Moorabool
Shire Council

ATTACHMENTS

Development Assessment Committee Meeting

Under Separate Cover

Wednesday, 16 April 2025

Table of Contents

CUMBRE

FARM MANAGEMENT PLAN QUINLANS

Address: Powells Road, Bullarook, 3352

Lot and Plan Number: Lot 2 LP128379

Local Government (Council): Moorabool

Council Property Number: 295850

Directory Reference: VicRoads 76 H2

LOT 2 LP128379, BULLAROOK

5th of April, 2024

Gavin Beever,
Director
Cumbre Consultants P/L

cumbre.com.au

TABLE OF CONTENTS

INTRODUCTION

Cumbre Consultants have been commissioned to assist in the production of a Farm Management Plan to support a fifth generation family farming business with permission to carry out a re-subdivision, to enable the construction of a dwelling to assist in succession planning and for effective and efficient farm management, see Figures 1, 4 and 5.

The owner of the site, Neville Quinlan together with his son Tom Quinlan, actively manage and operate the family farming enterprise across within the Moorabool Shire with a combined total area of approximately 246.25Ha in area, see Figure 2. The proposed re-subdivision will centralise a dwelling for Tom in the middle of their largest land holding.

Figure 1 – Aerial view of the subject site

Tom Quinlan has been back on the farm for ten years and is transitioning into the farm management role and needs to be on farm to ensure effective and efficient property management. They farm potatoes (producing over 7,000 tonnes per year), canola, pyrethrum, turnips, rape, lucerne, oats, hay and produce prime lamb and beef cattle. This site is home to red ferrosol soil, one of the most productive soils in Australia, which makes up only 2% of Victoria. It is a key soil for the potato industry. With re-subdivision both lots will continue to support intensive agricultural production. The business is a large scale farm business, employing five people full time (including Neville and Tom) and six additional seasonal employees.

The proposed development has been designed to make use of the existing access. Lot 1 is in an area that cannot be irrigated and is the driest and stoniest part of the property, see Figures 3 and 5. The re-subdivision also avoids any impact on native vegetation and the dry stone wall, see Figures 9 and 10. It also creates a development precinct with an adjoining small property that has a dwelling and shedding, this assists in maintaining visual amenity and best optimises the site for use as part of the overall farming business, see Figures 2. It also consolidates all of the irrigation area, dam, irrigation infrastructure and existing shedding all on the one Lot, proposed Lot 2, see Figure 2. The two existing Lots currently divide the infrastructure in two, right through the middle of the irrigation dam, see Figures 4 and 5.

Figure 2 – Farm business locations with the subject site shown by the red star

The farm business is evolving and undergoing intergenerational change. The re-subdivision and subsequent development of a dwelling and farm shed on proposed Lot 1 are critical to the implementation of the succession plan and ensuring the ongoing future for the farm business.

The plan of re-subdivision for the subject site has taken into account the characteristics of the site and the overall farm business. Tom needs a home on the farm as he transitions into managing the overall farm business, the home will be close to the irrigation infrastructure, potato sorting and transporting sheds and the proposal will also include much needed additional shedding, see Figures 4 to 9.

The subject site contains a large dam and irrigation pumps and infrastructure, which the house will provide critical onsite management for; which will make the management of this infrastructure much for efficient and effective. The dam and associated infrastructure provides a critical irrigation supply for several of the family's farming properties and it is imperative that the dam is protected. The dam has multiple pumping points and the pumps are moved to suit the irrigation requirements of the farm business at particular points in time, this will be much easy to manage with Tom living close by, see Figures 6 to 8.

The dam is currently cut in two across two parcels (see Figure 4) and with the proposed re-subdivision, the dam will be wholly contained within the one larger lot, see Figure 5. Also, being a re-subdivision, there is no net gain in lots and importantly, Tom will be able to own his own home.

The proposed re-subdivision will result in the following:

- Lot 1 is proposed to be 1.5Ha in area, with a frontage onto Powells Road of 150m and depth of 100m and will include the new dwelling and farm shed.
- Lot 2 is proposed to be 38.45Ha in area with a frontage onto both Powells road and Clarkes Hill Road and will consolidate all of the productive agricultural land, the dam, critical irrigation infrastructure and important farm shedding used for the potato enterprise, all into the one Lot, see Figures 4 and 5.

Figure 3 – Proposed building envelope

The access for proposed Lot 1 will be via an existing access point, see Figures 10 and 11. There is one indigenous tree on the proposed lot that will be retained and protected under this proposal, see Figure 12.

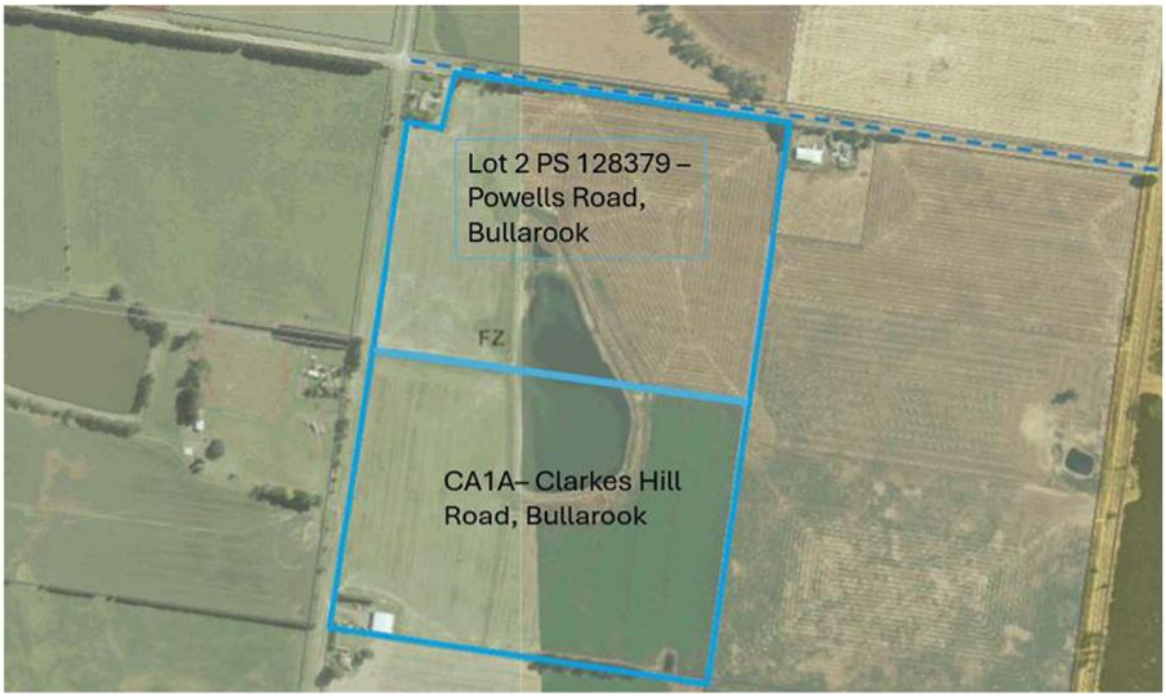


Figure 4 – Existing parcel configuration

This Farm Management Plan includes:

1) A site plan showing:
   - Proposed buildings;
   - Domestic zone;
   - All paddocks and internal fencing (an agricultural zone);
   - Water storage;
   - Water supply for domestic purposes and firefighting;
   - Native vegetation;
   - The allotment numbered in zones, e.g. domestic zone, agricultural zone;
   - An indigenous species list including scientific and common names;
   - A weed list including scientific and common names.
2) A written summary for each zone in accordance with the site plan. The summary also includes a list of specific management requirements to be undertaken in each zone, which corresponds with action tables.
3) Weed management strategies include the following:
   - A weed list including species by common name and scientific names;
   - Methods of control;
   - Timing of control;
   - Frequency of control;
   - Monitoring;
   - Weed management table for a 5-year period and recommendations for post five years;
4) Pest animal control and treatment measures particularly for foxes and rabbits includes:

- Evidence found on site of pest animals such as burrow/dens, scats, diggings, etc;
- Approaches to integrated pest animal management;
- Monitoring techniques;
- Timing of treatment/control.

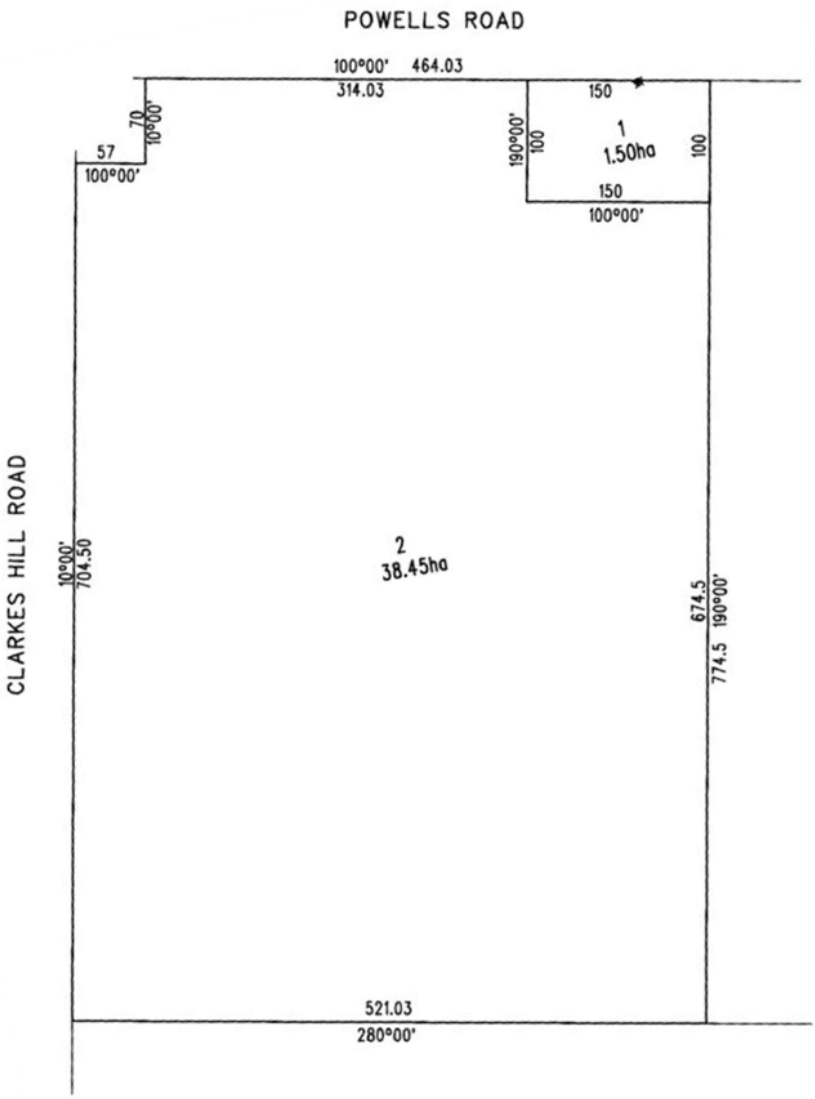


Figure 5 – Proposed parcel configuration

Figure 6 – Dam that will be on proposed Lot 2

Figure 7 – Example of the irrigation infrastructure that will be able to be managed efficiently with close by onsite management

Figure 8 – Example of the irrigation infrastructure that will be able to be managed efficiently with close by onsite management

Figure 9 – Shedding that will be on proposed Lot 2 that can be utilised efficiently with close by onsite management

Figure 10 – Existing access for proposed Lot 1

Figure 11 – Existing access and Powells Road frontage for proposed Lot 1

Property Land Use History and Zoning

The property is located within the Moorabool Shire. The following Planning scheme overlays relate to this allotment:

- Farming Zone and Schedule to the Farming Zone.
- Design and Development Overlay (DDO) and Schedule 2 (DDO2)
- Environmental Significance Overlay and Schedule 1 (ESO1)
- The property is within a Designated Bushfire Prone Area

The Moorabool Shire recognises the importance and economic significance of rural areas and is currently developing a Rural Land Use Strategy.

In this planning context, this development proposal represents an opportunity to assist a fully commercial, large scale, fifth generation family business in the Shire, implement a succession plan, improve its layout and help secure its long term future.

Figure 12 – Yellow Box (Eucalyptus melliodora) that will be protected on proposed Lot 1

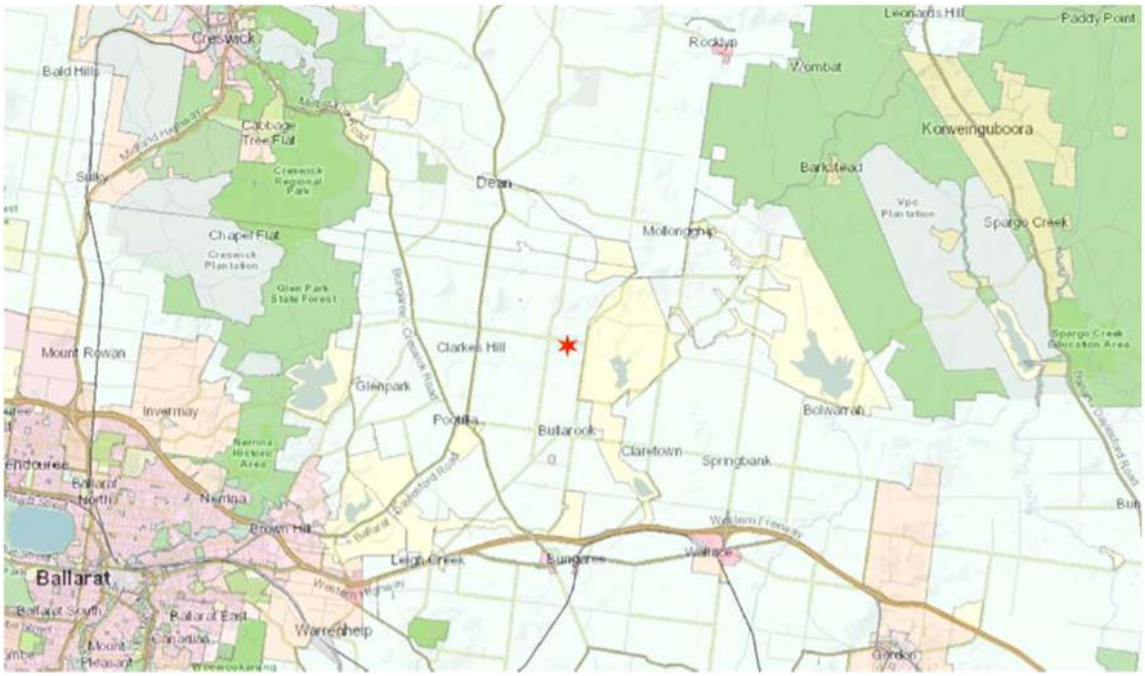


Figure 13 – Locality (Subject site indicated by the red star)

Property Land Use History

The property is located within the Moorabool Shire. Prior to European settlement it would have been a low to medium height forest tending to an open, eucalypt woodland to 20 m tall.

For tens of thousands of years, the area was part of tribal area Wadawurrung and Dja Dja Wurrung People.

The Taungurung and Dja Dja Wurrung people are one of five adjoining tribes which make up the Kulin Nation, their territory spanning large tracts of central and eastern Victoria. The five tribes of the Kulin Nation are:

- The Wurundjeri People
- The Bunurong People
- The Wathaurong People
- The Taungurung People
- The Dja Dja Wurrung People

European settlers came to the area in 1837 and a pastoral run was taken up in 1838. Gold was discovered in 1851 which led to a gold rush which dramatically changed the district. A school was opened at Bullarook in 1859. Bullarook is at the southern limit of the Bullarook Forest which extended to an area between Daylesford and Creswick. Much timber was taken from the forest for building and mining purposes, leaving good agricultural land in the foothills. Bullarook had both mining and agriculture in the 1860s.

Ballarat is a very important potato growing area. Victoria makes up 21% of Australia's potato production with processing potato production being centred in the Ballarat region with Victorian seed production in the Thorpdale, Ottways and Portland areas. Victoria also accounts for a large proportion of the total Australian seed potato crop. East and West Gippsland produce fresh market potatoes.

Potatoes were aboard the ship of explorer James Cook when he claimed eastern Australia for Britain in 1770, and their cultivation began along with colonisation 18 years later. Ballarat has a long association with potato growing on the rich volcanic soils, such as this property. Early in the 1900s Canadian Andrew (A.D.) McCain saw an opportunity to expand beyond farming and selling potatoes locally. The result was McCain

Produce, a seed potato export company, established in 1909. McCain's Australia is headquartered at Ballarat, Victoria where it has grown substantially and now operates a plant (frozen potato products, pizza and meals).

Development Objective

To re-subdivide two Lots to consolidate the prime agricultural land and associated infrastructure on one Lot and provide a farm management residence to help facilitate the farm succession plan and effective farm management on a smaller Lot, on land that has the lowest agricultural productivity potential.

METHOD

Data and Literature Review

The following resources and databases were reviewed as part of a desktop assessment:

1) NatureKit previously the Biodiversity Interactive Maps (DEPI 2013/DELWP 2018) for the extent of historic and current EVCs, and the location of sites of biological significance within the region;
2) Native Vegetation Information Management System (DEPI 2013/DELWP 2021);
3) Planning Schemes Online maps (DELWP 2021) for current zoning and planning overlays applicable to the study area;
4) Aerial photography of the study area;
5) Relevant state legislation, policies and guidelines;
6) Victoria resources online (landform, geology and soils), (Department of Economic Development, Jobs, Transport & Resources 2021);
7) Victorian Geological Survey;
8) Corangamite Catchment Management Authority;
9) A Study of Land Capability in the Shire of Bungaree (1979).

Field Survey

A site assessment was undertaken on the 27th of March 2024; to identify current land use, adjacent land use, flora and fauna values, landform, geology, soil types, infrastructure, environmental features and risks within the study area and immediate surrounds.

The study area was traversed by vehicle and on foot and land condition and vascular plants were recorded. An aerial photo was used. The land use (on site and adjacent), geology, landform and overall condition of the soils and vegetation were noted.

Background in Land Management

Please see Appendix 2: Curriculum Vitae, which provides background on the expertise of the author – Mr Gavin Beever.

PROPERTY CHARACTERISTICS

This ~40ha property is ~100% cleared of native vegetation, see Figure 14. It is located ~1.7km northwest of Bullarook and ~12km northeast of Ballarat, see Figure 13.

The property is in a highly productive agricultural area and is significantly modified with introduced species. It is made up of a gently undulating country at an elevation of 620m to 630m. It drains in a southeasterly direction and it is in the northern most portion of the Corangamite Catchment, see Figure 14.

Figure 14 - Contour map of the property

The property is in the Victorian Volcanic Plain Bioregion and is mapped as Ecological Vegetation Class (EVC) 55, Plains Grassy Woodland, with a Bioregional Conservation Status of endangered and EVC 23 Herb Rich Foothill Forest with a Bioregional Conservation Status of vulnerable, see Figures 15 and Appendix 1.

This property is dominated by introduced species as it is highly productive agricultural land and is not representative of the Ecological Vegetation Class. The land is stable from a land degradation perspective, other than having some minor weed infestations. See Figures 16 to 18, which show the character of the property.

Figure 15 – Ecological Vegetation Class

Figure 16 – Looking south across the property from the northern boundary

Figure 17 – Looking west along the northern boundary from the building envelope of proposed Lot 1

Figure 18– Looking east along the northern boundary

Climate

The local climate of the district is 'semi-arid' or 'Mediterranean' in character, so that, generally speaking, the winters are cool and wet, whilst the summers are warm and drier. The highest probability of violent electrical storms exists in summer and these can often yield high intensity downpours (Lorimer and Schoknecht 1987).

The autumn break of rain supplies soil water which accumulates in the wetter months, to be drawn upon by the vegetation during warmer periods.

Climatic extremes take many forms and examples for which information is available include heavy rainfall, frost, hail, drought, heat, bushfires and dust storms.

The median rainfall is 863mm and the growing season is on average from April to November (8 months), see Figure 19 and Table 1. These are the months when rainfall reliably exceeds the rate of evapotranspiration (>50% of the time), this is also referred to as months of effective rainfall.

Effective rainfall is when there is enough to enable plant germination and to sustain plant growth. Evapotranspiration is an estimate of moisture lost from a fully vegetated area, where soil moisture is not limiting, (Source VRO Agriculture Victoria).

The coldest months are June, July and August and they are also the wettest. The hottest and driest are January and February, see Figure 19 and Table 1.

Table 1. Rainfall Data for Bungaree (Kirks Reservoir), ~8km from the property, records kept since 1881

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Mean	48.5	46.2	49.3	65.1	81.4	84.0	83.6	93.6	86.9	81.3	68.7	58.6	848.2
Lowest	1.6	0.0	2.6	0.0	0.8	17.8	27.4	24.6	23.4	2.0	5.5	4.0	419.7
5th %ile	4.9	4.0	9.3	17.4	26.6	29.0	38.5	38.6	35.7	23.6	19.0	14.2	605.4
10th %ile	9.5	6.1	14.8	19.4	33.6	38.7	46.2	47.5	44.3	31.7	25.4	17.7	648.8
Median	42.0	35.3	43.0	62.1	76.3	82.6	82.0	94.4	82.4	79.8	65.2	47.5	863.1
90th %ile	94.7	109.8	97.1	113.2	129.6	124.8	117.7	134.7	137.6	127.5	126.0	109.0	1033.8
95th %ile	134.7	124.8	109.6	137.4	147.9	137.4	135.1	149.4	149.5	143.9	135.0	127.5	1101.2
Highest	205.4	276.0	167.8	173.6	196.8	208.0	211.2	208.9	212.2	228.1	169.4	161.6	1195.9

Source: The Australian Bureau of Meteorology

Victoria is divided up into eight climatic zones: Climate zone 1 - High humidity summer, warm winter. Climate zone 2 - Warm humid summer, mild winter. Climate zone 3 - Hot dry summer, warm winter. Climate zone 4 - Hot dry summer, cool winter. Climate zone 5 - Warm temperate. Climate zone 6 - Mild temperate. Climate zone 7 - Cool temperate. Climate zone 8 - Alpine. This property is in climatic zone 7 – Cool temperate, see Figure 20.

The area is susceptible to severe frosts anytime from May to September. December, January and February are the only months that are reliably frost free.

Frost causes the plant's cells to shrink, forcing water into spaces between the cells, where it can freeze and form ice crystals. As temperatures rise and thawing begins, the water is absorbed back into the cells by osmosis. If this occurs quickly there is no damage to the tissue, but if thawing is slow, the cells are deprived of water and become dehydrated resulting in 'frost burn' and even plant death. Frost tolerant plants are those that can survive temperatures down to -5C and several frosts in a row.

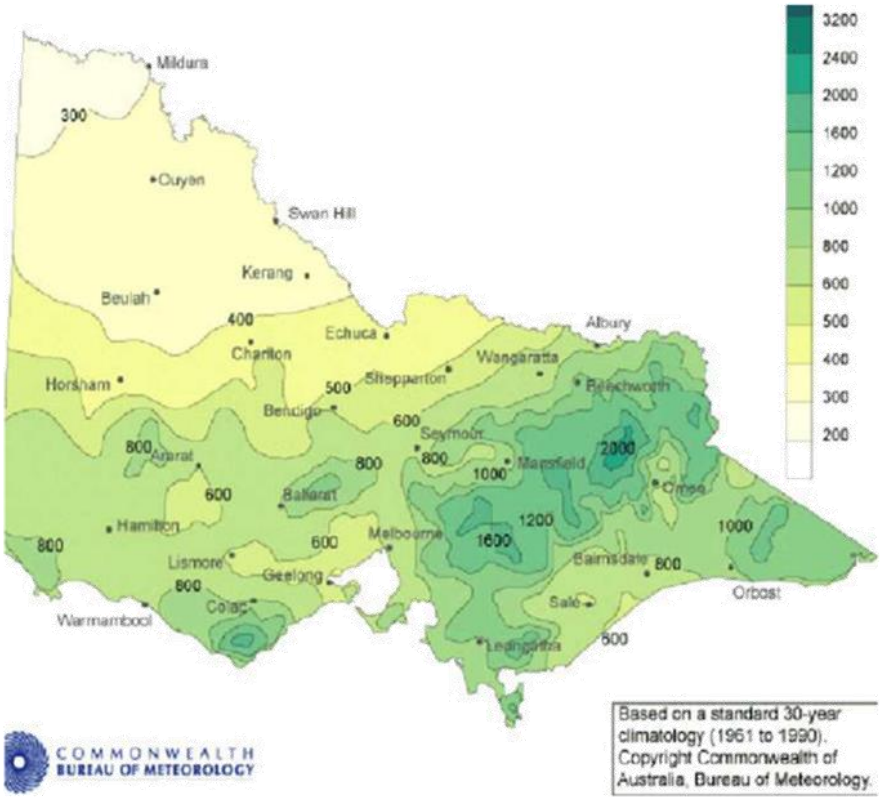


Figure 19 - Victorian average rainfall zones

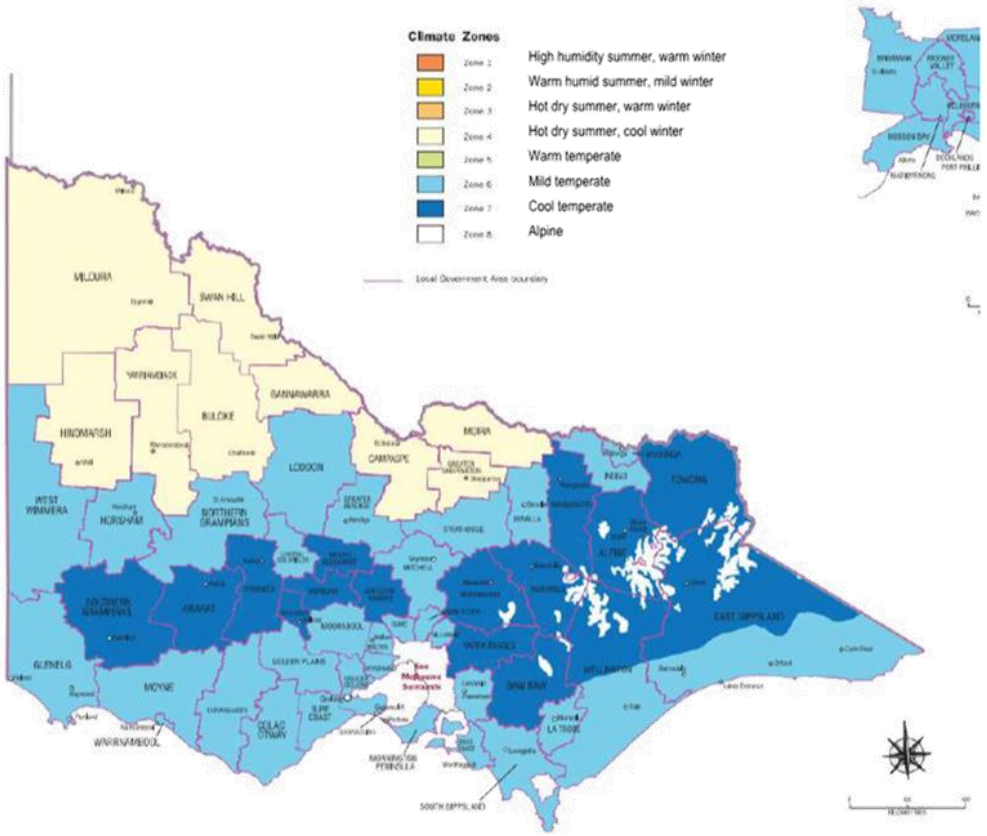


Figure 20 - Victorian Climatic Zones (Source Australian Bureau of Meteorology)

LANDFORM, GEOLOGY, SOILS AND TOPOGRAPHIC FEATURES

Understanding the land resource, its condition and inherent capability, provides the basis for sustainable land use. A collection of information to support land management and land use planning programs has been based on a Land Systems Approach. Land Systems are derived by integrating environmental features including geology, landform, climate, soils and native vegetation, using an ecological approach (Christian & Stewart 1946, Rowe 1984).

The property was mapped as part of a Study of Land Capability in the Shire of Bungaree (1979). It is mapped as Qbr, see Figures 21 and 22 and Table 2. This mapping unit is gently undulating terrain on Pleistocene basalt geology.

LANDFORM

The landform is a gently undulating plain and the land management risks for this landform are identified as sheet and wind erosion, if the soil is left bare, and nutrient decline over time.

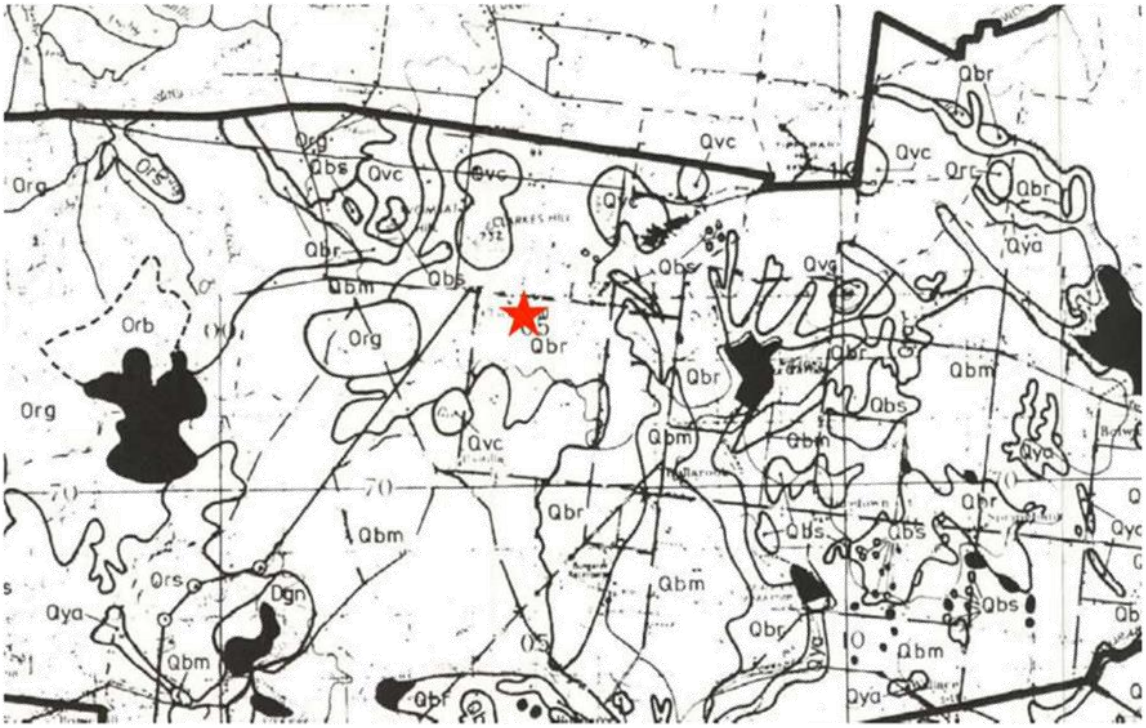


Figure 21 – Land systems map, the property location is shown by the red star[1]

[1] https://vro.agriculture.vic.gov.au/dpi/vro/coranregn.nsf/pages/corangamite_landsystems_bungaree

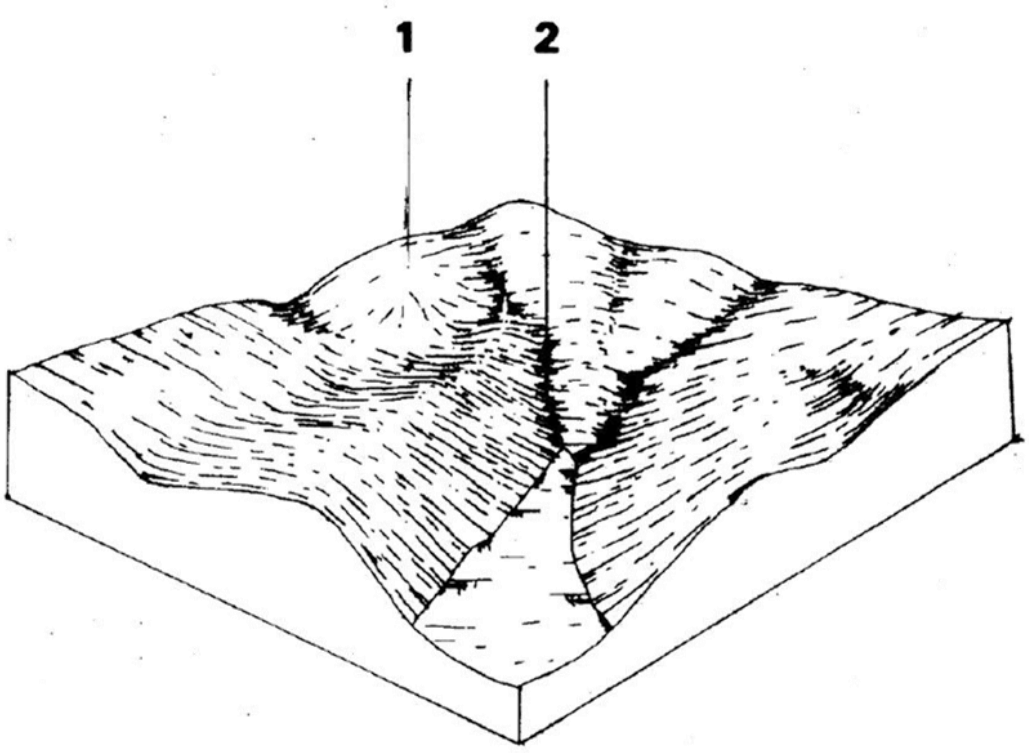


Figure 22 – The property is land component 1 of Qbr

Table 2 – Qbr Land System Described (The property is in component 1)

COMPONENT	1	2
Proportion %	96	4
CLIMATE (Average) Rainfall mm	780 - 840	
*Temperature °C	Average annual 12°C	
*Seasonal growth limitations	Temperature less than 10°C May - September	
GEOLOGY Age, rock	Pleistocene, basalt	
TOPOGRAPHY Landscape	Undulating plains north of the Shire	
Elevation (range) m	660	
Local relief (av.) m	5	
Drainage pattern	Dendritic	
Drainage density km/km²	1.6	
Land form	Undulating plain	
Position on land form	Gentle slope	Depression
Slope (av.) %, slope shape	1-6 ; Convex-	1-2 ; Straight
NATIVE VEGETATION Structure	Open forest	
Dominant species	*E. viminalis, E. radiata, E. obliqua*	
SOIL Parent material	In-situ weathered rock and unconsolidated sediments	
Description	Red gradational soil, fine structure	Mottled yellow duplex soil, coarse structure
Surface texture	Clay loam	Clay loam
Permeability	High	Moderate-low
Depth (av.) m	2	1.5
LAND USE	Cropping (potatoes), grazing	Grazing, cropping (cereal)
SOIL DETERIORATION Critical land features	Slopes	Low permeability, hard setting surfaces
Processes	Overland flow, leaching	Waterlogging
Forms	Sheet erosion, wind erosion, nutrient decline	Compaction

Adjoining and District Land use

There are properties being used for fully commercial agriculture and rural living, see Figure 9.

Geology

The geology of the property is mapped as being Qvn2, see Figure 25.

Qvn2 – Pliocene Epoch (1.6 million years ago to 5.3 million years ago), new volcanics, sheet flow basalts: Numerous superimposed flows with interbasaltic sediment; vents are generally discernible, lateral streams developed, positively magnetized; dominantly weathered tholeiite to mildly alkalic olivine-basalt.

Figure 25 – Geology map of the area is mapped as sheet flow basalts (Qvn2)

SOIL TYPE

Red Ferrosols are common on the basalt plains and rises to the east of Ballarat. These soils are friable and well-structured and are most frequently used for cropping. They are a very important soil type for the potato industry. In some areas they can be quite stony. Red Ferrosols are easy to manage because of their highly stable aggregates that segregate easily and resist deformation upon cultivation. Red Ferrosols are not an extensive soil in Victoria, occupying only ~2% of the land area. These soils display a gradual increase in texture (clay content) with depth. Surface soils are often clay loams that grade into light clays in the subsoil. Their well-developed structure provides plenty of opportunity for water, air and root movement. These soils are considered to be very well structured and attractive for agriculture, under intensive cropping care to prevent erosion and compaction and addressing of acidification over time, may be required. The soils on this property are stable.

Table 2: Majority Limiting Features of Soils on the Block

Erosion	Sheet and wind erosion if left bare. (There is good cover on this property).
Nutrient Decline	These highly productive soils, lose nutrients as produce is produced and require nutrient input over time

Figure 26 – Soil on the property

LAND CAPABILITY CLASSIFICATION

The property is rated as Class 1 - can sustain a wide range of uses, including an intensive cropping regime. Very high levels of production possible with standard management practices.

The property is well suited to the proposed land use and the consolidation of agricultural resources into Lot 2 and the construction of an appropriately sited dwelling on an area of the lowest quality land on the property, which will help the business transition and the continued development of the farm on proposed Lot 1.

The dam area is Class 5, it is being used for water storage and irrigation infrastructure and is not an area of soil borne agriculture.

Table 3: Land Capability Classes Explained

CLASS	CAPABILITY	DEGREE OF LIMITATION
Class 1	Very good	Can sustain a wide range of uses, including an intensive cropping regime. Very high levels of production possible with standard management levels.
Class 2	Good	Moderate limitations to agricultural productivity, overcome by readily available management practices.
Class 3	Fair	Can sustain agricultural uses with low to moderate levels of land disturbance such as broad acre cultivation in rotation with improved pastures. Moderate to high levels of production possible with specialist management practices such as minimum tillage.
Class 4	Poor	Low capacity to resist land disturbance such as cultivation. Moderate production levels possible with specialist management such as improved pasture establishment with minimum tillage techniques. Recommended for low disturbance agriculture such as grazing or perennial horticulture.
Class 5	Very poor	Very low capability to resist disturbance. Areas of low productive capacity. Minimal grazing levels or non-agricultural uses recommended.

Note: Land is assessed for agricultural production on the basis of climate, topography, and the inherent characteristics of the soil. Climate differs from topography and soil features in that it is a regional parameter rather than site specific. The capability table identifies the versatility and potential productivity of an area for a range of agricultural uses, and highlights the necessary level of management required to sustain the land use. E. Jones, G. Boyle, N. Baxter and M. Bluml (1996)

Table 4: Potential water limited yield of annual pasture dry matter production

Rainfall Decile	Growing Season Rainfall mm	Less 30mm for evaporation	Potential Kg dry matter/ha	Pasture Utilisation 35%	Potential DSE/ha
Decile 9 – Above Average (Best 10% of years)	1,011mm	981mm	29,430kg	10,300kg	29
Decile 5 – Average Season	625mm	595mm	17,850kg	6,248kg	18
Decile 1 – Below Average (Worst 10% of years)	287mm	257mm	7,710kg	2,699kg	7.5

Bolger TP, Turner NC (1999) 'Water use efficiency and water use of Mediterranean annual pastures in southern Australia'. Rainfall data calculated from the Bureau of Meteorology Data for Bungaree

The property has a high carrying capacity potential from a livestock grazing perspective, see Table 4. 18DSE/ha or 7.5DSE/acre in an average season. Dry Sheep Equivalent (DSE) is a standard unit frequently used in Australia to compare the feed requirements of different classes of stock or to assess the carrying capacity and potential productivity of a given farm or area of grazing land.

The unit represents the amount of feed required by a two-year-old, 45 kg (some sources state 50 kg) Merino sheep (wether or non-lactating, non-pregnant ewe) to maintain its weight. One DSE is equivalent to 7.60 megajoule (MJ) per day.

VEGETATION ASSESSMENT

The NVIM NatureKit have mapped the property as lower quality vegetation. Upon site inspection, there is virtually no native vegetation on the property, there is one medium size Yellow Box, see Figure 12.

In Victoria, the condition of native vegetation at a site is measured using the Vegetation Quality Assessment (VQA) method. The VQA results in a habitat score (out of 100) as a percentage of the benchmark.

A model is generated to determine a condition benchmark of vegetation types in Victoria. The condition benchmarks include environmental attributes for each vegetation type across Victoria. Attributes of vegetation types in very good condition are used to establish the pre1750 condition benchmarks.

The condition benchmarks for each vegetation type are then extrapolated to all locations where that vegetation type would have existed. All locations across Victoria are assigned a vegetation type with condition benchmark scores. The Strategic Biodiversity Value is determined by using the information on the vegetation, coupled with information on fauna and the relative biodiversity importance of the Victorian Landscape, (DELWP, 2017).

Sustainable land management involves managing land without damaging natural processes. Sustainable land management is the aim of the property owners, managing the property to keep it stable from a land degradation perspective.

The property has no areas that are representative of its original Ecological Vegetation Class. This is highly productive agricultural land and the strategic biodiversity is very low 0 – 0.05 of the benchmark.

The Victorian Volcanic Plain, located in west Victoria, is dominated by Cainozoic volcanic deposits. These deposits formed an extensive flat to undulating basaltic plain with stony rises, old lava flows, numerous volcanic cones and old eruption points and is dotted with shallow lakes both salt and freshwater. Numerous volcanic cones dot the landscape with scoria cones being the most common (e.g. Mt Elephant, Mt Napier and Mt Noorat) although some basalt cones are present (e.g. Mt Cottrell).

Soils are generally shallow reddish-brown to black loams and clays. They are fertile and high in available phosphorous. Older flows in the Cressy and Hamilton areas have allowed a greater development of deep soils. Dark saline soils occur around the margins of some lakes.

The soils are variable ranging from red friable earths (such as this property) and acidic texture contrast soils (Ferrosols and Kurosols) on the higher fertile plain to scoraceous material, and support Plains Grassy Woodland and Plains Grassland ecosystems, as was once on this property. Due to high agricultural potential and the stable nature of the property, it is well suited to continuing under an agricultural land use.

Table 5. Indigenous species observed on site

Species	*Common Name*
Eucalyptus melliodora	*Yellow Box*
Juncus spp	*Rushes*

Weeds

The owners have a weed management program, which will continue to maintain the property as noxious weed free, blackberry is the main noxious week problem in the area and the owners have an active control program in place. A number of non-indigenous species were identified, see Table 6.

Table 6. Pasture/Weed Species Observed on the Property

Species	Common Name
Arctotheca calendula	*Cape weed*
Avena spp	*Wild oats*
Bromus spp	*Brome grass*
Cynodon spp	*Couch grass*
Ehrharta spp	*Veldt grass*
Foeniculum vulgare	*Fennel*
Hypochoeris radicata	*Cat's ear*
Plantago coronopus	*Buck's horn plantain*
Lolium spp	*Ryegrass*
Paspalum spp	*Paspalum*
Cirsium vulgare	*Spear thistle*
Rumex spp	*Dock*
Sonchus oleraceus	*Milk thistle*
Trifolium spp.	*Clover*

Weed Management Plan

1) Maintain a 25m weed free buffer zone around the property boundary, to prevent any weed incursions.
2) Monitor and remove seedlings from any controlled areas. In particular young, isolated plants will be removed before they set seed.
3) Control is best achieved when weeds are actively growing in spring and early summer.
4) Monitor and control weeds on an ongoing basis with spot spraying and mechanical removal if new weeds are detected.

PEST ANIMALS

Rabbits and evidence of rabbits were not observed; the aim of the owner is to control rabbits and maintain the property as near as possible to rabbit free.

Rabbit Management

1. Nighttime spotlight counts will be conducted, focusing on likely rabbit harbour. Gorse thickets, around wood heaps, sheds and buildings.
2. Rabbit control will be focused on the most cost-effective period of late summer and early autumn, when breeding has generally ceased in the rabbit population.
3. Biological control and natural mortality will be allowed to continue.
4. Any rabbit harbour will be removed and warrens destroyed (i.e. ripped).
5. Fumigation and further warren destruction will be carried out.

Foxes (*Vulpes vulpes*) are opportunistic predators and scavengers and have few natural predators in Australia. Red foxes pose a threat to livestock, as they prey on poultry and lambs. They can also transmit distemper, parvo virus and mange to domestic dogs. Evidence suggests red foxes are a primary cause in the decline and extinction of many small and medium-sized rodent and marsupial species in Australia. They also prey on many bird species.

Fox Management

Foxes will be monitored for by monitoring for scats and by nighttime spotlight counts (as for the rabbits). Control will be by shooting.

DEVELOPMENT PLAN

To enable the construction of a dwelling to assist in succession planning and for effective and efficient farm management.

Proposed Lot 2 contains a large dam and irrigation pumps and infrastructure, which the house will provide critical onsite management for, which will make the management of this infrastructure much more efficient and effective. The dam and associated infrastructure provide a critical irrigation supply for several of the family's farming properties and it is imperative that the dam is protected. The dam has multiple pumping points and the pumps are moved to suit the irrigation requirements of the farm business at particular points in time, this will be much easy to manage with Tom living close by. The two existing Lots currently divide the infrastructure in two, right through the middle of the irrigation dam.

The proposed re-subdivision will centralise a dwelling for Tom in the middle of the largest land holding. The proposed development has been designed to make use of the existing access, proposed Lot 1 is in an area that cannot be irrigated and is the driest and stoniest part of the property. The re-subdivision also avoids any impact on native vegetation and the dry stone wall.

The proposal creates a development precinct with an adjoining small property with a dwelling and shedding, this assists in maintaining visual amenity and best optimises the site for use as part of the overall farming business.

The proposal consolidates all of the agricultural area and infrastructure on proposed Lot 2: The irrigation area, dam, irrigation infrastructure and existing shedding.

The farm business is evolving and undergoing intergenerational change. The re-subdivision and subsequent development of a dwelling and farm shed on proposed Lot 1 are critical to the implementation of the succession plan.

The plan of re-subdivision for the subject site has taken into account the characteristics of the site and the overall farm business. Tom needs a home on the farm as he transitions into managing the overall farm business, the home will be close to the potato sorting and transporting sheds and the proposal will also include much needed additional shedding.

Landscape Plan

1) The property will be kept well vegetated with ground cover and stable, from a land degradation perspective, this is to be maintained over time.
2) Weed will be controlled.
3) The development of Lot 1 creates a development precinct with an adjoining small property.

Environmental Risk Features

Weeds are the key environmental risk.

The onsite management will make weed monitoring and management easier and the property will be maintained as being noxious weed free.

Access, Services and View Lines

Powells Road provides access to proposed Lot 1 and access to proposed Lot 2 can be off Powells Road, Clarkes Hill Road and Black Swamp Road.

Services in terms of supporting the new development are onsite and effluent disposal, power and drainage can all be catered for.

MANAGEMENT ZONES

The property will be managed in zones, see Figure 29:

1. Agricultural
2. Domestic

Figure 29 – Management Zones

Agricultural Zone

The land will be used for cropping and opportunity grazing of crop residues. The business farms potatoes (producing over 7,000 tonnes per year), canola, pyrethrum, turnips, rape, lucerne, oats, hay and produce prime lamb and beef cattle. This site is home to red ferrosol soil, one of the most productive soils in Australia, which makes up only 2% of Victoria. It is a key soil for the potato industry. With re-subdivision both lots will continue to support intensive agricultural production. The business is a large scale farm business, employing five people full time (including Neville and Tom) and six additional seasonal employees. The Quinlans are well known in the Horticulture Industry and have been involved in supporting Hort Australia (the industry research and development organisation), with a number of projects and initiatives over the years.

Agricultural Zone Management

1. Maintain fencing in the Agricultural Zone to a minimum standard of stock proof fencing.
2. Gates are wide enough and positioned to allow machinery through.
3. Monitoring for and control of rabbits and foxes will occur.
4. Onsite management will ensure weeds are monitored and controlled.
5. Irrigation pumping will occur from proposed Lot 2, with the dam and infrastructure being place in one allotment (rather than being cut in half across two).

Domestic Zone

The intention of the Domestic Zone is for onsite management. It will enable Tom to live on farm and transition into property management as part of the implementation of a succession plan.

The home will be placed in a zone where the balance of the property can be observed and where it will not limit the agricultural potential of the property. Weeds will be controlled.

Domestic Zone Management

1) Monitor for weeds and control any found in the Zone.
2) Keep grass and weed height below 10cm in the fire danger period.
3) Monitor for and control rabbits.

COMMENTS ON THE VIC PLANNING PROVISION'S DECISION GUIDELINES

Purpose of the Farming Zone (FZ) Planning Scheme

This planning scheme implements state and local planning policy. It provides for the use of land for agricultural purposes, encourages the retention of productive agricultural land and ensures that non-agricultural uses, including dwellings, do not adversely affect the use of land for agricultural. This scheme also encourages the retention of employment and population to support rural communities and encourages the use and development of land based on comprehensive and sustainable land management practices and infrastructure provision.

According to the FZ a permit is required for the use of land for a dwelling 35.07-2.

Subdivision

According to the FZ a permit is required to subdivide land 35.07.3.

Council Decision Guidelines FZ

Before deciding on an application to use or subdivide land, construct a building or construct or carry out works, in addition to the decision guidelines, the responsible authority must consider, as appropriate:

GENERAL ISSUES

The Municipal Planning Strategy and the Planning Policy Framework.

The Farming Zone is the zone that is strongly focused on protecting and promoting farming and agriculture.

COMMENT:

This proposal is a re-subdivision and there will no net gain in Lots. The proposal will see a net gain in agricultural productivity through improved onsite management and a more appropriate layout. The

proposal will allow a multi-generational farm business to complete the implementation of a farm succession plan.

The proposal will enable an inappropriate layout to be redesigned to consolidate all of the agricultural area and infrastructure on one Lot and the farm management to be homed on a smaller Lot with lower agricultural potential, to create a development precinct with an adjoining dwelling on a small Lot that is in separate ownership. The proposal will secure a fully commercial farming future for the property on very important agricultural soils.

Any Regional Catchment Strategy and associated plan applying to the land.

COMMENT:

This property is within the Corangamite Catchment Management Authority (CCMA) and is addressed by the CCMA Strategy 2027, in particular in relation to the maintenance of productive and sustainable agriculture on highly productive soils, healthy eco-systems, the native flora and fauna within them and the control of pest plants and animals that affect them. The onsite management and implementation of this plan, will enable management practices that will achieve these outcomes, as previously documented in this plan. Of particular relevance to the objectives of the CCMA Strategy 2027 and this site, is weed control, vermin control and sustainable land management.

The capability of the land to accommodate the proposed use or development, including the disposal of effluent.

COMMENT:

The proposed property layout and scale can sustainably and viably accommodate the proposed infrastructure, agricultural activities and agricultural land management; all with the aim of meeting the values outlined in the planning schedules. See the Land Capability Assessment in respect to effluent disposal that accompanies the application.

How the use or development relates to sustainable land management.

COMMENT:

This development will enhance and protect land and environmental values through an appropriate layout, and enabling a highly successful, large scale, family farming business to continue on through a succession planning process.

Whether the site is suitable for the use or development and whether the proposal is compatible with adjoining and nearby land uses.

COMMENT:

The proposed development and land use will be entirely consistent and compatible with adjoining land uses and will see land management principles and values better implemented and enhanced, by having onsite management.

The property is bounded by a small rural living next to Lot 1 and commercial farming properties of various scales. The property is home to highly productive, ferrosol soils, that make up only 2% of Victoria and are very important to the Victorian potato industry.

Supporting this proposal will see the use of this land continue to be optimised for agricultural production.

How the use and development make use of existing infrastructure and services.

COMMENT:

The proposal will enable more efficient management of the existing infrastructure, it will consolidate it on one Lot and it will make its use and management much more efficient with the proposed onsite management.

AGRICULTURAL ISSUES AND THE IMPACTS FROM NON-AGRICULTURAL USES.

Whether the use or development will support and enhance agricultural production.

COMMENT:

The use a development is totally focussed on supporting and enhancing agricultural production by enabling a succession plan to be enacted, by providing onsite management and by consolidating the agricultural area and land use on the one Lot.

Whether the use or development will adversely affect soil quality or permanently remove land from agricultural production.

COMMENT:

Agricultural use of the land will be consolidated under this proposal, with the ongoing farming of the land as part of a large scale family farming business. Land will not be permanently removed from agricultural production, but rather productivity will be secured into the future and the land will be managed for farming purposes as effectively as possible by having the onsite management and enabling the large scale farming business to transition between generations.

The potential for the use or development to limit the operation and expansion of adjoining and nearby agricultural uses.

COMMENT:

The proposed development will ensure the ongoing use of the land as part of a large scale family farming business. It will enable the business to successfully transition between generations, thereby securing its future.

The capacity of the site to sustain the agricultural use.

COMMENT:

The property is part of an area that is one of the most productive in the State, extremely important to the potato industry and has some of the highest capacity to sustain agriculture use. This proposal will see this potential continue to be realised.

The agricultural qualities of the land, such as soil quality, access to water and access to rural infrastructure.

COMMENT:

From an agricultural productivity perspective, the land use capability for the property is Class 1 - Can sustain a wide range of uses, including an intensive cropping regime. Very high levels of production possible with standard management practices. At the property's scale the sustainable land-use of the block is well suited to the irrigated cropping program, which will see sustainable land management; where soil health is maintained, weeds are controlled, and vermin are addressed and kept to a minimum.

Any integrated land management plan prepared for the site.

COMMENT:

This document meets this requirement.

DWELLING ISSUES

Whether the dwelling will result in the loss or fragmentation of productive agricultural land.

COMMENT:

The proposal will see a long term, large scale farming business; successfully transition between generations, thereby ensuring highly productive land is consolidated and continues on in its current form as productive agricultural land. There is no net gain in Lots and the house is ancillary to the farm management requirements of the large scale family farming business.

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.

COMMENT:

The dwelling will be in a development precinct with another dwelling, next door on a small Lot that is in separate ownership. Management practices will be more efficient with onsite management and there will be no change in land use, it will be consistent with the current practices.

Whether the dwelling will adversely affect the operation and expansion of adjoining and nearby agricultural uses.

COMMENT:

The proposed development and land use will be entirely compatible with adjoining land uses and will see land management principles and values better implemented and enhanced by having onsite management.

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.

COMMENT:

The accommodation will meet the agricultural management requirements of the property, the scale will not impact other properties and will be consistent with the existing character of this district and the dwelling is being placed in a precinct with another next door dwelling.

ENVIRONMENTAL ISSUES

An assessment of the likely environmental impact on the biodiversity and in particular the flora and fauna of the area and water quality.

COMMENT:

The biodiversity and quantity of flora will not be altered under this proposal. It is a highly productive agricultural area of significant soils for the potato industry and agricultural land use is the highest and best use for these soils that make up only 2% of the State.

The impact of the use or development on the flora and fauna on the site and its surrounds.

COMMENT:

This development will enhance and protect land and environmental values, through an appropriate layout and onsite management of weeds and vermin.

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.

COMMENT:

The proposed land management is focussed on sustainable agricultural land use, given the agricultural potential of this area, the property will be managed as stable with the proposed onsite management.

The location of on-site effluent disposal areas to minimise the impact of nutrient loads on waterways and native vegetation.

COMMENT:

See the Land Capability report that accompanies the application.

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.

COMMENT:

The buildings have been placed so as to have appropriate setbacks and to facilitate effective property management and to minimise the footprint and impact on potential agricultural use. They are located in an area that cannot be irrigated, on the stoniest and driest part of the property, next to an adjoining dwelling and shedding in separate ownership.

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.

COMMENT:

The siting of the building envelope has taken into account landscape features, vistas, access, existing infrastructure and road location. The Yellow Box tree and dry stone wall on the site, will be retained and protected under this proposal. It has been placed adjacent to another property that has a house on a small Lot.

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.

COMMENT:

No native vegetation will be adversely impacted by this development. Weeds and rabbits will be managed and the property is aimed at being maintained as noxious weed free. Rabbits, hares and foxes will continue to be managed and no evidence was found on the site inspection. The dry stone wall is to be protected and retained and an existing access point through it, is to be used.

The location and design of existing and proposed infrastructure including roads, gas, water, drainage, telecommunications and sewerage facilities.

COMMENT:

The house and wastewater disposal have been placed in an appropriate development area, which will ensure very minimal impact on any landscape values.

Whether the use and development will require traffic management measures.

COMMENT:

The use and development will not require traffic management measures.

Environmental significance overlay (ESO1)

Statement of Environmental Significance

The Shire of Moorabool contains several proclaimed water catchments, which provide water to urban and rural development throughout the Shire. The protection of water catchments is essential to the health of all communities that rely on water for domestic and stock supply.

Environmental Objective to be Achieved

To protect the quality and quantity of water produced within proclaimed water catchments.

To provide for appropriate development of land within proclaimed water catchments.

COMMENT:

There will be no change in the scale and type of agricultural land use for the property, under this proposal. The land is stable and the dam area and by-wash well grassed. The land use will remain as is and is an appropriate land use for this part of the catchment.

Decision Guidelines ESO1

The slope, soil type and other environmental factors.

COMMENT:

The slopes are gentle, low slopes. The soil type is ferrosol, which is particularly resilient to agricultural land use. The land is stable and there are no other environmental factors to consider.

The need to maintain water quality at a local and regional level.

COMMENT:

The drainage line and dam by-wash are well grassed and stable. On the drainage line as it flows south past the property, there are a number of interconnected dams that slow waterflow and help keep the drainage line stable.

The possible effect of the development on the quality and quantity of water in local watercourses, including the impact on nutrient levels.

COMMENT:

The proposed property land use and scale will not change and it can sustainably and viably accommodate the proposed infrastructure, agricultural activities and land management; all with the aim of meeting the values outlined in the planning schedules. See the Land Capability Assessment in respect to effluent disposal that accompanies the application.

The preservation of and impact on soils and the need to prevent erosion.

COMMENT:

This development will enhance and protect land and environmental values through an appropriate layout, and enabling a highly successful, large scale, family farming business to continue on through a succession planning process. The ferrosol soils are particularly resilient to agricultural landuse, they are stable and there will be no risk of erosion as a result of the proposed re-subdivision.

The need to prevent or reduce the concentration or diversion of stormwater.

COMMENT:

The proposed development and land use will be entirely consistent and compatible with adjoining land uses and will not see a change to stormwater volumes or intensity.

Effect of the proposed development and, where applicable, the method of waste disposal on the quality and quantity of water within the proclaimed catchment.

COMMENT:

See the Land Capability Assessment in respect to effluent disposal that accompanies the application.

Requirements and provision of the State Environment Protection Policy (Waters of Victoria) and the provisions of the "Septic Tanks Code of Practice".

COMMENT:

See the Land Capability Assessment in respect to effluent disposal that accompanies the application.

Whether a report from a qualified geotechnical engineer has been provided which demonstrates that the land is capable of absorbing sewage and sullage effluent generated on the lot and that the waste water treatment system has been designed to prevent wastewater entering any waterway, dam or wetland.

COMMENT:

See the Land Capability Assessment in respect to effluent disposal that accompanies the application.

Where an application is for the subdivision of land, whether the plan of subdivision shows appropriate building and effluent disposal envelopes.

COMMENT:

See the application documents and Land Capability assessment in respect to effluent disposal.

Where an application proposes to make use of a septic tank system, whether any building and the septic tank effluent absorption area associated with it are located:

Within 100 metres of a waterway; or upstream of a dam or wetland.

COMMENT:

See the Land Capability Assessment in respect to effluent disposal that accompanies the application. The septic will be much further than 100m from a dam or watercourse (>200m). It is ~250m upstream of a dam.

MOORABOOL PLANNING SCHEME CLAUSE 14.01-1S. Protection of Agricultural Land

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

COMMENT:

This proposal will ensure the successful intergenerational transition of a significant agricultural business undertaking the highest and best use of very productive farmland in the Moorabool Shire. In doing so it will preserve the productive use of this land for agricultural use into the future.

Strategies

Identify areas of productive agricultural land, including land for primary production and intensive agriculture.

COMMENT:

This proposal will ensure the ongoing highest and best use of identified highly productive agricultural land.

Consider state, regional and local, issues and characteristics when assessing agricultural quality and productivity.

COMMENT:

This land type has been identified by State and Regional assessments on a Catchment and District basis has highly productive agricultural land and this has been confirmed on the site inspection.

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.

COMMENT:

The land will be protected into the future with a more appropriate layout and infrastructure to support a significant agricultural business with intergenerational transition. This property is important as a supplier to the potato processing sector, which is an important locally based industry, as described in this plan.

Protect productive farmland that is of strategic significance in the local or regional context.

COMMENT:

This land is strategicially significant as productive farmland and it is to be protected and better utilised under this proposal.

Protect productive agricultural land from unplanned loss due to permanent changes in land use.

COMMENT:

The current land use will be maintained under this proposal.

Prevent inappropriately dispersed urban activities in rural areas.

COMMENT:

The land will be protected, a residence to enable the onsite management of the next farming generation will be constructed, with an important agricultural shed for the business, with a key irrigation dam and infrastructure given a more appropriate allotment layout.

Protect strategically important agricultural and primary production land from incompatible uses.

COMMENT:

This is strategically important agriculture land for primary production and the proposal will protect highest and best agricultural use.

Limit new housing development in rural areas by:

Directing housing growth into existing settlements.

COMMENT:

This proposal will enable the important onsite management of the next farming generation for an important agricultural business.

Discouraging development of isolated small lots in the rural zones from use for dwellings or other incompatible uses.

COMMENT:

The use will be compatible and the proposed re-shaping will provide a net gain for agricultural use for this property, through improved management, infrastructure, and a more appropriate layout.

Encouraging consolidation of existing isolated small lots in rural zones.

COMMENT:

This proposal is a re-shape that will give a more appropriate layout, management, and land use for a very important agricultural business in this land that is agriculturally important in a District, Regional and State context.

Identify areas of productive agricultural land by consulting with the Department of Energy, Environment and Climate Action and using available information.

COMMENT:

This has been carefully carried out in the production of this plan.

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.

COMMENT:

The land is highly desirable agricultural land and no land is to be removed from agricultural production, but rather agricultural production will be enhanced under this proposal.

Impacts on the continuation of primary production on adjacent land, with particular regard to land values and the viability of infrastructure for such production.

COMMENT:

This proposal will provide important infrastructure for the ongoing use of the land for primary production. The layout has been carefully planned to ensure optimum use of the productive agriculturally land and the proposed smaller lot has been placed next to a neighbouring small lot, to create a development precinct on land of lowest agricultural potential for the property.

Compatibility between the proposed or likely development and the existing use of the surrounding land.

COMMENT:

The highest and best land use of this high priority agricultural land will be maintained and enhanced under this proposal.

The potential impacts of land use and development on the spread of plant and animal pests from areas of known infestation into agricultural areas.

COMMENT:

The onsite management provided under this proposal will make the land management of this farm much more efficient, including with preventing the spread of pest plants and animals.

Land capability.

Avoid the subdivision of productive agricultural land from diminishing the long-term productive capacity of the land.

COMMENT:

This proposal gives a more appropriate layout that will help enable the land to be managed to its productive capacity.

Give priority to the re-structure of inappropriate subdivisions where they exist on productive agricultural land.

COMMENT:

The current subdivision is inappropriate and it gives a boundary that cuts through an important irrigation dam and irrigation infrastructure; under this proposal all of this important infrastructure and most productive agricultural land, will be placed on the one allotment.

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.

COMMENT:

There will be no off-site effect (or onsite) effects that will cause any form of degradation.

Clause 14.01-1L. Agriculture, rural dwellings and subdivision

Policy Application

This policy applies to all land within the Farming Zone.

Strategies

Discourage subdivision and dwellings unless they are directly related to the agricultural use of land.

COMMENT:

This proposal is very clearly related to enhancing the agricultural use of the land.

Avoid the development of dwellings that may adversely affect or constrain existing farms and their operations.

COMMENT:

This will not constrain an existing farm, but rather enable an important farming business to carry out an intergenerational transfer to ensure its ongoing success.

Allow the excision of a lot for a dwelling where it would facilitate the ongoing agricultural use of the remaining land.

COMMENT:

This is a reshaping proposal that will facilitate the ongoing agricultural use of the land.

Maintain productive farm sizes by discouraging fragmentation of land for non-rural use and development.

COMMENT:

There will be no non-rural use of development under this proposal.

Ensure that incompatible land use and development does not encroach upon productive agricultural land, particularly the Bacchus Marsh Irrigation District.

COMMENT:

This plan is all about the ongoing use of the land for farming. The property is not in the Bacchus Marsh Irrigation District.

Policy guidelines

Consider as relevant:

A maximum area of two hectares for any lot created for a dwelling that is smaller than the specified minimum area under Clause 35.07-3.

COMMENT:

This is met under this proposal.

Consolidate the remaining land from an excision for a dwelling with an adjoining title.

COMMENT:

This proposal is not an excision.

The use of a Section 173 Agreement that states that no further dwellings will be erected on the balance allotment from an excised lot for a dwelling if the remaining land is less than 40 hectares.

COMMENT:

Not applicable.

CONCLUSION

This development will ensure a fully commercial scale farming future for this property and its very high quality agricultural land. Transitioning family farms through generations and ensuring farms remain productive and viable, is not easy.

Supporting this proposal will help facilitate a succession plan and the ongoing future for a very important family farming business to the Moorabool Shire and the ongoing achievement of the objectives of the Farming Zone.

It will also see the property maintained as stable from a land protection perspective.

The owners have farmed in the district for five generations and supporting their ability to carry out a succession plan will help facilitate their ongoing success and reduce the risk of future fragmentation in this very important agricultural area.

The proposal has been developed in a thoughtful and very professional manner, in terms of land use planning.

The property will continue to make a significant contribution to agriculture, with the support of this proposal.

Your sincerely,

Director Cumbre Consultants

APPENDIX 1 – ECOLOGICAL VEGETATION CLASS

Victorian Volcanic Plain bioregion

EVC 23: Herb-rich Foothill Forest

Description:
Occurs on relatively fertile, moderately well-drained soils on an extremely wide range of geological types and in areas of moderate to high rainfall. Occupies easterly and southerly aspects mainly on lower slopes and in gullies. A medium to tall open forest or woodland to 25 m tall with a small tree layer over a sparse to dense shrub layer. A high cover and diversity of herbs and grasses in the ground layer characterise this EVC.

Large trees:

Species	DBH(cm)	#/ha
Eucalyptus spp.	70 cm	20 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
40%	*Eucalyptus ovata*	Swamp Gum
	Eucalyptus obliqua	Messmate Stringybark
	Eucalyptus viminalis ssp. *viminalis*	Manna Gum

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	2	10%	T
Medium Shrub	3	20%	MS
Small Shrub	1	1%	SS
Large Herb	2	5%	LH
Medium Herb	6	15%	MH
Small or Prostrate Herb	3	5%	SH
Large Tufted Graminoid	3	20%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	5	10%	MTG
Medium to Tiny Non-tufted Graminoid	2	10%	MNG
Ground Fern	1	5%	GF
Scrambler/Climber	2	5%	SC
Bryophytes/Lichens	na	20%	BL

EVC 23: Herb-rich Foothill Forest - Victorian Volcanic Plain bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	*Acacia melanoxylon*	Blackwood
MS	*Leptospermum continentale*	Prickly Tea-tree
MS	*Acacia verticillata*	Prickly Moses
MS	*Ozothamnus ferrugineus*	Tree Everlasting
MS	*Bursaria spinosa*	Sweet Bursaria
SS	*Pimelea humilis*	Common Rice-flower
SS	*Hibbertia riparia*	Erect Guinea-flower
PS	*Bossiaea prostrata*	Creeping Bossiaea
PS	*Acrotriche serrulata*	Honey-pots
LH	*Senecio tenuiflorus*	Slender Fireweed
LH	*Pterostylis longifolia* s.l.	Tall Greenhood
MH	*Euchiton collinus* s.s.	Creeping Cudweed
MH	*Hypericum gramineum*	Small St John's Wort
MH	*Gonocarpus tetragynus*	Common Raspwort
MH	*Viola hederacea* sensu Willis (1972)	Ivy-leaf Violet
SH	*Hydrocotyle laxiflora*	Stinking Pennywort
LTG	*Juncus procerus*	Tall Rush
LTG	*Lepidosperma laterale* var. *majus*	Variable Sword-sedge
LTG	*Deyeuxia quadriseta*	Reed Bent-grass
LNG	*Lepidosperma longitudinale*	Pithy Sword-sedge
MTG	*Lomandra filiformis*	Wattle Mat-rush
MTG	*Lomandra sororia*	Small Mat-rush
MTG	*Lepidosperma laterale* var. *laterale*	Variable Sword-sedge
MNG	*Microlaena stipoides* var. *stipoides*	Weeping Grass
MNG	*Poa tenera*	Slender Tussock-grass
GF	*Pteridium esculentum*	Austral Bracken
SC	*Clematis aristata*	Mountain Clematis
SC	*Billardiera scandens*	Common Apple-berry

Recruitment:
Continuous

Organic Litter:
40 % cover

Logs:
20 m/0.1 ha.

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MH	*Hypochoeris radicata*	Cat's Ear	high	low
MH	*Centaurium erythraea*	Common Centaury	high	low
MNG	*Holcus lanatus*	Yorkshire Fog	high	high
MTG	*Anthoxanthum odoratum*	Sweet Vernal-grass	high	high

Victorian Volcanic Plain bioregion

EVC 55_61: Plains Grassy Woodland

Description:
An open, eucalypt woodland to 15 m tall. Occupies poorly drained, fertile soils on flat or gently undulating plains at low elevations. The understorey consists of a few sparse shrubs over a species-rich grassy and herbaceous ground layer. This variant occupies areas receiving approximately 500 – 700 mm annual rainfall.

Large trees:

Species	DBH(cm)	#/ha
Eucalyptus spp.	80 cm	8 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
10%	*Eucalyptus camaldulensis*	River Red Gum

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	1	5%	T
Medium Shrub	3	10%	MS
Small Shrub	2	1%	SS
Prostrate Shrub	1	1%	PS
Large Herb	3	5%	LH
Medium Herb	8	15%	MH
Small or Prostrate Herb	3	5%	SH
Large Tufted Graminoid	2	5%	LTG
Medium to Small Tufted Graminoid	12	45%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C

LF Code	Species typical of at least part of EVC range	Common Name
MS	*Acacia pycnantha*	Golden Wattle
MS	*Acacia paradoxa*	Hedge Wattle
SS	*Pimelea humilis*	Common Rice-flower
PS	*Astroloma humifusum*	Cranberry Heath
PS	*Bossiaea prostrata*	Creeping Bossiaea
MH	*Oxalis perennans*	Grassland Wood-sorrel
MH	*Gonocarpus tetragynus*	Common Raspwort
MH	*Acaena echinata*	Sheep's Burr
SH	*Dichondra repens*	Kidney-weed
SH	*Hydrocotyle laxiflora*	Stinking Pennywort
LTG	*Austrostipa mollis*	Supple Spear-grass
LTG	*Austrostipa bigeniculata*	Kneed Spear-grass
MTG	*Themeda triandra*	Kangaroo Grass
MTG	*Elymus scaber* var. *scaber*	Common Wheat-grass
MTG	*Austrodanthonia setacea*	Bristly Wallaby-grass
MTG	*Austrodanthonia racemosa* var. *racemosa*	Stiped Wallaby-grass
MNG	*Microlaena stipoides* var. *stipoides*	Weeping Grass

Recruitment:
Continuous

Organic Litter:
10 % cover

EVC 55_61: Plains Grassy Woodland - Victorian Volcanic Plain bioregion

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	*Lycium ferocissimum*	African Box-thorn	high	high
LH	*Cirsium vulgare*	Spear Thistle	high	high
LH	*Sonchus oleraceus*	Common Sow-thistle	high	low
LH	*Plantago lanceolata*	Ribwort	high	low
MH	*Hypochoeris radicata*	Cat's Ear	high	low
LNG	*Holcus lanatus*	Yorkshire Fog	high	high
MTG	*Vulpia bromoides*	Squirrel-tail Fescue	high	low
MTG	*Romulea rosea*	Onion Grass	high	low
MTG	*Briza minor*	Lesser Quaking-grass	high	low
MTG	*Briza maxima*	Large Quaking-grass	high	low

APPENDIX 2 – BIOGRAPHY OF THE AUTHOR

GAVIN BEEVER

Consultant/Director – Cumbre Consulting

Gavin has extensive experience in Land Use Planning, Rural Land Management, Farming, Animal Husbandry, Strategic Planning, Business Planning, Group Facilitation, Adult Education and Horse Management.

He has 31 years' experience in Land and Business Management. During that period, he has consulted and provided technical advice on a broad range of land and business management issues to hundreds of individual property owners, consultants, cooperatives, companies, corporations and government departments, both locally and nationally. Initially as a Departmental Advisory Officer (1989 to 1997) and then as a Private Consultant (1997-). For 10 years, he was Vice Chairman of the 1,000-member farmer Coop CEPA, which is the largest independent supplier of stockfeed in Victoria.

He has extensive practical experience in farming and land management. With his wife, he has developed and run a 25,000DSE sheep and cattle family farming business. He has established and continues to manage Cumbre Stud, a Horse Breeding and Training Stud on their family farm in Central Victoria.

He has been a caretaker of farms in New South Wales (Cropping and Livestock) and leased other farms in Victoria.

For five years, he was a referral officer for State Planning Schemes for what is now the Department of Sustainability and Environment in Victoria.

He has also prepared Farm, Environmental and Land Management Plans for Planning Permit Applications in the State of Victoria for 22 years. He has been called as an expert witness at VCAT for matters relating to environmental, farm and land management issues.

He has presented at numerous local, state, national and international conferences.

He has developed and delivered numerous workshops for land and business managers and owners.

FIELDS OF COMPETENCE

- Land Capability Assessment
- Land Management Planning
- Strategic Planning
- Business Planning
- Animal Husbandry
- Pasture and Crop (Broad acre) establishment and management
- Native Vegetation establishment and management
- Pest Plan and Animal Control
- Soil Conservation
- Soil Salinity

- Catchment and Waterway Management
- Fire Protection
- Wool Classing
- Adult Learning and Workshop Development and Delivery
- Benchmarking
- Horse and working dog, training and management

PUBLICATIONS

- Hill and Rising Country Management in the Avon-Richardson Catchment (1991)
- Saline Agriculture Program, Wimmera Catchment Salinity Management Plan (1992)
- The Wimmera River Catchment Salinity Plan – Tree Program (1992)
- Saline Agriculture Program. Wimmera River Catchment Salinity Management Plan (1992)
- Pasture Program for the Wimmera River Catchment Salinity Management Plan (1992)
- Whole Farm Planning Workshop Series. Department of Natural Resources and Environment (1993)
- Property Management Planning Workshop Series. Department of Primary Industries Queensland (1996)
- Technical Coordinator and Editor. Meat and Livestock Australia. Business Skills and Best Practice Workshop Series. (1998-2002)
- Business Health Indicators for Professional Farmers. FM500. (2004)

EDUCATION

BSc (Botany/Zoology) 1987

Grad Cert Appl Sc 1997

Diploma Racing 2006

Innoven – Effective Company Directors Graduate 2004

Farm Management Plan

"Greenhills"
57 Camerons Lane
Beremboke

Horse Training and Breeding, Beef Cattle and Trufficulture.

Report Prepared by
Dean Suckling
Enprove Pty Ltd

Report Revision Date:
14th November 2024

EnProve
AG & ENVIRONMENT

Contents

Plan Objective:

This Farm Management Plan is drawn to provide an assessment of current agricultural issues and identify future improvements that will benefit the agricultural production values of the property and demonstrate the advances which can be made. The further improvements will be made subject to the approval of the proposed dwelling to support the agricultural improvements.

This plan is for the provision of Grazing Animal Production and horticulture on the property, specifically Angus cattle and the keeping, breeding and training of Cutting Horses and the production of Black truffles on inoculated hazelnut trees. It also includes a substantial area set aside for conservation and erosion prevention.

Site Details:

Address:	57 Camerons Lane, Beremboke
Property Description(s):	Lot 1 TP 346387
Property Size:	45.9 Hectares Road Lease 0.8 Hectares
Local Authority:	Moorabool
Zones / Overlays:	Farming Zone Schedule to Farming Zone Bushfire Management Overlay Design and Development Overlay Design and Development Overlay – Schedule 2 Land Subject to Inundation (part) Land Subject to Inundation – Schedule 1 (part)
Current Use:	Equine Keeping

Proposal Overview:

This farming zone proposal calls for the keeping, breeding, and training of cutting horses, the keeping and breeding of Angus beef cattle, the planting and cultivation of truffle inoculated hazelnut trees, the creation of a significant regeneration area and ongoing soil regeneration. This is an innovative and environmentally responsible proposal that respects the environmental values of the property and proposes a small farming operation in keeping with the agricultural activities of the surrounding area.

The property has been lightly used for the last 15 years. It is 45.9 hectares but has a current farmable area of 22.3 Hectares. The rear half is not fenced and has a mob of several hundred kangaroos which have discouraged fencing and pastoral improvement. There is a significant area of steep and difficult hillslopes as well.

The agricultural and land management highlights include:

- The keeping, breeding, and training of high value cutting horses.
- The keeping and breeding of 28 Angus to produce 28 calves for sale to the domestic market and assist with weed and land management.
- The planting of 120 truffle-inoculated hazelnut trees to produce 360 kilograms of hazelnuts for sale and truffle production after five years.
- A significant area is set aside for managed regeneration identifying the potential erosion risk and water quality improvement of the adjoining waterway reserve and state forest.
- A sustainable financial model for production from a small rural property.
- The adoption of regenerative and ecologically aware methods for improving a farming property.

After the proposed development, the total farming area will be increased to 30 Hectares. A new fenced conservation area of 10 hectares will also be created to manage the steepest slopes and protect The Little River frontage and the waterways on the property.

The property has needed some agricultural rejuvenation; it has low soil fertility, soil acidity issues, no modern agricultural plants, and no agricultural infrastructure. The proponents have invested heavily in new paddocks, shedding, water infrastructure and an indoor horse training arena.

The continued development of the enterprise calls for additional investment in the agricultural infrastructure of over $50,000, the improvement and regeneration of soils to a productive agricultural level and the investment in farming infrastructure and the investment in a dwelling of over $600,000.

After the initial development period, the enterprise will generate an indicated $180,000 in farm revenues each year, and there is scope to increase that return over time.

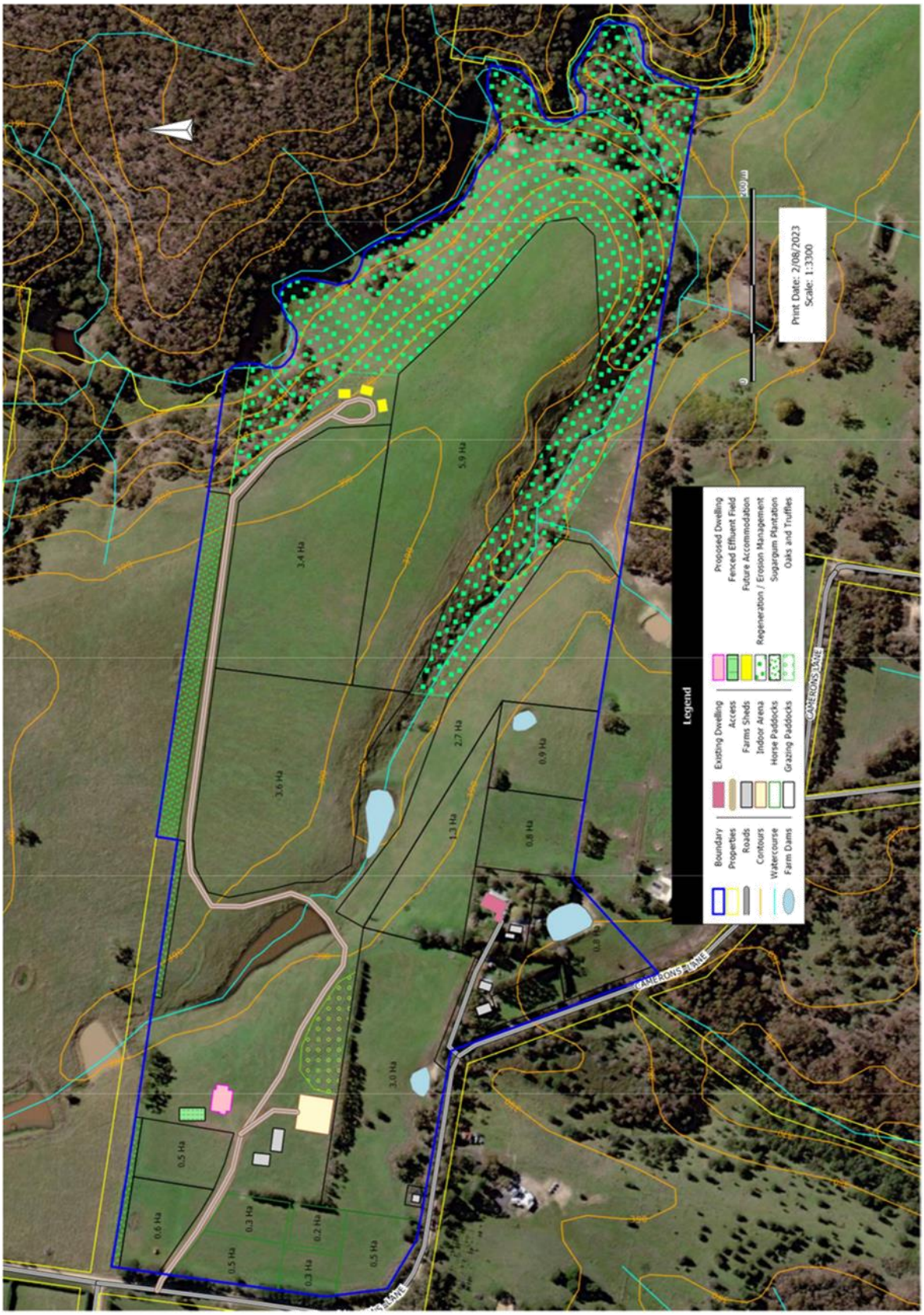
In the longer term, there are plans to provide three accommodation cabins at the rear of lot 2 to provide guests with an outlook of the Little River and The Brisbane Ranges National Park. This area has no visitor accommodation available, so will be targeting both ecotourists and overnight accommodation.

This activity is a very good example of high value, high return pastoral grazing and, in the longer term, is seen to contribute soundly to the overall environmental, economic, and social values of the area and brings an underused property into productive agriculture.

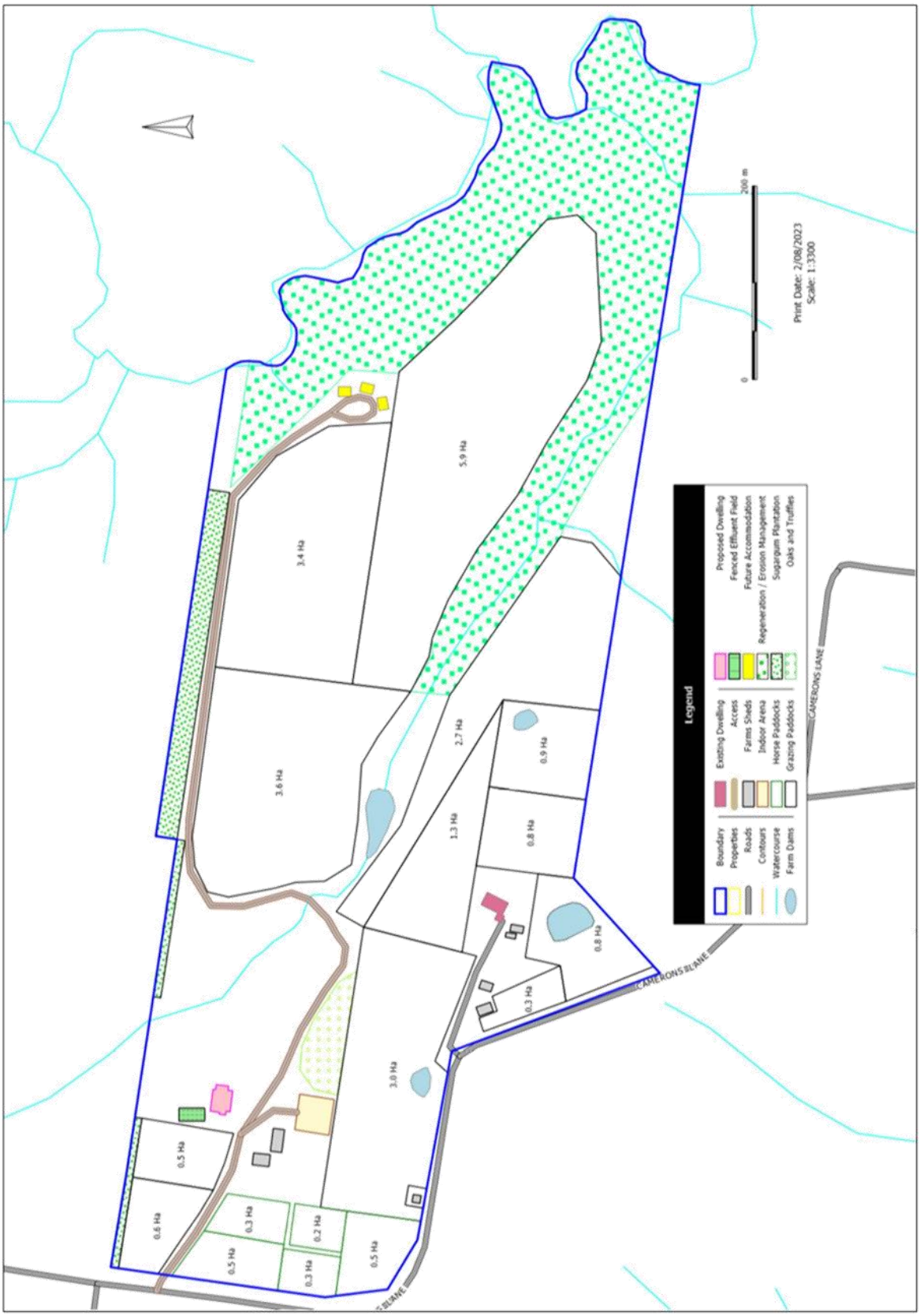
Property Maps:

Map 1: Locality Map

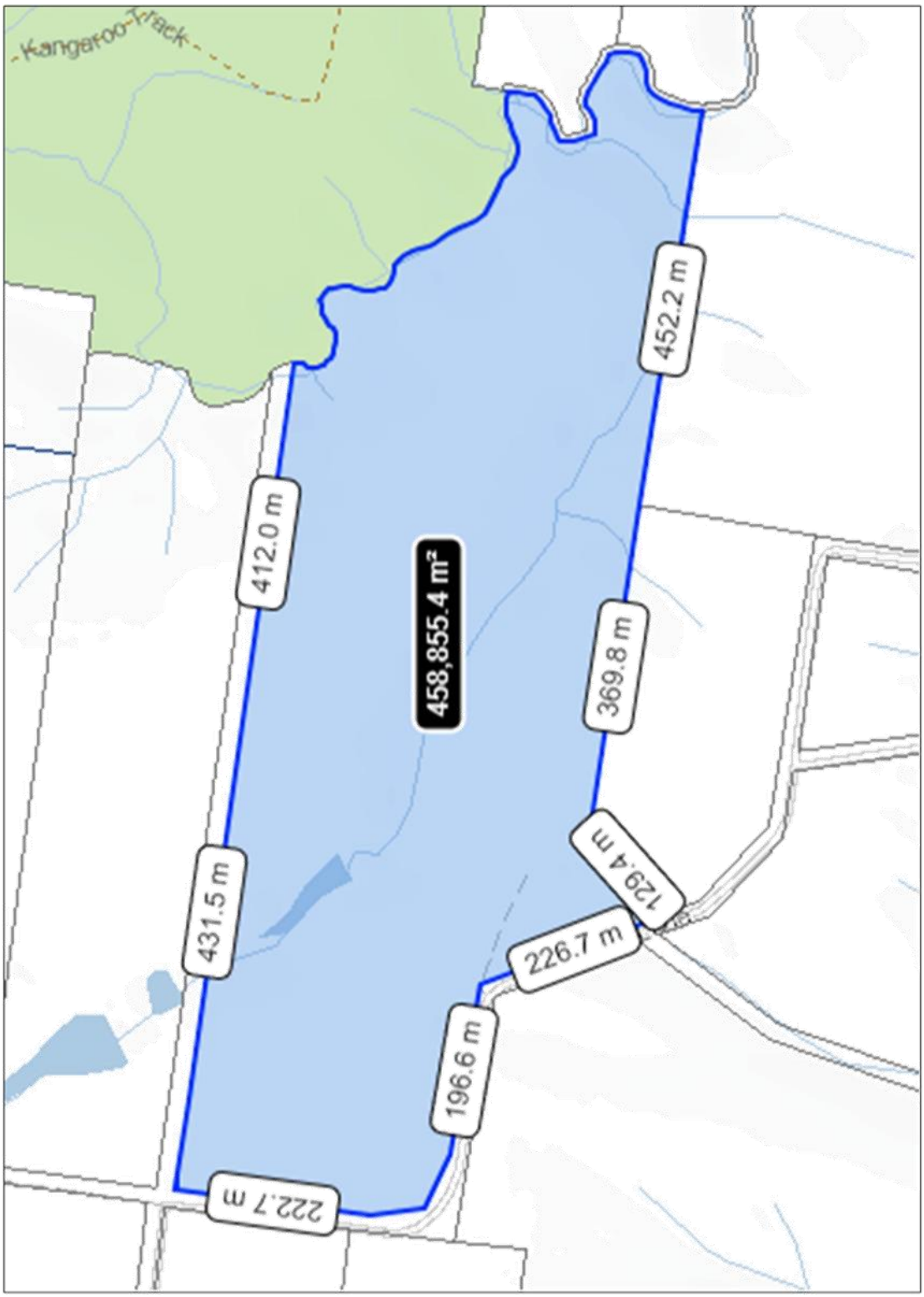
Map 2: Farm Map



Map 3: Site Layout



Map 4: Property Dimensions



Source: https://mapshare.vic.gov.au/mapsharevic/

Farming Factors:

Site Topography:

The property has a complex topography, undulating at the front and very steep at the rear, where it falls to The Little River. There is a deep-cut intermittent waterway dissecting the property from northwest to southeast is very steep at the eastern end. These steep areas are not suitable for farming, being unmanageable by machinery and subject to damage by erosion if used for farming.

The elevation range is 340 to 400 metres AHD, the average gradient change at the front of the property is a manageable 3.5 % slope, and the steepest gradient change at the rear is a 50% slope.

Climate:

Beremboke climate statistics:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Mean Max (°C)	24.1	24.0	21.4	17.2	13.9	11.1	10.5	11.7	14.0	16.7	19.4	22.2	17.2
Mean Min (°C)	11.3	11.8	10.5	8.5	6.5	4.6	4.0	4.4	5.6	7.0	8.4	10.1	7.7
Mean Rain (mm)	42.0	47.2	50.2	56.1	57.0	56.4	53.5	60.0	68.0	68.3	62.9	55.0	679.7
Median Rain (mm)	35.5	31.6	40.9	47.4	53.6	50.8	49.8	57.0	59.4	66.2	50.3	45.9	662.2
Mean Rain Days	5.0	4.8	5.8	7.8	9.4	9.8	10.8	11.4	10.9	10.0	8.0	7.0	100.7

Data: BOM Durdidwarrah 087021

The climate is the typical temperate type, of warm, dry summers and cool, wet winters. The climate is most suitable for the chosen agricultural activity, and pasture coverage should be sound for most of the year in a normal year.

Water Supply:

The property has a very good water supply with over four megalitres of water in dams available. Water tanks on the site can harvest 500,000 litres of water from the rooves of the sheds and dwelling. The stock water supply network, including pipes and troughs, will need to be installed and rely on solar transfer pumps.

The property is entitled to a domestic and stock bore, and fair quality water is available at 20-50 metres (vvg.org.au), although the aquifer is fairly slow, yielding about 2,500 litres per hour.

Water for the residential dwelling will be supplied from rainwater harvested from the roof of the house.

Weed and Pest Management:

The property has significant issues with weeds, most particularly at the rear of the property. These weeds are primarily in the cleared paddock areas, making management easier than on the steeper slopes. This area will be subject to an intensive woody weed control program. Briar rose, horehound, feathergrass, and thistles are the major weeds to be controlled. The property will also be subject to normal pastoral weed issues. Standard farm management methods such as sprays and/or physical removal will control any environmental and agricultural pests and weeds.

There was no sign of any major past animal issues, although foxes are reported in the area, and controls may need to be implemented if young stock is present. Depending on held attitude, kangaroos are present in large numbers, and controls could be applied. The location adjacent to the Brisbane Ranges National Park means this will be an ongoing issue, and control effectiveness will likely be limited.

Pastoral Improvement:

The pasture in the front paddocks is fair quality and well established and will respond well to fertiliser and lime. The paddocks at the front will be renovated on a rotating schedule over the next few years. The back paddocks will not be renovated as this area is mobbed by kangaroos from the adjoining park; better quality pasture will only attract more roos. This area will only require lime.

The pastoral coverage is fair, although low yielding, with a well-established mix of perennial ryegrass, native pasture, and clover. It has a higher-than-average number of agricultural weeds that will need to be managed (weeds account for about 40 % of plant coverage). The property is estimated to produce two tonnes of dry matter per hectare per annum. Following the soil and pastoral programs should allow this level to be increased to a conservative 4 tonnes of dry matter.

A mixture of grass species is the best way forward for small lot beef grazing. A selection of species with activity at different times of the year can provide for the constant grazing required. It should also contain a high ryegrass content to allow for the production of hay in springtime. A mixture of 70% perennial ryegrass (e.g., Vic rye or AR150), 15% fescue (or similar) and 15% clover is ideal. For horses, a specific equine pasture mix could be sown (this will include minimal ryegrass or low-sugar ryegrasses), although the current pasture is likely suitable.

For hay production, the best strategy would be controlling undesirable plants, locking away a production area, and applying 100 kilograms of nitrogen fertiliser (or fodder boosta) during growth.

Improving pasture production is important as it will allow for stock to grow quickly and allow the production of fodder for feed out in the drier months.

Soils:

The property land class is typical of the region, productive well-structured loams over clay classed as a duplex soil. The soils may be prone to waterlogging during wet periods and cracking during dry periods but generally retain productivity.

Soil Test Results Summary (lab results next page):

Paddock 1	
Key Observations	Topsoil is rated as clay loam. Low pH CaCl2 (4.9) indicating some soil acidity. Good phosphorus levels (Olsen P 21 mg/Kg) Good potassium levels (148 mg/Kg) Good sulphur levels (10.9 mg/Kg) Good Organic Carbon (4.2 %) Good nitrogen levels (seasonably variable) Trace elements are low except iron (naturally high). Copper, zinc and boron are particularly low. Good cation levels and ratios (indicating good soil structure and balance issues), although exchangeable aluminium is slightly elevated due to soil acidity. Low conductivity and exchangeable sodium levels indicate no sodicity or salinity issue.
Plans / Applications	The soil is considered slightly acidic, and agricultural lime would be beneficial. No other major capital fertiliser changes are required. One kilogram per hectare of elemental boron would also improve pasture quality, and 2 kilograms of copper will benefit animal health. A Zinc application is beneficial for animal health and can reduce laminitis in horses. Although not able to be tested, molybdenum is likely to be deficient, and this will be beneficial for improving the soil nitrogen cycle (50 grams of elemental molybdenum per hectare). A Phosphorus, Potassium and Sulphur fertiliser should be applied each year to maintain production. At the time of testing, nitrogen was good; nitrogen fertiliser will assist production during cooler months and boost pasture production during springtime. The horse paddocks are unlikely to require any fertilising as these paddocks will be prone to nutrient elevation.

Paddock 2 (Representing the rear of the site)	
Key Observations	Topsoil is rated as clay. Low pH CaCl2 (4.7) indicating some acidity. Aluminium is elevated because of the pH. Fair phosphorus levels (Olsen P 14.8 mg/Kg) Good potassium levels (224 mg/Kg) Good sulphur levels (13.9 mg/Kg) Good Organic Carbon (5.2 %) Good nitrogen levels (seasonably variable) Trace elements are low except iron (naturally high). Copper, zinc and boron are particularly low. Good cation levels and ratios (indicating soil structure and balance issues), except exchangeable aluminium, which is elevated due to acidity. Low conductivity and exchangeable sodium in cations indicate no salinity or sodicity issues.
Plans / Applications	The major requirements here are to address soil acidity. The acidity is causing the elevated aluminium, which will be damaging production; aluminium is toxic to plants, reduces good rooting, and encourages weeds. The phosphorus is also at the lower end of ideal, and superphosphate would increase grass growth. A trace element application, as described above, would benefit production. Each year, a fertiliser containing phosphorus, potassium and sulphur fertiliser should be applied to maintain production. At the time of testing, nitrogen was good; nitrogen fertiliser will assist production during cooler months and boost pasture production during springtime.

Soil Test Results:

Farmer: Simone Laurie **Date:** 12/05/20

Sample Name		**Paddock 1**	**Paddock 2**	
Lab Sample No.		UOS20048	UOS20048	
Test Depth (cm)		0-10	0-10	
Soil Texture		Clay Loam	Clay	
Soil Colour		Brown Black	Brown Black	
Gravel %		5%	5%	
	Unit	**Level Found**	**Level Found**	**Good Range**
pH Level (H_2O)	pH	5.8	5.6	5.6 - 6.4
pH Level ($CaCl_2$)	pH	4.9	4.7	5.0 - 6.0
Aluminium ($CaCl_2$)	mg/Kg	2.7	2.2	< 2.0
Conductivity	dS/m	0.08	0.13	< 4.0
Phosphorus Olsen	mg/Kg	21.0	14.8	10 - 18
Phosphorus Colwell	mg/Kg	47	40	30 - 50
Potassium Colwell	mg/Kg	148	224	140 - 250
Sulphur	mg/Kg	10.7	13.9	10 - 20
Organic Carbon	%	4.2	5.2	3 - 6
Ammonium Nitrogen	mg/Kg	15	21	
Nitrate Nitrogen	mg/Kg	8	10	
DTPA Copper	mg/Kg	0.28	0.27	> 1.5
DTPA Iron	mg/Kg	485	511	100 - 400
DTPA Manganese	mg/Kg	8	4	> 20
DTPA Zinc	mg/Kg	1.1	1.4	> 5
Boron (Hot $CaCl_2$)	mg/Kg	0.7	1.1	> 1.5

Cations	**Unit**	**Level Found**	**Level Found**	**Good Range**
Cation Exchange Capacity	**meq/100g**	**9.69**	**11.85**	**10 - 20**
Exchangeable Calcium	meq/100g	7.01	7.70	
	BSP %	72.34	64.98	70 - 85
Exchangeable Magnesium	meq/100g	1.75	2.85	
	BSP %	18.06	24.05	10 - 20
Exchangeable Potassium	meq/100g	0.35	0.54	
	BSP %	3.61	4.56	3 - 8
Exchangeable Sodium	meq/100g	0.35	0.50	
	BSP %	3.61	4.22	< 5
Exchangeable Aluminium	meq/100g	0.23	0.26	
	BSP %	2.37	2.19	< 2.0

Laboratory Analysis CSBP Labs, Bibra Lake WA

Livestock:

The preferred cattle breed for the property is Angus beef cattle, and a breeding mob has been purchased. Angus often fetches the highest sale price for meat processing and breeding stock.

The horses to be kept on the property are Cutting Horses and are very high value. The horses to be kept are a stallion, ten eventing horses, a mare, and two fillies for breeding.

Hazelnut Trees:

One hundred and twenty truffle-inoculated trees will be planted on 5 metres by 5-metre spacings, following standard commercial practice for layout and management. Three different varieties will be planted to allow cross-pollination. They will be shaped along the contour lines on an east-west aspect, and each tree will have a pressure-compensated drip irrigation dripper. A mature hazelnut tree (5-7 years) is expected to produce 5-20 kilograms of nuts for picking each year once they are established. The fertiliser will be in response to soil testing after each harvest. Trees will be pruned twice a year to ensure adequate sunlight and airflow through the canopy, and they will be held at 3 metres of height for ease of management and harvesting. With their deep rooting, the hazelnut trees will reduce erosion risk and improve the soil quality in that area.

Truffles:

Truffles are a gourmet delicacy that can be incredibly valuable. The hazelnut trees will be purchased with inoculated black truffle spores and can take many years to fully evolve. The soils will need significant inputs of lime and a carboniferous material to create the ideal growing conditions. The yields of truffles are quite variable, and in ideal conditions can produce 10's kilograms per year and sell for thousands of dollars per kilogram. The ultimate target production here is 30 kilograms of truffles per year. Significant work is required to prepare the soils for truffle production, and this property has ideal naturally occurring conditions. The issue of retrieving the truffles is not yet resolved, but a truffle-sniffing dog will most likely be purchased or borrowed.

Business Management and Infrastructure:

Required Infrastructure:

Much of the infrastructure has been recently completed, new paddock and shelterbelt fencing has been built, the farm sheds and the indoor arena has been recently completed, the access has been constructed, and large water tanks have been attached to each of the sheds.

Some paddock fencing and the dwelling still need to be completed.

Staffing:

The management of the farm calls for one person to manage the farm (in this case, the presence of a resident and property owner). As with any stock rearing, the requirement for someone to be nearby to monitor audible and visual signs of animal distress for animal health and welfare is very important.

As with these types of enterprises, they contribute to the local economy by utilising local contractors for construction work, farm maintenance, transport industries and agricultural support industries.

Allowance for possible future expansion:

There is limited opportunity for expansion within the direct area as roads, lifestyle lots, and the National Park enclose the property. An approach has been made to the owner of the adjoining northern property to secure that property, which may be available in the future.

Opportunity Cost:

The property is best assessed alone as it is hemmed in by lifestyle lots and unlikely to be joined to another property. Grazing is the principal activity of the area, and the property is well suited to that, and this plan is about maximising that activity. The property's design doesn't preclude conversion to higher-returning farming like horticulture in the future, but there is a limited water supply available for that activity.

Financial Projections:

The proposal calls for an investment in farm infrastructure and pastoral improvement of $50,000 and an investment in a dwelling of over $450,000.

Indicative Farm Profit/Loss (excluding building, equipment, and land costs):

Income/Cost Item	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10+
Foal / Horse Sales	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000
Stud Fees	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000
Beef Cattle (28 X 400 kgs X $3 per Kg)	$0	$33,600	$33,600	$33,600	$33,600	$33,600	$33,600	$33,600	$33,600	$33,600
Hazelnuts (~15kgs X$15 per tree)	$0	$0	$4,500	$9,000	$18,000	$27,000	$27,000	$27,000	$27,000	$27,000
Truffles (~30 kgs x $4000)	$0	$0	$0	$0	$20,000	$40,000	$60,000	$80,000	$100,000	$100,000
Total revenues	**$20,000**	**$53,600**	**$58,100**	**$62,600**	**$91,600**	**$120,600**	**$140,600**	**$160,600**	**$180,600**	**$180,600**
Establishment / Maintenance	-$40,000	-$2,000	-$2,000	-$2,000	-$2,000	-$2,000	-$2,000	-$2,000	-$2,000	-$2,000
Pasture Costs	-$10,000	-$10,000	-$2,500	-$2,500	-$2,500	-$2,500	-$2,500	-$2,500	-$2,500	-$2,500
Horticulture Costs	-$5,000	-$3,000	-$3,000	-$3,000	-$3,000	-$3,000	-$3,000	-$3,000	-$3,000	-$3,000
Stock / Horse Care (Vet, medications etc.)	-$3,000	-$3,000	-$3,000	-$3,000	-$3,000	-$3,000	-$3,000	-$3,000	-$3,000	-$3,000
Feed Costs	-$4,000	-$4,000	-$4,000	-$4,000	-$4,000	-$4,000	-$4,000	-$4,000	-$4,000	-$4,000
Variable Costs (10%)	-$2,000	-$5,360	-$5,810	-$6,260	-$9,160	-$12,060	-$14,060	-$16,060	-$18,060	-$18,060
Net Return	**-$44,000**	**$26,240**	**$37,790**	**$41,840**	**$67,940**	**$94,040**	**$112,040**	**$130,040**	**$148,040**	**$148,040**

Notes:
This table shows agricultural costs and revenues only. Landholding costs, building and equipment costs are not included and can be financed in many ways.
Revenues and costs are indicative and based on Industry averages. Truffles can also produce significant revenue, but a conservative approach is taken.
A staff expense is likely to be required, but that is not understood yet.

Environmental Factors:

Natural Resource Management:

The property itself has no major natural resource features. It adjoins the Little River, and The Brisbane Ranges National Park, which are considered important and will be subject to a new conservation buffer. The ephemeral waterway crossing the property will also be excluded from farming activities. There are several established trees adjacent to Little River, and these will also be included in the conservation area. There are a few scattered paddock trees across the property. These are likely to have been planted and will be retained as-is.

New native shelterbelts and revegetation works are proposed along fence lines and in the revegetation and erosion management area. The proponents will seek advice from local environmental groups to ensure the most suitable species and establishment method. The conservation area should be beneficial for the biodiversity of the property, creating a link with the national park and along the Little River corridor.

Remnant Vegetation:

The property would be rated fully degraded having been cleared for agriculture in the past. There are several scattered, large trees remaining at the rear on the steeper slopes. These trees are to be contained and protected within the proposed regeneration. The majority of the trees on the banks at the rear are from revegetation works, and these will also be retained.

Erosion and Compaction:

The property has some steep areas but does not have an issue with erosion. These areas are well-grassed and have not been used for farming for some time. The steepest areas have been locked out of the farming activity and will be subject to ongoing revegetation works.

Compaction of soils in the paddocks could occur in areas where the animals camp or traffic areas such as gateways, troughs, fencelines and shelter. Heavy vehicle traffic should be confined to constructed tracks during wetter seasons.

Fire Management:

The land use is not seen to contribute any fire risk to the area. The land is in a designated Bushfire Management Overlay, although not of any greater risk than normal farmland. Fire management plans will need to be drawn for the property.

There is plenty of water available for fire fighting if required, with the dams holding water all year round. Aerial firefighting equipment could also access the large dam if required, and taller trees around this dam will be avoided.

Groundwater:

Groundwater is at a minimum depth of 20 metres and is at low risk of exposure to any form of nutrients infiltrating from the surface. Maintaining plant coverage will assist in keeping soil nutrient levels lower to minimise any further risk.

Drainage:

The property has no constructed drainage relying on overland flow to the waterway and soil infiltration for water clearance. This waterway is intermittent and runs only after periods of significant rainfall.

Adverse impacts on adjacent land:

There is not expected to be any major change to the amenity of the adjacent land from the agricultural enterprise. It may be from time to time that some animal odour or noise may be generated but the same as any agricultural enterprise. Truck transport would need to access the property from time to time, but this would be less than once a week.

Adverse impacts from adjacent land:

The enterprise is not expected to be impacted by any of the neighbouring activities.

Animal Welfare and Biosecurity:

Animal welfare, in this instance, will be very good. The practice of cattle breeding and horse care is almost entirely about animal welfare in that it closely monitors animals and provides constant and ongoing care. A list of best practice animal welfare guidelines is available from http://animalwelfarestandards.net.au/. This a comprehensive and generally common-sense approach to caring for farm animals driven largely by the buyer's expectations and contagious disease control and prevention.

Biosecurity is about preventing and containing any disease and negative issues which could impact both the farm and agriculture generally.

Recommended Procedures for Biosecurity

- The farm should have a documented Farm Biosecurity Plan
- All livestock movements onto the farm have known health status (e.g. Livestock Health Statement/Declaration or equivalent)
- All introduced livestock are inspected for signs of ill health or disease on arrival at the property and kept in isolation for a period
- Livestock are inspected regularly for ill health and disease, and appropriate action is undertaken where necessary.
- The risk of livestock straying onto or from the property is minimised.
- There are systems to notify a veterinary practitioner or animal health officer if unusual disease, illness, or mortality is observed.
- Where reasonable and practical, the movement of people, vehicles and equipment entering the property is controlled and, where possible, movements recorded.
- Any other procedures or practices that contribute to minimising the risk or spread of disease.

The property has the required Property Identification Code (PIC).

Site Photos:

Image 1: Looking east over the site from Camerons Lane (house site highlighted).

Image 2: Existing access on Camerons Lane

Image 3: Looking north over the property

Image 4: Looking west over the farm from the rear of the site.

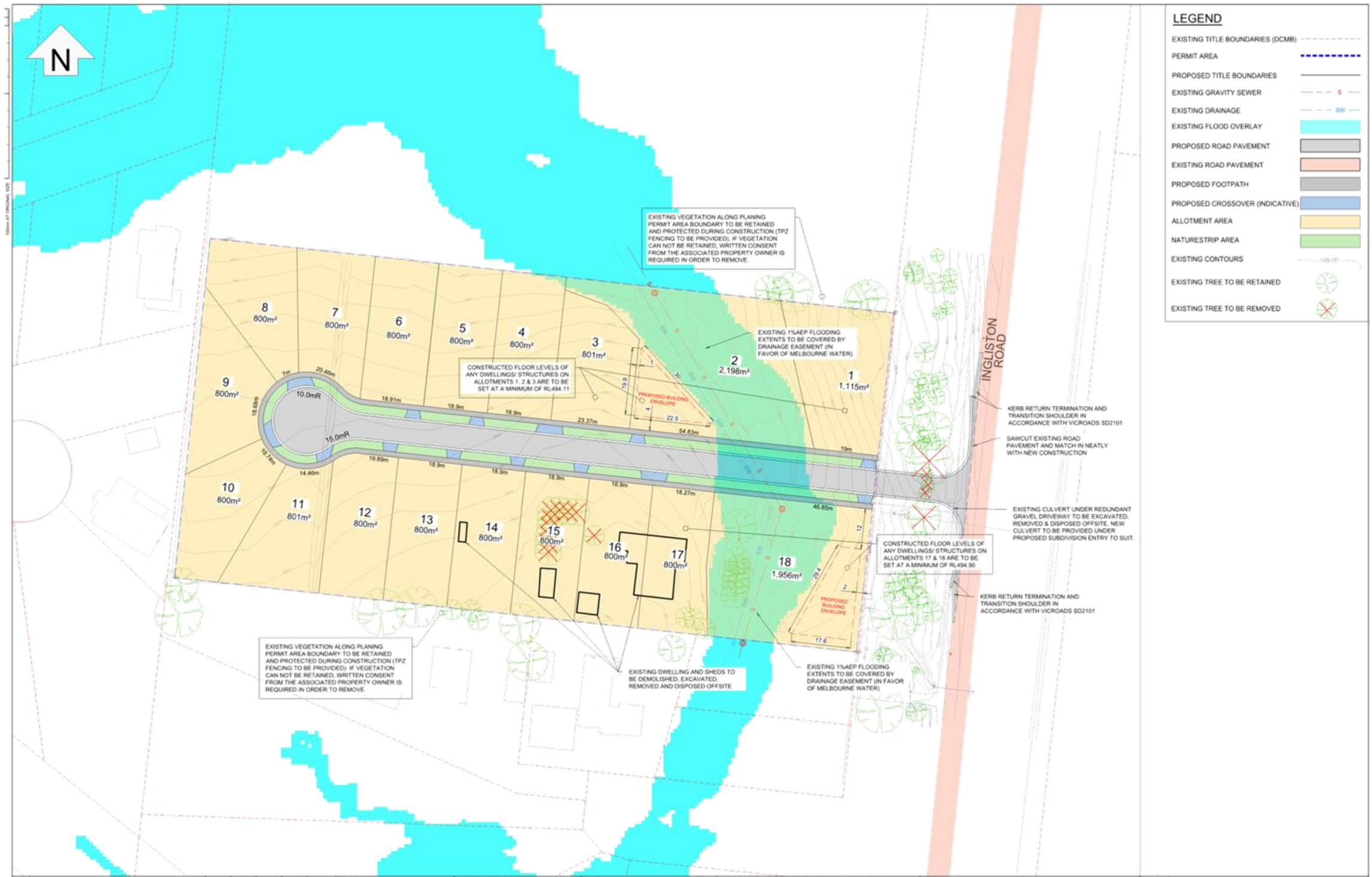
Image 5: The main farm dam.

Image 6: Large mob of kangaroos at the rear of the site.

Images 7 & 8: Many well-established weeds across the site will need ongoing control works (thistles and horehound).

Image 9; The Little River valley is deep-cut and unsafe for farming; this area will be fenced out and allowed to regenerate to native bush.

Image 10: The existing house site for conversion.



REV	DESCRIPTION	DATE	DRAWN	DESIGN	CHECK	APPROVED
F	ADJUSTED ALLOTMENT LAYOUT	22/07/24	C.R.	--	--	--
E	ADJUSTED EASEMENT NOTATION	18/06/24	C.R.	--	--	--
D	ADDED ALLOTMENT FRONTAGE DIMENSIONS	13/06/24	C.R.	--	--	--
C	ADJUSTED DRAINAGE EASEMENT WIDTHS	30/04/24	C.R.	--	--	--
B	ADJUSTED CONCEPT LAYOUT	18/04/24	C.R.	--	--	--
A	CONCEPT LAYOUTS FOR DISCUSSION	09/04/24	C.R.	--	--	--

SCALES: 0 5 10 20 30
Full Size 1:500 ; Half Size 1:1000
Scale (m)
DO NOT SCALE FROM DRAWING

DRAWN: C.ROHDE	DATE: 09/04/2024	
DESIGNED: NA	DATE: NA	
CHECKED: NA	DATE: NA	
APPROVED: NA	DATE: NA	

PLANIT CONSULTING
101 WEST FYANS STREET
PO BOX 112
GEELONG VIC 3220
PH: 03 5229 7411
ABN: 20 099 261 711
administration@planitconsulting.com.au

PLANIT CONSULTING

CLIENT: MRM FAMILY TRUST

PROJECT: 58 INGLISTON RD, BALLAN

DRAWING TITLE: ALLOTMENT LAYOUT PLAN - OPTION A

LOCAL GOVERNMENT AUTHORITY: MOORABOOL SHIRE COUNCIL

ORIGINAL SIZE:	PLANIT JOB No.:	DRAWING No.:	REV:
A1	J7341	AL100	F