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NOTICE OF AN APPLICATION FOR PLANNING PERMIT

The land affected by the application is located at:	6667 Maroondah Highway YARCK, (Lot: 2 PS: 604591)
The application is for a permit to:	Use and development of the land for a dwelling (to replace existing dwelling)
The applicant for the permit is:	Spinks Livestock
The application reference number is:	2024/4
You may look at the application and any documents that support the application by visiting our website via the following web address:	www.murrindindi.vic.gov.au/Planning Comment

Any person who may be affected by the granting of the permit may object or make other submissions to the responsible authority.

An objection must be sent to the responsible authority in writing, with the full name and postal address of the objector and include the reasons for the objection, and state how the objector would be affected.

The responsible authority must make a copy of every objection available at its office for any person to inspect during office hours free of charge until the end of the period during which an application may be made for review of a decision on the application.

The responsible authority will not decide on the application before:	21 March 2024
----------------------------------------------------------------------	---------------

If you object, the responsible authority will tell you its decision.

The planning unit can be contacted on (03) 5772 0333 or planning@murrrindindi.vic.gov.au.

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Planning Enquiries Phone: (03) 5772 03

Web: www.murrindindi.vic.gov.au

Application for a **Planning Permit**

Email: planning@murrindindi.vic.gov.au If you need help to complete this form, read MORE INFORMATION at the back of this form.

📤 Any material submitted with this application, including plans and personal information, will be made available for public viewing, including electronically, and copies may be made for interested parties for the purpose of enabling consideration and review as part of a planning process under the Planning and Environment Act 1987. If you have any concerns, please contact Council's planning department.

A Questions marked with an asterisk (*) must be completed.

A If the space provided on the form is insufficient, attach a separate sheet.

Click for further information.

Application Type

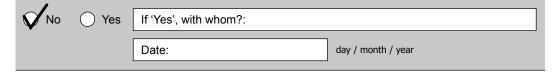
Clear Form

Is this a VicSmart application?*

() Yes If yes, please specify which VicSmart class or classes:..... If the application falls into one of the classes listed under Clause 92 or the schedule to Clause 94, it is a VicSmart application.

Pre-application Meeting

Has there been a pre-application meeting with a Council planning officer?



The Land 💶

Address of the land. Complete the Street Address and one of the Formal Land Descriptions.

Street Address *

Formal Land Description * Complete either A or B.

A This information can be found on the certificate of title.

If this application relates to more than one address, attach a separate sheet setting out any additional property details.

Unit No.:	St. No.: 6667	St. Name: Maroondah Highway								
Suburb/Locality:	YARCK	Postcode: 3719								
		./								
A Lot No.: 2	Lot No.: 2 OLodged Plan Title Plan Plan of Subdivision No.: 604591G									
OR										
B Crown Allotme	B Crown Allotment No.: Section No.:									
Parish/Townsh	nip Name:									

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You must give full details of your proposal and attach the information required to assess the application. Insufficient or unclear information will delay your application.

For what use, development or other matter do you require a permit? *

This permit will be to build single dwelling - 4 bedroom, 2 bathroom brick house to be used as primary residance for owners

*Apon completion of the 4 bedroom home, we will be removing current residance 2 bedroom transportable with verandra & carport. Along with concrete septic tank. We do not wish to have 2 livable dwellings on the property.

Provide additional information about the proposal, including: plans and elevations; any information required by the planning scheme, requested by Council or outlined in a Council planning permit checklist; and if required, a description of the likely effect of the proposal.

Estimated cost of any development for which the permit is required *

500,000

You may be required to verify this estimate. Insert '0' if no development is proposed.

If the application is for land within **metropolitan Melbourne** (as defined in section 3 of the *Planning and Environment Act 1987*) and the estimated cost of the development exceeds \$1 million (adjusted annually by CPI) the Metropolitan Planning Levy **must** be paid to the State Revenue Office and a current levy certificate **must** be submitted with the application. Visit www.sro.vic.gov.au for information.

Existing Conditions II

Describe how the land is used and developed now *

For example, vacant, three dwellings, medical centre with two practitioners, licensed restaurant with 80 seats, grazing.

Property is used as primary residence for owners.

- 2 bedroom transportable home with verandra & carport all attached
- 2 Sheds

Cost \$

Bore & bore shed

Provide a plan of the existing conditions. Photos are also helpful.

Title Information 💶

Encumbrances on title *

Does the proposal breach, in any way, an encumbrance on title such as a restrictrive covenant, section 173 agreement or other obligation such as an easement or building envelope?

Yes (If 'yes' contact Council for advice on how to proceed before continuing with this application.)

No.

Not applicable (no such encumbrance applies).

Provide a full, current copy of the title for each individual parcel of land forming the subject site.

The title includes: the covering 'register search statement', the title diagram and the associated title documents, known as 'instruments', for example, restrictive covenants.

dAmphicanstand Convert fietails pose which may breach Copyright or Privacy Laws Provide details of the applicant and the owner of the land. Applicant * Name: Mr First Name: Nicholas Dean Surname: **Spinks** The person who wants the permit. Title: Organisation (if applicable): SPINKS LIVESTOCK Please provide at least one contact phone number Where the preferred contact person Contact person's details* Same as applicant for the application is different from the applicant, provide the details of Surname: Theobald Title: Miss First Name: Kayla that person. SPINKS LIVESTOCK Organisation (if applicable): Owner * Same as applicant Name: The person or organisation Title: Mr First Name: Nicholas Dean **Spinks** Surname: who owns the land Organisation (if applicable): SPINKS LIVESTOCK Where the owner is different from the applicant, provide the details of that Postal Address: If it is a P.O. Box, enter the details here: person or organisation. Information Contact Council's planning department to discuss the specific requirements for this application and obtain a planning permit checklist. requirements Is the required information Yes (No provided? Declaration I This form must be signed by the applicant * Remember it is against the law I declare that I am the applicant; and that all the information in this application is true and to provide false or misleading correct; and the owner (if not myself) has been notified of the permit application. information, which could result in a heavy fine and cancellation Signature: 23/01/2024 Date: of the permit. day / month / year

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done Klissting process	for any pupose which may breach Copyright or Privacy Laws.
	Filled in the form completely?
Have you:	Paid or included the application fee? Most applications require a fee to be paid. Contact Council to determine the appropriate fee.
	Provided all necessary supporting information and documents?
	A full, current copy of title information for each individual parcel of land forming the subject site.
	A plan of existing conditions.
	Plans showing the layout and details of the proposal.
	Any information required by the planning scheme, requested by council or outlined in a council planning permit checklist.
	If required, a description of the likely effect of the proposal (for example, traffic, noise, environmental impacts).
	If applicable, a current Metropolitan Planning Levy certificate (a levy certificate expires 90 days after the day on which it is issued by the State Revenue Office and then cannot be used). Failure to comply means the application is void.
	Completed the relevant council planning permit checklist?
	Signed the declaration above?

Need help with the Application? I

If you need help to complete this form, read More Information at the end of this form.

For help with a VicSmart application see Applicant's Guide to Lodging a VicSmart Application at www.planning.vic.gov.au

General information about the planning process is available at www.planning.vic.gov.au

Assistance can also be obtained from Council's planning department.

Lodgement I

Lodge the completed and signed form, the fee and all documents with:

Murrindindi Shire Council PO Box 138 Alexandra VIC 3714 Shire Offices Perkins Street Alexandra VIC 3714

Contact information: Phone: (03) 5772 0317 Fax: (03) 5772 2291

Email: planning@murrindindi.vic.gov.au

Deliver application in person, by post or by electronic lodgement.

s part of a planning process under the Planning and Environment Act 1987.

The Land

Planning permits relate to the use and development of the land. It is important that accurate, clear and concise details of the land are provided with the application.

How is land identified?

Land is commonly identified by a street address, but sometimes this alone does not provide an accurate identification of the relevant parcel of land relating to an application. Make sure you also provide the formal land description - the lot and plan number or the crown, section and parish/township details (as applicable) for the subject site. This information is shown on the title.

See Example 1.

The Proposal

Why is it important to describe the proposal correctly?

The application requires a description of what you want to do with the land. You must describe how the land will be used or developed as a result of the proposal. It is important that you understand the reasons why you need a permit in order to suitably describe the proposal. By providing an accurate description of the proposal, you will avoid unnecessary delays associated with amending the description at a later date.

A Planning schemes use specific definitions for different types of use and development. Contact the Council planning office at an early stage in preparing your application to ensure that you use the appropriate terminology and provide the required details.

How do planning schemes affect proposals?

A planning scheme sets out policies and requirements for the use, development and protection of land. There is a planning scheme for every municipality in Victoria. Development of land includes the construction of a building, carrying out works, subdividing land or buildings and displaying signs.

Proposals must comply with the planning scheme provisions in accordance with Clause 61.05 of the planning scheme. Provisions may relate to the State Planning Policy Framework, the Local Planning Policy Framework, zones, overlays, particular and general provisions. You can access the planning scheme by either contacting Council's planning department or by visiting the Planning Schemes Online section of the department's website http://planning-schemes.delwp.vic.gov.au

A You can obtain a planning certificate to establish planning scheme details about your property. A planning certificate identifies the zones and overlays that apply to the land, but it does not identify all of the provisions of the planning scheme that may be relevant to your application. Planning certificates for land in metropolitan areas and most rural areas can be obtained by visiting www.landata.vic.gov.au. Contact your local Council to obtain a planning certificate in Central Goldfields, Corangamite, Macedon Ranges and Greater Geelong. You can also use the free Planning Property Report to obtain the same information.

See Example 2.

Estimated cost of development

In most instances an application fee will be required. This fee must be paid when you lodge the application. The fee is set down by government regulations.

To help Council calculate the application fee, you must provide an accurate cost estimate of the proposed development. This cost does not include the costs of development that you could undertake without a permit or that are separate from the permit process. Development costs should be calculated at a normal industry rate for the type of construction you propose.

Council may ask you to justify your cost estimates. Costs are required solely to allow Council to calculate the permit application fee. Fees are exempt from GST.

▲ Costs for different types of development can be obtained from specialist publications such as Cordell Housing: Building Cost Guide or Rawlinsons: Australian Construction Handbook.

▲ Contact the Council to determine the appropriate fee. Go to <u>www.planning.vic.gov.au</u> to view a summary of fees in the Planning and Environment (Fees) Regulations.

Metropolitan Planning Levy refer Division 5A of Part 4 of the *Planning and Environment Act 1987* (the Act). A planning permit application under section 47 or 96A of the Act for a development of land in metropolitan Melbourne as defined in section 3 of the Act may be a leviable application. If the cost of the development exceeds the threshold of \$1 million (adjusted annually by consumer price index) a levy certificate must be obtained from the State Revenue Office after payment of the levy. A valid levy certificate must be submitted to the responsible planning authority (usually council) with a leviable planning permit application. Refer to the State Revenue Office website at www.sro.vic.gov.au for more information. A leviable application submitted without a levy certificate is void.

Existing Conditions

How should land be described?

You need to describe, in general terms, the way the land is used now, including the activities, buildings, structures and works that exist (e.g. single dwelling, 24 dwellings in a three-storey building, medical centre with three practitioners and 8 car parking spaces, vacant building, vacant land, grazing land, bush block).

Please attach to your application a plan of the existing conditions of the land. Check with the local Council for the quantity, scale and level of detail required. It is also helpful to include photographs of the existing conditions.

See Example 3.

Title Information

What is an encumbrance?

An 'encumbrance' is a formal obligation on the land, with the most common type being a 'mortgage'. Other common examples of encumbrances include:

- Restrictive Covenants: A 'restrictive covenant' is a written agreement between owners of land restricting the use or development of the land for the benefit of others, (eg. a limit of one dwelling or limits on types of building materials to be used).
- Section 173 Agreements: A 'section 173 agreement' is a contract between an owner of the land and the Council which sets out limitations on the use or development of the land.
- Easements: An 'easement' gives rights to other parties to use the land or provide for services or access on, under or above the surface of the land.
- Building Envelopes: A 'building envelope' defines the development boundaries for the land.

Aside from mortgages, the above encumbrances can potentially limit or even prevent certain types of proposals.

What documents should I check to find encumbrances?

Encumbrances are identified on the title (register search statement) under the header 'encumbrances, caveats and notices'. The actual details of an encumbrance are usually provided in a separate document (instrument) associated with the title. Sometimes encumbrances are also marked on the title diagram or plan, such as easements or building envelopes.

What about caveats and notices?

A 'caveat' is a record of a claim from a party to an interest in the land. Caveats are not normally relevant to planning applications as they typically relate to a purchaser, mortgagee or chargee claim, but can sometimes include claims to a covenant or easement on the land. These types of caveats may affect your proposal.

Other less common types of obligations may also be specified on title in the form of 'notices'. These may have an effect on your proposal, such as a notice that the building on the land is listed on the Heritage Register.

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What happens if the proposal contravenes an encumbrance on the Declaration Comment Act 1987.

Encumbrances may affect or limit your proposal or prevent it from proceeding. Section 61(4) of the *Planning and Environment Act 1987* for example, prevents a Council from granting a permit if it would result in a breach of a registered restrictive covenant. If the proposal contravenes any encumbrance, contact the Council for advice on how to proceed.

You may be able to modify your proposal to respond to the issue. If not, separate procedures exist to change or remove the various types of encumbrances from the title. The procedures are generally quite involved and if the encumbrance relates to more than the subject property, the process will include notice to the affected party.

A You should seek advice from an appropriately qualified person, such as a solicitor, if you need to interpret the effect of an encumbrance or if you seek to amend or remove an encumbrance.

Why is title information required?

Title information confirms the location and dimensions of the land specified in the planning application and any obligations affecting what can be done on or with the land.

As well as describing the land, a full copy of the title will include a diagram or plan of the land and will identify any encumbrances, caveats and notices.

What is a 'full' copy of the title?

The title information accompanying your application must include a 'register search statement' and the title diagram, which together make up the title.

In addition, any relevant associated title documents, known as 'instruments', must also be provided to make up a full copy of the title.

Check the title to see if any of the types of encumbrances, such as a restrictive covenant, section 173 agreement, easement or building envelope, are listed. If so, you must submit a copy of the document (instrument) describing that encumbrance. Mortgages do not need to be provided with planning applications.

▲ Some titles have not yet been converted by Land Registry into an electronic register search statement format. In these earlier types of titles, the diagram and encumbrances are often detailed on the actual title, rather than in separate plans or instruments.

Why is 'current' title information required?

It is important that you attach a current copy of the title for each individual parcel of land forming the subject site. 'Current' title information accurately provides all relevant and up-to-date information.

Some Councils require that title information must have been searched within a specified time frame. Contact the Council for advice on their requirements.

▲ Copies of title documents can be obtained from Land Registry: Level 10, 570 Bourke Street, Melbourne; 03 8636 2010; www.landata.vic.gov.au − go direct to "titles & property certificates".

Applicant and Owner Details

This section provides information about the permit applicant, the owner of the land and the person who should be contacted about any matters concerning the permit application.

The applicant is the person or organisation that wants the permit. The applicant can, but need not, be the contact person.

In order to avoid any confusion, the Council will communicate only with the person who is also responsible for providing further details. The contact may be a professional adviser (e.g. architect or planner) engaged to prepare or manage the application. To ensure prompt communications, contact details should be given.

Check with council how they prefer to communicate with you about the application. If an email address is provided this may be the preferred method of communication between Council and the applicant/contact.

The owner of the land is the person or organisation who owns the land at the time the application is made. Where a parcel of land has been sold and an application made prior to settlement, the owner's details should be identified as those of the vendor. The owner can, but need not, be the contact or the applicant.

See Example 4.

The declaration should be signed by the person who takes responsibility for the accuracy of all the information that is provided. This declaration is a signed statement that the information included with the application is true and correct at the time of lodgement.

The declaration can be signed by the applicant or owner. If the owner is not the applicant, the owner must either sign the application form or must be notified of the application which is acknowledged in the declaration.

▲ Obtaining or attempting to obtain a permit by wilfully making or causing any false representation or declaration, either orally or in writing, is an offence under the *Planning and Environment Act 1987* and could result in a fine and/or cancellation of the permit.

Checklist

What additional information should you provide to support the proposal?

You should provide sufficient supporting material with the application to describe the proposal in enough detail for the Council to make a decision. It is important that copies of all plans and information submitted with the application are legible.

There may be specific application requirements set out in the planning scheme for the use or development you propose. The application should demonstrate how these have been addressed or met.

The checklist is to help ensure that you have:

- · provided all the required information on the form
- included payment of the application fee
- · attached all necessary supporting information and documents
- · completed the relevant Council planning permit checklist
- · signed the declaration on the last page of the application form

A The more complete the information you provide with your permit application, the sooner Council will be able to make a decision.

Need help with the Application?

If you have attended a pre-application meeting with a Council planner, fill in the name of the planner and the date, so that the person can be consulted about the application once it has been lodged.

Lodgement

The application must be lodged with the Council responsible for the planning scheme in which the land affected by the application is located. In some cases the Minister for Planning or another body is the responsible authority instead of Council. Ask the Council if in doubt.

Check with Council how they prefer to have the application lodged. For example, they may have an online lodgement system, prefer email or want an electronic and hard copy. Check also how many copies of plans and the size of plans that may be required.

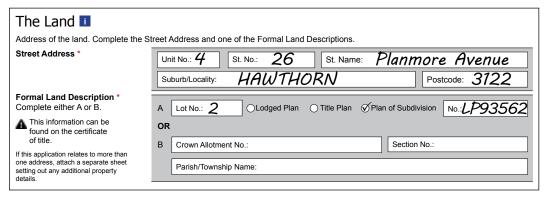
Contact details are listed in the lodgement section on the last page of the form.

Approval from other authorities: In addition to obtaining a planning permit, approvals or exemptions may be required from other authorities or Council departments. Depending on the nature of your proposal, these may include food or health registrations, building permits or approvals from water and other service authorities.

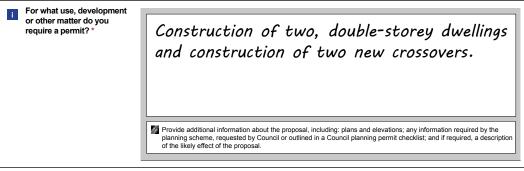
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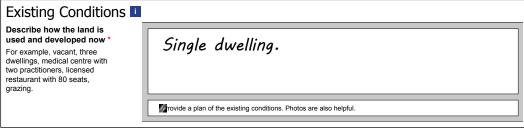
Example 1



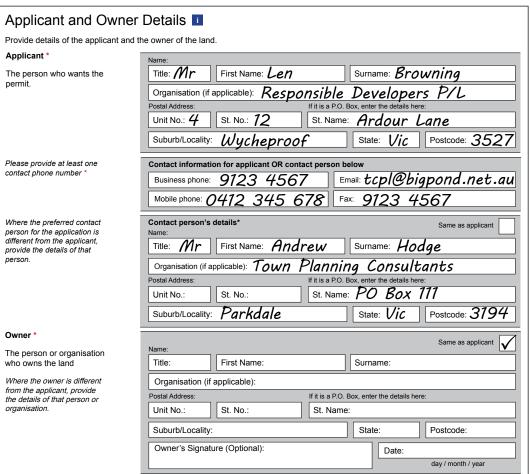
Example 2



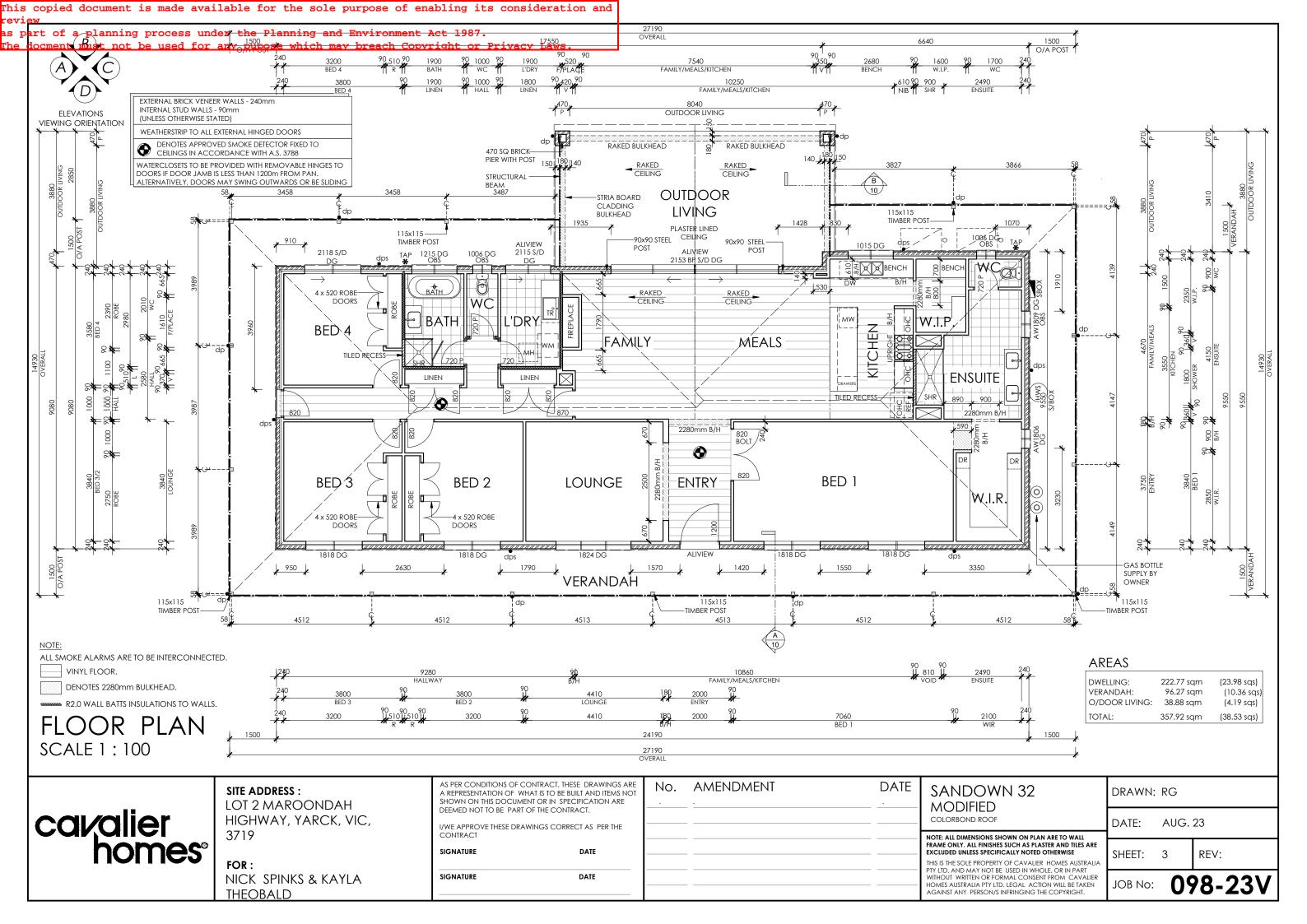
Example 3

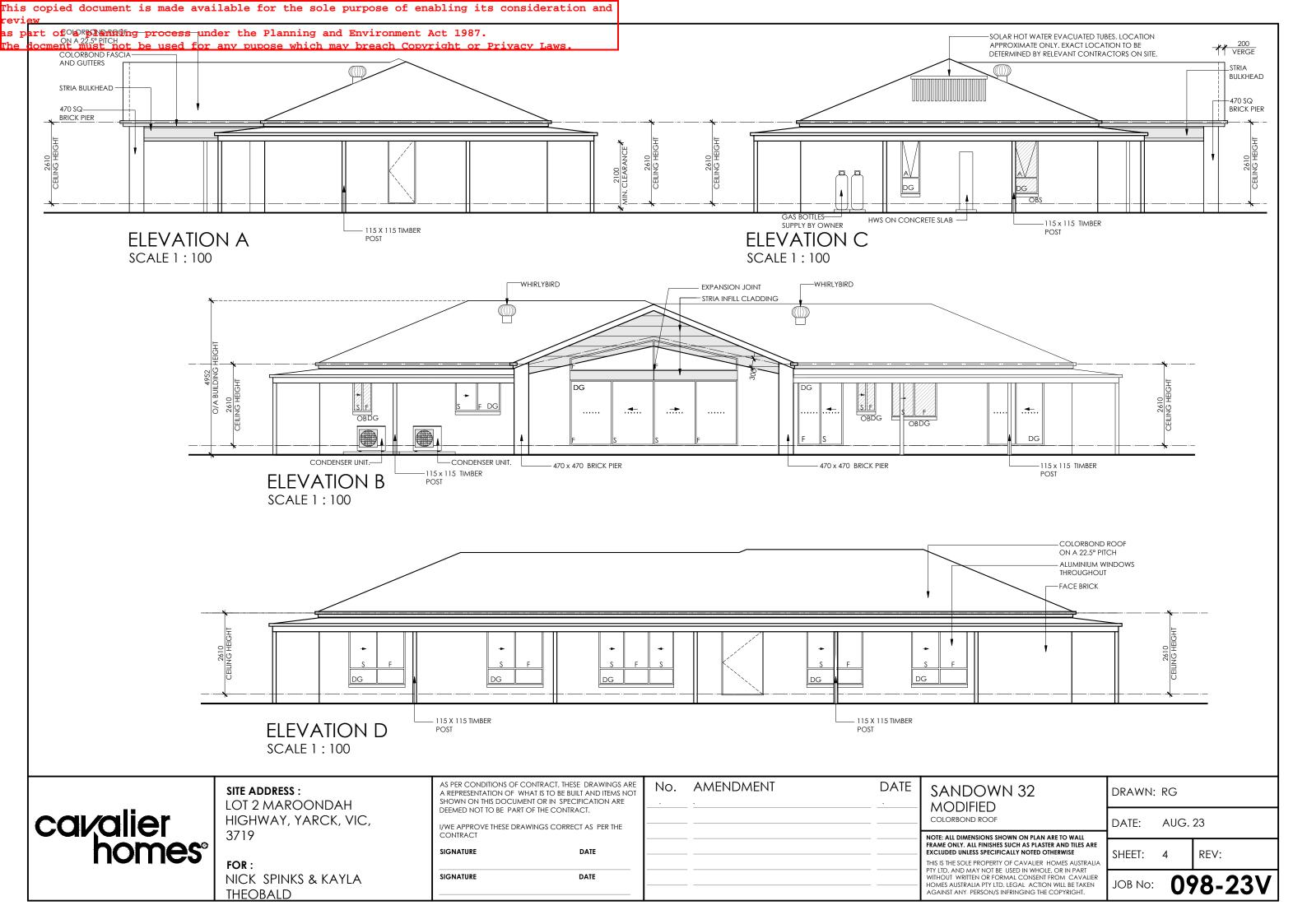


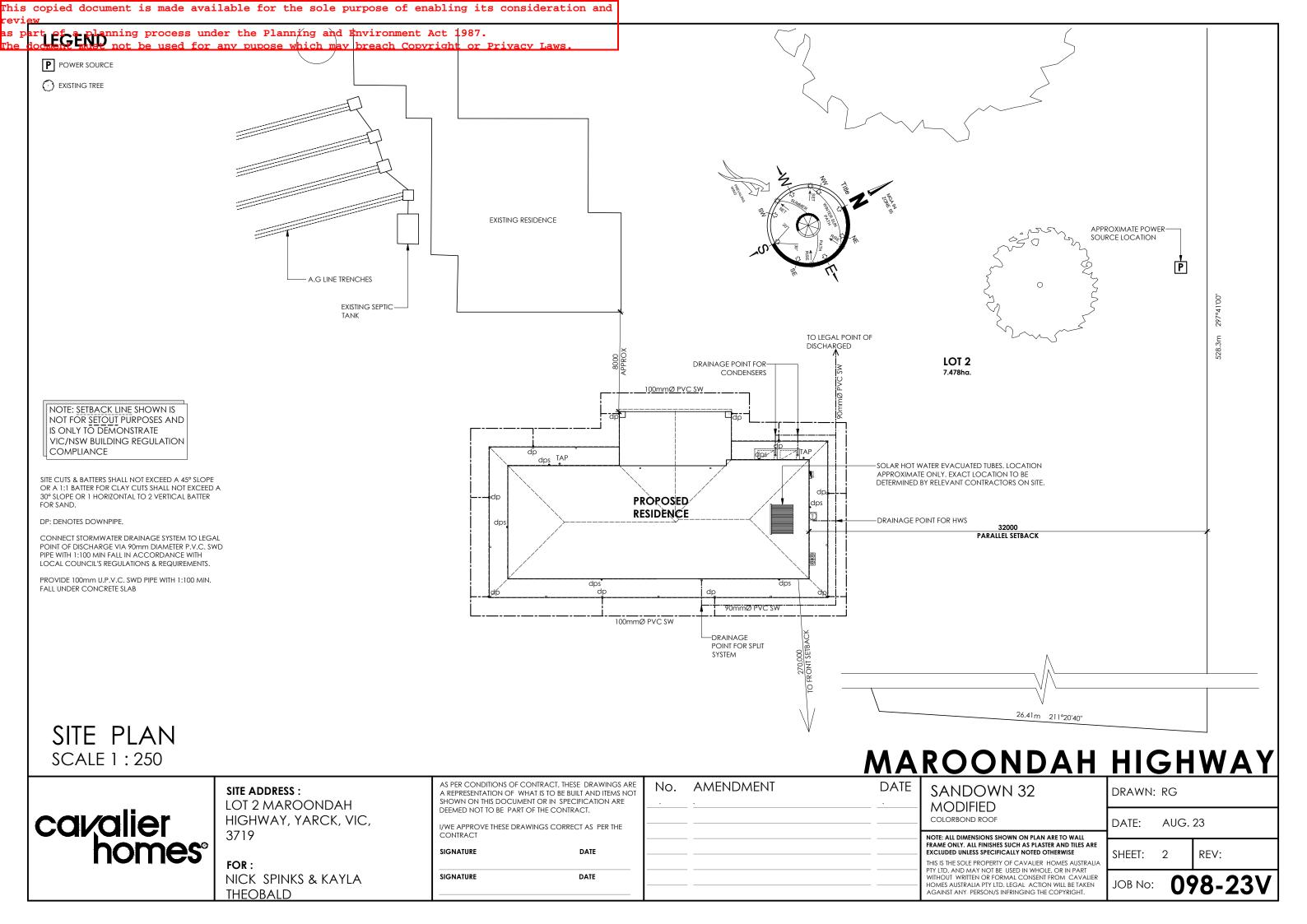
Example 4











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NICHOLAS DEAN SPINKS

LAND CAPABILITY ASSESSMENT FOR ON-SITE WASTEWATER MANAGEMENT AT 6667 MAROONDAH HIGHWAY, YARCK VIC 3719

REPORT No. LCA17012024

JANUARY/2024

Ву

Zoltan Lorincz, M.Agricultural Sc.
Land Capability Assessment Victoria
CONSULTANTS IN THE AGRICULTURAL SCIENCES

IMPORTANT NOTE

The land capability assessment report consists of this cover sheet, two written sections, three drawings and four appendices.

The report elements are not to be read or interpreted in isolation.

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APPENDIX A1 Soil Permeability and Soil Test Results

> **APPENDIX A2 Soil Profile Photographs**

> > **APPENDIX A3 Logs of Boreholes**

APPENDIX B Water-, Nutrient Balance and Rainfall data

APPENDIX C1 Land Capability Assessment Table

APPENDIX C2 Calculated Overall Land Capability Hazard / Risk

> **APPENDIX D** Management Plan

DRAWING 1 Location of Subject Site

DRAWING 2 Location of Proposed Development Showing Contours

> **DRAWING MP1 Cut-off Drain Detail for Effluent Disposal Fields**

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ASSESSOR'S ACADEMIC & PROFESSIONAL QUALIFICATIONS

Zoltan Lorincz is the principal Soil Scientist at Land Capability Assessment Victoria. He has a Masters Degree in Applied Science (General Agriculture) (awarded in 2002) and completed his studies in a two-year Postgraduate Specialist Training Programme in Soil Science (awarded in 2012).

All fieldwork and analyses are undertaken by Zoltan Lorincz.

ASSESSOR'S PROFESSIONAL INDEMNITY INSURANCE

Policy Number: BZF2004671

Period of Cover: 09/08/2023 – 09/08/2024

Geographical Coverage:

Retro-active Date:

Limit of Indemnity:

Australia

Unlimited

\$2,000,000

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EXECUTIVE SUMMARY

The proposed development at 6667 Maroondah Highway, Yarck VIC is suitable for sustainable on-site effluent disposal.

The site of 7.48 hectares (approximately) is located in the Rural Living Zone and is not in a Special Water Supply Catchment. It is proposed to construct a 4-bedroom (equivalent) residence.

The site is not sewered.

Our field testing which included soil profile logging and sampling, a differential level survey, laboratory testing and subsequent reporting including water and nutrient balance modelling has revealed that on-site effluent disposal is rational and sustainable.

The assessment has been made in the context of prioritising public and environmental health with a design compromise between rational wastewater reuse and sustainable wastewater disposal.

Effluent shall be treated to at least the septic standard and distributed by absorption trenches utilising the processes of evapotranspiration and deep seepage.

The trench lengths have been determined for the mean wet year and satisfies the requirements of *SEPPs (Waters of Victoria)* in that the effluent disposal system cannot have any detrimental impact on the beneficial use of surface waters or groundwater.

For the proposed development the available area is not limiting and continuous or long-term increases in effluent volume above 750 litres/day (4-bedroom (equivalent) residence) are possible.

With regard to density of development and cumulative risk the assessment has considered risk associated with subsurface flows and surface flows.

In regard to subsurface flows, it is clear that provided the on-site system is adequately designed, constructed, operated and maintained the risk to surface and ground waters is negligible. Once the effluent is placed underground, the extraordinary long travel times via ground water to surface waters ensures adequate nutrient attenuation.

In regard to surface flows, it is clear that provided the on-site system is adequately designed, constructed, operated and maintained, the risk to surface and ground waters is no greater than for a sewered development.

Proposed use requires a primary treatment system and absorption trenches.

The LCA recommends a conservative, scientifically based, well founded wastewater management system with inherent multiple barriers of safety.

The results of the land capability assessment and risk analysis indicate that primary effluent and trench systems are appropriate for this site.

Cumulative risk from the development is extremely low. The risk of serious or irreversible damage is extremely low.

All requirements of SEPP (Waters of Victoria) have been met.

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Land Capability Assessment Victoria ABN 91 816 632 168 ZOLTAN LORINCZ – CONSULTANTS IN THE AGRICULTURAL SCIENCES

53 Telford Drive, Berwick VIC 3806

Email: info@lcavictoria.com.au

LCA17012024 - JANUARY/2024

LAND CAPABILITY ASSESSMENT FOR ON-SITE WASTEWATER MANAGEMENT AT 6667 MAROONDAH HIGHWAY, YARCK VIC 3719

1. SECTION 1. SITE INVESTIGATION

1.1. INTRODUCTION

On instruction from the landowner, an investigation was undertaken to assess land capability for on-site effluent disposal/reuse for a 4-bedroom (equivalent) residence at 6667 Maroondah Highway, Yarck VIC.

The site of 7.48 hectares (approximately) is in the Rural Living Zone and is not in a Special Water Supply Catchment. The site is not sewered.

The assessment has been made in the context of prioritising public and environmental health with a design compromise between rational wastewater reuse and sustainable wastewater disposal.

1.2. INVESTIGATION METHOD

The site investigation was carried out in accordance with SEPPs (Waters of Victoria) and related documents. This report is in accordance with current SEPPs (Waters of Victoria), Code of Practice - Onsite Wastewater Management, E.P.A. and Publication 891.4, July 2016. Guidance has been sought from AS/NZS 1547:2012, Guidelines for Wastewater Irrigation, E.P.A. Publication 168, April 1991, Wastewater Subsurface Drip Distribution, Tennessee Valley Authority, March, 2004, AS 2223, AS 1726, AS 1289, AS 2870 and Australian Laboratory Handbook of Soil and Water Chemical Methods.

Our capability assessment involved the mapping of unique land-soil unit(s) which were defined in terms of significant attributes including; climate, slope, aspect, vegetation, soil profile characteristics (including soil reaction trend, electrical conductivity and colloid stability), depth to rock, proximity to surface waters and escarpments, transient soil moisture characteristics and hydraulic conductivity.

Exploratory auger drilling was undertaken to enable profile characterization and sampling. Onsite dispersion index testing revealed dispersion. Hence, *insitu* permeability testing was not considered rational.

Water balance analysis was based on the mean wet year calculated from the mean monthly rainfall data and mean annual rainfall for Alexandra and mean evaporation data for Strathbogie and was undertaken in accordance with *Guidelines for Wastewater Irrigation*, *E.P.A.* Publication 168, April 1991 (Part), *AS/NZS* 1547:2012 and in-house methods.

The rainfall and evaporation data were obtained from the National Climate Centre, Bureau of Meteorology.

The data was subsequently analysed and applied to our water and nutrient balance analyses.

The results of the water- and nutrient balance analysis are given in Appendix B, to this report. The results of the investigation and *in situ* and laboratory testing are given in Section 1.3, below, and in Appendix A, to this report.

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1.3. CAPABILITY ASSESSMENT

We have used the attributes determined by the investigation to define one (1) land-soil unit, as follows:-

1.3.1. Land-Soil Unit A.

This land-soil unit consists of level terrain, as shown in Drawing 2 and Figure 1.

The salient land-soil attributes and constraints are summarised in Appendix C1.

1.3.1.1. Climate.

The general area receives a mean annual rainfall of 704mm and a mean annual evaporation of 1212mm. Mean evaporation exceeds the mean rainfall in September through April.

Rainfall and evaporation data are presented in Appendix B, to this report.

1.3.1.2. Slope and Aspect.

The natural ground surface slopes to the west between 2-2.5% over the proposed land application area, generally, as shown in Drawing 2 and Figure 1.

The proposed effluent area is exposed to the prevailing winds and exposed to full winter sunshine.

1.3.1.3. Vegetation and Land Use.

The unit is vegetated with pasture grasses as shown in Figure 1. The land is currently used as a pasture.

The land application area has been designed for pasture grass (rye/clover equivalent).

1.3.1.4. Slope Stability.

For the encountered subsurface conditions, slope degree and geometry and for the proposed range of hydraulic loadings, the stability of the ground slopes within the disposal areas are unlikely to be compromised.

1.3.1.5. Subsurface Profile.

The following interpretation of the general subsurface profile assumes conditions similar to those encountered in the boreholes are typical of the investigation area.

Note: If subsurface conditions substantially different from those encountered in the investigation are encountered during soil renovation works, all work should cease, and this office notified immediately.

The unit is underlain by alluvial materials of Pliocene to Holocene Age.

The general subsurface profile consists of:

- A topsoil (A₁-horizon) layer of greybrown, moist, medium dense silt, with a soil reaction trend of 5.4pH and electrical conductivity (EC_{SE}) of 0.10dS/m, containing a root zone, to a depth of 0.10m, overlying,
- An alluvial soil (A₂-horizon) layer of light yellowbrown, moist, medium dense clayey silt, with a soil reaction trend of 5.0pH, electrical conductivity (EC_{SE}) of 0.10dS/m and a free swell^a of 20%, to a depth of 0.30m, overlying,
- An alluvial soil (B₁-horizon) layer of dark yellowbrown, moist, silty clay (light clay) of low plasticity, with a soil reaction trend of 5.4pH, electrical conductivity (EC_{SE}) of 0.09dS/m and a free swell of 10%, to a depth of 0.90m, overlying,
- An alluvial soil (B₂-horizon) layer of yellowbrown, moist, silty clay (light clay) of low plasticity, with a soil reaction trend of 6.4pH, electrical conductivity (EC_{SE}) of 0.09dS/m and a free swell of 20%, to a depth of at least 1.55m.

^a After Holtz (measures swell potential of fraction passing 450 micron sieve)

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Soil test results, soil profile photographs and logs of boreholes are presented in Appendix A, to this report. For location of boreholes refer Drawing 2.

1.3.1.6. Soil Permeability.

Where the soils are dispersive insitu permeability testing realises inaccurate, low or nil results.

The hydraulic conductivity can be estimated by using test waters containing calcium chloride or by laboratory assessment of colloid stability and determination of ameliorant quantities (e.g. gypsum/lime requirement) and swell potential.

A conservative estimate of permeability has been deduced as follows (see Code 3.6.1.):-

Profile analysis in accordance with AS/NZS 1547:2012 shows the alluvial clay soils (limiting horizon) to be strongly structured silty light clays (Type 5a soils) with saturated hydraulic conductivity of 0.12-0.5m/day.

For the limiting silty light clay soils and after allowing for renovation to maintain stable colloids, we have adopted an estimated saturated hydraulic conductivity of 0.08m/day.

Peak deep seepage is conservatively estimated at 6mm/day. Average daily deep seepage is 0.9mm.

1.3.1.7. Basement Rock Permeability.

From the literature and from examination of rock profiles and rock mass defect character in the vicinity, the hydraulic conductivity of the basement rocks would be in excess of 0.05m/day (adopt 1m/day for buffer design).

1.3.1.8. Colloid Stability.

The results of the Emerson Crumb and Dispersion Index Tests indicate that some of the alluvial materials are dispersive. The alluvial clay soils have Emerson Classes of 8, 4,5,6 and 2 and Dispersion Indexes of 0 and 10.

Sodicity has been assessed by inspection of the ground surface for salt tolerant and/or salt affected vegetation, the electrical conductivity has been determined for the A and B horizons using a 1:5 soil/water extract and converted to EC (saturation extract), and also soil reaction trend and shrink-swell potential has been determined.

The determined electrical conductivity (ECsE) was 0.09dS/m and 0.10dS/m for all materials, soil reaction trend ranged from 5.0pH to 6.4pH, while free swell potential was 10% and 20%.

We recommend amelioration in the form of gypsum application to maintain stable peds under saline disposal.

1.3.1.9. AS1547:2012 Soil Classification.

In accordance with AS/NZS1547:2012 the alluvial clay materials can be classified as Type 5a soils (strongly structured silty light clays).

After allocating proportional vertical and lateral flows and allowing for the potential for perched water mounding, we have adopted a daily peak water balance seepage rate b of 6mm for septic standard effluent. The theoretical average daily seepage rate is 0.9mm.

The peak water balance seepage loss rate is based on being <10% of the estimated hydraulic conductivity (of the limiting horizon) plus a lateral flow component, effluent type and the effects of soil characteristics including profile thickness (flow paths and storage), shrink-swell, dispersivity and soil reaction trend and assumes renovation.

^b The peak water balance seepage loss rate is based on being <10% of the measured/estimated hydraulic conductivity (of the limiting horizon) plus a lateral flow component, effluent type and the effects of soil characteristics including profile thickness (flow paths and storage), shrink-swell, dispersivity, soil reaction trend and assumes renovation.

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1.3.1.10. Surface Drainage.

The proposed effluent area slopes to the west (as shown in Drawing 2) and drains to the nearest watercourse located at least 125m distant (measured normal to contours, a non-potable dam on-site).

1.3.1.11. **Groundwater.**

No seepage was encountered in any of the boreholes. Subsurface flow direction will generally reflect natural surface flow direction (i.e. a westerly direction).

There are no groundwater bores within a significant distance of the site (in approx. 380m distance).

The Visualising Victoria's Groundwater database indicates that the groundwater is between 5-10 metres of the surface.

The groundwater is of high yield and good quality (500-1000mg/litre TDS) with beneficial use including domestic.

1.3.1.12. Nutrient Attenuation.

Clayey soils (as found on this site) can fix large amounts of phosphorous. Phosphate-rich effluent seeping through these soils will lose most of the phosphorous within a few metres.

The limiting nutrient for this site is nitrogen. No phosphorous balance is required.

Several processes affect nitrogen levels within soil after effluent disposal. Alternate periods of wetting and drying with the presence of organic matter promote reduction to nitrogen gas (denitrification). Plant roots absorb nitrates at varying rates depending on the plant species (see Appendix B), however nitrate is highly mobile, readily leached, and can enter groundwater via deep seepage and surface waters via overland flow and near-surface lateral flow.

Based on the water and nutrient balance (see Appendix B), and assuming 30mg/litre N in the effluent (general case) and 20mg/litre P, a denitrification rate of 20%, with N uptake of 220 kg/ha/year for an appropriate grass cover equivalent to a rye/clover mix, a conservative estimate can be made of the nitrogen content in the deep seepage and lateral flow.

For the general case, and without taking into account further expected denitrification below the root zone and in the groundwater (reported to be in the vicinity of 80%), denitrification in the lateral flow (external to the trenches) and plant uptake in the lateral flow, the effluent loading rate should not exceed 5mm/day.

On-site effluent disposal systems designed, constructed, operated and maintained in accordance with the following recommendations cannot adversely impact on the beneficial use of surface waters and groundwater in the area.

1.4. RISK MANAGEMENT & MITIGATION

SEPP (Waters of Victoria) requires that the proposal be assessed on a risk-weighted basis and that cumulative effects be considered.

A multiple barrier approach is used in assessing this development, with components listed below:

1.4.1. Water Usage.

Current best practice allows for a (continuous) daily effluent flow of 750 litres/day (4-bedroom (equivalent) residence) as per *Code of Practice - Onsite Wastewater Management, E.P.A.* Publication 891.4, July 2016.

The design flow is unlikely to be continuous and (at least) standard water reduction fixtures are a mandatory requirement under local building codes.

1.4.2. Primary Treatment.

The LCA recommends a primary treatment system and absorption trenches.

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1.4.3. Block Size.

Many under-performing effluent fields are placed on blocks where area is limited. Limited area can lead to inadequately sized or inappropriately placed effluent fields and a lack of options should the daily effluent volumes increase.

In the subject site, size is not a constraining factor for the proposed development.

1.4.4. Management Plan.

Historically, inadequate maintenance has played a major part in the failure of onsite effluent disposal systems. There is a management plan within the LCA (see Appendix D). This plan gives guidance on the implementation of mandatory operation, maintenance and inspection procedures.

1.4.5. Sizing of Treatment Systems.

No specific proprietary treatment plant is recommended, however septic tanks must have current JAS/ANZ accreditation, which match effluent volumes with plant capacity.

1.4.6. Load Balancing.

Load balancing capacity (temporary storage) is achieved within the trench system.

1.4.7. Oversized Effluent Areas.

Design effluent areas are oversized (designed for mean rainfall) and are based on conservative estimates of renovation and complete attenuation of nitrogen. The deep seepage rate is lower than the hydraulic conductivity of the limiting layer (<12%).

1.4.8. Reserve Areas.

There is sufficient area available for a reserve area and/or expansion of the area should design flow increase. The reserve area is a spare effluent field, which is left undeveloped, but can be commissioned in the case of increase in daily effluent production due to contingencies through the chain of ownership.

1.4.9. Buffer Distances.

Buffer distances are set out in the *Code of Practice* to allow for attenuation of pathogens and nutrients, should an effluent surcharge occur, either overland or subsurface.

The effluent area is located at least 125m from surface waters.

The time taken for groundwater to reach the nearest potable surface waters can be estimated by using the Darcy equation (which states that velocity is the product of the hydraulic conductivity and the hydraulic gradient). From the literature, the regional gradient is about 0.001.

Flow times can be estimated for groundwater to flow the 125m (minimum) to the nearest surface waters at this site.

For a conservative basement hydraulic conductivity of 1m/day^c with a hydraulic gradient of 0.001, the time taken for groundwater to flow a distance of 125m is over 340 years.

1.4.10. System Failure.

A properly designed and constructed onsite effluent system consisting of the septic tank and absorption trenches can suffer degrees of failure.

Failure can take the form of mechanical (plant), accidental (toilet blockages, damaged trench lines, high BOD influent), operational (overloading) and maintenance (failure to check filters, failure to participate in maintenance programme).

^C This is a conservatively high figure to demonstrate maximum possible flow rates. A conservatively low figure was used for calculation of effluent application rates (see recommendations) to demonstrate disposal sustainability.

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1.4.10.1. Mechanical Breakdown.

This system is designed to use gravity. There are no mechanical components that can fail.

1.4.10.2. Accidents.

Toilet blockages and accidentally damaged trenches could allow localised surface surcharge of treated effluent. This is why minimum buffers to surface waters have been maintained.

1.4.10.3. Operational Breakdown.

Operational failures and transient hydraulic overloading are accommodated by the load balancing facility, as described in Section 1.4.6, above.

1.4.10.4. Maintenance Breakdown.

Maintenance breakdowns such as failure to maintain the "fencing", trench profile and vegetation can cause malfunction.

It is important that a suitable inspection, maintenance and pump-out regime is adhered to.

1.4.11. Risk Summary.

With regard to density of development and cumulative risk the assessment has considered risk associated with subsurface flows and surface flows.

In regard to subsurface flows, it is clear that provided the on-site system is adequately designed, constructed, operated and maintained (see items 1.4.1 through 1.4.10.4), the risk to surface and ground waters is negligible. Once the effluent is placed underground, the extraordinary long travel times via ground water to surface waters ensures adequate nutrient attenuation.

In regard to surface flows, it is clear that provided the on-site system is adequately designed, constructed, operated and maintained (see items 1.4.1 through 1.4.10.4), the risk to surface and ground waters is no greater than for a sewered development. Indeed, it could be considered that the risk is less than for a sewered development because there can be no mains failure (because there is no mains).

The LCA recommends a conservative, scientifically based, well founded wastewater management system with inherent multiple barriers of safety.

Cumulative risk from the development is also extremely low. The risk of serious or irreversible damage is extremely low.

All requirements of SEPP (Waters of Victoria) have been met.

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Figure 1:. Land-soil unit A (proposed effluent area) viewed from north-west to south-east.

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2. SECTION 2. RECOMMENDATIONS

2.1. APPLICATION

The following recommendations are based on the results of our assessment, and are made in accordance with SEPPs (Waters of Victoria), the Code of Practice - Onsite Wastewater Management, E.P.A. Publication 891.4, July 2016, AS 1726, and AS/NZS 1547:2012.

They are based on the estimated hydraulic conductivity of the limiting clay materials and are designed to demonstrate the viability of on-site effluent disposal for a 4-bedroom (equivalent) residence and a daily effluent production of up to 750 litres/day and are considered to be conservative.

2.2. ABSORPTION

2.2.1. Disposal Strategy.

Based on the results of the water balance analysis and considering the prevailing surficial and subsurface conditions including soil profile thickness^d and slope and <u>on condition that adequate site drainage is provided</u> (as described in Section 2.4, below), absorption systems are appropriate for effluent disposal for land-soil unit A.

2.2.2. Effluent.

Effluent will be generated from a 4-bedroom (equivalent) residence and will include black and grey water (all wastes).

2.2.2.1. Effluent Quality.

Effluent shall be treated to a standard (via septic tank) that meets or exceeds the water quality requirements of the septic standard.

2.2.2.2. Effluent Quantity.

The daily effluent volume of 750 litres/day has been calculated from *Code of Practice - Onsite Wastewater Management*, E.P.A. Publication 891.4, July 2016, Table 4 and assumes a 4-bedroom (equivalent) residence with mains water (equivalent) and WELS-rated water-reduction fixtures and fittings – minimum 4 Stars for dual-flush toilets, shower-flow restrictors, aerator taps, flow/pressure control valves and minimum 3 Stars for all appliances.

2.2.3. Trench Bottom Area and Trench Length.

Trench bottom areas have been determined from the results of the water and nutrient balance analyses, the Code of Practice Table 9 and AS/NZS 1547:2012, Appendix L.

Trenches are to be designed and constructed in accordance with AS/NZS 1547:2012, Appendix L. Critical dimensions include a width of 1.0m and a pond depth of 0.25m.

2.2.3.1. Hydraulic Loading.

To satisfy the requirement for no surface discharge in the mean wet year, a wetted area of $150m^2$ is required. This translates into a trench length of $150m \times 1.0m$ wide trench.

The water balance analysis uses a peak deep seepage of 6mm/day (average deep seepage of 0.9mm/day).

2.2.3.2. Nutrient Loading.

The requirements of SEPPs (Waters of Victoria) would be satisfied with a wetted area, as given above.

^d Minimum 1400mm required for absorption trenches.

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2.2.3.3. Design Loading.

To satisfy the requirement for no surface discharge in the mean wet year and on-site attenuation of nutrients, the effluent should be applied to a trench length of 150m (1.0m wide). Trenches shall be placed coincident with contours and shall not exceed 30m in length and are to be spaced 2m apart, as required.

In case of an increase in effluent production through the chain of ownership, there is sufficient area available for duplicating/extending the absorption trenches.

2.2.4. Inspections.

We recommend that the mandatory inspection and reporting as described in the *Code of Practice -Onsite Wastewater Management*, E.P.A. Publication 891.4, July 2016, include an annual (post spring and post episodic event) report on the functioning and integrity of the distribution system and on the functioning and integrity of the cut-off bunds, outfall areas and soil media.

2.2.5. Soil Renovation.

Soils are dispersive and require amelioration. To maintain water-stable peds (under disposal with saline effluent), soil renovation in the form of gypsum application is required at the rate of 1kg/m². Initially, prior to the installation and operation of the effluent disposal system gypsum is to be broadcast over the land application area at the rate of 0.5kg/m². Following that gypsum shall be broadcast again over the effluent area at the rate of 0.25 kg/m² in every two winter months and 0.25kg/m² in every 3 summer months until the determined gypsum application of 1kg/m² is reached.

If the determined gypsum application of 1kg/m^2 is not reached by the time of the installation and operation of the effluent disposal system gypsum shall be broadcast again over the effluent area at the rate of 0.25 kg/m^2 in every winter month and 0.25kg/m^2 in every 1.5 summer months.

After reaching the determined gypsum application of 1kg/m² we recommend sampling and testing to assess the effectiveness of the gypsum application. This testing will determine future application rate and frequency of application.

Gypsum requirement assumes the gypsum contains 19% Calcium and 15% Sulphur. Gypsum is to be fine ground "Grade 1" agricultural quality. Gypsum shall be reapplied every 5 years at the rate of 0.5kg/m².

2.3. RESERVE AREA

The expected design life of fifteen years may vary due to construction and maintenance vagaries and possible effluent volume increases through the chain of ownership.

There is sufficient available area for extension/duplication of the effluent area.

2.4. SITE DRAINAGE.

Our recommendations for on-site effluent disposal have allowed for incident rainfall only (not surface flow or lateral subsurface flow) and are conditional on the installation of a shallow cut-off bund, which shall be placed upslope of the disposal area.

Care shall be taken to ensure that the intercepted and diverted surface waters are discharged well away and down slope of the disposal field.

Locations of the cut-off bunds and a drain detail are shown in Drawings 2 and MP1.

The owner shall also ensure that any upslope site works do not divert and/or concentrate surface water flows onto the disposal area.

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2.5. BUFFER DISTANCES

The water balance analysis has shown that potential surface (rain water) flows from the effluent area would be restricted to episodic events.

The estimated hydraulic properties of the upper soil materials and hydraulic gradient have been used to evaluate (via Darcy's Law) the buffer distances with respect to subsurface flows.

Our analysis and evaluation has shown that the default setback distances given in Code of Practice - Onsite Wastewater Management, E.P.A. Publication 891.4, July 2016, Table 5 are conservative and can be applied without amendment.

For a building located downslope of an effluent field, your engineer shall evaluate the integrity of building foundations with respect to the assigned buffer distance.

2.6. SUMMARY OF RECOMMENDATIONS

Our capability assessment has shown that at least one rational and sustainable on-site effluent disposal method (septic and absorption trenches) is appropriate for the proposed development, subject to specific design criteria, described above.

A management plan is presented in Appendix D, to this report.

Zoltan Lorincz M.App.Sc.
PRINCIPAL SOIL SCIENTIST
LAND CAPABILITY ASSESSMENT VICTORIA

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SOIL PERMEABILITY

Where the soils are dispersive and/or have high shrink-swell potential insitu permeability testing realises inaccurate, low or nil results.

The hydraulic conductivity can be estimated by using test waters containing calcium chloride and/or by laboratory assessment of colloid stability and determination of ameliorant quantities (e.g. gypsum/lime requirement) and swell potential.

A conservative estimate of permeability has been deduced as follows (see Code 3.6.1):-

Profile analysis in accordance with AS/NZS 1547:2012 and our laboratory determined dispersion and swell potential shows the alluvial soils (limiting horizon) to be strongly structured silty light clays (i.e. Type 5a soils) with saturated hydraulic conductivity of 0.12-0.5m/day.

The limiting strongly structured clay soils require amelioration in the form of gypsum application at the rate of 1kg/m^2 . For soil renovation see Section 4.3.3.

The application of gypsum creates water-stable peds (by replacing Sodium and Magnesium ions with Calcium ions) with a consequent higher hydraulic conductivity controlled by macro pores.

Peak deep seepage is conservatively estimated at 6mm/day. Average daily deep seepage is 0.9mm.

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Project: Y	arck		Date of s	ampling: 1	15/01/24	Date of La	b test:			BH: 1		
horizon (cm)	рН	EC _{1:5}	EC _{SE}	disp 10 min	disp 2 hours	disp total	Emers 2 hours	Emers 20 hours	free swell %	texture		
0-15				0	0	0	8	8		silt		
15-30				0	0	0	4,5,6	4,5,6		clayey silt		
30-45				0	0	0	4,5,6	4,5,6		silty light clay		
45-95				0	0	0	4,5,6	4,5,6		silty light clay		
95-115				0	0	0	4,5,6	4,5,6		silty light clay		
115-160				0	2	10	2	2		silty light clay		

Project: Y	roject: Yarck Date of sampling: 15/01/24						b test:	BH: 2		
horizon (cm)	рН	EC _{1:5}	EC _{SE}	disp 10 min	disp 2 hours	disp total	Emers 2 hours	Emers 20 hours	free swell %	texture
0-15				0	0	0	8	8		silt
15-30				0	0	0	4,5,6	4,5,6		clayey silt
30-45				0	0	0	4,5,6	4,5,6		silty light clay
45-95				0	0	0	4,5,6	4,5,6		silty light clay
95-160				0	0	0	4,5,6	4,5,6		silty light clay

Project: Y	arck		Date of sa	ampling: 1	15/01/24	Date of Lab test:				BH: 3
horizon (cm)	рН	EC _{1:5}	EC _{SE}	disp 10 min	disp 2 hours	disp total	Emers 2 hours	Emers 20 hours	free swell %	texture
0-10	5.4	0.01	0.10	0	0	0	8	8		silt
10-30	5.0	0.01	0.10	0	2	10	2	2	20	clayey silt
30-90	5.4	0.01	0.09	0	0	0	4,5,6	4,5,6	10	silty light clay
90-155	6.4	0.01	0.09	0	2	10	2	2	20	silty light clay

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SOIL PROFILE PHOTOGRAPHS



BOREHOLE 1



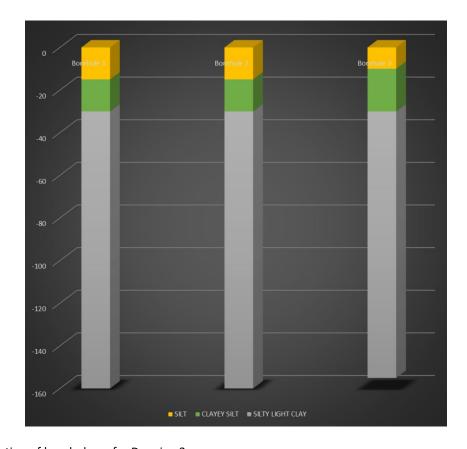
BOREHOLE 2



BOREHOLE 3

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LOGS OF BOREHOLES



For location of boreholes refer Drawing 2.

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APPENDIX B

WATER- AND NUTRIENT BALANCE

Land Capability Assessment Victoria Spreadsheet used with permission LCA17012024 WATER BALANCE (Absorption): With storage depth less than 250mm.

Rainfall Station: Alexandra/ Evaporation Station: Strathbogie

Location: Yarck Date: January, 2024 Client Nicholas Dean Spink

ITEM	UNIT	#	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
Evaporation (Mean)	mm	Α	202	165	133	75	40	30	31	43	69	105	138	180	1212
Rainfall (mean)	mm	B1	43	39	48	53	63	70	71	75	68	67	57	50	704.2
Effective rainfall	mm	B2	41	46	46	50	60	67	68	71	65	63	54	48	678
Peak Seepage Loss ¹	mm	ВЗ	186	168	186	180	186	180	186	186	180	186	180	186	2190
Evapotranspiration(IXA)	mm	C1	141	116	93	45	20	14	12	20	38	69	97	126	790
Waste Loading(C1+B3-B2)	mm	82	286	238	234	175	146	127	131	134	153	191	223	264	2301
Net evaporation from lagoons	L	D	0	0	0	0	0	0	0	0	0	0	0	0	0
(10(0.8A-B1xlagoon area(ha)))															
Volume of Wastewater	L	Е	23250	21000	23250	22500	23250	22500	23250	23250	22500	23250	22500	23250	273750
Total Irrigation Water(E-D)/G	mm	F	155	140	155	150	155	150	155	155	150	155	150	155	1825
Wetted Area(E/C2)	m²	G	81	88	100	129	159	177	178	173	147	122	101	88	150
Storage	mm	Н	-131	-98	-79	-25	9	23	24	21	-3	-36	-73	-109	
Increase in depth of stored effluent(H/0.7)	mm	K	-437	-326	-262	-82	30	77	81	68	-11	-120	-243	-364	
Depth of effluent for month	mm	L	0	0	0	0	0	30	77	81	68	0	0	0	
Increase in depth of effluent	mm	М	-437	-326	-262	-82	30	107	158	150	57	-120	-243	-364	
Computed depth of effluent	mm	N	0	0	0	0	30	137	235	231	126	0	0	0	
Actual seepage loss:	mm	SL	10	18	15	20	29	37	37	40	35	32	24	17	313
Direct Crop Coefficient		-1	0.7	0.7	0.7	0.6	0.5	0.45	0.4	0.45	0.55	0.65	0.7	0.7	Pasture:
·			•	•	1 Seenac	ie loss equ	als deen s	eenage pli	is lateral flo	w equals	DIR of 6n	nm/day			

Rainfall retention: 95 % 0 ha 0 0.7 0.7 0.7 0.5 0.45 0.4 0.45 0.55 0.65 0.7 0.6 0.7 Lagoon Area: Wastew ater(daily): 750 L Р 0.45 0.45 0.45 0.45 0.4 0.45 0.45 0.4 0.4 0.4 0.45 0.45 Peak deep seepage: 6 mm 8.0 0.8 0.8 8.0 8.0 0.8 8.0 8.0 8.0 8.0 8.0 0.8 Wetted Area: 150 m² z 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6

Length (1.0m w ide) trench: 150 m NE 0.9 mm Average daily seepage loss Design Loading Rate 5.0 mm

RAINFALL DATA

Opened: 1877 Station: Alexandra (Post Office) Number: 88001 Now: Open Lat: 37.19°S Lon; 145.71° E Elevation: 221 m

Statistic	Jan	<u>Feb</u>	Mar	Apr	May	<u>Jun</u>	<u>Jul</u>	Aug	<u>Sep</u>	Oct	Nov	Dec	Annual
Mean	43.2	38.7	48.2	53.1	63.4	70.0	71.4	74.8	68.0	66.7	56.6	50.1	709.6
Lowest	0.0	0.0	0.5	0.0	0.0	6.8	13.2	10.1	14.4	2.0	5.3	0.0	412.2
5th %ile	2.0	2.1	5.4	7.2	14.0	22.6	24.2	23.2	28.9	14.2	11.0	9.5	478.2
10th %ile	6.1	4.4	8.9	11.4	22.5	29.4	31.2	31.4	31.0	22.0	16.7	12.0	531.7
Median	35.7	26.0	37.2	46.6	58.8	69.2	68.0	70.8	63.8	64.2	51.7	42.4	712.5
90th %ile	88.8	87.7	115.1	100.2	109.6	116.2	113.2	120.6	112.4	121.4	104.8	97.2	877.8
95th %ile	111.0	114.6	129.6	118.4	130.4	129.0	122.0	130.1	124.7	132.6	120.4	113.0	935.3
Highest	170.6	215.9	224.9	223.5	173.6	163.8	144.6	167.1	166.7	143.8	191.8	186.2	1089.7

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APPENDIX C1

LAND CAPABILITY ASSESSMENT TABLE (Non-Potable water supply catchments)

LAND		LAND CAPABILI	TY RISK RATING	AMELIORATIVE MEASURES				
FEATURE	LOW	MEDIUM	HIGH	LIMITING	& RISK REDUCTION			
Available land for LAA	Exceeds LAA and duplicate LAA requirements	Meets LAA and duplicate LAA requirements	Meets LAA and partial duplicate LAA requirements	Insufficient LAA area	Non limiting for trenches & beds: Full reserve area available.			
Aspect	North, north-east and north-west	East, west, south- east, south-west	South	South, full shade	Western aspect.			
Exposure	Full sun and/or high wind or minimal shading	Dappled light (partial shade)	Limited light, little wind to heavily shaded all day	Perpetual shade	Full winter sunshine.			
Slope Form	Convex or divergent side slopes	Straight sided slopes	Concave or convergent side slopes	Locally depressed	Free draining, however finished LAA surface requires smoothing and redistribution of topsoil.			
Slope gradient:								
Trenches and beds	<5%	5% to 10%	10% to 15%	>15%	2-2.5%: Non-limiting for trenches.			
Site drainage: runoff/run-on	LAA backs onto crest or ridge	Moderate likelihood	High likelihood	Cut-off drain not possible	Unremarkable. Cut-off bund required upslope.			
Landslip ¹	Potential	Potential	Potential	Existing	Unremarkable			
Erosion potential	Low	Moderate	High	No practical amelioration	All runoff to be dispersed without concentrating flows. LAA stabilised with gypsum.			
Flood/inundation	Never		<1%AEP	>5% AEP	Unremarkable			
Distance to surface waters (m)	Buffer distance complies with Code requirements		Buffer distance does not comply with Code requirements	Reduced buffer distance not acceptable	LAA located at least 125m from a non-potable dam.			
Distance to groundwater bores (m)	No bores on site or within a significant distance	Buffer distances comply with Code	Buffer distances do not comply with Code	No suitable treatment method	No bores within a significant distance (more than 380m from LAA)			
Vegetation	Plentiful/healthy vegetation	Moderate vegetation	Sparse or no vegetation	Propagation not possible	LAA to be sown with rye/clover mix in new topsoil.			
Depth to water table (potentiometric) (m)	>2	2 to 1.5	<1.5	Surface	Water table is between 5-10m.			
Depth to water table (seasonal perched) (m)	>1.5	<0.5	0.5 to 1.5	Surface	Perching unlikely.			
Rainfall ² (mean) (mm)	<500	500-750	750-1000	>1000	704mm/year. Non-limiting for trench systems. Design by water balance.			
Pan evaporation (mean) (mm)	1250 to 1500	1000 to 1250	750 to 1000	<750	1212mm/year. Design by water balance.			
SOIL PROFILE CHARACTERISTICS								
Structure	High or moderately structured	Weakly structured	Structureless, massive or hardpan		Strongly structured soils. Maintain structure by gypsum application (at the rate of 1kg/m²).			
Fill materials	Nil or mapped good quality topsoil	Mapped variable depth and quality materials	Variable quality and/or uncontrolled filling	Uncontrolled poor quality/unsuitable filling	No fill encountered.			
Thickness: (m)								
Trenches and beds	>1.4		<1.4	<1.2	Non-limiting for trench systems.			
Permeability ³ (limiting horizon) (m/day)	0.15-0.3	0.03-0.15 0.3-0.6	0.01-0.03 0.6-3.0	>3.0 <0.03	Design by water balance			
Permeability ⁴ (buffer evaluation) (m/day)	<0.3	0.3-3	3 to 5	>5.0	Evaluate flow times via Darcy's Law (assume 1m/day for alluvial clays)			
Stoniness (%)	<10	10 to 20	>20		Unremarkable			
Emerson number	4, 5, 6, 8	7	2, 3	1	Non-dispersive topsoils. Dispersive subsoils. Apply gypsum (at the rate of $1 kg/m^2$) to maintain stable peds.			
Dispersion Index	0	1-8	8-15	>15	Non-dispersive topsoils. Dispersive subsoils. Apply gypsum (at the rate of 1kg/m^2) to maintain stable peds.			
Reaction trend (pH)	5.5 to 8	4.5 to 5.5	<4.5>8		5.4pH in topsoil. Below the ideal range for grasses			
E.C. (dS/m)	<0.8	0.8 to 2	2-4	>4.0	Non-limiting for trench systems.			
Sodicity (ESP) (%)	<6	6 to 8	>8	>14	Sodic (inferred from Emerson, Dispersion Index, Free swell)			
Free swell (%)	<30	30-80	80-120	>120	10%-20%. Low-swelling clay fraction.			

There are high-risk factors for primary effluent trench systems (colloid stability). Apply gypsum at the rate of 1kg/m².

Evaluation of buffer distances via Darcy's Law shows EPA default buffer distances to be adequate.

Hence, in terms of the design, engineering and management inputs required for sustainable on-site effluent disposal are rational and easily achieved without significant impost on the landowner.

¹ Landslip assessment based on proposed hydraulic loading, slope, profile characteristics and past and present land use.

² Mean monthly rainfalls used in water balance analyses.
3 Saturated hydraulic conductivity estimated from data base and laboratory tests.
4 Saturated hydraulic conductivity estimated from AS/NZS1547:2012 and data base.

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APPENDIX C2

CALCULATED OVERALL LAND CAPABILITY HAZARD / RISK

SOIL HAZARD DERIVATION

Hazard Type	Hazard Class	Description
Depth Hazard (w:1.5)	Low (1)	Greater than 1.5 metres profile depth
Hydraulic Hazard (w:1)	Medium (2)	Strongly structured light clays
Pollution Hazard (w:0.5)	Medium (2)	Minor sodicity potential and moderate organic content in topsoil.

Final Soil Hazard Class: [(Depth HS x w)+(Hydraulic HS x w)+(Pollution HS x w)]/3=

[(1x1.50)+(2x1)+(2x0.5)]/3=

(1.5+2+1)/3= 4.5/3=1.5

1–1.5 Low Soil Hazard
1.5–2.5 Medium Soil Hazard
2.5–3 High Soil Hazard

Rating: the site has a Low Soil Hazard Rating (1.5)

LAND CAPABILITY HAZARD SUB-CRITERIA

Criteria	Value	Hazard	Score	Weight	Note
Slope	<10%	Low	0	40%	Slope: 2-2.5%
Soil	1.5-2.5	Medium	2	30%	(1.5) As above.
Climate	4 to 5 months RF>PET	Medium	1	20%	4 months where RF>PET
Drainage Class	Mod. well	Low	0	10%	Free draining soils.

Land Capability Hazard: (Slope H \times 0.4)+(Soil H \times 0.3)+(Climate H \times 0.2)+(Drainage H \times 0.1) =

(0x0.4)+(2x0.3)+(1x0.2)+(0x0.1)=0.8

The site has a Land Capability Hazard of 0.8

Land Capability Hazard/ Risk

Head Criteria	Classification	Hazard	Score	Weight
Land Capability Hazard	Land Capability Hazard Score: 0.8	Low	0	50%
Receiving Environment: Proximity	Property outside of setback area	Low	0	25%
Receiving Environment: Sensitivity	Non present / >setback distance	Low	0	25%

Overall Land Capability Hazard / Risk:

(Land Capability H x0.5)+(Receiving Environment: Proximity x0.25)+(Receiving Environment: Sensitivity x0.25)= (0x0.5)+(0x0.25)+(0x0.25)=

0+0+0=0

The site has an overall Land Capability Hazard / Risk of 0 (Low Risk / Hazard)

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APPENDIX D

MANAGEMENT PLAN

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Land Capability Assessment Victoria

ABN 91 816 632 168

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LCA17012024-JANUARY/2024

MANAGEMENT PLAN FOR ON-SITE EFFLUENT DISPOSAL VIA ABSORPTION TRENCHES AT 6667 MAROONDAH HIGHWAY, YARCK VIC 3719

1. INTRODUCTION

This document identifies the significant land-soil unit constraints (as identified in LCA17012024) and their management and day-to-day operation and management of the on-site effluent system.

This management plan is to be read in conjunction with our land capability assessment for this land-soil unit (LCA17012024).

2. SIGNIFICANT LAND-SOIL UNIT CONSTRAINTS

2.1 Allotment Size. The day-to-day operation and management of on-site effluent systems, as described below, is not constrained by lot size or geometry.

Although all requirements of *SEPPs* have been met or exceeded through conservative design, prudence dictates that individual lot owners assiduously follow the management programme given in Section 4, below.

- **2.2 Nitrogen Attenuation.** Provided the trench areas are at least as large as those required to satisfy the nitrogen loading, as described in LCA17012024 Sections 1.3.1.12 and 2.2.3.2, and that the (specified) vegetation is maintained and grass is cut and periodically harvested, nitrogen will be attenuated on-site.
- **2.3 Hydraulic Conductivity.** The soils of this site are strongly structured silty light clays with low swelling potential and a moderate hydraulic conductivity. The hydraulic conductivity is significantly influenced by soil structure, soil colloid stability and swell characteristics. Breakdown or reduction of these soil parameters over time may manifest as reduced performance of the irrigation system. The monitoring and inspection regime detailed in Section 4.7.2, below, should be adhered to.
- **2.4 Site Drainage.** Our recommendations for on-site effluent disposal have allowed for incident rainfall only (not surface flow or lateral subsurface flow) and are conditional on the installation of a cut-off bund, which should be placed upslope of the disposal area. Care should be taken to ensure that the intercepted and diverted surface waters and any perched groundwater are discharged well away and down slope of the disposal field (see Drawings 2 and MP1).

This diverted water should also be discharged in a manner to avoid scouring and/or erosion. It may be appropriate to discharge the water onto a stone/rubble dissipation area.

The owner should also ensure that any upslope land-soil unit works do not divert and/or concentrate surface water flows onto the disposal area.

2.5 Vegetation. Existing vegetation is suitable however requires over-sowing with a rye/clover mix. The effluent disposal areas have been sized via water and nutrient balance analyses utilising crop factors for pasture (rye/clover mix) under conditions of full winter sunshine.

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3. THE ONSITE EFFLUENT SYSTEM

The onsite effluent system consists of the influent (black and greywater from a 4-bedroom (equivalent) residence), a septic tank, distribution pipes, the absorption trenches, prescribed vegetation, associated infrastructure (cut-off bunds, outfall areas, fencing), a service and maintenance programme and on-going management.

4. MANAGEMENT

The owner is required to understand (and ensure that tenants understand) that sustainable operation of the onsite effluent system is not automatic. Sustainable operation requires on-going management, as outlined below.

- **4.1 Effluent.** Effluent will be generated from a 4-bedroom (equivalent) residence and will include black and grey water (all wastes).
- **4.1.2 Effluent Quality.** Effluent should be treated to a standard that meets or exceeds the water quality requirements of the septic standard.
- **4.1.3 Effluent Quantity.** The daily effluent volume of 750 litres has been calculated from *Code of Practice Onsite Wastewater Management*, E.P.A. Publication 891.4, July 2016, Table 4 and assumes a 4-bedroom (equivalent) residence with mains water (equivalent) and WELS-rated water-reduction fixtures and fittings minimum 4 Stars for dual-flush toilets, shower-flow restrictors, aerator taps, flow/pressure control valves and minimum 3 Stars for all appliances.
- **4.2 Septic Tank.** No specific proprietary treatment plant is recommended, however septic tanks must have current JAS/ANZ accreditation, which match effluent volumes with plant capacity. For absorption, it is assumed that the design, construction, operation and maintenance are carried out in accordance with AS/NZS1547:2012 and a "system specific" JAS/ANZ certification, as appropriate.
- **4.3 Trench Lengths.** The trench length has been determined from the results of the water and nutrient balance analysis and the Code of Practice, Table 9 and AS/NZS 1547:2012.
- **4.3.1 Effluent Area Requirement.** For the estimated daily effluent flows and to satisfy the requirement for no surface discharge in the mean wet year and on-site attenuation of nutrients, the effluent should be applied to 150 lineal metres of 1.0m wide absorption trenches.

Effluent distribution is as detailed in Section 4.3.2, below.

In case of an increase in effluent production through the chain of ownership, there is sufficient area available for duplicating/extending the absorption trenches.

Any landscaping and/or planting proposals require endorsement from the Murrindindi Shire Council.

- **4.3.2 Distribution System.** The absorption trenches are to be designed and constructed in accordance with AS/NZS1547:2012 and LCA17012024.
- **4.3.3. Soil Renovation**: Soils are dispersive and require amelioration. To maintain water-stable peds (under irrigation with saline effluent), soil renovation in the form of gypsum application is required at the rate of 1kg/m². Initially, prior to the installation and operation of the effluent irrigation system gypsum is to be broadcast over the land application area at the rate of 0.5kg/m². Following that gypsum shall be broadcast again over the effluent area at the rate of 0.25 kg/m² in every two winter months and 0.25kg/m² in every 3 summer months until the determined gypsum application of 1kg/m² is reached.

If the determined gypsum application of 1kg/m^2 is not reached by the time of the installation and operation of the effluent irrigation system gypsum shall be broadcast again over the effluent area at the rate of 0.25 kg/m^2 in every winter month and 0.25kg/m^2 in every 1.5 summer months.

After reaching the determined gypsum application of 1kg/m² we recommend sampling and testing to assess the effectiveness of the gypsum application. This testing will determine future application rate and frequency of application.

Gypsum requirement assumes the gypsum contains 19% Calcium and 15% Sulphur. Gypsum is to be fine ground "Grade 1" agricultural quality. Gypsum shall be reapplied every 5 years at the rate of 0.5kg/m².

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4.3.4 Buffer Distances. The water balance analysis has shown that potential surface rainwater flows from the effluent area would be restricted to episodic events.

The estimated hydraulic properties of the upper soil materials and hydraulic gradient (equivalent to the ground slope and regional gradients) have been used to evaluate (via Darcy's Law) the buffer distances with respect to subsurface flows.

Our analysis and evaluation have shown that the default setback distances given in Code of Practice - Onsite Wastewater Management, E.P.A. Publication 891.4, July 2016, Table 5 are conservative and can be applied without amendment.

For a building located downslope of an effluent field, your engineer should evaluate the integrity of building foundations with respect to the assigned buffer distance.

Buffer distances are to be applied exclusive of the irrigation area.

- **4.3.5 Buffer Planting.** All downslope (Title inclusive) buffers may be required to filter and renovate abnormal surface discharges. Hence, they are to be maintained with existing or equivalent groundcover vegetation.
- **4.3.6 Buffer Trafficking.** On all allotments, buffer trafficking should be minimised to avoid damage to vegetation and/or rutting of the surface soils.

Traffic should be restricted to 'turf' wheeled mowing equipment and to maintenance, monitoring and inspections by pedestrians, where possible.

4.4 Vegetation. The system design for on-site disposal includes the planting and maintenance of suitable vegetation, as specified in LCA17012024 and/or similar documents.

Specifically, this irrigation area has been sized (in part) utilising crop factors and annual nitrogen uptake for a rye/clover eq mix.

The grass needs to be harvested (mown and periodically removed from the irrigation area).

Where a variation to recommended grass species is proposed, it must be demonstrated that the nitrogen uptake and crop factors (as specified in LCA17012024 Appendix B – water and nutrient balance) are met or exceeded.

- 4.5 Verification. The Council is to be satisfied that the effluent system has been constructed as designed.
- **4.6 Associated Infrastructure.** The following items are an integral part of the onsite effluent system.
- **4.6.1 Cut-off bunds.** Cut-off bunds are designed to prevent surface water flows from entering the effluent area. They should be constructed and placed around the effluent area, as shown in Drawings 2 and MP1.
- **4.6.2 Outfall areas.** All pipe outfalls should be at grade and designed to eliminate scour and erosion.

A grassed outfall would normally be adequate. However, should monitoring and inspections reveal rill or scour formation, the outfall will need to be constructed so that energy is satisfactorily dissipated.

Should this situation occur, professional advice is to be sought.

4.6.3 Fencing. The disposal area is to be a dedicated area. Adequate fencing must be provided to prevent stock, excessive pedestrian and vehicular movements over the area.

Fencing may take any of the traditional forms or can be incorporated into landscape features or be dense planting, as appropriate.

- **4.7 Service and Maintenance Programme.** The minimum requirements for servicing and maintenance are set out in the relevant JAS/ANZ accreditation and the manufacturer's recommendations.
- **4.7.1 Septic Tank.** Septic Tanks should be inspected at least one time per year (or as recommended in the JAS/ANZ certification) and pumped out at least every two years.

The local authority is to ensure compliance.

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The manufacturer's recommendations are to be followed. Generally, low phosphorous and low sodium (liquid) detergents should be used. Plastics and other non-degradable items should not be placed into the tanks. Paints, hydrocarbons, poisons etc should not be disposed of in sinks or toilets. Advice from a plumber should be obtained prior to using drain cleaners, chemicals and conditioners. It is important to ensure that grease does not accumulate in the tanks or pipes. Grease and similar products should be disposed of by methods other than via the on-site effluent system.

4.7.2 Monitoring and Inspections. We recommend that the mandatory testing and reporting as described in the *Code of Practice - Onsite Wastewater Management*, E.P.A. Publication 891.4, July 2016, include an annual (post spring) and post periods of heavy and/or prolonged rainfall report on the functioning and integrity of the distribution system and on the functioning and integrity of the cut-off bunds, outfall areas and soil media.

The effluent areas should be regularly inspected for excessively wet areas and vegetation integrity.

The inspection regime described in LCA17012024, Section 2.2.4, should be strictly adhered to.



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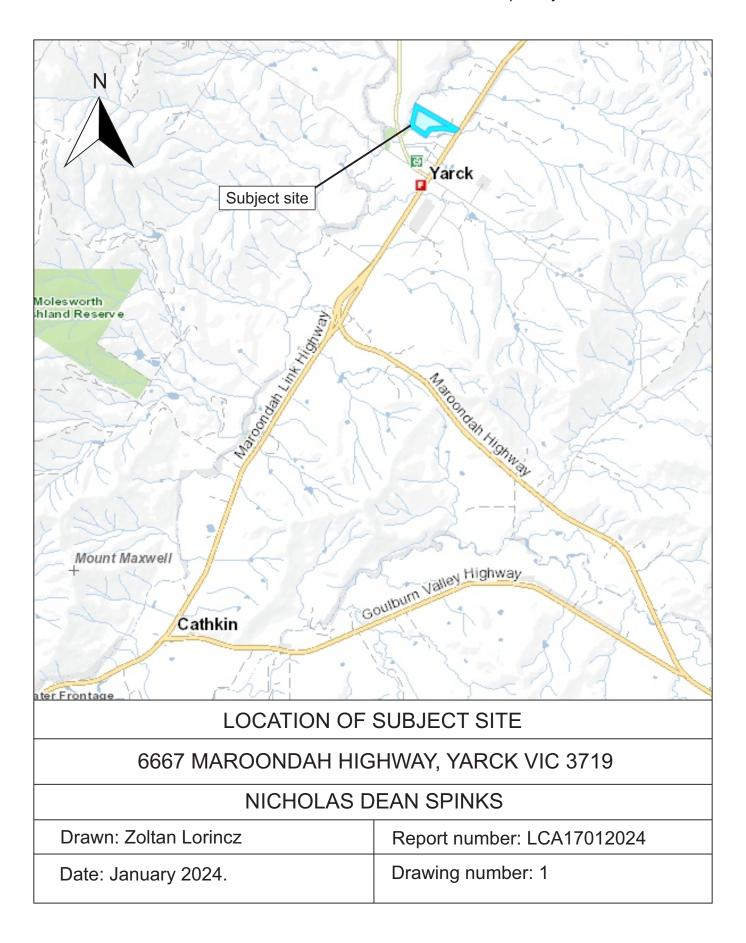
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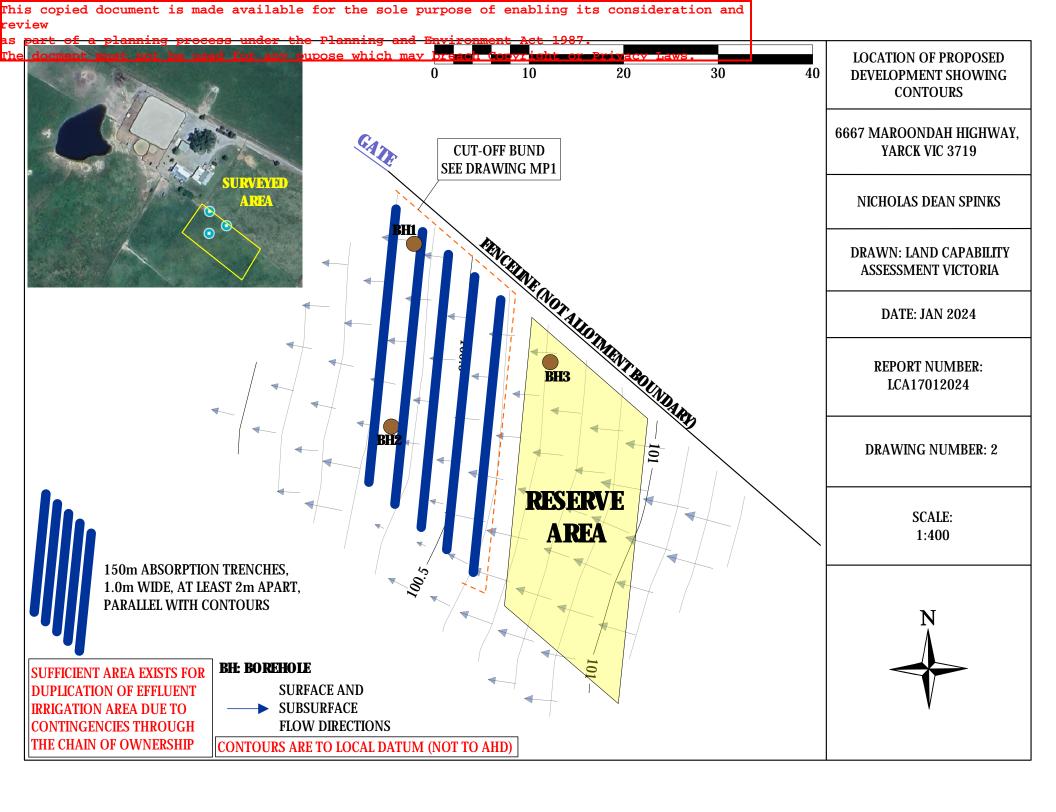
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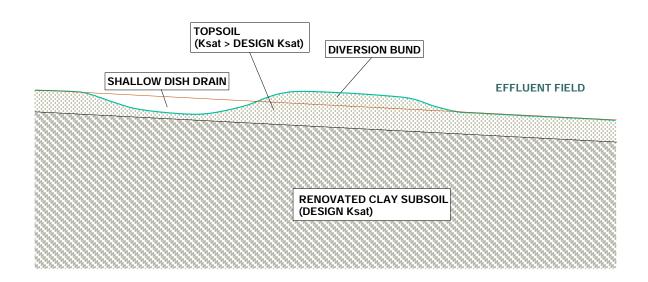


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DIVERSION BUND/DRAIN LOCATION (INDICATIVE-NOT TO SCALE)

IRRIGATION AREA

NOTE: CUT-OFF DRAIN LOCATION
IS SCHEMATIC ONLY. FINAL LOCATION
TO BE DETERMINED BY
DESIGN ENGINEER AS PART
OF SITE DRAINAGE DESIGN.



NOTES:

- 1. DRAIN TO BE DESIGNED, CONSTRUCTED & MAINTAINED TO ENSURE THAT NO SURFACE FLOWS ENTER THE IRRIGATION AREA.
- 2. DRAIN AND TO BE LOCATED ON UPSLOPE SIDES OF IRRIGATION AREA (NO CLOSER THAN 1m FROM NEAREST SUBSURFACE DISTRIBUTION LINE).
- 3. DRAIN TO HAVE UNSPECIFIED FALL.
- 4. MINIMUM DEPTH AT LEAST 200mm.
- 5. DRAIN CROSS SECTIONAL AREA RELATED TO DESIGN FLOWS AS DETERMINED BY A SUITABLY QUALIFIED AND EXPERIENCED ENGINEER.
- 6. OFF-SITE DRAIN OUTFALL TO LEGAL POINT OF DISCHARGE SUBJECT TO LOCAL AUTHORITY REQUIREMENTS.
- 7. ON-SITE DRAIN OUTFALL TO INCLUDE APPROPRIATE ENERGY DISSIPATION TO AVOID EROSION.
- 8. ALL DRAINS AND OUTFALL AREAS SUBJECT TO POST-SPRING INSPECTION.

NOTE: DRAWING NOT TO BE USED FOR SET-OUT PURPOSES

CUT-OFF DRAIN DETAIL FOR EFFLUENT DISPOSAL FIELDS

SURFACE FLOW DIVERSION BUND & DISH DRAIN

NICHOLAS DEAN SPINKS

Scale: 1:10 (Approximately)	Drawn: P.R.W.	Report Number: LCA17012024	
Contour Interval: N/A	Date: January 2024	Drawing Number: MP1	

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REGISTER SEARCH STATEMENT (Title Search) Transfer of Land Act 1958

Page 1 of 1

VOLUME 11164 FOLIO 135

Security no : 124112673199K Produced 15/02/2024 11:18 AM

LAND DESCRIPTION

Lot 2 on Plan of Subdivision 604591G. PARENT TITLE Volume 09125 Folio 492 Created by instrument PS604591G 14/10/2009

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
NICHOLAS DEAN SPINKS of 15 SWANN ROAD ALEXANDRA VIC 3714
AT013058J 21/02/2020

ENCUMBRANCES, CAVEATS AND NOTICES

MORTGAGE AX115950J 03/08/2023 BENDIGO AND ADELAIDE BANK LTD

Any encumbrances created by Section 98 Transfer of Land Act 1958 or Section 24 Subdivision Act 1988 and any other encumbrances shown or entered on the plan set out under DIAGRAM LOCATION below.

AGREEMENT Section 173 Planning and Environment Act 1987 AG550472N 09/06/2009

DIAGRAM LOCATION

SEE PS604591G FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

-----END OF REGISTER SEARCH STATEMENT-----END

Additional information: (not part of the Register Search Statement)

Street Address: 6667 MAROONDAH HIGHWAY YARCK VIC 3719

ADMINISTRATIVE NOTICES

NIL

eCT Control 18057S BENDIGO BANK Effective from 03/08/2023

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Title 11164/135 Page 1 of 1

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Number of Pages	2
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PARISH:	YARCK		COLINCII	NAME . N	AURRINDINDI SHIRE	COUNCIL REF: 31200	
TOWNSHI	P: —		l l			6 of the Subdivision Act	
SECTION: ——		2. This pl	2. This plan is certified under section 11(7) of the Subdivision Act 1988 Date of original certification under Section 6. / /-				
CROWN ALLOTMENT: 15 A (part)		3. This is	3. This is a statement of compliance issued under section 21 of				
			the Subdivision Act 1988.				
CROWN PORTION: —		(i) A requ	(i) A requirement for public open space under section 18 of the Subdivision Act 1988 has / has not been made.				
TITLE REFERENCES: C/T/ Vol.9125 Fol.492			1		nas been satisfied		
LAST PLAN REFERENCE/S: LOT 1 LP 68012			(iii) The-re	equirement i	s to be satisfied	in_Stage	
POSTAL ADDRESS: 12 DUGALD ROAD, (At time of subdivision) YARCK, 3719.			Council	Delegate Seal 3 /01 / 20			
MGA Co-ordinates: E 377 230 (of approx centre of N 5893 700 ZONE: 55 land in plan)		Council Council	Re-certified under Section 11(7) of the Subdivision Act 1988. Council Delegate Council Seal Date / /				
VESTIN	IG OF ROADS AND/	OR RESERVES					
IDENTIFIER	COUNCIL/I	BODY/PERSON					
NIL	L	NIL .					
		N	OTATIONS				
DEPTH LIMI	TATION DOES NOT		STAGING	This is not	a staged subdiviermit No. 2006/260	sion .	
			THIS SURV	VEY HAS BE	•	PERMANENT MARKS No.(s) 15 &	
			THIS SURV	VEY HAS BE s 114450372	EEN CONNECTED TO 114450373 & 114	PERMANENT MARKS No.(s) 15 &	
			THIS SURV	VEY HAS BE s 114450372	EEN CONNECTED TO	PERMANENT MARKS No.(s) 15 &	
		EASEMENT	THIS SURVAND PCM'S IN PROCLA	VEY HAS BE s 114450372 AIMED SURVE	EEN CONNECTED TO , 114450373 & 114 EY AREA No.	PERMANENT MARKS No.(s) 15 & 450374.	
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SECTION Subject	E-Encumbering Easement, Co A-Appurtenant Easement 12(2) OF THE SUBDIVIS Purpose	Midth (Metres)	THIS SURY AND PCM'S IN PROCLA INFORMATION In the Nature of an Easement (Road) IES TO THE LOTE Origin	VEY HAS BE s 114450372 AIMED SURVE Easement or S ON THIS	EEN CONNECTED TO 114450373 & 114 EY AREA No. Other Encumbrance PLAN enefited/In Favour	D PERMANENT MARKS No.(s) 15 & 450374. LR USE ONLY STATEMENT OF COMPLIAL EXEMPTION STATEMENT Of DATE: 06/10/09 LR USE ONLY	
SECTION Subject	E-Encumbering Easement, Co A-Appurtenant Easement 12(2) OF THE SUBDIVIS Purpose	Midth (Metres)	THIS SURY AND PCM'S IN PROCLA INFORMATION In the Nature of an Easement (Road) IES TO THE LOTE Origin	VEY HAS BE s 114450372 AIMED SURVE Easement or S ON THIS	EEN CONNECTED TO 114450373 & 114 EY AREA No. Other Encumbrance PLAN enefited/In Favour	LR USE ONLY STATEMENT OF COMPLIAL EXEMPTION STATEMENT Of DATE: 06/10/09 LR USE ONLY PLAN REGISTERED	
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SECTION Subject	E-Encumbering Easement, Co A-Appurtenant Easement 12(2) OF THE SUBDIVIS Purpose	Midth (Metres)	THIS SURY AND PCM'S IN PROCLA INFORMATION In the Nature of an Easement (Road) IES TO THE LOTE Origin	VEY HAS BE s 114450372 AIMED SURVE Easement or S ON THIS	EEN CONNECTED TO 114450373 & 114 EY AREA No. Other Encumbrance PLAN enefited/In Favour	LR USE ONLY STATEMENT OF COMPLIAL EXEMPTION STATEMENT Of DATE: 06/10/09 LR USE ONLY PLAN REGISTERED	
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SECTION Subject Land E-1	E-Encumbering Easement, Co A-Appurtenant Easement 12(2) OF THE SUBDIVIS Purpose DRAINAGE	SION ACT 1988 APPL Width (Metres)	THIS SURY AND PCM'S IN PROCLA INFORMATION In the Nature of an Easement (Road) IES TO THE LOTE Origin	VEY HAS BE s 114450372 AIMED SURVE Easement or S ON THIS	EEN CONNECTED TO 114450373 & 114 EY AREA No. Other Encumbrance PLAN enefited/In Favour	LR USE ONLY STATEMENT OF COMPLIAL EXEMPTION STATEMENT OF DATE: 06/10/09 LR USE ONLY PLAN REGISTERED TIME 9.36 DATE 14/10/09	
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as part of a planning process under the Planning and Environment Act 1987.

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Application by a responsible authority for the making of a recording of an agreement Section 181 Planning and Environment Act 1987



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Form 18

Lodged by:

Name:

Russell Kennedy, Solicitors

Phone:

03 9609 1555

Address:

Level 12, 469 La Trobe Street, Melbourne Vic 3001

Ref:

167219-04179

Customer Code: 1513M

The Authority having made an agreement referred to in section 181(1) of the Planning and Environment Act 1987 requires a recording to be made in the Register for the land.

D.G.N.

Land: (insert Volume and Folio reference) (if part only, define the part)

Volume 9125 Folio 492

Authority: (name and address)

Murrindindi Shire Council

of Perkins Street Alexandra Victoria 3714

Section and Act under which agreement made:

Section 173 Planning and Environment Act 1987

A copy of the Agreement is attached to this Application:

Signature for the Authority:

Name of Officer:

MARK CLIFFORD HENDERSON

(Print full name)

Date: 15.5.09.

as part of a planning process under the Planning and Environment Act 1987.

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RUSSELL KENNEDY

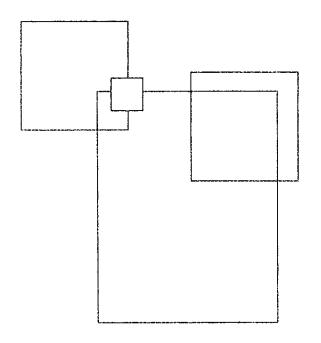
MEMBER OF THE KENNEDY STRANG LEGAL GROUP

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MURRINDINDI SHIRE COUNCIL

and

JOHN CAMERON CLARK and JENNIFER ANN CLARK



AGREEMENT MADE PURSUANT TO SECTION 173 OF THE PLANNING AND ENVIRONMENT ACT 1987

Property: Lot 1 on LP68012, Dugald Road, Yarck

Level 12 469 La Trobe Street Melbourne Victoria 3000 Australia

PO Box 5146AA Melbourne Victoria 3001 DX 494 Melbourne

Tel 61 3 9609 1555 Fax 61 3 9609 1600

www.rk.com.au

AFFILI ATED FIRMS PRACTISING SEPARATELY IN SYDNEY - BRISBANE - ADELAIDE - PERTH

Ref IDP 167219-04179

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THIS AGREEMENT is made on

PARTIES

- 1 MURRINDINDI SHIRE COUNCIL
 of Perkins Street, ALEXANDRA VICTORIA 3714
 ("Council")
- 2 JOHN CAMERON CLARK and JENNIFER ANN CLARK both of 12 Dugald Road, YARCK VICTORIA 3719 ("Owner")

RECITALS

- A The Council is the responsible authority under the Act for the Scheme.
- B The Owner is registered or is entitled to be registered as proprietor of the Land.
- C Condition 5 of the Permit provides as follows:

"Prior to the issue of a Statement of Compliance a section 173 agreement must be entered into at no cost to Council, which ensures the following:

- Ongoing protection of native vegetation in accordance with the management plan approved by Conditions 3.
- Building exclusion zones within 30 metres of the vegetated areas and any waterways or major drainage lines on the allotments.
- Effluent exclusion zones within 60 metres of the vegetated areas and any waterways or major drainage lines on the allotments.
- Ongoing management requirements of the vegetated areas as identified in the Vegetation Management Plan.
- Ongoing management requirements of erosion prone areas as identified in the Erosion Rehabilitation Plan.
- Formal protection for any native vegetation identified in the Vegetation Management Plan that are not within the Building and Effluent Exclusion Zones.
- If any new dams are proposed the following applies:
 - (a) Each lot may have up to a maximum of two megalitres (2 ML) of water held in storage in catchment dams in total (i.e. one 2 ML dam; four 0.5 ML dams; etc).
 - (b) Before a dam is created or enlarged an application must be made to Goulburn-Murray Water and the Murrindindi Shire Council as a licence or a permit may be required.

The section 173 agreement must be prepared by Council's solicitors, to the satisfaction of the Responsible Authority and must be registered at the Office of Titles pursuant to section 181 of the *Planning and Environment Act 1987*.

The weeted by LANDALAS Unestamp 15/1/2/2/24/1/10/2 Rade 4 of 13 ilable for the sole purpose of enabling its consideration and review '

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Council will undertake to have the agreement prepared upon written notification from the applicant. All fees associated with the documentation must be fully paid prior to execution and registration of the document by Council."

- D The Land is encumbered by mortgage number AD447478C in which Commonwealth Bank of Australia is named as mortgagee. The Mortgagee has consented to the Owner entering into this Agreement.
- E This Agreement has been entered into in order to:
 - comply with all relevant conditions of the Permit;
 - prohibit, restrict or regulate the use or development of the Land;
 - achieve and advance the objectives of planning in Victoria or the objectives of the Scheme in relation to the Land.
- F This Agreement is made under Division 2 of Part 9 of the Act.

THE PARTIES AGREE THAT:

1 DEFINITIONS

In this Agreement:

AG550472N



- 1.1 "Act" means the Planning and Environment Act 1987.
- 1.2 "Agreement" means this Agreement including the recitals and any annexures to this Agreement.
- 1.3 "Building" means a building including (but not limited to) a dwelling, bungalow, studio, shed, garage, carport or outbuilding, but does not include a fence, retaining wall, mast or pole.
- 1.4 "Building Exclusion Zones" means any part of the Land within 30 metres of the Vegetated Areas, any waterways and major drainage lines on the Land.
- 1.5 "Business Day" means Monday to Friday excluding public holidays in Victoria.
- 1.6 "Effluent" means all wastewater and sewerage used in connection with any existing or future septic tank system at the Land.
- 1.7 **"Effluent Exclusion Zones"** means any part of the Land within 60 metres of the Vegetated Areas, any waterways and major drainage lines on the Land.
- 1.8 "Endorsed Plan" means the plan or plans endorsed from time to time with the stamp of Council as the plan which forms part of the permit.
- 1.9 **"Erosion Prone Areas"** means those areas identified in the Erosion Rehabilitation Plan as areas of the Land prone to erosion.
- 1.10 "Erosion Rehabilitation Plan" means the Erosion Rehabilitation Plan for 12 Dugald Road, Yarack, a copy of which is attached to this Agreement at Annexure A.
- 1.11 "Land" means the land within the Scheme being lot 1 on plan of subdivision LP68012, Dugald Road, Yarck being the whole of the land more particularly described in certificate of title volume 9125 folio 492.

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- 1.12 "Lot" means a lot within the subdivision of the Land created pursuant to the Permit.
- 1.13 "Mortgagee" means the person or persons registered or entitled from time to time to be registered by the Registrar of Titles as mortgagee of the Land or any part of it.
- 1.14 "Permit" means planning permit no. 2006/260 issued by the Council on 20 August 2007 authorising the development of the Land for a three lot subdivision.
- 1.15 "Scheme" means the Murrindindi Planning Scheme or any other planning scheme which applies to the Land from time to time.
- 1.16 "Vegetated Areas" means those areas identified on the Vegetation Management Plan where vegetation, including native vegetation, exists or is proposed to be planted.
- 1.17 "Vegetation Management Plan" means the Vegetation Management Plan prepared by Hansen Partnership Pty Ltd dated 6 February 2008 (being part of the Endorsed Plan) a copy of which is attached to this Agreement at Annexure B.

2 COMMENCEMENT

This Agreement comes into force on the date it was made as set out above.

3 TERMINATION OF AGREEMENT

3.1 Termination

This Agreement may be ended by mutual agreement between the parties.

3.2 Cancellation of Agreement

As soon as reasonably practicable after this Agreement has ended as to the whole of the Land or as to part of the Land, the Council must, at the request and at the cost of the Owner, apply to the Registrar of Titles under section 183(2) of the Act to cancel the recording of this Agreement on the Register as to the whole of the Land or as to part of the Land as the case may be.

4 OWNER'S COVENANTS

4.1 Vegetation Management Plan

The Owner covenants and agrees to:

- 4.1.1 implement the Vegetation Management Plan; and
- 4.1.2 maintain the Vegetated Areas and all native vegetation identified in the Vegetation Management Plan

to the satisfaction of Council.



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4.2 Building Exclusion Zones

The Owner covenants and agrees that it will not construct or erect or permit to be constructed or erected any Building within the Building Exclusion Zones.

4.3 Effluent Exclusion Zones

The Owner covenants and agrees that no Effluent shall be produced, stored, transported through or over the Effluent Exclusion Zones.

4.4 Erosion Rehabilitation Plan

The Owner covenants and agrees to:

- 4.4.1 implement the Erosion Management Plan; and
- 4.4.2 maintain the Erosion Prone Areas

to the satisfaction of Council.



4.5 Restrictions for dams

The Owner covenants and agrees that:

- 4.5.1 each Lot is restricted to having a maximum of two megalitres (2 ML) of water held in storage in a catchment dam or any number of catchment dams provided that the total storage capacity does not exceed two megalitres per Lot; and
- 4.5.2 before any dam is created or enlarged on a Lot the Owner of the Lot must make an application to the relevant water corporation and Council for any required licence or permit.

4.6 Fencing of Vegetated Areas and dams

The Owner covenants and agrees that it will fence and keep fenced the Vegetated Areas and dams to a standard that will exclude livestock, to the satisfaction of Council.

4.7 Successors in title

Until this Agreement is recorded on the folio of the Register which relates to the Land pursuant to section 181 of the Act, the Owner must ensure that the Owner's successors in title give effect to and do all acts and sign all documents which will require those successors to give effect to this Agreement including requiring the successors in title to execute a deed agreeing to be bound by the terms of this Agreement. Until that deed is executed, the Owner, being a party to this Agreement, remains liable to perform all of the Owner's obligations contained in this Agreement.

4.8 Further Assurance

The Owner must do all things necessary (including signing any further agreement, acknowledgment or document) to enable the Council to record this Agreement on the folio of the Register which relates to the Land.

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4.9 Payment of Council's costs

The Owner agrees to pay on demand to the Council the Council's costs and expenses (including any legal fees incurred on a solicitor-client basis) of and incidental to the preparation, execution, recording and enforcement of this Agreement.

4.10 Mortgagee to be Bound

The Owner covenants to obtain the consent of any mortgagee to be bound by the covenants in this Agreement if the mortgagee becomes mortgagee in possession of the Land.

4.11 Indemnity

The Owner covenants to indemnify and keep the Council, its officers, employees, agents, workmen and contractors indemnified from and against all costs, expenses, losses or damages which they or any of them may sustain incur or suffer or be or become liable for or in respect of any suit action proceeding judgement or claim brought by any person arising from or referrable to this Agreement or any non-compliance with this Agreement.

4.12 Non-compliance

If the Owner has not complied with this Agreement within 14 days after the date of service on the Owner by the Council of a notice which specifies the Owner's failure to comply with any provision of this Agreement, the Owner covenants:

- 4.12.1 to allow the Council its officers, employees, contractors or agents to enter the Land and rectify the non-compliance;
- 4.12.2 to pay to the Council on demand, the Council's reasonable costs and expenses ("Costs") incurred as a result of the Owner's non-compliance;
- 4.12.3 to pay interest at the rate of 2% above the rate prescribed under section 2 of the *Penalty Interest Rates Act 1983* on all moneys which are due and payable but remain owing under this Agreement until they are paid in full;
- 4.12.4 if requested to do so by the Council, to promptly execute in favour of the Council a mortgage to secure the Owner's obligations under this Agreement,

and the Owner agrees:

- 4.12.5 to accept a certificate signed by the Chief Executive Officer of the Council (or any nominee of the Chief Executive Officer) as prima facie proof of the Costs incurred by the Council in rectifying the Owner's non-compliance with this Agreement;
- 4.12.6 that any payments made for the purposes of this Agreement shall be appropriated first in payment of any interest and any unpaid Costs of the Council and then applied in repayment of the principal sum;
- 4.12.7 that all Costs or other monies which are due and payable under this Agreement but which remain owing shall be a charge on the Land until they are paid in full; and

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4.12.8 if the Owner executes a mortgage as required by clause 4.12.4, any breach of this Agreement is deemed to be a default under that mortgage.

4.13 Standard of Works

The Owner covenants to comply with the requirements of this Agreement and to complete all works required by this Agreement as expeditiously as possible at its cost and to the satisfaction of the Council.

4.14 Council Access

The Owner covenants to allow the Council and its officers, employees, contractors or agents or any of them, to enter the Land (at any reasonable time) to assess compliance with this Agreement.

4.15 Covenants run with the Land

The Owner's obligations in this Agreement are intended to take effect as covenants which shall be annexed to and run at law and in equity with the Land and every part of it, and bind the Owner and its successors, assignees and transferees, the registered proprietor or proprietors for the time being of the Land and every part of the Land.

4.16 Owner's warranty

The Owner warrants and covenants that:

- 4.16.1 the Owner is the registered proprietor (or is entitled to become the registered proprietor) of the Land and is also the beneficial owner of the Land;
- 4.16.2 there are no mortgages, liens, charges or other encumbrances or leases or any rights inherent in any person other than the Owner affecting the Land which have not been disclosed by the usual searches of the folio of the Register for the Land or notified to the Council;
- 4.16.3 no part of the Land is subject to any rights obtained by adverse possession or subject to any easements or rights described or referred to in section 42 of the *Transfer of Land Act 1958*; and
- 4.16.4 until this Agreement is recorded on the folio of the Register which relates to the Land, the Owner will not sell, transfer, dispose of, assign, mortgage or otherwise part with possession of the Land or any part of the Land without first disclosing to any intended purchaser, transferee, assignee or mortgagee the existence and nature of this Agreement.

5 GENERAL

5.1 No Fettering of Council's powers

This Agreement does not fetter or restrict the Council's power or discretion to make or impose requirements or conditions in connection with any use or development of the Land or the granting of ation of any plans of subdivision or consolidation relating to the Land or the issue of a statement of compliance in connection with any such plans.

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5.2 Time of the essence

Time is of the essence as regards all dates, periods of time and times specified in this Agreement.

5.3 Governing law and jurisdiction

This Agreement is governed by and is to be construed in accordance with the laws of Victoria. Each party irrevocably and unconditionally submits to the non-exclusive jurisdiction of the courts and tribunals of Victoria and waives any right to object to proceedings being brought in those courts or tribunals.

6 NOTICES

6.1 Service of notice

A notice or other communication required or permitted, under this Agreement, to be served on a person must be in writing and may be served:

- 6.1.1 personally on the person;
- 6.1.2 by leaving it at the person's address set out in this Agreement;
- 6.1.3 by posting it by prepaid post addressed to that person at the person's current address for service; or
- 6.1.4 by facsimile to the person's current number notified to the other party.

6.2 Time of service

A notice or other communication is deemed served:

- 6.2.1 if served personally or left at the person's address, upon service;
- 6.2.2 if posted within Australia to an Australian address, two Business Days after posting;
- 6.2.3 if served by facsimile, subject to the next clause, at the time indicated on the transmission report produced by the sender's facsimile machine indicating that the facsimile was sent in its entirety to the addressee's facsimile; and
- 6.2.4 if received after 5.00pm in the place of receipt or on a day which is not a Business Day, at 9.00am on the next Business Day.

7 INTERPRETATION

In this Agreement, unless the contrary intention appears:

- 7.1 the singular includes the plural and vice versa;
- 7.2 a reference to a document or instrument, including this Agreement, includes a reference to that document or instrument as novated, altered or replaced from time to time;
- 7.3 a reference to an individual or person includes a partnership, body corporate, government authority or agency and vice versa;

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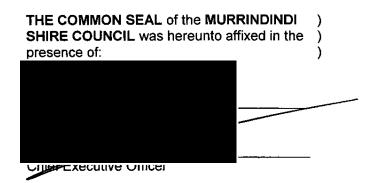
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- 7.4 a reference to a party includes that party's executors, administrators, successors, substitutes and permitted assigns;
- 7.5 words importing one gender include other genders;
- 7.6 other grammatical forms of defined words or expressions have corresponding meanings;
- 7.7 a covenant, undertaking, representation, warranty, indemnity or agreement made or given by:
 - 7.7.1 two or more parties; or
 - 7.7.2 a party comprised of two or more persons,

is made or given and binds those parties or persons jointly and severally;

- 7.8 a reference to a statute, code or other law includes regulations and other instruments made under it and includes consolidations, amendments, re-enactments or replacements of any of them;
- 7.9 a recital, schedule, annexure or description of the parties forms part of this Agreement;
- 7.10 if an act must be done on a specified day that is not a Business Day, the act must be done instead on the next Business Day;
- 7.11 if an act required to be done under this Agreement on a specified day is done after 5.00pm on that day in the time zone in which the act is performed, it is taken to be done on the following day;
- 7.12 a party that is a trustee is bound both personally and in its capacity as trustee;
- 7.13 a reference to an authority, institution, association or body ("original entity") that has ceased to exist or been reconstituted, renamed or replaced or whose powers or functions have been transferred to another entity, is a reference to the entity that most closely serves the purposes or objects of the original entity;
- 7.14 headings and the provision of a table of contents are for convenience only and do not affect the interpretation of this Agreement.

EXECUTED as an agreement under Division 2 of Part 9 of the Act.



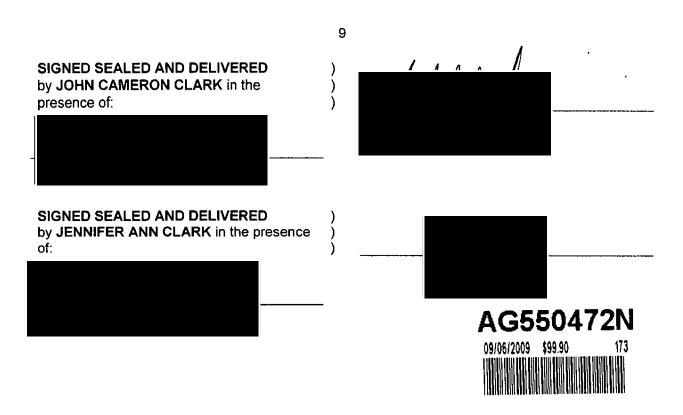


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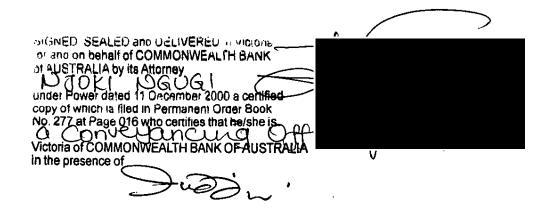
as part of a planning process under the Planning and Environment Act 1987.

The docment must not be used for any pupose which may breach Copyright or Privacy Laws



MORTGAGEE'S CONSENT

Commonwealth Bank of Australia as Mortgagee under Mortgage no. AD447478C which encumbers the Land consents to the Owner entering into this Agreement and agrees to be bound by the terms and conditions of this Agreement.



as part of a planning process under the Planning and Environment Act 1987.

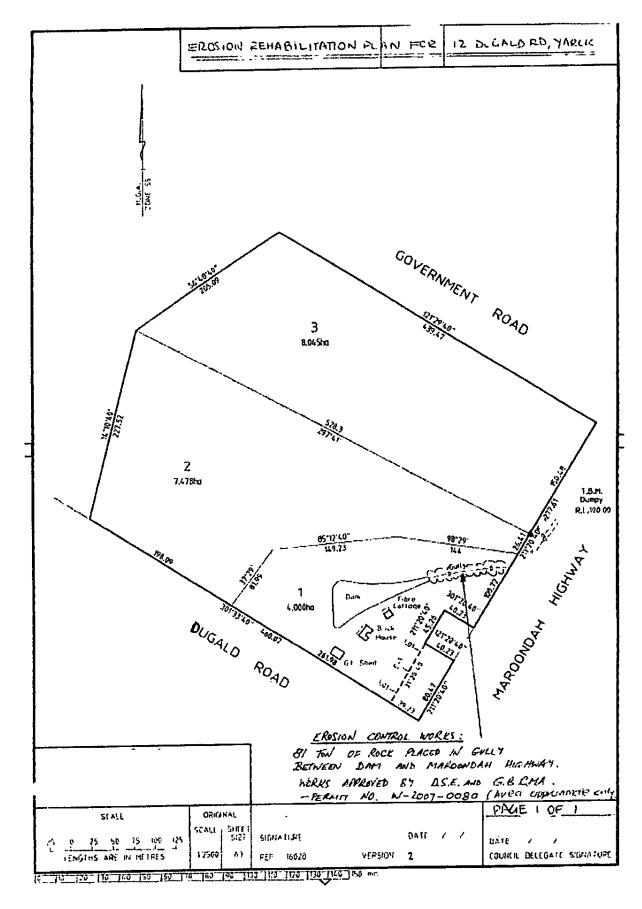
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Annexure "A"





of a planning process under the Planning and Environment Act 1987.

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