide to Traffic Generating Developments Updated Traffic Surveys 2013 (TDT 2013-04a).

1.3 Dungog Shire Council Request for Information

Dungog Shire Council has requested that a detailed Traffic Impact Assessment (TIA) be prepared by an appropriately qualified traffic engineer to address the following:

- Description of current traffic and transport conditions near the development, including road function, operational capacity, and safety.
- Predicted future traffic and transportation conditions with and without the proposed development.
- The operational capacity of the existing road network that is potentially affected by the development.
- Road safety of the existing network that is potentially affected by the development.
- Estimated traffic generation to and from the development at time of the day and week where the combined background and development traffic are at their peaks.
- Assessment of any amenity impacts associated with increased traffic levels due to the development.
- Car parking to support the development and the configuration of any onsite parking areas.
- A summary of the impacts and mitigation measures associated with the development and a summary identify if the mitigation measures are sufficient to minimize the development impacts.

The following assessment has therefore been prepared to demonstrate the appropriateness of the proposal from a traffic and parking perspective and its compliance with the requirements outlined within the Dungog Development Control Plan and relevant Australian Standards.

2 DEVELOPMENT PROPOSAL

2.1 General

The proposal seeks to permit the use of an outdoor recreation facility to accommodate interactive animal experiences and youth education programs located at 121 Black Rock Road, Martins Creek.

Plans of the development prepared by Perception Planning indicate that the proposal is to be supported by ancillary primitive campgrounds intended to accommodate visitors to the site, with the proposal understood to comprise the following:

- Counselling services
- Ancillary Primitive Campgrounds.

An extract of the development plans is provided within Figure 2.1:.

Figure 2.1: Extract – Proposed Site Layout

2.2 **Proposed Operations**

The applicant has advised that under this application, up to 40 guests are anticipated on-site at any one time, although this many people on site is unlikely to be the case usually. The site is proposed to be operational during the following periods:

• Home Business (Counselling): By appointment only.

It is noted that the proposed campgrounds are ancillary and are intended to accommodate patrons of the counselling services offered on site only. Based on information provided by the client, it is understood that the campgrounds will comprise six (6) sites capable of accommodating up to 24 guests.

Patrons of the counselling sessions who elect to stay within the campgrounds will be required to check in/out at the following times:

- Check in: 2:00pm.
- **Check out:** 10:00am.

The existing dwelling and associated infrastructure (shed, swimming pool, etc.) is proposed to be retained.

2.3 Car Parking and Vehicle Access

Existing vehicular access to the site is provided via an unsealed driveway from Black Rock Road and will remain consistent with existing conditions. The site access driveway varies in width between 4.7m and 5.6m and is capable of accommodating two-way vehicle movements.

Under the proposal, it is proposed to accommodate eight (8) formal car parking spaces located along the site access driveway. The driveway will also be capable of accommodating any overflow car parking within the grassed verges during peak site operations whilst providing safe and efficient access to the site.

2.4 Loading and Waste Collection

No changes are proposed to existing loading and waste collection arrangements, with waste collection to continue to be undertaken via Council. Any loading movements associated with the proposal are able to be undertaken wholly within the site, with all vehicles able to enter and exit the site in a forwards direction.

3 SITE CONTEXT

3.1 Subject Site

The subject site is located at 121 Black Rock Road, Martins Creek. Land uses within the site are generally rural in nature, with the location of the subject site in the context of the surrounding road network illustrated within Figure 3.1.

Further Nearmap aerial imagery of the site is shown within Figure 3.2.

Figure 3.1 Subject Site and Surrounding Road Network

Figure 3.2 Subject Site and Environs

3.2 Existing Site

The site is currently a private residence and comprises an existing dwelling, swimming pool and shed.

3.3 Planning Zone

The subject site is located within a Large Lot Residential (R5) Zone. The location of the subject site in the context of the surrounding planning zones is shown within Figure 3.3.

Figure 3.3 Land Use Planning Zone

3.4 Road Network

3.4.1 General

The subject site is accessed via Black Rock Road which is designated as a local road under Transport for NSW's (TfNSW) Road Network Classification. The road hierarchy of the surrounding network has been reproduced in Figure 3.4.

Figure 3.4: Surrounding Road Network

The Dungog Shire Council Roads Management Strategy states that the primary objective of Local Roads is to prioritise land use access, with No Through Road local access roads specified as a Rural Local 2 classification.

The Local Government Functional Road Classification prepared by IPWEA (NSW) Roads & Transport Directorate also goes on to state that Local Access roads major function is to provide access to individual properties and may also provide access to local tourist sites whilst providing a link for properties and business and the local community.

3.4.2 Black Rock Road

Black Rock Road is a local road managed by Council, which runs from Martins Creek Road in the west to its eventual termination in the east.

In the vicinity of the site, is a sealed road and accommodates two-way traffic across its approximate 5m pavement width and has a posted speed limit of 80km/h. Black Rock Road provides unsealed shoulders proximate to the site.

Views of Black Rock Road facing east and west proximate to the site are provided within Figure 3.5 and Figure 3.6, respectively.

Figure 3.5 Black Rock Road Facing East Towards the Subject Site

Figure 3.6: Black Rock Road Facing West from the Subject Site

4 CAR PARKING CONSIDERATIONS

4.1 Statutory Car Parking Requirements

Part C of the Dungog Development Control Plan (DCP) specifies the statutory car parking requirements relating to the provision and design of car parking spaces across a number of land uses.

Table 4.1 has been prepared to detail the statutory car parking requirements applicable to the proposed uses, based on the applicable rates prescribed in Schedule 1 of Part C of the DCP.

It is advised that under the land use definitions outlined within the DCP that *Recreation Facility (Outdoor)* includes places used predominantly for outdoor recreation (including any ancillary buildings), and that there are no specified parking requirements for this use within Schedule 1 to Part C of the DCP.

COMPONENT	SIZE / NO.	STATUTORY PARKING RATE	STATUTORY CAR PARKING REQUIREMENT
Home Business	N/A	No requirement specified.	Refer Section 4.2.
Camp or Caravan Sites (Caravan Parks)	6 camp sites 1 employee	 6 camp sites 1 per site plus visitor parking of 1 per 10 sites in separate area. Plus 1 per employee. Plus hold bay 25m long in front of reception. Where long term residents are located, visitor spaces are required at 1 per 5 sites. 	

Table 4.1: Statutory Car Parking Requirements – Dungog DCP

¹ Petting Zoo and Animal Experience area combined.

As shown in Table 4.1, application of the rates outlined within the DCP to the proposed development results in a car parking requirement for an additional 7 spaces associated with the ancillary campgrounds only.

As detailed above, a 'Home Business' land use is not listed in Schedule 1 of Part C of the DCP, with Section 13.2 of the DCP stating the following:

"Where a proposed development does not fall within any of the land use categories identified in the Car Parking Standards section of this Plan, Council shall calculate the on site parking requirements having regard to the experience of similar existing development and an assessment of the likely traffic generating potential of the proposed development."

Therefore, in order to assess the car parking demand likely to be generated by the proposal, a Car Parking Demand Assessment has been prepared for Council to consider the appropriateness of the proposed parking provisions for both the home business and camp site components of the proposal.

4.2 Car Parking Demand Assessment

4.2.1 Anticipated Car Parking Demand – Empirical Assessment

Based on the provided information it is understood that the Counselling Service will be undertaken by appointment only.

Therefore, to determine the anticipated level of parking demand generated by the proposal, the following factors and assumptions have been considered.

- As noted previously in Section 2.2, the proposed uses are intended to operate concurrently.
- The campgrounds are to operate solely ancillary to the counselling service and will not be available to non-clients.
- The maximum number of patrons on site at any one time (across all components) is 40 people.
- All patrons are assumed to travel to site via private vehicle.
- The average vehicle occupancy is assumed to be three (3) persons per private vehicle.
- The one (1) staff member will reside on site and park proximate to the existing dwelling.

Based on the above, it is expected that the proposal would generate an absolute peak demand for a total of 13 car parking spaces during periods in which the site experiences peak patronage.

4.3 Adequacy of On-Site Car Parking Supply

As outlined in Section 2.3, eight (8) formal car parking spaces are proposed along the site access driveway, representing a shortfall in the order of five (5) spaces from the anticipated car parking demand. It is however noted that under the proposed arrangement, it is expected that clients who elect to camp on-site would park adjacent their campsite.

Given the ancillary campgrounds are limited to accommodating up to 24 patrons, application of the factors outlined within Section 4.2.1 results in a parking demand of up to eight (8) vehicles associated with clients who elect to camp on site. It is expected that these vehicles would be parked informally within the campground.

Therefore, the additional parking demand generated by clients who do not camp on site (anticipated to be up to five (5) vehicles), would be able to be wholly accommodated within the formal car parking provided along the site access driveway.

Furthermore, during rare occurrences in which the parking demand exceeds formal car parking supply, it is acknowledged that clients will be able to park within the verges of the site access driveway whilst still maintaining two-way vehicle movements.

Subsequently, when accounting for the ample opportunities to accommodate informal parking on-site, the proposed on-site parking provision of eight (8) spaces is considered satisfactory and capable of accommodating all parking demands generated by the proposal.

4.4 Car Park Design & Layout

The proposed on-site parking provision has been assessed in accordance with the Australian Standard for Parking Facilities Part 1: Off-Street Car Parking (AS2890.1).

AS2890.1 states that for parking facilities classified as User Class 2 (long-term parking), car parking spaces are to be dimensioned 2.5 metres wide and 5.4 metres long and accessed via a 5.8m wide accessway to facilitate safe and efficient access.

Figure 4.1 details the proposed on-site car parking arrangement in accordance with the requirements outlined within AS2890.1 and is therefore deemed appropriate.

Figure 4.1: Car Parking Layout – Excerpt of Civil Works Plan
5 TRAFFIC CONSIDERATIONS

5.1 Existing Traffic Conditions

To determine the current traffic volumes along the Black Rock Road frontage, a first principles assessment has been undertaken utilising the traffic generation rates for regional properties outlined within the *RMS Technical Direction: Guide to Traffic Generating Developments Updated Traffic Surveys (TDT 2013-04a).*

A review of Nearmap aerial imagery suggests that there are approximately 27 existing dwellings accessed via Black Rock Road between the Martins Creek Road intersection and its termination to the east of the subject site.

The *RMS Technical Direction: Guide to Traffic Generating Developments Updated Traffic Surveys* (*TDT 2013-04a*) states that in regional areas such as the subject site, low density residential dwellings will exhibit the following trip generation characteristics:

- Daily vehicle trips: 7.4 trips per dwelling.
- Weekday average evening peak hour trips: 0.78 trips per dwelling.
- Weekday average morning peak hour trips: 0.71 trips per dwelling.

Application of the above trip generation to the identified number of dwellings results in an expected daily traffic volume of approximately 200 vehicles per day, with approximately 19 vehicle movements in the morning peak and a further 21 vehicle movements in the evening peak.

It is noted that the above assessment is considered conservative given the location and type of dwelling observed on Black Rock Road. Dwellings within Primary Production (RU1) Zones are typically expected to generate less vehicular movements than the rates specified within the RTA guide. Therefore, it is expected that a lower percentage of occupants of these dwellings will be required to commute for work.

5.2 Traffic Generation

It is noted that the *RTA Guide to Traffic Generating Developments 2002 (Version 2.2)* and *RMS Updated Traffic Surveys (TDT 2013-04a)* do not specify trip generation rates for a home business.

Subsequently, to determine the number of traffic movements anticipated to be generated by the proposal, the following assumptions have been made to determine the likely number of peak hour movements and is generally consistent with the assumptions outlined within Section 4.2.1 as follows:

- The maximum number of patrons on site at any one time (across all components) is 40 people.
- All patrons are assumed to travel to site via private vehicle.
- The average vehicle occupancy is assumed to be three (3) persons per private vehicle.
- 65% of total car trips would arrive and depart in the same hour.
- Staff movements to / from the site would occur outside of peak periods.

Application of the above factors suggests that the proposal will generate up to an additional nine (9) movements within any one (1) peak hour period, on average.

5.3 Post Development Traffic Volumes

With consideration of the increase in traffic volumes anticipated to be generated by the site as a result of the proposal, it is estimated that the site would generate either one (1) entry or exit movement approximately every 6 and a half minutes on average throughout peak periods.

Furthermore, given Black Rock Road does not provide further connection to the surrounding road network, it is expected that the existing traffic volumes present on Black Rock Road would exhibit minimal background growth.

It is therefore anticipated that any minor increase in traffic volumes along Black Rock Road will be attributable to the proposed development only.

5.4 Anticipated Traffic Impacts

Section 4.2.4 of the RTA Guide to Traffic Generating Developments provides guidance on mid-block capacities for rural roads and likely levels of service and has been reproduced in Figure 5.1.

Torrain	Lovel of Service	Percent of Heavy Vehicles			
Terrain	Level of Service	0	5	10	15
	В	630	590	560	530
Loval	С	1030	970	920	870
Levei	D	1630	1550	1480	1410
	E	2630	2500	2390	2290
Della	В	500	420	360	310
	С	920	760	650	570
Rolling	D	1370	1140	970	700
	E	2420	2000	1720	1510
	В	340	230	180	150
Mountainous	С	600	410	320	260
	D	1050	680	500	400
	E	2160	1400	1040	820

Figure 5.1 Peak Hour Flow on Two-lane Rural Roads (veh/h) (Design Speed of 100km/h)

The RTA Guide states that where design speeds of 80 km/h are used, the resulting capacities are between 85% - 95% of the figures quoted, depending on the level of service.

At the site frontage Black Rock Road has an average grade of approximately 2% towards the east of the site. Additionally, with consideration of the existing Black Rock Road cross-section and posted speed limit of 80km/h the criteria for Black Rock has been taken as the following:

- **Terrain:** Rolling.
- Percentage Heavy Vehicles: 5%.
- Speed Limit: 80km/h.
- **Reduction Factor:** 0.85.

Application of the calculated site generated traffic volumes to the existing Black Rock Road traffic volumes outlined within Section 5.1 suggests that during peak periods, Black Rock Road would be expected to carry approximately 30 veh/h.

The RTA Guide states that a desirable level of service (LOS) for a minor rural road is LOS C or better. Application of the reduction factor to the specified traffic volume threshold of 760 veh/h equates to a revised target level of service threshold of 646 veh/h.

Therefore, with consideration of the above, the additional traffic anticipated to be generated by the subject site post-development is expected to be readily absorbed by the surrounding road network (particularly Black Rock Road), with negligible impacts on safety and performance expected.

6 OTHER CONSIDERATIONS

6.1 Anticipated Safety and Amenity Impacts

Based on the existing traffic volumes calculated within Section 5.1 and the subsequent traffic generation outlined within Section 5.2, it is expected that the minor number of traffic movements anticipated to be generated by the proposal would not have any adverse effects on the existing safety and amenity of Black Rock Road and the broader road network.

6.2 Loading Arrangements

As noted previously, the existing loading and waste collection services associated with the site are proposed to be retained, the proposed development is not expected to generate any additional demands with the site to continue to be serviced by commercial and waste collection vehicles in line with existing conditions.

6.3 Bicycle Parking

The Dungog Development Control Plan does not specify any statutory bicycle parking requirements for Home Business or Camp or Caravan Site uses, therefore the proposal does not attract a requirement to provide any on-site bicycle parking.

It is expected that any bicycle parking demands would be able to be accommodated on-site, as required.

7 SUMMARY AND CONCLUSIONS

This Traffic Impact Assessment report has been prepared for the proposed development located at 121 Black Rock Road, Martins Creek.

Based on discussions and analysis outlined within this report the following key conclusions are derived:

- The counselling service is to be provided via appointment only.
- An ancillary primitive campground capable of accommodating up to six (6) camp sites is provided to clients of the counselling service however, will not be open to the public.
- The proposal is expected to accommodate a maximum of 40 patrons at any one time.
- The proposal is to be staffed by one (1) employee who will reside in the existing dwelling located on-site.
- The primitive campground use attracts a statutory requirement to provide 7 car parking spaces under Part C of the Dungog Development Control Plan. However, 'Home Business' does not have a stipulated requirement to provide car parking under the DCP.
- An empirical assessment has been prepared for the overall site where it was determined that the proposal would be expected to generate a peak parking demand of up to 13 spaces comprising eight (8) vehicles associated with the ancillary campground and five (5) vehicles associated with the counselling service.
- The proposed on-site parking provision of eight (8) spaces is therefore considered appropriate noting eight (8) vehicles would be expected to informally park proximate to their respective campsite within the ancillary campground.
- Eight (8) formal linemarked car parking spaces are proposed to be provided on-site and are dimensioned in accordance with the Australian Standard for Parking Facilities Part 1: Off-Street Car Parking (AS2890.1)
- The proposal in anticipated to generate an additional nine (9) vehicle movements during the site generated peak hour periods. This level of traffic is expected to have a negligible impact on the operation of Black Rock Road and the broader road network.
- Due to the minimal traffic movements anticipated to be generated by the site, the proposal is not expected to have any adverse impacts to the existing safety and amenity of Black Rock Road.
- The existing loading and waste collection arrangements are to be retained are not proposed to be modified or altered as part of this development.
- The proposal does not attract any requirement to provide on-site bicycle parking under the Dungog DCP.

APPENDIX A PLANS OF PROPOSAL





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BUSHFIRE ASSESSMENT REPORT (BAR)

DEANS GREEN PADDOCK

(PBP, 2019, PART 6 – SPECIAL FIRE PROTECTION PURPOSE PBP, 2019, PART 7 – INFILL DEVELOPMENT & PBP 2019, PART 8 – OTHER DEVELOPMENT)

121 Black Rock Road, Martins Creek NSW 2420 (Lot 134 DP841161)

Prepared by Perception Planning Pty Ltd on behalf of Dean Djakiew



Table 1 – Document Versions and Disclaimer

No:	Perception Planning Reference:	Author:	Reviewer:
Version 1	17/03/23_BAR_ 121 Black Rock Road_Version1	T.T	M.B
Version 2	12/02/2024121 Black Rock Road_Version2	SJ	Sarah Jones BPAD Buchfire Buchfire Accretion Precisioner Level 3

Disclaimer:

This document may only be used for the purpose for which it was commissioned and in accordance with the contract between Perception Planning and the client.

The scope of services has been defined in consultation with the client with consideration to time, budgetary constraints and the availability of reports and other data relating to the site. Changes to information, legislation and schedule are made on an ongoing basis in consultation with the client. Stakeholders should therefore obtain up-to-date information.

Perception Planning accepts no liability or responsibility whatsover for, or in respect of, any use of or reliance upon this report and its supporting material by any third party. Information provided is not identified to be suitable for legal advice in relation to any matter. Unauthorised use of this report in any form is prohibited.

Any recommendation or advice expressed in this report is made in good faith and in accordance with the relevant legislation for bushfire prone development in NSW. It should be borne in mind that the measures recommended in this report cannot guarantee that a building will survive a bushfire event on every occasion. This is due to the degree of vegetation management, the unpredictable behaviour of bushfires and extreme weather conditions. As such, the author is not liable to any person for any damage or loss whatsoever which has occurred or may occur in relation to the person acting or not acting based on the recommendations of this report.

This bush fire assessment report shall remain valid for 12 months from the date of issue.

Notwithstanding the precautions adopted, it should always be remembered that bushfires burn under a wide range of conditions and an element of risk, no matter how small, always remains and although the standard is designed to improve the performance of such buildings, there can be no guarantee because of the variable nature of bushfires that any one building will withstand bushfire attack on every occasion. This BAR provides the above required information to assist Council and the RFS in determining compliance in accordance with the PBP and AS 3959. Council is the final consenting authority and the future construction works must comply with the recommendations included in the Council's conditions of consent.

EXECUTIVE SUMMARY

Perception Planning has been engaged by Dean Djakiew (the client) to prepare a Bushfire Assessment Report (BAR) for an ancillary primitive campground at Deans Green Paddock (the development) at 121 Black Rock Road, Martins Creek NSW 2420 (the site).

The site is an existing rural property containing a dwelling, swimming pool and shed which is a 70-minute drive or 63km to the north of Newcastle and is located within the Dungog Local Government Area (LGA). The site is identified as Bushfire Prone Land (BPL), being Vegetation Category 1, Vegetation Category 2 and Vegetation Buffer under the Environmental Planning & Assessment Act 1979 (s10.3) (EPA&A).

The proposed and existing development could be summarised as:

- Primitive Campground 6 camp sites in total (24 person capacity for camp site) (Chapter 3)
- Dwelling and Shed (Chapter 4)

The development may be best defined as a primitive camping ground under the RFS, 2018, 'Planning for Bushfire Protection' (p.54) or 'tourist accommodation' under the Rural Fire Act 1997 (s100B – BFSA) and therefore is defined as a Special Fire Protection Purpose (SFPP). In relation to camping, PBP states the following:

'No construction requirements for tents are provided in AS 3959 or NASH Standard. Camping is permissible within the APZ of a caravan or tourist park, provided the other relevant BPMs (e.g. emergency management arrangements) are in place. Careful consideration should be given to the suitability of camping in bush fire prone areas on days of elevated bush fire danger'.

Due to the camping sites being 'primitive' in nature, no mains electricity or water in the road reserve. Identified through a requested Before You Dig (BYD). A deposited plan (DP) was also obtained from 'NSW Land Registry Services' which identified no restrictions in relation to Asset Protection Zones (APZs) or site access. However, there is an easement through this lot that is a right of carriageway 10 wide, refer to **Attachment 6** for Deposited Plan. The removal of native flora or fauna will not be required.

The BAR provides a series of recommendations for the different Bushfire Protection Measures (BPM)s in relation to the proposed works and existing development on site. The Proposed ancillary Primitive campground was assessed in accordance with PBP Part 6 – Special Fire Protection Purpose, existing Dwelling was assessed in accordance with PBP Part 7 Infill Development and the shed was assessed in accordance with PBP Part 8 (8.3.2) – Other Development.

TABLE OF CONTENTS

EXEC	UTIVE SUMMARY	3			
1.0	INTRODUCTION	5			
1.1	SITE PARTICULARS	5			
1.2	CURRENT LAND USE	5			
1.3	SCOPE	5			
1.4	PROPOSAL	5			
2.0	ASSESSMENT	. 10			
2.1	VEGETATION ASSESSMENT	10			
2.2	SLOPE ASSESSMENT	10			
2.3	DETERMINATION OF FIRE DANGER INDEX (FDI)	.10			
2.4	DETERMINATION OF BUSHFIRE ATTACK LEVEL (BAL)	.10			
3.0	BUSHFIRE PROTECTION MEASURES AND RECOMMENDATIONS FOR THE				
PRIM		. 11			
3.1	ACCESS	11			
3.2	LANDSCAPING	13			
3.3	WATER	13			
3.4		15			
4.0 EXIST	BUSHFIRE PROTECTION MEASURES AND RECOMMENDATIONS FOR THE ING DWELLING AND SHED	. 16			
4.1	ASSET PROTECTION ZONES	16			
4.2	ACCESS	17			
4.3	WATER SUPPLIES	18			
4.4	GAS AND ELECTRICITY SERVICES AND CONSTRUCTION STANDARDS	.20			
5.0	CONCLUSION	.22			
REFE	RENCE LIST	.24			
ATTA	CHMENT 1 – AHMIS RESULTS	.25			
ATTA	CHMENT 2 – ARCHITECTURAL PLANS	26			
ATTA	CHMENT 3 – CONSTRUCTION REQUIREMENTS TABLE	.27			
ATTA	CHMENT 4 – APPENDIX 4: ASSET PROTECTION ZONES	28			
ATTA	ATTACHMENT 5 – BEFORE YOU DIG AUSTRALIA				
ATTA	CHMENT 6 – DEPOSITED PLAN	. 30			

1.0 INTRODUCTION

1.1 SITE PARTICULARS

Address:	121 Black Rock Road, Martins Creek NSW 2420 (the site)
Legal Description:	(Lot 134 DP841161)
Total Area:	3.5 Ha (Approximate)
Local Government Area:	Dungog Shire Council
Fire Danger Index (FDI):	100 - Greater Hunter
Boundaries:	Land zoned R5 – Large Lot Residential

1.2 CURRENT LAND USE

The site is an existing rural property containing a dwelling, swimming pool and shed where counselling services takes place. Refer to **(FIGURE 2)** for Site Layout and Access, Refer to **(FIGURE 3)** for Dwelling Vegetation and APZ's. The site has access to Black Rock Road. Black Rock Road is currently a sealed public road.

1.3 SCOPE

The scope of this BAR is to identify the bush fire hazard and provide measures to assist Council and the RFS that the identified fire hazard would be reduced to a level that is considered necessary to provide adequate protection to life and property.

This BAR provides the required information to assist Council and the RFS in determining compliance in accordance with the RFS, 2019, 'Planning for Bush Fire Protection' (PBP) and AS 3959-2018. Council is the final consenting authority and the future construction works must comply with the conditions listed in the Notice of Determination issued by Council.

The site is not mapped as containing Biodiversity Values under the Biodiversity Conservation Act 2016. A basic search of the AHIMS database identified zero sites and/or places containing archaeological features, Refer to (Attachment 1). The site is identified as BPL, being Vegetation Category 1, Vegetation Category 2 and Vegetation Buffer.

1.4 PROPOSAL

The proposal is for an ancillary primitive campground at Deans Green Paddock (the development) at 1341B Putty Valley Road, Putty NSW 2330 (the site), Refer to **(ATTACHMENT 2)** for Architectural Plans. The Local Government Act 1993 defines a Primitive camping ground as:

primitive camping ground means a camping ground approved under the *Local Government Act 1993*, Chapter 7, Part 1 as a primitive camping ground.

Note— Primitive camping ground is a type of *camping ground*:

camping ground means an area of land, with access to communal amenities, used for the short-term placement of campervans, tents, annexes or other similar portable and lightweight temporary shelters for accommodation and includes a primitive camping ground but does not include –

- (a) a caravan park, or
- (b) farm stay accommodation.

The development is defined as 'special fire protection purpose' under PBP 2019. The primitive camping ground is intrinsically linked to the proposed primary land use. Without the existing offerings at Dean's Green Paddock at 121 Black Rock Road, there would be no demand for Primitive Camping. Accordingly, the Planning authority can be satisfied that the primitive camping ground would not serve as the dominant purpose of the site, being the above permissible home business use of the site.

An illustration of the proposed primitive camping ground is provided as (FIGURE 1).

Figure 1 – Site Locality



Figure 2 - Site Layout and Access







2.0 ASSESSMENT

2.1 VEGETATION ASSESSMENT

The vegetation was determined by the following methods:

- Near Map to identify vegetation cover;
- Sharing and Enabling Environmental Data (SEED) Portal to identify Vegetation Classification and Biodiversity Values Map;
- ePlanning Spatial Viewer to identify Bushfire Prone Land Map;
- Vegetation formation using Keith, 2004, 'Ocean Shores to Desert Dunes'.

The predominant vegetation formation within 140m in all directions around the proposed Primitive camping grounds has been identified as Forest in accordance with the RFS, March 2019, 'Comprehensive Fuel Loads'. The removal of native flora or fauna will not be required to achieve the development, including the establishment of APZs.

2.2 SLOPE ASSESSMENT

The effective slope was determined by the following methods:

- Elevation, Depth and Slope Spatial Map Viewer to identify 2m Contours;
- Site Survey completed by Perception Planning Pty Ltd
- Site Inspection on 28 July 2022 to confirm slope.

The effective slope under the classified vegetation surrounding the site is a combination of upslope and flat

2.3 DETERMINATION OF FIRE DANGER INDEX (FDI)

The FDI was determined by identifying the FDI rating within PBP (Part A1.6) (p.84). The FDI is 100 - Greater Hunter.

2.4 DETERMINATION OF BUSHFIRE ATTACK LEVEL (BAL)

The assessment of vegetation and slope has been used to calculate the following BALs:

Direction	Vegetation	Slope (°)	APZ (m)	BAL
Transect 1 (N)	Forest	Upslope	>24m	BAL-29
Transect 2 (E)	Forest	Flat	>24m	BAL-29
Transect 3 (S)	Forest	Flat	>24m	BAL-29
Transect 4 (W)	Forest	Flat	>24m	BAL-29

Table 2 – BALs for existing dwelling house

The Dwelling has been assessed as BAL-29 with the establishment of a >24m APZ surrounding the entire dwelling. The land on which the APZ is provided and located on is a slope less than 18 degrees. To establish this

APZ no vegetation required to be removed and is to be maintained as an Inner Protection Area in accordance with PBP (Appendix 4).

3.0 BUSHFIRE PROTECTION MEASURES AND RECOMMENDATIONS FOR THE PRIMITIVE CAMPGROUND

Primitive campground will be identified as Two designated camping areas, refer to (FIGURE 2). The removal of native flora or fauna will not be required. BPMs relating to primitive campgrounds is access, water, emergency management and Landscaping.

3.1 ACCESS

Performance Criteria	Acceptable Solutions	Response
Firefighting vehicles are provided with safe, all-weather access to structures and hazard vegetation.	SFPP access roads are two-wheel drive, all-weather roads. Access is provided to all structures and hazard vegetation. Traffic management devices are constructed to not prohibit access by emergency services vehicles. Access roads must provide suitable turning areas in accordance with Appendix 3. One way only public access roads are no less than 3.5 metres wide and have designated parking bays with hydrants located outside of these areas to ensure accessibility to reticulated water for fire suppression.	Condition of Consent – Access roads are to be two-wheel drive, all weather roads. Access is to be provided to all structures and hazard vegetation. Ample passing exists to allow passing and conform with the intent of suitable turning areas in accordance with Appendix 3, refer to (Figure 3) for existing Site Access. Access is to be in accordance with Table 6.8b of PBP 2019.
VARIATION - Primitive Camping: 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 being: There are no specific access requirements in an urban area where an unobstructed path (no greater than 70m) is provided between the most distant external part of the proposed dwelling and the nearest part of the public access road (where the road speed limit is not greater than 70kph) that supports the operational use of emergency firefighting vehicles.	 Condition of Consent – Property Access for primitive camping is to comply with the requirements of Table 5.3b of PBP 2019. minimum 4m carriageway width; 4m to any overhanging obstructions, including tree branches; maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads Ample passing exists to allow passing and conform with the intent of suitable turning areas in accordance with Appendix 3, refer to (Figure 3) for existing Site Access.

Table 2 – Compliance with PBP for Access



		-	
In oc a 	a circumstances where this cannot ccur, the following requirements pply: minimum 4m carriageway width; in forest, woodland and heath tuations, rural property access bads have passing bays every 00m that are 20m long by 2m ide, making a minimum trafficable idth of 6m at the passing bay; a minimum vertical clearance of m to any overhanging bstructions, including tree ranches; provide a suitable turning area in ccordance with Appendix 3; curves have a minimum inner adius of 6m and are minimal in umber to allow for rapid access and egress; the minimum distance between oner and outer curves is 6m; the crossfall is not more than 10 egrees; maximum grades for sealed roads o not exceed 15 degrees and not nore than 10 degrees for unsealed bads; and a development comprising more an three dwellings has access by edication of a road and not by ght of way. ote: Some short constrictions in ne access may be accepted where ney are not less than 3.5m wide, xtend for no more than 30m and there the obstruction cannot be easonably avoided or removed. he gradients applicable to public bads also apply to community style evelopment		
PERIMETER ROADS			
Access roads are designed to allow safe access and egress for firefighting vehicles while residents are evacuating as well as providing a safe operational environment for emergency service personnel during firefighting and emergency management on the interface.	Are two way sealed roads; minimu carriageway width kerb to kerb; pa provided outside of the carriagewa hydrants are located clear of parkin are through roads, and these are I the internal road system at an inter greater than 500m; curves of road minimum inner radius of 6m; the m grade road is 15 degrees and aver grade of not more than 10 degrees road crossfall does not exceed 3 d and a minimum vertical clearance any overhanging obstructions, incl tree branches, is provided.	Im 8m arking is ay width; ng areas; inked to rval of no s have a naximum rage s; the legrees; of 4m to luding	N/A – No Perimeter Road is proposed - No formal perimeter roads are required in any case ample passing exists to allow passing and conform with the intent of perimeter roads.

NON-PERIMETER ROADS			
Non-perimeter access roads are designed to allow safe access and egress for medium rigid firefighting vehicles while occupants are evacuating.	Minimum 5.5m carriageway width kerb to kerb. Parking is provided outside of the carriageway width. Hydrants are located clear of parking areas. There are through roads, and these are linked to the internal road system at an interval of no greater than 500m. Curves of roads have a minimum inner radius of 6m. The maximum grade road is 15° and average grade is 10° The road crossfall does not exceed 3° A minimum vertical clearance of 4m to any overhanding obstructions, including tree branches is provided.	N/A – No Non Perimeter Roads Proposed – All internal trails are to be in accordance with 5.3b, which is stated above as part of the primitive camping variation requirements.	

3.2 LANDSCAPING

Table 3 – Compliance with Landscaping

Performance Criteria	Acceptable Solutions	Response
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 fencing is constructed in accordance with section 7.6.	Condition of Consent – Landscaping and fencing for the primitive campground is to comply with Appendix 4 and section 7.6, respectively.

3.3 WATER

Table 4 – Compliance with PBP for Water, Electricity and Gas Supplies

Performance Criteria	Acceptable Solutions	Response
An adequate water supply for firefighting purposes is installed and maintained.	Reticulated water is to be provided to the development, where available; or a 10,000 litres minimum static water supply for firefighting purposes is provided for each occupied building where no reticulated water is available.	Complies with Acceptable Solution – Site is connected to reticulated water however no fire hydrants located in road reserve Refer to BYDA (Attachment 5). Condition of Consent - 10,000 litres minimum static water supply for firefighting purposes is to be provided for the primitive camping

		area where no reticulated water is available.
VARIATIONS: Primitive Camping: 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.	Complies with Acceptable Solution - Site is connected to reticulated water however no fire hydrants located in road reserve. Refer to BYDA (Attachment 5). Condition of Consent - 10,000 litres minimum static water supply for firefighting purposes is to be provided for the primitive camping area where no reticulated water is available.
Water supplies are located at regular intervals.	Fire hydrant spacing, design and sizing comply with the Australian Standard AS2419.1:2005	Not Applicable - No Fire hydrants proposed.
The water supply is accessible and reliable for firefighting operations.	Hydrants are not located within any road carriageway. Reticulated water supply to SFPPs uses a ring main system for areas with perimeter roads.	
Flows and pressure are appropriate.	Fire hydrant flows and pressures comply with AS2419:2005	Not Applicable - No Fire hydrants proposed.
The integrity of the water supply is maintained.	All above ground water service pipes external to the building are metal, including and up to any taps.	Condition of Consent - All above ground water service pipes are to be metal, including and up to any taps.
water supplies are adequate in areas where reticulated water is not available. water supplies are adequate in areas where reticulated water is not available.	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; ball valve and pipes are adequate for water flow and are metal; supply pipes from tank to ball valve have the same bore size to ensure flow volume; underground tanks have an access hole of 200mm to allow tankers to refill direct from the tank; a hardened ground surface for truck access is supplied within 4m of the access hole; above-ground tanks are manufactured from concrete or metal; raised tanks have their stands constructed from non- combustible material or bush fire- resisting timber (see Appendix F AS 3959); unobstructed access is provided at all times; tanks on the hazard side of a building are provided with adequate shielding for the protection of firefighters; and underground tanks are clearly marked, all exposed water pipes external to the building are metal, including any fittings; where pumps are provided, they are a minimum 5hp or 3kW petrol or diesel- powered pump, and are shielded	Condition of Consent – The connection for firefighting purposes for the 10,000L minimum water tanks required for the primitive camping site, is to have a 65mm Storz outlet with ball valve is fitted to the outlet of the water tank. Ball valve and pipes are adequate for water flow and are metal. Water supplies to be in accordance with Table 6.8c of PBP 2019.

against bush fire attack; Any hose and reel for firefighting connected to the pump shall be 19mm internal diameter; and fire hose reels are constructed in accordance with AS/NZS 1221:1997 <i>Fire hose reels</i> , and installed in accordance with the relevant clauses of AS 2441:2005 <i>Installation of fire hose</i> <i>reels</i> .	
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3.4 EMERGENCY MANAGEMENT

		_
Performance Criteria	Acceptable Solutions	Response
A bushfire emergency and evacuation management plan are prepared.	A bush fire emergency management and evacuation plan is prepared consistent with the NSW RFS document: A Guide to Development a Bush Fire Emergency Management and Evacuation Plan, and the Australian Standard AS 3745:2010 Planning for Emergencies Facilities and Australian Standard AS 4083:2010 Planning for emergencies – Health care facilities (where applicable) The Bush Fire Emergency Management and Evacuation Plan should include planning for the early relocation of occupants. <i>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</i>	Condition of Consent – Bushfire emergency management and evacuation plan is recommended for proposed works as there is a bushfire risk and so a plan should be developed for visitors occupying the primitive campground as they will be unfamiliar with their surroundings.
VARIATIONS		Or with the of Oregon to the Death Fire
Primitive camping: a Bush Fire Emergency Management and Evacuation Plan is prepared.	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 activity occurs in the local government area in which the development operates. Note: A copy of the Bush Fire Emergency Management and Evacuation Plan shall be provided to the Local Emergency Management Committee for its information prior to occupation of the development.	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 activity occurs in the local government area in which the development operates. These matters will be considered in the development of the bushfire emergency management plan.

Table 5 – Compliance with PBP for Emergency Management

Appropriate and adequate management arrangements are established for consultation and implementation of the bush fire emergency and evacuation managementAn Emergency is established residents (and case of aged and schools) a and implement Detailed plans assembly are and 'off-site' a in AS3745:20 and an annua emergency evaluation	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.	Condition of Consent - Planning Committee will be involved in developing the bushfire emergency management plan. Detailed plans of all emergency assembly areas are to be included in the bushfire emergency management plan.
	Detailed plans of all emergency assembly areas including 'on-site' and 'off-site' arrangements as stated in AS3745:2010 are clearly displayed, and an annual (as a minimum) trial emergency evacuation is conducted.	

4.0 BUSHFIRE PROTECTION MEASURES AND RECOMMENDATIONS FOR THE EXISTING DWELLING AND SHED

The existing dwelling has been assessed in accordance with the protection measures of Part 7 PBP (residential infill development) and will apply to this structure. The existing dwelling is indicated in **(FIGURE 2)**. The shed has been assessed as a 10a structure in accordance with 8.3.2.

4.1 ASSET PROTECTION ZONES

Performance Criteria	Acceptable Solution	Response
 APZs are provided commensurate with the construction of the building; and A defendable space is provided onsite 	An APZ is provided in accordance with Table A1.12.2 or A1.12.3 in Appendix 1.	Condition of Consent – The Dwelling has been assessed as BAL-29 with the establishment of a >24m APZ surrounding the entire dwelling. The land on which the APZ is provided and located on is a slope less than 18 degrees. To establish this APZ no vegetation required to be removed and is to be maintained as an Inner Protection Area in accordance with PBP (Appendix 4). The dwelling is required to be upgraded to improve ember protection. This is to be achieved by enclosing or covering openings with a corrosion-resistant steel, bronze or aluminium mesh with a maximum aperture of 2mm. Where applicable this includes the openable portion of the windows, vents, weepholes and eaves, but does not include roof tile spaces. Weather strips, draught excluders or draught seals shall be installed at the base of side hung external doors as per AS 3959. The subfloor space must be enclosed.

Table 6 - Compliance with PBP for Asset Protection Zones

 APZs are managed and maintained to prevent the spread of a fire to the building. 	APZs are managed in accordance with the requirements of Appendix 4 of PBP.	Condition of Consent - The BAR identifies that the APZ managed as an Inner Protection Area (IPA) is to be managed in accordance with Appendix 4 of PBP, refer to (Attachment 4).
 The APZ is provided in perpetuity. APZ maintenance is practical, soil stability is not compromised and the potential for crown fires is minimised. 	APZs are wholly within the boundaries of the development site. APZs are located on lands with a slope less than 18 degrees.	Complies with Acceptable Solution - APZs are wholly within the boundaries of the development site. APZs are located on lands with a slope less than 18 degrees.

4.2 ACCESS

Table 7 – Compliance with PBP for Access

Performance Criteria	Acceptable Solutions	Response
Firefighting vehicles are provided with safe, all-weather access to structures and hazard vegetation.	Property access roads are two- wheel, all weather roads.	Complies with Acceptable Solution- The property access is a two-wheel, all weather road.
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 firefighting vehicles (up to 23 tonnes), bridges and causeways are to clearly indicate load rating.	Complies with Acceptable Solution- Capacity of roads and surfaces comply
There is appropriate access to water supply.	Hydrants are provided in accordance with the relevant causes of AS2419.1:2005 There is suitable access for a Category 1 fire appliance to within 4m of the static water supply where no reticulated supply is available.	Complies with Acceptable Solution- There is suitable access for a Category 1 fire appliance to within 4m of the static water supply where no reticulated supply is available. It is recommended that a 5000L water tank is to be provided for the site for bushfire purposes.
Firefighting vehicles can access the dwelling and exit the property safely.	At least one alternative property access road is provided for individual dwellings or groups of dwellings that a located more than 200 metres from a public through road. There are no specific access requirements in an urban area where an unobstructed path (no greater than 70m) is provided between the most distant external part of the proposed dwelling and the nearest part of the public access road (where	Complies with Acceptable Solution – Dwelling is located within <200m of the public roads. Access requirements for this road are to be in accordance with 7.4a being: - minimum 4m carriageway width; - 4m to any overhanging obstructions, including tree branches;

	· · · ·
the road speed limit is not greater than 70 kph) that supports the operational use of emergency firefighting vehicles. In circumstances where this cannot occur, the following requirements apply:	 maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads
occur, the following requirements apply: -minimum 4m carriageway width; -in forest, woodland and heath situations, rural property roads have passing bays every 200m that are 20m long by 2m wide, making a minimum trafficable width of 6m, at the passing bay; -a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches; -property access must provide a suitable turning area in accordance with Appendix 3; -curves have a minimum inner radius of 6m and are minimal in number to allow for rapid access and egress; -the minimum distance between inner and outer curves is 6m; the crossfall is not more than 10 degrees; -maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads; and -a development comprising more than three dwellings has formalised access by dedication of a road and not by right of way. Note: Some short constrictions in the access may be accented where they	roads Ample passing exists to allow passing and conform with the intent of suitable turning areas in accordance with Appendix 3, refer to (Figure 3) for existing Site Access.
are not less than 3.5m wide, extend for no more than 30m and where the obstruction cannot be reasonably avoided or removed. The gradients applicable to public roads also apply to community style development property access roads in addition to	
the above.	

4.3 WATER SUPPLIES

Performance Solutions	Acceptable Solutions	Response
An adequate water supply is provided for firefighting purposes.	Reticulated water is provided to the development, where available, and A static water supply is provided where no reticulated water is available	Complies with Acceptable Solution – Site is connected to reticulated water however no fire hydrants located in road reserve Refer to BYDA (Attachment 5).

• Water supplies	Fire bydrant spacing, design and	Condition of Consent - 10,000 litres minimum static water supply for firefighting purposes is to be provided for the primitive camping area where no reticulated water is available.
 Water supplies are located at regular intervals The water supply is accessible and reliable for firefighting purposes 	sizing comply with the relevant clauses of AS 2419.1:2005 Hydrants are not located within any road carriageway Reticulated water supply to urban subdivisions uses a ring main system for areas with perimeter roads.	hydrants proposed
Flows and pressure are appropriate.	Fire hydrant flows and pressures comply with the relevant clauses of AS 2419.1:2005	Not Applicable – No fire hydrants proposed
The integrity of the water supply is maintained.	All above-ground water service pipes external to the building are metal, including and up to any taps.	Condition of Consent – All above-ground water service pipes external to the building are to be metal including and up to any taps
A static water supply is provided for firefighting purposes in areas where reticulated water is not available.	Where no reticulated water supply is available, water for firefighting purposes is provided in accordance with Table 5.3d, being: a connection for firefighting purposes is located within the IPA or non- hazard side and away from the structure; 65mm Storz outlet with a ball valve is fitted to the outlet; ball valve and pipes are adequate for water flow and are metal; supply pipes from tank to ball valve have the same bore size to ensure flow volume; underground tanks have an access hole of 200mm to allow tankers to refill direct from the tank; a hardened ground surface for truck access is supplied within 4m; above- ground tanks are manufactured from concrete or metal; raised tanks have their stands constructed from non combustible material or bush fire resisting timber (see Appendix F of AS 3959); unobstructed access can be provided at all times; underground tanks are clearly marked; tanks on the hazard side of a building are provided with adequate shielding for the protection of firefighters; all exposed water pipes external to the building are metal, including any fittings; 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	Condition of Consent – Reticulated water is available in the road reserve however fire hydrants are not . it is recommended that 10,000L water tank is to be provided for primitive camping and all connection, pipes and valves, access for fire-fighting vehicles is to comply with 7.4a.

connected to the pump shall be 19mm internal diameter; and fire	
hose reels are constructed in	
and installed in accordance with the	
relevant clauses of AS 2441:2005	

4.4 GAS AND ELECTRICITY SERVICES AND CONSTRUCTION STANDARDS

Performance Solutions	Acceptable Solutions	Response
Location and design of gas services will not lead to ignition of surrounding bushland or the fabric of buildings.	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. All fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side. Connections to and from gas cylinders are metal. Polymer-sheathed flexible gas supply lines are not used. Above-ground gas service pipes are metal, including and up to any outlets.	Condition of Consent – Gas services are to be installed and maintained in accordance with AS/NZS1596:2014.
Location and design of electricity services will not lead to ignition of surrounding bushland or the fabric of buildings.	 Where practicable, electrical transmission lines are underground; and where overhead, electrical transmission lines are proposed as follows: lines are installed with short pole spacing (30m), unless crossing gullies, gorges or riparian areas; and 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. 	Condition of Consent– Electrical services are to be either underground or overhead and in accordance with acceptable solution.
The proposed building can withstand bush fire attack in the form of embers, radiant heat and flame contact.	BAL is determined in accordance with Tables A1.12.5 to A1.12.7 construction provided in accordance with the NCC and as modified by section 7.5 (please see advice on construction in the flame zone).	Complies with Acceptable Solution - This BAR identifies that the existing dwelling has been assessed as BAL-29 in accordance with A1.12.5 of PBP 2019. Refer to (ATTACHMENT 3) for Construction Requirements).

Table 9 – Compliance with PBP for Gas and Electricity Services and Construction Standards

Proposed fences and gates are designed to minimise the spread of bush fire	Fencing and gates are constructed in accordance with section 7.6	Condition of Consent – Fencing is to be constructed in accordance with section 7.6.
Proposed Class 10a buildings are designed to minimise the spread of bush fire	Class 10a buildings are constructed in accordance with section 8.2.3	Not Applicable – No class 10a buildings are proposed. One shed Is located on site however is >6m from existing dwelling and as such There is no bush fire protection requirements for Class 10a buildings located more than 6m from a dwelling in bush fire prone areas.
The proposed building can withstand bush fire attack in the form of embers, radiant heat and flame contact.	BAL is determined in accordance with Tables A1.12.5 to A1.12.7 construction provided in accordance with the NCC and as modified by section 7.5 (please see advice on construction in the flame zone).	Complies with Acceptable Solution - This BAR identifies that the existing dwelling has been assessed as BAL-29 in accordance with A1.12.5 of PBP 2019. Refer to (ATTACHMENT 3) for Construction Requirements).
Home-based childcare: the proposed building can withstand bush fire attack in the form of wind, localised smoke, embers and expected levels of radiant heat.	An APZ is provided in accordance with Table A1.12.2 or A1.12.3 in Appendix 1 of this document around the entire building or structure.	Not Applicable – This proposal is not for a home- based childcare.

5.0 CONCLUSION

Perception Planning has been engaged by Dean Djakiew (the client) to prepare a Bushfire Assessment Report (BAR) for an ancillary primitive campground at Deans Green Paddock (the development) at 121 Black Rock Road, Martins Creek NSW 2420 (the site).

The site is an existing rural property containing a dwelling, swimming pool and shed where counselling services takes place which is a 70-minute drive or 63km to the north of Newcastle and is located within the Dungog Local Government Area (LGA). The site is identified as Bushfire Prone Land (BPL), being Vegetation Category 1, Vegetation Category 2 and Vegetation Buffer under the Environmental Planning & Assessment Act 1979 (s10.3) (EPA&A).

The proposed and existing development could be summarised as:

- Primitive Campground 6 camp sites in total (40-person capacity on site) (Chapter 3)
- Dwelling and Shed (Chapter 4)

The BAR provides a series of recommendations in relation to the specific Bushfire Protection Measures (BPM)s based on the assessment of this development. These include:

Primitive Camping, Existing Dwelling and Shed

Access

Condition of Consent – Property Access for primitive camping is to comply with the requirements of Table 5.3b of PBP 2019.

- minimum 4m carriageway width;
- 4m to any overhanging obstructions, including tree branches;
- maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads

It is noted that the creek crossing is 3.5m wide however, there is ample room for a fire truck to cross the bridge. The acceptable solution allows for short constrictions in the access may be accepted where they are not less than 3.5m wide, extend for no more than 30m and where the obstruction cannot be reasonably avoided or removed. In this case, the creek crossing meets this requirement.

- **Condition of Consent** Property Access for primitive camping is to comply with the requirements of Table 5.3b of PBP 2019.
- minimum 4m carriageway width;
- 4m to any overhanging obstructions, including tree branches;
- maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads
- Ample passing exists to allow passing and conform with the intent of suitable turning areas in accordance with Appendix 3, refer to (Figure 3) for existing Site Access.
- **Non-compliant with Acceptable Solution** No formal perimeter roads however ample passing exists to allow passing and conform with the intent of perimeter roads. A fire-fighting vehicle can drive around the perimeter of the camping area.

Non-perimeter Roads	
-	Can Comply – All internal trails are to be in accordance with 5.3b, which is stated above as part of the primitive camping variation requirements.
Landscaping	
-	Condition of Consent – Landscaping and fencing for the primitive campground is to comply with Appendix 4 and section 7.6, respectively.
Water	
-	Site is connected to reticulated water however no fire hydrants located in road reserve Refer to BYDA (Attachment 5). Condition of Consent - 10,000 litres minimum static water supply for firefighting purposes is to be provided for the primitive camping area where no reticulated water is available. it is recommended that 10,000L water tank is to be provided for primitive camping and all connection, pipes and valves, access for fire-fighting vehicles is to comply with 6.8c of PBP 2019
Bushfire Emergency and Management Plan	
-	 Condition of Consent – Bushfire Survival Plan is recommended for proposed works as there is a bushfire risk and so a plan should be developed for visitors staying in the movable dwelling as they will be unfamiliar with their surroundings, in accordance with the NSW RFS document: A Guide to Development a Bush Fire Emergency Management and Evacuation Plan, and the Australian Standard AS 3745:2010 Planning for Emergencies Facilities. 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 activity occurs in the local government area in which the development operates. These matters will be considered in the development of the bushfire emergency management plan. Planning Committee will be involved in developing the bushfire emergency management plan. Detailed plans of all emergency assembly areas are to be included in the bushfire emergency management plan.

REFERENCE LIST

Australian Standard AS3959 – Construction of Buildings in Bushfire Prone Areas (AS3959), viewed 17 March 2023, < http://www.as3959.com.au/>

Dial Before You Dig, 2019, 'Lodge an Inquiry', viewed 17 March 2023, < onecall.1100.com.au>

Keith, 2004, 'Ocean Shore to Desert Dunes'. Published by the Department of Environment and Conservation (NSW) July 2004. PO Box 1967, Hurstville, NSW, 2220

NSW Government, 2015, 'E-Planning Portal', viewed 17 March 2023, < https://www.planningportal.nsw.gov.au/find-a-property>

NSW Government, 2019, 'Biodiversity Vales Map and Threshold Tool', viewed 17 March 2023, <www.lmbc.nsw.gov.au>

NSW Government, 2019, 'Sharing and Enabling Environmental Data (SEED)', viewed 17 March 2023<geo.seed.nsw.gov.au>

NSW Office of Environment, 2016, 'Aboriginal Heritage Information Management System (AHIMS)', viewed 17 March 2023, http://www.environment.nsw.gov.au

Rural Fire Service, 2016, 'NSW Rural Fire Service – Guide for Bush Fire Prone Land Mapping', viewed 17 March 2023, <u>http://www.rfs.nsw.gov.au</u>

Rural Fire Service, 2019, 'Planning for Bushfire Protection', viewed 17 March 2023, < http://www.rfs.nsw.gov.au>

Rural Fire Service, March 2019, 'Comprehensive Fuel Loads', viewed 17 March 2023, < http://www.rfs.nsw.gov.au>

ATTACHMENT 1 – AHIMS RESULTS

ATTACHMENT 2 – ARCHITECTURAL PLANS

ATTACHMENT 3 – CONSTRUCTION REQUIREMENTS TABLE

ATTACHMENT 4 – APPENDIX 4: ASSET PROTECTION ZONES
ATTACHMENT 5 – BEFORE YOU DIG AUSTRALIA

ATTACHMENT 6 – DEPOSITED PLAN



Perception Planning Pty Ltd. PO Box 107, Clarence Town, NSW, 2324 Phone: 04 1155 1433 Email: <u>admin@perceptionplanning.com.au</u>



STATEMENT OF ENVIRONMENTAL EFFECTS

DEAN'S GREEN PADDOCK – HOME BUSINESS & ANCILLARY PRIMITIVE CAMPGROUND

121 Black Rock Road, Martins Creek, NSW, 2420 (Lot 134, DP 841161)

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PP Reference)		J003571		
Prepared for	(client)		Dean Djakiew		
Document Ve	ersions and Co	ntrol			
Statement of E	Environmental E	ffects, 121	Black Rock Road, Ma	rtins Creek	
Version	Date		PP ref	Author	Reviewed by
1	09/03/23	SEE – 12	SEE – 121 Black Rock Road		Client
2	13/04/23	SEE – 121 Black Rock Road V2		CA	JM
		SEE – 121 Black Rock Road V3			

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EXECUTIVE SUMMARY

Perception Planning Pty Ltd has been engaged by Dean Djakiew of 'Dean's Green Paddock' (the client) to prepare a Statement of Environmental Effects (SoEE) to regularise existing land uses at 121 Black Rock Road, Martins Creek, NSW, 2420 (the site).

The site is located within the Dungog Local Government Area (LGA) and is zoned R5 Large Lot Residential under the Dungog Local Environmental Plan 2014 (the LEP). The proposed DA is prepared in response to a Concerns raised by Dungog Council over the permissibility of the existing land uses This Development Application serves to regularise all existing land uses and satisfy Dungog Council of their permissibility and ability to occur without any adverse environmental impacts.

The existing uses at 121 Black Rock Road have been assessed as permissible with consent through this statement of Environmental Effects. The assessment undertaken through this Statement of Environmental Effects also identifies no potential environmental impacts brought about by the ongoing use of the site.

TERMS & ABBREVIATIONS

AHIMS	Aboriginal Heritage Information Management System
EP&A Act	Environmental Planning & Assessment Act 1979
BPL	Bushfire Prone Land
DA	Development Application
FPL	Flood Planning Level
FFL	Finished Floor Level
SoEE	Statement of Environmental Effects
EPI	Environmental Planning Instrument
ASS	Acid Sulphate Soils
SISD	Safe Intersection Sight Distance

LIST OF TABLES & FIGURES

Table 1 – Integrated development triggers.	7
Figure 1 – Locality Map (ePlanning Spatial Viewer, 2023)	3
Figure 2 – Site Plan (Perception Planning, 2023)	4

PLANS AND SUPPORTING DOCUMENTATION

This SEE is supported by the following plans and documentation:

A	Description	Due a suc el less	Defense
Appendix	Document	Prepared by	Reference
1	Site Plan	Perception Planning	J003571
I			Dated: 14.04.23
0	Wastewater	GSL Environmental	83623 – B
2	Management Plan		Dated: 27.11.23
3	Letters of Support –	Various	N/A
	Dean's Green Paddock		
4	AHIMs Search Results	AHIMs Web Services	121 Black Rock Rd
4			Dated: 06.03.24
5	Bushfire Assessment	Perception Planning	17/03/23_BAR_ 121 Black
Ū	Report		Rock Road_Version1
6	Detail Survey	Delfs Lascelles	Project No. 23655
0			Dated: 12.12.23
7	Operational	Perception Planning	J003571
1	Management Plan		Dated: 28.02.24
	Traffic Impact	WGA	WGA232304-RP-TT-
8	Assessment		0001_B
			Dated: 02.02.24
0	Civil Design Plan	DRB	Project no. 233231
9			Dated: 18.01.24
10	Support Letter	SWS Lawyers	Ref: PJ:4316
10			Dated 25.03.24
11	Owner's Consent	Dean Djakiew	Dated: 27.03.24

TABLE OF CONTENTS

EXEC	ITIVE SUMMARY	iii
TERM	& ABBREVIATIONS	iii
LIST	F TABLES & FIGURES	iii
1.0	INTRODUCTION	1
1.1	PURPOSE	1
1.2	BACKGROUND	1
1.3	SITE PARTICULARS	2
2.0	THE DEVELOPMENT	5
3.0	PLANNING CONTROLS	6
3.1	ACTS AND REGULATIONS	6
3.	.1 Environmental Planning and Assessment Act 1979	6
3.	.2 Hunter Water Act 1991	6
3.	.3 Water Management Act 2000	6
3.	.4 Biodiversity Conservation Act 2016	6
3.	.3 Local Government (Manufactured Home Estates, Caravan Parks, Ca	amping
G	ounds and Moveable Dwellings) Regulation 2021	8
3.2	STATE ENVIRONMENTAL PLANNING POLICIES (SEPP)	10
3.	.1 SEPP (Resilience and Hazards)	10
3.	.2 SEPP (Biodiversity and Conservation) 2021	10
3.	.3 SEPP (Transport and Infrastructure) 2021	10
3.3	DUNGOG LOCAL ENVIRONMENTAL PLAN (LEP)	10
3.4	DEVELOPMENT CONTROL PLAN (DCP)	14
4.0	SITE CHARACTERISTICS AND KEY DEVELOPMENT ISSUES	14
4.1	LIKELY IMPACTS OF THE DEVELOMENT	14
4.2	CONSULTATION	16
4.3	SOCIAL AND ECONOMIC IMPACT ON THE LOCALITY	16
4.4	SUITABILITY OF THE SITE AND PUBLIC INTEREST	17
5.0	CONCLUSION	

1.0 INTRODUCTION

1.1 PURPOSE

The purpose of this Statement of Environmental Effects (SoEE) is to assist Council in their assessment of existing land uses at 121 Black Rock Road, Martins Creek and to assist the community in understanding this development.

This SoEE has been prepared in accordance with best practice principles applicable aspects of the Development Assessment Framework and the Department of Planning and Infrastructure's (now the Department of Planning and Environment) guide to the *Environmental Planning and Assessment Act (*EP&A Act) 1979 (s4.15).

The objectives of this SoEE are as follows:

- To provide a description of the site, existing development and the surrounding locality;
- To provide a description of the proposal and the key issues;
- To provide a discussion of the relevant Environmental Planning Instruments (EPI)s; and
- To provide an assessment of the potential environmental impacts, having regard to the matters for consideration pursuant to the EP&A Act (s4.15) and other State, Regional and Local environmental planning policies and guidelines.

1.2 BACKGROUND

The site is located within the Dungog Local Government Area (LGA) and is zoned R5 Large Lot Residential under the Dungog Local Environmental Plan 2014 (the LEP). The proposed DA is prepared in response to a Concerns raised by Dungog Council over the permissibility of the existing land uses. This Development Application serves to regularise the uses of the site (which have currently ceased) and satisfy Dungog Council of their permissibility and ability to occur without any adverse environmental impacts.

The subject Development Application seeks to outline how the existing uses are permissible with consent and regularise all existing uses on the site to satisfy Council that no adverse environmental impacts occur as a result of the existing uses on the site.

This SoEE has been prepared to accompany the Development Application lodged with Dungog Council which seeks to regularise the existing uses at 121 Black Rock Road, Martins Creek.

1.3 SITE PARTICULARS

Property Address	121 Black Rock Road, Martins Creek, NSW, 2420 (the site)	
Lot and DP	Lot 134, DP 841161	
Current Use	Residential	
Zoning	R5 – Large Lot Residential	
Size	~35,000m2	
Site Constraints	Lot Size Map – 8000m ²	
	Bushfire Prone Land (Vegetation Category 1, 2 & Buffer)	
	Riparian Lands & Watercourses	
Owner Dean Djakiew		
DP and 88B Instrument	Nothing on the DP or 88B instrument prohibits the proposed development. No existing easements are identified within the DP provided at Appendix 3 .	

The particulars of the site are as follows:

The site particulars are detailed in the table above and shown within **Figure 1** below. The site is located within the township of Martins Creek, within the Dungog Local Government Area (LGA), approximately 1300m south-east of the Martins Creek Railway Station.



Figure 1 – Locality Map (ePlanning Spatial Viewer, 2023)



Figure 2 – Site Plan (Perception Planning, 2023)

2.0 THE DEVELOPMENT

The objective of the proposed development application is to obtain development consent for the existing uses on the site at 121 Black Rock Road, Martins Creek, NSW, 2420 (the site). The proposed development will continue to service the Dungog community and will contribute to ongoing investment within Dungog.

The primary use of the site is a Home Business known which provides counselling services to clients on site. The counselling service involves a holistic approach and offers physical therapy tailored to the needs of the client based on age and circumstance. Examples of the forms of therapy offered include music lessons, interaction with animals kept on the property, and craft sessions. Depending on the needs of the client, the duration of the counselling services can be offered in sessions over the course of a few hours, or up to a few days.

In addition to the above, the use of the ancillary campgrounds for overnight stay on site will be offered to any clients that are booked in for the abovementioned counselling service and elect to stay overnight. The campground consists of 6 sites to provide short-term accommodation.

The layout of the site is demonstrated on the site plan provided at **Figure 2**. Operationally, the home business will be available year-round. The site has a capacity of 40 guests in total. Accordingly, ancillary primitive campground provisions have been designed to meet the maximum patronage associated with the further permissible uses of the site.

This application is for the use of land only. A Wastewater Treatment Plan has also been prepared to demonstrate that the site is capable of effectively servicing its guests with wastewater treatment facilities, subject to a future S68 application for their installation.

3.0 PLANNING CONTROLS

3.1 ACTS AND REGULATIONS

The following Acts are considered relevant to the proposed development:

3.1.1 Environmental Planning and Assessment Act 1979

The Environmental Planning and Assessment Act 1979 (EP&A Act) provides the framework for planning and building in NSW. *Clause 4.15 – Evaluation* is the relevant part of this Act. This is addressed later in the SoEE.

• Section 4.46 – What is integrated development?

Integrated development is development (not being State significant development or complying development) that, in order for it to be carried out, requires development consent and one or more of the approvals listed within **Table 1** below.

• Section 7.11 – Development Contributions

Development contributions will be calculated in accordance with the Dungog Council Contributions Plan 2019.

3.1.2 Hunter Water Act 1991

The subject site is not located within a Drinking Water Catchment Area. To this effect, a referral to Hunter Water (HW) is not required under Section 51 of the HW Act.

3.1.3 Water Management Act 2000

Should any physical works occur within 40m of any existing watercourse, referral to the Natural Resources Access Regulator (NRAR) is required. However, in the case of the subject development, no physical works are proposed.

3.1.4 Biodiversity Conservation Act 2016

The purpose of the *Biodiversity Conservation Act 2016* (BC Act) is to maintain a healthy, productive and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development. The proposed development does not require the removal of vegetation and the site is not identified on the Biodiversity Values Map. Further consideration under the BC Act is not required.

Table – Integrated development triggers

Integrated development	Proposed Development		
Fisheries Management Act	■ s 144	N/A	
1994	■ s 201		
	■ s 205		
	■ s 219		
Heritage Act 1977	■ s 58	N/A	
Coal Mine Subsidence Compensation Act 2017	• s 22	N/A – The site is not located within a Mine Subsidence Area.	
Mining Act 1992	■ s 63, 64	N/A	
National Parks & Wildlife Act 1974 (as amended)	• s90	No – Development is not integrated development in respect of an Aboriginal heritage impact permit required under Part 6 of the National Parks and Wildlife Act 1974 as no works are proposed as part of the application.	
Protection of the Environment Operations Act 1997	 ss 43(a), 47, 55 ss 43(b), 48, 55 	N/A	
	■ ss 43(d), 55, 122		
Roads Act 1993	• s 138	N/A	
Rural Fires Act 1997	▪ s 100B	Yes – the proposed development is SFPP and accordingly is defined as integrated development. As such, it requires consent from the NSW RFS given the site is identified as bushfire prone.	
Water Management Act 2000	■ ss 89, 90, 91	No – No works for septic purposes are proposed within 40m of a mapped watercourse / waterfront land.	

3.1.3 Local Government (Manufactured Home Estates, Caravan Parks, Camping Grounds and Moveable Dwellings) Regulation 2021

The design and layout of the development is regulated by the Local Government (Manufactured Home Estates, Caravan Parks, Camping Grounds and Moveable Dwellings) Regulation 2021 (Clause 131). The relevant requirements and appropriate responses are provided within the below table.

Clause	Requirement	Response	
131 (1)	The maximum number of designated camp sites in a primitive camping ground must not exceed an average of 2 for each hectare in the camping ground.		The campground totals 4Ha and the number sites is 6, which provides an average of 1.5 sites per hectare.
131(2)	If the approval to operate a primitive camping ground does not designate camp sites, a council may impose a condition on the approval that the installation of tents, caravans, campervans and annexes is not permitted in specified areas of the primitive camping ground— (a) for the health and safety of occupiers of the camping ground, or (b) to ensure consistency with the principles of ecologically sustainable development, or (c) for another purpose.		Noted.
131(3)	The following conditions apply to a primitive camping ground— (a) if at least 1 camp site is designated—camping is not permitted within the primitive camping ground other than on the designated camp site or sites, (b) if no camp sites are designated—the maximum number of caravans, campervans and tents permitted to use the camping ground at the same time must not exceed an average of 2 for each hectare in the camping ground, (c) a caravan, annexe or campervan must not be permitted to be installed within 6 metres of another caravan, annexe, campervan or tent, (d) a tent must not be permitted to be installed within 6 metres of a		No campsites nominated, however, areas for camping are. Water supply, toilet & refuse disposal specified throughout the Statement of Environmental Effects. Otherwise, noted.

	 caravan, campervan or an annexe or within 3 metres of another 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 permitted to remain in the camping ground for more than 24 hours, (g) if a fee is charged for camping—a register must— (i) be kept in accordance with section 121, and (ii) must specify the size of the group accompanying the registered person, (h) fire fighting facilities required by the approval must be provided at the 		
131(4)	Subdivisions 1-8 do not apply to a primitive camping ground.	\checkmark	Noted.
131(5)	The general manager of the council for the area in which a primitive camping ground is located may modify the conditions applying to the camping ground if the general manager is reasonably satisfied that it is necessary to accommodate displaced persons.		Noted.
131(6)	In subsection (3)(b), 2 or more tents occupied by no more than 12 persons camping together must be counted as 1 tent.	\checkmark	Noted

The Local Government (Manufactured Home Estates, Caravan Parks, Camping Grounds and Moveable Dwellings) Regulation 2021 (Clause 132(4)) states that Subdivisions 1-8 do not apply to a primitive camping ground.

3.2 STATE ENVIRONMENTAL PLANNING POLICIES (SEPP)

The following SEPPs are considered relevant to the proposed development:

3.2.1 SEPP (Resilience and Hazards)

Chapter 4 - Remediation of land

The aim of this SEPP is to ensure that the consent authority does not grant consent to development, unless they have considered whether the land is contaminated. The DA is not seeking a change of use but is rather seeking development approval for an existing use. We have been provided with no evidence to suggest that the land is contaminated.

3.2.2 SEPP (Biodiversity and Conservation) 2021

The purpose of the Biodiversity Conservation Act 2016 (BC Act) is to maintain a healthy, productive and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development. The subject development application does not seek consent for the removal of any vegetation to continue the use of the subject site. No further consideration of this SEPP is required.

3.2.3 SEPP (Transport and Infrastructure) 2021

Chapter 2 – Infrastructure

The purpose of this chapter is to facilitate the effective delivery of infrastructure across the state and to identify matters to be considered in the assessment of developments adjacent to particular types of infrastructure.

Black Rock Road is not identified as a classified road. As such, referral to Transport for NSW (TfNSW) for development on or adjacent to a classified road is not triggered under Sections 2.117, 2.118 and 2.119. In accordance with Section 2.122, development listed in Schedule 3 is identified as traffic-generating development. The proposed development is not identified under Schedule 3 and therefore does not warrant referral to TfNSW.

3.3 DUNGOG LOCAL ENVIRONMENTAL PLAN (LEP)

The following parts of the LEP apply to the development:

Clause 2.3 – Zone Objectives and Land Use Table

The site is zoned R5 – Large Lot Residential. The Land Use Table of the LEP identifies the following objectives for this zone. An appropriate response for the proposed development is provided against each.

Zone	Zone R5 – Large Lot Residential			
No	Objective	Response		
1	• To provide residential housing in a rural setting while preserving, and minimising impacts on environmentally sensitive locations and scenic quality.	The existing use being regularised through this Development Application will not jeopardise the existing or future residential rural setting of the site. Rather, it serves to respect the existing residential rural setting, upon which the ongoing use of the site relies.		
2	 To ensure that large residential lots do not hinder the proper and orderly development of urban areas in the future. 	The ongoing use of the site will not hinder the ongoing development of urban areas.		
3	 To ensure that development in the area does not unreasonably increase the demand for public services or public facilities. 	The low-scale use of the site and primitive nature of the ancillary campground do not unreasonably increase demand for public services.		
4	 To minimise conflict between land uses within this zone and land uses within adjoining zones. 	The proposed use has been situated on the site in a way that they are removed from adjoining properties as much as possible. Furthermore, the activities associated with the use are effectively screened from neighbouring properties.		
5	 To isolate housing from existing intensive agriculture or future intensive agricultural areas. 	The use of the site will have no impact on existing or future agriculture in the area.		

R5 Large Lot Residential Zone – Land Use Permissibility Table

Permitted without Consent

Extensive agriculture; Home occupations; Markets; Roads; Roadside stalls

Permitted with Consent

Bed and breakfast accommodation; Boarding houses; Boat launching ramps; Car parks; Cellar door premises; Centre-based child care facilities; Community facilities; Dual occupancies; Dwelling houses; Emergency services facilities; Environmental facilities; Environmental protection works; Exhibition homes; Exhibition villages; Farm buildings; Farm stay accommodation; Flood mitigation works; Function centres; Home-based child care; **Home businesses**; **Information and education facilities**; Jetties; Kiosks; Neighbourhood shops; Oyster aquaculture; Places of public worship; Plant nurseries; Pond-based aquaculture; Recreation areas; Recreation facilities (indoor); Recreation facilities (major); **Recreation facilities (outdoor)**; Registered clubs; Research stations; Respite day care centres; Rural supplies; Sewerage systems; Signage; Tank-based aquaculture; Vehicle body repair workshops; Vehicle repair stations; Veterinary hospitals; Water recreation structures; Water supply systems

Prohibited

Any development not specified in item 2 or 3

The relevant land use definitions for the existing uses of the site are as follows:

Counselling services

The Counselling Services on the site are best characterised as a **Home Business**. The relevant definition is as follows:

Home business means a business, whether or not involving the sale of items online, carried on in a dwelling, or in a building ancillary to a dwelling, by 1 or more permanent residents of the dwelling and not involving the following—

(a) the employment of more than 2 persons other than the residents,

(b) interference with the amenity of the neighbourhood because of the emission of noise, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit

vibration, smell, tumes, smoke, vapour, steam, soot, asn, dust, waste water, waste products, g or oil, traffic generation or otherwise,

(c) the exposure to view, from adjacent premises or from a public place, of unsightly matter,

(d) the exhibition of signage, other than a business identification sign,

(e) the retail sale of, or the exposure or offer for retail sale of, items, whether goods or materials, not produced at the dwelling or building, other than by online retailing,

but does not include bed and breakfast accommodation, home occupation (sex services) or sex services premises.

Note—See clause 5.4 for controls relating to the floor area used for a home business

Ancillary Primitive Camping

The existing campground which operates as ancillary to the above land uses, is best defined as a **primitive camping ground**. The primitive camping ground definition is as follows:

Primitive Camping Ground means a camping ground approved under the Local Government Act 1993, Chapter 7, Part 1 as a primitive camping ground.

Note—Primitive camping ground is a type of **camping ground**—see the definition of that term in this Dictionary.

camping ground means an area of land, with access to communal amenities, used for the short term placement of campervans, tents, annexes or other similar portable and lightweight temporary shelters for accommodation and includes a primitive camping ground but does not include—

- a) a caravan park, or
- b) farm stay accommodation.

Planning Comment: The existing primitive camping ground is intrinsically linked to the permissible land use. Without the existing offerings of the counselling services at 121 Black Rock Road, there would be no demand for the camping facilities provided. This is evidenced by the fact that the site owner will manage the activities associated with the counselling service on the site as well as the camping facilities, with no additional staff associated with the camping.

Furthermore, access to the camping facilities on the site is restricted to patrons who have made a booking to partake in any of the further offerings available on the site – a register of guests attending the site and the activities they attend on the site can be enforced as a condition of consent to satisfy the Planning Authority that this is the case. Guests cannot arrive outside of operating hours of further uses on the site, further enforcing the fact that guests arrive to partake in further offerings and stay as ancillary to partaking in these offerings. Accordingly, the Planning authority can be satisfied that the primitive camping ground serves as ancillary to the dominant purpose of the site, being the permissible home business of the site outlined above.

Clause 5.4 – Controls relating to miscellaneous permissible uses

This clause provides provisions for the existing home business on the site, requiring that all carrying on of the business is contained to within $50m^2$ of floor area. Aside from the outdoor activities, the home business operations (counselling services) are contained entirely within the existing outbuilding on the property, which is $50m^2$ in area. Accordingly, use of the site remains compliant with this provision.

Clause 5.10 – Heritage Conservation

The objectives of this clause include to conserve Dungog's environmental heritage, the significance of heritage items, of heritage conservation areas, associated fabric, settings and views. The clause also intends to conserve archaeological sites, Aboriginal places of cultural significance and Aboriginal objects.

A search of the Aboriginal Heritage Information Services (AHIMS) database (6 March 2024) identified that no Aboriginal sites or places of significance are located on or near the site (within 50m) as shown in **Appendix 4**.

The site is not identified as containing or being in proximity to any items of heritage significance. Accordingly, the Planning Authority can be satisfied that continued use of the site will have no impact on any heritage significance.

Clause 6.4 – Stormwater management

The continued use of the site will have no impact on existing stormwater flows, with no physical works proposed to increase hardstand areas. The Planning authority can be satisfied that the continued use will have no significant adverse impacts on stormwater runoff.

Clause 6.6 – Riparian land and watercourses

This clause is relevant given the continued use of the site within 40m of mapped watercourses, and the site containing mapped watercourses. The continued use of the site, being small scale in nature, is not considered to have any impacts on nearby watercourses. Use of the site will continue to operate in respect of existing watercourses.

3.4 DEVELOPMENT CONTROL PLAN (DCP)

Part A

This Part relates to development application requirements. The proposed development application will be submitted to Council consistent with those requirements set out within Part A.

Part B

This Part relates to exempt and complying development. The proposed development does not meet the development standards for complying development under Clause 3.A2 (2) SEPP (Exempt and Complying Development Codes) 2008.

Part C

This Part of the DCP does not provide any general requirements for a campground. The design and layout of the camping ground is regulated by the LEP and the Local Government (Manufactured Home Estates, Caravan Parks, Camping Grounds and Moveable Dwellings) Regulation 2021.

Part D

This Part relates to Local Area Plans prepared for specific localities. The proposed development is not located in any of these localities, nor does it trigger the need to prepare a Local Area Plan. The proposed development is consistent with the relevant provisions of the Dungog DCP.

4.0 SITE CHARACTERISTICS AND KEY DEVELOPMENT ISSUES

4.1 LIKELY IMPACTS OF THE DEVELOMENT

The likely impacts of the development are a matter of consideration for the consent authority under Section 4.15(1) of the Environmental Planning and Assessment Act 1979. These likely impacts are discussed under the following relevant headings.

CONTEXT AND SETTING

The continued use of the has been demonstrated to be consistent with the Regulations. It is in keeping with the context of the subject site, being effectively screened from nearby land uses.

VISUAL IMPACT

The continued use of the site is low impact. It does not require the erection of any buildings or construction works. The use is contained within the existing buildings/grounds of the site. The camping areas are significantly setback from the existing residential dwellings adjoining the subject site. For guests electing to camp overnight on site, sensor lights are provided to illuminate the pathway to the on site amenities. This lighting will be directed southward to avoid penetrative light impacting adjoining residences to the north-east and north-west.

ACCESS, TRANSPORT AND TRAFFIC

The development is low impact. While the continued use of the site for counselling services and ancillary camping uses will increase traffic to the site beyond the typical residential rate, this rate will not result in any significant exceedances through the local road network. This is supported by the fact that the nature of visits to the site consist primarily of guests arriving and then staying on-site until departure (rather than making multiple trips to and from the site when visiting). A Traffic Impact Assessment has been prepared to support the proposal and is provided as **Appendix 8**.

PUBLIC DOMAIN

The proposed development will continue to contribute to the public domain by providing important services/experiences to the community of the Dungog LGA.

SERVICES

Wastewater Treatment is to be established on site through a future S68 application in line with the attached Wastewater Management Plan (**Appendix 2**).

HERITAGE

The site is not listed as a heritage item, nor is it in the proximity of any heritage items. Furthermore, an AHIMS search resulted in the identification of no aboriginal artefacts within 50m of the site. No potential impact on heritage significance is anticipated through the continued use of the site.

ECOLOGICAL

The development does not require any works that would result in the need for vegetation removal. Furthermore, the use of the site will be carried out in respect of existing watercourses. The wastewater treatment plan demonstrates how wastewater can be treated on the site in consideration of the existing watercourses also.

LANDSCAPING

No landscaping plan has been provided with the DA. The subject site is effectively screened from surrounding uses and the public.

BUSFHIRE

The site is identified as bushfire prone land; accordingly, a bushfire assessment has been prepared for submission alongside this development application. This BAR sets out a list of recommendations in respect of specific bushfire protection measures relating to the subject application. It is recommended that these conditions be included within any General Terms of Approval issued by NSW RFS for use of the subject site.

ARCHAEOLOGY

No archaeological matters have been identified. No works are proposed.

NOISE AND VIBRATION

The continued use of the site is not considered to have any significant impacts in terms of noise and/or vibration.

The home business use and ancillary camping activities will operate in a low-scale manner with minimal noise production. A fence line is located to the north of the existing pool which provides an acoustic barrier for noise generated within the pool area. Additionally, campsite rules (as outlined in the Operational Management Plan provided as **Appendix 7**) will be enforced on all visitors electing to camp on site. These rules include a noise curfew of 10pm to mitigate any acoustic impacts on neighbouring properties. The continued use of the site is considered appropriate in terms of noise production within the context.

SAFETY, SECURITY AND PUBLIC INTEREST

The continued use of the site is not considered to be at any significant risk of crime within the existing context. Furthermore, the site owner & operator remains on site at all hours supervising will increase passive surveillance and active management of this land. The continued use of the site is considered to be in the public interest given it offers vital services in terms of counselling and recreational opportunities to locals within the Dungog LGA.

TOPOGRAPHY AND STORMWATER MANAGEMENT

A stormwater report has not been prepared. The additional stormwater that will run-off tents when the camping sites are occupied is considered to be minimal.

FLOODING

The subject site is not identified as flood prone land.

CUMULATIVE IMPACTS

The development will continue to contribute to the Dungog Economy by drawing in guests to the several offerings available on site.

4.2 CONSULTATION

Council are invited to notify the subject DA as required. Consultation is to occur though this period, with the applicant open to feedback received through this period.

4.3 SOCIAL AND ECONOMIC IMPACT ON THE LOCALITY

Social impact is best defined by (Armour 1992) that describes changes that occur in:

- People's way of life (how they live, work, play and interact with one another on a day to day basis),
- Their culture (shared beliefs, customs and values), and
- Their community (its cohesion, stability, character, services and facilities).

The proposed ongoing use of the site will provide positive economic impacts to Dungog through increased visitation to the area and localised spending. There are no anticipated adverse

economic impacts as a result of the proposed development, rather it is considered the proposal will contribute positively to the social elements of the locality. The proposed development is not out of character with the existing urban or rural context, will not involve an increased risk to public safety and will not threaten the existing sense of community, identity or cohesiveness in the locality.

4.4 SUITABILITY OF THE SITE AND PUBLIC INTEREST

The subject site is located within an existing residential area and is effectively separated from adjoining sensitive receivers.

The continued use of the site includes all elements required under the relevant planning instruments and policies, particularly the Local Government Regulations, and there are no anticipated negative impacts on the locality as a result of the development.

To this extent, the site is suitable for continued use.

5.0 CONCLUSION

This SoEE has demonstrated that the proposed development is within the public interest, both socially, economically and environmentally. Any relevant matters have been addressed through this SEE. The key reasons why the proposed development is appropriate are as follows;

- The proposed development is permissible with consent and is consistent with the objectives of the R5 Large Lot Residential zoning of the site;
- No adverse impact on the existing character or amenity of the area will result through its continued use;
- The ongoing provision of services on the site will incur positive social and economic impacts within the Dungog locality;
- The primitive camping ground proposed makes good use of the available land and will not result in any conflicts.

It is considered that the proposal will have no significant impacts on the surrounding properties to that it is likely to adversely affect their enjoyment or amenity. We look forward to Councils determination of this matter. If we can provide any further information or clarity, please do not hesitate to contact us.



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ONSITE WASTEWATER REPORT

PROPOSED USE OF DEANS GREEN PADDOCK AT 121 BLACK ROCK ROAD, MARTINS CREEK

GSL Environmental Authored by: Simon Doberer B.Sc. (ENV) Job Reference #: 83623 – B Date: 27th November 2023



GSL Environmental

Limitations

This report has been developed based on agreed requirements between the client and GSL Environmental as understood by GSL Environmental at the time of investigation. This report only applies to the subject scope of works undertaken at the subject site. Other interpretations should not be made, including changes of scope or application to other projects. The contents of this report are based on a professional appraisal of the conditions that existed onsite at the time of this investigation. Where a subsurface soil investigation has been undertaken the results are only applicable to the specific sampling locations and the depths undertaken. Because of natural geological variability and possible anthropogenic influences, the subsurface conditions reported can change abruptly. Such changes can also occur after the site investigation has been undertaken. The accuracy of the results provided in this assessment is limited by these possible variations along with limitations by budget constraints imposed by others and by inadequate site accessibility.

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Simon Doberer Principle Environmental Scientist B.Sc. (ENV)

<u>Contents</u>

1.	Introduction	4
2.	Site Description	4
3.	Site Information	6
4.	Physical Site Assessment	7
5.	Onsite Soil Assessment	. 12
6.	System Design/Selection	. 15
7.	Recommendations	. 17
7.	Recommendations	•

1. Introduction

GSL Environmental has been commissioned by Dean Djakiew to assess the suitability of an on-site sewage management system for the proposed use of Deans Green Paddock at 121 Black Rock Road, MARTINS CREEK NSW. This report will be submitted to Dungog Council in accordance with the relevant details in the 'Dungog Council Onsite Sewage DAF 2015'. Other guiding documents include,

- Australian Standard AS1547: 2012"On-site Domestic Wastewater Management"
- Dept. Local Government 1998, On-site Sewage Management for Single Households
- Water NSW, "Designing and Installing Onsite Wastewater Systems", 2019

This assessment is required to show that treated wastewater generated by the proposed use of Deans Green Paddock can be sustainably managed on the site.

2. Site Description

The subject allotment is rectangular in shape and approximately 3.5 Ha in size. The proposed landform is within a very gently inclined waning lower slope area. The closest significant water body, Martins Creek meanders through the property. There is also an overland flowpath traversing the site.

According to the Dungog 1:100 000 Soil Map the proposed dispersal area onsite is underlain by "Brecon" residual soils. The Brecon Soil Landscape areas generally consists of undulating rises to low hills on Carboniferous sediments and ignimbrites of the Paterson Mountains and Clarencetown Hills regions. Slope gradients are generally between 2 - 10%. Underlying soils mostly consist of brown sandy loams traversing to reddish brown clays.

The proposal is for the use of Deans Green Paddock, plans within appendix B. The proposal is for 6 camp sites with a maximum 24 persons at anyone time. However, the site is used very intermittently and likely to not have these numbers. The only wastewater nodes available for the use of Deans Green Paddock is a low water flush toilet, sink and a low water use shower, basically a pool shower.

The existing residence onsite is serviced by an AWTS followed by dispersal. The proposed camping wastewater is to treated by this existing AWTS onsite.



Figure 1: Subject Site, care of six maps showing property boundaries and associated landmarks.

3. Site Information

Site Address: 121 Black Rock Road, MARTINS CREEK

Water Supply: Tank

Proposed Development: Use of Deans Green Paddock

Equivalent Population: Up to 24 campers Up to 5 persons/day – 3 bedroom residence

Wastewater Flow Allowance: 23L per camper per day 120L per person per day

Design Flowrate: 1152L per day

Proposed Effluent Dispersal Type: Subsurface Drip

System Design: aerated wastewater treatment system

Most restrictive Soil Texture: reddish brown clays

Minimum Dispersal Area: 621m2 – Subsurface Drip Irrigation only

Buffer Distances: All required buffer distances with AS1547:2012 can be achieved.

<u>Flowrate</u>

The flowrate of 23L/camper has been derived from the NSW Health document "Septic Tank and Collection Well Guideline" 2001 for an estimate for a recreational ground with shower, which can be considered similar to the proposed usage.

4. Physical Site Assessment

A site inspection was undertaken on the 15th February 2023. A secondary site inspection was undertaken on the 16th November 2023. The fieldwork included an assessment of the site's physical parameters as well as hand excavation of boreholes to determine the underlying soil structures. This was undertaken to delineate the most suitable location for the proposed dispersal area. Potential onsite limitations have been investigated and are discussed below.

4.1 Landform

Varying landforms pose differing potential limitations to an effluent dispersal area. Risk of run-on and runoff may be enhanced dependent on the site's landform.

The proposed landform is within a very gently inclined waning lower slope area.

Limitation: LOW

4.2 Slope Gradient

Excessive slope within an EDA can potentially lead to effluent leaching away from the EDA.

The proposed landform is within a very gently inclined waning lower slope area. The slope percentage within the landform is approximately 8%.

Limitation: LOW

4.3 Exposure

Providing the EDA with maximum wind and sun exposure is preferable. This will enhance the evapotranspiration properties of the EDA and should add to the life of the EDA.

The proposed EDA is within an open area with very high levels of exposure.

Limitation: LOW

4.4 Flood Potential

All effluent dispersal areas are to be above the 1:20 flood level. In addition all electrical components, vents and inspection holes form the treatment system should be located above the 1:100-year flood

level. Effluent dispersal areas being inundated via flood waters can become a public health issue during times of high rain.

Limitation: LOW

4.5 Vegetation

All effluent dispersal areas should be covered with vegetation or mulch-based covers. A vegetated EDA provides the possibility of that area in enhancing nutrient uptake and evapotranspiration. Low vegetation cover can cause effluent runoff and low nutrient and evapotranspiration uptake rates.

A dense cover of grassland vegetation is currently within the proposed EDA. The proposed EDA should be regularly mowed and a dense grassland be maintained.

Limitation: LOW

4.6 Stormwater Run-on

Stormwater runoff through the EDA has the potential to transport effluent away from the EDA to more sensitive receivers.

There were no visible signs of stormwater entering the proposed EDA. The proposed landform is within a very gently inclined waning lower slope area. The slope percentage within the landform is approximately 8%.

Limitation: LOW

4.7 Site Drainage

Damp and wet areas should be avoided for EDAs. These areas indicate seepage of waters and could become a transport option for effluent if placed in these areas.

Site appears to be well drained with semi-permeable soils. No visible signs of wet/damp areas in the proposed EDA. The soil profile did not show evidence of water logging.

Limitation: LOW

4.8 Erosion Potential

Areas of visible soil movement and erosion should be avoided.

No visible signs of erosion within the EDA. Proposed EDA area is a very gently inclined landform and is well vegetated.

Limitation: LOW

4.9 Evidence of Fill

No evidence of fill was seen onsite or in the excavated boreholes. Soil logs are consistent of the description for underlying soils within the Brecon Soil Areas.

Limitation: LOW

4.10 Groundwater Depth

Groundwater not observed in bore holes.

Limitation: LOW

4.11 Surface Rock

No surface boulders or rock outcrops were observed within the proposed EDA. Whilst depth was found in boreholes excavated within the proposed EDA, if during installation a "floater" is found it is to be removed from the proposed EDA.

Limitation: LOW

4.12 Groundwater Bores

A search of Water's all groundwater mapping was undertaken to determine the proximity of any bores to the EDA. There are no domestic registered bores within 250m of the proposed EDA

Limitation: LOW

4.13 Watercourse Proximity

The closest significant water body, Martins Creek meanders through the property. There is also an overland flowpath traversing the site. Spray irrigation is not to be used.

Limitation: HIGH

4.14 Stock Present

Stock can cause damage to irrigation systems and must be kept out of the EDA by fencing or other physical barrier.

4.15 Buffer Distances

All required buffer distances within AS1547:2012 can be achieved. Not all required buffer distances within the Dungog Council Onsite Sewage DAF 2015 can be met.

System / Land Application Type	Limiting Factor	Minimum Buffer Distance (m)	
	Permanent surface waters such as: Lakes, rivers, creeks and streams	≻ 100m	
All Land Application Contains	Domestic groundwater wells and bores	> 250m	
All Land Application Systems	Other waters such as: Farm dams, intermittent waterways and drainage channels	≻ 40m	
	Retaining wall, embankments, escarpments and cuttings.	> 15	
	Driveways and property boundaries	 6m if area up gradient 3m if area down gradient 	
	Dwellings and buildings	➤ 15m	
Surface Spray Irrigation	Paths and walkways	≻ 3m	
(Standard Spray Heads)	Swimming pools	≻ 6m	
	Retaining wall, embankments, escarpments and cuttings.	 12m if area up gradient 3m if down gradient 	
Surface Drip and Trickle Irrigation	Dwellings and buildings, swimming pools, property boundaries and driveways. Retaining wall, embankments, escarpments and cuttings.	 6m if area up gradient 3m if area down gradient 	
Subsurface Irrigation	Dwellings and buildings, swimming pools, property boundaries and driveways Retaining wall, embankments, escarpments and cuttings.	 6m if area up gradient¹ 3m if area down gradient¹ 	
	Depth to Hardpan or Bedrock	> 0.6m below level of pipework ²	
	Property boundary Retaining wall, embankments, escarpments and cuttings.	 12m if area up gradient 6m if area down gradient 	
Absorption System	Dwellings and buildings, swimming pools and driveways	 6m if area up gradient 3m if area down gradient 	
	Depth to Hardpan or Bedrock	> 0.6m below base of trench/bed	

Table 6-8 Minimum Buffer Distances for On-site System Land Application Systems

Permanent Watercourse: Any river, creek, stream or chain of ponds, whether artificially modified or not, in which water usually flows, either continuously or intermittently, in a defined bed or channel Intermittent Watercourse: A low point with no or little defined bed or channel that carries water during rainfall events, but

Intermittent Watercourse: A low point with no or little defined bed or channel that carries water during rainfall events, but dries out quickly when rainfall stops. A gully or incised drainage depression is considered to be an intermittent watercourse.

Limitation: HIGH
The proposed EDA setback is further from Martins Creek than the current onsite dispersal area.

Proposed creek setback: 46m

As per table R1 of AS1547:2012 a risk assessment utilizing table R2 AS1547:2012 is to be undertaken for reduced setback proposals. For surface water site constraint items of specific concern from table R2 – A, B, D, E, F, G, J were discussed.

The following is the discussion utilizing Table R2 from AS1547:2012.

Item	Site/system Feature	Comment	Constraint Rating
А	Microbial Quality of effluent	Secondary Effluent	LOW
В	Surface Water	Creek 46m away	HIGH
D	Slope	Very Gently Inclined	LOW
E	Position of land Application	Best position onsite in regards to all onsite wastewater parameters as a whole	LOW
F	Drainage	Category 1 and 2 soils within the topsoil's	LOW
G	Flood Potential	Above the 1:20 Flood Level	LOW
J	Application Method	Subsurface Drip	LOW

With the majority of the constraints being on the lower end the R2 table suggests that the proposed subsurface irrigation in the proposed area is in a Low constraint area.

Furthermore a viral die-off calculation was conducted and presented within Appendix F. The calculations suggest that within 2.8m of any effluent leaving the proposed EDA viral die-off will occur.

5. Onsite Soil Assessment

During the site inspection 2 boreholes were hand excavated with a 100mm auger within the proposed EDA. The following are the results from the excavation. The auger holes were used to determine the underlying soil properties. No groundwater was observed in the excavated boreholes.

According to the Dungog 1:100 000 Soil Map the proposed dispersal area onsite is underlain by "Brecon" residual soils. The Brecon Soil Landscape areas generally consists of undulating rises to low hills on Carboniferous sediments and ignimbrites of the Paterson Mountains and Clarencetown Hills regions. Slope gradients are generally between 2 - 10%. Underlying soils mostly consist of brown sandy loams traversing to reddish brown clays.

Borehole 1

- 0 250mm brown sandy loams,
- 250 550mm brown clay loams,
- 550 1000mm reddish brown clays,



Figure 3: Borehole 1 excavated onsite

Borehole 2

- 0 200mm brown sandy loams,
- 200 500mm brown clay loams,
- 500 1000mm reddish brown clays,

An insitu probe, tested the soil layers for pH and EC, results as below.

Ph and EC

Borehole 1

Depth	рН	EC _e (μS/cm)
0 – 250mm	5.3	289
250 – 550mm	5.5	677
550 – 1000mm	5.4	833

Borehole 2

Depth	рН	EC _e (μS/cm)
0 – 200mm	5.5	389
200 – 500mm	5.3	717
500 – 1000mm	5.1	657

The pH of a soil influences its ability to supply nutrients to vegetation. If the soil is too acidic vegetative growth is inhibited. The electrical conductivity of the soil relates to the amount of salts present. A high salt concentration inhibits vegetative growth.

The electrical conductivity of the soils is less than 4 dS/m. This will not inhibit vegetative growth. The pH of the soil is between 5.1 and 5.5. A regular application of lime and gypsum is recommended to maintain healthy vegetation growth.

A Sample was sent to ALS Australia, a NATA accredited laboratory to determine the insitu reliability as well as the testing of further parameters. Results below and in appendix.

The sample tested at the laboratory was from borehole 1, 0-250mm.

Coarse fragments

Coarse fragments are those over 2 mm in diameter. They can pose limitations to vegetative growth by lowering the soil's ability to supply water and nutrients.

<10% course fragment was observed within the excavated soils onsite. There were some peds which could be crushed easily using fingers.

Limitation: LOW

Exchangeable Sodium Percentage

The exchangeable sodium percentage (ESP) measures the proportion of cation exchange sites occupied by sodium. Soils are considered sodic when the ESP is greater than 6, and highly sodic when the ESP is greater than 15.

ESP 2.0%, suggesting non sodic soils within the proposed EDA.

Cation Exchange Capacity

Cation exchange capacity (CEC) is a measure of the soil's ability to hold positively charged ions. It is a very important soil property influencing soil structure stability, nutrient availability, soil pH and the soil's reaction to fertilisers and other ameliorants. A figure above 10 meq/100g is preferred for plant production. You can improve CEC in weathered soils by adding lime and raising the pH.

CEC = 2.3 meq/100g

Once EDA is installed an annual maintenance application rate of the following is to be implemented.

Lime 0.5kg/m2 – Subject site calculation = A minimum 311kg across the proposed 621m2 EDAs. Gypsum 0.5kg/m2 – Subject site calculation = A Minimum 311kg across the proposed 621m2 EDAs.

Phosphorus Sorption Index

The capacity of a soil to adsorb phosphorus is expressed as its phosphorus sorption capacity.

P sorb = 690mg P sorbed/kg - laboratory P sorb = 400mg P sorbed/kg – given figure within literature for clay loam soils

For nutrient balance calculations the lesser of value above is to be utilized

Emerson Aggregate Test

The combination of slaking and dispersion caused a reduction in macroporosity and, therefore, lower infiltration rates and hydraulic conductivities as well as an increase in soil strength and other undesirable soil physical properties. This test classifies the behavior of soil aggregates, when

immersed, on their coherence in water. This test was competed inhouse. Soils are divided into seven classes on the basis of their coherence in water, with one further class being distinguished by the presence of calcium-rich minerals.

EAT Class = 2(2). Some slight dispersion potential within underlying soils.

6. System Design/Selection

For the subject site there are a number of methods to treat the wastewater generated onsite. A general septic followed by an absorption pit/trench should not be recommended for the subject site. However for this site effluent should be treated to a secondary level followed by dispersal. A number of dispersal areas could be considered, subsurface irrigation, pressure dosed absorption bed and mounds

Proposed Treatment Node

The proposal is to continue use of a NSW Health Accredited AWTS system onsite. An Aerated Wastewater Treatment System (AWTS) uses aerobic treatment to promote oxidation and microbiological consumption of organic matter by bacteria through facilitated biological processes.

Proposed Effluent Dispersal

The proposal is too install subsurface irrigation onsite. Subsurface irrigation reduces the chance of human contact with the effluent and significantly reduces any potential public health risk. By placing the effluent in the root zone of plants, beneficial reuse of both the hydraulic and nutrient components of the effluent is maximised, offering enhanced environmental benefits. There are also potential amenity benefits offered by subsurface irrigation, such as less chance of surface saturation and effluent runoff.

Hydraulic Sizing

As per section 6.4.3 of 'Port Stephens Council DAF V1.4' the hydraulic sizing was calculated using the following formula.

LAA = q/(DLR - CAF)

q = Design Daily Loading Rate (L/day) DLR= Design Loading Rate (mm/day) CAF= Climate Adjustment Factor (mm/day)

For the subject site the following formula is utilized.

LAA = 1152/(3-0)

LAA = 384m2

Annual Nutrient Balance

Minimum irrigation Areas, balances presented in appendix E below.

Minimum Area Required for Nitrogen Uptake: 561m2 Minimum Area Required for Phosphorus Uptake: **621m2**

As such a minimum 621m2 of subsurface irrigation is to be installed onsite.

7. Recommendations

- Continued use of NSW Health Accredited AWTS system onsite to treat the calculated flowrate of 1152L/day.
- The installed effluent dispersal is to be a subsurface effluent dispersal field of a minimum 621m2.
- Stock must be kept out of the EDAs by fencing or other physical barrier.
- This design assumes at least three-star rated plumbing fixtures are used in any new development.

Simon Doberer Principle Environmental Scientist B.Sc. (ENV)

Appendix A – Site Plans



Appendix B – Proposed Plans



Appendix C – Operation and Maintenance Guideline

ON-SITE SEWAGE MANAGEMENT SYSTEMS

If you live in or rent a house that is not connected to the main sewer then chances are that your yard contains an on-site sewage management system. If this is the case then you have a special responsibility to ensure that it is working as well as it can.

The aim of this pamphlet is to introduce you to some of the most popular types of on-site sewage management systems and provide some general information to help you maintain your system effectively. You should find out what type of system you have and how it works.

More information can be obtained from the pamphlets:

Your Septic System Your Aerated Wastewater Treatment System Your Composting Toilet Your Land Application Area

You can get a copy of these pamphlets from your local council or the address marked on the back of this pamphlet.

It is important to keep in mind that maintenance needs to be performed properly and regularly. Poorly maintained on-site sewage management systems can significantly affect you and your family's health as well as the local environment.

What is an on-site sewage management system?

A domestic on-site sewage management system is made up of various components which - if properly designed, installed and maintained - allow the treatment and utilisation of wastewater from a house, completely within the boundary of the property.

Wastewater may be blackwater (toilet waste), or greywater (water from showers, sinks, and washing machines), or a combination of both. Partial on-site systems - eg. pump out and common effluent systems (CES) - also exist. These usually involve the preliminary on-site treatment of wastewater in a septic tank, followed by collection and transport of the treated wastewater to an offsite management facility. Pump out systems use road tankers to transport the effluent, and CES use a network of small diameter pipes.

How does an on-site sewage management system work?

For complete on-site systems there are two main processes:

treatment of wastewater to a certain standard
 its application to a dedicated area of land.

The type of application permitted depends on the quality of treatment, although you should try to avoid contact with all treated and untreated wastewater, and thoroughly wash affected areas if contact does occur.

Treatment and application can be carried out using various methods:

Septic Tank

Septic tanks treat both greywater and blackwater, but they provide only limited treatment through the settling of solids and the flotation of fats and greases. Bacteria in the tank break down the solids over a period of time. Wastewater that has been treated in a septic tank can only be applied to land through a covered soil absorption system, as the effluent is still too contaminated for above ground or near surface irrigation.

AWTS

Aerated wastewater treatment systems (AWTS) treat all household wastewater and have several treatment compartments. The first is like a septic tank, but in the second compartment air is mixed with the wastewater to assist bacteria to break down solids. A third compartment allows settling of more solids and a final chlorination contact chamber allows disinfection. Some AWTS are constructed with all the compartments inside a single tank. The effluent produced may be surface or sub-surface irrigated in a declicated area. Composting Toilets

Composting toilets collect and treat toilet waste only. Water from the shower, sinks and the washing machine needs to be treated separately (for example in a septic tank or AWTS as above). The compost produced by a composting toilet has special requirements but is usually buried on-site.

These are just some of the treatment and application methods available, and there are many other types such as sand filter beds, wetlands, and amended earth mounds. Your local council or the NSW Department of Health have more information on these systems if you need it.

Regulations and recommendations

The NSW Department of Health determines the design and structural requirements for treatment systems for single households. Local councils are primarily responsible for approving the installation of smaller domestic septic tank systems, composting toilets and AWTSs in their area, and are also responsible for approving land application areas. The NSW Environment Protection Authority approves larger systems.

The design and installation of on-site sewage management systems, including plumbing and drainage, should only be carried out by suitably qualified or experienced people. Care is needed to ensure correct sizing of the treatment system and application area.

Heavy fines may be imposed under the Clean Waters Act if wastewater is not managed properly.

Keeping your on-site sewage management system operating well

What you put down your drains and toilets has a lot to do with how well your system performs. Maintenance of your sewage management system also needs to be done well and on-time. The following is a guide to the types of things you should and should not do with your system.

DO

- Learn how your sewage management system works and its operational and maintenance requirements.
- Learn the location and layout of your sewage management system.
- Have your AWTS (if installed) inspected and serviced four times per year by an approved contractor. Other systems should be inspected at least once every year. Assessment should be applicable to the system design.
- Keep a record of desludgings, inspections, and other maintenance.
- Have your septic tank or AWTS desludged every three years to prevent sludge build up, which may 'clog' the pipes.
- Conserve water, Conservative water use around the house will reduce the amount of wastewater which is produced and needs to be treated.
- Discuss with your local council the adequacy of your existing sewage management system if you are considering house extensions for increased occupancy.

DON'T

- Don't let children or pets play on land application areas.
- X Don't water fruit and vegetables with effluent.
- Don't extract untreated groundwater for cooking and drinking.
- Don't put large quantities of bleaches, disinfectants, whiteners, nappy soakers and spot removers into your system via the sink, washing machine or toilet.
- Don't allow any foreign materials such as nappies, sanitary napkins, condoms and other hygiene products to enter the system.
- Don't put fats and oils down the drain and keep food waste out of your system.
- Don't install or use a garbage grinder or spa bath if your system is not designed for it.

Reducing water usage

Reducing water usage will lessen the likelihood of problems such as overloading with your septic system. Overloading may result in wastewater backing up into your house, contamination of your yard with improperly treated effluent, and effluent from your system contaminating groundwater or a nearby waterway.

Your sewage management system is also unable to cope with large volumes of water such as several showers or loads of washing over a short period of time. You should try to avoid these 'shock loads' by ensuring water use is spread more evenly throughout the day and week.

HELP PROTECT YOUR HEALTH AND THE ENVIRONMENT

Poorly maintained sewage management systems are a serious source of water pollution and may present health risks, cause odours and attract vermin and insects.

By looking after your management system you can do your part in helping to protect the environment and the health of you and your community.

For more information please contact:

Managing Wastewater In Your Backyard



Aerated Wastewater Treatment Systems (AWTS)

In unsewered areas, the proper treatment and utilisation of household wastewater on-site is critical in preserving the health of the public and the environment. AWTS have been developed as a way of achieving this.

What is an AWTS?

An AWTS is a purpose built system used for the treatment of sewage and liquid wastes from a single household or multiple dwellings.

It consists of a series of treatment chambers combined with an irrigation system. An AWTS enables people living in unsewered areas to treat and utilise their wastewater.

How does an AWTS work?

Wastewater from a household is treated in stages in several separate chambers. The first chamber is similar to a conventional septic tank. The wastewater enters the chamber where the solids settle to the bottom and are retained in the tank forming a sludge layer. Scum collects at the top, and the partially clarified wastewater flows into a second chamber. Here the wastewater is mixed with air



to assist bacteria to further treat it. A third chamber allows additional clarification through the settling of solids, which are returned for further treatment to either the septic chamber (as shown) or to the aeration chamber. The clarified effluent is disinfected in another chamber (usually by chlorination) before irrigation can take place.

Bacteria in the first chamber break down the solid matter in the sludge and scum layers. Material that cannot be fully broken down gradually builds up in the chamber and must be pumped out periodically.

Regulations and recommendations

Local councils are primarily responsible for approving the smaller, domestic AWTSs in their area. The Environment Protection Authority (EPA) approves larger units, whilst the NSW Department pf Health determines the design and structural requirements for all AWTSs.

At present AWTSs need to be serviced quarterly by an approved contractor at a cost to the owner. Local councils should also maintain a register of the servicing of each system within their area.

AWTSs should be fitted with an alarm having visual and audible components to indicate mechanical and electrical equipment malfunctions. The alarm should provide a signal adjacent to the alarm and at a

relevant position inside the house. The alarm should incorporate a warning lamp which may only be reset by the service agent.

Maintaining your AWTS

The effectiveness of the system will, in part, depend on how it is used and maintained. The following is a guide on good maintenance procedures that you should follow:

DO

- Have your AWTS inspected and serviced four times per year by an approved contractor.
 Assessment should be applicable to the system design.
- Have your system service include assessment of sludge and scum levels in all tanks, and performance of irrigation areas.
- Have all your tanks desludged at least every three years.
- Have your disinfection chamber inspected and tested quarterly to ensure correct disinfectant levels.
- Have your grease trap (if installed) cleaned out at least every two months.
- Keep a record of pumping, inspections, and other maintenance.
- Learn the location and layout of your AWTS and land application area.
- Use biodegradable liquid detergents such as concentrates with low sodium and phosphorous levels.
- ✓ Conserve water.

DONT

- Don't put bleaches, disinfectants, whiteners, nappy soakers and spot removers in large quantities into your AWTS via the sink, washing machine or toilet.
- Don't allow any foreign materials such as nappies, sanitary napkins, condoms and other hygiene products to enter the system.
- Don't use more than the recommended amounts of detergents.
- Don't put fats and oils down the drain and keep food waste out of your system.
- Don't switch off power to the AWTS, even if you are going on holidays

Reducing water usage

Reducing water usage will lessen the likelihood of problems such as overloading with your AWTS. Overloading may result in wastewater backing up into your house, contamination of your yard with improperly treated effluent, and effluent from your system entering a nearby river, creek or dam.

Conservative water use around the house will reduce the amount of wastewater which is produced and needs to be treated.

Your AWTS is also unable to cope with large volumes of water such as several showers or loads of washing over a short period of time. You should try to avoid these 'shock loads' by ensuring water use is spread more evenly throughout the day and week.

Warning signs

You can look out for a few warning signs that signal to you that there are troubles with your AWTS. Ensure that these problems are attended to immediately to protect your health and the environment.

Look out for the following warning signs:

- A Water that drains too slowly-
- Drain pipes that gurgle or make noises when air bubbles are forced back through the system.
- A Sewage smells, this indicates a serious problem.
- A Water backing up into your sink which may indicate that your system is already failing.
- Wastewater pooling over the land application area.
- Black coloured effluent in the aerated tank
- Excess noise from the blower or pumping equipment
- Poor vegetation growth in irrigated area.

Black coloured effluent in the aerated tank.

- Excess noise from the blower or pumping equipment
- Poor vegetation growth in irrigated area.

Odour problems from a vent on the AWTS can be a result of slow or inadequate breakdown of solids. Call a technician to service the system.

HELP PROTECT YOUR HEALTH AND THE ENVIRONMENT

Poorly maintained AWTSs are a serious source of water pollution and may present health risks, cause odours and attract vermin and insects.

By looking after your treatment system you can do your part in helping to protect the environment and the health of you and your family.

If you would like more information please contact:

Your Aerated Wastewater Treatment System



Your Aerated /astewater Freatment System



LAND APPLICATION AREAS

The reuse of domestic wastewater on-site can be an economical and environmentally sound use of resources.

What are land application areas?

These are areas that allow treated domestic wastewater to be managed entirely on-site.

The area must be able to utilise the wastewater and treat any organic matter and wastes it may contain. The wastewater is rich in nutrients, and can provide excellent nourishment for flower gardens, lawns, certain shrubs and trees. The vegetation should be suitably tolerant of high water and nutrient loads.

How does a land application area work?

Treated wastewater applied to a land application area may be utilised or simply disposed, depending on the type of application system that is used. The application of the wastewater can be through a soil absorption system (based on disposal) or through an irrigation system (based on utilisation).

Soil absorption systems do not require highly treated effluent, and wastewater treated by a septic tank is reasonable as the solids content in the effluent has been reduced. Absorption systems release the effluent into the soil at a depth that cannot be reached by the roots of most small shrubs and grasses. They rely mainly on the processes of soil treatment and then transmission to the water table, with minimal evaporation and up-take by plants. These systems are not recommended in sensitive areas as they may lead to contamination of surface water and groundwater.

Irrigation systems may be classed as either subsurface or surface irrigation. If an irrigation system is to be used, wastewater needs to be pretreated to at least the quality produced by an aerated wastewater treatment system (AWTS).

Subsurface irrigation requires highly treated effluent that is introduced into the soil close to the surface. The effluent is utilised mainly by plants and evaporation. Surface irrigation requires highly treated effluent that has undergone aeration and disinfection treatments, so as to reduce the possibility of bacteria and virus contamination.

Typical Site Layout (not to scale)



The effluent is then applied to the land area through a series of drip, trickle, or spray points which are designed to eliminate airborne drift and run-off into neighbouring properties.

There are some public health and environmental concerns about surface irrigation. There is the risk of contact with treated effluent and the potential for surface run-off. Given these problems, subsurface irrigation is arguably the safest, most efficient and effective method of effluent utilisation.

Regulations and recommendations

The design and installation of land application areas should only be carried out by suitably qualified or experienced people, and only after a site and soil evaluation is done by a soil scientist. Care should be taken to ensure correct buffer distances are left between the application area and bores, waterways, buildings, and neighbouring properties.

Heavy fines may be imposed under the Clean Waters Act if effluent is managed improperly.

At least two warning signs should be installed along the boundary of a land application area. The signs should comprise of 20mm high Series C lettering in black or white on a green background with the words:

RECLAIMED EFFLUENT NOT FOR DRINKING AVOID CONTACT

Depending on the requirements of your local council, wet weather storage and soil moisture sensors may need to be installed to ensure that effluent is only irrigated when the soil is not saturated.

Regular checks should be undertaken of any mechanical equipment to ensure that it is operating correctly. Local councils may require periodic analysis of soil or groundwater characteristics

Humans and animals should be excluded from land application areas during and immediately after the application of treated wastewater. The longer the period of exclusion from an area, the lower the risk to public health.

The householder is required to enter into a service contract with the installation company, its agent or the manufacturer of their sewage management system, this will ensure that the system operates efficiently.

Location of the application area

Treated wastewater has the potential to have negative impacts on public health and the environment. For this reason the application area must be located in accordance with the results of a site evaluation, and approved landscaping must be completed prior to occupation of the building. Sandy soil and clayey soils may present special problems.

The system must allow even distribution of treated wastewater over the land application area.

Maintaining your land application area

The effectiveness of the application area is governed by the activities of the owner.

DO

- Construct and maintain diversion drains around the top side of the application area to divert surface water.
- Ensure that your application area is kept level by filling any depressions with good quality top soil (not clay).
- Keep the grass regularly mowed and plant small trees around the perimeter to aid absorption and transpiration of the effluent.
- Ensure that any run off from the roof, driveway and other impermeable surfaces is directed away from the application area.
- ✓ Fence irrigation areas.
- Ensure appropriate warning signs are visible at all times in the vicinity of a spray irrigation area.
- Have your irrigation system checked by the service agent when they are carrying out service on the treatment system.

DON'T

- Don't erect any structures, construct paths, graze animals or drive over the land application area.
- Don't plant large trees that shade the land application area, as the area needs sunlight to aid in the evaporation and transpiration of the effluent.
- Don't plant trees or shrubs near or on house drains.
- Don't alter stormwater lines to discharge into or near the land application area.
- Don't flood the land application area through the use of hoses or sprinklers.
- Don't let children or pets play on land application areas.
- Don't water fruit and vegetables with the effluent.
- Don't extract untreated groundwater for potable use.

Warning signs

Regular visual checking of the system will ensure that problems are located and fixed early.

The visual signs of system failure include:

- A surface ponding and run-off of treated wastewater
- A soil quality deterioration
- a poor vegetation growth
- a unusual odours

Volume of water

Land application areas and systems for on-site application are designed and constructed in anticipation of the volume of waste to be discharged. Uncontrolled use of water may lead to poorly treated effluent being released from the system.

If the land application area is waterlogged and soggy the following are possible reasons:

- A Overloading the treatment system with wastewater.
- A The clogging of the trench with solids not trapped by the septic tank. The tank may require desludging.
- A The application area has been poorly designed.
- A Stormwater is running onto the area.

HELP PROTECT YOUR HEALTH AND THE ENVIRONMENT

Poorly maintained land application areas are a serious source of water pollution and may present health risks, cause odours and attract vermin and insects.

By looking after your sewage management system you can do your part in helping to protect the environment and the health of you and your family.

For more information please contact:

Your Land Application Area



Appendix D – Laboratory Results



CERTIFICATE OF ANALYSIS

Work Order	EW2300825	Page	: 1 of 3
Client	: GSL Environmental	Laboratory	Environmental Division NSW South Coast
Contact	: Simon Doberer	Contact	: Aneta Prosaroski
Address	: 71 Moona Creek Road	Address	: 1/19 Ralph Black Dr, North Wollongong 2500 NSW Australia
	Vincentia		
Telephone	:	Telephone	: 02 42253125
Project	: Black Rock Road, MARTINS CREEK	Date Samples Received	: 17-Feb-2023 14:00
Order number	: 83623	Date Analysis Commenced	: 22-Feb-2023
C-O-C number	:	Issue Date	: 24-Feb-2023 16:50
Sampler	: Client - Simon Doberer		HALA NALA
Site	:		
Quote number	: SY/175/20		Accreditation No. 825
No. of samples received	1		Accredited for compliance with
No. of samples analysed	1		ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Dian Dao	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW



In house developed procedures

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society. LOR = Limit of reporting

^ = This result is computed from individual analyte detections at or above the level of reporting

ø = ALS is not NATA accredited for these tests.

~ = Indicates an estimated value.

• Analytical work for this work order will be conducted at ALS Sydney.

ALS is not NATA accredited for the analysis of Exchangeable Cations on Alkaline Soils when performed under ALS Method ED006.

• ED007 and ED008: When Exchangeable AI is reported from these methods, it should be noted that Rayment & Lyons (2011) suggests Exchange Acidity by 1M KCI - Method 15G1 (ED005) is a more suitable method for the determination of exchange acidity (H+ + AI3+).

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP1	 	
		Sampl	ing date / time	15-Feb-2023 00:00	 	
Compound	CAS Number	LOR	Unit	EW2300825-001	 	
				Result	 	
EA002: pH 1:5 (Soils)						
pH Value		0.1	pH Unit	5.2	 	
EA010: Conductivity (1:5)						
Electrical Conductivity @ 25°C		1	μS/cm	17	 	
ED007: Exchangeable Cations						
Exchangeable Calcium		0.1	meq/100g	1.4	 	
Exchangeable Magnesium		0.1	meq/100g	0.7	 	
Exchangeable Potassium		0.1	meq/100g	<0.1	 	
Exchangeable Sodium		0.1	meq/100g	<0.1	 	
Cation Exchange Capacity		0.1	meq/100g	2.3	 	
Exchangeable Sodium Percent		0.1	%	2.0	 	
EK072: Phosphate Sorption Capacity						
Phosphate Sorption Capacity		250	mg P sorbed/kg	690	 	



Inter-Laboratory Testing

Analysis conducted by ALS Sydney, NATA accreditation no. 825, site no. 10911 (Chemistry) 14913 (Biology).

(SOIL) EA010: Conductivity (1:5)

(SOIL) EA002: pH 1:5 (Soils)

(SOIL) EK072: Phosphate Sorption Capacity

(SOIL) ED007: Exchangeable Cations

-	ALSLaborator please tick	у :		PL-0 	08 8359 0890 E aael Jr RIS6ANE '32 Sha Ph.; 324:. ¹ 222 E s DELAIDE 21 Burna P, A.'0ZJ	lalde@aisg of ana Street Sta amples b,isb, RoadPoorct.	bal.comPti. 'J7 ⁴ 94 I'f'or::I QLO 4 5) 3.,e@alsgiobalc .:a SA50:gMACK	4 0,;: E m J ELBOI,R cftr! 03 85 AY 7C Harb	acka1@al9g 1 c-0a1-on NE :"1 Westat'Roa <br 499600E_sani;:esm our RoadMaekay_i.O	n \$p,1ng,taleVIC 3 T1 eJOOUr;"le@al I com 4740 :::JPE "l Pti. OC	.J"L JWA Pn I'.'.:44 -1 al	A 4/1'., ary Place "101!1N #232003E n:,wra@a"O!(Ph 021054 l'j66 E samples I & I > : : 14.45 psama C-ruff Bohe OLD 7818 DealtGMC2 4186 0800 E town/l'lice en II"Onmentil Jave III" - II" Jave III" Jave III"
CLIENT:	GSL Environmental		TURNA	ROUND REQUIREMENTS :	Standar	d TAT (Lis	t due date):				FOR LA	BORATORY USE C	ONLY (Circle)
OFFICE: 71 Moona C_reek Road, VINCENTIA (Standard TAT may be longer for some tests e.					🗌 Non Star	ndard or ur	gent TAT (Lis	t due date	e):		Custody	Seal Intact?	Yes No NIA
PROJECT	Black Rock Road, MARTINS CREEK		ALS Q	UOTE NO.: SY/	175/20				COC SEQUEN	ICE NUMBER (Circle)	Free K:e receipt?	/ frozen Ice bricks pres	ent upon Yes No
ORDER N	JMBER:83623							cc	DC: 1 2	3 4 5 6	7 Random	Sample Temperature of	n Receipt: C
PROJECT	MANAGER: Simon Doberer	CONTACT P	H: 04169	35868				OF	F: 1 2	3 4 5 6	7 Other co	mment:	2-U
SAMPLER	: Simon Doberer	SAMPLER N	OBILE:	0416935868	RELINQUISH	IED BY:		R	ECEIV D	BY:.	RELINQUISH	IED BY:	RECEIVED BY:
COC ema	iled to ALS? (YES / NO)	EDD FORMA	T (or de	fault):	Simon Dobe	erer							
Email Repo	orts to (will default to PM if no other addresse	es are listed): gslenvironm	ental@o	utlook.com	0-ATE/TIME:			DA	ATE/TIME:		DATE/TIME:		DATE/TIME:
EmailInvoid	e to (will default to PM if no other addresses	are listed): gslenvironmen	tal@outle	pok.com	17/02/2023				\ <i>I Ir;</i> J	<i>I.,:1.</i> \IfO::			
COMMENT	S/SPECIAL HANDLING/STORAGEOR DISE	POSAL:			_				1 1				
ALS USE	SAMPLE DET MATRIX: SOLID (S) (TAILS Water (W)		CONTAINER INFO	RMATION	_	ANALY Where M	SIS REQU etals are r	JIRED including SU required, specify To	JITES {NB. Suite Codes tal (unfiltered bottle requi required).	must be listed to red) or Dissolve	attract suite price) d (field filtered bottJe	Additional Information
LABID	SAMPLE ID	DATE /TIME	,×: a,⊂t ∷i:	TYPE & PRESERVATIVE codes below)	(refer 10	b	и,) Z	°<0					Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
	TP1	15/02/2023	•			1	1	1	W (1)0				
											En	wironmental ollongong Work Order Re F.いてくく	Division
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Water Contai V = VOA Via	iner Codes: P = Unpreserved Plastic; N = Nitric Pre IHCI Preserved; VB= VOA Vial Sodium Bisulphate P	eserved Plastic; ORC = Nitric Preserved; VS= VOA Vial Sulf	Preserved uric Prese	ORC; SH = Sodium Hydroxide/Cd Pres rved; AV = Airfreight Unpreserved Vial Si r Acid Sulohate Soile B = Unorsconred	erved; S = Sodiu G = Sulfuric Pres	im Hydroxid erved Amb	e Preserved Pla er Glass; H = 1	astic; AG = HCI presei	= Amber Glass Unpr rved Plastic; HS= H	eserved; AP - AirfreiQht CIpreserved Speciation	Unpr. bottle; SP= Sulf	uric Preserved Plastic;	F = Fonnaldehyde Preserved Glass;

Appendix E – Balances

Nutrient Balances

Parameters	Symbol	Value	
Daily Wastewater (L/Day)	Q	1152	
Total Nitogen in Effluent (mg/L)	TN	40	
Total Phosphorus in Effluent (mg/L)	TP	12	
Design Life of System (Years)	L	50	
P Sorption Soil Capacity (mg/kg)	Psorp	400	
P Sorption Soil Capacity Field Coefficient (%)	PsorpC	0.5	
Soil Depth for P Sorption	D	0.8	
Bulk Density of Soil (g/cm3)	В	1.6	
Nitrogen Plant Uptake (kg/m2/year)	NPU	240	
Phosphorus Plant Uptake (kg/m2/year)	PPU	30	
Model Inputs			
Applied Total Nitrogen (kg/year)	TNA	16.82	TNA = (Q*TN*365)/1,000,000
Applied Total Phosphorus (kg/year)	TPA	5.05	TPA = (Q*TP*365)/1,000,000
Model Outputs			
Subsoil Nitrogen Soil Losses (kg/year)	NL	3.36	NL = TNA*20%
Phosphorus Sorption by Soil (kg/m2)	PS	0.26	PS = ((Psorp/1,000,000)*(B*1,000))*D*PsorpC
Phosphorus Plant Uptake Over Design Life (kg/m2)	PPU∟	0.15	PPUL = (PPU/10,000)*L
Model Results			
Minimum Area Required for Nitrogen Uptake (m2)	NUAN	561	NUAN ((TNA-NL)/NPU)*1,000
Minimum Area Required for Phosphorus Uptake (m2)	NUAP	621	(TPA*L)/(PS+PPUL)
Maximum Area for Nutrient Uptake (m2)	NUA	621	Max Value of NUAN and NUAP

Beavers, Cromer, Gardner Viral Dieoff Model

Input	Dat	ta	
-			

Source

•		
Groundwater Temperature (C)	12.1	Mean minimum air temp (BoM)
Orders of Magnitude Reduction	2	Cromer et al for wastewater treatment level
Days Required for Viral Reduction	26	Figure 1 of Cromer et al
Bulk Density of Soil (g/m3)	1.6	Table 2.18 of Hazelton and Murphy (2007)
Saturated Hydraulic Conductivity (m/day)	0.5	Table 5.2 AS1547:2012
Groundwater Gradient (fraction)	0.1	From Site Investigation
Vertical Drainage before Entering Groundwater	1	From Site Investigation

Calculate the predicted travel distance using equation 4 form Cromer et al (2001).

Dg = (t-d_v*P/K)/(P/K*i)

Time in days = t	26
Effective porosity of soil = P	0.45
Saturated hydraulic conductivity = K	0.5
Groundwater gradient = i	0.1
Vertical draingage before entering groundwater = d _v	1

Distance Travelled in Groundwater = Dg (m) 2.8



Your Ref/PO Number : 121 Black Rock Rd Client Service ID : 870527

Date: 06 March 2024

Perception Planning Pty Ltd Po Box 107 Clarence Town New South Wales 2321

Attention: Joseph Murphy

Email: joseph@perceptionplanning.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 134, DP:DP841161, Section : - with a Buffer of 50 meters, conducted by Joseph Murphy on 06 March 2024.

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 Heritage NSW 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 (https://www.legislation.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW 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 Heritage NSW 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.