Application for a Planning Permit

Section 1: LAND DETAILS

Unit Number:	Street Number: --	Street Name: KORUMBURRA-WARRAGUL ROAD
Town: FERNDALE		Postcode: 3821

FORMAL LAND DESCRIPTION (Please complete either A or B – this information can be found on the Certificate of Title)

Option A:

Lot No:	Lot 1 LP220702
Type of Plan: Please tick ✓	Lodge Plan ☐ Title Plan ☐ Plan of Subdivision ☐
Plan Number:	LP 220702

Option B:

Crown Allotment Number:	
Section Number:	
Parish/Township Name:	

Section 2: PERMIT APPLICANT

Name:	
Business:	
Postal Address:	
Telephone No. (H)	
Email Address:	

Section 3: OWNER DETAILS (If different to the Applicant)

Name(s):	
Postal Address:	
Telephone No. (H)	
Email Address:	

Section 4: DEVELOPMENT COST - Estimated Cost of development for which the permit is required

$475,000

Section 5: PROPOSAL You must give full details of the proposal being applied for. Insufficient or unclear information will delay your application..

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

Development:

☐ Advertising Signage	☐ Development of 2 or more dwellings Qty:
☐ Agricultural Outbuildings	☐ Mixed Use Development and Reduction of Carparking
☐ Buildings and Works and Reduction in Carparking	☐ Residential Outbuildings
☐ Commercial or Industrial Buildings and Works	☑ Single Dwelling
☐ Extension / Alteration to Dwelling	☐ Telecommunications

Use:

☐ Buildings and Works and Change of Use	☐ Home Based Business
☑ Change of Use	☐ Sale and Consumption of Liquor
☐ Change of Use and Single Dwelling	

Subdivision:

☐ Boundary Realignment	☐ 3 or more Lot Subdivison Qty:
☐ Variation/ Removal of Restriction	☐ Create an easement
☐ 2 Lot Subdivision	☐ 100 or more Lot Subdivision Qty:

Subdivision / Vegetation Removal:

☐ Native Vegetation Removal or Lopping	☐ Non Native Vegetation Removal or Lopping (ESO4)
☐ Subdivision Qty:	☐ Alteration of access RDZ1

Other:

Dwelling and Outbuilding

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

☐ Yes ☐ No ☑ Not Applicable (no such covenant, section 173 agreement or restriction applies)

If yes, you should contact Council for advice as to how to proceed with the application.

FURTHER DETAILS OF PROPOSAL (optional)

No restrictions or s173 Agreements.

Section 6: EXISTING CONDITIONS Describe how the land is used and developed now.

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

Farm with establisehd orchard

Section 7: PRE-APPLICATION MEETING Has there been a Pre-Application meeting with a Council Planning Officer?

No ☐		
Yes ☐	If yes, with whom?	
	Date of this meeting	

Section 8: DECLARATION This form must be signed. Complete box A or B

A. I declare that I am the Applicant and all information given is true and correct.	Applicant signature:	Date:
B .I/We the Applicant declare that I/We have notified the owner about this application and that all information given is true and correct.	Applicant Sigr	19.11.2023. Date:

CHECK LIST Please ensure you have included the following items with your application form. *Failure to provide all the information above may result in a delay in the processing of the application.*

☐ A fully completed and signed copy of this form.

☐ The application fee (if not already paid). Most applications require a fee to be paid. Contact Council to determine the appropriate fee.

☐ Full and current copy of title and title plan (no older than 60 days) for each individual parcel of land forming the subject site. The title includes: the covering register search statement, the title plan and the associated title documents (known as instruments).

☐ Provided plans showing the layout and details of the proposal

☐ Provided any information required by the planning scheme, requested by Council

☐ Provided a description of the likely effect of the proposal (if required)

☐ Completed the declaration in Section 8

☐ Provided a contact phone number and e-mail address

PLEASE FORWARD THIS APPLICATION TO

E-mail:	planning@bawbawshire.vic.gov.au	**Mail:**	Planning Department, Baw Baw Shire Council PO Box 304 Warragul VIC 3820
Phone:	5624 2411		
In Person:	Customer Service Centres 1 Civic Place Warragul OR 33 Young Street Drouin		

The personal information requested on this form is being collected to enable council to consider the permit application. Council will use this information for this purpose or one closely related and may disclose this information to third parties for the purpose of their consideration and review of the application.
These third parties generally include, but are not limited to:
Transport Infrastructure Agencies such as VicRoads and VLine
Energy/Utilities Providers
Catchment Management Authorities and Water Corporations

The specific referral bodies will be dependent on factors such as the proposed activities and the location of the applicable property. Applicants are encouraged to familiarise themselves with potential referral bodies.
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 of the application as part of a planning process specified in the Planning and Environment Act 1987.
All information collected and held by Council is managed in accordance with Councils Privacy Policy which is available on our website. If you choose not to supply the requested information it may impair the ability of Council to consider your application or prevent Council from communicating with you in relation to your application.
If you have any concerns or require access to the information held by Council, please contact us on 5624 2411.

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

VOLUME 09993 FOLIO 341

Security no : 124110613167A
Produced 19/11/2023 09:51 PM

LAND DESCRIPTION

Lot 1 on Plan of Subdivision 220702E.
PARENT TITLES :
Volume 08296 Folio 215 Volume 09960 Folio 777

REGISTERED PROPRIETOR

Estate Fee Simple
Joint Proprietors

ENCUMBRANCES, CAVEATS AND NOTICES

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 or imaged folio set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE LP220702E FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

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

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

Street Address: KORUMBURRA-WARRAGUL ROAD FERNDALE VIC 3821

DOCUMENT END

Imaged Document Cover Sheet

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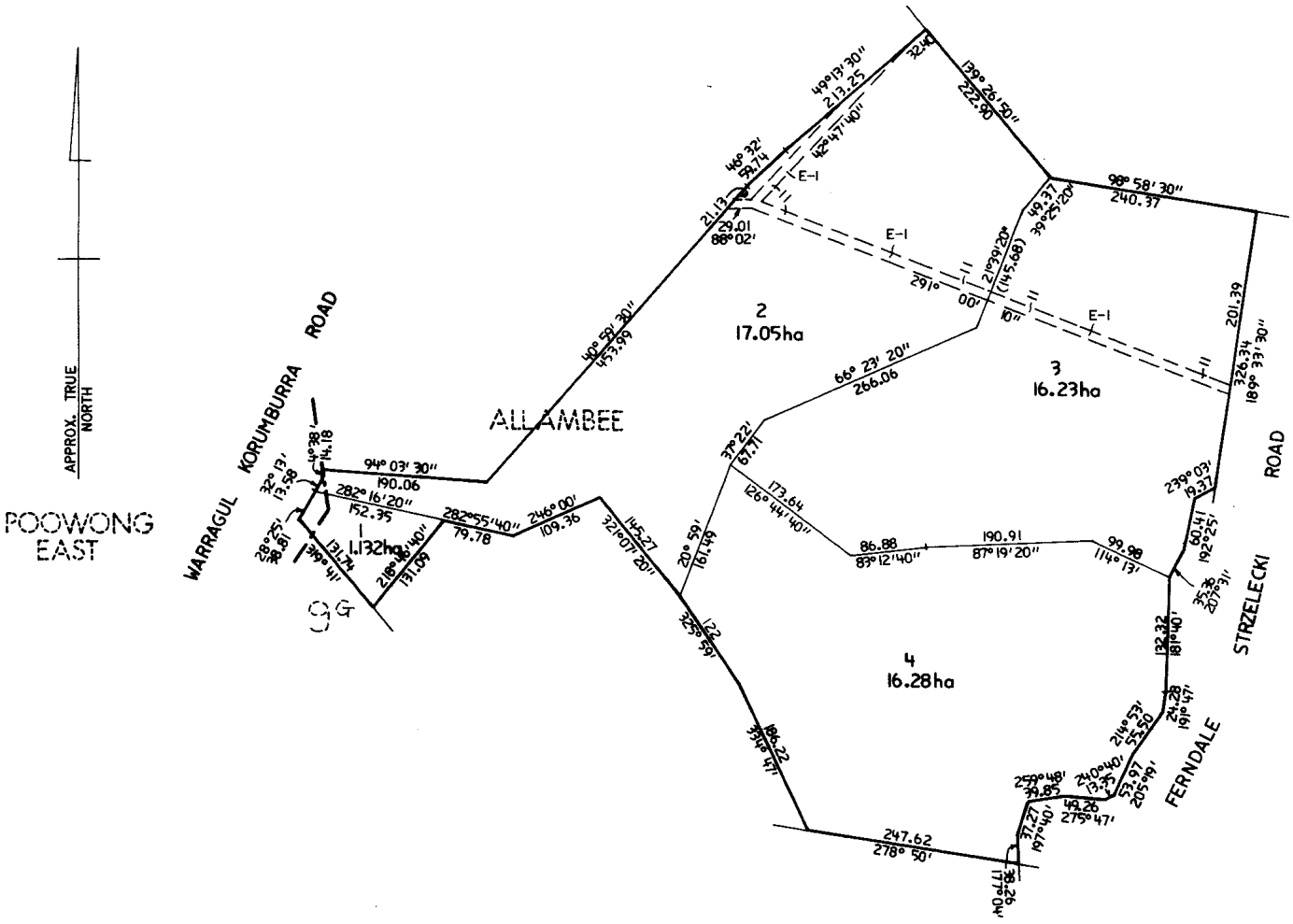
Document Identification	**LP220702E**
Number of Pages (excluding this cover sheet)	**1**
Document Assembled	**19/11/2023 21:55**

OFFICE USE ONLY

LP220702E
EDITION 1



PARISH

NOTATIONS

LAND APPROPRIATED OR SET APART

E-1 ELECTRICITY SUPPLY PURPOSES

DEPTH LIMITATION
FORMER GOVT. ROAD — 15.24 metres

TO BE COMPLETED WHERE APPLICABLE
THIS SURVEY HAS BEEN CONNECTED TO PERMANENT MARKS NOS:
IN PROCLAIMED SURVEY AREA NO.

THE LAND TO BE SUBDIVIDED IS SHOWN ENCLOSED BY THICK LINES
TITLE REF: VOL 8296 FOL 215 & V. 9960 - F. 777
LAST PLAN REF:

CERTIFICATION BY SURVEYOR

I, Christopher Charles Morris of 48 Queen Street, Warragul a Surveyor licensed under the Land Surveyor's Act 1958, certify that the survey from which this plan has been prepared was effected by me or under my immediate supervision and marked on the ground in strict accordance with the requirements of and under the Land Surveyor's Act 1958; that the classification of this survey is ... and that this plan correctly represents the title boundaries existing on the ... day of ..., 198...

dated this the 18th day of January 1990

.....Surveyor.

AMENDMENTS

CHRISTOPHER C. MORRIS & ASSOCIATES
LICENSED SURVEYORS
48 Queen St., Warragul, 3820. Ph (056) 23 6526

SURVEYORS REF
730 (4)

CERTIFICATE OF MUNICIPAL CLERK

MUNICIPALITY WARRAGUL COUNCIL REF. S89027C

CERTIFICATE A
THIS PLAN ACCORDS WITH A PLAN
- SEALED BY THE COUNCIL UNDER SECTION 569B OF THE LOCAL GOVERNMENT ACT 1958 ON
- CONFIRMED BY THE PLANNING APPEALS BOARD ON
- AND A REQUIREMENT/NO REQUIREMENT PURSUANT TO SECTION 569E OF THE LOCAL GOVERMENT ACT 1958 HAS BEEN MADE

DATE MUNICIPAL CLERK

CERTIFICATE B
THIS PLAN ACCORDS WITH A PLAN EXEMPTED FROM SUBDIVISION (3) OF DIVISION (9) OF PART XIX OF THE LOCAL GOVERNMENT ACT 1958 BY
- THE COUNCIL ON
- THE PLANNING APPEALS BOARD ON

DATE MUNICIPAL CLERK

OFFICE USE ONLY

PLAN APPROVED
AT
ON 11-12-90

(ASSISTANT) REGISTRAR OF TITLES

PLAN OF SUBDIVISION

COUNTY BULN BULN
PARISH ALLAMBEE
CROWN ALLOTMENT 8 (PART)
PARISH OF POOWONG EAST
PART OF FORMER GOVERNMENT ROAD

NUMBER OF SHEETS IN PLAN : 1
NUMBER OF THIS SHEET : 1

SCALE
40 0 40 80 120 160
LENGTHS ARE IN METRES

ORIGINAL SCALE	ORIGINAL SHEET SIZE
1:4000	A2

OFFICE USE ONLY
LP 220702E
VICTORIA

0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150mm

ONLY CERTIFICATE A OR CERTIFICATE B TO BE COMPLETED
• DELETE WORDS NOT APPLICABLE

Farm management plan

Ferndale property of Strzelecki Heritage Apples

Oct 2024

Compiled by:

1. Location and business context of the Ferndale Property

The Ferndale property is located on Korumburra -Warragul Road, Ferndale. Lot 1 on LP220702E. Total area of property is 1.132 ha. It currently does not have a road number, but the entrance is located immediately south of the entrance to the adjoining property with road number 2090. (ie. Korumburra side – road numbers ascend from Korumburra to Warragul along that road) (Figure 1).

The property was purchased at the end of 2012 to enable establishment of a duplicate collection of @400 heritage apple varieties held at the owners current home farm. Planting of the apple varieties commenced in winter 2014 and was completed over several years. Within the fruit collection area, duplicate plantings were also established of a substantial part (80 pear varieties and 40 plum varieties) of the @100 heritage pear varieties and @110 plum varieties located on the home farm. A small cider orchard of 100 trees (10 known cider varieties) was also established.

This fruit collection and cider orchard is an important component of the business. Strzelecki Heritage Apples commenced in 1993 and was registered as a business in 1996. The business comprises a heritage apple, pear and plum nursery and niche heritage apple orchard.

The owners of Strzelecki Heritage Apples manage the business and personally perform all of the management activities required. They also manage the home farm and carry out all the various practical stock management tasks and farm/home/garden maintenance themselves. The business and farm do not have paid employees or utilise volunteers.

The home farm of 60 acres (24.28ha) is located 4km from the Ferndale property. The farm runs @120 Perendale and Suffolk ewes for fat lamb production. It also contains the original Heritage Apple orchard and Heritage Apple, Pear, and Plum collections.

1. Property Layout

Currently divided into 4 zones which comprise (Figures 2, 3 & 4):

3 paddocks and an orchard/fruit tree collection. Paddock 1 = 0.225 ha (including a windbreak of 1.025 ha on north side); Paddock 2 = 0.33 ha; Paddock 3 = 0.375 ha (including a small dam of 0.025 ha surface area). Orchard/fruit tree collection area = 0.19 ha. The remaining 0.012 ha is occupied by a small set of sheep yards next to the front entrance and the property entrance itself with gate inset to allow safe off-road entry with vehicle and trailer.

There is a small (4 x 2.5m floor area) storage shed located within the orchard/fruit collection area.

The proposed dwelling and shed will be located entirely within paddock 1.

Figure 1. View of entrance to Ferndale property. April 2023. Entrance to property with road number 2090 is at left of photo (north, or Warragul side)

Figure 2. Layout of Ferndale property as planned and fenced in 2013 (and the current layout) Imagery was taken prior to the fencing (which was done in winter 2013), and (except for the sheep yards constructed after purchase), shows the property as it was purchased in late

2012. At the time of purchase, the property was one paddock, with the established windbreak on the northern boundary. The dam was constructed in late autumn 2013. Imagery courtesy of DELWP 2013

Figure 3. Current aerial view of Ferndale property. Imagery from Google Maps 2023

Figure 4. Current aerial view of Ferndale property. Image from Mapshare 2023

Note: the cider orchard/fruit collection is fully and permanently netted but the netting over the fruit collection area does not show up well in the image.

2. Current use

The paddocks on the property have been used for holding 3-4 rams outside of the 6-week joining period on the main farm. Small numbers of 6-18 month-old wethers are also held there from time to time as pasture availability allows. Stock are rotationally grazed through the paddocks and the stocking rate is matched to pasture availability. Supplementary feeding is not required, although seasonally, unsaleable fruit (eg. bruised by windfall) is fed to the stock.

The orchard/fruit collection area is in the upper, central area of the property on a well-drained, gently sloping site.

The apple varieties are grafted onto MM102 (50% vigour – semi-dwarfing) woolly aphid-resistant rootstock. Each tree is a single variety. Rows are located along contour lines across the slope. To maximise the number of varieties able to be fitted into a small site, the spacing between each tree within rows is 0.5m and rows are spaced at 3m centres.

Pear varieties are grafted onto Hawthorn rootstock which has a 50% dwarfing characteristic and produces few suckers compared to the alternative quince rootstock.

Intergrafts of the pear variety Beurre Hardy are used where there is grafting incompatibility between the desired final variety and the rootstock. Row orientation, spacing between trees within rows and between rows is the same as for the apples.

Rootstock for plum varieties is Marianna-GF8. This is a vigorous rootstock (100% vigour). Intergrafts of the European variety St. Julien have been used to reduce the vigour of the final variety to @75%.

The orchard/fruit collection is permanently netted against birds.

3. Current and intended access to the property.

Current access is at the north-west corner of the property through a 16 ft (4.8m) width gateway recessed 10 m into the property.

The road drain runs under the driveway through a properly constructed concrete culvert with bar-protected ends.

The property access will not be altered as part of the proposed development.

4. Availability of power and other services

There is currently no power supplied to the property.

The nearest power pole on the main electricity line is located approximately 120 m from the western boundary of the property.

Power for the proposed development is intended to be supplied off-grid.

5. Topography

Gently undulating. Mostly safely accessible by 4WD vehicle except for the north-eastern corner of paddock 2 which has a steeper slope. A shallow gully runs through the property. Gradient of the base of this gully is slight (1 in 70) for the most part, except in the western corner of paddock 3 (below dam) and the southern corner of paddock 2 where the last 30m of the gully has a moderate to steep 1 in 6 gradient.

6. Soil

Clay loam.

7. Any soil damage or areas of erosion

There is no soil damage or areas of soil erosion on the property.

8. Internal fencing

Paddocks and orchard/fruit collection area are permanently fenced with 6-70-30 sheep netting plus 2 top plain wires (as per Figure 1). The fence around the orchard/fruit collection area is augmented with chicken wire as part of the bird netting structure.

The current fencing is not intended to be altered with any further development of the property.

9. Water storage and sources of water

Water for irrigation of the fruit trees is pumped from the small dam in the lower south-eastern part of the property to a 3,000-gallon header tank located just above and outside the orchard/fruit collection area.

The dam is adequate for the supplementary water requirements of the fruit trees. It is supplied from surface runoff and has reliably filled each year since construction in 2013.

10. Pasture species and condition

All 3 paddocks have a permanent, dense pasture cover consisting of grass and broad-leaf species commonly found locally in grazing paddocks with moderate to lower levels of fertility. Grass species include: Perennial Ryegrass (Lolium perenne); and the less desirable weedier species of Sweet Vernal grass (Anthoxanthum odoratum), Fog Grass (Holcus lanatus) and Brown-top Bent grass (Agrostis capillaris). White Clover (Trifolium repens) is also present. Cat's Ear (Hypochaeris radicata), Broad-leaf Dock (Rumex obtusifolius) and Field Sorrel (Rumex acetosella) are present as minor broadleaf weeds.

11. Vermin and noxious weeds

The property does not currently harbour vermin.

Noxious weeds such as Spear Thistle (Cirsium vulgare), Ragwort (Jacobaea vulgaris) and Blackberry (Rubus fruticosus) are present seasonally on the property. Infestation is kept to a very low level by hand pulling or herbicide spraying as appropriate.

12. Method of supplying water to livestock

In paddock 3, stock drink directly from the dam. Water for paddock 2 is supplied via a gravity-fed trough from the dam. Water in paddock 1 is supplied either from the irrigation header tank or a small tank filled from the orchard shed roof.

13. Areas of trees and remnant vegetation from which stock will be excluded.

The property has a well-established windbreak of mature planted native species (mainly Manna Gum - Eucalyptus viminalis) located along the northern boundary of paddock 1. This is fenced to exclude stock.

Paddock 2 has 3 mature trees (Eucalyptus viminalis) located at the top (western) side. These are not fenced from stock.

There is a group of 3 young Blackwood (Acacia melanoxylon) trees planted for stock shade within robust tree guards in the south-east corner of the property.

Stock are excluded from the orchard/fruit tree collection area.

14. The intended use of the site

All uses of the property as described above will continue. In addition, it is intended that the property will become the main site for activities associated with the nursery business. Additional intended activities include propagation of fruit trees and production of rootstock to be used in fruit tree propagation. To augment the current use for fruit production and facilitate fruit sales, it is intended to install a small (3m x 3m) coolroom for short-term (seasonal) fruit storage for on-farm sale and local Farmers Markets; and low-key, in-season, on-farm sales of heritage apples, pears, and plums.

A major capital investment proposed for the property is construction of a dwelling and shed. The dwelling is required to enhance management of the existing fruit collection and orchard; and enable the additional uses as described above.

Appendix 2 shows detail of the location of the proposed dwelling and shed (with incorporated coolroom).

15. A description of proposed buildings and other improvements

The proposed dwelling is a modest 18.79 squares (174.6 m^2), 3-bedroom dwelling on concrete stumps with James Hardie Axon cladding and Colorbond roofing (Appendix 3). The shed is intended to be 6 x 13m with Colorbond roofing and cladding and will incorporate the 3m x 3m coolroom. Figure 4 provides a detailed design of the proposed dwelling. The proposed dwelling and shed will be located entirely within current paddock 1.

At closest point, the dwelling will be 20m from the roadside property boundary.

Some cut and fill will be required to minimize the dwelling final floor height from ground level. Maximum depth of cut will be 0.8m. Excess soil will be used to level the shed site and utilized for garden landscaping.

A garden area will be established between the dwelling and road boundary, with design and species selection appropriate for minimizing bushfire risk, wind protection and provision of summer shade.

16. Total value of the investment for the intended enterprise and annual costs/returns

Total cost of construction of the proposed dwelling and shed; ancillary requirements such as waste water treatment, domestic water tanks and off-grid power supply; internal driveway to the dwelling and shed; and general/garden landscaping adjacent to the dwelling is anticipated to be approximately $500,000.

An investment of this magnitude cannot reasonably be expected to be recouped over normal longer term agricultural/horticultural business decision timeframes (such as 10-20 years) with an enterprise conducted on such a small area of land. This project, however, will be paid for by family funds not currently utilized to sustain, or augmented by, the existing farm, fruit production and nursery business. In addition, the new dwelling and capital improvements on the property under discussion will allow these existing activities to continue long term.

Income generated on the Ferndale property is modest, but quite significant in the context of the overall business. Production of cider apple fruit, alone, from this property in 2023 was @ 2 tonnes of picked fruit. This produce was either sold as fresh fruit or processed into juice for sale or conversion into our own cider vinegar brand. Income from the total nursery and fruit production business is steady and reliable with ongoing application of efforts to promote the business. These include an on-line presence (such as webpage and facebook); regular attendance at Farmers Markets; seasonal on-farm fruit sales; responding to requests for apple identification and general fruit tree care advice over-the-phone and via email; and conducting ancillary services such as fruit tree pruning; and providing consultancy relating to horticultural advice to customers. The latter services also generate income additional to that generated from fruit and fruit tree sales. Such services are strongly based on the owner's previous heritage fruit growing experience in the local area and given on-going credibility by the fact that the owners continue to actively manage the business and carry out activities directly associated with growing and selling fruit and producing fruit trees.

Over the 30 years Strzelecki Heritage Apples has been involved with heritage apples, pears and plums, the owners have seen and experienced an increasing movement of people wanting to try and buy fruit other than the limited varieties available through supermarkets. In many cases, this interest also extends to growing alternative varieties themselves. Commonly expressed comments by people who visit our Farmers Market stall include "I haven't heard of these varieties before"; "I didn't realise there were so many Apple varieties; "These taste like real apples!" and "You can smell the ripeness".

These comments, as well as; the interest shown by people stopping at (and often buying produce from) the market stall; buyers of cider apples in bulk for home (and business) cider production; asking for apple identification, fruit tree advice; requests to talk to garden club meetings about growing heritage apples; etc.; all indicate the valuable, but monetarily incalculable flow-on effects that a business such as Strzelecki Heritage Apples brings to the local, and wider, community. It is a good example of how smaller rural properties can be part of the continuing diversification of the regional economy.

Diversification of land-use was referred to in our submission to the Baw Baw Shire Rural Land Use Review in August 2016 (Appendix 4). In our submission we suggested that new, and emerging, niche, and specialised, agricultural products (and native vegetation planting for conservation), could be produced on areas not suitable for profitable traditional agriculture. Steeper, and un-tractorable land, plus small parcels of land, are such examples.

Through our business, we have also made a considerable contribution to promotion of local, home-grown fruit production. Many people are looking to reduce their reliance on large-scale commercial production and distribution of fruit. This goal is partly initiated by wanting to keep food-purchase costs down; but also because of wanting fruit which has been produced without use of pesticides and herbicides; and reduce "food-miles" which contribute to greenhouse gas production and exacerbate climate change. Some people simply want to grow and harvest a greater range of fruit varieties than the limited range typically grown commercially; and eat their own full-flavoured, tree-ripened fruit. Notably, during the global financial crisis of 2007-2008 we had an increase in fruit tree sales, (against the general trend at the time for many businesses), which indicated an increased interest by a portion of the local and wider community in being more self-sufficient.

Our business value is not so much about how much income is generated, it lies in the contribution to land-use diversity and food production; in providing information to the community about alternatives to the restricted range of fruit varieties commercially available; and in the conservation of important fruit genetic resources.

17. Management requirements and seasonal activities within the fruit variety collection and orchard

Action / Month	Mowing	Pruning	Fungicide Spraying (Scab/Mildew)	Codling Moth (c) and Woolly Aphid (w) Control	Mulching	Weed Control Within rows	Insecticide (pear slug) Spraying	Fruit Thinning	Picking Fruit and Removing windfalls	Watering	Netting Mending	Strategic Grazing (sheep)
January	** (2)					*(1)	** (2)		** (3)	**** (4)	*(1)	
February	** (2)	* (1)		* (1w)		*(1)	** (2)		*** (5)	**** (4)	*(1)	
March	** (2)			* (1w)		*(1)	** (2)		**** (8)	*** (2)	*(1)	
April	** (2)			* (1w)					**** (8)	**	*(1)	
May	** (2)								** (3)		*(1)	
June	* (1)								* (2)			**(daily)
July	* (1)								* (2)		*(1)	**(daily)
August	* (1)	** (3)		* (1w)								**(daily)
September	** (1)		** (2)	* (1c)		*(2)					*(1)	
October	** (2)		** (2)			*(2)	** (1)					
November	** (2)		** (2)		*(2)	*(2)	** (2)	* (2)			*(1)	
December	** (2)					*(1)	** (2)	* (2)		*** (3)		

Table 1. Monthly routine management/production tasks within fruit collection and orchard

Number of asterixis indicates frequency of activity within each month eg. 1 = action performed once per month or within 1 week each month; 4 = four times per month or each week during that month.

Number in parentheses indicates typical number of days on which each action typically should be performed.

In addition to the routine management and production tasks listed in table 1, there are other requirements within the fruit collection and orchard area.

- Replacing individual varieties that have died or are not thriving.

- On-going establishment of additional varieties (particularly within the pear collection)
- Picking of fruit and checking against reputable data sources to ensure we have the correct varieties
- Collection of fruit samples for photographing and describing for our own database
- Maintaining individual tree labels
- Location and destruction of European Wasp nests and wasp control in years conducive to Wasp activity (Note: European Wasps have been a considerable problem and hazard to picking in some years. European Wasps have been present in large numbers 3 of the last 5 years.

The fruit collection and orchard area are currently managed adequately to ensure a good level of fruit production. Nevertheless, there are aspects of management (from table 1) that could be improved and carried out to a higher standard, which would ultimately improve fruit quality and tree health. These aspects include fungal disease control (particularly apple scab and powdery mildew); Insect pest control (particularly woolly aphid and pear slug); thinning to produce larger fruit and avoid branch breakage; irrigation during hot and dry spells; winter grazing by sheep; and netting maintenance.

It is becoming increasingly difficult for the owners to complete the many and varied seasonal and maintenance tasks, plus ancillary aspects, associated with a nursery and fruit-selling business. Ancillary tasks include providing information to the community via phone, email and workshops on all aspects of growing, managing and using heritage apples, pears and plums. This is due to demands on time associated with activities on the home farm and external contracting work.

Additional people, who have the skills and knowledge required to carry out management and necessary tasks, are required to live and work on the Ferndale property. Timeliness is very important for these types of management tasks. This is becoming increasingly difficult for the Owners to achieve. Suitable, skilled people living on-site at Ferndale would considerably enhance the timeliness of performing required tasks.

Having people living on-site would also allow fruit sales from the farm directly to the public and enhance farm security.

18. <u>Succession Planning for the Heritage Apple business and farming operation.</u>

Construction of a dwelling on the property will enable implementation of a succession plan for the Strzelecki Heritage Apples business incorporating both the nursery and fruit production/sale aspects. This plan anticipates transferring the location of the business from the home farm to the Ferndale property.

The owners are still active and fit and anticipate that they can continue to have a large role in management and hands-on daily and seasonal tasks associated with the Strzelecki Heritage Apples business over the next 10 years. However, inevitably they will have to cut back on tasks as age slows them down and limits their capabilities. The intention is that the owners' son and daughter-in-law will largely manage the Ferndale property with the assistance of the Owners over the 5-year period 2024-2028 and fully take over both the daily management of the Ferndale property and the management of the Strzelecki Heritage Apples business in 2034 at the end of the 10-year period.

The Owners' Son and Daughter-in-Law currently live approximately 70km from the Ferndale property.

The current owners of Strzelecki Heritage Apples would continue to own, manage, and live on, the home farm. The original orchard and fruit variety collections (on the home farm) will continue to be managed and maintained with assistance from the owner's son and daughter-in-law, as a continuing important adjunct to the Strzelecki Heritage Apple business and insurance against potential accidental loss of individual varieties at the Ferndale property.

A dwelling is required on the Ferndale property to enable implementation of the succession plan. The owner's son and daughter-in-law require a home on-site to the business to allow for daily management of the orchard

and fruit collections currently on-site, and for efficient, timely and effective management of the various aspects of producing nursery trees and growing and selling fruit – as detailed in section 17.

19. Knowledge and experience of persons involved in the business.

The owners have a demonstrated level of knowledge and experience from 30 years involvement in all aspects relating to growing trees, producing fruit, and utilizing that fruit. Other than producing apple, pear and plum trees for sale; growing and selling fruit; and managing a niche business; the owners have built up an extensive database on heritage apple, pear and plum varieties and have kept flowering records over a long period which have been used to demonstrate the effects of climate change-induced temperature rise on the timing of flowering in apples grown in the area. The owners have also trialed cider and vinegar making. Their knowledge has been disseminated to the public through farmers market attendance; plant fairs; practical teaching at grafting, pruning and cider/vinegar workshops; talks at garden club meetings and over-the-phone and on-farm visits.

The owner's son has indicated an interest in various aspects of the business. He is proficient at grafting, budding and growing various types of fruit trees, having spent several years at Flemings nursery where he learnt and practiced all these skills. He has continued to graft and propagate fruit, and other, trees on a small scale since leaving Flemings to work in the field of garden maintenance and garden landscaping.

20. Concluding comments

It could be said, given the situation as stated, "why not sell the property?" This would be a loss to us of a big part of our business assets (particularly the fruit-tree "gene-bank" and fruit-producing potential), plus, in our experience, it is unlikely that what has been created at the Ferndale property would be either fully appreciated, or maintained adequately, by new owners outside the family. Most likely, the fruit tree collection would either degrade, or be removed and, particularly if a house could not be built on it, would revert to a low-value small grazing block.

Another question which could be asked is, "Why don't you employ help with the farm and/or nursery?"

That would be nice to do. It should be appreciated, however, that the reality is that the business has only a modest income. At present, the income is not sufficient to allow for paying employee wages. Employing staff or workers could only be done if this resulted in more sales and profit. This is possible. However, in our business, on the scale that we operate, it is likely that most of any extra profit would be used-up in paying the employee.

21. Appendices
    1. Aerial Images (by drone) of specific areas of Ferndale property October 2022
    2. Property site levels and features mapping
    3. Design and location of proposed dwelling, and location of shed (with incorporated coolroom).
    4. Copy of Submission to Baw Baw Shire Rural land Use Review August 2016

GREEN DESIGN HOMES

Lot 1 LP 220702 Korumburra Warragul Rd, Ferndale 3821

PROPERTY INFORMATION SCHEDULE

PLANNING SCHEMES & OVERLAYS
FARMING ZONE (FZ)
SCHEDULE TO THE FARMING ZONE (FZ)
TRANSPORT ZONE 2 - PRINCIPAL ROAD NETWORK (TRZ2)
DEVELOPMENT CONTRIBUTIONS PLAN OVERLAY (DCPO)
DEVELOPMENT CONTRIBUTIONS PLAN OVERLAY - SCHEDULE 1 (DCPO1)
EROSION MANAGEMENT OVERLAY (EMO)
EROSION MANAGEMENT OVERLAY SCHEDULE (EMO)
ENVIRONMENTAL SIGNIFICANCE OVERLAY (ESO)
ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 2 (ESO2)

TOWN PLANNING PERMIT REQUIRED - YES

DEMOLITION PERMIT REQUIRED - N/A

DEVELOPERS APPROVAL - N/A

SOIL REPORT CLASSIFICATION -

WIND CLASSIFICATION -

PRELIMINARY ENERGY RATING - 7.6 STARS

BUSH FIRE ATTACK LEVEL CLASSIFICATION - TBC

REPORT & CONSENT REQUIRED - N/A

PROTECTION WORK NOTICES REQUIRED
- BUILDING SURVEYORS DISCRETION

LAND CAPABILITY ASSESSMENT REQUIRED - TBC

AVAILABLE SERVICES

DRAWING INDEX

SHEET NUMBER	SHEET NAME	REV	DESCRIPTION	DATE
01	COVER SHEET			
02	SITE PLAN			
03	PART SITE PLAN			
04	FLOOR PLAN			
05	ELEVATIONS 1			
06	ELEVATIONS 2			
07	3-D IMAGES			

GREEN DESIGN HOMES
BUILD SMART. LIVE EFFICIENT.
6 JUNE COURT, WARRAGUL (CDB-U 54423)

3 SITE PLAN

1 : 600

STORMWATER NOTE

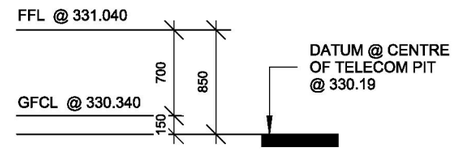
THE BUILDER AND SUBCONTRACTOR SHALL ENSURE THAT ALL STORMWATER DRAINS, SEWER PIPES AND THE LIKE ARE LOCATED AT A SUFFICIENT DISTANCE FROM ANY BUILDINGS FOOTING AND / OR SLAB EDGE BEAMS SO AS TO PREVENT GENERAL MOISTURE PENETRATION, DAMPNESS, WEAKENING AND UNDERMINING OF ANY BUILDING AND ITS FOOTING SYSTEM.

90MM DIA. CLASS 6 UPVC
STORMWATER LINE LAID TO A MINIMUM GRADE OF 1:100 AND CONNECTED TO THE LEGAL POINT OF STORMWATER DISCHARGE. PROVIDE INSPECTION OPENINGS AT 9000MM C/C AND AT EACH CHANGE OF DIRECTION.
THE COVER TO UNDERGROUND STORMWATER DRAINS SHALL BE NOT LESS THAN
-100MM UNDER SOIL
-50MM UNDER PAVED OR CONCRETE AREA
-100MM UNDER UNREINFORCED CONCRETE OR PAVED DRIVEWAYS
-75MM UNDER REINFORCED CONCRETE DRIVEWAYS

EXTERNAL WORKS SCHEDULE

DESCRIPTION	TYPE	QUANTITY
HWS PAD	CONCRETE	0.4 m²
CONCRETE		0.4 m²
DRIVEWAY	CRUSHED ROCK	266.0 m²
CRUSHED ROCK		266.0 m²
PORTICO	DECKING	7.5 m²
PORCH	DECKING	2.5 m²
REAR DECK	DECKING	28.8 m²
DECKING		38.8 m²
TOTAL EXTERNAL WORKS		305.2 m²

HEIGHT STICK DIAGRAM



HEIGHT TABLE

DATUM LOCATION	TOP OF TELECOM PIT
DATUM HEIGHT	330.190
LIVING FINISHED FLOOR LEVEL	331.040
LIVING FINISHED CUT LEVEL	330.340 TBC
PORTICO FINISHED FLOOR LEVEL	330.890

GREEN DESIGN HOMES

6 JUNE COURT, WARRAGUL (CDB-U 54423)

DRAWING SET AUTHORISED BY CLIENT & BUILDER

BUILDER SIGNATURE: _____

CLIENT SIGNATURE: _____

DATE: _____

Client Na

Project N

Project Address: Lot 1 LP 220702
Korumburra Warragul Rd, Ferndale 3821

SHEET SIZE A3

SITE PLAN

Date: 25-01-2023

Drawn By: MB

Project Status: Preliminary REV 3

Sheet No: 02

Scale: As indicated

Job Number: 3000

KORUMBURRA WARRAGUL ROAD

TELECOM PIT
DATUM 330.19

NEIGHBOURING PROPERTY ADDRESS
No. 2090 KORUMBURRA WARRAGUL ROAD
FERNDALE

NORTH

282° 16' 20" 152.35 m
1.5m HIGH POST & WIRE FENCE

ROCK WALL

EXISTING CULVERT

EXISTING GATE

4,900

STOCK YARDS

20,000

208° 25' 00" 38.81 m
1.5m HIGH POST & WIRE FENCE

15,909

7,854

4,578

CUT LINE

RL.330220

RL.330620

PORTICO
7 m²

DN

DP

DRIVEWAY
266 m²

3m x 3m COOL ROOM
2300 WATTAGE REQUIRED

PROPOSED SHED
& CARPORT
13m x 6m

5000 GALLON WATER TANK

PROPOSED THREE
BEDROOM RESIDENCE

PORCH
3 m²

6,000

5000 GALLON WATER TANK

3000 GALLON WATER TANK
EXISTING TANK

INTERNAL FENCING, FENCING

REAR
DECK
29 m²

MB

RL.330030

RL.330330

23,384

139° 41' 00" 131.74 m
1.5m HIGH POST & WIRE FENCE

APPLE ORCHARD
UNDER COVER

LOT 1
LP 220702

1 SITE PLAN
1 : 200

GREEN DESIGN HOMES

6 JUNE COURT, WARRAGUL (CDB-U 54423)

DRAWING SET AUTHORISED BY CLIENT & BUILDER

BUILDER SIGNATURE: _____

CLIENT SIGNATURE: _____

DATE: _____

Client

Projec

Project Address: Lot 1 LP 220702
Korumburra Warragul Rd, Ferndale 3821

SHEET SIZE
A3

PART SITE PLAN

Date: 25-01-2023

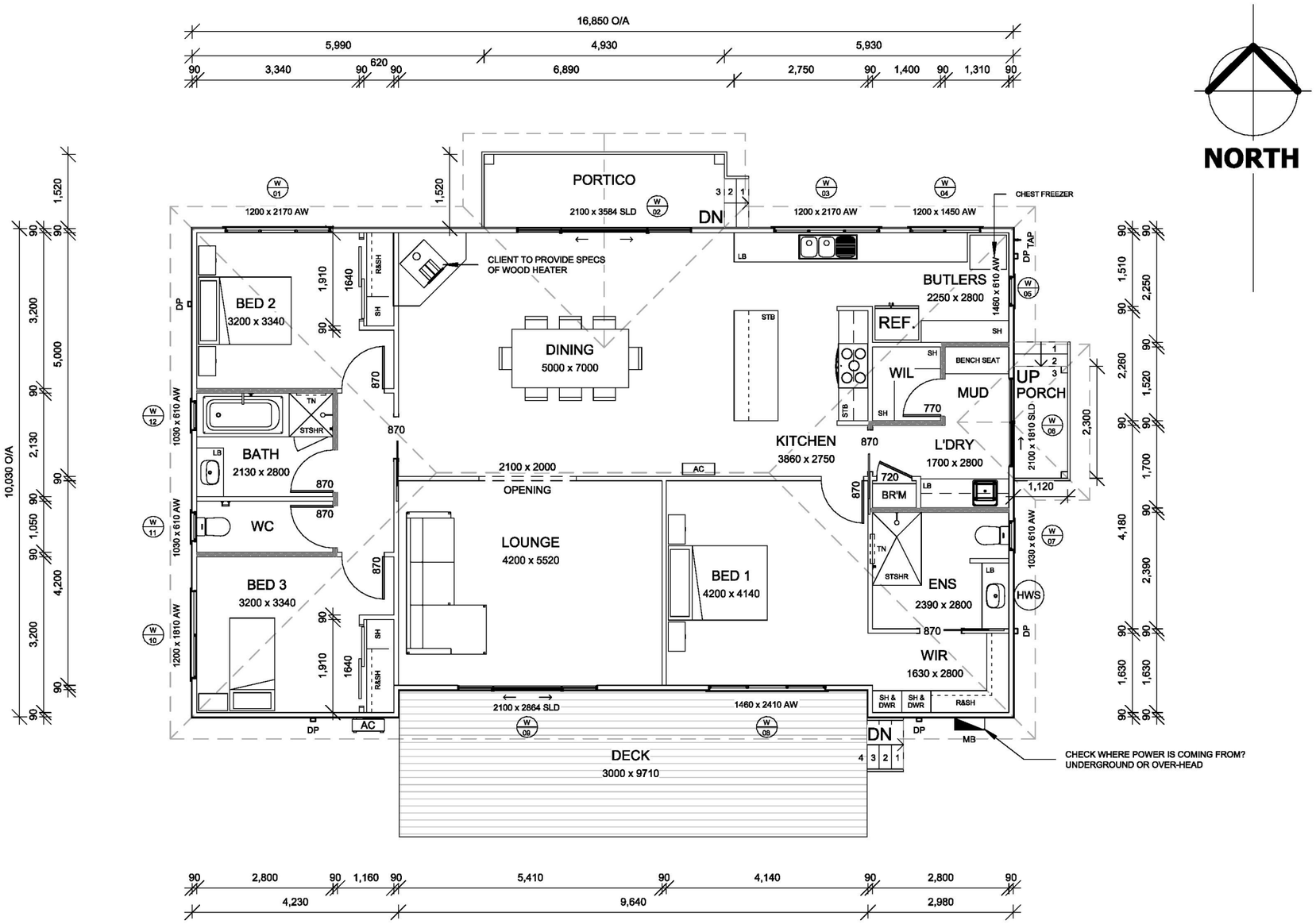
Drawn By: MB

Project Status: Preliminary REV 3

Sheet No: 03

Scale: 1 : 200

Job Number: 3000



NORTH

LEGEND

AIR CONDITIONER	AC
METER BOX	MB
HOT WATER SERVICE	HWS
CEILING MAN HOLE	MH
DOWN PIPE	DP
EXTERNAL TAP	T
EXTERNAL A/C UNIT	AC
SPREADER PIPE	SP
STONE BENCH TOP	STB
LAMINATE BENCH TOP	LB
TIMBER BENCH TOP	TB
STEPLESS TILE SHOWER	STSHR
SHELVES	SH
ROD & SHELF	R&SH
DRAWERS	DWR
RETURN AIR	RA
TILE NICHE (APPROX. 300 x 600mm)	TN

AREA SCHEDULE

NAME	HOUSE SQUARES	AREA
LIVING	17.72	164.6 m²
PORTICO	0.80	7.4 m²
PORCH	0.27	2.5 m²
	18.79	174.6 m²

FLOOR FINISHES SCHEDULE

ROOM NAME	FLOOR FINISH	AREA
BED 3	CARPET	13 m²
BED 2	CARPET	12 m²
LOUNGE	CARPET	23 m²
BED 1	CARPET	17 m²
WIR	CARPET	5 m²
CARPET		69 m²
BATH	TILE	6 m²
WC	TILE	3 m²
ENSUITE	TILE	7 m²
L'DRY	TILE	8 m²
HEARTH	TILE	2 m²
TILE		26 m²
HALL	V PLANK	4 m²
DINING	V PLANK	33 m²
KITCHEN	V PLANK	14 m²
BUTLERS	V PLANK	6 m²
V PLANK		57 m²
		152 m²

1 FLOOR PLAN

1 : 100

GREEN DESIGN HOMES
6 JUNE COURT, WARRAGUL (CDB-U 54423)

DRAWING SET AUTHORISED BY CLIENT & BUILDER

BUILDER SIGNATURE: _____

CLIENT SIGNATURE: _____

DATE: _____

Client N

Project I

Project Address: Lot 1 LP 220702
Korumburra Warragul Rd, Ferndale 3821

SHEET SIZE A3

FLOOR PLAN

Date: 25-01-2023

Drawn By: MB

Project Status: Preliminary REV 3

Sheet No: 04

Scale: 1 : 100

Job Number: 3000

PROTECTION OF OPENABLE WINDOWS
ALL FIRST FLOOR BEDROOM WINDOWS BELOW 1.7m FROM THE FLOOR (OR BEDROOM WINDOWS 2.0m ABOVE GROUND LEVEL) SHALL HAVE A RESTRICTIVE DEVICE FITTED TO PREVENT THE WINDOW FROM OPENING GREATER THAN 125mm. THE DEVICE SHALL HAVE A CHILD RESISTANT RELEASE MECHANISM.

ALL OPENABLE WINDOWS GREATER THAN 4.0m ABOVE GROUND LEVEL ARE TO HAVE A BARRIER NOT LESS THAN 865mm ABOVE FINISHED FLOOR LEVEL.

LEGEND

FGL	FINISHED GROUND LEVEL
FFL	FINISHED FLOOR LEVEL
FCL	FINISHED CEILING LEVEL
NGL	NATURAL GROUND LEVEL

1 NORTH ELEVATION

1 : 100

2 EAST ELEVATION

1 : 100

GREEN DESIGN HOMES

6 JUNE COURT, WARRAGUL (CDB-U 54423)

DRAWING SET AUTHORISED BY CLIENT & BUILDER

BUILDER SIGNATURE: _____

CLIENT SIGNATURE: _____

DATE: _____

Client Name

Project Nam

Project Address: Lot 1 LP 220702
Korumburra Warragul Rd, Ferndale 3821

SHEET SIZE A3

ELEVATIONS 1

Date: 25-01-2023

Drawn By: MB

Project Status: Preliminary REV 3

Sheet No: 05

Scale: 1 : 100

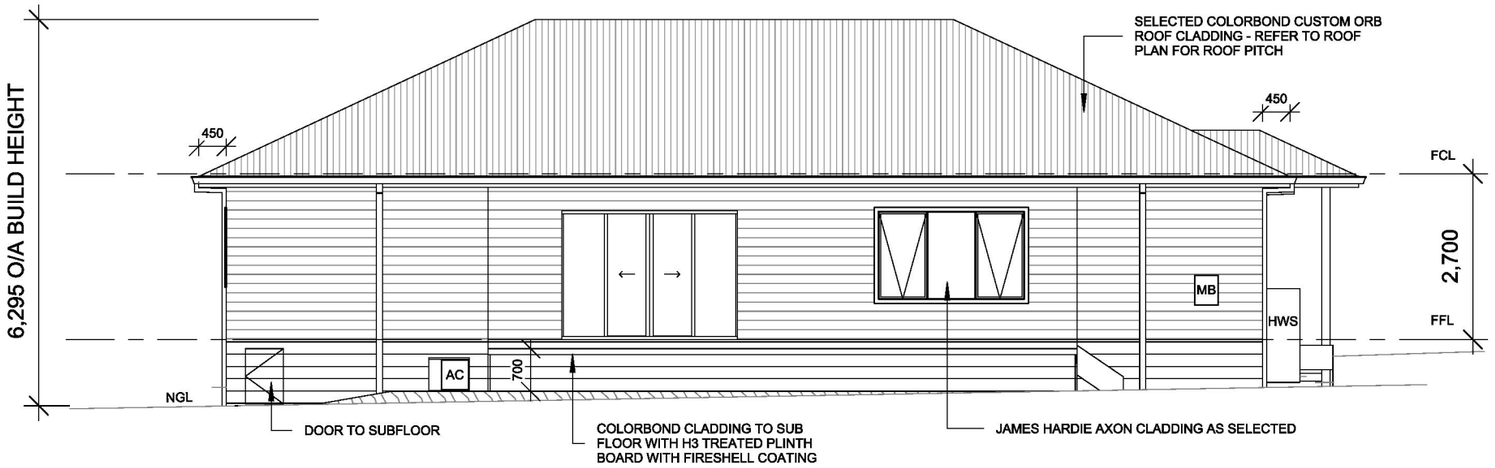
Job Number: 3000

PROTECTION OF OPENABLE WINDOWS
ALL FIRST FLOOR BEDROOM WINDOWS BELOW 1.7m FROM THE FLOOR (OR BEDROOM WINDOWS 2.0m ABOVE GROUND LEVEL) SHALL HAVE A RESTRICTIVE DEVICE FITTED TO PREVENT THE WINDOW FROM OPENING GREATER THAN 125mm. THE DEVICE SHALL HAVE A CHILD RESISTANT RELEASE MECHANISM.

ALL OPENABLE WINDOWS GREATER THAN 4.0m ABOVE GROUND LEVEL ARE TO HAVE A BARRIER NOT LESS THAN 865mm ABOVE FINISHED FLOOR LEVEL.

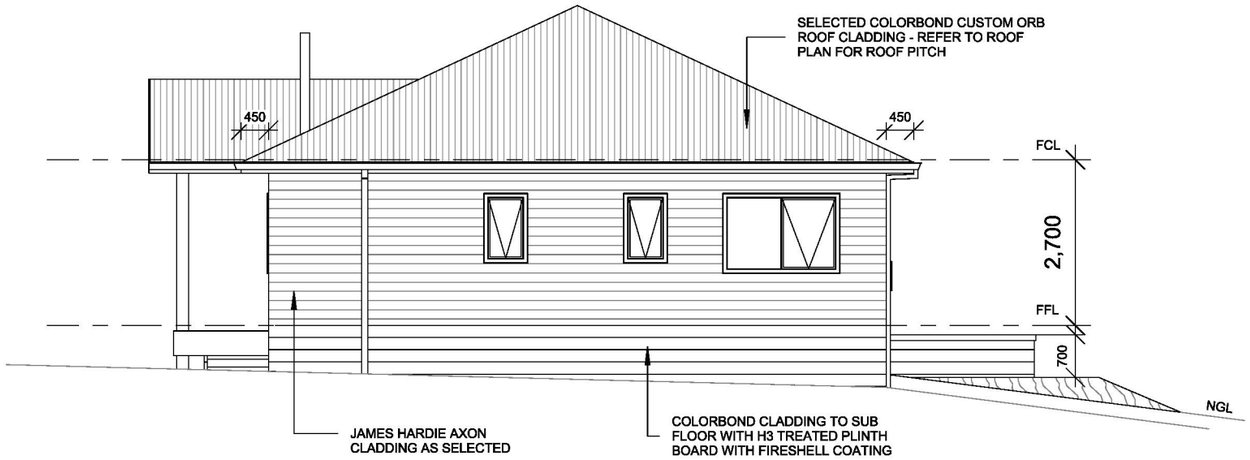
LEGEND

FGL	FINISHED GROUND LEVEL
FFL	FINISHED FLOOR LEVEL
FCL	FINISHED CEILING LEVEL
NGL	NATURAL GROUND LEVEL



3 SOUTH ELEVATION

1 : 100



4 WEST ELEVATION

1 : 100

GREEN DESIGN HOMES

6 JUNE COURT, WARRAGUL (CDB-U 54423)

DRAWING SET AUTHORISED BY CLIENT & BUILDER

BUILDER SIGNATURE: _____

CLIENT SIGNATURE: _____

DATE: _____

Client Name

Project Nam

Project Addr[illegible]
Korumburra Warragul Rd, Ferndale 3821

25-01-2023

Drawn By: MB

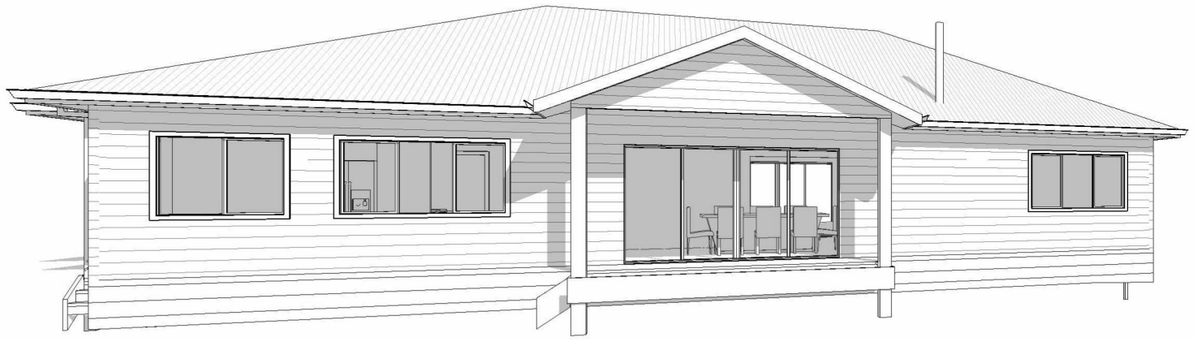
Project Status: Preliminary REV 3

ELEVATIONS 2

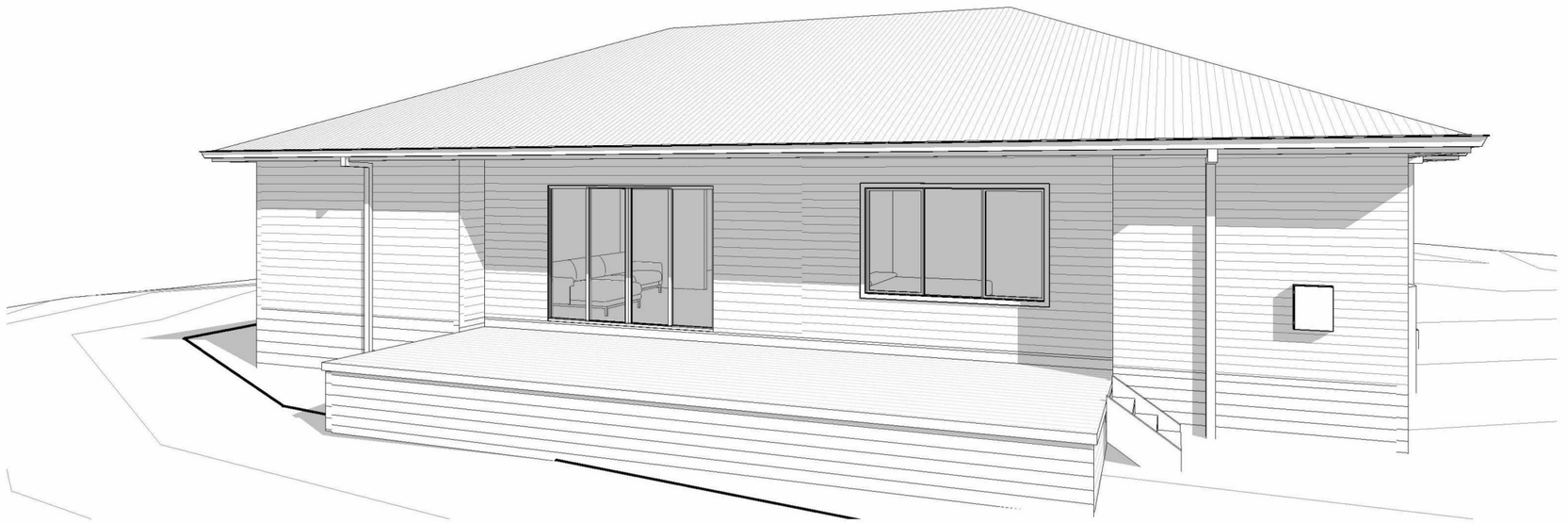
Sheet No: 06

Scale: 1 : 100

Job Number: 3000



1 3D VIEW 1



2 3D View 2

GREEN DESIGN HOMES

6 JUNE COURT, WARRAGUL (CDB-U 54423)

DRAWING SET AUTHORISED BY CLIENT & BUILDER

BUILDER SIGNATURE: _____

CLIENT SIGNATURE: _____

DATE: _____

DETAIL ON THE FLOOR PLAN/MAIN FLOOR PLAN DRAWINGS OVERRIDE ANY DETAIL FOUND ON OTHER DRAWINGS OR PLANS WITHIN THIS SET UNLESS SPECIFIED OTHERWISE.

Client Name:

Project Nam

Project Address: Lot 1 LP 220702
Korumburra Warragul Rd, Ferndale 3821

SHEET SIZE A3

3-D IMAGES

Date: 25-01-2023

Drawn By: MB

Project Status: Preliminary REV 3

Sheet No: 07

Scale:

Job Number: 3000

LAND CAPABILITY ASSESSMENT (LCA)

Onsite Wastewater Management System (OWMS) 20A

Korumburra- Warragul Road, Ferndale, next to (#2090)

Council Property Number: 454

Prepared for:

Date: 31 August 2023

Reference: 230730

A20

Prepared by:

EWS Environmental
ABN: 14 740 748 489

Water & Soil Consultants
E: ews@bigpond.com

Mobile: 0413 62 32 02
Web: www.ews.land

1. Introduction and Background

EWS Environmental has been engaged to undertake this Land Capability Assessment (LCA).

1.1 Consultant's brief

EWS Environmental has been engaged to develop a wastewater plan to support a Land Capability Assessment (LCA) for an application for a LGA Council permit, *Reg. 25, EP Regulations 2021*.

To further assess land features for long-term sustainable development and address the risk consequences using best practice (septic sewerage) management options.

The field investigation and report have been undertaken and prepared by a suitably experienced consultant in accordance with the *Victorian Land Capability Assessment Framework*, 2014, MAV [9]. EWS Environmental has appropriate professional indemnity insurance for this type of work.

1.2 Report Summary

This report will form part of the application to Council for a Permit to *Install /alter an Onsite Wastewater Management System (OWMS).*

This report provides information about the site features and soil characteristics. It also provides a risk assessment for the site including a conceptual design for a suitable onsite wastewater management system with recommendations for monitoring and management of the system.

A number of options have been assessed to provide for both the treatment and land application area (LAA) that represent *best practice*.

Risks to human health and the environment associated with this onsite wastewater management system have been addressed by adopting *reasonably practicable* measures as outlined in this report.

This assessment and the proposed system are consistent with the *Environmental Protection Act 2017, and Environment Protection Regulations 2021.*

Note: The terms 'domestic wastewater' and 'sewage' are interchangeable for the purposes of EP Act 2017.

1.3 Site Overview

Location

Address: **Korumburra -Warragul Road, Ferndale** ("site")

Map Reference:	**VR 96 G6**
Nearest cross Road:	**Ferndale**
Land area:	> **1 ha**
LGA:	**Baw Baw**

Land features

Drainage: towards	trib. **Jubilee Creek.**
Slope of land:	**~ 20%**
Distance to surface water:	> **200** m:
Flooding:	> **1 in 20 years**
Climate: Rainfall:	**1000** mm
Evapo-transpiration 'A'	**1121** mm

Soil characteristics

Soil texture (limiting layer):	**Lt. CLAY**
Structure: Category:	**5 (b)**
Permeability (K_{sat})	> **0.12** m/day.

Wastewater system sizing (AS/NZS 1547)

Water supply rate:	**3/4 star (WELS)**
Number of bedrooms:	**3**
Number of persons:	**4**
Daily contribution:	**150** (Litres/day)
Maximum daily flow:	**600** litres,
Design Irrigation Rate(DIR)	**3** litres/m^2.day
Dispersal area (LAA):	**350** (m^2)

Authorised by:

Date: 01 August 2023

On-site Wastewater Management Certificate CET-NZ, 2001.
Professional Indemnity Insurance:
DUAL Australia Pty Ltd on behalf of certain underwriters at Lloyds.
Policy: SOB/26785/000/23/N, Period 01/07/23 to 01/07/24.

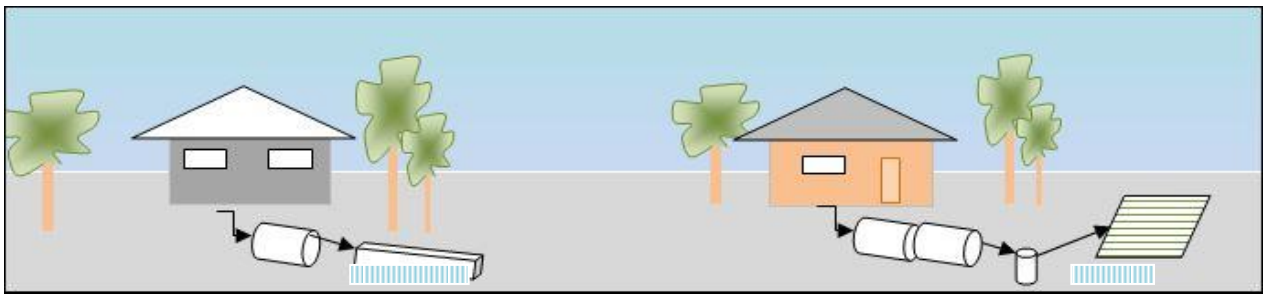
This report does not include a designer's certification and/or loading certificate under Section 3.4 -AS/NZS 1547:2012.

1.4 Client Summary

The nature of the site and the environmental constraints identified requires appropriate treatment by advanced septic tank or aerated treatment system. The treatment options listed below are deemed capable of achieving the desired level of performance.

The property owner has the responsibility for the final selection of the treatment system details of which may be included in the *Application to Install an Onsite Wastewater Management System*.

The pros & cons depend on site constraints and site characteristics listed in Table 5:



Options – basic primary or secondary treatment plant (two chamber) 20/30 standard

Primary (1^{O}) system -	Secondary (2^{O}) system -
AS/NSZ 1546.1 for Primary septic tanks and AS/NSZ 1546.3 for secondary systems	
Advantages	
Suitable for large properties	Suitable for small properties
Robust operation	Efficient pump distribution and minimum odour
Minimal maintenance	Minimal setback distances
	Best Practice –20/30 standard, for better water quality.
Disadvantages	
Short operating life	Higher installation & energy costs
Not suitable for some soil types	More frequent servicing
Greater setback distances	
Larger footprint for dispersal	

A combination of treatment and subsurface dispersal onto land will provide the best long-term solution.

A comprehensive check list of factors to consider when selecting an onsite treatment system can be found in EPA's *Guidelines for onsite wastewater management*, 2023.

Following the wastewater treatment process the effluent must be distributed onto land in a safe manner for the environment and public health.

The dispersal options considered and available for use currently are:

1. Pressure compensating drip irrigation;
2. Low pressure effluent distribution systems (LPED); or
3. Wick trench or evapo-transpiration bed systems.

The suggested best option suited to your property is detailed in Section 7 – Conclusions and recommendations.

.

2. Description of development

Site Address:	Korumburra Warragul Road, Ferndale
Owner/Contractor:	
Postal Address/Email:	
Contact:	
Municipality Council (LGA):	Baw Baw
Allotment Size:	>1 ha
Domestic Water Supply:	Onsite roof water collection, water tank supply assumed
Forecast Wastewater Load:	A 3-bedroom residence with 3/4 star WELS rated fixtures @ 4 people per maximum occupancy. Wastewater generation = 150 Litre/person/day; design load = 600 L/day (source Table 4-9, EPA Guidelines:2023).
Availability of Sewer:	The area is unsewered and highly unlikely to be sewered within the next 10 years, due to low development density in the area and the considerable distance from existing sewerage services.

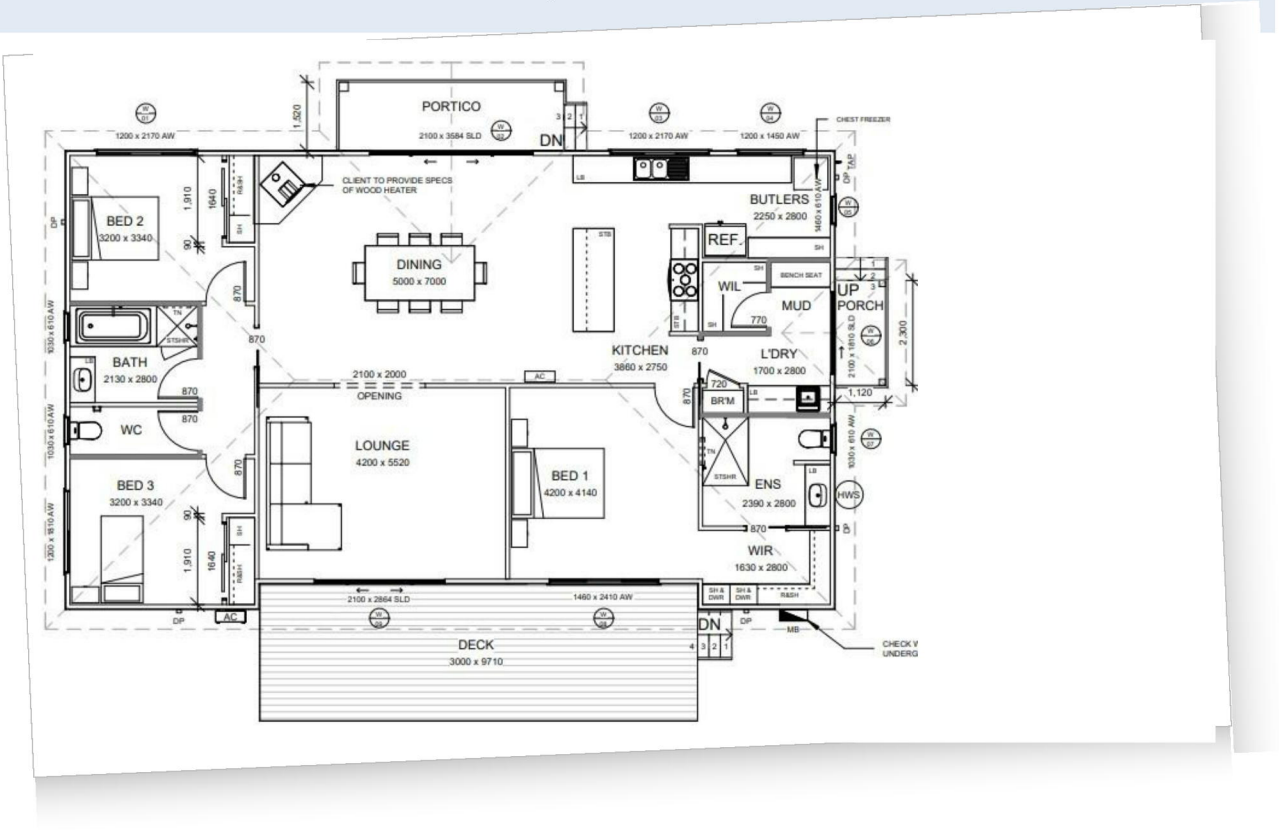


Figure 1 Proposed development plan

3 BEDROOMS

Occupancy capacity (Persons) = 4

Figure 2 Locality plan for proposed development. **Map reference: VR 96 G6**

3. Site and Soil assessment

EWS Environmental undertook site investigations on the 31 August 2023.

3.1 Site Key Features

Any site constraints and/or need for mitigation measures are summarized in Table 1, addressing the key features of the site in relation to effluent management for the proposed site.

NOTE:

- The site is in a special water supply catchment area, (min. 40 ha density and 100m setback).
- The site experiences negligible stormwater run-on.
- There is no evidence of a shallow watertable or other significant constraints, and
- The risk of effluent transport offsite is very low.

Figure 3 provides a site analysis plan describing the location of the proposed envelopes and other development works, wastewater management system components and physical site features.

LEGEND

Declared Waterway

Setback distance

Slope of land

Soil test pit (1)

SENSITIVITY ANALYSIS

Groundwater: (TDS) < 1000 mg/L

Area: ~ 1 ha

Surface waters: Jubilee Creek

Mean site slope: ~ 20 %

Soil texture: Lt. CLAY

Ind. K_{sat} = > 0.12 m/day

Soil depth: > 600mm

Distance to waterway: > 200 m

Groundwater bores: >20 m

SITE DETAILS

CPN: 454

Map Ref: VR 96 G6

Planning Zone & Overlays:

FZ
(ACHS -dwelling services exempt)

Site visit: 31 August 2023

Address:
CA , Ferndale

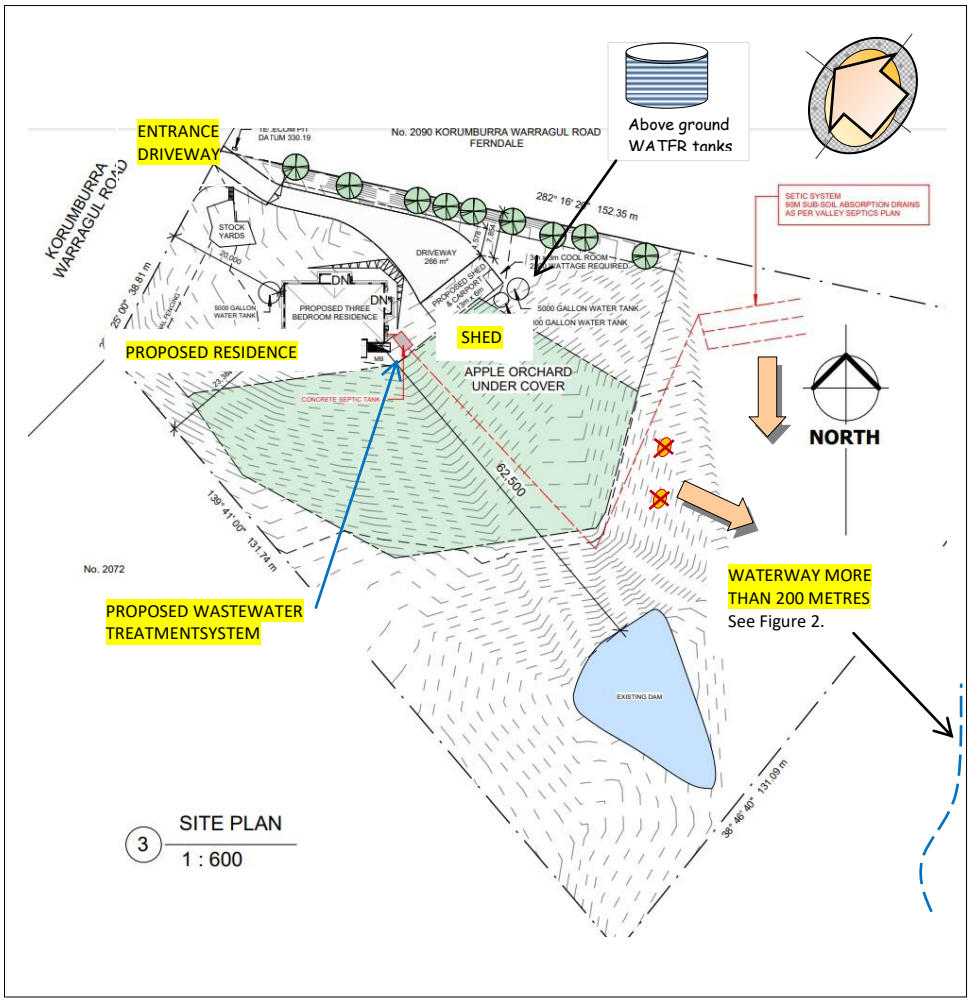
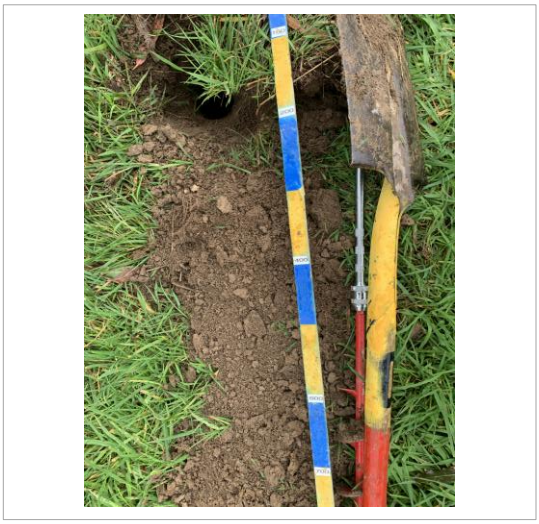


Figure 3: Site analysis plan

3.2 Development and Site Photographs

Aerial view –arrow shown vicinity of proposed LAA



View east to LAA

Bore test holes showing profile

Summary statistics for all years

Information about climate statistics

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Mean	61.1	55.8	67.6	82.8	92.9	85.1	86.6	95.8	100.0	104.5	90.0	79.8	1000.0
Lowest	2.2	1.6	0.5	0.0	9.2	15.4	24.6	27.6	29.1	5.1	20.6	7.1	680.8
5th %ile	11.5	5.4	16.4	25.0	32.5	29.1	37.6	40.6	45.2	36.5	35.7	20.9	718.8
10th %ile	19.6	10.6	22.9	33.1	44.1	42.6	46.1	47.6	59.8	49.2	39.2	26.4	785.5
Median	57.6	44.9	61.5	75.1	87.8	78.5	81.8	93.3	94.8	103.2	87.2	78.9	1001.1
90th %ile	101.4	104.1	133.9	138.3	148.6	138.4	129.2	142.8	146.1	154.7	148.0	136.2	1210.0
95th %ile	118.5	135.3	144.6	175.6	187.7	153.5	141.4	158.2	158.9	167.6	163.8	148.3	1253.5
Highest	174.5	226.2	202.8	290.4	290.3	191.8	186.6	302.9	185.0	184.4	217.2	203.0	1408.4

Data within the table which are in italics represent observations which have not been fully quality controlled, a process which may take a number of months to complete. While these data may be correct, you should exercise caution in their use.

BOM Rainfall data Drouin

Location: Ferndale Date: 31 August 2023

Table 1: Site Assessment

Feature	Description	Constraint	Measures
Buffer Distances	All relevant buffer distances and in particular at least 100m to declared waterway is achievable.	Minor	NN*
Climate	Mean annual rainfall 1000 mm. Mean annual pan'A' evaporation is 1121 mm.	Minor	NN
Drainage	No visible signs of surface dampness, spring activity or hydrophilic vegetation in the proposed effluent management area.	Moderate	Adopt low DIR
Erosion & Landslip	No evidence of sheet or rill erosion; the erosion hazard is low. No evidence of landslip and landslip potential is low.	Minor	NN
Exposure & Aspect	Slope aspect and wind exposure influence on LAA.	Moderate	NN
Flooding	The proposed effluent management area is located above the 1:100 year flood level.	Minor	NN
Groundwater	No signs of shallow groundwater tables to 1.5 m depth. No potential groundwater bores within 20 m of the proposed effluent area. Groundwater total dissolved solids, TDS <1000 mg/L.	Minor	NN
Imported Fill	No imported fill material observed on the site.	Nil	NN
Land Available for LAA	Considering all the constraints, the site has ample suitable land for application of effluent.	Nil	NN
Landform	Natural drainage with spreading over divergent slope with no significant drainage lines intersect LAA site.	Moderate	Locate with appropriate setbacks
Rock Outcrops	No evidence of surface rocks or outcrops.	Nil	NN
Run-on & Runoff	Minor stormwater run-on and run-off hazard.	Nil	Proposed home will protect LLA from run-on
Slope	The effluent management area has a slope of ~ 20%.	Nil	Setback ~200m
Surface Waters	Waterways traverse the site requiring maximum setback to treatment /effluent area.	Nil	NN
Vegetation	Grass vegetation is adequate to control erosion and for water and nutrient uptake from the wastewater.	Moderate	NN.

*__NN__: mitigation measures not needed

3.3 Soil Key Features

The site's soils have been assessed for their suitability for onsite waste-water management by a soil survey and field analysis as outlined below.

Site assessment criteria

This assessment has been undertaken in accordance with the EPA's *Code of Practice - Onsite Wastewater Management, July 2016* and AS/NZS 1547: *Onsite Domestic Wastewater Management*. Soil assessment and design for on-site wastewater management was taken from AS/NZS 1547, where appropriate.

Site investigations

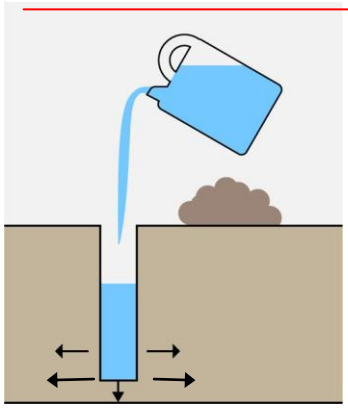
A key feature of the investigations is a soil permeability assessment in each landscape element or soil type area for effluent attenuation within the boundaries of the premises.

EPA's Code of Practice, Publication 891 (2016) permits two methods to determine the soil permeability. One based on visual and tactile estimation of indicative permeability, the other is the "constant-head" test from AS/NZS 1547 'Site and Soil Evaluation' procedures.

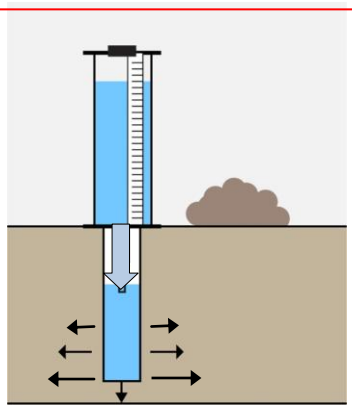
Constant Head Test

The "*constant –head"* test, allows water to runs out of an unlined test hole in to the ground which is replenished at the same rate from a reservoir, so that the head of water in the hole remains the same.

Step 1 -Pre-soaking of test holes



Step 2 – Measure rate of infiltration



The loss of water from the reservoir is measured over time and a mathematical model is used to calculate the co-efficient of permeability, known as, K_{sat} from the measurement.
The physical soil analysis assessment includes soil texture, structure and a shrink /swell potential test, as a substitute for actual water based measurement of soil

Textural Soil Test

Step 1 – Prepare soil bolus and assess soil category and structure

Step 2 – Categorise soil type

Soil permeability has been determined from the critical properties of texture, structure and shrink/swell potential using the method specified in AS/NZS 1547:2012 that prescribes conservative design loading rates.

Reference: EPA Publication 891.4:2016, Table 9

See attachment 'A' for all soil test results and field records.

Soil permeability has been determined from the critical properties of texture, structure and shrink/swell potential using the method specified AS/NZS 1547:2012 that prescribes conservative design loading rates.

If there is any doubt or dispute the above constant head test should be used.

Table 2: Soil Assessment

Feature	Assessment	Constraint	Comment
Soil Depth	Topsoil: < 400 mm	Minor Mitigation: **NN**	*A - auger E- exposure* *(Topsoil > 250mm) YES/~~NO~~*
	Subsoil: > 400 mm. Total soil depth greater than 1.5 m, no hardpans occur.	Minor Mitigation: **NN**	
Soil Texture & Structure	Topsoil: Clay LOAM	Minor Mitigation: **NN**	
	Subsoil: Category **Lt. CLAY** Structure: **Moderate** as per AS/NZS/NZS 1547:2012	Major Mitigation: **NN**	*Sub-surface dispersal preferred*
Soil Permeability	Limiting soil layer: Lt. CLAY (K_{sat}) **0.06-0.12** m/day saturated conductivity (AS/NZS1547:2012);	Minor Mitigation: **NN**	*More than 600mm of unsaturated soil beneath base of dispersal system*
Design Loading Rates	Design Loading Rate (DIR) for system). Subsoil **3** mm/day, saturated conductivity (K_{sat}) (AS/NZS1547:2012);	Minor Mitigation: **NN**	*Appendix R- AS/NZS 1547*
Modified Emerson Aggregate Test (test AS/NZS 1547)	Topsoil: minor slaking with no dispersion. Minor – No change, Moderate – Slakes with minor fret, Major - Dispersion clouding solution p109	Minor Mitigation: **NN**	*Field soil dispersion test,*
	Subsoil: slaking with no dispersion	Moderate Mitigation: **NN**	*See Appendix A1*
Rock Fragments	Coarse fragments less than 2% (200 mm depth). No fragments throughout remainder of profile. Minor 0 -10%, Moderate 10 -20%, Major >20% [7] p25	Minor Mitigation: **NN**	
Watertable Depth	Groundwater not encountered,	Minor	
pH	Topsoil pH is slightly acidic; subsoils slightly higher. Soil conditions not affecting plant growth.	Minor pH > 6 Mitigation: **NN**	**pH** = 6.5
Electrical Conductivity	EC is a measures of soil salinity (µS/cm) Minor <800, Moderate 800 -2000, Major >2000	Minor	Good vegetation growth on irrigation area
Cation Exchange Capacity (CEC)	Present soil conditions do not appear to be restricting plant growth. Minor >15, Moderate 5 -15, Major <5 meq+/100g[7] p65	Minor Mitigation: **NN**	*As the EAT tests do not indicate signs of turbidity or dispersion, laboratory tests for soil fertility are not necessary as per MAV Table 2, for gypsum dosing.*
Sodicity (ESP)	Exchangeable Sodium concentrations ESP value is low with no long-term soil sodicity monitoring required. Present soil conditions are not restricting plant growth. Minor 0- 6%, Moderate 6 - 8%, Major >8 % [4] p113	**Minor** Mitigation: **NN**	
SAR	Sodium absorption ratio not a constraint. Minor < 3, Moderate < 8 & ESP > 8%, Major > 3 p95	**Minor** Mitigation: **NN**	
Phosphorus adsorption capacity	Phosphorus adsorption capacity was not specifically tested but is expected to be moderate to high due to the extent of clay present at relatively shallow depths.	Minor Mitigation: **NN**	

NN: mitigation measures not needed

Reference: Hazelton, P and Murphy, B. (2007). *Interpreting Soil Test Results – What Do All The Numbers Mean?* CSIRO Publishing, Melbourne

Table 3: Soil Characteristics

Characteristic	Level of Constraint			Assessed Constraint
	Nil or Minor	Moderate	Major	
Electrical Conductivity	<0.8	0.8 - 2	>2	Minor
Emerson Agg. Test (Modified AS/NZS 1547)	No change to aggregate	Aggregates slake	Aggregates disperse clouding solution	Minor
Gleying (Munsell Soil Colour Chart)	Nil	Evidence of greenish grey / black or bluish grey / black soil	Predominant greenish grey / black, bluish grey / black colours	Minor
Mottling (Munsell Soil Colour Chart)	Generally uniform brownish or reddish colour mottles	Imperfectly drained soils have grey and/or yellow brown mottles	Poorly drained soils predominant yellow brown or reddish	Minor
pH (range for plants)	5.5 - 8 is optimum range for plants	4.5 - 5.5 suitable for acid-loving plants	<4.5, >8	Minor [pH > 6
Rock Fragments (size & volume %)	0 – 10%	10 – 20 %	>20%	Minor
Sodicity [4] (ESP %)	<6%	6 – 8%	>8%	Minor
Soil Depth to Rock or impermeable layer	>1.5 m	1.5 – 1 m	<1 m	Minor
Soil Structure (pedality)	Highly or Moderately structured	Weakly-structured	Structureless, Massive or hardpan	Moderate
Soil Texture, (indicative permeability)	Cat. 2b, 3a, 3b, 4a	Cat. 4b, 4c, 5a	Cat. 1, 2a, 5b, 5c, 6	Moderate
Water table depth below base of the LAA	>2 m	2 – 1.5 m	<1.5 m	Moderate

Legend:

Nil or Minor: If all constraints are minor, conventional/standard designs are generally satisfactory.

Moderate: For each moderate constraint an appropriate design modification over and above that of a standard design, should be outlined.

Major: Any major constraint might prove an impediment to successful on-site wastewater management, or alternatively will require in-depth investigation and incorporation of sophisticated mitigation measures in the design to permit compliant onsite wastewater management.

Vegetation Impacts

Wastewater dispersal must be irrigated so as to not exceed the optimum water and nutrient requirements of the vegetation within the premises. Nutrient and organic uptake application rates are taken from EPA's Publication 168, *Guidelines for Wastewater Irrigation,* April 1991.

The guidelines and criteria followed for the design of the proposed wastewater effluent dispersal area are based on EPA's Guidelines for *Onsite Wastewater Management*, 2023. The purpose of which is to protect public health and the *environment.* To this end it is a requirement of *State Government policy*, that wastewater dispersal is sustainable and does not pose an environmental risk including impacts on vegetation beyond the boundaries of the allotment.

In selecting suitable areas for effluent dispersal the following checks for constraints were noted:

- Waterway, springs, dams and likely seasonal wet areas;
- Upslope stormwater run-off, groundwater seepage, springs and depressions;
- Unsuitable topographical features, ground conditions and other structures.

3.4 Risk Assessment

Table 4: Risk Assessment of Site Characteristics

Characteristic	Level of Constraint			Level of Constraint
	Nil or Minor	**Moderate**	**Major**	
Aspect (affects solar radiation received)	North / North-East North-West	East / West / South-East / South-West	South	Moderate
Climate (rainfall & evaporation difference)	Excess evaporation over rainfall	Rainfall approximates to evaporation	Excess of rainfall over evaporation	Moderate
Erosion (potential for erosion)	Nil or minor	Moderate	Severe	Moderate
Exposure to sun and wind	Full sun, high wind or minimal shading	Dappled light	Limited patches to heavily shaded	Minor
Imported Fill	No fill or good minimal topsoil fill	Moderate coverage and fill is good quality	Poor quality fill and variable quality fill	Minor
Flood frequency (ARI)	Less than 1 in 100 years	Between 100 and 20 years	More than 1 in 20 years	Minor
Groundwater bores	No bores onsite within 20 metres	Setback from bores on adjacent property compliant	Not compliant with requirements	Minor
Land area available for LAA	Exceeds LAA and buffer distance	Meets LAA and duplicate LAA and buffer distance	Insufficient area for LAA	Minor
Landslip (or potential)	Nil **EMO** – No,	Minor to moderate **EP**= 4 **EAT** – Non dispersive	High or Severe **Slope** ~ 30%,	Moderate
Rock outcrops (% of surface)	<10%	10-20%	>20%	Minor
Slope Form (water shedding ability)	Convex or divergent side-slopes	Straight side-slopes	Concave or converge side-slopes	Minor
Slope gradient (%)				
(a) for absorption trenches and beds	<6%	6-15%	>15%	Minor
(b) for subsurface irrigation	<10%	**10-30**%	>30%	Moderate
Soil Drainage (qualitative)	No visible signs of even in wet season	Some signs or likelihood of dampness	Moisture-loving plants,water ponding	Minor
Soil Drainage (Field Handbook p151)	Rapidly drained. / Well drained.	Moderately well drained.	Imperfectly drained. / Very poorly drained.	Moderately well drained
Stormwater run-on	Low likelihood of run-on.		High likelihood of inundation	Minor
Surface waters - setback distance (m)	Complies with Code 891.		Does not comply with Code	Minor
Vegetation coverage over the site	Plentiful healthy growth & nutrient uptake		Limited or sparse vegetation or no vegetation	Minor

Risk constraints summary	3	2	1	Sum
Useable lot size >-4000 m²			1	1
Average slope 10-20%		2		2
Soil suitability Cat. 3 - 6	3			3
Proximity to water bore			1	1
Proximity to waterway			1	1
Land prone to flooding			1	1
Depth to groundwater	Compliant		(Σ) =	9

LEGEND

- **High risk** 3
- **Moderate risk** 2
- **Low risk** 1

Risk Score:

- High 13 -18
- Moderate 7 – 12
- Low .... 6 or less

4. Wastewater Management Systems

The following sections provide an overview of a suitable onsite wastewater management system, with sizing and design considerations and justification for its selection. Further detailed design for the system may be undertaken at the time of the application to Council.

4.1 Wastewater treatment system

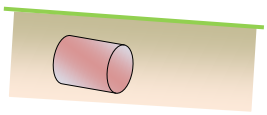
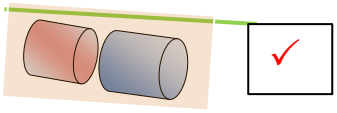
Although the preferred septic treatment and dispersal system is for pressure compensating subsurface irrigation, large remote sites may be better served with a more simple robust system.
Any on-site wastewater application (eg. septic tank or secondary treatment system) requires a *JAS-ANZ* or equal *Certificate of Conformity* and EPA approval.

Treatment system options listed at the above website are deemed capable of achieving the desired level of performance. The property owner has the responsibility for the final selection of the treatment system which should be included with the *Application to Install an Onsite Wastewater Management System*.

The following sections provide an overview of a suitable onsite wastewater management system, with sizing and design considerations and justification for its selection. Detailed design for the system should be undertaken at the time of the application submitted to Council.

The pros & cons depend on site and waste characteristics listed below:

Table 5: PROS and CONS of options for treatment of wastewater.

TREATMENT METHOD	PROS	CONS
Option A – Primary settling to reduce grease and solids  30% pollutant removal	☑ Minimal maintenance ; ☑ Less expensive operating costs although technically problematic. ☑ Robust operation.	☒ Design service life of 15 years; ☒ Must be connected to sewer immediately it become available; ☒ Not suitable for type 1 or 2 soils; ☒ Sensitive to terrain slope & setbacks to waterway; ☒ Requires a lot > 2000 m^2.
Option B – Secondary system such as aerated systems  90% pollutant removal	☑ Design service life of 30 years; ☑ Default "*best practice*" system ☑ Suitable for type 1 & 2 soils; ☑ Copes with higher organic and nutrient loads; ☑ Suitable for lots < 2000m^2;	☒ Higher maintenance costs; ☒ Higher energy costs; ☒ Slightly higher installation cost;

4.2 Effluent Management System

A range of possible land application systems have been considered, such as absorption trenches, evapo-transpiration / absorption (ETA) beds, subsurface irrigation and mounds.

The options for dispersal of treated effluent are limited to those either specifically approved by EPA or systems installed in accordance with Australian Standard AS/NZS 1547:2012.

Design wastewater flow

"The *Environment Protection Regulations 2021* requires the adoption of "*appropriate standards"* (Regulation 4). This report adopts the figure of 150 Litres/person as the best "reasonably practicable option" for design and management purposes (Regulation 161).

Sizing the Irrigation System

To determine the irrigation area, water balance modelling has been undertaken using the method and modeling tool in the *Victorian Land Capability Assessment Framework* (2014) and EPA Codes.

The preferred system of dispersal is pressure compensating subsurface irrigation. Subsurface irrigation will provide even and widespread dispersal of the treated effluent within the root-zone of plants. It will also ensure that the risk of effluent being transported off-site will be negligible.

Forecast daily wastewater flow

EPA Code (**891)** requires potential future flow rates to be based number of people who may be intending to live on the premises. A wastewater flow assessment is required to be based on any additional room(s) that could be closed off with a door and used as a bedroom for the purposes of this calculation.

The Council may choose to reduce the number of potential bedrooms based on evidence from floor plans where a room is unlikely to be used as a bedroom.

This design assumes that wastewater flow based on the EPA's Code has a potential occupancy using the criteria of : *{(Number of rooms with doors) +1}* persons x Litres/day. *N⁰. of bedrooms*:* ***3***,
*All bedrooms plus rooms that could be closed off with a door. (section 3.4.1) of the EPA Code 891.

Water usage efficiency – WELS star rating (litres/day)

Residents	1 stars -220 L/d	2 stars -200 L/d	3 stars -180 L/d	4 stars -150 L/d	5 stars -120 L/d
4 persons	880	800	720	600	480
5 persons	1100	1000	900	750	600
6 persons	1320	1200	1080	900	720
7 persons	1540	1400	1260	1050	840
8 persons	1760	1600	1440	1200	960

Design applications rates

The wastewater dispersal area is calculated on the potential future flow rates determined from the number of people who may be intending to live on the premises and the design irrigation rate from the AS/NZS 1547 , Table L1 - Soil Categories and Recommended Maximum Design Loading Rates.

Soil Classification
600mm limiting application rate.

Soil texture: Light CLAY
Soil structure: Moderate
Soil Category**: 5 (b)**
Indicative K_{sat}: 0.06 m/day

Design Application (mm/day)

Subsurface Drip Irrigation: **3** mm/day

ETA – trench irrigation: **5** mm/day

WICK Trenches: NA

Indicative areas for dispersal

= **350** m^2

4.3 Sizing of the effluent dispersal field

To determine the necessary size of the irrigation field, the water balance modelling tool prescribed in the Victorian Land Capability Assessment Framework (2014) has been used.

The dimensions of the irrigation dispersal field of have been calculated using the application rates from Table 9 of the EPA Code (891). The calculations are summarised overpage.

The field sizing equation can be expressed as:

Formula: LAND IRRIGATION A = Q/DIR*(SF),

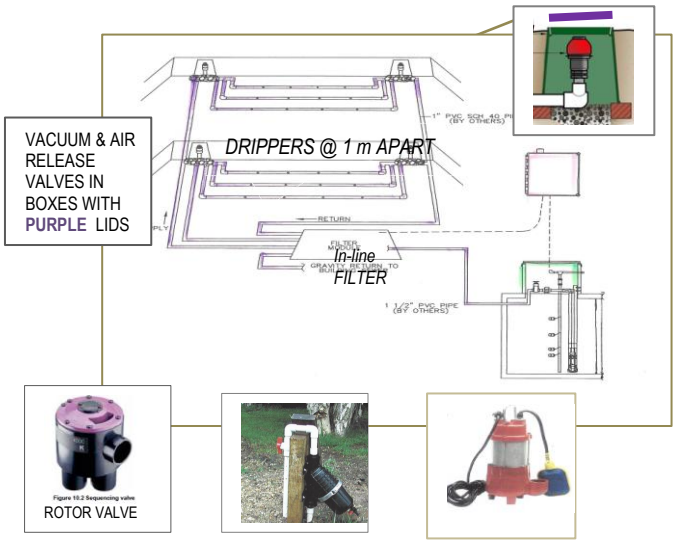
where

A = irrigation area (m²)
Q = daily flow (L/day)
DIR = Design irrigation rate (mm/day) – adopt most constraining horizon (600mm).
Slope factor (Ref: AS/NZS 1547- M2)

Area = 600 / (3.0 x 0.8)
= 250 m^2

350 m^2

for limiting water balance area, see **Section 4.4 = 350m^2**



EPA Code (Clause 2.2.2) states that – "*subsurface irrigation from all waste treatment systems is best* practice". However, having regard to the soil and site features this option is considered a better low risk option as preferred by *Environment Protection Regulation 28*.

The Land Application Area must be sufficient to ensure nutrients are assimilated by the soils and vegetation. As well climate modelling is use to check hydraulic and nutrient balances has also been undertaken.

Water Balance

The MAV nominated area method is used to calculate the area required to balance all inputs and outputs to the water balance. The water balance can be expressed by the following equation:

Precipitation + Effluent Applied = Evapo-transpiration + Percolation

Data used in the water balance includes:

- Mean monthly rainfall and mean monthly pan evaporation;
- Average daily effluent load in litres per day (from Table 4 of the Code);
- Design application rate (DIR or DLR) in millimetres /day (from Table 9 of the EPA Code);
- Crop factor – 0.6 to 0.8; and
- Retained rainfall – 75 % with cut-off drain.

Nutrient balance

State environmental policy requires effluent management to prevent the transport of nutrients to surface waters or negative impacts on the groundwater's beneficial uses and vegetation.

In clayey soils phosphorus is normally not a limiting factor due to adsorption onto clay particles.

For sustainable long-term nutrient management, when **nitrogen** is the limiting factor the annual uptake of nitrogen by vegetation is the main mechanism used to account for nutrient attenuation.

The nitrogen load and uptake are summarised below, with calculations provided below**.**

4.4 Water and Nutrient Balances

Irrigation Area sizing using Nominated Area Water Balance, Nutrient Balance & Storage Calculations

Ref: Model MAV 2014	Mean daily flow (L)	600	**Address:**	Korumburra _ Warragul Rd FERNDALE			
INPUT DATA	[SSDI system]		**Date:**	31-Aug-23	Ref: 230719-B	**Assessor:**	JR Lawrey *MIE Aust 142295*

Design Wastewater Flow	Q	**600**	L/day	Based on maximum potential occupancy derived from Table 4 in the EPA Guidelines (2023).
Effluent TN concentration	TN	30	mg/L	Crop N uptake 220 kg/ha/yr equal to **60** mgTN/day. Phosphorus sorption capacity not limiting.
Design Loading Rate	DIR	**3.0**	mm/day	Based on soil class permeability and derived from Table 4.9 in EPA Guidelines (2023)
Land Application Area	L	**345**	m sq	Land application area based on limiting factors. Trenches 300mm wide spaced 1.3 m apart
Crop Factor	C	0.6 -0.8	unitless	Estimates of evapotranpiration as a fraction of pan evaporation; varies over season and crop type.
Retained Rainfall	RF	0.75	unitless	Proportion of rainfall that remains onsite and infiltrates, allowing for any runoff.
Rainfall Data	Rainfall for Drouin 085023		Median Annual	1000 mm
Evaporation Data	BOM evaporation data		Tarago Res.	1121 mm

Parameter	Symbol	Formula	Units	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Days in month	D	\	days	31	28	31	30	31	30	31	31	30	31	30	31	365
Rainfall	R	\	mm/month	61	56	67	83	93	85	87	96	100	105	90	80	1000
Evaporation	E	\	mm/month	163	146	108	65	57	37	50	59	75	89	120	152	1121
Crop Factor	C			0.80	0.80	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.80	0.80	0.80	
OUTPUTS																
Evapotranspiration	ET	ExC	mm/month	130	117	76	46	40	26	35	41	53	71	96	122	852
Percolation	B	DIR x D	mm/month	93	84	93	90	93	90	93	93	90	93	90	93	1095
Outputs		ET+B	mm/month	223	201	169	136	133	116	128	134	143	164	186	215	1947
INPUTS																
Retained design rainfall	RR	R x RF	mm/month	46	42	50	62	70	64	65	72	75	79	68	60	752
Effluent irrigation	W	(QxD)/L	mm/month	54	49	54	52	54	52	54	54	52	54	52	54	634
Inputs		RR+W	mm/month	100	91	104	114	124	116	119	126	127	133	120	114	1387
STORAGE CALCULATION																
Storage remaining from previous month			mm/month	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Storage for the month	S	(RR+W)-(ET+B)	mm/month	-123.8	#####	-64.5	-21.1	-9.3	0.0	-8.9	-8.4	-15.4	-31.6	-66.4	-100.7	-222.2
Cumulative Storage	M		mm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum Storage	N		mm	0.00												
	V	NxL	L	0												
LAND AREA REQUIRED FOR ZERO STORAGE:			m^2	105	106	157	246	295	345	296	299	267	218	152	120	183

MINIMUM AREA REQUIRED FOR ATTENUATION: 345 m^2

LAND APPLICATION AREA FOR MOST LIMITING NUTRIENT (Minimum area required with zero buffer setbacks): 240 m2

NUMBER OF PERSONS	EP	ROOMS + 1	unitless	2	3	4	5	6	7	8	9	10	
Area required		LAA	m2	175	263	350	438	525	613	701	788	876	Water Balance

XX	Red cells are automatically populated by the spreadsheet	Enter new data in blue cells
XX	Data in the yellow cells is calculated by the spreadsheet. DO NOT ALTER THESE CELLS	Ref: MAV model version 891.4 ################

The pros & cons depending on terrain, rainfall and soil conditions are listed below:

Table 7 - PROS and CONS of options for effluent dispersal.

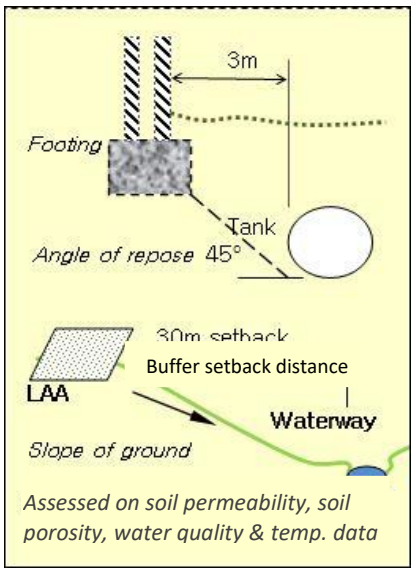
DISPERSAL METHOD	PROS	CONS
Option A – Pressure compensating drip irrigation ✓	☑ Suitable for shallow soil sites ☑ Not restricted due to rainfall ☑ Less soil depth required to others ☑	☒ Higher maintenance and capital replacement costs ☒ More expensive system ops with technical matters problematic ☒ Maximum slope of 30% ☒ Generally requires more space.
Option B – Mounds	☑ Raise level of effluent discharge ☑ Soil depth less important ☑ Minimal maintenance ☑ Suitable ground saturated sites ☑ Minimises polluted run-off risk	☒ Sensitive to terrain slope & setback to waterways ☒ Max. 15% slope situations ☒ May increase wetness at edge ☒ Toe seepage may occur.
Option C – LPED systems	☑ Lower energy requirement ☑ Complementary loading of system for balance flow ☑ Minimal maintenance ☑ Trench spacing up to 2m apart	☒ Sensitive to terrain slope & setback to waterways ☒ Minimum 250mm topsoil ☒ Not suitable type 1 & 2 soils
Option D – Wick trenches	☑ Lower energy requirement ☑ Compact system ☑ Complementary trench loading ☑ Balancing high & low flow days ☑ Minimal maintenance	☒ Sensitive to terrain slope & setback to waterways ☒ Experienced installer required ☒ Not suitable high rainfall areas ☒ Significant capital cost
Option E – ETA evapo-transpiration trenches & beds	☑ Compact system ☑ Complementary trench loading ☑ Balancing high & low flow days ☑ Minimal maintenance	☒ Sensitive to terrain slope & setback to waterways ☒ Experienced installer required ☒ Benching required steep slopes ☒ Significant capital cost

✓ Option(s) most likely to offer the best long-term solution; details are included in this report.

4.5 Buffer (Setback) Distances

Setback distances from effluent land application areas and treatment systems are required to help prevent human contact, maintain public amenity and protect sensitive environments. The relevant buffer distances for this site are taken from Table 4-9 of the EPA Guidelines.

- 50 metre from groundwater bores in sandy soils, 20 m in clayey soils;
- 100 metre from waterways (potable supply) and 60 m for non-potable waterways;
- 6 metre if area up-gradient and 3 metre if area down-gradient of property boundaries, swimming pools and buildings (conservative values for primary effluent).



If setback distances are outside default values, ground water modelling may determined that all nutrients, pathogens and other pollutant will not be transport beyond the site.

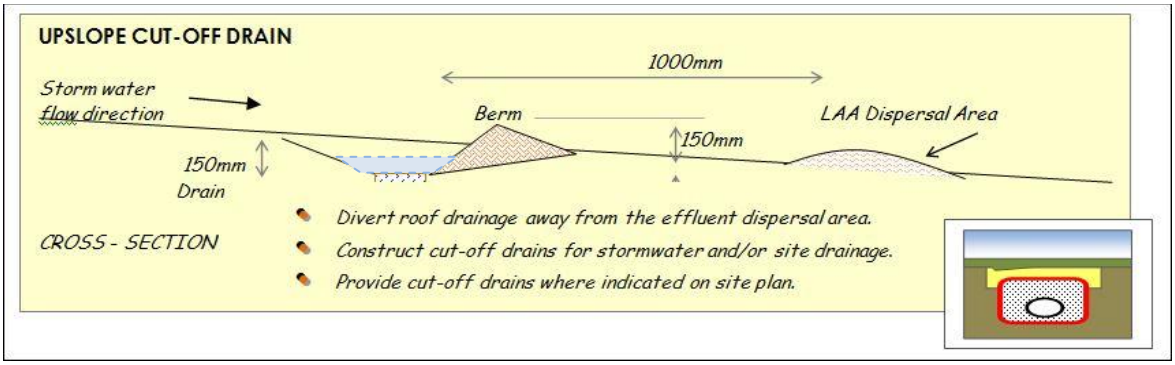
When all pollutants are attenuated within the premises boundaries there will be no cumulative impacts on surface waters or groundwater.

All buffer distances are achievable for this application. See Section 4.2

4.6 Stormwater Measures

Stormwater run-on poses a risk during significant rainstorm events. The construction and maintenance of a surface diversion drains will mitigate the limitations of site drainage.

Stormwater run-on is not expected to be a concern for the proposed irrigation area, due to the landform of the site and a relatively gentle cross slope for upslope diversion berms or drains.



4.7 Reserve Area

A reserve area of land (to remain free from development) for effluent dispersal to meet future unforeseen contingencies is mandatory:

- in special water supply catchment areas;
- where designated on plans of subdivision, and
- when required by councils, based on local experience.

A 1 m spacing of irrigation driplines and a 3m spacing in between dispersal trenches may provide the reserve area, see EPA Code 891, Clause 3.10.2 and MAV(2014) section 4.7.1. Further, replacement of a primary septic tank with a secondary treatment plant may mitigate the need for an alternative LAA.

5. Monitoring, Operation and Maintenance

Maintenance to be carried out in accordance with the EPA system approval and the *Certificate of Conformity* of the selected secondary treatment system and Council's permit conditions. The treatment system will only function adequately if appropriately and regularly maintained.

To ensure the treatment system functions adequately, residents must:

- Have a suitably qualified maintenance contractor service the wastewater system at the frequency required by Council under the approval to use;
- Ensure the septic tank is desludged / pump-out at least every 3 years;
- Use household cleaning products suitable for septic tanks;
- Keep as much fat and oil out of the system as possible;
- Don't put sanitary or hygiene products into the system,
- Do Not flush so called flushable wipes into the system, and
- Conserve water, use 3 STAR or better WELS rated fixtures and appliances.

To ensure the land application area (LAA) functions adequately, residents should:

- Regularly harvest (mow) vegetation within the LAA and remove this to maximise uptake of water and nutrients;
- Monitor and maintain the subsurface irrigation system following the manufacturer's recommendations;
- No structures/ paths erected over the Land application area;
- Avoid vehicle and livestock access to the LAA, to prevent compaction and damage;

- Ensure that the LAA is kept uniformly graded by filling any depressions with good quality topsoil (not clay) and
- Regularly clean any in-line filter or screen;
- Check water usage (water meter / winter water bills) to ensure discharge does not exceeding design.

Table for recording actions undertaken (✓)

Year/month	Water leaks	Service agent	Monitor effluent	Pump-out (3 yearly)	Effluent ponding	Keep records	Comments -& Remarks
Frequency	Regularly	As requires	Annually	Every 3 years	Every year	As required	

Operation & Maintenance of System

Servicing of the system must be undertaken as recommended by the supplier and in accordance with the *Environment Protection Regulations* (2021). Records of servicing (Section 6) must be kept for 5 years.

- A permit condition of the Council approval will require the regular servicing of the *wastewater treatment system* in accordance with manufacturer's instructions.
- The system should be inspected annually and report prepared by an accredited person.

6. Field and Performance Reporting

Operation & performance report for ***OWMS*** (*Environment Protection Regulations 2021*) *(Reg. xx)
Key regulatory elements to be included in maintenance and performance reports.

OWNER/OCCUPIER name (Duty holder) Reg.25… *Name of owner or occupier* ……

On-site wastewater management systems (OWMS) must be managed to ensure good working, appropriate maintenance and inform council of any failures (Reg. 160).

ADDRESS OF SYSTEM (OWMS): … *Name of owner or occupier* ……

MUNICIPALITY COUNCIL (LGA): ……..…… CONTACT:……

An accredited service technician should carry out the following service and inspection of your on-site wastewater management system at least four (4) times per year. The results from the maintenance inspection on the condition key components are to be recorded and kept to 5 years.

TYPE OF WASTEWATER TREATMENT PLANT

ALL OPERATIONAL COMPONENTS OF *OWMS* SERVICED AS PER OPERATING MANAUL. . ☑
No odour detected: …….. Noise level < 40dBA: …. Remarks: ……..
Laundry detergent used: …Liquid or powder: ……EC < 100 µS/cm ……

WATER QUALITY (Field tests): Odour free ☑… Turbidity >100mm ☑…. DO …….. mg/L. ☑
Simple field tests to indicate that effluent is of acceptable quality

LAST LABORTORY ANALYSIS RESULTS: BOD mg/L, TSS mg/L, DATE: ……..
Name of NATA Laboratory : …*Confirmation of field test observations by an accredited laboratory.*

IRRIGATION SYSTEM, Reg. 159(3): ☑…… WARNING SIGNS IN PLACE: …… ☑

IRRIGATION MAINTENANCE: Screens cleaned ☑ Driplines flushed: ☑ Root inhibitor added: ….
Owner may clean screens and flush driplines between services to manufacturer's instructions.

LAND APPLICATION AREA: No leakage or ponding ☑ …….……

SLUDGE (BIOSOLIDS) DATE LAST PUMPED: … …GYPSUM spread annually if required……

RECORD AND ADVISE DUTY HOLDER AS APPROPROIATE OF MATTERS REQUIRING ATTENTION:
Owner's general environmental duty.
……

Agreed report back Reported by
DATE: ……../……/…… TIME: …… am/pm ACTION BY: ……..……

OWMS INCIDENT REPORT, Reg.162(2): ……..……..……

NAME:…… CONTACT PHONE or EMAIL: ……..……
Accredited Service Technician *Accreditation, Reg.25: Technician has appropriate training?*

This record of service /performance or pump outs must be must be kept for 5 years. Reg.162(1).

Note: From 1 July 2022 the *Environment Protection Regulations 2021* requires:
"A person in management or control of land on which an on-site wastewater management system is located must notify the council, in whose municipal district the system is located, as soon as practicable after the person becomes aware, or reasonably should have been aware, that the system poses a risk of harm to human health or the environment or is otherwise not in good working order".

7. Conclusions

An LCA has been required by Council as per [EP Reg. 26(2) (e)] for the proposed OWMS.

As a result of our investigations it is concluded that the existing system although effective and does not pose any harm to public health or the environment sustainable onsite wastewater management is feasible with appropriate mitigation measures, as outlined, for the proposed 3 -bedroom residence.

The findings of this LCA [EP Reg.28] are that the *reasonably practicably* measures have been implemented to minimise the risks to human health and the environment.

Specifically, it is recommended (as per attached site plan & specifications) that you:

- Install a secondary wastewater treatment system with a *Certificate of Conformance* to AS/NZS 1546.3 and a "Swivel" joint drain connection between new home and tank;
- Provide a land application area (LAA) of 350m^2 for subsurface drip irrigation for dispersal of effluent (which should be subdivided into evenly sized zones) as appropriate;
- Install water saving fixtures and appliances in home to 3 or 4 Star WELS to minimise waste load;
- Keep records of all servicing and maintenance of the onsite wastewater management system for a period of 5 years in a format that has the key points detailed in Section 6.
- Use of low phosphorus and low sodium (liquid) detergents to improve effluent quality and maintain soil properties for growing plants; and
- Manage the operation and maintenance of the treatment and disposal system in accordance with manufacturer's recommendations, the *Certificate of Conformance*, the EPA Guidelines (2023).

SPECIAL NOTES:

System maintenance:
Service contractors should record and electronically log all servicing with "Septic Track" or similar management system.

Stormwater measures:

- Divert roof drainage away from any effluent dispersal area.
- Maintain stormwater diversion cut-off drains to site drainage.

Vegetated zone below LAA:
On steep sites, brushes and shrubs such as cannas, ginger lily and hydrangeas, should be planted in the buffer strip below the LAA to attenuate nutrients.
Top up any depressions in irrigation area with compost (garden mix) material.

Water conservation
Install and maintain at premises (if not already) 3/4 star WELS rated water closets cisterns and shower rose heads.

OWMS – LCA SUMMARY REFERENCE: **230719**

ADDRESS: **Korumburra Warragul Rd Ferndale** MAP REF: **VR 96 G6** CROSS ROAD: Ferndale
LOT AREA : **>1** ha SOIL TYPE: **Lt. CLAY** WATERWAY : **Jubilee Creek** LOADING RATE: **3** mm/day -
No. OF BEDROOMS - **3** DAILY FLOW - **600** LITRES/DAY DISPERSAL AREA: **350** m²

Figure 4: SITE PLAN DIMENSIONS IN METRES - DO NOT SCALE

8. References

1. **Canter, LW. and Knox RC.** (1986), *Septic Tank System Effects on Ground Water Quality*, Lewis Publishers Inc.

2. **Department of Sustainability and Environment,** *Planning permits for open water supply catchments*, November 2012.

3. **Environment Protection Authority**. *Guidelines for onsite wastewater management, 2023*.

4. **Environment Protection Authority** (1991). *Guidelines for Wastewater Irrigation,* Publication 168.

5. **Environment Protection Authority** (2023), Guidelines for onsite wastewater management, 2023.

6. **Hazelton, P and Murphy, B.** (2007). *Interpreting Soil Test Results,* CSIRO Publishing, Melbourne.

7. **Mc Donald , RC** et al (1998). *Australian Soil & Land Survey*, Field Handbook. CSIRO.

8. **McKenzie, N, Coughlan, K & Cresswell**, H. 2002, Soil Physical Measurement and Interpretation of Land Evaluation, CSIRO Publishing.

9. **Municipal Association of Victoria,** Department of Environment and Primary Industries and EPA Victoria (2014) *Victorian Land Capability Assessment Framework*.

10. **Standards Australia** / Standards New Zealand (2012). AS/NZS 1547:2012 *On-site domestic-wastewater management.*

9. Acronyms & Definitions

- AS/NZS - Australian & New Zealand Standards.
- CoC - Certificate of Conformance by *JASANZ* or equal accreditation organisation.
- EPA – Environment Protection Authority, Victoria.
- GED - General Environmental Duty.
- JAS-ANZ – Organisation providing internationally recognized accreditation services.
- LCA – Land capability assessment.
- LAA - Land application area.
- LPED – Low pressure effluent distribution, LPOD – Legal Point of Discharge (Stormwater).
- OWMS – Onsite Wastewater Management System.
- Reserve area - a duplicate land disposal area reserved for use when the original land disposal area needs to be rested for future unforeseen contingencies.
- Reticulated water -water supply obtained from mains supply, including any bore, stream or dam.
- Secondary treatment system - biological or physical treatment of sewage after primary treatment.
- Sewage means wastewater containing any human excreta, urine and toilet flush water and includes greywater (which is also called sullage and may include water from the shower, bath, basins, washing machine, laundry trough and kitchen);
- Unsewered area – land where no sewer pipes are adjacent to the allotment boundaries.
- Waterway – as defined by the Water Act 1989 - (Private off-stream dams are artificial assets).
- WELS – Water Efficiency Labelling Scheme.

Appendix A: Soil Bore Log

SOIL BORE LOG

EWS ENVIRONMENTAL, PO Box 4, Box Hill, 3128
Email: ews@bigpond.com Web. www.ews.land

Client:	*I & O Manescu*	Test pit No.	*TP 1 – TP2*
Site:	*327 Ferndale Road, Ferndale*	Assessor:	*JR Lawrey*
Date:	*28 July 2023*	Excavation:	*Spade & auger*
Notes:	*Refer to site plan Fig. 3 for borehole positions*		

 # 1 BORE HOLE - PROFILE DESCRIPTION

Depth (m)	Log	Horizon	Texture	Structure	Colour	Mottles	Fragments	Moisture	Comments
0.10		*A1*	*Clay LOAM*				*nil*	*moist*	*Organic*
0.20									
0.40									*Category*
0.70				*Weak*		*nil*		*damp*	*5 (b)*
0.90		*B1*	*Lt. CLAY*		*Lt Br*		*<10%*		
1.50									

 # 2 BORE HOLE - PROFILE DESCRIPTION

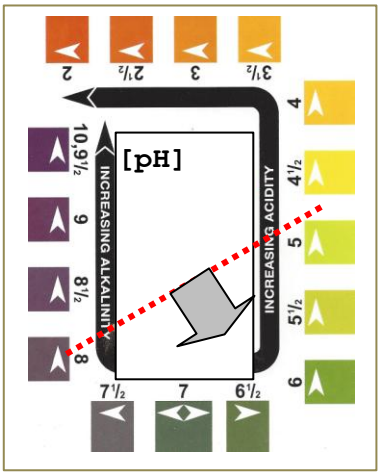
Depth (m)	Log	Horizon	Texture	Structure	Colour	Mottles	Fragments	Moisture	Comments
0.10		*A1*	*Clay LOAM*				*nil*	*moist*	*Organic*
0.20									
0.40									*Category*
0.70						*nil*		*damp*	*5 (b)*
0.90		*B1*	*Lt. CLAY*	*Weak*	*Lt Br*		*<10%*		
1.50									

KEY TO SOIL BORELOGS

LS Loam sand**, CS** Clayey sand, **CL** Clay loam, **SiCL** Silty clay loam, **SL** Sandy loam, **SC** Sandy clay **SC** Silty clay**, LC** Light clay, **MC** Medium clay**, HC** Heavy clay, **W** Water table depth, **X** Depth of refusal

Appendix A1 - Field Soil Test & Notes

Test {**pH**} Ref: CSIRO soil test kit



pH = [ph

Test {**EC**} Electrical conductivity

pH test

- > 6
- 4.5 to 8
- <4.5 or >8

pH

{EC} Electrical conductivity
(µS/cm =dS/m x10^{-3}

- < 0.8
- 0.8 to 2
- > 2

EC = < 100 µS/cm

Test: {**EAT**} – Emerson Aggregate.

[EAT] Modified (AS/NZS 1547:E7

1. No change ☐
2. Aggregate slakes ☑
3. Aggregate disperses ☐
4. Worked ball disperses ☐

EAT = Class 2

Soil fertility:
Is Gypsum application required (pH>6)? ~~YES~~, NO Application rate: kg/m²
Is Lime /dolomite required (pH<6) ? ~~YES~~, NO Application rate: kg/m²

Colour:
Dark, Light, Yellow, Reddish, Yellowish
Black, Grey, **Brown**, Yellow, Red

Drainage:
Rapid , Well drained, Moderate, **Imperfect**, Poor

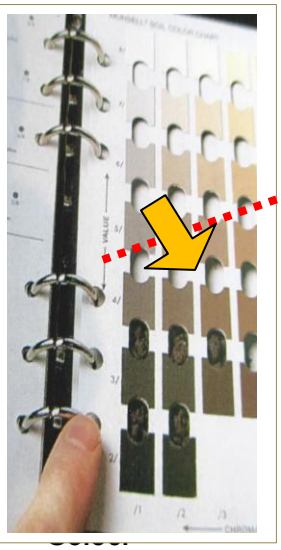
Vegetation:
Plentiful, Virgin, **Sparse,** Cultivated, Natural,
No wet plants, Tall, Low, Isolated clumps

Slope: **MF**

<10%	0
10 - 20%	20%
> 20%	50%

Slope form:

- Convergent (
- **Plannar** |
- Divergent)
- Waxing
- Linear
- Waning



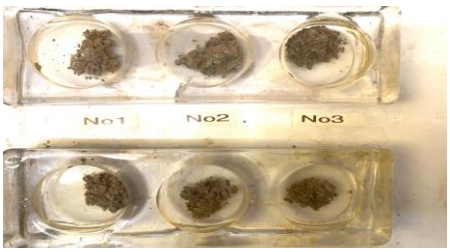
Soil Permeability (AS/NZS 1547)

Emerson aggregate test

Soil test Gritness Ribbon (mm) Category.

1	**SAND**	25	**1**
2	Sandy Loam	30	**2**
3	**LOAM**	40	**3**
4	Clay **LOAM**	50	**4**
5	Light **CLAY**	60	**5 (b)**
6	Med. - Heavy	>75	**6**

Soil Category: **5 (c)** , K_{sat} **<0.12 metre/day**



Modified Emerson Test = **Non-dispersive**

Field tests conducted by: J R Lawrey MIEAust No. 142295 Date: ***31 August 2023***

230719-B_

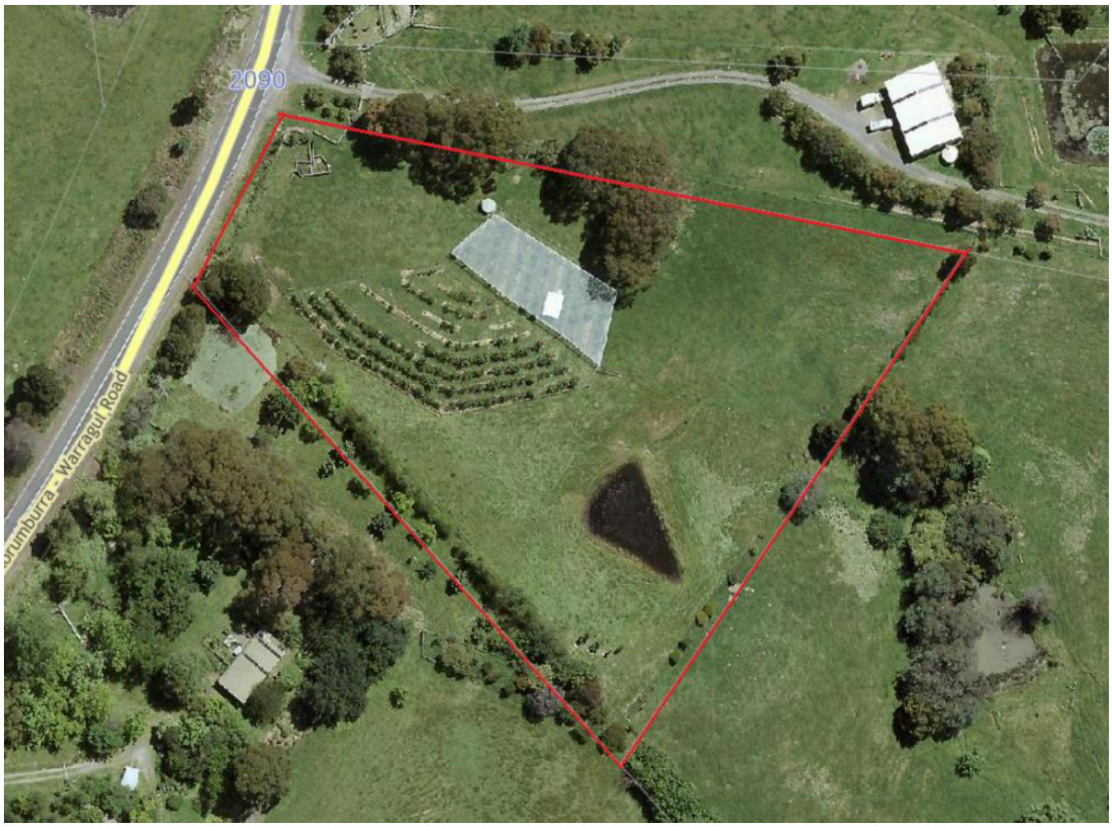
Checklist

Report element	Information	Data	Page	Comments /remarks
	Applicant		1	
1. Introduction &	**Ad**dress			Bimal Narayan, West Gippsland Planning Services
Background	**R**eport **N**umber			230719 **B**
	P**h**one (Mobile)			0466 792 853
	Email or fax			wgplanning@outlook.com
	Location town			Ferndale
	Map **R**ef: VR			VR 96 G6
	Xross Road (nearest)			Ferndale
	Council (Municipality)			Baw Baw
2. Description of	**P**roperty area (m^2)	< 1 ha	3	
Development	Land **z**oning & Overlays			FZ
	Organic loading @60g	240 gBOD		
	Bedrooms	3		Number of persons 4
	Flow per person (L/d)	150 litres/day		Tank water / ~~Town water~~
	Date of report	31 August 2023		Date of report: 31 August 2023
	Flow daily (L/day)	600 litres/day		
3. Site and	**T**ype of soil (colour)	Lt. CLAY, Pale BR	5	eg. Soil type & Category Colour
Soil assessment	K_s Soil permeability	0.06 m/day		
	vStructure	Moderate		
	uSoil Category	5 (b)		**Slope analysis**
	Slope of land (**%**)	~ 20 %		Plannar slope, min. 2 zones
1. Wastewater	**Ir**rigation d**is**persal	350 m^2	13	**LAA**
System	**D**esign **Ir**rigation **R**ate	3 mm/day		**DLR 3** mm/day
	Rainfall (mm)	1000 mm/year		Planning zone; **FZ**
	Evapo-transpiration (mm)	1121 mm/year		Overlays:
	Groundwater (mg/L)	TDS <1000 mg/L		Groundwater depth: (m)
2. Monitoring &	Salinity **EC & pH**	[EC <0.8 [ph 6.5	19	
Maintenance	**W**atercourse- Creek	Jubilee Creek		
	Land **as**pect	East		Special notes:
	Site e**v**aluation date	31 Aug 2023		1. Ex. Septic tank
3. Service & performance			20	2. U/G powerline
4. Conclusions & Site Plan		✓	21	3.
5. References		✓	23	2. ~~U/G powerline~~
6. Acronyms & definitions		✓	23	3. ~~Add gypsum to LAA~~

PLANNING PERMIT APPLICATION

Use and Development of Land with a Dwelling at

Lot 1 Korumburra Warragul Road, Ferndale.



Owner:

Applicant:

Contents **Page No.**

Attachments

i. Application Form
ii. Copy of Title, Plan of Subdivision, etc
iii. Planning Property Report
iv. Planning Report
v. Farm Management Plan
vi. Development Plans

1. INTRODUCTION

who wishes to obtain a Planning Permit from Baw Baw Shire Council to *use and develop the land with a dwelling* in association with a fruit collection and cider orchard at Lot 1 Korumburra Warragul Road, Ferndale.

This planning report provides an assessment of the application against the relevant provisions of the Baw Baw Planning Scheme and concludes that the proposed land use and development of the land for a dwelling has planning merit and a planning permit should be issued.

2. PROPOSAL

Use of the Land

Attached please find a detailed Farm Management Plan in support of the application for a dwelling. The subject site was purchased by the current owners in 2012 to allow further expansion of their existing apple orchard business.

The owners currently operate an orchard onsite across three paddocks (paddocks 2-4 as shown in the FMP) in the upper and central area of the property where apples, pears and plums are grown. Planting of the apple varieties commenced in winter 2014 and was completed over several years. Within the fruit collection area, duplicate plantings were also established of a substantial part (80 pear varieties and 40 plum varieties) of the @100 heritage pear varieties and @110 plum varieties located on the home farm. A small cider orchard of 100 trees (10 known cider varieties) was also established.

Paddock 1 is used to contain 6-18 month old wethers from time to time as pasture availability allows. Strzelecki Heritage Apples commenced in 1993 and was officially registered as a business in 1996 with the main farm being located approximately 4km.

The subject site is managed by the owners son while the site subject of this application is managed by the land owner.

The above use will continue, but it is intended that the subject site will become the main site for activities with the nursery business. Additional activities are also intended that include propagation of fruit trees as well as production of rootstock for use in fruit tree propagation.

To augment the current use for fruit production and facilitate fruit sales, it is intended to install a small (3m x 3m) coolroom for short-term (seasonal) fruit storage for on-farm sale and local Farmers Markets; and low-key, in-season, on-farm sales of heritage apples, pears, and plums.

To enhance the management of the site and to allow a succession plan, a single dwelling is proposed on site. Please refer to the detailed Farm Management Plan attached to

this application which also provides background information of this successful enterprise.

Proposed Dwelling

To efficiently manage the business and to provide active surveillance and security of the farm infrastructure and equipment, it is the intention of the landowners to reside on the land to manage these activities and for this reason they are proposing to use and develop the land with a dwelling.

The proposal is for a single story dwelling that will comprise of three bedrooms, lounge room, open floor dining and kitchen area, and bathroom and laundry area.

The external materials will consist of Colorbond subfloor cladding, James Hardie Axon clad walls and a Colorbondbond custom orb roof.

The total height of the dwelling is set at 6.295m from ground level and contains a floor area of approximately 174.6sqm. The dwelling is set to face north to take advantage of the slope of the land and better energy efficiency. In addition, by setting the dwelling in an east west direction it will further reduce cut and fill required for the foundation works and allow the dwelling to face north to gain better energy efficiency. A site cut and fill of approx. 0.8m is proposed which is not considered significant as this would blend in with the dwelling once landscaped.

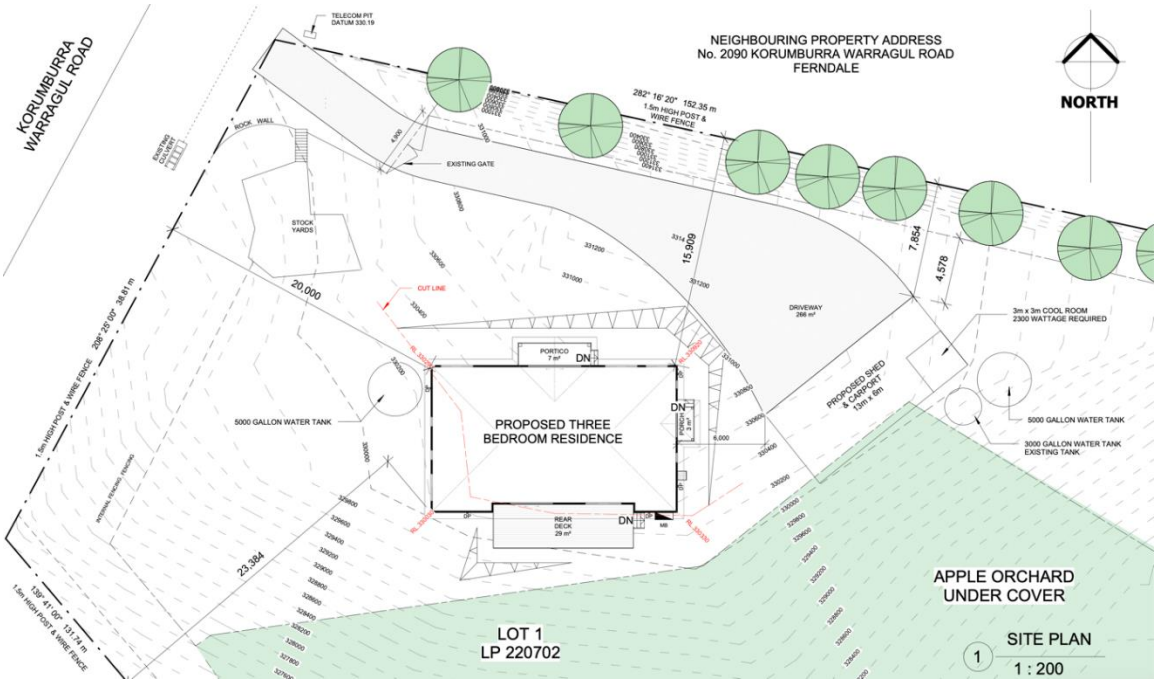


IMAGE 1 – part of site plan showing location of proposed development with 0.2m contours.

The proposed dwelling will have a setback of 35m from the western boundary of the site and 15.9m from the northern boundary. The front setback from Korumburra Warragal Road is set at 20m. An all-weather formed driveway will extend from the crossover to the proposed dwelling.

Outbuilding

A 13m x 6m detached outbuilding is proposed with the application.

The building will also be completed in colorbond material and will be located to the east of the existing dwelling. The proposed outbuilding will be used for parking of domestic vehicles and partly for farm storage, including tractor, slasher, ride on mowers, spraying equipment, etc. the 3m x 3m cool room will be installed within the shed.

3. SUBJECT SITE

The subject site is formally described as Lot 1 LP220702 and more commonly known as Korumburra Warragul Road, Ferndale.

The 1.132 hectare farm is located on the east side of Korumburra Warragul Road, which is an all weather surface road.

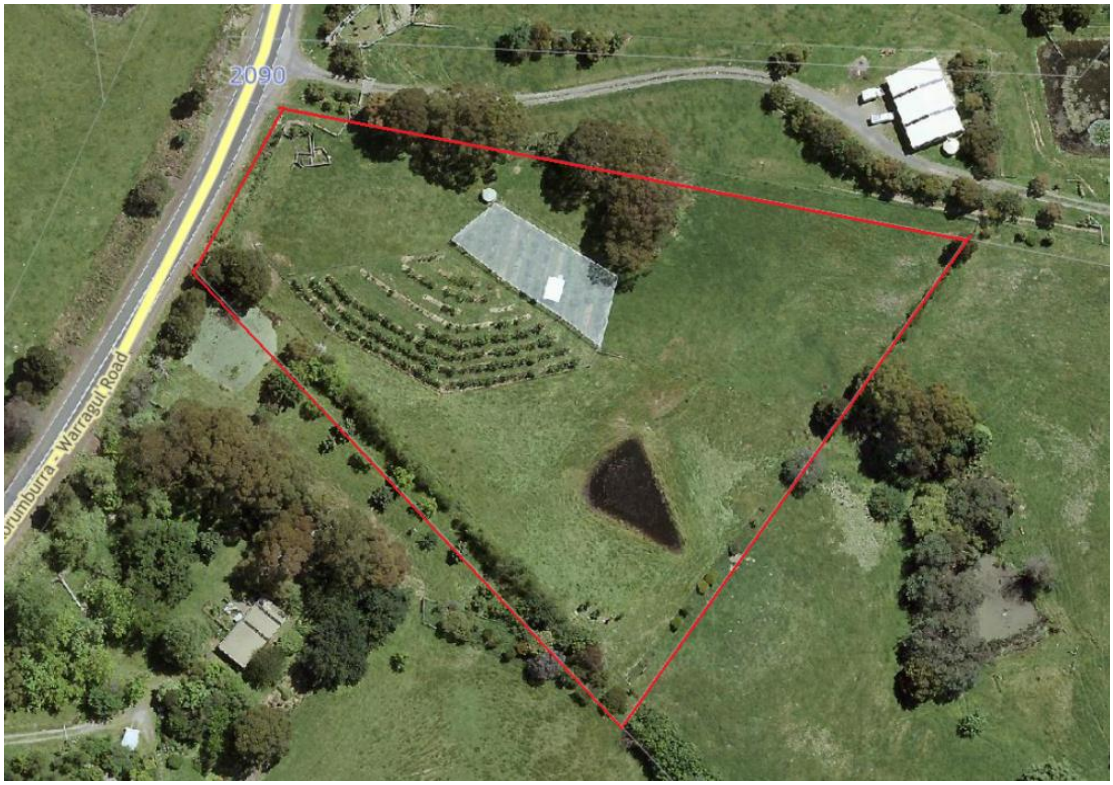


IMAGE 2 - Aerial map of the subject site.

The subject allotment is an imperfect, regular shape that gently falls to the east.

There is an orchard area towards the north and centre of the site which is covered in netting and a dam towards the rear of the site. Apart from this, there are several planted trees along the north and south side boundaries.

The property is currently being setup with four separate paddocks with paddock 1 being used as a grazing area while paddocks 2-4 contain a fruit orchard which serve as the primary activity of the site.

There is a well-maintained farm dam located towards the southeast at the rear of the lot.

The formal vehicular access to the site is from Korumburra Warragal Road.

4. SURROUNDING LAND

The land surrounding the site is included in the Farming Zone, includes allotments of various sizes and the predominant land use in the area being dairy farming, hay production and stock grazing.

Adjacent properties to the north and south are used for grazing of cattle.

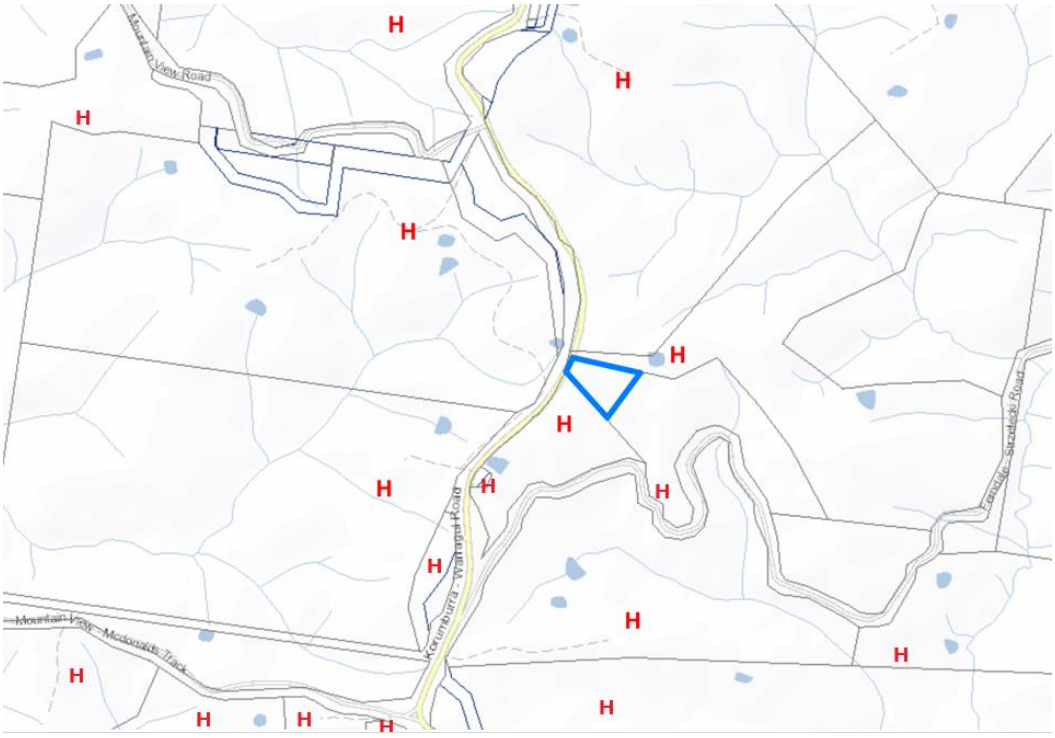


IMAGE 3 - H= Existing dwellings within close proximity of the site.

There are several small titles with houses in the immediate vicinity, including one (5.6 ha) that abuts the subject site and a second title (8.3 ha) to the east. The proposed farm business will enhance agricultural production of the area and there are no perceived negative impacts on other adjoining faring enterprises in terms of land use conflict.

There are no known sensitive land uses or any other intensive animal husbandry activities located within the vicinity of the site, or which would otherwise require specific addressing as part of this application.

The site abuts Korumburra Warragal Road to the west, which is a sealed road with grass verges and mature trees and shrubs along the shoulder.

The dwellings in the surrounding area are a mix of medium to older design dwellings and constructed in a variety of colors, styles and scales. A map of properties containing dwellings in vicinity of the site is attached above, which shows that nearly all lots contain dwellings in this region.

The closest residential sector from the site is in Korumburra and located slightly less than 15km south of the subject site.

5. COVENANTS, RESTRICTIONS AND ENCUMBRANCES

A current Certificate of Title is attached in support of this application, this demonstrates that the land is not encumbered by any covenants, agreements or any other restrictions.

6. PLANNING CONTROLS

The following policies from the Baw Baw Planning Scheme are considered relevant to this application.

Clause 02.03-3 Natural Resource Management

- The clause provisions acknowledges that most rural land in Baw Baw is highly suitable for both intensive horticultural and broadacre pasture based farming due to its fertile soils, high rainfall, temperate climate, varied topography and proximity to markets.
- The majority of the Shire's agricultural land can therefore support a wide range of agricultural enterprises to a high production level. Areas of particularly high quality land are located around Ellinbank, Yarragon, Trafalgar, Neerim South, Noojee, Thorpdale, and Allambee.
- The current rural lot pattern in the Shire has resulted from the subdivision of Crown Allotments in the late 1800s and more recent post war subdivisions. A

more intensive lot pattern is evident in the area around Warragul (16 hectares) while a more expansive lot pattern is evident elsewhere with minimum lot areas of 50 and 60 hectares.
- While dwellings in rural areas have been integral to the development of Baw Baw as a farming area, there have been increasing pressures for subdivision and residential development for rural lifestyle rather than for farming purposes. These increasing pressures have the potential to impact on agricultural land use particularly broadacre farming such as dairying and its contribution to the economy. The increasing number of dwellings in rural areas is also altering the rural landscape of Baw Baw.

The strategic directions for 'Natural Resource Management' planning in Baw Baw are to:

- Maintain the integrity of the land resource and its protection from unplanned urban and
  residential encroachment.
- Protect and develop the Shire's resources relating to dairying, horticulture, grazing, timber production, tourism and high quality water.
- Support the coal, sand and timber industries subject to protecting the rural environment and landscape.
- Protect agricultural uses by minimising land use conflicts between agricultural and sensitive uses.
- Restrict dwellings and small lots that would result in the loss of productive agricultural land or that prejudice agricultural production.
- Encourage the consolidation and restructuring of existing fragmented agricultural landholdings.

Clause 11.01-1R Settlement Gippsland

Strategies

- Support the continuing role of towns and small settlements in providing services to their districts, recognising their relationships and dependencies with larger towns.
- Provide regional social infrastructure in the regional city and regional centres.

Clause 12.01-1S Protection of Biodiversity

Objective

- To protect and enhance Victoria's biodiversity.

Strategies

- Use biodiversity information to identify important areas of biodiversity, including key habitat for rare or threatened species and communities, and strategically valuable biodiversity sites. Strategically plan for the protection and conservation of Victoria's important areas of biodiversity. Ensure that decision making takes into account the impacts of land use and development on Victoria's biodiversity, including consideration of:
    - Cumulative impacts.
    - Fragmentation of habitat.
    - The spread of pest plants, animals and pathogens into natural ecosystems.

- Avoid impacts of land use and development on important areas of biodiversity.
- Consider impacts of any change in land use or development that may affect the biodiversity value of national parks and conservation reserves or nationally and internationally significant sites; including wetlands and wetland wildlife habitat designated under the Convention on Wetlands of International Importance (the Ramsar Convention) and sites utilised by species listed under the Japan-Australia Migratory Birds Agreement (JAMBA), the China-Australia Migratory Birds Agreement (CAMBA), or the Republic of Korea-Australia Migratory Bird Agreement (ROKAMBA).
- Assist in the identification, protection and management of important areas of biodiversity.
- Assist in the establishment, protection and re-establishment of links between important areas of biodiversity, including through a network of green spaces and large-scale native vegetation corridor projects.
- Support land use and development that contributes to protecting and enhancing habitat for indigenous plants and animals in urban areas

Clause 12.01-1L Protection of Baw Baws biodiversity

Strategies

- Encourage protection of habitat for native fauna with an emphasis on threatened species, habitats and communities.
- Encourage and facilitate the development of biolinks or wildlife corridors across the Shire.
- Encourage establishment of native vegetation for new and emerging environmental markets (such as BushBroker, BushTender, EcoTender, carbon offsetting, etc)

Clause 12.01-2S Native Vegetation Management

Objective

- To ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation

Strategies

- Ensure decisions that involve, or will lead to, the removal, destruction or lopping of native vegetation, apply the three-step approach in accordance with the Guidelines for the removal, destruction or lopping of native vegetation (Department of Environment, Land, Water and Planning, 2017):
- Avoid the removal, destruction or lopping of native vegetation.
- Minimise impacts from the removal, destruction or lopping of native vegetation that cannot be avoided.
- Provide an offset to compensate for the biodiversity impact from the removal, destruction or lopping of native vegetation.

Clause 13.04-2S Erosion and landslip

Objective

- To protect areas prone to erosion, landslip or other land degradation processes.

Strategies

- Identify areas subject to erosion or instability in planning schemes and when considering the use and development of land.
- Prevent inappropriate development in unstable areas or areas prone to erosion.
- Promote vegetation retention, planting and rehabilitation in areas prone to erosion and land instability

Clause 13.04-2L-01 Soil stabilization through Native Vegetation

Encourage use and development that protects, enhances and establishes native vegetation on private land for:

- Soil stabilisation in areas prone to land slip and soil erosion.
- Creek and stream protection.
- Stock, crop and erosion shelter belts.

Clause 14 Natural Resource Management

- Planning is to assist in the conservation and wise use of natural resources including energy, water, land, stone and minerals to support both environmental quality and sustainable development.
- Planning should ensure agricultural land is managed sustainably, while acknowledging the economic importance of agricultural production.

Clause 14.01-1S Protection of agricultural land

Objective:

To protect the state's agricultural base by preserving productive farmland.

Strategies

- Identify areas of productive agricultural land, including land for primary production and intensive agriculture.
- Consider state, regional and local, issues and characteristics when assessing agricultural quality and productivity.
- Avoid permanent removal of productive agricultural land from the state's agricultural base without consideration of the economic importance of the land for the agricultural production and processing sectors.
- Protect productive farmland that is of strategic significance in the local or regional context.
- Protect productive agricultural land from unplanned loss due to permanent changes in land use.
- Prevent inappropriately dispersed urban activities in rural areas.
- Protect strategically important agricultural and primary production land from incompatible uses.
- Limit new housing development in rural areas by:
    - Directing housing growth into existing settlements.
    - Discouraging development of isolated small lots in the rural zones from use for dwellings or other incompatible uses.
    - Encouraging consolidation of existing isolated small lots in rural zones.

- Identify areas of productive agricultural land by consulting with the Department of Economic Development, Jobs, Transport and Resources and using available information.
- In considering a proposal to use, subdivide or develop agricultural land, consider the:
    - Desirability and impacts of removing the land from primary production, given its agricultural productivity.

    - Impacts on the continuation of primary production on adjacent land, with particular regard to land values and the viability of infrastructure for such production.
    - Compatibility between the proposed or likely development and the existing use of the surrounding land.
    - The potential impacts of land use and development on the spread of plant and animal pests from areas of known infestation into agricultural areas.
    - Land capability.
- Avoid the subdivision of productive agricultural land from diminishing the long-term productive capacity of the land.
- Give priority to the re-structure of inappropriate subdivisions where they exist on productive agricultural land.
- Balance the potential off-site effects of a use or development proposal (such as degradation of soil or water quality and land salinisation) against the benefits of the proposal.

Clause 14.01-1R Protection of agricultural land - Gippsland

Strategy

- Protect productive land and irrigation assets, including the Macalister Irrigation District, that help grow the state as an important food bowl for Australia and Asia.

Clause 14.01-1R Dwellings and Subdivisions in Rural Areas.

The objective of the policy provisions is to:

- To ensure that the development of dwellings and subdivision, including the creation of small lots for existing dwellings, minimises the loss of productive agricultural land and does not prejudice activities associated with agricultural production.
- To provide guidance for development of dwellings that are integral to the substantial commercial farming or tourism use of the land.

Strategies

- Discourage the development of a dwelling on land that is used for small-scale grazing animal production unless there are special management requirements relating to the grazing of stock.
- Discourage the development of a dwelling unless it is required for a commercial farming purpose or for an approved tourism business to the satisfaction of the Responsible Authority.

- Discourage dwellings on lots where wastewater cannot be retained and treated within the lot.
- Limit the area associated with a dwelling and ancillary buildings and facilities so that the area for agriculture or rural purposes is maximised.
- Discourage the development of dwellings close to a neighbouring dwelling or a farming activity node such as; stockyards, dairy shed or effluent treatment ponds.
- Encourage consolidation of vacant lots within the property (being lots in the same ownership which adjoin each other or are separated only by a stream, stream reserve, or unmade or unused government road or rail reserve) on which the dwelling is proposed.

Policy guidelines

Consider as relevant:

  - A business plan or farm management plan clearly demonstrates that a dwelling is required for a commercial farming purpose (including small scale grazing animal production) or an approved tourism business on the land.
  - Limiting a dwelling and ancillary buildings and facilities, to within a 2000 square metre envelope.
  - Setting dwellings back at least 100 metres from a neighbouring dwelling or a farming activity node.
  - An agreement under Section 173 of the Act, that ensures that the lot cannot be subdivided to create an additional lot and cannot be used for any further dwelling.
  - That a proposal for a new dwelling adjacent to two or more existing dwellings constitutes a 'concentration' or 'proliferation' of dwellings in the area when considering the Dwelling Decision guidelines under clause 35.07.

Supporting dwellings on existing lots within the Strzelecki Ranges that are close to main towns and have access to roads with an all-weather surface.

Clause 14.01-2S Sustainable agricultural land use

Objective

- To encourage sustainable agricultural land use.

Strategies

- Ensure agricultural and productive rural land use activities are managed to maintain the long term sustainable use and management of existing natural resources.
- Support the development of innovative and sustainable approaches to agricultural and

associated rural land use practices.

- Support adaptation of the agricultural sector to respond to the potential risks arising from climate change.
- Encourage diversification and value-adding of agriculture through effective agricultural production and processing, rural industry and farm-related retailing.
- Assist genuine farming enterprises to embrace opportunities and adjust flexibly to market changes.
- Support agricultural investment through the protection and enhancement of appropriate infrastructure.
- Facilitate ongoing productivity and investment in high value agriculture.
- Facilitate the establishment and expansion of cattle feedlots, piggeries, poultry farms and other intensive animal industries in a manner consistent with orderly and proper planning and protection of the environment.
- Ensure that the use and development of land for animal keeping or training is appropriately located and does not detrimentally impact the environment, the operation of surrounding land uses and the amenity of the surrounding area.

Clause 14.01-2L-01 Sustainable agricultural land use in Baw Baw

Objective

- To maintain and strengthen agriculture as a major contributor to the Shire's economy.

Strategies

- To encourage a diverse range of agricultural enterprises that can use smaller landholdings.

Clause 14.01-2L-02 Agricultural soil protection

Objective

- To avoid agricultural industries being prejudiced by removal or degradation of soils.

Strategies

- The strategies include to discourage land uses that damage soil integrity.

Clause 15.01-6S Design for Rural Areas

Objective

- To ensure development respects valued areas of rural character.

Strategies

- Ensure that the siting, scale and appearance of development protects and enhances rural character.
- Protect the visual amenity of valued rural landscapes and character areas along township approaches and sensitive tourist routes by ensuring new development is sympathetically located.
- Site and design development to minimise visual impacts on surrounding natural scenery and landscape features including ridgelines, hill tops, waterways, lakes and wetlands.

Clause 15.01-6L Design for Baw Baw's rural areas

Strategies

- Discourage buildings being located in visually prominent positions particularly on ridgelines and hilltops.
- Encourage buildings to visually blend into the landscape.
- Minimise the height of buildings and encourage the use of non-reflective exterior materials in muted tones.
- Encourage preservation of view corridors from vantage points within urban areas and from Princes Highway

Clause 16.01-3S Rural Residential Development

Objective

- To identify land suitable for rural residential development.

Strategies

- Manage development in rural areas to protect agriculture and avoid inappropriate rural residential development.
- Encourage the consolidation of new housing in existing settlements where investment in physical and community infrastructure and services has already been made.
- Demonstrate need and identify locations for rural residential development through a housing and settlement strategy.
- Ensure planning for rural residential development avoids or significantly reduces adverse economic, social and environmental impacts by:
    - Maintaining the long-term sustainable use and management of existing natural resource attributes in activities including agricultural production, water, mineral and energy resources.
    - Protecting existing landscape values and environmental qualities such as water quality, native vegetation, biodiversity and habitat.

    - Minimising or avoiding property servicing costs carried by local and state governments.
    - Maintaining an adequate buffer distance between rural residential development and animal production.
- Ensure land is not zoned for rural residential development if it will encroach on high quality productive agricultural land or adversely impact on waterways or other natural resources.
- Discourage development of small lots in rural zones for residential use or other incompatible uses.

- Encourage consolidation of existing isolated small lots in rural zones.
- Ensure land is only zoned for rural residential development where it:
    - Is located close to existing towns and urban centres, but not in areas that will be required for fully serviced urban development.
    - Can be supplied with electricity, water and good quality road access

Clause 17.01-1R Diversified Economy – Gippsland

Strategies

- Support production and processing facilities that add value to local agricultural, forestry and fisheries products.

Clause 17.01-1L Diversified Economy – Gippsland

Objective

- To establish and maintain a strong, dynamic and future ready economy and employment base building on the Shire's competitive advantages for agriculture, timber, value-adding industries, tourism and land suitable for large scale business parks.

Strategies

- Support investment in value adding industries in relation to agriculture and natural resources such as food processing, agri-business, farm-gate tourism and agricultural services.
- Encourage niche agricultural industries, dairy, intensive agriculture, timber, manufacturing and processing industries outside urban areas.

Clause 19.03-3L Wastewater disposal – Baw Baw

Strategies

- Ensure alternative wastewater disposal is provided where reticulated sewerage systems are not available.
- Encourage the development of improved sewerage treatment solutions for unsewered towns and for land uses that manage waste inappropriately.
- Site and design development that is not serviced by a reticulated sewerage system to prevent pollution of land and water resources.
- Ensure environmental systems are protected through sustainable wastewater management. Discourage developments that do not demonstrate appropriate onsite wastewater disposal to the satisfaction of the Responsible Authority.

Response:

The application accords with the Planning and Local Planning Policies and should be supported for the following reasons.

The proposed land use and development in conjunction with the attached Farm Management Plan will ensure that the land will continue to contribute to the Shire's economy as an operative farm. It is submitted that the impact on adjoining agricultural land would be very minimal, due to the ongoing agricultural activities and by having the owner reside on the property will enable them to better manage stock on the land within an established area where most of the lots already accommodate existing dwellings.

It is not considered that the proposed use of the land for a dwelling would result in fragmentation of the farm holding, or abandonment of primary production in any way as the owner's family has been managing the farm for over 10 years along with another farm located in vicinity of the site.

To allow for a succession of the business, the landowners wish to permanently reside onsite which would allow them to better manage their farming enterprise and provide active surveillance of the farm, infrastructure and machinery onsite. Further details and risks associated with the business has been identified in the attached Farm Management Plan.

The location of the proposed dwelling and outbuilding has been selected as it would allow for the visual surveillance of the farming operation whilst minimizing the area consumed for the proposed dwelling and avoiding impacts to the existing farming operations. The area set aside for domestic use is in accordance with Councils policy (at Clause 14) relating to the land area being less than 2000sqm for the proposed dwelling and onsite wastewater management system. The attached plans also

indicate that the proposed dwelling is within 100m of the waterway (approximately 64m away) and within 100m of a Transport Zone 2.

A Land Capability Assessment has been prepared with this application which demonstrates that the site can adequately accommodate an onsite wastewater system. It is understood that a separate permit from Council's Health Dept will be required to install an Onsite Wastewater Management System.

The dwelling as proposed will be located on the highest point of the site but has been designed so as not to impact the amenity or landscape of the area. Additionally, the proposed colors of exterior materials have been specifically selected to blend in and be sympathetic to the character of the rural area.

A Farm Management Plan has been prepared in accordance with clause 14.01-1L in support of the proposal. The Farm Management Plan ensures that the proposed dwelling will continue to be used in conjunction with the agricultural practices on the land on an ongoing basis.

7. ZONE

Clause 35.07 Farming Zone

The subject site and surrounding areas are zoned as Farming (FZ) as identified under the Baw Baw Planning Scheme.

The purpose of the farming zone provisions is to:

- *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
- *To provide for the use of land for agriculture.*
- *To encourage the retention of productive agricultural land.*
- *To ensure that non-agricultural uses, including dwellings, do not adversely affect the use of land for agriculture.*
- *To encourage the retention of employment and population to support rural communities.*
- *To encourage use and development of land based on comprehensive and sustainable land management practices and infrastructure provision.*
- *To provide for the use and development of land for the specific purposes identified in a schedule to this zone.*

Clause 35.07-1 states that a permit is required to *use* land for a dwelling if the total land area is less than 40 hectares.

Clause 35.07-2 states that a lot used for a dwelling must meet the following requirements:

- *Access to the dwelling must be provided via an all-weather road with dimensions adequate to accommodate emergency vehicles.*
- *The dwelling must be connected to a reticulated sewerage system or if not available, the waste water must be treated and retained on-site in accordance with the State Environment Protection Policy (Waters of Victoria) under the Environment Protection Act 1970.*
- *The dwelling must be connected to a reticulated potable water supply or have an alternative potable water supply with adequate storage for domestic use as well as for firefighting purposes.*
- *The dwelling must be connected to a reticulated electricity supply or have an alternative energy source*

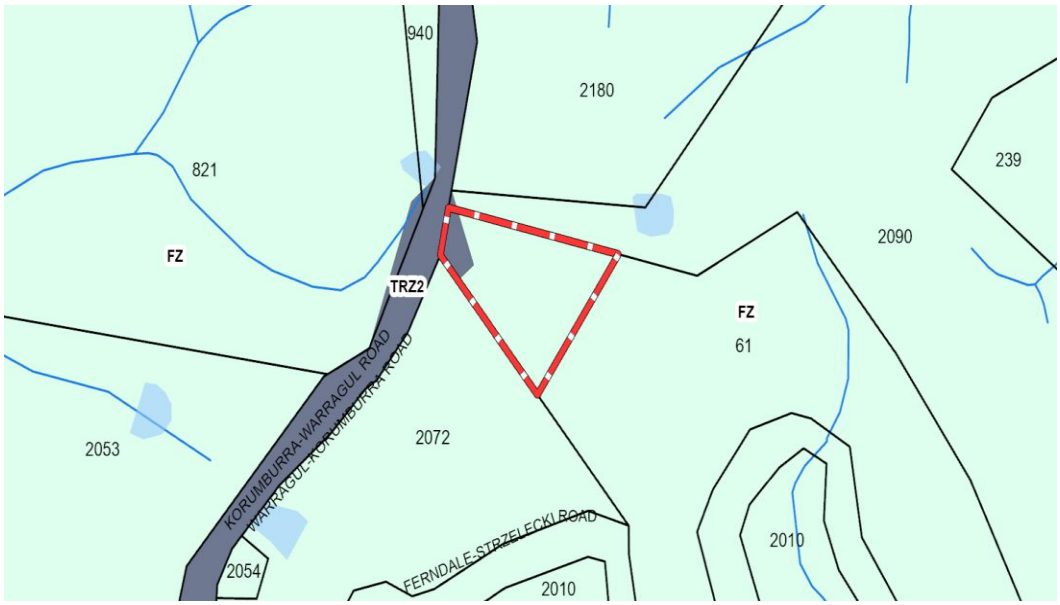


IMAGE 4 - Zone map for the subject site and surrounding land.

Response:

The existing crossover from Korumburra Warragul Road will continue to service the land and the proposed dwelling. The existing crossover has been maintained over the years and no changes or upgrades are required to the crossing, unless required by VicRoads. The internal access will be constructed with crushed rock to accommodate domestic, farm and emergency vehicles as required.

The proposed dwelling will be serviced by an onsite wastewater disposal system, connected to reticulated electricity services and will have portable water supply system. A detailed LCA is also attached to this application, after pre-application discussions were held with SGW.

Clause 35.07-4 Buildings and Works

The clause provisions states that a permit is required to construct or carry out any of the following (as relevant):

- A building or works associated with a use in Section 2 of Clause 35.07-1.
- A building which is within any of the following setbacks:
    - The setback from a dwelling not in the same ownership specified in a schedule to this zone.
    - 100 metres from a waterway, wetlands or designated flood plain.
- Permanent or fixed feeding infrastructure for seasonal or supplementary feeding for grazing animal production constructed within 100 metres of:

    - a waterway, wetlands or designated flood plain.
    - a dwelling not in the same ownership.

Response:

The proposed dwelling is located within 100m of the waterway to the west which triggers a Planning Permit under the clause provisions. Due to the sloping topography of the land, i.e. to the east, it is submitted that the waterway will not be affected by the proposed development or the wastewater management system.

Dut to the location of the proposed development and the size of the site, a setback of 100m from Korumburra Warragul Road cannot be achieved. However in response to this clause provisions, due to the existing vegetation and the topography of the land, the proposed dwelling will only be marginally viewed from the adjoining road.

It is further submitted that the proposal is more than 100m from any neighbouring dwellings.

Clause 35.07-5 Application requirements for dwellings:

An application to use a lot for a dwelling must be accompanied by a written statement which explains how the proposed dwelling responds to the decision guidelines for dwellings in the zone.

<u>General issues:</u>

- *The Municipal Planning Strategy and the Planning Policy Framework.*
- *Any Regional Catchment Strategy and associated plan applying to the land.*
- *The capability of the land to accommodate the proposed use or development, including the disposal of effluent.*

- *How the use or development relates to sustainable land management. Whether the site is suitable for the use or development and whether the proposal is compatible with adjoining and nearby land uses.*
- *How the use and development makes use of existing infrastructure and services.*

Response:

The proposed development achieves those policy aspirations of the Planning Policy Framework and the objectives of the Farming zone as it will result in an improved and more sustainable use of the agricultural land. The landowner currently commutes to the subject site to maintain the farm on a daily basis. Residing on the land will not only reduce the commuting hours but will also provide a permanent presence on site to maintain the farm and livestock which will improve the overall efficiency of the site's agricultural production.

The attached Land Capability Assessment demonstrates that the land is capable of accommodating an Onsite Wastewater Management system.

A detailed Farm Management Plan has been prepared in support of the application and is attached to this application. This report further details the capability of the site to accommodate the farming operations on an ongoing basis.

Agricultural issues and the impacts from non-agricultural uses:

- *Whether the use or development will support and enhance agricultural production.*
- *Whether the use or development will adversely affect soil quality or permanently remove land from agricultural production.*
- *The potential for the use or development to limit the operation and expansion of adjoining and nearby agricultural uses.*
- *The capacity of the site to sustain the agricultural use.*
- *The agricultural qualities of the land, such as soil quality, access to water and access to rural infrastructure.*
- *Any integrated land management plan prepared for the site.*

Response:

The intensification of the property through fruit tree propagation is an enhancement of the agricultural production and a desirable outcome for planning. The construction of a dwelling and other associated buildings is a necessary requirement for the success of the enterprise and an integral part of the enhanced agricultural production.

The land has been assessed to be suitable for the proposed enterprise, with fair drainage capabilities of soils, suitable position in the landscape, suitable climate, and good market access.

The landowner is proposing to continue expanding their farming operations on the subject land where fruit trees have been propagated in conjunction with their other farm holding which is being managed by the owner's son. The proposed dwelling will continue to support an enhanced land management program that will continue to provide a net gain benefit to agricultural production in the region.

It is not considered that the proposed use of the land for a dwelling will adversely affect soil quality or permanently remove land from agricultural production as the proposed building envelope is generally in accordance with Councils Policy (Clause 14.01-1L) and only a small portion of the land will be taken up by the proposed dwelling. The wastewater disposal system will also be subject to Councils approval.

The Farm Management Plan will ensure the site is being better utilised for a viable farming activity without causing amenity impacts to any adjoining landowners or occupiers.

Accommodation issues:

- *Whether the dwelling will result in the loss or fragmentation of productive agricultural land.*
- *Whether the dwelling will be adversely affected by agricultural activities on adjacent and nearby land due to dust, noise, odour, use of chemicals and farm machinery, traffic and hours of operation.*
- *Whether the dwelling will adversely affect the operation and expansion of adjoining and nearby agricultural uses.*
- *The potential for the proposal to lead to a concentration or proliferation of dwellings in the area and the impact of this on the use of the land for agriculture.*

Response:

The proposed dwelling will not result in fragmentation of agricultural land nor will lead to a concentration or proliferation of dwellings in the area as all other dwellings are well setback from the main roads and well nestled with the existing landscape and other farm buildings in this area.

The owners are aware of and courteous of the various issues involved with agriculture, such as noise, odours, dust, traffic, use of chemicals and hours of operation associated with activities on adjoining land.

As stated above, the location of the proposed dwelling will not have any adverse impact on the operation of the farming practices conducted on adjoining land.

Environmental issues:

- *The impact of the proposal on the natural physical features and resources of the area, in particular on soil and water quality.*
- *The impact of the use or development on the flora and fauna on the site and its surrounds.*
- *The need to protect and enhance the biodiversity of the area, including the retention of vegetation and faunal habitat and the need to revegetate land including riparian buffers along waterways, gullies, ridgelines, property boundaries and saline discharge and recharge area.*
- *The location of on-site effluent disposal areas to minimise the impact of nutrient loads on waterways and native vegetation.*

Response:

It is not considered that there would be any significant impacts on the natural physical features or resources of the area. There will be some minor earthworks conducted to create a flat platform for the proposed dwelling, however this would not exceed 0.8m in depth or height, in terms of cut and fill of the dwelling envelope.

It is understood that the wastewater management will also require an Onsite Wastewater Disposal Systems permit from Councils Health Department as part of the Building Permit process.

The location of the proposed development is not within an area which will result in ongoing erosion of soil. All disturbed areas will be finished with appropriate landscaping works which will further compliment the development onsite.

Design and siting issues:

- *The need to locate buildings in one area to avoid any adverse impacts on surrounding agricultural uses and to minimise the loss of productive agricultural land.*
- *The impact of the siting, design, height, bulk, colours and materials to be used, on the natural environment, major roads, vistas and water features and the measures to be undertaken to minimise any adverse impacts.*
- *The impact on the character and appearance of the area or features of architectural, historic or scientific significance or of natural scenic beauty or importance.*

- *The location and design of existing and proposed infrastructure including roads, gas, water, drainage, telecommunications and sewerage facilities.*
- *Whether the use and development will require traffic management measures.*

Response:

As stated in this report, the location of the dwelling has been carefully chosen to ensure it is compatible with the ongoing farming operations whilst maintaining a natural visual surveillance of the calving paddock. The location of the dwelling is also not on a ridgeline and nor would this impact on the character and appearance of the immediate area or features of architectural, historic or scientific significance or of natural scenic beauty of the neighbourhood. Only a small potion of the farm will be used for domestic purposes. The exterior colours and materials will also ensure that the proposed development bends in with the rural landscape of this area.

8. OVERLAYS:

The following overlays affect the subject land parcel:

8.1 Clause 45.06 Development Contributions Plan Overlay Schedule 1 (DCPO1)

The subject land parcel is affected by Development Contributions Plan Overlay Schedule 1 (DCPO).

IMAGE 5 - showing Development Contributions Plan Overlay Schedule 1 affecting the subject and surrounding land.

The purpose of this overlay is to identify areas, which require the preparation of a Development Contributions Plan for the purpose of levying contributions for the provision of works, services and facilities before development can commence.

Response:

It is noted that a levy will be applicable to the proposed dwelling and a condition requiring a DCP levy will be implemented by Council if a permit is issued.

8.2 Clause 44.01 Erosion Management Overlay (EMO)

The purpose of the overlay provision is to:

- *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
- *To protect areas prone to erosion, landslip, other land degradation or coastal processes by minimising land disturbance and inappropriate development.*

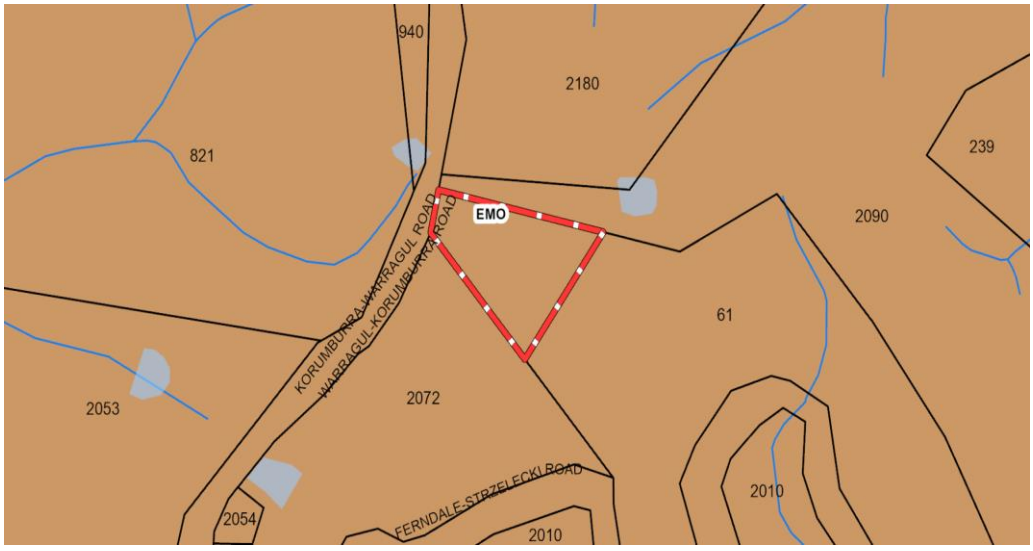


Image 6 – subject site and surrounding areas located within Erosion Management Overlay.

The erosion management objectives to be achieved includes as follows:

- *To ensure development manages the risk to life and property in areas identified as susceptible to landslip, landslide and slope degradation.*
- *To ensure that applications for development are supported by adequate investigation and documentation of geotechnical and related structural matters.*
- *To ensure that development is designed and carried out in accordance with the recommendations of expert geotechnical risk assessments where appropriate*.

The clause provisions acknowledges that parts of Baw Baw Shire are susceptible to landslip, landslide and slope degradation. The type of landslides that have previously occurred in the Shire have presented a risk to life and property.

Under Clause 44.01-2 and Schedule 1 Clause 3 of the overlay provisions, a permit is not required to construct or carry out the following buildings or works associated with a dwelling:

- *Buildings and works where the natural ground level of the impacted area has an average slope less than 20 per cent (1 in 5). The impacted area includes all lands where soil is disturbed and a 50m radius from the site of soil disturbance.*

Response:

A site cut on the south side of approximately 0.8m is proposed to create a flat foundation.

As the orientation of the dwelling is in an east-west direction, so as to take advantage of the contours of the land as proposed with the application, has resulted in requiring only minor site cut and fill.

In addition to this, we further submit that the impacted area within a radius of 50m from the proposed dwelling envelope does not exceed 20%, i.e. 1 in 5.

We therefore submit that the proposed development is generally in line with the overlay clause provisions and given that the site cut and fill does not exceed 1m, the overlay does not trigger the need for a Planning Permit.

- *Earthworks, either separately or as part of a buildings or works proposal, provided: – No cut or fill greater than 1 meter in height or depth is required. – No change is made to constructed drainage or fixed irrigation systems.*

Response:

No further earthworks would be required to be carried out as part of this application which would exceed 1m in depth or height.

- *Removal or destruction of any vegetation, either separately or as part of a buildings or works proposal.*

Response:

No vegetation is proposed for removal as part of this application.

For the reasons as explained above, it is submitted that the EMO provisions in this case is not a permit trigger and any requirements relating to this overlay be waived.

8.3 Clause 42.01 Environmental Significance Overlay Schedule 2 (ESO2)

The overlay affects part of the site as shown in the image below.

The objective of the overlay is to protect and maintain water quality and quantity in Special Water Supply Catchment areas used for human consumption, domestic, industrial and rural water supply, while facilitating appropriate development within the Catchment.

Image 7 – subject site and surrounding areas located within Environmental Significance Overlay Schedule 4.

Under Clause 42.01-2 and Schedule 2 Clause 3 of the overlay provisions, a permit is not required to construct the following buildings or to construct or carry out the following works:

- Buildings and works where they are located more than 100 meters from a waterway and/or more than 300 metres from a water supply reservoir or potable water supply take-off structure, other than:
    - Buildings and works that will generate waste water or effluent requiring a permit under Section 53L of the *Environment Protection Act 1970* (to construct, install or alter a septic tank system),
    - Buildings and works associated with the use of land for intensive animal husbandry or industry.

Response:

A planning permit is required as the proposed dwelling as the dwelling is located within 100m of a water way to the west. However, at approximately 64m it is deemed to be a satisfactory distance and will be separated by Korumburra Warragal Road. No sediments or run off are likely to enter the waterway, particularly as the site slopes in the opposite direction.

It is therefore submitted that the proposal will not adversely affect the water quality of the adjoining waterway. A Land Capability Assessment is also attached in response to this overlay and as per advice sought from South Gippsland Water.

9. PARTICULAR PROVISIONS

There are no Particular Provisions, which is directly relevant to the consideration of this application.

10. CONCLUSION:

It is submitted that the application generally conforms with the provisions of the Baw Baw Planning Scheme. The Planning Report and Farm Management Plan submitted as part of this application responds to the Planning Policy Framework, Zone and Overlay provisions and will result in an improvement to the agricultural values of the subject land parcel.

The land will continue to be used for agricultural purposes and the proposed dwelling will be occupied by the landowner who will oversee the farming operations.

It is requested that Council issues a Planning Permit in support of the application for the *use and development of the land for a dwelling with associated agricultural activities subject to conditions*.

11. Site Photos

Image 8 – view of the orchard onsite

Image 9 – view of the orchard onsite

Image 10 – view of the orchard onsite

Image 11 – view of the orchard onsite

Image 12 – view of the orchard onsite

Image 13 –water tank fed from the dam.

Image 14 – existing farm dam and wethers onsite

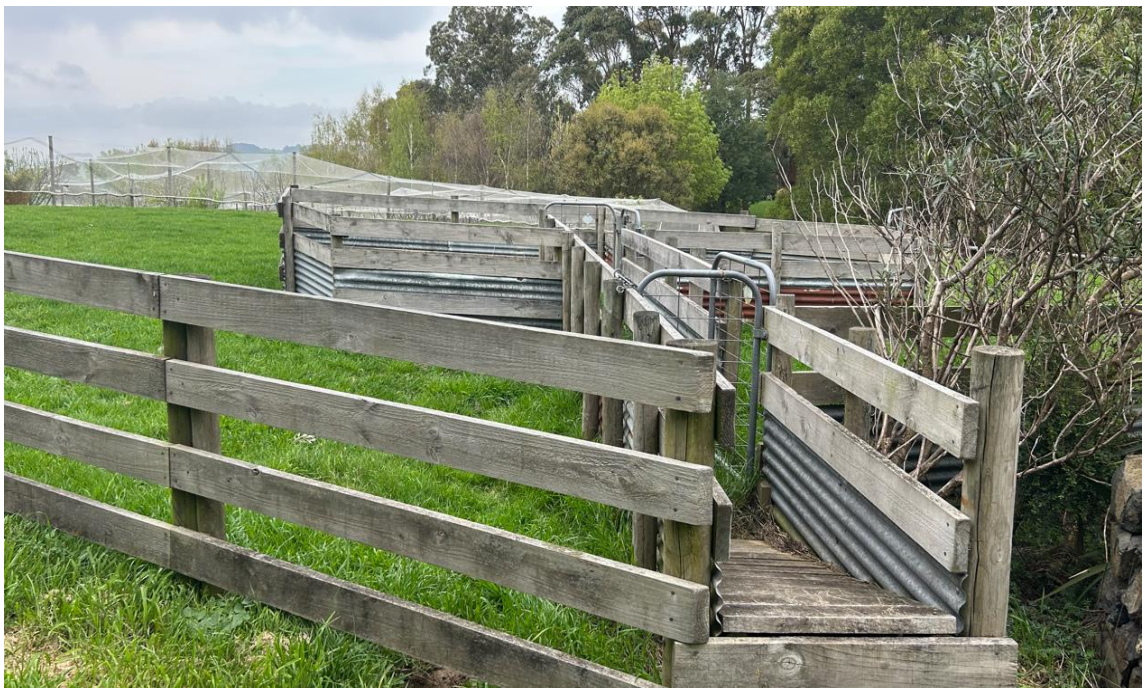


Image 15 – animal ramp onsite

Image 16 – location of the proposed dwelling and shed – looking north

Image 17 – location of the proposed dwelling and shed – looking east